

GENDER ASSESSMENT STUDY FOR IMPROVED FRUIT TREE AND MACADAMIA NUTS VALUE CHAINS IN MZIMBA AND KASUNGU DISTRICTS OF MALAWI



THIS BRIEF PRESENTS THE RESULTS AND RECOMMENDATIONS FROM A VALUE CHAIN GENDER ASSESSMENT STUDY CONDUCTED FROM APRIL TO JULY 2022 WITHIN RURAL COMMUNITIES IN MZIMBA AND KASUNGU DISTRICTS. THIS STUDY IS PART OF THE POWER PROJECT TO PRORITIZE OPTIONS FOR WOMEN'S EMPOWERMENT AND RESILIENCE IN FOOD TREE VALUE CHAINS IN MALAWI



INTRODUCTION

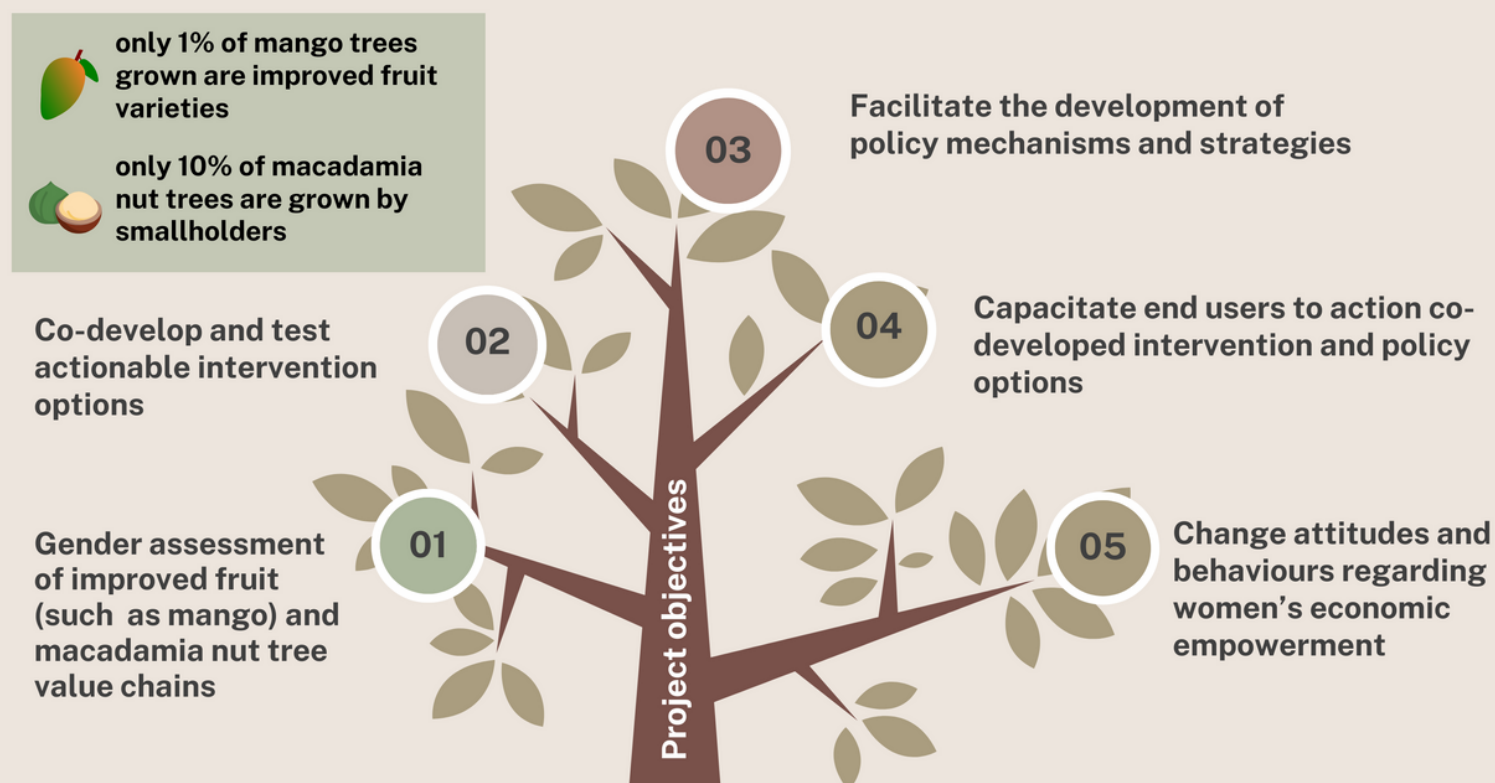
Despite modest gains over the last decades, Malawi remains one of the least developed countries in the World, with a poverty headcount of 69.2% and a rank of 174 out of 189 on the Human Development Index. Over 80% of its people reside in rural areas, where low input, rain-fed and small-scale maize farming takes place on over 60% of cultivated land, confining smallholders to chronic poverty and food insecurity.

The growing national and export markets for improved fruit (including mango) and macadamia nuts in Malawi could offer promising opportunities for smallholder farmers if they are better integrated (with appropriate resources and training) within their respective value chains. While the macadamia value chain is highly structured, export oriented and dominated by large estates, the mango and improved fruits value chains are underdeveloped, with poor organization and very limited processing done in the country. This impacts the extent smallholder farmers can be engaged in these value chains. Women, in particular, have fewer opportunities to benefit than men due to local gender norms and barriers. These range from labour roles, control of land, assets, and income, as well as lower agency at household and collective organization levels. It is critical to better understand the gender dynamics at different nodes along the value chain and within the different local contexts, in order to design gender sensitive interventions that will positively engage and empower women smallholders.

This brief presents the results and recommendations from a value chain gender assessment conducted from April to July 2022 within rural communities in Mzimba and Kasungu districts. This study is part of the [Prioritizing Options for Women's Empowerment and Resilience in Food Tree Value Chains in Malawi \(POWER\)](#) project.

Prioritising Options for Women's Empowerment and Resilience in Food Tree Value Chains in Malawi (POWER)

Project Goal: To boost smallholder income and resilience while simultaneously empowering women



Delivery strategy: Engage with public and private sector, university, and NGO partners to co-develop and test interventions and guide policy to engage and empower women in high-potential, low-carbon food tree value chains (high-value fruit and macadamia)

METHODOLOGY



Photo credit: Jessica Kampanje



Phase 1

Value chain participatory workshops: We conducted community and district level workshops with smallholder farmers, traders, extension workers, agro-dealers, and vendors in both target districts to map gender roles for each value chain node from production to the marketplace. We also conducted a national level workshop with representatives from supermarkets, leading private companies, NGOs, development programmes, and governmental institutions to understand the general value chain context. This helped focus our literature review and refined our research tools and methodology. It further provided valuable insights on gendered barriers and constraints.

Phase 2

Key informant interviews: We conducted interviews with key improved fruit tree (e.g., mango, citrus, pawpaw, guavas, etc) and macadamia value chain stakeholders at the local, district and national levels. Alongside this, we carried out in depth household questionnaires with 35 female and 25 male smallholder farmers of the value chains in question. This was to validate the preliminary findings from the value chain mapping workshops and literature review. We explored the following topics with a gender lens with the relevant stakeholders:

- Land access and ownership
- Extension services capacity and access
- Governmental support
- Availability of improved technology
- Challenges for adoption
- Processing: Opportunities and challenges to integrate smallholder farmers
- Marketing: Opportunities and challenges for smallholder farmers

Phase 3

Focus group discussions: We also conducted focus groups with male only or female only farmer in both value chains (n=24, comprising a total of 82 women and 97 men) to further explore gendered differences and potential solutions to empower women. This was to validate our initial findings and interrogate identified themes further.

FINDINGS

Household-level land and tree ownership and decision-making is male dominated, but this gender inequality varies across communities and households depending on factors such as marital status and age

A patrilineal inheritance system dominates study target districts. However, subtle differences exist in Kasungu south, where both patrilineal and matrilineal traditions of the Ngoni and Chewa ethnic groups co-exist.

In patrilineal systems, women generally access land through their husbands, and their tree tenure is therefore limited and conditional. Young single women own no land, since they are expected to get married and move away. Consequently, distributing seedlings to unmarried young women may be limited in promoting their empowerment, and “mobile asset” strategies like skills development may be more effective. We also found that the older the woman, the more decision-making authority and autonomy she has. Widows who have retained access to land from their deceased husbands, as well as older divorced women who have been allocated land in their home villages, have relatively more decision-making autonomy, and have significantly higher tree tenure security as compared to their younger counterparts. However, their household labour constraints are high. Therefore, exclusively targeting widowed or divorced women risks overburdening them. Moreover, married women, who are targeted without their husbands’ involvement, particularly for macadamia tree cultivation, may also find themselves labour constrained. Most fruit trees are cultivated around the homestead for easy management. Planting orchards further away from the homestead leads to management constraints, e.g., watering, thereby contributing to low survival rates. We found that female farmers from the same patrilineal settings seem to have more autonomy than those engaged in macadamia production, as the latter are more market oriented.

Production: Women have less access to inputs and extension, and tree management workload adds to existing domestic responsibilities

Both macadamia and improved fruit trees farmers rely on projects to source seedlings. Lack of readily available water sources, limited resources to control pests and diseases, and management shortfalls (including organic or chemical fertilization) has led to the loss of many trees and under-productivity, especially in the case of macadamia. Women, particularly, are more challenged than men, given that they are more financially and labour constrained. They are also limited in terms of mobility. Specifically, they tend to manage the trees around their homestead and sell produce in small quantities (as amounts are limited by their head carrying capacity) and mainly in local areas (limited by their mode of transport and other household duties).

Contrary to our expectations, we found that women tend to use extension services more than men, either because men are not available, find it less useful, or simply because they are not interested. Women, for example, are the main participants in Farmer Field Schools, the dominant mode of extension delivery in the two districts, especially Kasungu. However, in Mzimba District, the dominance of male extension workers complicates access to services by female farmers, given that the former cannot interact independently with the latter in the absence of male community members.

Men dominate transportation and marketing and take greater control of income as sales increase

For improved fruit tree value chains, we found that farmers are poorly linked to markets and mostly consume their fruits at household level. Where fruits are sold in small quantities locally, this is typically done by women at low prices. However, in cases where significant quantities of fruits are sold, men tend to dominate. Women can encounter structural barriers in marketing improved fruit. In Mzimba District, for instance, women’s domestic responsibilities, coupled with a need to seek permission from

their husbands before going to the market, restricts their access. Men, on the contrary, can access distant markets and handle larger volumes. As a result, the bulk of fruit vendors and intermediate traders are men.

Due to its poor current market orientation, men tend to leave decisions around consuming and selling fruit to women. For instance, mangoes harvested from December to February are important for family nutrition, eaten fresh or cooked, bringing valuable nutrients during the lean season (January-March). Most male respondents, however, indicated that if there were strong market linkages, they would exert greater control over how much fruit women and children consume to maximize economic gains. This implies that efforts to link improved fruit growers to markets could adversely impact (1) family food and nutrition security or diversity at the household level; and (2) women's local market participation.

For the macadamia value chain, despite its highly structured nature, we found that producers generally lack accurate market information, especially with respect to prices. Moreover, significant investment and careful care (e.g., with respect to irrigation and management) is required over a five to 10 year period in order to maximize yields and ensure profitability. This, coupled with the patrilineal setting of Mzimba District where most women have limited land and tree tenure security, creates challenges for women's beneficial engagement in this value chain.

“ Some of the fruit trees we have like guavas and mangoes were received by our children from their schools... so because we are the ones who are mostly at home, we are the ones who take care of these fruit trees because they are mostly planted around the home... it's just that we cannot harvest any fruits without our husband's knowledge because the trees are considered as theirs since most of us move to their place after getting married. *Female fruit tree farmer participant, Chulu EPA activity* ”

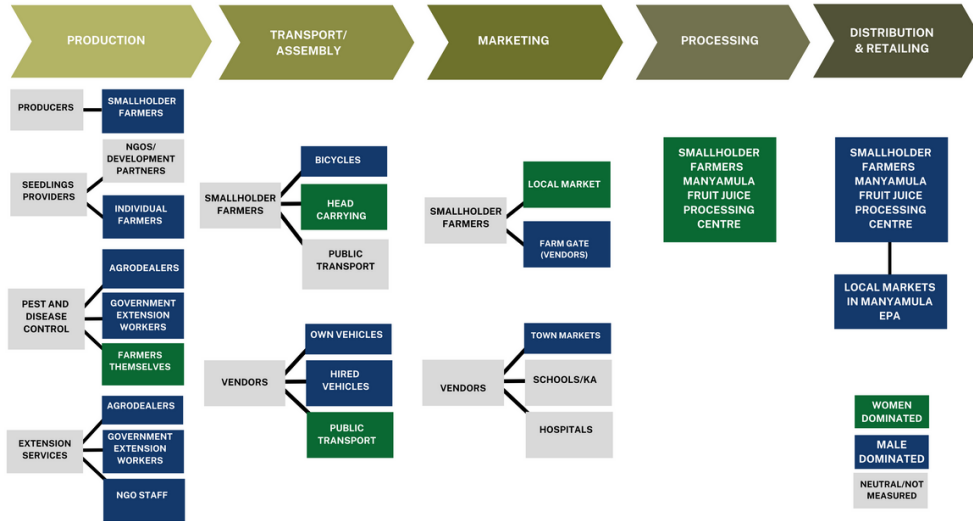
“ Currently, most fruit farming activities are done by women, even though we help with activities such as land preparation, planting, fencing, harvesting, and marketing - those activities that are labour intensive. However, they are the ones who take the initiative and benefit a lot from the proceeds of the fruit sales, especially when they are sold at home or in small amounts. Where fruits are sold in bulk, men take a bigger role because the proceeds are also bigger... so if the fruit market improves, men would definitely be motivated to take an active role in such value chains. *Male fruit tree farmer participant, Champhira EPA* ”

Value Addition opportunities for smallholders are limited, and even more so for women

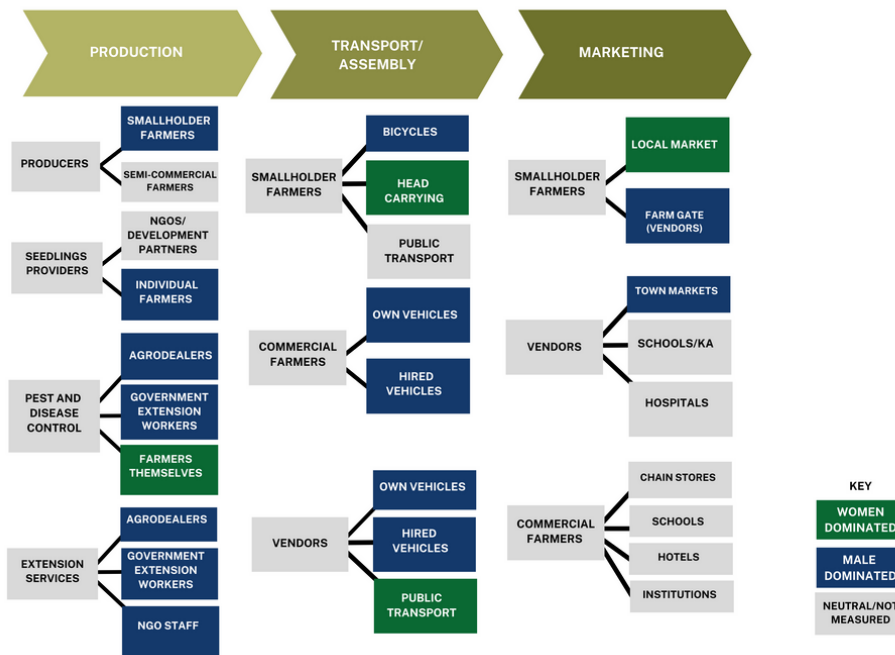
We found very limited value-added processing opportunities at the local level in either the improved fruits or macadamia value chains. Over 50% of local mangoes spoil after harvest, either in the field or at wholesale and retail level. This is because of perishability (3-5 days), poor harvest and post-harvest management and limited processing. Some small-scale processing interventions exist but none that are currently sustainable and scalable. Moreover, smallholder farmers and farmer groups do not currently have the capacity and skills to adhere to national and international food quality standards, a prerequisite for selling processed products in Malawi. For macadamia, having access to expensive cracking machinery is a key requirement, and the example of the Highland Macadamia Co-operative Union Limited (HIMACUL) co-operative shows it is difficult to make it a profitable operation.

The results of the mapping workshops conducted by the study indicate the current limitations of smallholder engagement in the IFT and macadamia nut value chains and the potential opportunities for improving their involvement.

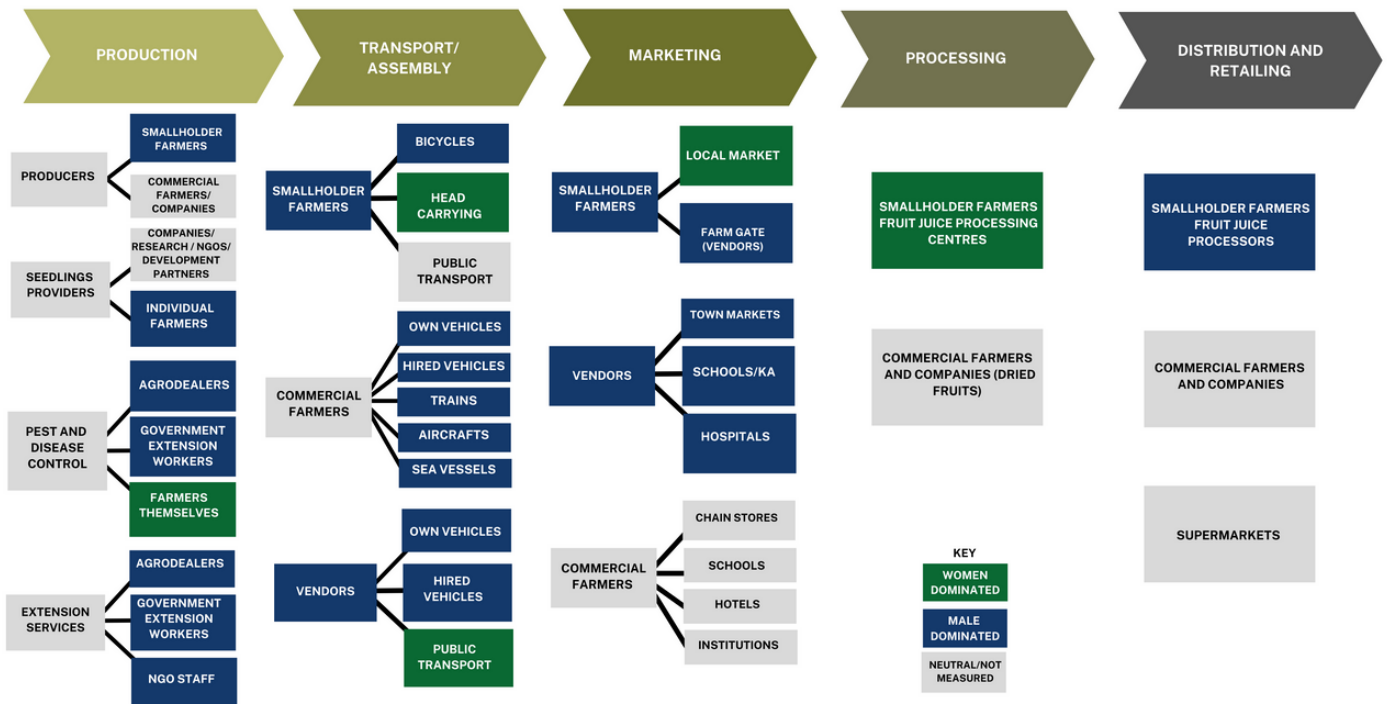
IMPROVED FRUIT TREE VALUE CHAIN MAP MZIMBA SOUTH



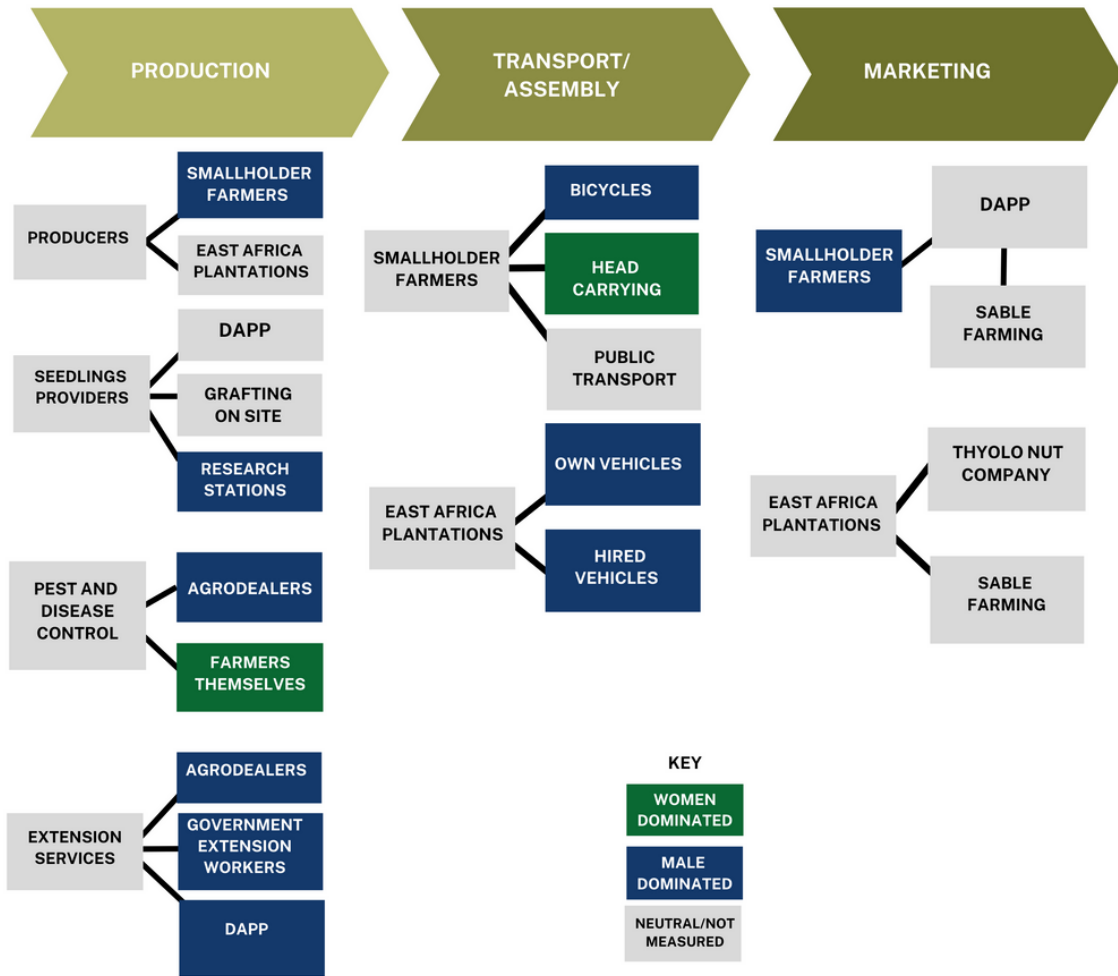
IMPROVED FRUIT TREE VALUE CHAIN MAP KASUNGU



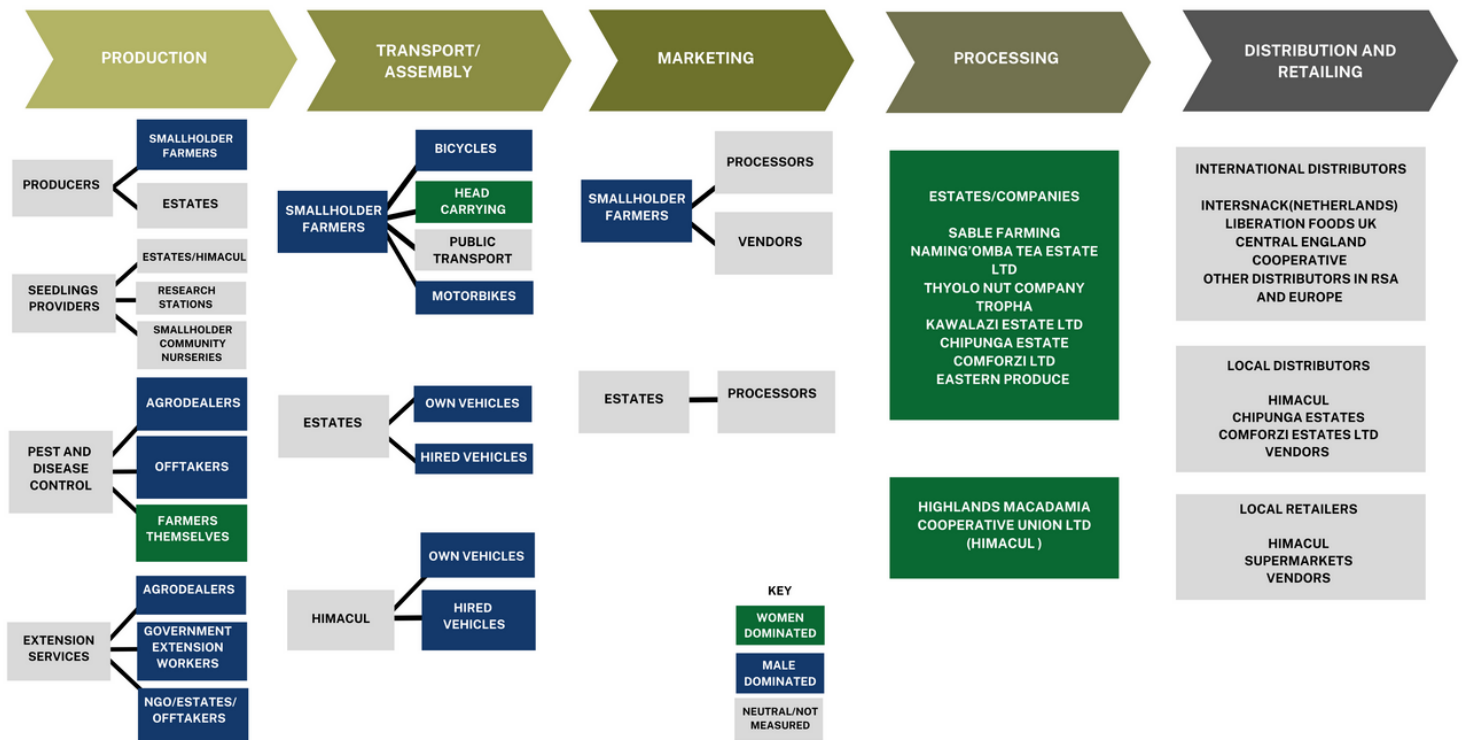
IMPROVED FRUIT TREE VALUE CHAIN MAP NATIONAL



MACADAMIA NUT VALUE CHAIN MAP MZIMBA & KASUNGU



MACADAMIA NUT VALUE CHAIN MAP NATIONAL



EXAMPLES OF PROCESSING CHALLENGES FACED BY SMALLHOLDERS

Smallholder farmer led macadamia nut processing

Macadamia nuts, in shell, are usually sold to large-scale commercial estate-based processors for cracking, roasting and packaging. HIMACUL has a cracking machine and engages in some level of processing. Due to lack of certification from either the Malawi Bureau of Standards or other international bodies, HIMACUL only processes grade B nuts to sell around the Ntchisi area – a rural marketplace with limited prospects – at 3,500 kwacha per kilogramme (\$3.4/kg), a much lower price than certified products in the supermarkets (MK 16,800/kg or \$16.3/kg). Even though HIMACUL has a supply agreement with Liberation Foods, a UK Fairtrade nut company, the organization cannot directly export the nuts. Instead, high quality macadamia nuts in shell are sent to the Thyolo Nut Company for processing before being sent to Liberation Foods UK. The Thyolo Nut Company has been certified by the South Africa Bureau of Standards (SABS) since 2008, an internationally recognized food standard authority.

Case study of the Manyamula fruit juice processing factory

In 2009 the NGO, World Vision, constructed a juice processing centre in Manyamula EPA, which became operational from 2012 for smallholder fruit tree growers from Mzimba district to add value and reduce fruit spoilage. This processing unit has stopped being used over the past three years around the time of COVID restrictions, as it could not compete with similar fruit juice products on the market. Some infrastructure, like the solar energy based fridge system, no longer works. Workshop participants described Manyamula fruit juice as low quality, packaged poorly, and with poor labelling. Farmers lacked the technical and business management capacity to run this type of processing unit. The plant was never certified by the Malawi Bureau of Standards and, as such, could not sell its products through any recognized market outlet. Initially, the factory was built to focus on providing opportunities for women farmers, but in this typical patrilocal setting, men dominated the management and controlled the marketing, despite there being only 5 men in the group of more than 30 women. Burdening women with factory chores in addition to their existing tree management and household workload also had a negative impact. Farmer group members were not required to have fruit trees and the limited membership fee (MK200/year = 0.2\$) meant the processing centre had very limited operational capital and insufficient fruits were available for processing.

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We used to have a fruit tree processing plant at Manyamula, however, it's not in operation any more. From what I saw, some of the challenges faced were that not enough fruits were available for processing to keep the plant in operation throughout the year. There was also the issue of packaging; the low standards of the bottles used made people question the quality of the juice inside them. As such, many people preferred imported juices than the ones that were being produced locally. I think that's why the factory died a natural death (Male fruit tree farmer participant, Mzimba District level mapping)

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RECOMMENDATIONS AND POSSIBLE INTERVENTIONS FOR THE PROJECT

Low literacy levels, limited mobility, and access to productive resources and markets hinder women's empowerment. Below are some recommendations for the POWER project:

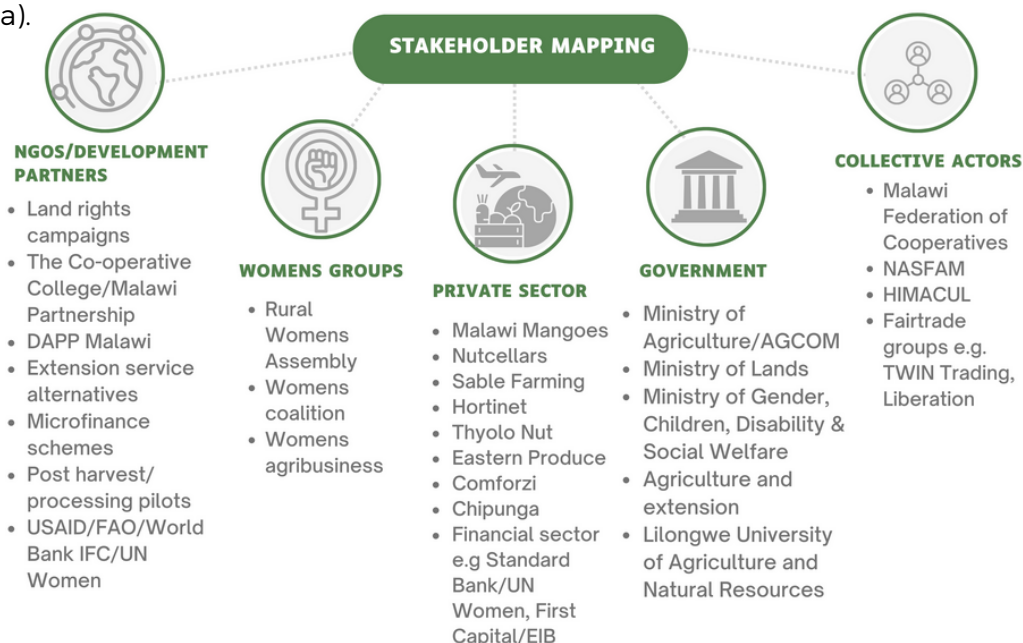
Consider gender dynamics and cultural context at community and household level: To better integrate smallholder farmers, particularly women, in improved fruit tree and macadamia nut value chains in Mzimba and Kasungu districts, we should consider inheritance systems, cultural context, and the limitations of women regarding land access, tree tenure and agency. This will vary according to household situation, inheritance/kinship system, marital status, age, etc. Specifically in patrilineal settings where they may be considered temporary residents as they move to their husband's home after marriage, empower young single women with mobile/knowledge assets that they can use regardless of where they relocate to.

Take a household approach: Engage the family (and village leaders where needed) to promote the value of women's integration and autonomy. Provide gender equality and household methodology-based training to protect women's interests and enable the household to collectively adopt IFT/macadamia farming with equally shared workload and future benefits. This includes developing a joint vision and an action plan on how husband and wife will support each other to realize this vision. Interventions should avoid exclusively targeting women except for women-headed households (widows and divorcees).

Ensure value chain interventions are gender-sensitive: Develop an integrated strategy addressing the barriers from production to the marketplace. These include productive, reproductive and social responsibilities (childcare, low literacy, producer group membership, land rights, access to credit, training, markets etc.)

Review POWER's current theory of change with the stakeholders, including farmers: Identify what would be considered a success in terms of women's empowerment and resilience for the targeted smallholder population and key priority areas such as family nutrition, income generation, capacity-building, collective action etc. Consider possible trade-offs (e.g., economic benefits versus family nutrition) and change of gender dynamics once the activity is profitable (if men then take over).

Work with relevant development organisations and other stakeholders active in both districts : Engage with those working in women's land rights; extension services (e.g., gender sensitive community-led training videos, radio programmes, co-operative and private sector led training support etc); provision of financial services for women. Adapt Village Loan Schemes to agroforestry activities or bulking and wholesale operations and identify gender sensitive bank loan schemes. Identify best practices in other African countries as inspiration (e.g., women-led communal land mango production model in Ghana).



Identify opportunities for collective action: Address women's underrepresentation in farmer producer organisations, farmer clubs, and cooperatives. Explore collective solutions to constraints that female smallholder farmers face like childcare, land access or limited market linkages. Farmer Field Schools with significant female membership could look at fruit/input bulking and market linkages and securing land access for collective orchards.

Identify opportunities for private sector partnership: Engage in a dialogue with private actors in mango and other IFTs and macadamia nut value chains and make a business case for greater women's engagement. Collect and communicate evidence on benefits of this for women and business. Initiate joint corporate social responsibility pilots to address specific issues, e.g., communal seedling propagation and pest and disease control initiatives.

Explore gender sensitive extension: Promote recruitment of female farmer trainers and use gender sensitive methods like rural radio programmes or video training sessions at venues attended by women (e.g., family planning or village level savings meetings) adapted to less literate audiences with time constraints.

Identify peer learning opportunities: In the targeted communities, identify women leaders interested in food tree value chains who could become champions of change for peer learning of key transferable skills e.g. compost-making, grafting and pruning, pest control, etc.

Realistic, market oriented and sustainable business planning for smallholder farmers: Provide accurate market information to farmers to avoid unrealistic expectations. Initially, explore low hanging productive alliance models which could secure better incomes and gradual capacity building. Conduct detailed economic and technical analysis before investing in any smallholder-managed aggregation or processing facilities, including skill development plan and certification needs.

Specifically for the mango value chains:

- Promote improved tree seedlings to farmers based on ecological conditions, varieties with high business prospects and the capacity of farmers to successfully grow them.
- Support market-driven upscaling of improved fruit production around the homestead ensuring that women, in particular, have access to the requisite training and planting material.
- Empower women to collectively aggregate and market the improved fruit under their management. A starting point would be to work with selected Farmer Field Schools, Farmer Clubs, and Village Savings and Lending Groups (VSLAs) groups with large female membership, assisting them with bulking activities and market linkages.
- Explore partnership opportunities with key national stakeholders, such as Malawi Mangoes, identifying initiatives to increase women's engagement in out-grower schemes (like community orchards) and gender-sensitive cooperative development.
- Look at appropriate small-scale processing innovations that may provide some partial solutions to the seasonal harvest glut and post-harvest losses, and ultimately improve family nutrition.

Specifically for the macadamia value chain:

- To ensure desired impact when providing women with macadamia seedlings, work with collective women's groups or women who have adequate tenure security and significant autonomy in decision making and who are financially stable and not significantly labour constrained.
- Ensure target groups have an enabling environment for successful tree establishment, management, and eventual marketing.

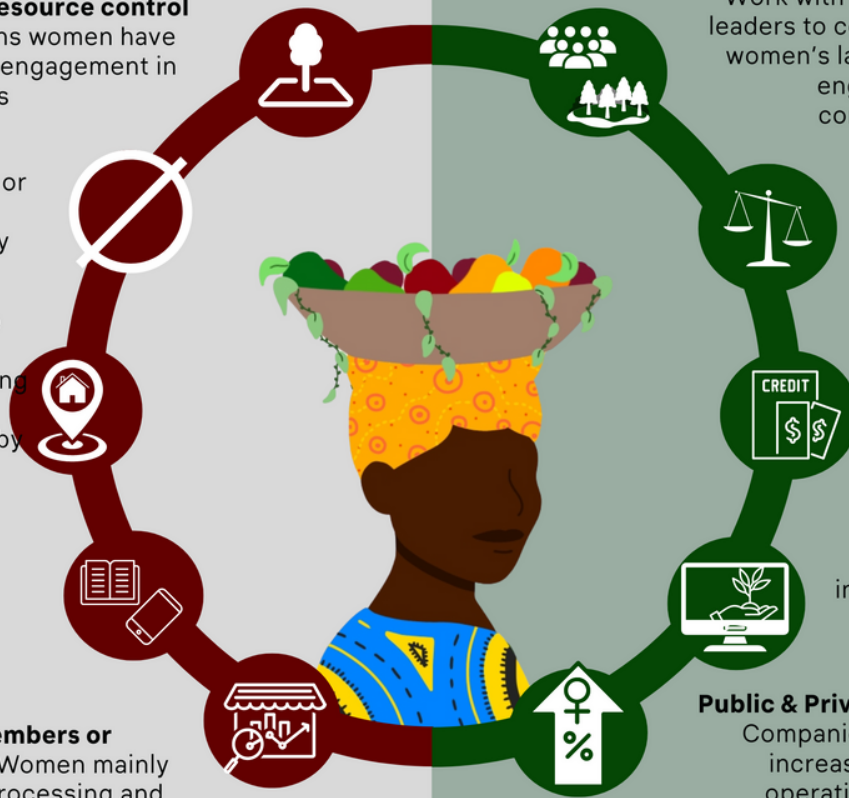
Limited land ownership, resource control and decision making means women have low financial capacity and engagement in producer and seller groups

Cultural taboos such as women not climbing trees or traveling far away limits harvesting quantity, quality and marketing options

Limited mobility, produce sold and gains made as women rely on head carrying (little access to other transport), and are bound by domestic chores

Poor financial literacy and use of technology limits engagement in producer and marketing groups, extension training and credit schemes

Poor representation as members or leaders of co-operatives. Women mainly involved with producing, processing and harvesting around homestead while men engage in higher value market links



Scale up collective action such as cooperatives

Work with key partners and community leaders to collectively secure and scale women's land rights, increase women's engagement in customary land committees and co-operatives

Identify ways to balance triple burden and cultural constraints with improved engagement in production, harvesting, marketing. E.g. address childcare needs

Gender sensitive credit

Expand village savings and loan schemes to enable more women to form co-operatives. Engage private sector

Gender sensitive extension including video based training to fit with time, mobility and literacy constraints

Public & Private sector gender inclusion

Companies and development partners increase women membership of co-operatives and outgrower schemes. Promote gender sensitive technical and financial support in business, tree management and processing

EMPOWERING WOMEN IN FOOD TREE VALUE CHAINS IN MALAWI

This general picture of challenges and opportunities needs to be tailored to context specific dynamics such as kinship system and women's situation (i.e. single, married, divorced, widowed)

CREDITS

Dr Jessica Kampanje and Dean Kampanje carried out and wrote up the gender assessment study
Dr Karl Hughes supervised and edited the report
Dr Emily Jean Gallagher co-supervised and edited the report
Alina Paul-Bossuet and Jerome Bossuet edited the report and designed the brief
Ameya Bossuet co-designed the graphics

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Photo credit: Alina Paul-Bossuet

