

The Innovation Platform in Mozambique

Evidence from Chicualacuala and Changara

By Manuel Filipe, International Livestock Research Institute - Maputo



ABSTRACT

As Part of the Livestock Livelihood and Markets Project (LILI Markets), two innovation platforms were implanted in the project sites. First thought to be a mechanism to promote and enhance communication and networking across value chain actors as well as providing them with a platform for addressing common problems the platform, although new, has already surpassed its expected role; it has now become an important element of interaction and problem solving stage among the value chain actors, including the government.

The Case of Innovation Platforms in Mozambique

By Manuel Filipe (mdfilipe@yahoo.com), International Livestock Research Institute (ILRI, Maputo)

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Introduction

From 2007, the International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); the International Livestock Research Institute (ILRI); the National Agricultural Research Institute of Mozambique (IIAM), the Department of Research for Development through the Matopos Research Station of Zimbabwe and the Namibian National Farmers' Union (NNFU), have been implementing a project called livestock, livelihoods and markets project also known as LILI Markets. It is a project that aims at improving market participation by small goat and cattle growers in semi arid regions of Mozambique, Namibia and Zimbabwe. Specifically it aims at evaluating constraints to and opportunity for commercializing small holders production of goats and cattle; test and evaluate alternative product marketing systems; test and evaluate alternative input delivery systems; assess the impact of market led technology change on income, and poverty; and establish an effective communication strategy for the business. It is in the context of implementing the activities aimed at achieving the last objective, that is, the establishment of an effective communication strategy for the business that innovation platforms were installed in the project sites.



Figure 1 Innovation Platform participants in Changara

The concept of Innovation platform comes from the Innovations systems theory. The innovation platform represents an implementation component of such theory (Van Rooyen & Homan 2008). Innovation platform is a platform or venue that facilitates dialogue among the main value chain actors; identifies bottlenecks and opportunities in production, marketing, and policy environment; promote networking enhancing business flow. For simplicity in the LILI project context, Innovation platform is understood as a platform where “representatives” of each of the different actors involved in the goat and cattle business gather in a specific project site to discuss issues related to their businesses. The innovation platform is set to allow the actors to have a venue to discuss and address their constraints and opportunities allowing for development of synergies such that communication and business practices can be improved.



Figure 2. Early arrivers at the market in Changara

The ultimate goal is to help shift the small cattle and goat farmers from subsistence production, towards more commercially oriented livestock production. That is, to make existing farming systems more competitive, with improved management technologies, allowing for the achievement of higher offtake rates, better quality products and higher income. However the achievement of ultimate goal on this sequence of events, will require improvement in the way different actors interact with one another in the business. Better markets are accompanied by improved marketing environment and communications (Filipe 2003). It is believed that

commercially oriented farmers tend to participate more actively in livestock markets and tend to develop strong entrepreneurial spirit (Filipe, 2006). Better business environment could be the key to potentially make small farmers increase their investment in livestock production technologies and management (Binswanger and van Braun, 1991)



Fig 3 Slaughtering in progress in Mapai (Chicualacuala)

To facilitate livestock commercialization in the small-scale sector, the LiLi Markets project introduces a relatively new approach (the innovation platform approach). Innovation Platforms engage farmers, input and service providers, market players as well as policy makers in a process of continuous communication to analyze local bottlenecks in livestock production and marketing, and choose most feasible solutions to be tested and implemented within their specific context. This will improve the linkages between value chain players, align production with market requirements and enhance value chain efficiencies, which would ensure better prices for farmers and benefit other value chain players. Eventually, this will enhance further investments in the livestock sector, and potentially help reduce poverty and achieve economic sustainability, (Vandever, Guidry and Filipe 2003).

The main objective of the current presentation is to show some of the experiences with the Innovation platforms in the LILI markets project sites in Mozambique.

The Sites

In Mozambique the districts of Chicualacuala in Gaza province and the district of Changara in Tete province were chosen as project sites. Mozambique is administratively divided into 11 provinces and these into 128 districts. The districts are subdivided into administrative posts, and these into localities and these into and villages or communities. The total area of Mozambique is of about 800 000 km². The district of Chicualacuala (Gaza province) is located on the South West part of Mozambique and the district of Changara (Tete province) is located on the Western part of the center region of the country. These locations were suggested as project sites by the local livestock governmental authorities, because they are among the highest livestock producing locations in the country and also are semi arid regions (one of the project's criteria). According to the government statistics the provinces with highest percentage of goat and cattle producing households are the provinces of Gaza, Manica and Tete. Manica is not a semiarid region, and hence is not part of the project.

Table1: Percentage of households who produce cattle and goats in the 3 highest producing provinces in Mozambique

Provinces	Cattle	Goats
Gaza	16.3	42
Manica	10.3	52
Tete	21.5	48

Source Tia 2003

The district of Chicualacuala is located on the North of Gaza province (South of Mozambique), it is bordered by the district of Massangena to the north, the district of Mabalane and Massingir to the South; the district of Chigubo to the East and the Republics of Zimbabwe and South Africa to the West. It has an area of 18155 Km² and it is home to a population of about 41 thousand people of which about 47% is under the age of 15 years old and about 60% is under absolute poverty. The district has about 28000 cattle and 20000 goats. Although being a dry area (annual precipitation of 500-800 mm), the government documents indicates that agriculture is the main economic activity in the district. So, one would expect to find high level of food and income insecurity and poverty. The livestock sector is overwhelmingly dominated by the subsistent household sector.

The district of Changarais located on the south side of Tete province. It is bordered by the districts of Cahorabassa to the North; Manica Province to the South; The districts of Moatize, Chiuta and Tete city to the east and the Republic of Zimbabwe to the West. It has an area of about 8660 Km² and a population of about 159 000 people of which 51% is under the age of 15 years old. It is a dry district (the annual average precipitation is of 644 mm). Its main economic activity is livestock production and forest exploration. It has approximately 65000 cattle and 48000 goats.

Situational Analyses

Before innovation platforms were established in the project areas, the actors in the livestock markets of the project sites used to be a disperse group of self interest oriented agents acting in “isolated” fashion in the market. There is nothing wrong with having dispersed self oriented agents in the market. In fact Adam Smith economic theory argues that an open market with selfishly acting actors work for the benefit of the whole market and society, as the market “invisible hand” assures that gains are maximized while self interest are fulfilled. This common economic understanding of the markets functionality has guided economic policy for many years. Most recent and deep economic studies have shown the conditions under which the Adam Smith principles prevail. In general, the “invisible hand” optimizing powers of the markets will likely fail to assure best economic gains and distribution in the market and larger society when the market is filled with ailing institutions, distortions and imperfection; that is, the “invisible hand” functions well under perfect market conditions (perfect information, no barriers to entry, perfect competition, etc.) (Stiglitz 2001). The problem with the markets in our project sites is that they are scarce in number (farmers have to travel hundred kilometers to reach it) and their supporting infrastructures, such as (good roads, transport options, communication facilities, etc.) are extremely poor. This leads to existences of bottlenecks; constraints in the way these markets operate and consequent violation of perfect market operating conditions.



Fig 4 One of the rural roads in Mozambique

From the discussions during the several innovation platform sessions and from the physical observation on the ground during field works it became evident that in the Lili project sites livestock markets are filled with ailing and or missing market support institutions; several market distortions and imperfections, indicating that more likely the economic gains from the livestock markets were not optimized. The actors indicated that they were unsatisfied with the current status of affairs. Farmers complain of low prices for their products and claimed that the middle man was ripping off most of the benefit from the market activity; the middle man complained saying that they were facing high risk and losses from deficient infrastructure in the market (roads, scales, etc.); they also complain that the profit margins were too small and blamed the low product quality the farmers were providing them; the input suppliers pointed to the lack of investment by the producers as reason for low business output; they pointed that farmers did not buy high enough inputs from them; etc. everybody had a finger to point to, however there were no apparent solution solving mechanism proposed; beside there were little opportunity for these actors to engage with one another. For the first time, the Innovation

platform gives to the different actors an opportunity to discuss their common problems in way they could together work towards exploring opportunities for solving them.



Fig 5 A lady taking a goat to a tree for slaughtering for retail sale

In general, the value chain actors present in the live cattle and goats market in the project sites is predominantly composed by small scale individual producers; individual informal traders; individual small scale level transporters, some of which are specialized in trekking animals over long distances (as far as 300 Km) from the producer to the market; small scale processors, retailers, among others. Most of these actors are single man operations.

Although operating in the same market, these actors had never met to discuss any of their common constraints and opportunities. It took the existence of the innovation platform for that to happen. Most actors use to think that they were facing individual problems to which there were limited or no alternatives solutions.

In general the IP meetings would involve about 50 to 80 people, including male and female actors, governmental and nongovernmental agents, traders, farmers, traditional

authorities, processors, retailers, transporters, among other interested individuals. The meetings would start with the listing of pending problems and the discussion of steps taken or to be taken to address the problems as well as the challenges and opportunities the situation entails. An example of some of the issues raised during the innovation platform sessions are presented next.



Fig 6 Goats being transported in Changara

The list of the problems presented in Chicualacuala during one of the sessions included:

- 1- Excessive fees charged by the local administration for animal commercialization.
- 2- Lack of control of animal movements (Some of the animals sold in Mapai are stolen)
- 3- Poor transportation condition for meat and live animals.
- 4- Lack of drugs in the veterinary agents stock
- 5- Lack of local appropriate place for selling animals
- 6- Lack of a scale during animal sales.
- 7- Lack of veterinary inspection during slaughtering and selling.

The problems presents in Changara during one of the Innovation platform meetings include:

1. Animal movement control and theft
2. Inappropriate infrastructure in the market
3. Low per animal carcass weight
4. Problems with animal feed during dry season
5. Incomplete public animal vaccination coverage;
6. Lack of stationary equipment and mean of transportation for the IP representatives.

Although being a new entity in the rural areas, the innovation platforms are now a recognized entity. Not only the market actors but also the local government entities have shown signs of legitimization of the innovation platform entity. In Chicualacuala for example the Innovation platform president is a member of the consultative consul (the deliberative body) of the local government and it conveys matters discussed at the innovation platform level directly to the districtal head of government (the administrator). The Innovation platform in Changara is now used by the local government officials as one of the major entry points for government led intervention in the livestock community. The administrator has recently invited the innovation platform members to be the first group receiving the new animal registration cards issued by the government.



Fug 7 A transaction in progress

Some Issues addressed by the Innovation platform

One of the issues that have gone unsolved for quite some time in Mapai (Chicualacuala) is the absence of a slaughter house. The slaughtering is done in the open and/or under the trees. The administrative post had already identified a constructor to build the slaughter house. However bureaucratic issues and human negligence had gotten the project postponed for years. The innovation platform members invited the local government officials to come explain the state of affairs with regard to the slaughter house. In response, the local government promised to accelerate the construction of the slaughter house, and in the mean time they improved the conditions at the slaughtering point. A cement pavement was added to the current slaughtering place to allow for amore hygienic slaughtering and water conditions were improved. The issue has gotten enough attention that currently a new FAO project has agreed to help finish the construction of the slaughter house and equip it.



Fig 8 woman carrying meat to the train

In Changara the first issue tackled by the innovation platform was the issue of animal theft. Farmers and traders and even police officers were complaining of the way business was

being conducted. The way animals went on free range feeding combined with the way they were transported to the market for sale made it easy for theft to happen and made it difficult for the authorities to control the animals' movement. In the status quo, any one could show up at the market with animals and sell them or buy. The mechanism for officials to know if the animals arriving at the market were stolen or not wasn't in place. As a consequence there is a high level of report of stolen animals in the villages; only after the animals were bought at the market that the traders would ask for a government permit to transport the animal out of the district. Even if one would recuperate a stolen animal at the market, tracking it to its rightful owner proved a challenge; anyone could claim ownership of a stolen animal. Also the distances from the villages to the market are very high.



Fig 9 A Woman processing a goat for resale as meat

The innovation platform invited the local and provincial agricultural authorities ; the local governmental officers; local authorities; traders; and farmers to the meeting in order to discuss a way of controlling the animal movement as well as the sales in the district market. As

a result of several such meetings the actors involved agreed to start implementing branding of animals as well as the licensing of animals to be transported to the market at the village level. This licensing should be done by the traditional authorities in the villages. The government and agricultural officials have embraced the major and took the responsibility of helping with the acquisition of brands. The first brand has already been registered in the district.

Not always a smooth debate

Although the innovation platform is being used to solve problems or at least as a platform to discuss problems, some of the issues they tackle are not necessarily of the consensus of all entities. For example the innovation platform members in Mapai (the main livestock market of Chicualacuala - Gaza) are in disagreement with the chief of the administrative post of Mapai (the local government representative) over the fees the administrative post is charging in the market. They claim that there is a “double taxation” over the market activities by 2 different governmental entities (the administrative post and the government veterinary service) over the same activities. To illustrate the issue the following tables show the structure of the fees charged at the market by the 2 above mentioned entities.

The common procedure in this market is that animals are bought for immediate slaughter, and then transported out of the district in containers. Few are transported as live animals, so most fees are charged as per animal slaughtered and per unit of meat of animal. There are also fees paid for transporting animals (live or as meat). The fees are paid to the local government officials and also to the government veterinary services. Table 2 shows what the local government officials charge while table 3 show what the government veterinary services charge for the livestock market related activities. Table 4 show the fees charged by owners of the scales in the market.

Table 2 Fees charged by administrative post in the market of Mapai, Chicualacuala

Fees charged to farmers going to sell cattle and goat meat	
Amount	Description of purpose
75Mt/Animals	Cattle Slaughter fee
25Mt/Animal	Goat Slaughter fee
Fees charged to traders of meat and live animals	
1.0Mt/Kg of meat	Beef meat transit fee
1.0Mt/Kg of meat	Goat meat transit fee
50 Mt/Animal	Cattle Animal transit fee
10 Mt/Animal	Goat Animal transit fee

Source: Author's field observations

Table 2 shows the fees charged by the administrative post of Mapai to the markets participants in the Mapai livestock market in Chicualacuala district of Gaza province. The fees vary from 1Mt/Kg to 75Mt/Animal and also vary according to the activity it's related to. It is important to mention that these fees are charged in separate to the ones charged by the government veterinary services in the district of Chicualacuala. These are presented in table 3.

Table 3 Fees charged by the veterinary service in the market of Mapai, Chicualacuala

Fees paid by traders of meat to the veterinary service	
Amount	Description of purpose
15Mt/Animal	Cattle Slaughter fee
15Mt/animal	Cattle Inspection fee
Fees charged to traders of meat and live animals	
0.5 Mt/Kg of meat	Beef transit fee
0 Mt/Kg of meat	Goat transit fee
15Mt/Animal	Cattle Animal transit fee
10 Mt/Animal	Goat Animal transit fee

Source: Author's field observations

Table 3 show what the government veterinary services charge for the livestock market related activities in the administrative post of Mapai. The fees charged by the government veterinary services vary from 0.5 Mt/Kg to 15 Mt/animal. Comparing tables 2 and 3 one can see

that the government veterinary services charge much lower fees than the administrative post. For example the slaughtering fee for cattle is 75Mt/animal under the administrative post fee and 15 Mt/animal under the government veterinary services fee. The market participants have to pay both of the fees for an activity.

The charges presented on table 2 and 3 are not the only ones charged at the market. Once the animal is slaughtered its meat must be weighted. For this there are individuals credited by the local government to operate scales in the market. These individuals own small scales and they charge per kilo of animal that's weighted on those scales. The fees are presented in table 4.

Table 4 Fees charged by owners of scales in the market of Mapai, Chicualacuala

Fees Paid by farmers going to sell cattle and goat meat	
Amount	Description of purpose
2Mt/ Kg of beef meat	Use of scales in the market
2Mt/ Kg of goat meat	Use of scales in the market

Source: Author's field observations

The existence of owners of scale in the market is an interesting scenario in the market of animals in Chicualacuala. These scale owners are licensed by the local government to be in charge of animal weighting in the market. And they charge 2 Mt/Kg of weighted animal. The market does not have an official scale for weighting live animals and farmers and traders themselves have no scales to weight carcasses on and even if they would have scales they would need an authorization from the local government to use them.

The IP invited the local government officials to come clarify these issues. After several debates it became clear to all that there were over taxation in the Chicualacuala, however the chief of the administrative post is reluctant to give up on the fees. The chief of the administrative post promised to reduce the taxation, however the actors are asking for the elimination of the duplication rather than reduction of some of the taxation. The issue still needs to be discussed in further sessions.

In general it is not a practice of the Mozambican government to charge any tax or fees on small farmers; however charges may apply when farmers are selling in the market place. These charges are often small market participation fees designed by local municipalities and townships for market maintenances. These are not taxes but fixed market participation fees. However looking at tables 2 one can see that the local government is not collecting a market

participation fee as that they are charging several per unit fees, which are higher than those suggested by the veterinary services.

Final remarks

The young Innovation platform has shown to be a very positive instrument in the rural areas. It demonstrated that it can be a platform for constructive debate and problem solving.

The market actors as well as the local authorities have embraced it and it is being used as an entry point for other initiatives such as training and planning among others.

On its first years the innovation platforms were able to address few problems such as the animals theft while others needed further discussion. However it is important to recognize that the platform as a concept and tool is new in the rural area. It needs further support. Its successful continuation as a force in the rural area will depend on the success of the challenges they will take on. SO it is important that it continues to be a success story. Since LII project is approaching its end, it becomes important that alternative ways for nurturing this initiative be found.

Assuming that the platforms continues and be spread it becomes important that its message be correctly explained. A common understanding of what the platform is needs to be achieved and expectations grounded. It is common in the rural areas of Mozambique that the local community expects a project to bring goods, money and knowledge for solving their local problems. It is important that people do not place unrealistic expectation on this young tool.

References:

BinSwanger and Van Braun, 1991. "Technological Change and Commercialization in Agriculture: The effect on the Poor." The World Bank Research Observer.

Filipe, Manuel, Joan Fulton, André Jooste, Patrick Kambewa, Jess Lowenberg-DeBoer and Anna Temu, "Developing Bean and Cowpea Market Opportunities in Eastern and Southern Africa," ESA1-A1 Workplan, FY07, Bean/Cowpea CRSP, Michigan State University, May, 2006.

Instituto Nacional de Estadística, 2004. "Anuario Estadístico, Provincia de Tete de 2003." Instituto Nacional de Estadística Maputo, 2004.

Instituto Nacional de Estadística Maputo, 2003. "Anuario Estadístico, Provincia de Gaza de 2002". Instituto Nacional de Estadística Maputo, 2003.

Stiglitz, J. E, 2003. "Globalization and Its Discontents" Norton and Company Inc. 500 Fifth Av. New York.

Vandever, L.; Guidry, K.; Filipe, Manuel, 2003 "Pre Harvesting Marketing Strategies Can Improve Farmer's Financial Performance" Louisiana Agriculture; Vol 6, No 3.

VanRooyen & Homan, 2008 Livestock, "Innovation Platforms for Market Development and Market-led Technology Adoption" LILI communication output, International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) PO Box 776, Bulawayo, Zimbabwe

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