Gender Tools for Value Chain Analysis: Examples from Groundnuts in Eastern Province, Zambia

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8/13/2014
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Acknowledgements

We sincerely thank Mr. Whytson Sakala of Eastern Province Farmers’ Cooperatives for coordinating with the stakeholders in Eastern Province preceding the workshop. Joachim Weber provided helpful advice on the design of the workshop programme. We also appreciate the valuable assistance provided by Mr. Oswin Madzonga and Mr. Harry Msere in the facilitation of the discussions during the workshop program, as well as in preparation for the workshop. Ms. Hazel Warren offered excellent support in administration including material procurement. Lastly, we extend thanks to all the participants of the workshop for contributing time out of their busy schedule. The report was formatted by Catherine Mwema.
Abstract

The commercialisation of ICRISAT’s mandate crops may have a negative impact on gender equity if men take control of decisions and roles that were previously controlled by women. This highlights the importance of gender analysis for value chain development. This discussion paper provides practical examples of tools that can be used to understand women’s role in the value chain, design gender-sensitive upgrading strategies, and measure changes in women’s control over decision-making for crop production and the use of crop income. The examples are based on the value chain for groundnuts in Eastern Province, Zambia. We summarise our experience of using these tools at a stakeholder workshop that included researchers, farmers, input suppliers, and processors.

Keywords: Value chain, gender, groundnuts

JEL classification: Q110, Q120, O13
Acronyms and Abbreviations

ADB  African Development Bank
CDWA  Chipata District Women’s Association
COMACO  Community Markets for Conservation
CEC  Copperbelt Energy Corporation
CRS  Catholic Relief Services
DFID  Department for International Development (UK)
DRC  Democratic Republic of Congo
EPFC  Eastern Province Farmers’ Cooperative
ESA  East and Southern Africa
ESP  Environmental Support Programme, Zambia
IAPRI  Indaba Agricultural Policy Research Institute
ICRISAT  International Crops Research Institute for the Semi-Arid Tropics
I-FINITE  Improving Groundnuts Farmers Income and Nutrition Through Innovation and Technology Enhancement
MAWA  "Mawa," coined from the Chichewa word meaning "east" or "tomorrow," is a consortium led by CRS, with support from Golden Valley Agricultural Research Trust (GART), Women for Change, Caritas Chipata.
NGO  Non-Government Organisation
SARO  SARO Agro-Industrial Limited, Zambia
SCCI  Seed Control and Certification Institute, Zambia
SME  Small and Medium Enterprise
USAID  United States Agency for International Development
ZARI  Zambia Agricultural Research Institute
ZQ  Zambia Kwacha
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1 Introduction

Commercialization may have a negative impact on gender equity if men take control of decisions and roles that were formerly controlled by women. This is particularly true of ICRISAT’s five mandate crops, which are primarily grown for home consumption and where decision-making has traditionally been controlled by women. This highlights the importance of gender analysis for value chain development (Coles and Mitchell, 2011). Specifically, it is important to know the different roles that women play in the value chain, the potential impact of upgrading strategies on gender equity, and the impact that increased sales might have on women’s control over decision-making for crop production and crop income at the household level. Information on these questions can help stakeholders design the commercialization process to reduce potential negative impacts on gender equity and ensure that the development of new value chains does not disempower women.

This paper presents practical examples of tools that can be used to apply gender analysis to the value chain. The examples are based on the value chain for groundnuts in Eastern Province, Zambia. Groundnuts is one of ICRISAT’s five mandate crops and the gender analysis complements ICRISAT’s ongoing research activities for groundnuts in this region through its leadership of the project ‘Improving groundnut farmer incomes and nutrition through innovation and technology enhancement (I-FINITE)’, funded by USAID under its Feed the Future programme.

The examples presented in this paper are the outcome of a stakeholder workshop held in Chipata, Eastern Province, between 22 – 24 October, 2013. The workshop was conducted as part of ICRISAT ESA’s activities under CGIAR Research Program 2 (Policies, Institutions, and Markets), under Flagship 3 (Inclusive Value Chains and Efficient Trade), sub-theme B3, ‘Tools to optimize and prioritize investment in institutional arrangements and value chain infrastructure’. As part of this program, ICRISAT developed and applied tools to facilitate the gender analysis of value chains, using the example of groundnuts in Eastern Province, Zambia.

The workshop applied three gender tools:

1. Gendered value chain mapping;
2. Gendered crop analysis; and

Other examples of gendered value chain mapping can be found in Agri-ProFocus (2014) and Kidder (2014). The traffic light tool used for gendered upgrading strategies has been used in different research contexts, and in monitoring and evaluation. The tool for gendered crop analysis was an outcome of this workshop.

To give meaningful results, gender analysis has to be contextualized. Hence, these gender tools were not applied in isolation but as part of a wider process to understand the commercialization of the groundnut value chain in Eastern Province. In this discussion paper, therefore, we report not only our experience with these gender tools, but also the results of other activities that provided essential information on the context in which they were applied. We recommend that gender analysis and the application of gender tools are
embedded in a wider process that uses other tools to understand the performance of the value chain both now and in the future.

2 Workshop process

The workshop had a total of 25 participants, including:

- Three women lead farmers from EPFC farmer groups together with one extension worker who served as a translator;
- Two private sector companies (COMACO, and Chibweca Farm Products);
- Three research organizations (ZARI, IAPRI, ICRISAT);
- One Women’s Farmers Association (CDWA);
- One trader/agro-dealer;
- One bank (Investrust Bank, Chipata);
- Two USAID-funded projects involved with groundnuts in Eastern Province (Profit Plus, CRS); and
- One USAID liaison representative.

Of the 25 participants, 9 (one-third) were women. Annex 1 provides a list of workshop participants together with their contact details.

The workshop programme opened with the self-introduction of participants (Annex 2). Participants were asked to join three different groups in the room: producers, private sector, research and development. This gave a visual picture of the representation of the value chain and of the gender balance in the chain. Good representation of women farmers and women in research and development organizations was noted, but women were underrepresented in the private sector. Each participant introduced his/her origin and major contributions to the groundnut value chain. Each participant noted the workshop expectations on a white board, with the option to add during the workshop, and for comparison at the end of the workshop.

Presentations were used to guide participants for mapping four value chains identified by the participants: seed, grain, peanut butter and cooking oil, and incorporating a gender perspective. A special space was given to women farmers, to present their successes and challenges and suggest options for improvement. Translation was available to involve women farmers throughout the discussions. The actual work was done as group exercises, mixing stakeholders and gender, working on their respective value chains. At various stages the groups presented their work to the plenary for open discussion. Flipcharts were used as working material, displayed during plenary and copied to document the workshop and to be available for future reference. A post-workshop evaluation was made to identify future actions that would improve the process (Annex 3).
3 Mapping value chains

**Introduction:** The concept of value chain mapping was introduced: “A sequence of productive processes from the supply of inputs for a specific product to production, marketing, and final consumption”. A Value Chain map shows functions, actors, and service providers.

**Tool:** Participants were then asked to:

- Form groups according to your main product, farmers/producers in a separate group;
- Use the yellow cards to identify main actors (rectangle) and service providers (clipped card);
- Check if the cards are in the right shape and check if there are any actors or service providers are missing from your map? Or missing from the room?; and
- Draw linkages on the value chain map, using the pink paper arrows.

**Results and discussion:** Participants defined the following value chain products for groundnuts:

- Seed as input to growers (5)
- Grain (3)
- Peanut butter and snacks (3)
- Cooking oil and cake for feed (2)
- Flour (2)

Groups were formed for each product, except flour, which is mainly processed at household level for home consumption, and thus does not enter the market. Each group presented their value chain map for discussion in plenary.

- **Seed (Map in Annex 4.1)**

Seed production is through EPFC, which receives support from banks and donors for promoting the seed production and capacitating farmers. The main actors/service providers by function were:

1. *Input supply:* EPFC, ICRISAT.
2. *Production:* governments inspectors;
3. *Processing:* First sorting, inspectors, seed certification;
4. *Processing:* EPFC main warehouse: grading, sorting, high reliance on women. EPFC sources funding from banks for training and support; and
5. *Marketing:* SeedCo as wholesaler and retailers for government, supplying huge volumes for government programs, Zamseed to NGOs.

- **Grains (Map in Annex 4.2)**

Many actors are involved and trade large volumes of groundnut grains in the grain value chain. The downstream of the value chain is highly informal. Various actors/service providers provide input to the grain value chain. They include:
1. **Seed supply**: maize companies for fertilizer, Profit Plus etc;
2. **Production**: mainly smallholder farmers and also the Peoples Future Cooperative;
3. **Assembly/trade**: There are small-scale and large-scale operators. Briefcase buyers and traders source the largest volumes of groundnuts, they do business everywhere, and control the informal economy. They were often recruited by wholesalers to collect groundnuts for them. EPFC and other associations, dealers and service providers also assemble the grains;
4. **Wholesalers**: Aliboo, EPFC, SHIFA, and others. They also provide transport to cut down costs;
5. **Retailing**: Markets are highly informal. Most grains find the way to local markets here in Chipata, local markets in Lusaka, as well across the border to Malawi and Congo.

**Linkages**: Smallholder farmers sell grains to the various traders and also directly to wholesalers. Wholesalers sell to the informal, national and international markets. EPFC exports grain through formal channels to South Africa.

- **Peanut butter and snacks (Map in Annex 4.3)**

COMACO is the major peanut butter processor in Eastern Province. Chibweka Farm Products is a small-scale, family-run company based in Chipata town. The value chain for peanut butter operated by COMACO is vertically integrated, with supply, processing, and retailing by the same company.

**Production**: COMACO sources groundnuts from COMACO farmer groups, EPFC, large-scale traders such as ALIBU and SHIFA, small-scale traders, other vendors and individual farmers. COMACO tries to build a sustainable supply base. They provide extension services to their farmer groups to improve groundnut production and marketing and encourage credit and other service providers to come in and provide support to the trading centers. COMACO also facilitates the mobilization of farmer groups to themselves market to trading centers. COMACO have their own transport system for moving raw groundnuts to the processing center, and other transporters move the groundnuts to them as well.

**Storage**: COMACO has own storage facilities for raw material, with any excess stored by private storage companies. COMACO processes peanut butter and sells to super markets; they also have own retail shops. Donors support COMACO on extension services and processing of peanut butter.

**Retailing**: COMACO has its own sales outlets but also sells its branded peanut butter (Its Wild) to supermarkets in Chipata and in Lusaka.

The smaller operator Chibweka Farm Products buys groundnuts from individual farmers, not farmer groups, has limited storage facilities and sells the processed products directly to small retailers and consumers. The peanut butter product is registered and branded (Chibweka Farm).

- **Cooking oil and cake (Map in Annex 4.4)**
The cooking oil value chain is mainly driven and supported by the local women development cooperative (CDWA).

Seed supply: Katete and others have seed growers, cooperate with EDFC, and supply to processing plants;

Production: Smallholder farmers produce the groundnut and the association aggregates;

Processing: The women led company processes oil, and other products;

Marketing oil: Sale of oil within the community, and to schools;

Marketing cake: Manufacturers in Lusaka and local individuals.

Profit Plus provides services like training, marketing, branding, business management,

Groundnut cake is sold to manufacturers in Lusaka and local individuals.

3 Gender Equity in Value Chains

Introduction: Participants were asked if they agreed with the following statement: “GENDER EQUITY IN AGRICULTURAL VALUE CHAINS IS GOOD FOR WOMEN, FOR SOCIETY AND FOR BUSINESS”. Most participants agreed, but only a few organisations had an explicit gender policy, although some participants had implemented gender-sensitive activities.

Interpreting the comic on two businesswomen on the way to and from a market, participants confirmed that women face challenges in market participation. In Eastern Province, an example was given of a strong woman who wanted to become lead farmer with an EPFC seed producer group, but her husband did not allow her to join. Women farmers confirmed that women might be afraid to venture into business and become successful entrepreneurs.

It was highlighted that by gender equity in value chains we mean:
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- Higher and more stable returns for smallholder women and men entrepreneurs;
- Better control for women and men over the added value and benefits;
- Equal opportunities for women and men to expand their capabilities; and
- Inclusiveness in value chains: favorable conditions for women and men to participate and benefit.

By including gender in value chains we do not mean to

... involve women merely for the sake of profits;

... exclude men and leave them behind; and

... women and men to become the same.

The main arguments for gender equity in agricultural value chains are:

1. **Social justice**: Human rights translate differently for women and men.
2. **Poverty reduction**: About 70% of the rural poor are women. Fighting poverty is hard if we are gender blind.
3. **Business opportunities**:
   a. Serving women is good for business and the economy;
   b. Women present new market opportunities as buyers, suppliers and consumers;
   c. Profiling gender sensitivity can bolster a company’s reputation; and
   d. When women are in management positions, profits can go up.

However, value chain interventions face risks in changing:

- roles between women and men in a household / company;
- access of women and men to resources, information, services, programs;
- women and men’s ownership, choices and control over benefits; and
- the influence of women and men on representation, decisions, policies.

The clear objective of this initiative is to improve the groundnut value chains and make the value chains work, for both women and men.

**Women farmers’ presentation**: Three women farmers prepared contributions to the following guide questions:

- **Groundnuts for a better future: What is in it?**
  - What are your gains from groundnuts?
  - Success stories from groundnuts!
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• Critical challenges with groundnuts?
  – What constraints do you face in groundnuts production and marketing?
  – Do you feel well informed about this business?
  – Do you control the benefits from groundnut sales?

• What needs to be done?
  – How could you become more successful with groundnuts?
  – What questions do you have about groundnuts?

The women farmers introduced themselves as groundnut producers and lead farmers for EPFC farmer groups. They each lead a seed producer group of 10 women per group, and their main task is to link these groups with EPFC, assemble the groundnuts and transfer information. They prioritized gains from groundnuts as follows:

1. Food;
2. Cash income from sales;
3. Feed for livestock from groundnut haulms; and
4. Crop rotation, because following crops will be more productive on the fertile soils.

Each women farmer explained her success story with groundnuts:

Farmer # 1 grew groundnuts for one season, on 2 ha. After the sale of groundnuts she re-invested the cash from groundnuts and developed a poultry house. She uses groundnuts to pay labourers on her farm.

Farmer # 2 had a house without electricity. With cash from selling groundnuts she installed electricity. Next year she wants to construct more houses and rent them out to teachers. With the income from groundnuts she has paid school fees for her children.

Farmer # 3 has now better access to services and inputs, and is exposed to other trainings as well, e.g. Conservation Agriculture. From the groundnut income she contributed to her husband’s purchase of a vehicle.

The women farmers explained their challenges with groundnuts as follows:

• Land preparation: Women need to plant in time to achieve good harvests, but sometimes they fail to do so. Sometimes the seed arrives too late. Sometimes the labor peaks at the time of planting and they have to plant too many crops, which delays the planting time of groundnuts. If they don’t have the capital to pay for labourers planting in time becomes difficult.

• Natural calamities: Late rain, dry spells and aphid infestations destroy the harvests. Women sometimes don’t have the cash to buy insecticides. If late rains come in at a time of harvesting, and afterwards, those destroy the groundnuts and aflatoxin sets in. Due to poor quality and aflatoxin, market quality declines.
• **Access to information:** Many women lack the information how to manage the crop after harvest. E.g. some women pour water on the groundnuts to soften the shells and make them easier to shell by hand, but that causes aflatoxin. The participant women consider themselves lucky, because EPFC advises them. Many women are not members of EPFC.

• **Access to markets and transport:** Many women farmers have no market after shelling the groundnuts. EPFC made the market available for the participant women. If not linked to EPFC, women also face transport constraints.

• **Access to credit:** Few companies offer loans to farmers like EPFC. With EPFC they receive the quantities of seed they need and have to pay back the double of that amount. Other companies ask them to pay back 3 times the volumes they received. Other interest rates are also very high, and procedures to access credit are very tedious.

• **Access to processing companies:** There is little competition in the market. If women farmers could have access to more processing companies the market opportunities might be better for them.

• The women highlighted the most critical challenges as:
  - Transporting the products to the market.
  - Labor involved in stripping and shelling. This is a women’s job, and men don’t assist much.

Women farmers presented the following possible solutions:

• **Access to loans:** Microfinance companies to give cash early in the season, so that as a family they can plan their operations. The amount of money loaned is often too small.

• **Access to seeds:** Farmers need to get more certified seed from companies. Certified seed is more beneficial. Seed providers however often offer less seed than women farmers require. Other companies should join existing companies to provide more seed loans to farmers.

• **Access to markets:** It is difficult for women farmers to search for markets. Assemblers should come into their locality and buy seed there. More processing plants should open locally to increase the demand for groundnuts.

• **Addressing pests and diseases:** Chemical companies should assist with pesticides against aphids during dry spells.

**Questions to women farmers from participants**

*How much do you invest in groundnuts and what do you get out in relation to that – are groundnuts really profitable?* A women farmer explains that she earns more as compared to what she invests, unlike other crops where she invest more and gets less.

*How are men involved? How do men help you in groundnut production?* She explains that her husband is very supportive, for instance he assists her with draught power for land preparation and sometimes provides labour for the field.

*Who owns the fields and the implements?* She explains that the fields belong to the husband. In a marriage, the groundnuts are grown on the husband’s field.
**Are men also benefiting from groundnuts?** Men do also benefit, since husbands and wives agree how to operate the fields, before they start the groundnut production.

One participant commented that the women farmers have been in marriage for a long time. Both husbands and wives should own the fields, not only the husbands.

**In other areas in Zambia, groundnut farmers often don't have the market opportunities as explained by the women farmers. These women farmers have benefited more than others from the market linkages assisted by EPFC.** Elsewhere women farmers often make a loss in groundnuts; they invest a lot, but gain little. The women farmers explain that they have received training in production, marketing and record keeping for themselves and their producer group. They know very well how much they invest and how much they harvest and sell.

**These women farmers are in an advantageous position, and that it is not common in other areas for a man to support women in agriculture.** The women farmers emphasized that they established the groundnut business in harmony with their husbands. Before growing groundnuts they often had to ask their husbands for money. Since they started growing groundnuts they have made it a business. They give a share of their income from sales to the husbands, but for the rest they decide themselves. The women farmers emphasized the importance of women and men managing their crops and budgets together and agreeing on decisions right from start. It is easier for women to control the income from groundnuts once this was agreed with their husbands at the beginning. The women farmer says that she is humble and acts with humility to what the husband says.

**When conducting gender meetings, inviting women alone is not good. Men and women have to come together to learn and progress. Whenever there is a gender program it is important to invite men also.**

**What do men venture in?** Maize is a men’s crop, groundnuts are traditionally a women’s crop.

**Once successful, does EPFC wean women farmers to go their own way?** Once women farmers are registered as seed growers, EPFC maintains them. They advise farmers who grow grain to keep their own seed and produce the nuts. EPFC then also buys grain from them.

**What stimulates women to produce groundnuts? Do they need information on business management?** The women farmers explain that they need business management information, and that they rely on EPFC to advise on how best to manage their farms. They do receive information on budgeting and farm operations.

** Buyers often determine prices for farmers. Do women farmers have the capacity to set the prices themselves and avoid being exploited?** Women farmers explain that they need that power to set prices, and that is why they are appealing for more companies to come in and create more competitive markets for grain. As for seed, EPFC has been providing the best prices.
5 Gendered Value Chain Mapping

Introduction: Participants were divided into the four groups representing each value chain and asked to think about the role of women at each different stage of the chain.

Tool: Participants were asked to:

1. Map the estimated proportion of women at each segment along the selected value chains: Where are the women in this map? Take a pink card and write the % of women employed in your own organization. Place the card next to your organisation’s card on the value chain map prepared earlier;
2. Discuss the factors that disable/enable women from participating in value chains: What are the factors that enable or dis-sable equal participation of women at different stages in your value chain? Take a pink card and write down the factors (one factor per card); and
3. Discuss:
   • Which activities generate most value or quality?
   • Are women under-represented? Why?
   • Who receives services? (men or women?)
   • Can women access good transport and travel?
   • Are there any policies that prevent women participating?

Results and discussion

1. Seed (see map in Annex 4.1)

About 50% of the actual seed-producing farmers are women, but important to note is that only 20% of lead farmers are women. Family issues might hinder women to take up this responsibility. Women also fear that their qualification is not adequate for this position. Husbands also discourage them to take up the leadership role and move around to visit other women farmers. However, for farm input programs, more women might register.

One explanation for low proportion of women seed producers might be that EPFC inherited the farmer groups from previous projects. Initially EPFC did not specifically invite more women. They now understand that women are more reliable in paying back loans, and they now target more women.

In Eastern Province, 23% of households are female headed. They are the poorest. They are not able to access finance and services. Affirmative action should target those female headed households.

What steps could be taken to raise the ratio of women farmers in seed production? EPFC now has a deliberate policy to include more women farmers. If women feel that they are not sufficiently trained, EPFC can provide them the skills to become leaders or become office staff.

Groundnut has been a women’s crop, but because of its growing economic value men have become more interested in it. The best way to ensure gender equity is to address
households as a production unit. Women can become lead farmers but men should be are involved as co-member of the household.

In the EPFC groups, women leaders supervise production. Their participation is critical at peak marketing time and they are also responsible for loan recovery. NGOs should train more women on these activities.

The EPFC warehouse has the highest proportion of women, as seasonal workers (90%). Women are more careful in seed sorting and grading, men “cannot” sort and clean groundnuts.

Women make up only 25% of EPFC office positions. When EPFC advertises jobs for women, few women reply. There seems a lack of qualified women for these positions. Furthermore, most of the work involves fieldwork. There is a perception that women cannot ride motorbikes.

1. Grains (see map in Annex 4.2)

Farm grain production is mainly by women. Women use groundnuts for petty cash and nutrition. Low groundnut productivity is also due to the fact that women do not have sufficient access to land and inputs.

Women provide most labour in processing. Men seem not patient enough; women provide cheap labour to industries. Because of their cheap labour women are hired in large numbers.

The proportion of women and men in trading and wholesale is more balanced. These markets are highly informal, and women still have a space. Formalization of trading channels might push women out.

The shares of women are lowest as service providers (e.g. MAWA). Women are often less qualified for these positions than men. Zambia is still hierarchical in management approach and techniques.

2. Peanut butter (see map in Annex 4.3)

The highest share of women seems to be in marketing and retail, the lowest in transport and storage.

COMACO, a large-scale peanut butter processing company, estimates that women produce 60% of the groundnuts for processing. As a traditional women’s crop groundnuts provide nutrition and petty cash for women. In the processing sections 76% of the workers are women; women are more reliable and more expert in grading.

Chabweka, small-scale processing company, engages more women than the larger scale company COMACO. In sales and trade 77% are women. Women sell groundnuts in smaller quantities to them. Men sell larger volumes to other companies. In processing about 30% of the positions are held by women, as the work is simple. Women are cheaper to hire, and have the patience for grading. Men would be faster if paid for each kg of groundnuts processed, but the quality of their work would be lower. Women and men are paid the same rates.
3. Cooking oil (see map in Annex 4.4)

The cooking oil processing company is owned and driven by a women’s organization and small scale, so the proportion of women employed is high. The highest share of women is in production and retail. Eighty percent of farmer association members are women. Men are free to join as well. Fifty percent of the farmers and 50% of the lead farmers are women. In processing 50% are women, in retail 84%.

The share of women is lower for service providers, ICRISAT and Profit Plus, because there are less qualified female candidates. Among service providers, 15-22% are women.

General comments on results from gender mapping

Fewer women are found higher-up the groundnut value chains. This raises the question if promoting groundnut value chains will risk perpetuating traditional gender roles? As long as research and development does not consider the cultural aspects, the gender bias will exist. Changing the status quo takes time. Gender roles were made for specific types of job. We have to ensure that women are safe when introducing new technologies. We must not allow involving women solely for their cheap labour and increasing their heavy workloads. We need value chain development that adds value for women and considers the underlying factors at household level.

Leadership roles tend to under-represent women. Women representation is also low at the level of service providers. Project time lines are often short and do not allow gender changes to happen.

Research organizations like ICRISAT may have a gender policy, but implementation is low.

6 Value Addition

Introduction: Once the value chain map is laid out for each of the groundnut products, the quantification of the chains will often provide important information to identify upgrading strategies. After all, costs are the most important factor determining competitiveness. Assessing the cost structure allows us to identify critical points that need to be addressed. Such economic data also provide the foundation for the monitoring of the progress made in upgrading. The value addition exercise is intended for identifying the overall value added generated by the chain, and shares of the different stages. For our purpose, however, the exercise focuses on eliciting the value per unit since the total market size remains unknown from this workshop’s outcome.

Tool: We used the ValueLinks tool (GRZ, 2007) to find an estimate of the value per unit at each stage of the chains, the participants were asked to provide their own cost structures associated with their representative product(s). The inquired figures were as follows:

- Revenue items
  - sales volume, sales price, sales value
- Operating costs
Operating profit

The collected figures are used to calculate the estimates of value addition at each stage of the chains. Note that, by definition, the cost of purchasing finished materials other than to-be-processed groundnut material is not considered a value addition along the groundnut value chain.

Results

The value addition by each of the major actors is presented in Annex 5. The figures are converted into value per unit of output of each chain, e.g., kg of peanut butter or litre of cooking oil sold. At each stage of the chain, the weighted average over the participating actors is calculated, with total value of sales as the weight.

In grain and seed chains, smallholder farmers appear to play a major role in value addition, where the dominant cost item is hired labour apart from their own profit. However, it must be noted that the participating farmers may not necessarily represent the whole body of smallholder farmers.

In the cases of groundnut processing, the result clearly indicates that the value is tripled when grain materials are processed into value added products, by spending on labor, transport, rent, utilities, etc.

The limitation of this exercise is that not all the key actors along the value chains participated in the workshop. Thus, the figures calculated from the workshop outcome may not accurately represent the cost structure of each value chain. Also, value addition by retailers is not available.

7 What do we mean by ‘women’s crops’?

Introduction: From the previous discussions, the question emerged: What is a women’s crop? Participants portrayed groundnuts as a women’s crop. However, IAPRI’s study of the Groundnuts Value Chain in Eastern Province argued that groundnut was not a women’s crop, because the baseline study showed that men are also involved in groundnut production (Mofya-Mukuka and Shipekesa, 2013). A discussion was held to elicit the criteria for classifying groundnuts as a women’s crop:

Overall women participate in groundnuts from production to marketing. Men can participate, but level of women’s participation is higher;

‘Women’s crops’ is a relative term. For instance, women participate more in groundnuts, as compared to maize;

Groundnut is traditionally a food crop. Women are traditionally responsible for food security at household level. Men focus more on cash crops;
Most of the time, women ensure good management for groundnuts. Women also control the sales of groundnuts. Women are at the forefront in making decisions on groundnuts. They ask men mainly if they face challenges;

Producing groundnuts is a first choice crop for women at home. If a woman has groundnuts she can feed her family; and

Women can sell groundnuts, and make petty cash, e.g. to take the maize for milling.

Summing up, four factors add up to make groundnuts a women’s crop:

1. Level of participation by women;
2. End use of the crops (food, sale);
3. Management; and
4. Control over income.

By contrast, maize is a men’s crop because it has a guaranteed market. Profit Plus started promoting five crops, but faced challenges with maize, since Zambian government takes over the maize sales. This year, government could not procure the maize, so the maize went to Malawi. Tobacco and cotton are also men’s crops, because men control the income from them, even though women do some of the work.

**Tool:** Based on this discussion, a new tool was designed to estimate the influence of women on production and marketing of the various main farm crops. Participants were asked to:

1. List the major crops on smallholder farms in Eastern Province;
2. For each crop, estimate the share of women’s influence on 1. land allocation, 2. draught power use, 3. labour provision, 4. use of inputs, 5. crop management and 6. decision over sales;
3. Write the estimated % influence on cards. Place the cards on the prepared diagram; and
4. Compare the influence of women and men for each crop and for the various aspects across crops.

Results are presented in Annex 6.

**Results and discussion**

Participants described groundnuts and sunflower as women’s crops, whereas maize and cotton were seen as men’s crops. Women have strong influence on groundnuts and sunflower, as they decide and control land allocation, use of inputs, crop management and decisions over sales. They have very limited influence on the decisions about maize and cotton. Important to note is that women provide most labour for the women crops, and also about 50% of the labour for the men’s crops. After sale of women’s crops, women contribute a share of that income to their husbands. Women highlighted that sunflower is used more informally than groundnuts. Women intercrop sunflower and use the heads for cooking oil as needed. Once sunflower becomes more commercialized men might increase their influence over this crop. Women provide more work on cotton compared to maize. Thereby they gain stronger influence on the management of cotton.
8 Visioning the Value Chain

Introduction: For designing an upgrading strategy, the value chain actors need to set a common goal and strategic direction for themselves in the achievable future. How should the value chain look five years from now?

The increased value can be achieved through either or, or a combination of

- Increasing sales volumes; and
- Increasing the price of the product, e.g. by improving quality, packaging

What are the two or three key elements to consider for achieving the defined vision?

Tool: Participants were asked to

1. Join the main value chain groups started yesterday (seed, grain, butter, oil).
2. Develop a vision for each of the value chain products. Where do you want to be in five years’ time? Try to make it as concrete as possible.
3. Define two or three elements needed to achieve your vision.

Identifying Upgrading Strategies and Implications for Gender

Based on the vision and the key elements, the changes required to make this vision happen need to be identified. The challenges for achieving the vision are turned into solutions, and form components of the upgrading strategy.

Tool: Participants were asked to;

1. Discuss what has to change in the chain in order to achieve the vision?
2. Identify and prioritize the opportunities and/or challenges for achieving the vision?
3. Identify the “field of upgrading”
4. Identify the “upgrading strategy”

Results and discussion:

1. Seed Value Chain (EPFC)

Vision: Produce 5000 t seed by 2018.

Key elements:

- EPFC already sells seed to various national and international markets. They need to look at other markets, e.g. also in Zimbabwe, DRC, Kenya. They need to develop strategic partnerships with international companies. This will help them to find independent markets.
- Current yields are at 1.5 t ha\(^{-1}\) from 80 kg of seed planted. Last year EFPC issued 500 t basic seed. There was still 140 t available this year, of which they sold 80 t.
- EPFC needs 3500 ha of land to produce the seed. This will involve 700 farmer groups at 10 famers per group, supported by six highly qualified field trainers and seed inspectors.
They need trading finance and strengthen their relations with the Ministry of Agriculture.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Upgrading strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Government policy: The policy changed last year such that small-scale farmers cannot grow seed anymore. Each farm has to plant at least 5 ha. EPFC negotiated with SCCI, that famers are highly qualified seed growers. However, SCCI needs to inspect every field 3 times (after planting, growing and post-harvest). Only 2-3 inspectors are available for all commodities in the Eastern Province, they don’t have the capacity to inspect all those small fields.</td>
<td>Negotiate / lobby with Ministry of Agriculture to relax the rules on seed inspection. ESP officers are qualified, trained by SCCI, and should be recognized as inspectors.</td>
</tr>
<tr>
<td>Farmer Input Support Program: FISP promised farmers last year to buy large volumes of seed, but this year bought only few seeds.</td>
<td>Discuss FISP in more detail. EPFC could provide seed directly to government.</td>
</tr>
<tr>
<td>Markets are limited: Move surplus across borders</td>
<td>Supply seed to neighboring countries. Seed harmonization policy says that to move seed across borders the varieties must be registered. Some varieties are registered, for others we need to check. Grain can be moved across the borders without registration.</td>
</tr>
<tr>
<td>Trading finance: EPFC needs big partnerships with international companies to get the trading finances. The average farmer grows retained seed for grain production. We want to convince farmers to grow improved seed in order to access trading finance. We want to improve productivity through use of improved varieties. We have been focusing on the local market for too long. Now farmers are stuck with groundnuts and soya beans. Local markets don’t bring big enough orders for the trading finance. There is a dichotomy: The pressure on big orders may side line our attention to focus on small farmers. So far we have been dealing very well with small-scale farmers.</td>
<td>Loans were currently taken from Kenya. EPFC buys seed from farmers, then processes and sales good quality seed. They need more finance to be able to work with more farmers. Banks need to develop a different understanding about agriculture, e.g. using crops as collateral. We need to establish the Zambian groundnut industry association— papers have been developed but sit in Lusaka. The cotton industry managed to use the association to expand their business.</td>
</tr>
</tbody>
</table>
2. Grains Value Chain

**Vision:** Increase volumes of production and sales of shelled groundnuts by 10% and price increase by 20%.

**Key elements**

- Produce quality groundnuts free from aflatoxin
- Increase production
- Increase production though certified seed
- Quality packaging and branding

**Challenges:** Farmers often lose income by selling low quality nuts to briefcase buyers who pay very low prices. Shelling and quality groundnuts will help to systematically increase prices for farmers. Previously, machine shellers had problems of breaking too many nuts. ICRISAT supports development of shellers adjusted to the size of the groundnuts in order to reduce breakages.

Are we aware how much grain is out there that is not being bought? There are studies on production and sales. Feed the Future estimated that 20% on farm production is not sold, but stays on farms. Angola needs serious producers, we can’t even supply that.

Market forces will always influence prices. Everybody is now panicking, because farmers have produced a lot of groundnuts and can’t sell.

Is training material available for farmers to produce aflatoxin free groundnuts? Profit Plus has training material. They trained more than 14,000 farmers.

Is there an information system on groundnut prices? Somehow there is a platform. However the process is slow and bureaucratic.

Farmers are trained to store groundnuts with shell.

Farmers will not aggregate crops, because they have been disappointed so many times. EPFC wanted to buy crops in an area where farmers had no market. WASA came in and said the groundnuts were theirs, but once they had got the crop they never paid the farmers.

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Upgrading strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aflatoxin free groundnuts</td>
<td>Develop material for aflatoxin training</td>
</tr>
<tr>
<td></td>
<td>Build smallholder capacity in post harvesting</td>
</tr>
<tr>
<td>Labor saving technologies</td>
<td>Train smallholder farmers in labor saving tools</td>
</tr>
<tr>
<td></td>
<td>Identify manufacturers for labor saving tools</td>
</tr>
<tr>
<td></td>
<td>Promote group savings to procure the labor saving tools as a group</td>
</tr>
<tr>
<td>Poor market access to groundnut grain</td>
<td>Create awareness on better markets for grain</td>
</tr>
<tr>
<td></td>
<td>Collect and provide price information for different buyers, e.g. COMACO pays higher prices.</td>
</tr>
<tr>
<td></td>
<td>Promote collective marketing to capacitate farmers in</td>
</tr>
</tbody>
</table>

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price determination. Bulking is only possible with organized groups, individual farmers are driven by immediate needs.

3. Peanut Butter Value Chain

Vision: Increase sales of peanut butter from 252 tons to 342 tons by 2018.

Key elements

- Ensure quality products (e.g., aflatoxin free).
- Capital injection for machinery and raw materials
- Target external markets
- Achieve competitive pricing

<table>
<thead>
<tr>
<th>Challenges</th>
<th>Upgrading strategies</th>
</tr>
</thead>
<tbody>
<tr>
<td>High aflatoxin levels</td>
<td>Increased post-harvest training and capacity building through partnership with MAL, EPFC, COMACO, profit +, ZARI, and ICRISAT.</td>
</tr>
<tr>
<td>Inadequate raw materials (Chibweka)</td>
<td>(Not discussed)</td>
</tr>
<tr>
<td>Inadequate sales.</td>
<td>Increase COMACO depots and involve other stakeholders to improve storage facilities and capacity. Improve storage capacities, and release smallholders from storage.</td>
</tr>
<tr>
<td></td>
<td>Increase staff training in production and marketing. Improve product quality.</td>
</tr>
<tr>
<td>Sourcing external finance for processing equipment</td>
<td>Develop trust in our business and find lenders, e.g. CEC, Investrust. (Funds are being advertised, we will apply as company, groups and individuals.)</td>
</tr>
</tbody>
</table>

Is there overlap between COMACO and EPFC? COMACO bought seed and raw groundnuts from EPFC, even though the quantities are small. COMACO and EPFC have improved farmers’ access to the groundnut value chain. Farmers now have access to markets, and prices increased. They stimulated investments into production. The growing groundnut value chain has pushed the cotton chain down. Both companies can negotiate to work in different areas and harmonize their approaches.

There was concern if the market for groundnut will be able to absorb higher production. There are about 1.8 million farmers in Eastern Province who produce on roughly 1 ha land. Companies need to stimulate the demand for high quality seed. Improved links with agro-dealers are necessary to make the improved seed easily accessible for farmers. Few agro-dealers provide groundnuts. Seed companies should package groundnuts in smaller packs and sell in local agro-dealer shops. Seed companies however don’t engage much in OPVs,
due to low returns. More information is required about the actual demand for groundnut seed.

Prices for groundnut seed are about 300 ZQ per 50kg bag, for grain 200 ZQ/bag, for maize ZQ 65/bag.

4. Cooking Oil Value Chain

Vision: to increase branded cooking oil sales by 50% to 10,600 liters by 2015.

Key elements:

- Increase number of supplying farmers
- Reduce aflatoxin levels through farmer training in post-harvest handling to 15-20 ppb.
- Improve packaging and labeling to access new markets and create brand recognition.
- Increase processing and sales

Oil processing reduces aflatoxin contamination, but the cake is still contaminated. The livestock industry has not yet analyzed aflatoxin in feed and livestock products. ICRISAT could support such investigations.

There is need to monitor how aflatoxin contamination can be reduced. The production area can influence the contamination levels, in some areas contamination is very high. Feed the future can assist in testing aflatoxin contamination in different areas and for different products.

Rules on aflatoxin are strict for exports, but not for domestic sales. We should also look at the effects of aflatoxin for Zambian consumers.
<table>
<thead>
<tr>
<th>Challenges</th>
<th>Upgrading strategy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low productivity amongst members of the organization</td>
<td>Contract seed production</td>
</tr>
<tr>
<td></td>
<td>Agronomic trainings for farmers to increase quality seed supply, e.g. by EPFC</td>
</tr>
<tr>
<td></td>
<td>Recruit more farmers through group meetings in communities</td>
</tr>
<tr>
<td>Inadequate capital for purchase of groundnuts, maintenance, storage,</td>
<td>Source capital through micro-finances, grants</td>
</tr>
<tr>
<td>manpower for processing</td>
<td>Use crops and inputs as collateral</td>
</tr>
<tr>
<td></td>
<td>Provide larger capitals for women to get above poverty levels</td>
</tr>
<tr>
<td></td>
<td>Capacitate women to handle larger amounts of money</td>
</tr>
<tr>
<td></td>
<td>Buy in groundnuts to increase the processing volumes</td>
</tr>
<tr>
<td>Human resources in processing</td>
<td>Double processing staff</td>
</tr>
<tr>
<td>Penetrate new markets</td>
<td>Branding (nutritional value, local women’s cooperative product, lasts longer than other oils)</td>
</tr>
<tr>
<td></td>
<td>More research and information on the comparative advantage of groundnut cooking oil is needed</td>
</tr>
<tr>
<td></td>
<td>Marketing training for all staff provided by Profit +</td>
</tr>
<tr>
<td></td>
<td>Locally groundnuts provide access to oil; prices for groundnut oil are the same as for other oils</td>
</tr>
<tr>
<td></td>
<td>At urban markets groundnut oil needs a stronger brand to compete with other oils</td>
</tr>
</tbody>
</table>

**Screening of video on machine sheller for groundnut**

ICRISAT prepared a six-minute video showing introduction of machine shellers to EPFC seed producer groups (ICRISAT, 2013). The video shows farmers’ experience with the shellers (good and bad) and shows that reducing breakages to below 5% is an economic pre-condition for successful adoption.

**Question to the group** after watching the video: Is machine shelling a viable upgrading strategy?

**Discussion:**

- Introducing shellers is part of labour-saving technology. If possible more shellers should be distributed to women’s groups.
- What is the capacity to supply shellers? Who could manufacture them? EPFC distributing shellers would side-track their activities. EPFC has a few shellers and
lends them out. They got the shellers from ICRISAT on experimental basis, trying to improve the sieve. They also bought some shellers from SARO, but the sieve does not fit and is therefore not appropriate to the area.

- Shellers should be manufactured in Chipata. The shellers need to be adjusted to local context. There is need to find out if a critical mass of farmers can be found to engage local manufacturers to supply shellers. Two sheller models are available, they operate at same efficiency but prices are different. Important is that mechanized shelling incurs less than 5% breakage, else the shelling is not profitable.

- COMACO has started to buy unshelled groundnuts. They pay for unshelled nuts 2.6 ZQ per kg, for shelled 4.5 ZQ per kg. This includes transport costs.

- Other areas of reducing labor are lifting and stripping the nuts off. Alternative technologies need to be tested with farmers.

9 Designing gender-sensitive upgrading strategies

Introduction: Question to the group: What is the message of the comic? Women and men are together empowered to negotiate with input suppliers, buyers, development agencies. They know about market requirements and can influence prices.

How can we achieve gendered empowerment? There are four forms of participation in value chains – each requires different intervention strategies for upgrading. Women and men might experience these differently.

Chain activities (men and women’s types of activities)

1. **Chain actor**: How can women be better seen and recognized?

2. **Activity integrator**: How can women have better choices about new activities and control over the income they earn? Gain skills and become more confident?

Chain governance (management of the chain)
3. Chain partner: What constraints to women leadership need to be removed, so that women will be recognized as business partners? Gender sensitive rules and policies?

4. Ownership over the chain: How can women gain capacities and opportunities to take over leadership and link with chain actors. Rules and policies to support women’s leadership?

**Tool:** Participants were asked to

- Choose the *two most critical upgrading strategies* identified in previous session to make two groups, one group per strategy;
- Identify opportunities / risks how the upgrading strategy will affect women;
- List opportunities / risks ranked by traffic light system:
  - Red = high risk, Yellow = not sure, Green = low risk, Blue = opportunity; and
- Identify ways to strengthen the blue opportunities and reduce red and yellow risks and turn them to green;

Annexes 7.1 and 7.2 provide an example of risks for women in upgrading strategies and a checklist on how upgrading might affect gender relations.

**Results and discussion**
### 1. Upgrading strategy: Dissemination of sheller machines

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Traffic Light</th>
<th>Risk/opportunity</th>
<th>What will turn traffic light green?</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Red</td>
<td>Men will take over groundnut production – since the women’s labor is reduced</td>
<td></td>
<td>Household approach</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Some men may not allow wives to attend trainings on use and maintenance</td>
<td></td>
<td>Train both women and men</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
<td>Men may take over the control of usage</td>
<td></td>
<td>Sensitization of men</td>
</tr>
<tr>
<td>Blue</td>
<td>Blue</td>
<td>Women will have more time for quality activities</td>
<td></td>
<td>Promote women's entrepreneurship</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
<td>Loss of income from casual labor hired by other farmers</td>
<td></td>
<td>Promote women's entrepreneurship</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
<td>Men are scared of losing economic power in the household – due to innovation for women’s crop?</td>
<td></td>
<td>Sensitize both men and women</td>
</tr>
<tr>
<td>Blue</td>
<td>Blue</td>
<td>Quality of groundnuts will be improved and attract premium prices – no use of water to soften shells</td>
<td></td>
<td>Training on sheller maintenance, choice of sieve</td>
</tr>
<tr>
<td>Blue</td>
<td>Blue</td>
<td>Increased participation of men in shelling</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Discussion points:

What if the groundnut value chain is upgraded and the machinery becomes widely available? Men can take over, as seen for example with irrigation or the introduction of water pumps. We need to watch out for this and monitor the process of introducing machines.

Women’s taking over in a value chain does not necessarily mean that they will be taking over responsibilities. Women may just be providing the labour. With increased production, and machines, we need to monitor who takes over the responsibilities to take the products to markets, and who controls the income.

There is a risk, that at some point it becomes convenient for men to take over. If they see many bags of groundnuts at home, they will take over. They will give women a bigger plot, and women keep digging.
2. Upgrading strategy: Expanding groundnut processing

<table>
<thead>
<tr>
<th>Level of risk</th>
<th>Traffic Light</th>
<th>Risk/opportunity</th>
<th>What will turn traffic light green?</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red</td>
<td>Red</td>
<td>Men will take over the crop production due to increased demand</td>
<td>It won’t really happen. Men do not like the labor such as stripping. Income is normally shared and family decides together on spending.</td>
<td>Form national groundnut associations to protect roles of women in selling groundnuts.</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Women farmers will lose access to small depots. (Currently women take groundnuts to local depots. When volumes increase, they may fail to take those to the larger centralized depots.)</td>
<td></td>
<td>Policies on group formations that are gender sensitive.</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Men will dominate markets and groundnut groups. As production and sales grow, men will take over leadership in groundnut groups.</td>
<td></td>
<td>Policies to support small-scale businesses that employ women.</td>
</tr>
<tr>
<td>Red</td>
<td>Red</td>
<td>Women in sorting to lose their jobs due to possible mechanization associated with upscaling</td>
<td></td>
<td>Policies to support small-scale businesses that employ women.</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
<td>Plant expansion implies work shifts at night, which will push women out.</td>
<td></td>
<td>Provide mini bus, sensitive to women’s safety when making schedules.</td>
</tr>
<tr>
<td>Yellow</td>
<td>Yellow</td>
<td>Increased casual labor by women</td>
<td></td>
<td>Promote higher paying jobs for women: growers, aggregators, buyers, etc.</td>
</tr>
</tbody>
</table>

10 Next steps

Introduction: The final session of Workshop identified the next steps that were needed to realize the vision for the value chain and to implement the upgrading strategies identified at the workshop.

Tool: What are the two or three most critical next steps for your product that you want to see coming out as a result of this workshop? Who will move it? Who can assist you? Please define this for each product.
## Results

<table>
<thead>
<tr>
<th>Action</th>
<th>Lead Organisation</th>
<th>Possible Partners</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Seed Value Chain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trade financing</td>
<td>EPFC I-FINITE ICRISAT</td>
<td>Social enterprise based banks that are prepared to take risk. Ordinary banks don’t accept their collateral. Root capital DFID in Nairobi ADB loans for SME</td>
</tr>
<tr>
<td>Availability of quality seed, sale in small packs</td>
<td>Profit Plus</td>
<td>EPFC Availability of agro-dealers closer to and linked to farmers</td>
</tr>
<tr>
<td>Increased seed quantities Information to farmers Provide trade finance to buyers – or with increased sales buyers could buy more</td>
<td>COMACO EPFC</td>
<td>Finance partners</td>
</tr>
<tr>
<td><strong>2. Grain Value Chain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Identify strong buyers</td>
<td></td>
<td>Personal contacts and visits to find the market. Profit + is doing market analysis in DRC, facilitating a publicly available market system for the province Invite DRC traders to come here and buy the crops from EP. Farmers in EP have produced too many groundnuts</td>
</tr>
<tr>
<td><strong>3. Peanut Butter and Snacks Value Chain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Produce more peanut butter</td>
<td>COMACO Chibweka</td>
<td>Improve machinery Credit for machinery and capacity, e.g. if 2-3 groundnut proposals will be submitted to CEC, they might include groundnuts into their portfolio Bank requires collateral. Zambia has high collateral because pay back by small enterprises is weak.</td>
</tr>
<tr>
<td><strong>4. Cooking Oil and Cake Value Chain</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Branding, packaging, marketing Information on nutrition Business plan Storage facilities</td>
<td>CDWA</td>
<td>Profit Plus Ministry of health ICRISAT Financial services; banks require assets as a house or third party</td>
</tr>
</tbody>
</table>

### Discussion points

Is there an institutional forum to effectively coordinate stakeholders in a process of developing the groundnut value chain? A forum has been started in Lusaka, but does not apply to the production of groundnuts in Eastern Province. It is not functional. There is an institution that tries to oversee production and marketing of groundnuts.
IAPRI is a policy think-tank. Do they lobby for specific issues like seed and trade? There will be a meeting for groundnut oil and seeds, organized by ZNFU. We could use IAPRI as link to policy development. IAPRI could make policy makers aware of the problems identified at the workshop. USAID is another link in Chipata to influence policies. ICRISAT will provide information and support networking. It is everybody’s responsibility to make progress and links happen.

Next steps:

1. ICRISAT will prepare a report on the Workshop, with reference material and links, and share with participants.
2. ICRISAT will develop a brochure for the machine sheller distributed by EPFC, practical, simple and informative.
3. Support to policy dialogue: Set up meetings in Lusaka, with EAPRI and USAID to strengthen development of the groundnut sub-sector. Critical issues to address are seed supply, market information, finance for business.
4. Develop a policy brief: Get more information from EAPRI, USAID and others on critical policy issues, market opportunities, effects on processing industry, and develop the brief for circulation by IAPRI.
5. Further workshop/panel: How can we move the groundnut sector forward? How can service providers facilitate better service delivery? What is the greater picture of development? How to ensure women’s interests/expectations in upgrading strategies?
References

**Agri-ProFocus (2014).** Gender in Value Chains: Practical toolkit to integrate a gender perspective in agricultural value chain development.


**ICRISAT (2013).** Shelling Groundnuts: by hand or by machine?

https://www.youtube.com/watch?v=jTkWKp8Zd4k&list=UUfvKwp-BExobsDcuDfCx1hA


**Mundy, P (2013).** Value Chain Writeshops

http://www.mamud.com/publications_mkt.htm (in particular)

http://www.mamud.com/chain_empowerment.htm

http://www.mamud.com/tradingup.htm

http://www.mamud.com/value_chain_finance.htm

http://www.mamud.com/addingvalue.htm
Annexes

Annex 1 List of Participants

<table>
<thead>
<tr>
<th>Name</th>
<th>Affiliation</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Alastair Orr</td>
<td>ICRISAT</td>
<td>M</td>
</tr>
<tr>
<td>2. Sabine Homann</td>
<td>ICRISAT</td>
<td>F</td>
</tr>
<tr>
<td>3. Taku Tsusaka</td>
<td>ICRISAT</td>
<td>M</td>
</tr>
<tr>
<td>4. Oswin Madzonga</td>
<td>ICRISAT</td>
<td>M</td>
</tr>
<tr>
<td>5. Harry Msere</td>
<td>ICRISAT</td>
<td>M</td>
</tr>
<tr>
<td>6. Hazel Warren</td>
<td>ICRISAT (Administrator)</td>
<td>F</td>
</tr>
<tr>
<td>7. Whytson Sakala</td>
<td>EPFC</td>
<td>M</td>
</tr>
<tr>
<td>8. Rosie Hoare</td>
<td>EPFC</td>
<td>F</td>
</tr>
<tr>
<td>9. Kennedy Kanenga</td>
<td>ZARI (Head)</td>
<td>M</td>
</tr>
<tr>
<td>10. Moses Mbawo</td>
<td>Profit + (Market Development Dep.)</td>
<td>M</td>
</tr>
<tr>
<td>11. Alfred Chilekwa</td>
<td>Profit + (Input and Productivity Manager)</td>
<td>M</td>
</tr>
<tr>
<td>12. Vincent Akamandisa</td>
<td>Profit + (Gender Manager)</td>
<td>M</td>
</tr>
<tr>
<td>13. Chisanga Shula</td>
<td>COMACO (CTC Manager)</td>
<td>M</td>
</tr>
<tr>
<td>14. George Lungu</td>
<td>COMACO (Factory)</td>
<td>M</td>
</tr>
<tr>
<td>15. Annedy Nyirendra</td>
<td>CDWA</td>
<td>F</td>
</tr>
<tr>
<td>16. Mary Lubungu</td>
<td>IAPRI</td>
<td>F</td>
</tr>
<tr>
<td>17. Hendrix Kwambwana</td>
<td>Microprocessor</td>
<td>M</td>
</tr>
<tr>
<td>18. Marlon Mwamba</td>
<td>Briefcase Buyer</td>
<td>M</td>
</tr>
<tr>
<td>19. Wilfred Shayooya</td>
<td>Investrust Bank, Chipata Branch Manager</td>
<td>M</td>
</tr>
<tr>
<td>20. Sarah Mtonga Mwale</td>
<td>Commercial Groundnuts Grower</td>
<td>F</td>
</tr>
<tr>
<td>21. Esther Mwanza</td>
<td>EPFC Lead Farmer</td>
<td>F</td>
</tr>
<tr>
<td>22. Margaret Chinemana Phiri</td>
<td>EPFC Lead Farmer</td>
<td>F</td>
</tr>
<tr>
<td>23. Emmanuel Jere</td>
<td>EPFC, Field Officer</td>
<td>M</td>
</tr>
<tr>
<td>24. Erin McConnell</td>
<td>Peace Corps</td>
<td>F</td>
</tr>
<tr>
<td>25. Lameck Simwanza</td>
<td>CRS (Mawa Project)</td>
<td>M</td>
</tr>
</tbody>
</table>
### Annex 2 Workshop Programme

<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tuesday</strong></td>
<td>0830-0900</td>
<td>Registration</td>
</tr>
<tr>
<td>22 October</td>
<td>0900-0930</td>
<td>Welcome and introductions</td>
</tr>
<tr>
<td></td>
<td>0930-1100</td>
<td>Mapping the Groundnut Value Chain</td>
</tr>
<tr>
<td></td>
<td>1100-1130</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>1130-1200</td>
<td>Why Gender in Value Chains?</td>
</tr>
<tr>
<td></td>
<td>1200-1300</td>
<td>Farmer presentation</td>
</tr>
<tr>
<td></td>
<td>1300-1400</td>
<td>Lunch and photograph</td>
</tr>
<tr>
<td></td>
<td>1400-1530</td>
<td>Mapping gender into the value chain</td>
</tr>
<tr>
<td></td>
<td>1530-1600</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>1600-1730</td>
<td>Value addition exercise</td>
</tr>
<tr>
<td><strong>Wednesday</strong></td>
<td>0830-0900</td>
<td>Recap of previous day’s activities</td>
</tr>
<tr>
<td>23 October</td>
<td>0900-1000</td>
<td>Visioning for the VC</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Identifying upgrading strategies</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Implications for gender</td>
</tr>
<tr>
<td></td>
<td>1000-1030</td>
<td>Upgrading strategies example (video)</td>
</tr>
<tr>
<td></td>
<td>1030-1100</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>1100-1300</td>
<td>How to include women in these strategies?</td>
</tr>
<tr>
<td></td>
<td>1300-1400</td>
<td>Lunch</td>
</tr>
<tr>
<td></td>
<td>1400-1500</td>
<td>Next steps</td>
</tr>
<tr>
<td></td>
<td>1500-1530</td>
<td>Break</td>
</tr>
<tr>
<td></td>
<td>1530-1630</td>
<td>Closure</td>
</tr>
<tr>
<td><strong>Thursday</strong></td>
<td></td>
<td>Departure</td>
</tr>
<tr>
<td>24 October</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 3 Workshop Process Evaluation by ICRISAT Team

**Material procurement:** If we want to do stakeholder workshops professionally, we need better equipment. Each ICRISAT research station should have at least 2 large pin-boards suitable for value chain mapping.

**Balance of participants:** We had selected women farmers that were better connected to markets than the typical women farmer. They had achieved a higher stage of commercialization – even though this was not typical for the area the women displayed a potential. Missing were processors and traders.

**Participation:** The gender issues came out well. Women farmers' presenting the gender issues was helpful for lively discussion. The translation was good, the extension officer translated well. Women were responding during discussions, and contributed actively.

One participant stated that such type of workshop contributes to breaking the ice on gender. Energizers were useful to wake people up after lunch.

**Time keeping:** Time keeping generally went well. Even though time was short at the end of the workshop, participants continued the discussions. We however did not compare which expectations we met, and which we did not, and how can we assist meeting those.

**Usefulness of tools and approach:**

- The sheller video was simple and balanced, and attracted interest by the group. Questions they raised could be answered by having a sales brochure available. This should have information on the sheller model, price and contacts of manufacturers.

- Upgrading strategy and women: After struggling initially participants understood the tools well. Explaining the tools needed more time, also to better explain the terms. Local examples, rather than foreign examples, might be more useful to guide participants. The upgrading strategy development needs 2-3 confident trainers to get the groups starting.

- Need to have a still picture of the sheller as part of presentation, for discussion afterwards.

**Upgrading strategies:** This requires more careful explanation, and giving a practical example from a familiar crop. Take more time to define the different terms and give examples for each term. Groups tended to come up with activities rather than “strategies”, so facilitation for each group is needed during the exercise. Visions may be unrealistic and need to be challenged by the facilitator.
Annex 4.1 Seed Value Chain

Disabling/enabling environment for women’s economic leadership

<table>
<thead>
<tr>
<th>Perception “not an easy job”.</th>
<th>Traditionally controlled by husband.</th>
<th>Literacy/numeracy in rural area. Lack of applicants due to cultural perception</th>
</tr>
</thead>
</table>

**Input Supply**
- Seed
- Chemicals
- EGB
- Scale

**Farm Production**
- Field identification
- Cultural practices
- Inspections
- Post-harvest management

**Post-harvest**
- Stack on pallets
- First grading
- Ventilation

**Assembly/Transport**

**Processing**
- Warehousing
- Sorting
- Grading
- Seed testing
- Packaging
- Loading/unloading

**Wholesale**

**Retail**

**Profit +**

**Zam Seed**

**Seed Co.**

**NGOs**

**Seed Sellers**

**0.05%**

**50%**

**25%**

**20% lead farmers**

**50%**

**25%**

**15%**

**90% of seasonal workers**

**100% grading**

**10% of lead farmers**

**20% of workers**

**0.1% of lead workers**

**90% of workers**

**0.05% of lead workers**

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Annex 4.2 Grain Value Chain

Disabling/enabling environment for women’s economic leadership

| Science & math preferred by men, less family-friendly | Accessibility & control of productive resources, e.g., land, seed. | Men tend to be out of home. Women are considered patient, good at keeping nuts unbroken. Cheap labor. Requires human resources with science/math/agronomy qualifications | Physically hard labor | Too involving |

Input Supply
- Zam Seed
- Seed Co.
- Farmers Maize Cooperative (fertilizer)
- Agric Focus (chemicals)
- ATS (chemicals)
- Muyonbo Investment (fertilizer)
- ZARI
- ICRISAT
- 48%
- MAWA (CRS) (capacity advisory)

Farm Production
- Smallholder Farmers
- People’s Future Cooperative
- 50%

Harvest/On-farm Post-harvest
- 75%

Assembly/Trading
- Briefcase Buyer
- 90%

Wholesale/Transport
- Aliboo
- Export Trading

Retailing
- International Market
- SHIFA
- Mania Store
- Link Commodities
- KAMOTO
- Mwamba General Deals
- Informal Market (Chipata, Lusaka, Abroad)
- KAMOTO
- Profit +
### Annex 4.3 Peanut Butter Value Chain

#### Disabling/enabling environment for women’s economic leadership

| Groundnut is traditionally regarded as women’s crop. Source of household food, nutrition, and petty cash. | Women sell in small quantities (Chibweka). | Women are more reliable and suited for processing. | Women are more trustworthy and reliable. |

---

**Value Chain Stages**

- **Farm Production**
- **Marketing**
- **Transport**
- **Storage**
- **Processing**
- **Retail**

**Entities Involved**

- **COMACO Farmer Group**
- **EPFC**
- **Traders**
- **Private Storage**
- **Private Transport**
- **Smallholders**
- **Chibweka**
- **Chibweka**
- **Small Shops**
- **Spar**
- **Shoprite**
- **Pick N Pay**
- **ConsumerS**
- **USAID**
- **RNE**
- **ICRISAT**

**Profit +**

60%  70%  76%  85%  22%  15%
Annex 4.4 Cooking Oil Value Chain

<table>
<thead>
<tr>
<th>Disabling/enabling environment for women’s economic leadership</th>
<th>Aimed for women.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Groundnut is Women’s crop.</td>
<td></td>
</tr>
</tbody>
</table>

**Farm Production**

- CWDA Member Farmers
  - 80%
- Smallholders
  - 50%

**Assembly/Transport**

- Shewa Co.
  - 50%

**Processing**

- CWDA
  - 12 reps for aggregation
  - • Azimai Cooking Oil
  - • Katete DWDA
  - • Petauke DFA
- • Azimai Retailers
- • Cooking Village Ntutemba

**Retail**

- Stockfeed Company
  - 84%

**Other Entities**

- ZARI
  - 22%
- Camp Extension Officers
  - 15%
- ICRISAT
  - US African Development Foundation (Funding)
  - 50%
- Sabina Company (Training)
  - 84%

**Profit**

- 15%
Annex 5 Value Addition
Grain (Kwacha per wholesaled kg)

- labor 0.55
- profit 2.68

- labor 0.20
- rent 0.06
- transport 0.40
- other 0.04
- profit 0.30
Seed (Kwacha per kg)

- Labor: 1.30
- Other inputs: 0.03
- Transport: 0.07
- Other: 0.16
- Profit: 3.41
Peanut Butter (Kwacha per kg butter sold to retail)

- Farm Production: 0.48
- Marketing: 6.23
- Transport: 17.03
- Storage: 4.76
- Processing: 8.69

- Labor: 0.98
- Profit: 0.96
- Depreciation: 0.02
- Rent: 0.17
- Utilities: 0.10
- Other inputs: 0.04
- Transport: 0.58
- Other: 0.25
- Profit: 8.69
Groundnut Cake (Kwacha per kg sold)

Farm Production

Assembly/Transport

Processing

Retail

0.01

0.13

0.40

- labor 0.02
- Profit 0.10

- labor 0.05
- Depreciation 0.00
- Rent 0.01
- Utilities 0.03
- Other inputs 0.01
- Transport 0.01
- Other 0.01
- Profit 0.15
Annex 6 Diagram on Women’s Crops
### Annex 7.1 Risks/opportunities for Gender Equity: Example of Milk Cooperative

<table>
<thead>
<tr>
<th>Risks/opportunities to gender equality</th>
<th>Level of risk</th>
<th>How to minimize risks/capitalize on opportunities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men control access by drawing up the list of farmers who will be members of the cooperative (access)</td>
<td>Red</td>
<td>Group leader must involve women farmers in making lists</td>
</tr>
<tr>
<td>Men use the milk processing facilities for their own business (ownership)</td>
<td>Red</td>
<td>Use of processing facilities agreed by both men and women</td>
</tr>
<tr>
<td>Men dominate milk delivery (roles, control over benefits)</td>
<td>Red</td>
<td>Sensitization of men that milk income sustains family welfare</td>
</tr>
<tr>
<td>Men attend training sessions (access to knowledge, tools)</td>
<td>Yellow</td>
<td>Trainings for both men and women in hygiene and quality standards</td>
</tr>
<tr>
<td>Men control transport of milk to the cooperative (access to services)</td>
<td>Yellow</td>
<td>Transport calendar agreed by both women and men</td>
</tr>
<tr>
<td>Men decide whether to include new members (influence)</td>
<td>Yellow</td>
<td>Management committee composed of women and men</td>
</tr>
<tr>
<td>Men operate the cooperative (influence, access to knowledge)</td>
<td>Yellow</td>
<td>Management committee composed of women and men</td>
</tr>
<tr>
<td>Women take care of milk hygiene (skills)</td>
<td>Blue</td>
<td>Promotion of female entrepreneurs</td>
</tr>
</tbody>
</table>
### Annex 7.2 Checklist for Upgrading Strategies and How They Might Affect Gender Relations

<table>
<thead>
<tr>
<th>Gender roles</th>
<th>• role in supply, production, processing, transport, trade?</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• labor on the farm and in the VC segments?</td>
</tr>
<tr>
<td></td>
<td>• to become more visible and higher value granted to their work?</td>
</tr>
<tr>
<td></td>
<td>• to take up greater responsibility within the farm/organization?</td>
</tr>
<tr>
<td>Access to resources</td>
<td>• entitlements to land, harvests etc?</td>
</tr>
<tr>
<td></td>
<td>• access to technologies, inputs?</td>
</tr>
<tr>
<td></td>
<td>• specific information on organization, business development services?</td>
</tr>
<tr>
<td></td>
<td>• financial services, adapted to women</td>
</tr>
<tr>
<td></td>
<td>• access to information, channels of communication, adapted to women</td>
</tr>
<tr>
<td></td>
<td>• capabilities of women to use resources</td>
</tr>
<tr>
<td></td>
<td>• employment opportunities for women</td>
</tr>
<tr>
<td>Control over benefits</td>
<td>• discrimination/exclusion</td>
</tr>
<tr>
<td></td>
<td>• decisions/control over benefits</td>
</tr>
<tr>
<td></td>
<td>• uneven distribution of capabilities of women and men</td>
</tr>
<tr>
<td></td>
<td>• membership in associations, governing boards</td>
</tr>
<tr>
<td></td>
<td>• ability to influence prices, negotiate, sign contracts</td>
</tr>
<tr>
<td></td>
<td>• leadership positions</td>
</tr>
<tr>
<td></td>
<td>• self confidence, credibility</td>
</tr>
<tr>
<td>Influence on enabling factors</td>
<td>• ability to influence decisions, policies, programs, value chain development</td>
</tr>
<tr>
<td></td>
<td>• access to spaces of power and decision making, opportunity to speak</td>
</tr>
<tr>
<td></td>
<td>• level of self-organization</td>
</tr>
<tr>
<td></td>
<td>• strategic alliances, platforms for gender issues</td>
</tr>
</tbody>
</table>
Annex 8 Workshop Photograph