Findings and Lessons Learned from GENDER ANALYSIS of Maize and Legume Value Chains in Mozambique: A summary brief

1. Introduction

Aimed at agricultural research and development (AR&D) professionals working with maize and legume value chains, this resource highlights a set of issues to consider in relation to the integration of gender in value chain analysis for development. The resource draws on empirical research addressing the following two questions: (i) Where and how can maize-legume systems be scaled to contribute to sustainable intensification of maize-based farming? (ii) What would the potential impacts be, in the medium term, across food systems in Mozambique?
2. Assessment of methodology

The study analyzed the maize and legume value chains, using a rapid assessment approach and Integrating Gender into Agricultural Value Chains (INGIA-VC) analytical framework. It focused on six villages in Macate and Angonia districts. The two districts are under the Sustainable Intensification for Maize- Legume Cropping Systems for Food Security in Eastern and Southern Africa (SIMLESA) research sites. We used data from focus group discussions (FGDs) held in 2016 with men and women farmers and key informant interviews in the value chain.

A total of 16 FGDs were conducted with men and women farmers totaling 169 farmers (72 men and 97 women). Specifically, ten FGDs were held with farmer associations. Separate focus groups were held for men and women farmers (six groups of men and four groups of women). Key informant interviews were conducted with a total of 12 processors (ten small-scale and two medium-to-large scale), four input suppliers, ten buyers/traders, and two maize breeders.

3. Overall findings

3.1 Elements of the maize and legume value chains in Mozambique

The maize value chain in Mozambique involves many actors including input suppliers, farmers, traders and buyers, processors, and consumers. The legume value chain also includes input suppliers, farmers, traders and buyers, and consumers, but there are no legume processors. Below we provide a brief synopsis of the aspects of the value chains, ranging from factors of production, decision making, access to markets, and control over income and processing as provided by the respondents of the study.

3.2 Land ownership

Land is acquired through inheritance and village allocation, but farmers can add land by buying or renting from other farmers. Customary norms and practices give advantage to men as owners of land compared to women. In Macate District, land is inherited through the male line (patrilineal), while in Angonia, land is traditionally inherited through the female line (matrilineal). Nevertheless, in most of the villages men appear to be the primary land and customary rights holders. Women’s access to, and control of, land is limited.

3.3 Labor division

Farming is family-based and involves all household members, except the very young and very old. In most of the communities, men and women farm together performing almost the same activities. Women and men work at every stage of agricultural production, ranging from clearing land, planting, weeding, harvesting, and processing to commercialization of the produce. Moreover, women play a crucial role within the household and are responsible for seed storage, providing food, cooking and caring for the household.

The only activity that women do not perform is pesticide application. It is considered dangerous for women and children to manage chemical products due to the health risks that pesticides pose. Children are involved in planting, weeding, harvest, and storage.
3.4 Decision-making in growing maize and legumes

Men and women farm together in the same plot and the decision about how much land is allocated to maize and legumes is made jointly by husband and wife within the household. In some cases, they have separate plots and women help with farming activities in the husband’s plot.

Results show that in most cases men have the final decision about the maize varieties to grow, while women have some decision-making power regarding certain legumes (i.e., cowpeas and groundnuts), which are mostly for household consumption. The results show that women mostly decide about growing groundnuts and cowpeas, because they are responsible for kitchen matters and assuring that the household is fed. However, when the legume is cash generating, such as soybean, men often take control of decisions and income generated.

3.5 Marketing

Both men and women are involved in the marketing of maize and legumes. However, cultural norms restrict women’s mobility, thus reducing their access to distant and more profitable markets. Women sell their products at the farm gate and local markets in small amounts occasionally, whenever they need money for household expenses.

In Macate District, respondents revealed that most women sell mainly in local markets. When the markets are far away, men take charge of transporting the products to the market, because women are expected to take care of the children and the house.
In Angonia District, low level of literacy and gender norms that restrict women’s use of certain transportation negatively influence women’s participation in marketing. Men mainly use bicycles and oxen carts to transport products to markets, while women have to carry loads on their heads or pay for transportation. This means that men can sell larger loads compared to women. Furthermore, men in the district revealed that they participate in marketing because they have the skills to negotiate the prices and better understand the math/accounting compared to women. The respondents added that women have low level of education, which makes them unable to read the scales well and do the mathematics involved in transactions; thus, they sometimes end up being cheated by buyers.

Table 1. Constraints in maize and legume production and marketing

<table>
<thead>
<tr>
<th>Theme</th>
<th>Area</th>
<th>Identification</th>
<th>Implications</th>
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<tbody>
<tr>
<td>General constraint</td>
<td>Production</td>
<td>Low availability of improved seed at local market and high use of local and recycled seed.</td>
<td>Maize and legume yields are low due to the use of low-yielding varieties and consequently farmers obtain low income.</td>
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<td></td>
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<td>Prohibitive cost of seed and lack of money to pay for seed and other inputs.</td>
<td>Maize and legume yields are low due to the use of low-yielding varieties and consequently farmers obtain low income.</td>
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<td></td>
<td>Lack of credit for inputs.</td>
<td>Only few farmers have access to improved varieties of seeds and farmers become discouraged about adopting improved varieties.</td>
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<tr>
<td>Gendered constraint</td>
<td>Production</td>
<td>Women have difficulties managing pesticides and women rely on men for application.</td>
<td>Low pest control resulting in yield reduction.</td>
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<td></td>
<td>Marketing</td>
<td>The literacy levels for women is low.</td>
<td>Their inability to read and do math reduces their negotiation skills, and thus disadvantages them in market participation.</td>
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<td></td>
<td></td>
<td>Cultural and gender norms inhibit women’s travel to markets: restrictions to use bicycles and oxen carts limit access to markets with larger loads.</td>
<td>Women have to sell their produce at lower prices in small quantities at local markets (transported on head), in their houses or farm gate. This reduces the profitability of maize and legume production, discourages expansion and limits control of income by women.</td>
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<td></td>
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<td>Cultural norms give men the power of decision-making over the income as the household head.</td>
<td>Women, especially in polygamous households, have less control over the income from maize and legume sales.</td>
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3.6 Knowledge about maize and legume production, participation in training and market information

Participation in training sessions and access to information are not fairly or evenly shared between men and women in Angonia District. The results show that men have more knowledge about maize and legume production, are more likely to participate in project programs, trainings, demonstration plots, to visit other distant farms and gain more experience compared to women. However, in Macate District, farmers believe that both men and women have the same knowledge about maize production since it is a food crop, even though, as in Angonia, men are the ones who tend to attend trainings and technical meetings on maize and legumes, while women are taking care of household matters. On the other hand, women are more knowledgeable about legumes and actively participate in all farming activities. The findings indicate that promoting women’s participation in the production of legumes and cash crops such as the common bean and soybean is an opportunity to empower women, increase their household income and households’ food security.

Lastly, farmers noted that in recent years, there has been an increase in the number of women participating in training sessions due to the activities of projects, including SIMLESA, in the villages.

3.7 Retailers and local processors

All the input shops were owned by married men, aged between 40 and 54 years. The inputs sold include seed, fertilizers, pesticides, and herbicides. The major challenges faced by retailers in their businesses included lack of capital to buy inputs to stock enough and satisfy customers during times of high demand, low access to credit, difficulties paying back the credit due to bad harvests and low income, and bad quality of seed obtained from some seed companies. In terms of labor, there are differences in the activities that men and women perform. Most
employees were men; they perform activities that require strength, including lifting bags in loading and unloading, while women were assigned light activities including cashier and registration of products. On the demand side, women’s access to sources of improved agricultural inputs is restricted because of different responsibilities assigned to men and women within their households and women’s limited control of finances. Moreover, the findings show the low mobility of women from villages to distant markets. In towns/cities men are the main customers of inputs, while at the village level, women are the main customers.

3.8 Processors
Local processors have milling machines and are involved in the milling of maize, obtained from local households and producers. The business is dominated by men. Major challenges faced by both male and female local processors are related to failures in the machines, decrease in demand because customers cannot afford the milling, and difficulties in paying taxes. There are less customers because of higher milling prices due to growing fuel costs. At the same time, there are more and more processors and available milling facilities, competing for the customers. Moreover, decrease in business revenue makes it difficult for the processors to pay monthly taxes to the government.

All local processors were operating small family businesses, and family members assist in running the business, with a small number of male employees. Few women in the villages sought work outside the household and farming, and the few jobs available for women usually entailed fetching water and cooking for male employees.

The larger-scale processors need to hire labor for their business. The companies reported hiring both men and women; however, the number of men employees was higher than women in both companies with one company employing 36 people (31 men and five women) and the other employing 150 people in the factory (137 men and 13 women).

Most of these activities are physically demanding and require strength, and considered difficult for women to perform. Thus, there are more male than female employees. Men are considered able to perform most of the activities, and women work mainly in the reception, accounting and storage sectors.

3.9 Buyers and Traders

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<tr>
<th>Type of constraint</th>
<th>Identification</th>
<th>Implications</th>
</tr>
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<tbody>
<tr>
<td>General constraint</td>
<td>Difficulty in accessing credit.</td>
<td>Buyers and traders relying on personal savings are forced to operate small-sized businesses. The majority of men and women indicated that there are difficulties in accessing credit from the banks or other sources due to the small size of their business and lack of collateral. Only a very small proportion of men had acquired business loans.</td>
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<tr>
<td>Gender-based constraint</td>
<td>Women have more difficulty accessing capital to startup businesses.</td>
<td>Efforts to increase women’s representation at this node of the value chain must consider improving women’s access to start-up businesses.</td>
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<td>Cultural norms reduce women’s mobility to villages.</td>
<td>Women have household duties and responsibilities and must stay home taking care of the house and children and are inhibited from traveling to distant villages where they can obtain larger grain supplies lower prices.</td>
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<td>Products bought in villages must be loaded and transported. In the study area, women reported not to be performing the loading work as it requires a lot of physical strength.</td>
<td>Loading demands physical strength and women hire people to help, which increases costs and reduces profits. Less women buy from villages at a lower price.</td>
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<td>Women’s low literacy put them at disadvantage in market participation.</td>
<td>Their inability to read and do math reduces their negotiation skills.</td>
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3.10 Mobility Constraints

The participation of women in more lucrative and profitable markets is very low due to cultural norms. The results show that men were more likely to buy directly from producers in the villages compared to women. Women traders are more concentrated at the local level and only a few trade crops from the villages. In addition, women traders incur extra costs in order to hire and pay men to help them with the packaging, loading and unloading of bags; these costs are not incurred by male traders, as they themselves bag and load the crops.

4. Recommendations

4.1 Farmers

- Facilitate farmers’ access to improved maize and legumes seeds. For adoption and expansion of improved maize and legumes to take place more efficiently and in greater quantity, it is important to facilitate the availability of improved seed and other inputs at local markets. Moreover, there is a need to support local private sector involvement in seed production, making sure that the maize and legume seeds that are produced are of the highest quality to improve yield and marketability of the harvest. In addition, there is a need to stimulate farmers’ demand for certified seeds, and support the delivery to farmers, especially women.

- Improve farmers’ access to credit for inputs: Governments and para-statal organizations in Mozambique need to start creating financial products that are farmer friendly (i.e., repayment terms that are within reach of the farmers, particularly interest rates that are manageable). However, the provision of loans needs to go hand-in-hand with mentoring programs, in which well-trained and seasoned loan officers, who have insight into the smallholder farming business in Mozambique, can train women, men, and youth farmers on effective agricultural business practices in order for the borrower farmer to be able to pay the loan as required. Another alternative for smallholder farmers, who seek access to loans, is the pooling of resources in informal savings clubs. Farmers can form a group, make savings, and use the group savings to acquire a loan.

- Access to market: There is a need to promote and increase women’s access to lucrative markets and address the mobility issues. This can include working with existing women’s and youth groups to strengthen their access to market opportunities, as well as related
services via Information Communication Technology (ICT). In addition, strong gender trainings and policies which target male farmers need to be crafted and executed to educate male farmers about the importance of making sure that their wives/women also have an equal say in terms of the revenue collected from agricultural sells, so that women are not left behind in terms of income/financial access and are able to reap the rewards of their hard labor. Village leaders need to be involved in campaigns to make sure that women are not only involved at the end of the value chain.

- Access to information, knowledge and training: low levels of women’s participation in agricultural extension services should be addressed. In terms of policy priorities, there is a need to tailor extension services to women’s needs, and to use social networks to spread agricultural knowledge. Bringing agricultural training and advice to women’s doorsteps through farmer field schools and mobile phone applications, and identifying female volunteer farm advisors to spread information within women’s social networks is necessary.

- Increase the participation of women in project activities, including demonstration plots, field days and exchange visits. Promote greater representation of women in leadership positions within the associations in order to voice women’s concerns.

- Focus on crops that give women advantage in terms of ownership of the proceeds and other decision-making processes. There is a potential for expansion of legumes such as soybeans and common beans. Encourage women to adopt improved legume seeds and promote value addition through processing the legumes. For instance, the processing of soybeans is important for food and nutritional security and income for the rural households.

- Support women to improve their basic business skills through adult education interventions, and ensure enrolment and retention of girls in school, along with strengthening school curricula for basic life-skills.

4.2 Traders

- Provide and increase access to credit services for business expansion.

- Support women to be more involved in trade activities through programs, which support and educate women about the importance of being entrepreneurs in the agricultural sector, and how to trade and how to operate a business.

4.3 Processors

- Encourage and support more women to start and own businesses.

- Facilitate access to credit for both men and women.

5. Acknowledgments

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