

REPORT

Zambia Feed the Future Gender Assessment

Client: United States Agency for International Development (USAID)

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LIST OF ACRONYMS

ACF	Agricultural Consultative Forum
AgPER	Agricultural Public Expenditure Review
AIDS	Acquired Immunity Deficiency Syndrome
ASP	Agricultural Support Programme
CAADP	Comprehensive African Agriculture Development Programme
CDT	Cotton Development Trust
CEDAW	Committee on the Elimination of Discrimination Against Women
CFS	Crop Forecast Survey
CSO	Central Statistical Office
DDCCs	District Development Coordinating Committees
DOPE	Development Organisation for People's Empowerment
DRC	Democratic Republic of Congo
EEOA	Economic Expansion in Outlying Areas
FBIs	Faith Based Institutions
FISP	Farmer Input Support Programme
FNDP	Fifth National Development Plan
FRA	Food Reserve Agency
FSP	Fertiliser Support Programme
FSRP	Food Security Research Project
FTF	Feed The Future
GART	Golden Valley Agricultural Research Trust
GATE	Greater Access to Trade Expansion
GbCs	Gender based Constraints
GDP	Gross Domestic Product
GFPs	Gender Focal Points
GIDD	Gender in Development Division
G-SAG	Gender Sector Advisory Group
GTZ	German Technical Assistance to Zambia
HIV	Human Immunity Virus
ICRW	International Centre for Research on Women
ICTs	Information and Communication Technologies
IFAD	International Fund for Agricultural Development
IWMI	International Water Management Institute
MACO	Ministry of Agriculture and Cooperatives
MCSS	Ministry of Community Development and Social Services
MDGs	Millennium Development Goals
MLFD	Ministry of Livestock and Fisheries Development
NGOs	Non Governmental Organisations
NGP	National Gender Policy
NISIR	National Institute for Scientific and Industrial Research
NORAD	Norwegian Agency for Development Cooperation
PAM	Programme Against malnutrition
PDCCs	Provincial Development Coordinating Committees
PHS	Post Harvest Survey
RPOs	Rural Producer Organisations
SEA	Supervisory Enumeration Area
SHEMP	Smallholder Enterprise and Marketing Programme
Sida	Swedish International Development Agency
SNDP	Sixth National Development Plan
SS08	CSO/MACO/FSRP Third Supplemental Survey, 2008
UCS	CSO/MACO/FSRP Urban Consumption Survey, 2007/8
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
ZARI	Zambia Agricultural Research Institute
ZMK	Zambian Kwacha

EXECUTIVE SUMMARY

Zambia is a potential focus country under the United States Agency for International Development (USAID) Feed the Future (FTF) global hunger and food security initiative. The need for support is explained by the fact that the country will not achieve Millennium Development Goal 1, halving extreme poverty and hunger, by 2015 if it maintains its existing growth rate. To help achieve growth USAID/Zambia has identified two key objectives that address the principal determinants of food insecurity: accelerating inclusive agriculture sector growth, and improving nutritional status. Paying attention to gender issues in programming will be fundamental to success. There is consistent and compelling evidence that when the status of women in agriculture is improved, agricultural productivity increases, poverty is reduced, and nutrition improves. The purpose of the Gender Assessment is to identify key gender issues, gaps and constraints that need to be addressed in USAID interventions in Zambia as they support FTF programmes. In particular, this assessment focuses on how to achieve gender-equitable value chain development.

Summary of Key Findings

The overall finding of the Gender Assessment is that the challenge is huge, yet not impossible. Dialogue processes with partners, including government and the business sector, are required to convince them of the importance of gender-equitable actions to remove market distortions caused by gender inequalities. Such discussions will underpin specific actions to ameliorate gender-based constraints for actors at each level in agricultural value chains. USAID/Zambia will need to take strategic decisions. It can choose to identify and work only with women who already exhibit potential to engage in value chains, or it can do this and create complementary programmes to develop the potential of vulnerable households, in particular female-headed households, to participate in value chain development. The latter option is feasible given that women in male-headed and in female-headed households share specific constraints, most notably a lack of productive assets in their own name.

In Zambia, the endemic weakness of the agricultural sector constrains almost all market-orientated activities apart from maize, wheat, cotton, tobacco, and exotic vegetables exported largely to Europe. Many rural dwellers engage in almost entirely subsistence-orientated livelihoods and indeed some areas are characterised by barter rather than cash exchange. Out-migration and working for food [¹] in local towns and on neighbouring farms are important livelihood strategies for the rural poor. Rural markets are very thin, in some cases necessitating that produce is taken hundreds of kilometres to the next buyer. As a corollary, vibrant local markets, with concomitant local circulation of money and multiple actors, scarcely exist. Considerable farmer effort is therefore devoted to producing food for household consumption rather than focusing on income-generating agricultural activities, such as processing, bulking, specialising in niche markets, and so on. In general, smallholders are price-takers, with little ability to negotiate for a better price. In some cases, smallholders operate in an almost cash-free barter economy, subjecting them to extremes of exploitation through middlemen. The most poor frequently sell almost their entire crop whilst still in the ground for very low prices in order to meet their basic needs, yet may end up buying household food and seed for next year's crop at peak prices toward the end of the season. The strong seasonality of rainfall and lengthy dry season, coupled with weak diversification in farmer livelihood strategies, results in marked surges of income and a 'hungry season' for many producers. In such an environment with low capital buffers, engaging farmers in value chain activities is a challenge. Carefully planned interventions to link farmers wherever possible to assured markets (such as schools, hospitals, prisons, cross-border markets and, in the longer term, multiple retailers) will help build confidence in markets and stimulate the development of local economies, with concomitant cash flows and the creation of wider range of actors.

Government policies are generally not supportive of smallholders. Rather, policies favouring maize production create distorted production, research and marketing schedules, with maize being grown even in areas unfavourable for its cultivation. Other crops suffer from policy,

¹ This is quite a common livelihood strategy. Over many decades food-insecure families have worked for food.

marketing and research neglect. Very few 'value chains' exist, apart from those in the highly commercialised sectors mentioned above, which are dominated by a few large actors. Rather, produce is typically shifted around the country and into neighbouring countries by means of spot transactions between multiple actors working with miniscule margins. In the main, it is not possible to describe these chains as market-led since the end buyer exerts almost no influence upon the chain. Indeed, the final destination of most agricultural produce is rarely known to producers, or to the multitude of middlemen along the way. Thus there is little scope for ascertaining the needs of end-consumers in terms of quality and quantity, resulting in countless missed opportunities for income generation strategies. A great deal of produce is transported illegally as side baggage by lorry drivers carrying legitimate cargo and this, in itself, impacts upon product quality. Processing and packaging centres are few, with most being in Lusaka and the Copperbelt, and in the hands of very few actors.

To achieve its gender equity aims, USAID/Zambia will need to select value chains that have strong market development potential and are able to achieve women's economic empowerment and leadership. The findings suggest that vegetables, including traditional leafy vegetables, groundnuts, sweet potatoes, and small livestock are high potential chains. Maize is important to women as a food security crop and small modifications to marketing procedures may enable women to enter this hitherto male-dominated domain as buyers and sellers. Investments in cattle could reap massive dividends for women, particularly female-headed households, since cattle provide draught power, manure, and milk, yet considerable work is needed to ensure that women are able to maintain ownership and decision-making capacity over large livestock. Upgrading backyard poultry keeping, as in so many countries, offers great potential.

Programmes aiming to integrate women into value chains generally pre-suppose a certain level of resources and capabilities that enable them to take on the risks inherent with engaging with value chains and entrepreneurship. Zambia's gender profile indicates that whilst women and men both face challenges to entrepreneurship due to poverty, men are much more able to engage in risk taking and grow their businesses due to their ability to build and command capital. This ability is critically linked to the superior position of men in relation to the ownership and deployment of household assets, and expenditure decisions. By way of contrast, women within male-headed households generally depend on their ability to maintain relations with male kin to secure access to productive assets. Their decision-making capacity over the use of those assets is demonstrably low in many cases. Female-headed households may well be able to take autonomous decisions, but they frequently lack sufficient assets for truly viable livelihoods. To engage women in value chain development will take several years of carefully staged engagement and withdrawal.

In every chain, the likelihood of 'male takeover' is very high once a certain level of profitability is reached. Ensuring that women maintain a presence will require the development and application of instruments designed to (a) deepen women's ownership of assets, including special programmes for female-headed households since they form a huge percentage of households in rural areas, (b) strengthen women's voice in household decision-making over expenditure and assets, and (c) develop the capacity of rural producer organisations to represent women's interests in the market. Soft investments should include women's literacy programmes, entrepreneurship training to enable competitiveness, and redesigning rural producer organisations to ensure they are inclusive of women, including poor women, and market-orientated. A variety of value-adding strategies, ranging from enabling women to become crop specialists to assisting with product processing should be developed.

Hard investments are equally vital. These include ensuring that physical infrastructure, such as processing and storage facilities, means of product transportation, information and communication technologies (ICTs), and the facilities at retail and wholesale markets meet women's needs.

THEMATIC FINDINGS

The findings of the Gender Analysis are presented in three parts.

1. Macro-level gender-based constraints in the policy, business and research environments.
2. Socio-cultural constraints in rural areas.
3. Gender-based constraints pertaining to specific actors in agricultural value chains.

Rather than provide a separate section on recommendations, suggestions for alleviating gender-based constraints are linked to each set of findings. The findings themselves cannot be adequately presented in the Executive Summary. Each chapter provides considerably more detail and support to the analysis.

Part 1. Macro-Level Gender-Based Constraints in the Policy, Business and Research Environments

The Policy Environment

Although the Government of Zambia officially endorses gender mainstreaming as a methodology to address gender inequalities, good intentions have not been successfully followed through. For example, whilst the National Agricultural Policy (2004) incorporates an affirmative action strategy for improving the economic status of women farmers, implementation is weak due to low levels of gender knowledge and practical skills among staff at Headquarters and provincial, district and sub-district levels. This has occurred despite considerable donor investment in gender analysis training in the Ministry of Agriculture and Cooperatives (MACO). Poor capacity in MACO is worsened by the lack of technical backstopping from the national machinery, the Gender in Development Division (GIDD), due to understaffing and chronic under-funding. Furthermore, although Zambia has ratified international conventions/instruments aimed at achieving female equity, these conventions/instruments have not been domesticated.

These weaknesses in policy come at a historical juncture in which agriculture, for the first time in decades, is taking centre place on the global stage. In 2008 alone three major publications reported on the need to focus policy attention on food and farming [2]. One finding of all three reports, supported by decades of research, is that developing gender-centred policies will contribute to higher production and productivity in agriculture, and generate a large number of social benefits. However, serious gaps occur in the translation of research findings into policy pronouncements, and from thence their implementation. Moreover, women farmers and entrepreneurs in value chains are rarely invited to be co-creators and co-discussants in the development of improved crop varieties and livestock breeds, in improved tool development, and in programme and strategy development. As a consequence policies tend to address the needs of male farmers by default and expect women to 'opt-in' to packages geared essentially to male interests. The obstacles to women's effective participation in agricultural value chains remain un-addressed.

Yet the gender needs of women farmers and entrepreneurs are well known. They include human capital development, including basic literacy; gender-sensitive extension; strengthened access to - and especially control over - productive resources; access to markets and price information; assistance with ensuring food security and good familial nutrition; and an equal voice in household expenditure decisions. Whilst these topics are treated separately for the purposes of analysis in this document, the key point is that all these needs depend on one another for their realisation. For instance, lack of secure land tenure often means women cannot offer collateral for loans, cannot join rural production organizations, and thus cannot take part in decision-making processes. Equally, lack of security in land tenure may reduce incentives to invest in improving the land, frequently resulting in lower productivity.

Recommendations for Strengthening the Policy Environment

In Zambia, the data and the arguments for gender equity in agriculture are widely understood by policy makers. The crux of the problem is not the lack of understanding but rather the lack of will to implement the supportive policies that exist. Dialogue processes between USAID/Zambia and the Government of Zambia will need to tackle the dichotomy between rhetoric and practice, and

2 These are: The Gender in Agriculture Sourcebook <http://worldbank.org/genderinag>; The World Development Report 2008: Agriculture for Development (WDR 2008) <http://www.worldbank.org/wdr2008>, and the International Assessment of Agricultural Knowledge, Science and Technology for Development <http://www.agassessment.org>

find a means of overcoming institutional inertia. This can best be done, perhaps, by making donor spending contingent upon the implementation of concrete, feasible and measurable actions aimed at ensuring gender equity in value chain development. The ability to co-ordinate and link interventions that lie within the responsibility of one ministry to interventions within the remit of another ministry will be critical. Further recommendations include:

1. Policies, strategies and actions for value chain development, food security and growth require clear, time-bound targets on achieving gender equity.
2. Analyses which deliver an understanding of the key gender issues in the language planners understand will assist in the formulation of responses able to address specific conditions, constraints and opportunities. Given that Zambia is culturally very diverse, analyses will need to explain how to recognize and work with cultural difference, as well as highlight actions common to all.
3. Since gender is a cross-cutting issue a portfolio of interventions aimed at tackling different gender aspects of gender inequality in agricultural value chains are required. To achieve this, USAID/Zambia will need to work not only with MACO but also the Ministries of Water, Livestock, Energy, Health, Education, Roads, and Land, as well as selected agencies, NGOs and Faith Based Institutions (FBIs).
4. Gender mainstreaming strategies need to include men as part of a package addressing the economic inefficiencies that derive from the unequal power relationships between women and men. In the Zambian situation, traditional leadership needs to be targeted and involved in activities to strengthen and legitimize women's voice, participation and entrepreneurship in value chain activities.
5. Agricultural institutions need dedicated budgets for gender mainstreaming. Gender focal points need training, time, and individual accountability for gender outcomes to be built into their job descriptions. This needs to be complemented by organisational accountability for gender outcomes. Top leadership commitment to gender issues is vital in the ministries of agriculture and livestock as well as NGO and civil society projects and programmes.

The Business Environment

This study did not focus sufficiently on researching and understanding the overall agri-business environment in Zambia. However, discussions with a variety of agencies promoting agricultural investments showed that the majority of them peer through the wrong end of the gender lens. Rather than understanding the entire economy, and economic actors, as prefigured by gender relations, respondents clearly believed that interventions in the interests of gender equity will distort the free working of the market. In essence, gender is seen as a 'social welfare' issue. Interestingly, almost all agencies reported a belated recognition that gender relations stymied their outcomes, resulting in a dash to develop gender-sensitive actions towards the end of programme/project implementation. However, programme failure was still attributed to a lack of consultation with women rather than an appreciation of gender relations as a dynamic shaping force in any society. Studies show that occupational segregation by gender can impose significant costs on economies. These costs include rigidities in labour markets, reducing the market's ability to respond to change; the under-utilisation of women's labour; and lower levels of output and growth resulting from sub-optimal investments in early and life-long education and capacity development for women and girls [3].

Women entrepreneurs do not face a level playing field because they are constrained by an array of culturally specific rights and responsibilities that hamper their freedom to act in the best interests of their enterprise. The combination of gender-blind legislation and locally valid gender norms often permit men to benefit more than women from programmes that support agricultural value chains through providing credit, extension and marketing services. If gender equality in entrepreneurship is to become a reality, the business sector needs to recognise the importance of developing and implementing explicit measures to tackle gender discrimination. Market infrastructure, including wholesale and assembly markets, post-harvest processing and storage facilities, and transportation requirements, need to be tailored to women's needs.

Recommendations for Strengthening the Business Environment

USAID/Zambia still needs to reiterate the arguments that neither women, nor men, are able to participate effectively and efficiently in development programmes due to (i) important

³ Deutsch et al. (2002).

differentials in human capital development from the earliest years, (ii) significant discrepancies between the responsibility for conducting productive work - and the ability to decide autonomously on how best to conduct that work, (iii) mobility and time constraints caused by women's overwhelming responsibility for household maintenance, childcare, and care of the elderly and sick. Further recommendations include:

- ❑ Legislation should explicitly prohibit gender discrimination, or contain statements of gender equality in relation to women's self-employment. Due to widespread discrimination, affirmative action laws providing fiscal and other incentives for women entrepreneurs should be formulated and adopted.
- ❑ At the programme level, specific activities to assist women entrepreneurs are needed. These can include targeting women for credit, training, assertiveness and extension services.
- ❑ Gender and growth assessments, such as those conducted by the Gender Entrepreneurship Markets unit of the International Finance Corporation, can help to identify and address legal and regulatory obstacles to women's entrepreneurship.
- ❑ Procedures for doing business need to be eased. Simplifying registration and licensing requirements enable both women and men to come into compliance and formalise their businesses quickly, thus improving tax revenues. At Zambia's international borders, measures to reduce the intimidation of female traders need urgent development and adoption.
- ❑ Women entrepreneurs and their associated communities need to be informed about gender-aware interventions. Many initiatives fail because women simply do not know how they can benefit. Potential women beneficiaries need to be part of discussion processes to help create the programmes they need. Male and female champions for women entrepreneurship need to be won and profiled.

The Research Environment

Although women farmers are known to form the backbone of Zambia's agricultural sector, Zambia's various agricultural research institutions have produced very few gender-aware innovations. Yet women's roles in seed handling, agricultural production, food processing, trading and purchase are essential to food security and family well-being. These roles, and the knowledge on which they are based, can be substantially different to those of men. Research conducted for this study showed that women have traditionally been responsible for managing gene flows, through engaging in plant varietal selection (PVS) and storing seed. Training programmes organized by the extension services have, however, eroded this responsibility since men are typically targeted for PVS and training in improved varieties. However, women need to be fully involved in plant varietal selection and participatory plant breeding programmes to make sure their gender needs are recognised in crop development. These are often very different to those of men. Depending on local gender roles and responsibilities, women may consider ease of processing, cooking and taste as key traits, whereas men may consider ease of storage and abundant foliage for feeding livestock to be more important. In Northern Province, for instance, a government-developed groundnut variety, MGV4, was introduced yet failed catastrophically because it is very oily and hard to pound, and produces an unpleasant tasting relish. It was assumed that the large-sized nut would be easy to market, but due to a lack of consultation with women the multiple uses of groundnuts had not been considered.

Labour is an ultimate gender-based constraint because women rather than men are responsible for almost all agricultural labour in Zambia. Whilst men are generally responsible for land preparation in male-headed households, women in such households are also involved when animal draught power is lacking and land needs to be hoed. Female-headed households either have to hoe land themselves or pay male labourers to prepare their fields. Even at peak times, women are not able to command unpaid male labour. This said, it is important to recognize that in certain Zambian cultures and in individual households, men are involved in other agricultural tasks, such as harvesting. However, it is estimated that women perform up to 85 per cent of farm work. Their workload is made more difficult due to the stark seasonality of the growing season, which results in intense peaks and troughs in labour demand across the year. Women find it hard to keep up with onerous tasks such as weeding in the rainy season since all crops need to be weeded concurrently. As a consequence of labour shortages, production levels can be poor.

Recommendations for Strengthening the Research Environment

- ❑ The first step in addressing gender-based constraints in agricultural value chains is to improve the quality and availability of gender-disaggregated data and analysis. This is

essential to improve targeting and investments. Creating, monitoring, and evaluating effective gender-aware policies and programmes depend on data being available at different levels. Relevant data can be produced for specific projects that aim to track specific monitoring indicators. Such data need to be sustainably generated and to be consistent and congruent with the national statistical system's broader data collection activities. These systems typically generate indicators to be tracked over time and are usually representative at both sub-national and national levels. Achieving this goal will require re-orienting CFS, PHS and supplemental surveys instruments to capture gender disaggregated data at the household member level across all modules in the instruments. For instance, it is critical that male-headed households be disaggregated since the roles of women, and their needs, within those households are currently invisible. However, women in such households may provide the bulk of agricultural labour and have the most important capacity development needs. Key stakeholders in this process are CSO, MACO, MLFD and FSRP. It is encouraging to note that FSRP has already undertaken to engage CSO and other stakeholders in this process.

- ❑ Women acutely need income-generating, labour-saving and productivity-increasing technologies. Machinery and tools that can easily be handled by women, such as long-handled hoes and light sprayers, need to be developed with women's input, and disseminated widely. Irrigation technologies and ecologically sensitive farming in dambos will help women farm and generate income in the off-season. Increasing access to animal draught power will assist women in both male and female-headed households. In such cases, women will need training in livestock husbandry and ploughing. Improved technologies have been shown to increase male willingness to engage in agricultural tasks and thus lighten women's work burdens.
- ❑ In order to develop research and development relevant to women farmers more resources need to be allocated to the public research system under ZARI and other research institutes. Women should participate actively in research and development to ensure appropriateness. Research institutions need to recognize, capture and work with women's local knowledge in the management of gene flows, the production and storage of food, and in the use and conservation of biodiversity. The research system needs to focus on the technical needs of women farmers through working on crops and livestock important to them such as groundnuts, sweet potato, vegetables and local poultry.
- ❑ The development and dissemination of labour-saving devices to reduce the burden of work in the home and on the farm is critical to enable women to use their time more effectively.

Part 2. Socio-cultural Constraints in Rural Zambia

Zambia is a multi-ethnic nation with 73 ethnic groups. Its constitution permits a dual legal customary and statutory law system. The multiplicity of ethnic origin and the use of two, sometimes contradictory, legal systems in one country impact significantly upon the ways in which women and men access and control productive assets, and their ability to derive benefits from their work. Although men and women are both involved in agricultural activities, women are generally discriminated against in terms of control over productive resources and in decision making, particularly with regard to expenditure decisions and the sale of assets. However, socio-cultural norms that predate the colonial period are still extant today, though in debased form. Some of these favour women. The potential exists for gender-sensitive value chain interventions to build upon these to develop the position of women at various tiers in agricultural value chains. Indeed, it is doubtful that any activity that failed to identify and work with progressive elements at the local level would succeed. In particular, it is key to identify and work with male champions of female empowerment.

In order to address socio-economic constraints, it is useful to consider them in terms of 'agency'. This can be defined as the ability to define one's goals and act upon them. Agency is critical to the ability of women and men to take rational decisions in farming, as well as to wider empowerment agendas. Effective agency is closely linked to resources (or assets), for without resources it is often impossible to realize a goal. However, as shown in this document, Zambian women verifiably have much weaker access to, or decision-making power over, critical productive resources such as land, machinery, or money, than do men. This is so even if the household as a whole possesses such resources. Women in both matrilineal and patrilineal societies in Zambia normally gain access rights to key resources, including land, tools and livestock, through male kin.

In the former, women access resources through males associated with their birth families; in the latter by virtue of association with their husband and his kin. Access rights are generally withdrawn in the event of marital breakdown or death of the husband. On a day-to-day basis, unequal access to resources can mean less effective farming outcomes because the use value of these resources is not maximized. Women, even though they conduct most of the work, do not necessarily take the decisions regarding how best to deploy productive assets.

In order to maximize the utility of productive resources in strongly sex-segregated societies, and in so doing improve women's agency, it is necessary to disaggregate the household as an analytical unit. The 'functionings and capabilities' framework put forward by Amartya Sen [4] challenges the view that possession of commodities alone translates into well-being for all household members, as traditionally posited by economists. Sen argues that the possession of goods does not translate automatically into well-being since possession is different from the ability to benefit from the characteristics of these goods. That is, it is not the possession of the commodity or the utility it provides that proxies for well-being, but *rather what the person actually succeeds in doing with that commodity and its characteristics*. For example, a 'household' may 'own' a plough, but the right to use it may be exclusively vested in the male head.

To help explain how this happens, Sen shows in his essay *Co-operative Conflicts* [5] that household gender relations profoundly affect the intra-household distribution of commodities and the ability of each gender to use particular commodities. Women and men collaborate to bring wealth into the family, but the division of wealth is a source of conflict. In many cases, wealth is not divided according to the share brought in by each household member. Rather, division is determined by relative power. In most cases, due to social norms that privilege men, men hold more power than women and thus wield more control over assets and expenditure. A PLAN International study viewed for this assessment showed that gender-based violence, in which women suffered high levels of battery, increased markedly after harvesting and marketing due to marital conflicts over how to spend income.

Following Sen's analysis, there are several ways of increasing women's access to, and control over, assets. One is to place assets under the direct control of women. The second is to find ways of moderating 'cooperative conflicts' in order to strengthen women's agency in household decision-making. A third way is to strengthen women's agency at the community level. This report advises the development and implementation of all three strategies to be used in unison. They are discussed in turn here.

Recommendations for Strengthening the Control of Assets by Women

- ❑ Zambia has already enacted sufficient land titling legislation in women's favour. It remains to work with the agricultural extension services, local communities, police services, the Ministry of Lands, and local leadership to ensure that women are able to realize their land rights under statutory law.
- ❑ Within customary systems, close work with chiefs is required to ensure that women, including in the case of divorce or separation, maintain access rights to land.
- ❑ Joint titling of productive assets for couples should be encouraged so that the surviving spouse can benefit in case of death or divorce.
- ❑ Both women and men need to be sensitized to the benefits of strengthening women's assets and decision-making capacity and to understand that they too will benefit through increases in household and community well-being. Particularly careful work is required when working for the rights of widows and their children in the face of counter-claims from male and female kin of the deceased.
- ❑ Access to, and control over, land means little unless women have the inputs and services needed to cultivate their land effectively. Complementary programmes to promote women's access rights to water, credit, extension services, draught power, *etc.* are needed. Programmes like 'pass on the gift' can help build stocks of livestock.

4 Sen (1998).

5 Sen (1990).

- ❑ Innovative credit facilities, including those suitable for very poor women, need to be introduced.
- ❑ Female-headed households suffer particularly from a lack of access to land and productive resources. Special asset building programmes are needed.

Recommendations for Moderating Cooperative Conflicts

The gender team responsible for this assessment strongly recommend that USAID/Zambia's value chain interventions develop a 'household approach'. It is abundantly evident that although women take on many functions in the agricultural sector, the efficiency and effectiveness of their work is hampered by their lack of proper decision-making capacity over the development and deployment of assets. Given its importance as a recommendation, and given the fact that the Agricultural Support Programme (ASP) developed a Household Approach has been successfully applied in Zambia, a detailed case study is presented here. The International Fund for Agricultural Development (IFAD) is trialling alternative, cheaper, versions of the Household Approach in Uganda and Malawi.

The ASP was funded by the Swedish International Development Agency (Sida) and the Norwegian Agency for Development Cooperation (NORAD) and achieved remarkable change in gender relations which impacted very positively upon farm productivity. The overarching goal of the ASP was to stimulate attitudinal change among smallholders as to way farming is conducted by engendering entrepreneurial thinking. To do this, the ASP developed a palette of complementary methodologies, including a facilitation cycle, a five-stage graduation programme, the development of a whole farm system focusing upon crop-livestock integration - to meet income gaps across the year and also engender closed production cycles, and an emphasis on ensuring household level food security before moving on to marketing. Critically for women's empowerment, the ASP promulgated a 'Household Approach'. This involved extension workers working with the whole household, including older children, to reinforce messages transmitted at community level. The power of the Household Approach lay in its ability to bundle the often disparate and competing livelihood strategies of household members to form a shared goal, or 'vision' in ASP terminology. Its motor force came from its treatment of farmers as farm managers rather than as beneficiaries.

The findings of a gender evaluation conducted in 2010 [6] found that all farmer respondents, both male and female, recorded that men had changed their behaviour as a direct consequence of ASP. Men are more willing to share decision-making with their wives though they generally still consider themselves household heads. Other findings include:

1. Shared decision-making has resulted in *more rational livelihood planning*. Prior to ASP, men were generally responsible for governing the access of each family member to household and farm resources. They were able to command female labour, decide upon the use of the fields, and decide upon the spending of income. Very little discussion with other household members, including children, was conducted. Women could not take any decisions in the absence of their male partners. This would not be an issue of itself if men were seen to be managing the farm well, but in fact in many cases men are perceived as poor farm managers, even by men themselves.
2. The emphasis of ASP on working with the farming household, including the wife and the children, has decisively increased the *resilience* and *coping strategies* of many households. This is because all family members understand their farming system and have been actively involved in shaping it. *Farming activities now continue in the absence or death of the male head*. Investment decisions are made collectively and, provided food security had been assured, are directed at achieving a family vision.
3. As a consequence of the involvement of children in the household approach, there are likely to be significant *intergenerational* benefits. This may in the long term encourage children to stay in farming and thus reduce urban drift, rural underemployment *etc*. Moreover, one of the most tangible gains that both men and women respondents

6 Farnworth and Munachonga (2010) and Farnworth (2010_a).

repeatedly mentioned is that joint planning over expenditure has enabled more children to go to school - a significant intergenerational benefit.

Despite these gains, ASP significantly failed to address structural gender inequalities in relation to access to, and control over, key productive resources. Women's access to resources remained reliant on their ability to maintain their relationship to the male head of household and to wider kinship networks. The performance of female heads of households was much weaker across the programme.

Recommendations for Strengthening Women's Voice at the Community Level

Rural producer organisations (RPOs) are a familiar feature of the Zambian landscape. Some function better than others, for example the Development Organisation for People's Empowerment (DOPE), active in Mpika District, in Northern Province appears to co-ordinate a very successful women-dominated umbrella organisation with several affiliates. DOPE also offers tailored micro-credit services to women (and men as minority portfolio-holders). In the main, though, many RPO's in Zambia do not function well, partly because they were set up by government to build social capital to manage resources like a seed bank, rather than functioning as market-led organisations. Male domination of RPOs is another strong concern of many women, since they find it hard to articulate their gender interests. Corruption and lack of transparency is a further concern.

Despite the negative experiences of women voiced to this research team and in various reports, market-driven RPOs are critical instruments to enable women to manage their assets more effectively, to gain access to services, inputs, credit, and markets. The development of strong RPOs can enable women to overcome high transaction costs, their limited scale of production, their poor access to resources, and their lack of bargaining power as individuals. Quite apart from these advantages, studies show that membership in RPOs can help women improve their self-esteem and gain improved status in the community. Interventions aimed at maximising women's benefits from membership in RPOs need to address several gender-based constraints. These include lack of representation, particularly amongst the most poor and lack of substantive gender equality, or voice, in decision-making.

Improving Representation

- ❑ Membership criteria of RPOs often exclude women without direct access to land or other resources. Poorer women may be excluded for this reason, and because marginally wealthier women are concerned that poor women may default on loans offered through collective lending schemes, thus harming the concept of mutual guarantee. Some RPO's in Zambia encourage poor women to join by enabling the payment of membership fees in kind, and also repayment of cash loans in kind.

Ensuring Substantive Gender Equality

- ❑ The Government of Zambia has introduced a quota system whereby 30 per cent of the membership of RPOs should be female. Whereas the intent may be laudable, in practice two issues arise. First, in some areas where female participation was previously higher than that of men, the numbers of women participating have actually declined as a result of men imposing the quota system. This is a consequence of implementing the letter rather than the intent of the quota system. In other countries and regions, such as Tamil Nadu in India and in Tanzania, projects have set higher minimum quotas for women's membership and to achieve quorum at meetings. Women-only sub-projects within RPOs have been encouraged and specific leadership positions set aside for women. Critically, quotas for women are seen as a minimum rather than a ceiling.
- ❑ Ensuring that women are able to effectively articulate their gender interests is a significant challenge. In many communities in Zambia women are strongly discouraged from expressing their views in public. Counting the numbers of women at meetings, providing separate toilets and washing facilities and even electing women to serve on committees may appear to serve the needs of gender equality, but studies from other countries show that women are often members on paper to help facilitate household access to credit or increase voting rights, and that they may never speak. Commitment to achieving substantive gender equality, whereby women speak and express their views, is critical. This requires training women to express their views, assertiveness training, and setting aside time in meetings to permit women to talk. Women consulted in this study indicated they would like to hold separate meetings before mixed meetings in order to

formulate their ideas and appoint a spokeswoman. In this way, ideas become clearer and also the use of a spokeswoman means that ideas are not associated with particular individuals.

Recommendations for Developing Gender-Sensitive Rural Producer Organisations

- ❑ To meet equity and efficiency objectives, partnerships between commercial companies and development organisations may work well. In this case, project partners must clarify their respective responsibilities for the organisational development of RPOs carefully. Development organisations may assist in the achievement of gender equity objectives by helping to organise women into cooperatives, providing training, and supplying quality technologies. Commercial actors must ensure that the RPO develops sustainable market linkages and functions, in the middle to long-term, on purely commercial lines.

Part 3: Constraints and Opportunities by Value Chain Actor

Part 3 does not discuss all value chain actors as this lies outside its remit. It focuses on identifying constraints and opportunities for women as producers and as buyers/ sellers. Clearly, close work with end users is critical, whether they be multiple retailers, processing plants, or consumers. Chapter 4 provides commodity-specific recommendations for including women at various levels in each value chain.

Producers

A major challenge in pro-poor value chain development is to ensure the equitable distribution of gains, particularly for producers. Strategies to add value that are close to the producer or district level will help to ensure that more rents are captured by producers.

One approach for capturing more value involves assisting women to become crop specialists whilst maintaining a clear market orientation. To succeed, women farmers need to improve their production skills, and they are likely to require training in a suite of farm management skills, including mixed crop/livestock production, planning, record-keeping, and farm management. Given that human capacity development is so low in Zambia, it may take women several years to develop the necessary skills. Literacy training is likely to be a pre-requisite. Evidence presented in this report demonstrates that women already have acknowledged expertise in certain crops and in poultry. Strengthening such niches through improving gene flows and management techniques (as outlined above) would be an excellent value chain strategy. Enabling women to enter new sectors, particularly in large livestock, forms a larger challenge yet would have high transformative potential for gender relations.

Another value-adding strategy involves helping farmers to move into processing and marketing, provided market outlets - and packaging facilities - can be developed. Evidence collated for this report shows, however, that NGOs all too often promote product processing in the absence of any clearly defined market. Market research is therefore a pre-requisite. Furthermore, whilst involving women in technology development is important, they may well struggle with financing even low-cost processing technologies. Affordable credit packages are needed.

Recommendations

- ❑ Interventions need to focus on market management capacity, investments in storage and processing facilities, and in distribution (including staff and infrastructure), developing market outlets, designing and implementing management systems (operational procedures), and developing organisational discipline.
- ❑ Women and men need a clear understanding of their roles and responsibilities in relation to other actors in the selected value chain in order to develop proper vertical integration. To achieve this goal, participatory value chain analyses with all actors should be conducted.
- ❑ Gender analyses need to be conducted with market research, supplemented by an understanding of local agro-ecological conditions, to obtain information on crops and livestock with the highest potential for creating efficiency and equity gains.
- ❑ A step-by-step approach is needed to build women's skills base.
- ❑ Women may be able to increase their income by capturing additional activities in a chain, for example selling snacks alongside fresh milk to workers.
- ❑ Farm insurance schemes should be introduced.

- ❑ Innovative approaches to post-harvest and storage are critical. In rural Zambia, both women and men producers tend to be price-takers because middle-men (so-called brief-case buyers) move from farm to farm collecting small quantities of produce. Good bulking facilities with low storage costs and gender-aware strategies to encourage women to join will assist them to engage in collective bargaining for a fairer price.

Buyers and Sellers

Women are highly visible in retail markets, but as a rule operate micro-businesses. They typically cross-subsidise their businesses through using the profits won in one commodity, such as groundnuts, to enable the purchase of another commodity. Women questioned for this assessment universally asserted they would like to expand their businesses, but that they lacked sufficient capital to buy in bulk, to fund trips to buy direct from the buyers, and to fund transport to other markets. Women have almost no presence in wholesale markets due to intimidation by male brokers. Intimidation and harassment is also a key constraint for women buyers attempting to cross international borders.

Women and men also have different transport needs, due to differences in mobility and in physical strength. In Zambia, women buyers, and marketeers in retail and wholesale markets, are particularly disadvantaged by the practice of transporting produce like groundnuts, millet, sweet potatoes *etc.* in huge sacks (60 kg - 120 kg). This means they either have to pay someone to move their produce, or buy in small quantities from bulk buyers.

Recommendations:

- ❑ An obvious option is to use smaller sacks and boxes. Small trucks could be provided to women's groups/ rural producer organisations to help them transport their goods on their own terms. Women buyers could be provided with cheap and safe accommodation in trading spots.
- ❑ Credit facilities are essential. Women, much more than men, lack the capital they need to expand their businesses. Innovative credit options for producers, retail marketers, and wholesalers need to be explored. There are many 'tried and tested' options.
- ❑ Women require better access to wholesale and assembly markets. One way of enabling women to market their produce is to provide them with special market areas. The allotment of shops in wholesale markets and membership in market vendor associations can significantly improve women's participation in markets. Improving wholesale markets, including ensuring clean, safe and private sanitary facilities, will provide a safe, efficient, and hygienic trading environment.
- ❑ Many women, particularly producers, sell at the farm gate due to mobility constraints (child-care responsibilities, *etc.*). One option is to train young women and men (and also older women) living in the community to offer marketing services.

CHAPTER 1. INTRODUCTION

Chapter One sets out the objectives, key concepts, and methodology of the Gender Assessment. It is structured as follows:

- 1.1. USAID Zambia Feed the Future Programme.
- 1.2. Key Issues in Gender and Agriculture.
- 1.3. Key Concepts.
- 1.4. Study Methodology.
- 1.5. Structure of the Report.

1.1. USAID Zambia Feed the Future (FTF) Programme

The overarching goal of Feed the Future (FTF) is to reduce hunger and poverty by tackling their root causes and by employing proven strategies for achieving large scale and lasting impact. Success will be measured toward this goal at the highest levels - the prevalence of poverty and underweight children - alongside other key measures of progress that contribute to this goal. The Millennium Development Goals (MDGs) represent the ultimate target for FTF.

Zambia is a potential focus country under the FTF global hunger and food security initiative. The need for support is explained by the fact that the country will not achieve MDG 1 of halving extreme poverty and hunger by 2015 if it maintains its existing growth rate (which needs to increase to a Gross Domestic Product (GDP) growth rate of 8.8% per annum). To help achieve growth on this scale, the United States Agency for International Development (USAID) has identified two key objectives that address the principal determinants of food insecurity: accelerating inclusive agriculture sector growth, and improving nutritional status. Paying attention to gender issues in programming will be fundamental to success. There is consistent and compelling evidence that when the status of women in agriculture is improved, agricultural productivity increases, poverty is reduced, and nutrition improves.

The purpose of the Gender Assessment is to identify key gender issues, gaps and constraints that need to be addressed in proposed, and existing, USAID interventions in Zambia as they support FTF programmes. In particular, this assessment focuses on how to achieve equitable value chain development [7].

1.2. Gender and Agriculture

The economic empowerment of women farmers, livestock keepers, fisher folk, processors, and traders is critical to the creation of effective and efficient agricultural programmes and policies. Decades of research demonstrate that women play a major role in food and farming in developing countries. Currently, the proportion of women in production and post-harvest processing ranges from 20% to 70% and their involvement is increasing in many countries [8]. In Zambia it is estimated that women provide up to 85% of the total smallholder labour force for agricultural production and almost all the labour for post-harvest activities [9]. It is essential to appreciate that gender is an organising principle in almost every farming system, with women and men taking on distinct responsibilities for particular tasks and particular crops within a farming system. Any intervention will be shaped by, and shape, gender relations. Its effectiveness will rely greatly on the degree to which it has acknowledged and worked with gender relations as part of a wider systemic approach to value chain development.

Paying attention to gender issues in farming can substantially increase production and profits per hectare, speed up the adoption of innovations, and raise household incomes. This is important because studies show that resources and incomes controlled by women are more likely to be used to improve family food consumption and welfare, reduce child malnutrition, and increase the overall well-being of the family, thus contributing to the achievement of the MDGs [10, 11, 12].

⁷ This section is abridged and slightly rewritten from the ToRs of this assignment.

⁸ IAASTD (2008).

⁹ USAID (2010a).

¹⁰ FAO (2006).

¹¹ Ashby *et al.* (2009).

¹² USAID (2009).

Agricultural and market development cannot neither be truly pro-poor, nor economically effective, without explicitly incorporating gender issues. Box 1.1. summarises the case for paying attention to gender in agriculture [¹³].

Box 1.1.: Women in Agriculture [¹⁴]

Women are major players in agriculture:

- ◆ Agricultural growth, a key means of poverty alleviation, relies on improving the production and productivity of women farmers since women form the majority of farmers and labourers in many countries.
- ◆ Women produce most of the food that is consumed locally and are mainly responsible for household food security in many rural areas.
- ◆ Women's income is known to impact highly upon poverty alleviation. Improving women's agricultural productivity directly helps to increase household productivity, improve rural livelihoods, and leads to wider economic growth and poverty reduction.

However,

- ◆ The productivity of women farmers is seriously constrained by their weak access to inputs, productive resources and services.
- ◆ Compared to men, women have much weaker property rights and tenure security. This restricts their membership and thus their influence in water-user associations, farmer associations, producer credit associations, and community-based natural resource management groups, which often demand secure land rights.
- ◆ Women are poorly represented in the leadership in rural organisations, particularly at regional and national level. This results in a dramatic disproportion between their huge contribution to agriculture, and their poor ability to influence policy.
- ◆ Women-owned businesses face many more constraints - including harassment and intimidation, and receive far fewer services and support than businesses owned by men.
- ◆ Due to their greater vulnerability and greater exposure to risk, women lack incentives to invest. Their access to collateral is limited by their lack of assets.
- ◆ Women entrepreneurs who succeed in establishing a profitable niche in value chains often find it expropriated by men.

1.3. Key Concepts

The thinking behind developing pro-poor, pro-women value chains is discussed followed by an articulation of the key concepts guiding this study. These are agency, access to and control over assets, and household decision-making.

1.3.1. Pro-Poor, Pro-Women Value Chains

A value chain incorporates the full range of activities that are required to bring a product or service from conception to production, delivery to consumers, and final disposal after use [¹⁵]. Gender differences are at work in the full range of activities comprising value chains. A gender approach to value chain analysis makes it possible to consider (1) the gender-based division of activities in a given value chain, (2) differential gender-based opportunities for upgrading within the chain, and (3) how gender power relations affect economic rents among actors throughout the chain.

To make value chains work for smaller, weaker actors, especially women working as farmers or in micro- and small enterprises, they must be enabled to capture a larger slice of the revenues. For this, a *distributional gains analysis* is required. This studies how gains are distributed across a chain in order to enable strategies to be devised which will push a greater percentage of the gains to the most poor and to women. Typical pro-poor, women-centred strategies that result in equity gains include encouraging women to take on new roles in value chains, for example by processing

¹³ This section is taken from Farnworth, C.R. (2010c).

¹⁴ Partly compiled from Ashby *et al.* (2010) and IFAD (2010). "

¹⁵ Kaplinsky and Morris (2002).

the primary product, or by taking on more functions in a value chain, such as aggregating and marketing. To ensure efficiency gains, it is important to pay attention to the quality of the institutional arrangements between actors in a chain. It is usually necessary to strengthen relationships between actors in order to open channels for the transfer of technology, information, and profits. Since men and women frequently pursue distinct activities in a particular value chain, building understanding between them of their respective needs and responsibilities as chain actors ensures that product quality is maintained as it passes along the chain [16].

It is important to be aware that pro-poor market-led value chain development incurs trade-offs. Strategic decisions need to be taken as to how these are to be addressed from the very beginning of the proposed intervention so that they do not handicap programme outcomes.

1. Inequality. It is self-evident that a gender and pro-poor analysis will uncover economic, organizational, and asymmetric relationships among actors in a value chain. How can more equality be achieved without causing conflict? How can equity and efficiency be balanced?
2. Control and Access. The right to access, and the ability to control, key productive resources including land, labour, tools, and information. Disputes over access and control already foster conflict between men and women farmers and will become ever more important in the face of climate change, resource degradation and population growth. How can win-win situations be created?
3. Food security. If value chains directed to external or regional markets are implemented where a large section of the population lacks access to enough food to guarantee a minimally sufficient diet, only producers of high-value cash crops may gain. Landless and near-landless people who must purchase food may suffer from its reduced availability and higher prices. If women are relatively more involved in subsistence production and men are more involved with cash crops, or if women lose their access to land as it is converted from traditional to modern cash crops, household food security may decline despite a rise in income. How can market development be balanced with food security?

1.3.2. Agency, Assets and Cooperative Conflicts

The concept of agency, defined as the ability to define one's goals and act upon them, is critical to the ability of women and men to take rational decisions in farming, as well as to wider empowerment agendas. Effective agency is closely linked to resources (or assets), for without resources it is often impossible to realize a goal. However, women worldwide have much less access to, or decision-making power over, critical productive resources such as land, machinery, or money, than do men. This is so even if the household as a whole possesses such resources. Unequal access to resources can mean less effective farming outcomes because the use value of these resources is not maximized.

As a consequence of unequal gender relations, the assets that women do control tend to have weak income generation potential, for example, small livestock and kitchen equipment, firewood and savings. Typically, assets managed by women depend on the ability to access and maintain social capital, such as merry go rounds. Poor women can be excluded from such savings clubs as marginally wealthier women fear they may default, thus harming the whole concept of mutual guarantee. Typically, assets controlled by men are high value and contribute more directly to farm productivity, such as land, education and farming technologies. The access of women to high value productive resources is generated through male kin in many cases and can be withdrawn in the event of marital breakdown or death of the husband. In such cases, some women may end up living on the very margins of society. To avoid this, they may accept being inherited as wives by kin to their husband in some countries, including Zambia.

¹⁶ This section is largely taken from Farnworth, C.R. (2008).

In order to maximize the utility of productive resources in strongly sex-segregated societies, and in so doing improve women's agency, it is necessary to disaggregate the household as an analytical unit. The work of Amartya Sen (Nobel Prize for Economics) is a valuable tool to understanding why and how households need to be 'taken apart' to understand what is happening at sub-household level.

The 'functionings' and capabilities' framework [¹⁷] challenges the view that possession of commodities alone translates into well-being for all household members, as traditionally posited by economists. Sen argues that the possession of goods does not translate automatically into well-being since possession is different from *the* ability to benefit from the characteristics of these goods. That is, it is not the possession of the commodity or the utility it provides that proxies for well-being, but *rather what the person actually succeeds in doing with that commodity and its characteristics*. For example, a 'household' may 'own' a plough, but the right to use it may be exclusively vested in the male head.

To help explain how this happens, Sen shows in his essay *Co-operative Conflicts* [¹⁸] that household gender relations profoundly affect the intra-household distribution of commodities and the ability of each gender to use particular commodities. Women and men collaborate to bring wealth into the family, but the division of wealth is a source of conflict. In many cases, wealth is not divided according to the share brought in by each household member. Rather, division is determined by relative power. In most cases, men hold more power than women and thus wield more control over assets and expenditure.

Following Sen's analysis, there are two basic ways of increasing women's access to, and control over, assets. One is to place assets under the direct control of women. The second is to find ways of moderating 'cooperative conflicts' in order to strengthen women's agency in household decision-making.

1.4. Study Methodology

The study comprised a literature review, quantitative and qualitative data analysis, key informant interviews, and fieldwork. The literature review and quantitative analysis surveyed documentation on Zambia's development plans, its agricultural sector and from thence gender constraints and opportunities within the sector. Gender issues in relation to seven commodities: maize, cassava, vegetables, groundnuts, sweet potatoes, poultry, and livestock, were identified. The main source of quantitative data was the Third Supplemental Survey to the 1999/2000 Post Harvest Survey (PHS) conducted by the Central Statistical Office (CSO), Ministry of Agriculture and Cooperatives (MACO) and the Food Security Research Project (FSRP) in 2008 [¹⁹]. The Third Supplemental Survey was conducted across the whole country in the same sample areas used in the first and second Supplemental Surveys in 2001 and 2004 respectively. The Survey covered all the respondents who were interviewed during the 2001 and 2004 Supplemental Surveys. In accordance with all nation-wide surveys, a sample of 407 Standard Enumeration Areas (SEAs) was drawn using a probability proportional to size sampling scheme. The measure of size of the SEAs is the number of households located within each SEA on the area sampling frame as per the 1990 Census of Population. Each sampled SEA had its households listed and a sample of twenty (20) households were selected from the small and medium scale categories which were canvassed for the first Supplemental Survey in 2001, and the second Supplemental Survey in 2004. Those households that could not be re-visited were replaced by other randomly selected households of the same category so that 20 households are interviewed in each SEA for this survey. The main limitation of this survey for this assessment was that data was only disaggregated by gender at the household headship level, apart from a few off-farm income generating activities for which data was disaggregated at the household membership level.

¹⁷ Sen (1998).

¹⁸ Sen (1990).

¹⁹ This is the latest rural survey covering agricultural production and productivity as well as livelihood issues in Zambia. The PHS mostly corrects actual crop harvest figures while the Crop Forecast Survey (CFS) conducted annually estimates crop production and is a major input in the national food balance sheet

An in-depth understanding of one chain, groundnuts, was obtained through fieldwork in Northern Province, Mpika District. Value chain actors at different tiers of the Ministry of Agriculture, business associations and non-governmental organisations (NGOs) were interviewed. This work was completed by in-depth discussions with participants along the value chain, from producers, various kinds of buyer, and sellers. An understanding of input suppliers and the potential for groundnut processing (since it does not exist in the area) was gained through key informant interviews with organisations involved in different segments of the value chain.

To help structure the key informant interviews, the study of the selected commodities, and the fieldwork, the investigative approach developed by the Greater Access to Trade Expansion (GATE) Project, was utilised. This is set out in its handbook, *Promoting Gender Equitable Opportunities in Agricultural Value Chains: a handbook*. In particular, the study team adopted the concept of 'Gender-based Constraints'. These refer to restrictions on men's and women's access to resources or opportunities which arise as a consequence of their gender. The term encompasses both the measurable inequalities revealed through gender analysis, and the processes that contribute to a specific condition of gender inequality [²⁰]. For the fieldwork, the team adapted the questionnaires developed by the GATE Project.

1.5. Report Structure

Chapter 2 provides a Situational Overview. Chapter 3 considers overarching constraints to equity in Zambia's agricultural sector. Chapter 4 scrutinises gender issues in six selected commodity chains and considers how to address the gender-based constraints specific to each commodity. Chapter 5 presents the fieldwork element of the study, which focused on the groundnut chain in Northern Province.

²⁰ USAID (2010b).

CHAPTER 2: SITUATIONAL OVERVIEW

Zambia is a multi-ethnic nation with 73 ethnic groups. Its constitution permits a dual legal customary and statutory law system. The multiplicity of ethnic origin and the use of two, sometimes contradictory, legal systems in one country impact significantly upon the ways in which women and men access and control productive assets, and their ability to derive benefits from their work. Although men and women are both involved in agricultural activities in Zambia, evidence presented below demonstrates that women are generally discriminated against in terms of control over productive resources and in decision making, particularly with regard to expenditure decisions and the sale of assets [²¹].

However, socio-cultural norms that predate the colonial period are still extant today, though in debased form. Some of these favour women. The potential exists for gender-sensitive value chain interventions to build upon these to re-strengthen the position of women in agricultural value chains.

This chapter commences with an agro-ecological overview, since the conditions prevailing in any one area will impact upon overall farm productivity and the potential of value chains. A gender profile is then provided along with a discussion on the differences between male and female-headed households in terms of access to, and control over, assets and from thence, their ability to participate actively in value chain interventions. The final section examines the potential of gender mapping to help provide a deeper understanding of farm management systems across the country.

2.1. Agro-ecological Overview

In Zambia there are three major agro-ecological zones [²²]. **Zone I** is a low-rainfall area in the southern portion of the Southern and Western Provinces. It primarily borders Zimbabwe and is one of Zambia's hottest, driest and poorest regions. It includes the valleys of the Zambezi and Luangwa rivers, where soils are sandy and fertility is poor. Zone 1 also includes a major game management area, Luangwa Valley, where farming households attempt to coexist with wildlife. Maize, sorghum, groundnuts, sunflowers and cowpeas are cultivated, and the fishing industry (though now in decline) has drawn many to the area. Mats and baskets are made from reeds and sold to traders who visit the area for this purpose. This zone constitutes about 12% of Zambia's land area.

Zone II is a medium-rainfall belt running east-west through the centre of the country on the plateau of the Central, Lusaka, Southern and Eastern Provinces. It is an area with relatively good soils and receives more rainfall than Zone I. It has the most favourable agro-ecological conditions in terms of rainfall, soil quality, and absence of tsetse fly. There is also ample irrigation potential. This allows for a diverse mix of crop and livestock enterprises. Because of its proximity to Lusaka and other urban centres, better road networks and a railway line that runs across it, Zone II has received more assistance than other regions from government, NGOs and donor organizations. It is the geographic focus of outgrower schemes and conservation farming. Maize is the staple crop, but a wide variety of other crops are grown; including beans, groundnuts, sorghum, cassava, millet, sweet potato, sunflower, cotton, rice, tobacco, paprika along with vegetables (e.g. cabbage, rape, tomatoes and onions) and fruits (e.g., bananas, citrus fruits and guavas). This zone constitutes about 42% of Zambia's land area. It is important to note that within Zone II there is a low-rainfall area in the western part of the country that corresponds mostly to central/northern parts of Western Province (which is commonly referred to **Zone IIB** and the rest of the zone as **Zone IIA**). Zone IIB is differentiated from the rest of Zone II by lower rainfall and sandier soils, poorer road and market infrastructure, and a higher risk of droughts. The staple crops grown include sorghum and millet along with cassava, with some maize also being grown. This drought-prone area is suited to extensive livestock production, cashew nuts, and timber.

Zone III is a high-rainfall area in the north of the country in Copperbelt, Luapula, Northern and North-western Provinces. It includes the mines of the Copperbelt area, which is relatively

²¹ Orłowski *et al.* (2010) ; Sebstad and Kriroshlykova (2009).

²² Siegel (2008).

urbanized and was once a source of prosperity for the nation. The decline of the copper industry has caused high levels of unemployment in this area. However, there are some new mines in North-western Province - Lumwana mine is one of the largest mines in Africa - that are attracting people to the province, thus creating a good market for food products. Zone III contains major river systems, such as the Luapula and Mansa rivers, as well as numerous lakes. The major crops produced are cassava, maize, groundnuts, millet, sorghum, beans and sweet potatoes. Small-scale fishing and fish-trading is a further source of income. Due to the abundance of water in this area, there is potential for irrigation and for fishing. This zone constitutes about 46% of Zambia's land area.

2.2. Zambia Gender Profile

In 2007, Zambia's total population was 12.2 million with women constituting 51% [23]. The majority of the population, 65%, lives in rural areas. In terms of population composition by age, 46% of Zambia's total population is under 15 years of age. Gender-related demographic characteristics include high fertility rates (5.9 rural and 4.3 urban), high maternal mortality rates (591 per 100,000), high infant mortality rates (119 per 1,000 live births), and high HIV/AIDS prevalence at 14.3% [24].

Rural poverty in Zambia is estimated to be 80% [25], with 68% of total population living below the national poverty line. There is a tendency towards the feminisation of poverty: 60.4% of households below the national poverty line are headed by women, compared with 51.5% headed by men [26]. Low levels of education among women, their small share of formal employment, and high HIV/AIDS prevalence have been identified as the major factors contributing to higher poverty levels among female-headed households. There are differences and inequalities with respect to coping strategies adopted by female-headed and male-headed households. For example, piecework on farms is followed by 42% of female-headed households as opposed to 36% of male-headed households. Among those who only eat wild fruits, female-headed households number 25% and male-headed households 19% [27].

Malnutrition is endemic, with 45% of children under age five stunted and 21% severely stunted [28]. Women and children (particularly girls) may eat less nutritious food (particularly protein), and less overall, than men even in wealthier households. In Zambia, men usually eat first, followed by women, and then by children. At the same time, wild foods hold some potential for alleviating nutritional deficiencies. For instance, caterpillars are widely collected in the summer months, fetching high prices. The balance between the numbers sold, and retained for household consumption, is not known by the authors of this study.

2.2.1. Patterns of Marriage and Rules of Residence

In Zambia, patterns of social organisation and rules of residence during marriage in a particular society still influence how women and men relate to each other. Each society is broadly distinguished by a normative set of rules of access, control and ownership of resources/assets and benefits [29]. It is instructive to examine these normative rules before considering the impact of colonialism and the post-colonial state upon them. In particular, the ways in which these normative rules can be contested, or appealed to, in pursuit of gender equity in agricultural value chain development is of interest.

Before colonialism, industrialization, urbanisation, improvements in transport, migration, communication and intermarriage, people in Zambia lived in specific geographic areas according to tribal affinity without much connectedness or interaction. They followed distinctive gender ideologies and cultural practices. Whilst these original societies have changed hugely, distinctive patterns of marriage and residence still pertain [30]. Zambian citizens today broadly follow three forms of marriage and three rules of residence during marriage. Couples can contract marriage

²³ CSO (2003) and ZDHS (2007). Cited in Munachonga and Akamandisa (2010).

²⁴ ZDHS (2007).

²⁵ Zambia: What are the Constraints to Inclusive Growth in Zambia? Report No. 44286-ZM. Cited in USAID (2010a).

²⁶ FNDP 2006-2010. Cited in Munachonga and Akamandisa (2010).

²⁷ This paragraph is taken almost unabridged from Munachonga and Akamandisa (2010).

²⁸ Cited in USAID (2010a).

²⁹ Chilivumbo and Kanyengwa (no date) and Keller (1984). Cited in Sutherland (1985).

³⁰ Sutherland (1985).

under customary law, statutory law or Christian teaching. Variations in socio-cultural power relations among couples can be partly ascribed to each of these forms of marriage. Customary marriages are commonly practised by rural Zambians and among economically disadvantaged urban residents.

The rules of residence are: matrilocal or uxurilocal (where the man moves to live in his wife's village), patrilocal or virilocal (where the man pays *lobola* - bride price - and brings the woman to live with him at his village, and neo local (where the couples live as immigrants in a community away from their home villages). Power relations between the wife and husband are influenced by who has his/her kinship close to their matrimonial home. Uxurilocal /matrilocal residence is associated with greater female autonomy and greater submission of younger male-headed households to older female-headed households than is the case with virilocal residence, where married women and female-headed households are subject to male authority. In neolocal residences couples are freer to negotiate their socio-cultural relations [³¹,³²].

Until very recently, men had to provide 'bride service' when contracting marriage in matrilineal, matrilocal societies. Bride service meant that a young man had to work for his in-laws for up to three years before he could take his wife to his home. In some cases he opted to live at the wife's home for life. Today, these cultural norms are being eroded. In Luapula Province, for example, bride service is being replaced by bride price. Research shows that women originating from matrilineal societies experience considerably less decision-making power and control over productive assets when they are taken to their husbands' homes, since they can no longer rely on their own kinship networks to enable their access rights [³³].

2.2.2. Household Headship

Around three-quarters of households [³⁴] are headed by men, though the percentage varies strongly across the country. The proportion of female-headed households has increased over time, from 17% in 1985 to 23% in 2007. Factors contributing to this include an increase in male deaths due to HIV and AIDS. The incidence of female-headed households is higher in rural areas, averaging 25% [³⁵], in part because families relocate or migrate from urban to rural areas due to the loss of male bread winners or loss of jobs. Three types of female-headed households can be distinguished: (a) *de jure* female-headed households, which are headed by widowed, divorced and single women, (b) *de facto* female-headed households, which are headed by married women whose husbands are temporarily away for wage employment, and (c) *autonomous polygamous* female-headed households, which are headed by women in polygamous marriages with the husband rotating between households. In this case women live autonomously, working, cooking and eating separately from each other. In most cases the husband is unable to provide adequate economic support. Such women are listed as beneficiaries of the Ministry of Community Development and Social Services (MCDSS) on the social qualifier criteria [³⁶]. All these households exhibit specific patterns of control and ownership of agricultural assets/resources and benefits by women and men. They face varying degrees of social, cultural and economic opportunities and constraints. In some areas, women exhibit high levels of control and decision-making. However, it is generally true to say that women's agency across the country has been undermined through the actions of the colonial and post-colonial state, which recognise men as heads of household, whereas women are considered farmer's wives [³⁷].

Despite variations between ethnic groups, the gender of the head of the household has significant implications with respect to the ability of women to participate in, manage, and benefit from, agricultural activities. Simply expressed, women in male-headed households typically access,

³¹ Sutherland (1985).

³² Farnworth and Munachonga (2010).

³³ Sutherland (1985).

³⁴ A household consists of a group of persons related by blood, marriage, or adoption, including other persons, such as house-help or farm labourers, if any, who normally live together in one house or closely related premises and take their meals from the same kitchen. This group of persons looks to one person whom they regard as the head of the household. If a polygamous family makes common provision for food and share production resources e.g., land, equipment, labour, all the family members will be considered as belonging to one household. If each wife cooks and eats with her children separately, each wife and children constitute an individual household. A Polygamous husband is considered a member at the home of the first wife (CSO, enumerator training manuals).

³⁵ ZDHS 2007:14. Cited in Munachonga and Akamandisa (2010).

³⁶ Munachonga and Akamandisa (2010).

³⁷ World Bank (2004).

though do not control, important productive assets by virtue of their relationship to their husband. They may not be able to determine how to apply their labour, typically being directed to work on the man's fields in the morning and their own fields in the afternoon. External agencies may find such women hard to reach since such households are generally represented by the male household head in financial transactions, training sessions, and in community level decision-making bodies. Yet their work may be critical to the livelihood of the entire household, since rural women in Zambia conduct the majority of agricultural tasks (estimated at 70-80%). Compared to female-headed households, however, women in male-headed households may consider themselves to be better off. For example, a woman in a male-headed household with oxen is more likely to plough her groundnut fields on time, whereas women in female-headed households may lack monies to hire animal draft power. In this case she will be forced to hoe and may plant late.

Female-headed households lack the male kinship networks necessary to access significant productive assets and thus tend to be significantly poorer [³⁸]. At the same time, their agency - the ability to take decisions and act upon them, is higher than that of women in male-headed households. External agencies are likely to find women in female-headed households easier to identify and target, but their lack of productive assets often make them an unappealing group to work with. Furthermore, female-headed households find it particularly difficult to finance farm improvements since they lack sufficient assets to offer as collateral.

Box 2.1. provides data on female headship on smallholder farms in Zambia, demonstrating wide variance.

Box 2.1.: Female headship on Smallholder Farms in Zambia [³⁹]

- Out of the 1.6 million smallholder farm households in Zambia, 23.5% are female headed with the highest proportion of female headed households being in Western Province (29.6%) followed by North-western (25.1%), Eastern (23.9%), Central (23.7%), Northern (23.0%), Luapula (22.9%), Copperbelt (21.4%), Southern (19.8%) and lastly Lusaka (19.1%).
- Fifty nine percent of these female household heads are widowed, the highest being 75% in Lusaka and the lowest in North-western and Western Province (46.4% and 46.7% respectively). In Southern 55.2% of female-headed households are widowed. The value ranges from 60% to 68% for the remaining provinces. The incidence of widowed households appears to be related to HIV prevalence [⁴⁰] as is shown in Figure 2.1.
- Nineteen percent of female-headed small-holder farm households are divorced. North-western has the highest incidence of divorced female household heads (31.5%) followed by Western (24.3%), Luapula (24.1%), Central (21.8%), Eastern (18.8%), Lusaka (14.8%), Southern (14.3%), Copperbelt (11.3%) and Northern (10.9%).
- Women in polygamous marriages account for 6.7% of female household heads, with the highest being in Southern (16.8%), Eastern (11.5%) and Western (9.1%) and the remaining provinces having less than 3%.
- Women household heads who have not been married account for 3.9%. The rate is highest in Western (10.6%) followed by North-western (5.9%) and Southern (5.6%) with the remaining provinces having a rate of less than 5%.

2.2.3. Women's Legal Position and Means of Inheritance

The principle of gender equality is not addressed effectively in the Republican Constitution. This is due to contradictions inherent in the Constitution. For example, whilst Article 11 prohibits discrimination on the basis of sex, Article 23(4) negates this provision by allowing the application of customary law - which is grounded in patriarchal norms and values, in matters of personal law.

³⁸ ZDHS Report (2007) states 'female headed households are typically poorer than male headed households.'

³⁹ CSO/MACO/FSRP Third Supplemental Survey to the 1999/2000 PHS. Gender disaggregated data in agricultural value chains in Zambia is not readily available. The best available data is disaggregated based on the sex of the household head. In examining gender characteristics of staple food value chains in Zambia, this assessment uses data from SS08. This is disaggregated by sex of the household head, and to a limited extent contains data disaggregated by sex of household members.

⁴⁰ Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. (2009). Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and Macro International Inc.

Consequently, there are gender biases against women in certain laws including marriage laws, land law, and the Intestate Succession Act. Box 2.2. summarises Zambian laws on inheritance.

Box 2.2.: Laws on Inheritance

Zambian customary laws recognise three forms of inheritance:
Matrilineal: inheritance traced through the female line.
Patrilineal: inheritance traced through the male line.
Bilineal: inheritance traced through both female and male line.
Zambia also offers two statutory laws:
Wills & Administration of Testate Estates Act: inheritance through the Will of the deceased person
Intestate Succession Act (Number 5, 1989): to dispose of the effects of people who die without leaving a Will.

Under customary law, which is more widely understood and applied among Zambians than statutory law, spouses do not own property jointly. This results in difficulties and tensions with respect to clearly distinguishing between the property of a husband and wife. This is even more so the case in the cash economy whereby it is common for both spouses to be working, earning cash income, and contributing towards purchasing of household property. Laws and regulations are not gender-neutral. For instance, the Intestate Succession Act Cap. 59, which accommodates both customary and statutory laws, recognizes marriage as either ‘monogamous’ or ‘polygamous’. The percentages for distribution are 50% to children (including children born outside marriage), 20% to widow/widows, 20% to parents, and 10% to dependents. In the case of polygamous marriage, the entitlement of the widows is not enlarged which means several widows have to share 20% of their deceased husband’s estate. In general, in Zambia, household property is regarded as belonging to the husband, which contributes to the practice of property grabbing from widows and children, leaving them destitute in many cases [41].

2.2.4. Gender-based Violence

Gender-based violence is defined as any act of gender-based violence that results in physical, sexual or psychological harm or suffering - including threats of such acts, in public or private life. Violence occurs at three levels, the family, the community and the state. These three levels are mutually reinforcing [42]. Women are more commonly victims of gender-based violence both within and outside the home than men, though boys and men can suffer significant gender-based violence. A PLAN study [43] demonstrated that gender-based violence increases following harvest in farming households: *‘In all the sites wife battery was the most prevalent form of gender-based violence suffered by women. It was linked to poverty and to access to, and control over, resources. Women reported that they worked with men on the land and often times more than the men; however when harvest time came then the man would exclude the woman in the money raised from the harvest.’* As a consequence disputes become heated and significant levels of female battery result. Female traders in Mpika reported to the study team that local women ‘attract’ male traders to get their money, thus reducing the monies they have to invest and grow their businesses (and presumably contribute to household finances).

In cultures where lobola (bride price) is paid this is considered a payment for the wife’s services and thus control over her earnings. Over time lobola has increased significantly in terms of the amount paid. Anecdotal evidence suggests that in such cultures, lobola can perpetuate the subordination of women to men and potentially increases the risk of gender-based violence, particularly when meeting household needs is a challenge. Problems can also arise in intermarriages between people from different cultures as a consequence of discrepancies between the varied expectations of partners.

2.2.5. HIV and AIDS

HIV and AIDS is a critical public health and socio-economic challenge, with HIV prevalence rates higher among women than men. Factors contributing to the rapid spread of HIV infection in Zambia include women’s economic dependence on men and socio-cultural values and norms that promote male dominance and female subordination in matters to do with sexuality, and polygamy. Male infidelity is actually encouraged by some local sayings, whereas female infidelity

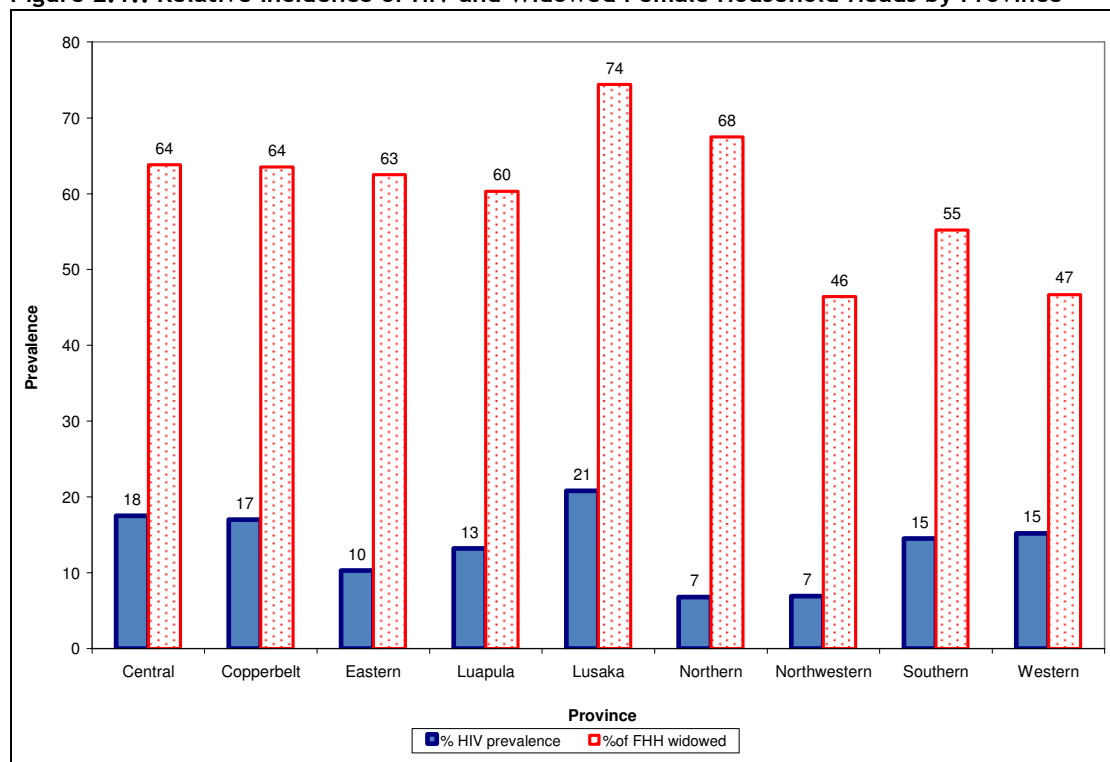
⁴¹ Munachonga and Akamandisa (2010).

⁴² According to the United Nations Declaration on Violence Against Women, cited in PLAN (2005).

⁴³ PLAN (2005).

is not [44]. Traders of agricultural produce frequently spend many days away from home and this predisposes some to extra marital relationships and multiple concurrent partners. When producers of agricultural crops have sold their products, especially men in polygamous societies, there is a tendency to take extra wives for farm labour and enhancement in status. Figure 2.1. demonstrates associations between HIV and widowed female-headed households by province.

Figure 2.1.: Relative Incidence of HIV and Widowed Female Household Heads by Province



Source: CSO/MACO/FSRP Third Supplemental Survey, 2008

The loss of household labour and their associated agricultural know-how results in reduced agricultural production and a shift to survival foods. The care burden of tending the sick and looking after orphans typically falls to women which can severely limit agricultural production in both male and female-headed households. In remote areas, where many farming households live, facilities providing retroviral treatments are lacking, leading to increased and unnecessary loss of life. Furthermore, HIV/AIDS diminishes investment in agriculture since monies are spent on medical bills, funerals and on food purchases. Household assets are stripped in distress sales occasioned by the need to pay for AIDS-related expenses, and as a result of property grabbing by relatives after the death of a spouse from AIDS. Widows are particularly vulnerable to property grabbing, losing land, livestock, equipment and the loss of access to credit and productive inputs which were previously facilitated by their husbands.

Together, these factors deepen food insecurity. At the same time, food insecurity and hunger accelerate the spread of the virus and the course of the disease. Hungry people adopt risky strategies to survive. Women and girls barter sex for money and food, exposing themselves to the risk of infection. For people who are already infected with HIV, hunger and malnutrition increase susceptibility to opportunistic infections, leading to an earlier onset of full-blown AIDS [45, 46, 47].

2.3. Gender Mapping of Farming Systems in Zambia

⁴⁴ PLAN (2005).

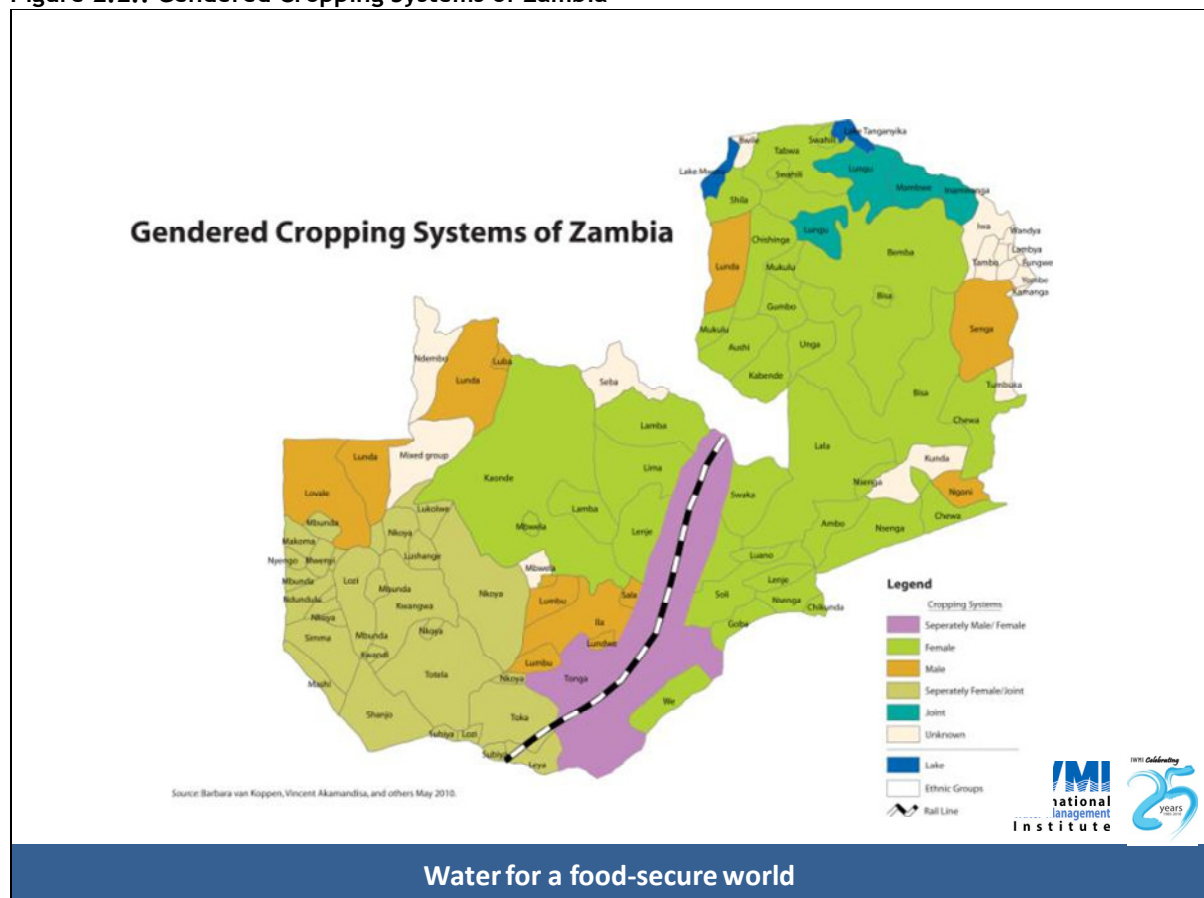
⁴⁵ Farnworth (2010c).

⁴⁶ Hichaambwa *et al.* (2004). HIV/AIDS, Rural Livelihoods and Gender Inequality: The Impact of HIV/AIDS on rural Households, Northern Province, Zambia. FAO/DCI/GRZ Improving Rural Livelihoods of HIV/AIDS Affected Households in Northern Province, Zambia (ILOHAH-NP). GCP/ZAM/019/IRE

⁴⁷ PLAN (2005).

In order to better understand the gendered organization of smallholder farming and to design effective gender-equitable intervention strategies for agricultural value chains, 'gender mapping' is useful. The International Water Management Institute (IWMI) has commenced work on a gender mapping for Zambia. The process begins with conceptualising the farm household as a bargaining unit. According to this, a farm household consists of various production sub-units, managed by an adult household member. Whilst there can be intricate interactions between the spouses, children and other household members, final decision-making about both the production process of the production sub-units, and the output and income from that sub-unit, typically lies with one adult [48]. However, one does not need to be the household head to manage a production sub-unit. Similarly, a production manager needs use rights to land, not necessarily primary land titles. The nature of land rights will influence farm decision-making, though the relationship is complex with about 94% of land held under customary tenure systems. Figure 2.2. depicts the gender map drafted by IWMI [49] earlier this year.

Figure 2.2.: Gendered Cropping Systems of Zambia



To conduct a gender mapping in a particular area, all production sub-units are considered, combining food and cash crops and irrespective of scale. The cut-off point is somewhat arbitrary, and can be further defined, for example, as 25 - 30 percent of the total production units. The classification becomes more accurate if it is specified for one component or value chain, e.g. cropping, irrigated agriculture, livestock, wetland cultivation, etc. The maps for those different components will differ. Box 2.3. defines production units by gender.

Box 2.3.: Male Managed and Female Managed Production Sub-Units

In male-headed monogamous and polygamous households, it is possible to distinguish male-managed production sub-units. These may function with significant labour input by wives, but the wife/wives generally have little say over the production processes applied, or use of the produce.

⁴⁸ Safilio (1988); Quisumbing (1996).

⁴⁹ Drafted by Dr. B. Van Koppen of International Water Management Institute, V. M. Akamandisa and others. Still in the process of validation.

Within this system, women may manage specific production sub-units, meaning they have access to their own fields and can plant crops like groundnuts, sweet potatoes, vegetables and maize.

Production sub-units are necessarily female managed in *de jure* female-headed households (widows, divorced, and single women), *de facto* female-headed households (in which the male members are absent, or are disabled), autonomous polygamous households (a man has several wives and either rotates to their household/ they take turns to sleep in his house) which are generally not economically supported by the man.

The farming system in a particular area is called a ***male farming system*** if most production sub-units (irrespective of scale) are male-managed. In a ***female farming system***, the majority of farm decision-makers are women, both in male-headed households and in female-headed households. In a ***separate male/female farming systems*** (or 'mixed' farming system), neither gender dominates as farm decision-makers.

CHAPTER 3. ANALYSIS OF CONSTRAINTS TO GENDER EQUITY IN ZAMBIA'S AGRICULTURAL SECTOR

Although agriculture has the potential to lift people out of poverty, support to the agricultural sector in general, and to women in agriculture in particular, has suffered from years of under-investment. In Sub-Saharan Africa for instance, overseas development assistance to agriculture amounts to only 4% of total spending, and public spending on agriculture averages 5-7% [⁵⁰]. In Zambia, spending on agriculture is currently at 6.8% of its national budget; under its draft Comprehensive Africa Agriculture Development Plan (CAADP) Compact, the government has agreed to increase spending to the 10% CAADP target within four years [⁵¹]. Despite the Government's commitments, much remains to be achieved. According to the Zambia Feed the Future FY 2010 Implementation Plan, *'rural Zambian households face physical, policy and regulatory barriers that limit trade and impede market access. Until recently, market options were limited and real-time price discovery was non-existent. Upgrading farming systems to enhance productivity and increase production requires access to expensive inputs (labour, finance, seeds, fertilizers and chemicals). The added costs represent a significant risk for small farmers whose options have always been limited to inefficient markets characterised by high transaction costs and opaque price discovery. Without trust in markets, farmers routinely decide to limit production and price risks by adhering to low-input, low-output and low-risk production models.'* This is the wider policy context that needs to be addressed if gender interventions are to make sense.

Part 1 of this chapter commences with an assessment of the gender sensitivity of three key policy documents relevant to the agricultural sector. Part 2 examines the functioning of agricultural markets through a gender lens. Part 3 considers whether agricultural research and extension meets gender agendas. Part 4 provides evidence that agricultural stakeholder organisations generally lack sufficient awareness of gender issues in agriculture, but outlines the experiences of two programmes that have directly improved the position of women (and men) in agriculture.

3.1 Gender Policy Review

Although the Government of Zambia officially endorses gender mainstreaming as a methodology to address gender inequalities, good intentions have not been followed through in practice due to a lack of institutional and human capacity, and interest, in gender. Furthermore, although Zambia has ratified relevant international conventions/instruments including the Committee on the Elimination of Discrimination Against Women (CEDAW, 1979) - the first international instrument to define discrimination against women, these conventions/instruments have not been domesticated.

This section briefly surveys three policies relevant to gender mainstreaming in agriculture: the National Gender Policy (2000), the National Agricultural Policy (2004), and the Fifth National Development Plan (2006-2010). It concludes with an assessment of the effectiveness of the Ministry of Agriculture and Cooperatives in translating gender policies into practice.

3.1.1. National Gender Policy (2000)

The National Gender Policy (NGP) is executed by Cabinet Office through Gender In Development Division (GIDD), and reflects the national vision stated in part as *'attainment of gender equality and equity'*. The policy advocates increased participation of women in the market economy, as well as the promotion of shared roles and responsibilities through influencing change in patterns of socialization and the gender division of labour. However, to date the NGP has not been widely circulated and publicized, or understood even within line ministries. Many ministries have not incorporated gender into their sectoral policies. The *Programme of Action* for implementing the

⁵⁰ IFPRI (2009). Public Spending for Agriculture in Africa: Trends and Composition. By Shenggen Fan, Babatunde Omilola, Melissa Lambert. ReSAKSS Working Paper No. 28. Regional Strategic Analysis and Knowledge Support System (ReSAKSS) IFPRI, Washington. Please refer to this paper for a detailed breakdown of spending by country since it varies widely. Only eight countries have surpassed the CAADP target of 10%.

⁵¹ USAID (2010a).

NGP through capacity building for mainstreaming gender issues was prepared by GIDD in 2004, but has not yet been implemented [⁵²].

3.1.2. National Agricultural Policy (2004)

Executed by MACO, the objectives of the National Agricultural Policy are to: improve household and national food security, promote better use of natural resources, generate income and employment, and increase export earnings in order to contribute to the balance of payments. It incorporates an affirmative action strategy for improving the economic status of women who predominate as small-scale farmers, for example by ensuring gender equity in access to agricultural services. However, in actual implementation, the strategy is weakened by low levels of gender knowledge and practical skills among staff at both Headquarters and at field level. This is worsened by the lack of technical backstopping from the national machinery GIDD, due to understaffing and inadequate funding [⁵³]. Moreover, the economic empowerment of women is undermined by the dual land tenure system under which rural women farmers lack rights of ownership and control over land on which they work, as well as women's lack of finances to acquire title to land and to develop land within 18 months as stipulated under the Land Act of 1995. Most of the means by which women can access land held under customary tenure, such as marriage, inheritance from parents, from the headman, borrowing, etc. do not guarantee permanent use rights [⁵⁴].

3.1.3. Fifth (2006-2010) and Sixth (2011-2015) National Development Plans

The Government's vision for the agricultural sector as expounded in the Fifth National Development Plan (FNDP) is an efficient, competitive and sustainable sector that assures food security and increased income by 2010. The goal is to promote increased and sustainable agricultural production, productivity and competitiveness in order to ensure food security, income generation, the creation of employment opportunities and reduction in poverty levels. Food crops such as maize, cassava, sorghum, millet, sweet potatoes, beans, wheat and groundnuts, and indigenous fruits and vegetables are targeted for increased production and productivity [⁵⁵]. The same vision inspires the draft Sixth National Development Plan 2011 - 2015 (SNDP), whilst the goal is modified slightly to increase and diversify agriculture production and productivity so as to raise the share of its contribution to 20% of GDP by the end of 2015.

The FNDP recognizes gender as a critical cross cutting issue and thus contains a separate chapter on gender and development with gender-sensitive goals and gender-disaggregated demographic statistics. However, generally, gender mainstreaming in sector policies is not systematic thereby creating difficulties at the implementation stage. For example, while fifteen out of a total of 29 social and economic sectors contained in the FNDP include gender as a cross cutting issue, 14 sectors in the Plan do not. Furthermore, the monitoring and evaluation framework for the FNDP lacks gender-sensitive indicators, making it impossible to track and measure outcomes, or to hold individuals and institutions accountable [⁵⁶].

The draft SNDP points out that Government will focus on enhancing gender-responsive programming and budgeting in Agriculture, Commerce, Trade and Industry, Energy, Governance and Social Protection. The Government undertakes to create an enabling environment which encourages civil society organisations, the private sector and cooperating partners in implementation of the gender mainstreaming strategy. In order to hasten empowerment of women, attention will be paid to interventions in agriculture, land, energy, commerce, trade and industry, education and training, governance, social protection sectors and HIV and AIDS. Coordination of policy formulation and monitoring and evaluation of programmes as set out in the sectors is the responsibility of GIDD. It is further pointed out that the Gender Sector Advisory Group (G-SAG) will play an important role in ensuring the effective and efficient implementation and monitoring of the SNDP. The G-SAG shall review the implementation of the plan and provide guidance as required every quarter. In addition, the Gender Consultative Forum shall ensure that policies and programmes being implemented are gender responsive.

⁵² This paragraph is taken almost unabridged from Munachonga and Akamandisa (2010).

⁵³ Farnworth and Munachonga (2010).

⁵⁴ This paragraph is taken almost unabridged from Munachonga and Akamandisa (2010).

⁵⁵ GRZ (2006).

⁵⁶ This paragraph is taken almost unabridged from Munachonga and Akamandisa (2010).

At the level of the line ministries, the Gender Focal Points through the Gender committees in Ministries, Provincial Development Coordinating Committees (PDCCs) and District Development Coordinating Committees (DDCCs) will be responsible for coordinating, implementing, monitoring and evaluating gender programmes in relation to Key Performance Indicators on gender in relation to their specific mandates. The Gender Focal Point and Gender Committees will report to the G-SAG. The National Parliament through the Parliamentary Committee on Legal Affairs, Human Rights, Governance and Gender Matters will be responsible for ensuring that the executive, judiciary and other key actors implement the commitments on gender and development.

3.1.4. Gender Mainstreaming in the Ministry of Agriculture and Cooperatives (MACO)

The Ministry of Agriculture and Cooperatives appears to lack commitment to tackling gender inequalities in agriculture despite policy pronouncements. For example, there is no dedicated budget line for spending on gender mainstreaming. MACO has not reported to GIDD for over four years. Furthermore, decision-makers and implementers exhibit low levels of gender knowledge and skill, despite the fact that MACO has its own Gender Mainstreaming Manual, Gender Training Programme, and a Gender Training Kit developed in 1999 with support from United Nations Development Programme (UNDP) [57]. Moreover, staff turnover is high, resulting in the leakage of any expertise created through gender training initiatives. Its gender focal points (GFP) are organizationally isolated and cannot participate in, or influence, key decision-making processes. No GFPs in MACO act as full-time gender specialists; rather responsibility for gender is added to their job description. Finally, little sex-disaggregated data is collected and analysed. This makes it difficult to make the case for gender mainstreaming and to develop targeted investment packages [58].

3.2. Agricultural Markets

Apart from a few commercial farms and outgrower schemes, the vast potential of Zambian agriculture is not realised. This is partly due to a failure to recognise and exploit market trends, and also due to government policies which favour maize. Low population density and weak infrastructure play a role in creating thin markets. The gendered implications of poor assessment of market trends, and policies favouring maize, are summarised here.

3.2.1. Market Trends and Challenges

The structure, organization, and dynamics of domestic food markets are changing rapidly in Southern Africa. In Zambia, urban demand for ‘traditional crops’, such as leafy vegetables and cassava, is increasing alongside demand for novel products. Whilst Zambian women are still largely responsible for selling and marketing crops such as sorghum, cassava, groundnuts and leafy vegetables in local retail markets, the experience of nearby countries is that women can lose control over processing and marketing when demand and profits increase. In Kenya, for instance, strong demand for leafy vegetables (traditionally a women’s crop) in urban markets caused men to take over their cultivation [59]. Box 1.3. outlines further market trends and the challenges they pose to sustainable agricultural systems.

Box 3.1.: Market Trends and Challenges

Dietary patterns are changing rapidly in many developing countries in response to increased incomes, urbanization, and government policy. Shifting dietary patterns in urban areas provide opportunities for increased production in rural areas, effective market linkages permitting. Urbanization in low-income countries like Zambia is intensifying the pressure on food production, marketing, and processing systems. Rapidly growing demand for meat products has heightened demand for cereals to feed livestock. The increasing opportunity cost of women's time, changes in food preferences caused by changing lifestyles, and changes in relative prices associated with rural-urban migration are leading to more diversified diets. Cultural preferences for basic staple cereals (sorghum, millet, and maize) is shifting to others (rice, wheat) that require less preparation, and to milk and livestock products, fruits, vegetables, and processed food [60].

⁵⁷ Munachonga and Akamandisa (2010).

⁵⁸ Farnworth, C.R. (2010a), and Farnworth and Munachonga, M. (2010).

⁵⁹ Shiundu and Oniang’o (2007).

⁶⁰ Pinstrip-Andersen *et al.* (1997).

Zambian agriculture is largely rainfed and precipitation is highly variable. Projections of future rainfall patterns in Zambia indicate that climate change will enhance the negative effects of existing climate variability [61]. This will further affect current agricultural uses of land and water and the availability of some food crops. The Zambian government's wish to encourage 99 year leases of prime agricultural land will have multiple impacts on smallholder livelihoods and the competitiveness of the sector.

It is critical to address and work with the 'supermarket challenge' in value chain interventions. Multiple retailers such as Spar and Shoprite are moving into many Zambian neighbourhoods. Supermarket buyers require products of consistently high quality, yet farmers often cannot marshal sufficient working capital to invest in improving product consistency. Smallholders' understanding of supermarket standards and of consumers also tends to be weak, unlike their knowledge of local markets and unlike the greater knowledge base of large-scale commercial farmers. Inadequate harvest and post-harvest operations lead to short shelf-life, rejection by consumers, and contamination risks (USAID 2005). It can be difficult for small-scale farmers to deliver desired quantities at short notice or to manage the labour instability involved in "just-in-time" procurement practices [62]. As a consequence, Zambian branches of Shoprite source horticultural produce almost exclusively from South Africa. Experience from other countries shows that the window of opportunity is very small in which to develop the differentiated macro-economic policy instruments, and investments in capacity development, that will enable the smallholding sector to benefit from supermarket expansion in the country [63].

This said, it is worth noting that urban households in Zambia currently obtain 60% to 79% of their staple foods (cereals, cassava and sweet potatoes) and over 90% of their fruits and vegetables from the traditional market system [64]. It is therefore necessary to invest in improving traditional markets and processing facilities in order to increase women's incomes.

3.2.2. Market Distortions

Despite Government policy pronouncements to promote production and productivity of a diversity of food and cash crops, and other agricultural commodities, annual agricultural sector budget analyses by FSRP shows that over half of the Government actual expenditure in the sector is on maize through the seed and fertiliser subsidies under the Farmer Input Support Programme (FISP) the successor to the Fertiliser Support Programme (FSP) as well as maize marketing subsidies through the Food Reserve Agency (FRA) and has been increasing (see Figure 3.1.).

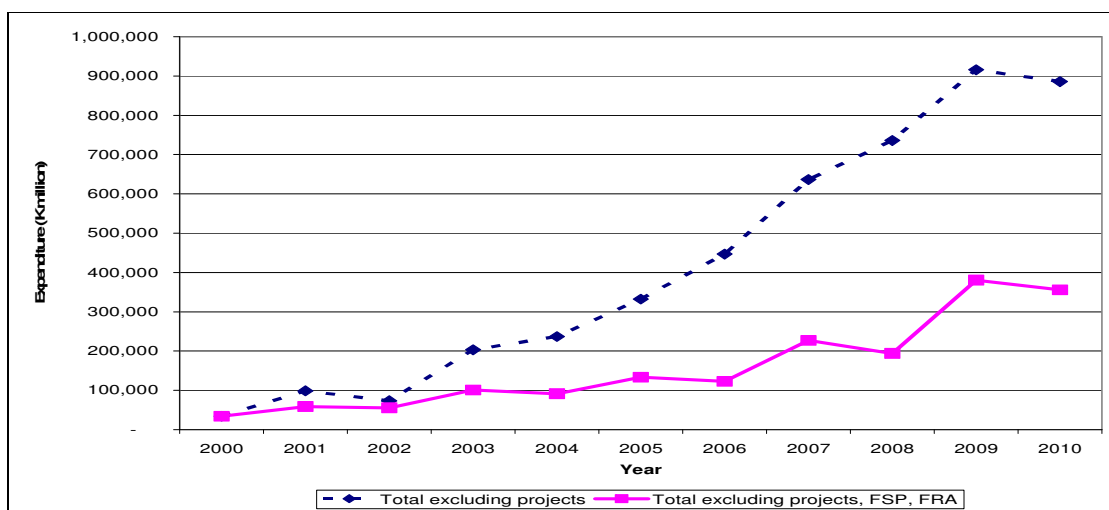
Figure 3.1.: Actual Expenditure of MACO and Livestock 2000-2008, Budget 2009-2010

⁶¹ The Impact of Climate Variability and Change on Economic Growth and Poverty in Zambia. IFRPRI Discussion Paper No.890 (2009). Cited in Zambia Feed the Future 2010 Implementation Plan. USAID.

⁶² Bosalie *et al.* (2003).

⁶³ This paragraph is developed from Berdegue and Thomas (2008). Note that in some Latin American countries following liberalisation, supermarkets took less than ten years to attain 75% of the market (Brazil) and 60% (Argentina) with severe consequences for smallholders.

⁶⁴ Hichaambwa *et al.* (2009).



Source: AgPER (2010) [65]

The focus on maize has largely stifled much needed smallholder crop diversification with household labour primarily being deployed towards maize production. Other crops are handled as secondary in importance. Anecdotal evidence suggests that work on secondary crops is only performed after activities for the maize crop have been completed. This is significant for women's work and 'women's crops'. Food security crops, such as groundnuts and other legumes, and sweet potatoes are sometimes cultivated around homesteads by women during what can be referred to as 'off hours', after working in the maize fields.

Maize accounts for almost half of the area cultivated in Zambia with cassava taking one-fifth and the other ten crops sharing the remaining 33% [66]. Analysis of the CSO/MACO/FSRP Third Supplemental Survey to the 1999/2000 Post Harvest Survey of 2008 (referred to in this paper as SS08) the average number of crops cultivated per household is low at 2.12 for male-headed and 1.91 for female-headed households. It is true that a larger number of crops may be grown, but nationally representative data indicates a low number.

Government extension services focus mostly on maize and benefit male more than female-headed households. For example, the level of exposure to hybrid maize production extension messages among female-headed households is only 78% that of their male-headed counterparts. The proportion of female-headed households selling maize is only 69% that of male-headed households [67]. In spite of this, analytical work by FSRP over the past ten years has consistently shown that only 2% of the smallholder farmers account for 50% of all maize sales, 26% account for remaining sales, and 72% do not sell maize at all. The smallholder farmers [68] who sell more maize tend to be male-headed, more land endowed and wealthier, and certainly subsidies in maize marketing enhance gender inequalities.

3.3. Gender in Agricultural Research and Extension

Agricultural research is key to bringing new technologies and innovations to farmers. The role of agricultural research as articulated in the National Agricultural and Cooperative Policy [69] is to generate and adapt technologies for increased and sustainable agricultural production and to provide high quality, appropriate, cost-effective and efficient services to farmers. A number of players from the public or private sectors, inside or outside of Zambia, are involved in technology generation. Public research in agriculture in Zambia is carried out mainly through the Zambia Agricultural Research Institute (ZARI), a department of MACO. It concentrates on crop, soil and farming system research. Other players in public agricultural research include the Golden Valley Research Trust (GART), which focuses on conservation agriculture and smallholder livestock

⁶⁵ Orłowski *et al.* (2010).

⁶⁶ Orłowski, D. C. Coulter, M. Mwala, and M. Orłowski, 2010. Zambia 2010 Public Expenditure Review background Paper: Agricultural Innovation and Public Expenditure. Norwegian Embassy/Swedish Embassy, Lusaka

⁶⁷ CSO/MACO/FSRP Third Supplemental Survey, 2008.

⁶⁸ Smallholder farmers are those cultivating 20 ha or less of land

⁶⁹ GRZ, (2003).

systems; the Cotton Development Trust (CDT), which focuses on cotton only; the School of Agricultural Sciences of the University of Zambia, which addresses a wide range of research areas in crops, livestock, food science, soils and policy and marketing, and some units of the National Institute of Scientific and Industrial Research (NISIR), which focuses on useful plants and trees.

At present, women farmers and their views are poorly represented in ZARI's agricultural research despite the fact that it is the major institution providing such services to the farming community. This is unfortunate since women farmers possess first-hand knowledge of local weather patterns, the best crop varieties in relation to ecological niches, and planting methods. Generally, research activities are concentrated on maize and neglect so-called 'women's crops', which are usually grown in home gardens and sustain households at the farmer level. Quite often available funds are applied to maize value chains and little, if any, remains to be used for research activities in general and non-maize crops. The main challenge is to have women farmers participate in assessing what is important to them, setting the priorities for research and influencing whatever form of extension service is available. ZARI's farm research teams (one in each province) have also suffered from a lack of funds which prevents them from conducting applied research on specific farming systems in different parts of the country.

Regarding the gender balance of the work force in agricultural research, there are a growing number of professional women employed in the sector and also female students in agricultural sciences at the level of higher education. However, female staff are generally younger and less qualified than male staff, and the proportion of women disproportionately declines with career advancement, leaving many management positions male-dominated. According to the Agriculture Public Expenditure Review (AgPER) [70], 19% of the 62 agricultural officers, 22% of the 23 senior agricultural research officers and 1% of the 10 agricultural research assistants within ZARI are female. ZARI does not have a gender focal point to enable it to reach its objective of a 50 per cent participation rate of women in all projects and activities. It is not known whether it achieves this.

With regard to public extension, the number of female extension workers is still comparatively low. There is an official quota of 30 percent reserved for female extension officers, but it is difficult to follow up if this is in fact implemented. According to the AgPER, 23% of the 1,524 agricultural assistants, 12% of the 148 agricultural officers, and 15% of the agricultural specialists within MACO are female. Female extension staff are important as they are able to interact more freely with female farmers whereas male staff find it socially difficult to engage with female farmers. The AgPER further reports that the public extension service has deteriorated over the past years due to declining funding [71].

3.4. Gender in Agricultural Stakeholder Organisations

The promotion of gender in agricultural stakeholder organisations is generally slow and demonstrates significant lack of commitment. However, there are some notable successes. This section examines the findings of an SO5 [72] (2007) report, presents the results of the study team's discussions with various organisations, and concludes with a short overview of how the Agricultural Support Programme was able to achieve significant wins for women.

3.4.1. Gender Awareness in the Membership of the Agricultural Consultative Forum

The Final Report of the Agricultural Consultative Forum (ACF), entitled *Gender Equity and Gender Monitoring in the ACF* [73], concludes soberly: *Achieving gender balance in the agriculture sector and among its stakeholders remains an uphill battle. While the extent of awareness of the importance of gender continues to improve, very little effort is being made to generate information which is essential for assessment of the extent of gender sensitization.* The following specific observations were drawn from the study of the ACF membership:

- Whilst over half of the membership indicated that gender analysis was part and parcel of their programme or project identification processes, this was not due to gender mainstreaming but rather as an add on to the identification phase. It was observed that some institutions depended on demand driven requests and as such, the inclusion of

⁷⁰ Orłowski *et al.* (2010).

⁷¹ Orłowski *et al.* (2010).

⁷² SO5 stands for USAID's Strategic Objective No.5 – Enhancing private sector growth and competitiveness

⁷³ Kapembwa and Simfukwe (2007).

gender issues were not of primary concern as these issues did not translate into effective demand. This seems to be applicable to all private sector organisations.

- ❑ Whilst some member organizations had developed gender capacity building programmes within their respective implementation plans, these did not translate into concrete action due to a number of factors. One of the most prominent factors is that gender is not considered to be an integral element in programme implementation and therefore, these programmes do not receive adequate resource allocations.
- ❑ Gender Focal Points can be found in public service organisations but are almost non-existent in the private sector. Some member organisations have engaged the services of gender experts to help them in identifying gender issues for inclusion in their respective action plans. However, this is not a sustainable initiative.
- ❑ The inclusion of sex-disaggregated data in monitoring and evaluation systems is not a priority for most organizations as they are concerned about the volume of service provided or produced, irrespective of gender considerations.

3.4.2. Key Informant Interviews with the Gender Study Team

The study team for this assessment largely concurs with the findings set out above. It noted that institutional knowledge of gender varies widely between organisations and at various points in the projects. Responsibility for gender and gender competencies are unclear in most organisations visited. Gender is not a key result area and, in the eyes of informants, is generally considered a donor rather than a local priority. All too often attention is paid to gender only when lack of attention to gender dynamics starts to affect project outcomes, which become particularly evident during mid-term reviews. This typically results in programmes engaging in remedial actions in the last months of their work. Frequently, organisations work on HIV/AIDS issues without displaying an appreciation of the gender dimensions of the pandemic. Interestingly, whilst several organisations interviewed have HIV/AIDS Focal Points, none have Gender Focal Points. When questioned, respondents acknowledge that attention to HIV/AIDS has displaced gender as a concern. They attribute lack of organisational interest in gender to a lack of commitment from top leadership and indicate that when gender is discussed it is only in terms of numbers (of women and men attending meetings *etc.*). This said, some organisations visited are working to mainstream gender. For example, the Zambia National Farmers Union has developed a gender policy. This is yet to be launched. DanChurchAid, the International Fund for Agricultural Development (IFAD), and the United Nations Development Fund (UNDP) reported some useful lessons. Box 3.2. summarises IFAD's experience.

Box 3.2.: Gender Mainstreaming in Agricultural Projects: the experience of IFAD

IFAD has just concluded a programme called the '*Smallholder Enterprise and Marketing Programme (SHEMP)*'. It promoted 'Agriculture as a Business' and consisted of several components, two of which are discussed here.

1. Market access. This involved improving infrastructure such as feeder roads and bridges from productive areas to markets. At the project design stage it was stated the women should provide 55% of the labour force in all market access projects. All activities were to have at least 33% women. Monitoring and Evaluation revealed that women were highly involved and accounted for up to 60% of activities. They were enabled to earn income during the lag season.

2. Enterprise Development Groups. This involved capacity development of farmers to develop an understanding of 'agriculture as a business'. The programme worked with existing farmers' groups and developed new groups if necessary. The composition of Enterprise Development Groups ensured that women were in the executive as chairpersons, secretaries and treasurers. It was found that most women earned trust and confidence of the membership.

In terms of outcomes, IFAD noted that women and men performed different tasks in most value chains. For example, women were active in processing, packaging and selling honey while men harvested it. Women dominated goat and poultry keeping but when these reached commercially interesting volumes men stepped in. Men controlled transportation as they owned the vehicles. Still, women were able to benefit as they could use the transport to take their livestock to better markets. Overall, male traders were able to exploit women producers because they had better price information. Retail marketing was dominated by women, but women of child-bearing age found it harder to participate due to their reproductive gender roles.

3.4.3. The Agricultural Support Programme: win-win for women and men

The Agricultural Support Programme (ASP) was funded by the Swedish International Development Agency (Sida) and the Norwegian Agency for Development Cooperation (NORAD) and achieved remarkable change in gender relations which impacted very positively upon farm productivity. Like IFAD's SHEMP, the overarching goal of the ASP was to stimulate attitudinal change among smallholders as to way farming is conducted. It sought to engender entrepreneurial thinking. To do this, the ASP developed a palette of complementary methodologies, including a facilitation cycle, a five-stage graduation programme, the development of a whole farm system focusing upon crop-livestock integration - to meet income gaps across the year and also engender closed cycles, and an emphasis on ensuring household level food security before moving on to marketing. Critically for women's empowerment, the ASP promulgated a 'Household Approach'. This involved extension workers working with the whole household, including older children, to reinforce messages transmitted at community level. The power of the Household Approach lay in its ability to bundle the often disparate and competing livelihood strategies of household members to form a shared goal, or 'vision' in ASP terminology. Its motor force came from its treatment of farmers as farm managers rather than as beneficiaries. The findings of a gender evaluation conducted in 2010 [74] found that:

- ❑ All farmer respondents, both male and female, recorded that men had changed their behaviour as a direct consequence of ASP. Men are more willing to share decision-making with their wives though they generally still consider themselves household heads.
- ❑ Shared decision-making has resulted in *more rational livelihood planning*. Prior to ASP, men were generally responsible for governing the access of each family member to household and farm resources. They were able to command female labour, decide upon the use of the fields, and decide upon the spending of income. Very little discussion with other household members, including children, was conducted. Women could not take any decisions in the absence of their male partners. This would not be an issue of itself if men were seen to be managing the farm well, but in fact in many cases men are perceived as poor farm managers, even by men themselves.
- ❑ The emphasis of ASP on working with the farming household, including the wife and the children, has decisively increased the *resilience* and *coping strategies* of many households. This is because all family members understand their farming system and have been actively involved in shaping it. *Farming activities now continue in the absence or death of the male head*. Investment decisions are made collectively and, provided food security had been assured, are directed at achieving a family vision.
- ❑ As a consequence of the involvement of children in the household approach, there are likely to be significant *intergenerational* benefits. This may in the long term encourage children to stay in farming and thus reduce urban drift, rural underemployment *etc.* Moreover, one of the most tangible gains that both men and women respondents repeatedly mentioned is that joint planning over expenditure has enabled more children to go to school - a significant intergenerational benefit.
- ❑ Despite these gains, ASP significantly failed to address structural gender inequalities in relation to access to, and control over, key productive resources. Women's access to resources remained reliant on their ability to maintain their relationship to the male head of household and to wider kinship networks. The performance of female heads of households was much weaker across the programme.

CHAPTER 4. GENDER CHARACTERISTICS OF STAPLE FOOD VALUE CHAINS IN ZAMBIA

Little work has been conducted on gender issues in agricultural value chains in Zambia. The International Centre for Research on Women (ICRW) recently conducted a gender review and proposed gender-sensitive strategy development of the cotton value chain for the COMPACI Programme in Zambia [75]. A few studies exist which examine gender issues in particular segments of value chains as they affect women. For example, Sakala researched gender issues in animal

⁷⁴ Farnworth and Munachonga (2010) and Farnworth (2010a).

⁷⁵ Coon (2010).

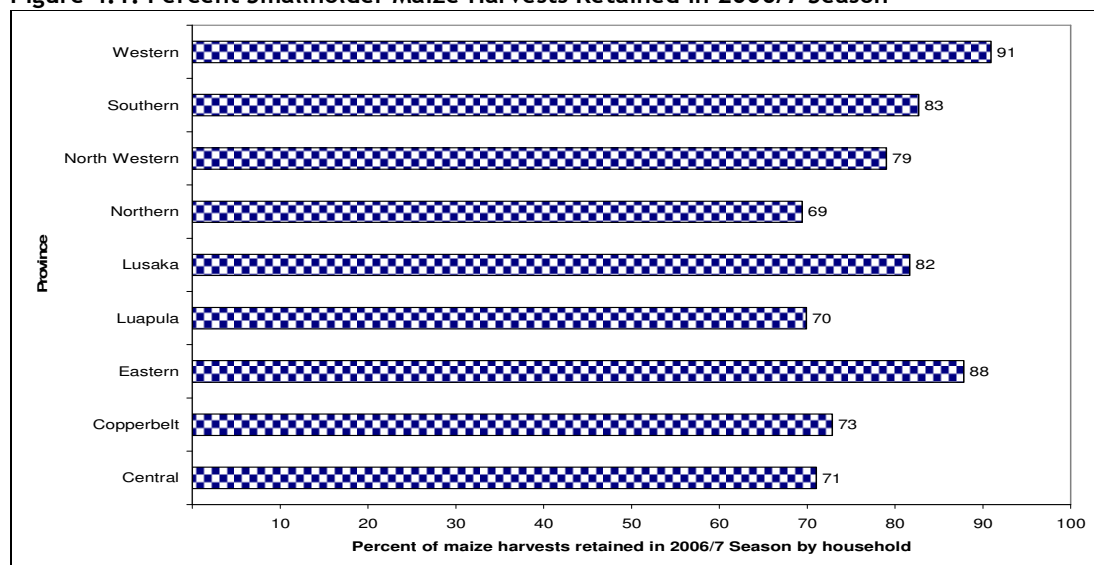
draft power weeding technology in Zambia back in 2002 [76]. Smith *et al.* (2004) conducted an in-depth assessment of gender and ethical trade in South African fruit, Kenyan flowers and Zambian flowers and vegetables. The study examines the gendered needs and rights of workers, as articulated by workers themselves, and how these could best be addressed by codes of conduct [77]. It is not known whether their recommendations were taken up by Zambian players. Over the past decade the FSRP has conducted agricultural value chain research in maize, fertilizer, cotton, cassava, and horticulture [78], though these studies scarcely address gender issues. The gender dimensions of FSRP research work have been defined by the dis-aggregation of data it collects during surveys by gender of household head in line with normal CSO data collection standards. Analysis is largely demand-driven by stakeholders, including Government policy-makers. Historically, gender analysis has scarcely featured apart from in a few cases such as the access of widows to land. More recently, gender issues have gained prominence in the project's annual work plan.

This chapter aims to take understandings of gender issues in Zambian agricultural value chains a step further. First, it disaggregates gender issues by selected commodities. The commodities investigated are maize, cassava, groundnuts, sweet potatoes, vegetables, livestock and poultry. In so doing gender-based constraints (GbCs) for each commodity are identified. Secondly, specific strategies for alleviating these are presented.

4. 1. Maize

Maize is highly prominent on Zambia's political agenda due to its importance in national food security. It is a staple food and doubles as a source of cash income. Maize is grown primarily for food - analysis of the SS08 shows that about 80% of smallholder production in the 2007/8 season was retained for household use. This ranged from 71% in Central Province to 91% in Western Province (see Figure 4.1). The retention rate was 87% of the harvest among female compared to 78% among male-headed households.

Figure 4.1: Percent Smallholder Maize Harvests Retained in 2006/7 Season



Source: CSO/MACO/FSRP Third Supplemental Survey (2008)

The Government of Zambia supports maize production through FISP, which supplies heavily subsidized (farmers pay 28% of the actual cost) fertilizer to household heads. It also purchases maize at centralized markets through the FRA. Farmers and traders deliver their maize to FRA designated buying depots. These are often sites for primary cooperative societies. Payment for the maize delivered is made later, usually after a month, at the same points.

⁷⁶ In Starkey, P and T. Simalenga (eds) (2000). Animal Power for Weed Control. A Resource Book for Animal Traction Network for Eastern and Southern Africa (ATNESA). Technical Centre for Agricultural and Rural Cooperation (CTA), Wageningen, The Netherlands. www.atnesa.org.

⁷⁷ Smith *et al.* (2004).

⁷⁸ See their website: www.aec.msu.edu/fs2/zambia/index.htm

Private maize traders in Zambia are overwhelmingly men and can be classified into several categories according to the capital outlay required for the purchasing of maize. Few women are buyers due to their lack of capital. Traders include:

- ❑ Large-scale traders, who are established business entities as transporters or shop keepers owning trucks and handling large volumes of grain;
- ❑ Medium-scale traders for whom agricultural trade is just one of the different business activities they engage in. They typically send their own buyers in the field with small trucks to buy directly from farmers;
- ❑ Small-scale traders who buy maize from smallholder farmers either by approaching farmers directly, or through setting up makeshift buying points in the interior and then transporting the produce to a central location using ox-carts, ox drawn sledges, or bicycles, from whence they hire transport to larger markets;
- ❑ Farmer direct sales to millers;
- ❑ Hammer mill operators who sometimes buy maize directly from farmers for resale in either un-milled or milled form;
- ❑ Traders at wholesale and retail markets in urban areas selling maize in varying quantities;
- ❑ Smallholder farmers and maize traders also deliver their maize to strategically located FRA buying points across the country.

The gender dimensions of the maize value chain are outlined in Table 4.1. Please note the limits posed by the gender disaggregation of the data: the analysis compares male and female-headed households regardless of whether they are married or not. Analysis of the same data set shows that married male household heads account for 71.8% while the unmarried ones account for only 4.6%. Unmarried female-headed households account for 20.7%, compared to the married female-headed households who account for only 2.8%.

Table 4.1.: Gender Characteristics in the Maize Value Chain

Characteristics	Gender issues
Role in value chain	Women are primarily producers and net buyers of maize. According to FSRP analysis, 35% of smallholder farmers are net buyers of maize grain and/or maize meal [⁷⁹]
Research	Current work is centred on developing varieties suitable for various conditions including drought and short rainfall season conditions as well as bio-fortification to increase the protein content. All of these are theoretically beneficial to women though there is no evidence that women and men farmers have influenced maize varietal selection.
Female-headed households	Female-headed households are disadvantaged in the maize value chain. According to analysis of SS08 data, the proportion of female-headed households: <ul style="list-style-type: none"> ❑ growing maize is 94% that of male-headed households while it is 69% in respect to selling; ❑ purchasing hybrid maize seed from the private sector is only 73% that of male-headed households; ❑ accessing hybrid maize seed from the FSP is 59% that of male-headed ones; ❑ accessing hybrid maize seed from NGOs or cooperatives is 67% that of male-headed households; ❑ planting seed from own previous harvest is 128% that of male-headed households; ❑ accessing fertiliser from MACO/FSP is 88% that of male-headed households; ❑ accessing fertiliser from the PAM food security packs 86% that of male headed households.
Production and post-harvest processing	Women do most of the planting, weeding and harvesting including post-harvest handling (shelling). Men do the majority of the ploughing, especially when animal draught power is used. Women participate more in land preparation when it is done using the hoe. Hammer milling offers the best option for maize processing for poorer women. It produces cheaper maize meal, thus freeing cash income to cater for other household necessities. However, SS08 data shows that the proportion of women participating in grain milling using hammermills as a commercial service is only

⁷⁹ FSRP (2008).

	4% that of men.
Marketing	<p>Maize marketing is a preserve of men in male-headed households. Women in female-headed households directly market their maize but few such households sell maize. SS08 data shows that the proportion of women taking part in downstream agricultural trading activities is only 66% that of men. These include activities such as buying from other farmers for re-selling further down the value chain, processing, <i>etc.</i></p> <p>A few women are involved in selling maize bran (product of hammer mills) to feed mills in Lusaka. They bulk the product and make a small margin.</p>

Given that government support of maize already distorts the market, it is problematic to suggest clear ways to support women in the maize value chain without endorsing the current structures. However, assuming they will continue to exist, the following measures could be taken:

1. Gender-Based Constraint: Limited female-headed household participation in the Government Input Support Programme because they participate less than men in the cooperatives through which the FISP is channelled. Low participation by the majority of women is due to lack of time, or sufficient monies for membership fees. Women are likewise less likely to be able to afford the farmer contribution to the input packs. Female-headed households find it difficult to purchase from private sector supply chains due to lack of monies. This has the obvious consequence of further decline in production and productivity.
 - ❑ Support vulnerable households, including female-headed households, to foster membership in cooperatives. This can be done through changing membership criterion in collaboration with the community, altering fee structures and means of payment (e.g. could be in kind) and ensuring meeting times and places are appropriate to women.
 - ❑ Assistance with up-front financial contributions to input packs with a mechanism for paying back loans when productivity increases.
2. Gender-Based Constraint: Female-headed households have limited participation in subsidized maize markets due to their low production volumes.
 - ❑ Obtain sex-disaggregated data of FRA maize purchases from sample districts to secure solid data for planning.
 - ❑ Explore the possibility of giving preferential treatment to women maize sellers to FRA.
 - ❑ Women's groups can be encouraged to sell maize as a source of income. However, without Government input and marketing subsidies selling maize will not be profitable. This said, value adding may be a solution. In Kenya, for example, impoverished, geographically marginalized women's groups, whose aim is to offer support to families afflicted by HIV/AIDS, were assisted in developing a plan to buy various grains and process them into fortified flour. In so doing, they aimed to provide nutritious food to people affected by HIV and AIDS at a low price and to make a profit by selling the flour at competitive prices locally [⁸⁰].
3. Gender-Based Constraint: Limited female-headed household participation in more profitable value chain downstream trading activities such as buying and reselling maize, processing and reselling, *etc.* This is due to lack of capital, an inability to seek the best markets due to mobility constraints - especially away from home, and the bulky nature of maize (sold in 60 kg sacks) which make handling by women especially challenging.
 - ❑ Provide credit to women's groups, and individuals, to enable them to have sufficient capital to start trading in maize and indeed other agricultural commodities, and to develop infrastructure for commodity bulking in rural areas.
 - ❑ Sell maize in smaller sacks.
4. Gender-Based Constraint: Women in male-headed and female-headed households scarcely participate in maize milling, thus reducing their ability to benefit from added value.
 - ❑ Introduction of hammer mills to women's groups with appropriate support structures with respect to maintenance and after-sales services.
5. Gender-Based Constraint: Maize doubles as a food and cash crop. There is evidence to suggest that household level food security may be undermined through the selling of maize for cash,

⁸⁰ KIT, Faida MaLi, and IIRR (2006). Cited in Farnworth (2008).

through its use for hospitality when visitors arrive and when funerals and weddings take place.

- Prioritise maize as a household food security crop. For example, The Agricultural Support Programme (ASP) strongly discouraged participating farmers from selling maize unless they had set aside enough maize to cover their own food needs for the entire year. To assist farmers, the ASP used United Nations Food and Agricultural Organisation guidelines to enable households to calculate their household maize needs. To further discourage ‘distress sales’ farmers were encouraged to diversify into combined crop/livestock farm systems to ensure a flow of cash across the year and a less maize-dependent diet. Importantly, men were made equally responsible with women for household food security. An evaluation carried out in February 2010 showed that only ASP households (in the study sites) had reserves of grain in the hungry season [81].
- Enhancing the productivity of maize. Current productivity is very low at around 1 -2 tonnes per hectare. Productivity can be increased by training farmers, particularly women, to plant varieties suitable for their environments, plant on time, weed on time, use fertiliser correctly, and to adopt natural soil fertilising methods such legume-cereal crop rotations, leaving crop residues, planting green manuring crops, etc.

4.2. Groundnuts

Groundnuts are the third most important crop in Zambia following maize and cassava in terms of share of total national land cultivated, accounting for 8.8% of the total land area under cultivation. Production has increased steadily since 1993. This was initially due to an increase in cultivated area, and more recently has been due to a significant increase of yields per hectare [82].

Groundnuts are considered a ‘women’s crop’ in many parts of Zambia including by the agricultural services. Fieldwork in Mpika District, Northern Province (see Chapter 5), provides a more nuanced picture. Men grow groundnuts on some fields. Women also set aside a plot of land to grow groundnuts for household consumption, an area which men never enter. Whilst women perform the bulk of the productive work, men in male-headed households help to prepare the land and dig out the groundnuts for harvesting by the women. Cassava is intercropped with groundnuts to maximise land use.

Apart from sale, groundnuts are used in a variety of ways at household level. They are typically used for preparing relish since many people in rural areas do not use cooking oil, and they provide a snack to take to the fields. For this, women roast cassava and fry groundnuts and then mix together. Sometimes sweet potatoes are pounded and mixed with groundnuts. Groundnuts are also mixed with maize to prepare food for weaning. To ensure the family’s food needs with respect to groundnuts are met for the whole year, women set aside a pot filled with nuts. This is covered with a layer of mud to prevent theft. Furthermore, at least in the field research area, workers are paid in groundnuts rather than in cash (beer, clothes, and chickens are also used).

The gender dimensions of the groundnut value chain are shown in Table 4.2.

Table 4.2: Gender Characteristics in the Groundnut Value Chain

Characteristics	Gender issues
Role in value chain	Women participate in the value chain as producers and to a limited extent as sellers. They are the majority in the groundnut retail trade in urban markets. Women also buy groundnuts at all stages of the value chain as raw nuts, roasted peanuts, peanut butter, groundnut flour, processed oil, etc.
Research	Development of improved varieties will be beneficial to women when developed with women’s participation.
Female-headed households	Groundnuts are grown more among female than male-headed households. Analysis of SS08 data shows that the proportion of female-headed households growing groundnuts is 106% that of male-headed households. However, slightly more male than female-headed households sell groundnuts. The proportion of female-headed households selling groundnuts is 93% that of their male-headed

⁸¹ Farnworth (2010a).

⁸² Orłowski *et al.* (2010).

	counterparts.
Production	<p>Depending on the region, production of the crop can be the sole responsibility of women with men having no involvement, to an arrangement whereby men engage in some productive activities, such as preparing land and also digging up nuts for harvesting. In such cases women still perform most of the work, particularly weeding which is very onerous.</p> <p>On-farm processing starting from shelling to processing into peanut butter is mostly done by women. Analysis of the SS08 data shows that women in general are considerably more involved in oil processing than men (377% that of the men). However, female-headed households are proportionately less involved in oil processing (117% compared to male-headed households). This includes all categories of processing equipment. Female-headed households generally lack access to higher quality performance equipment due to cash constraints.</p>
Marketing	The participation of men in marketing groundnuts has shown a marked increase in most areas due to its profitability.

Gender-based Constraint: The ground nut value chain offers real income generation potential to women. However, current experience is that men typically take over marketing when it becomes profitable.

- Sensitisation using the Household Approach (described in Chapter 3), whereby the whole household works towards a shared vision, could enhance equitable distribution of benefits accruing from this activity regardless of who is involved in the marketing.
- Bulking, processing and selling by women's groups.

Gender-based Constraint: Unsuitable varieties introduced without consultation with women. The MG4 variety was widely introduced in Northern Province along with associating shelling machinery, but failed due to its high oil content. This made processing (i.e. pounding) - a women's task - difficult and also resulted in an unpleasant relish.

- Participatory plant varietal selection: suitable varieties of groundnuts need to be developed in collaboration with women and men producers, and with consumers.

Gender-based constraint: The production of groundnuts, especially weeding, is particularly onerous. Women often seem to resist planting in rows which should make weeding easier. The reasons for this are poorly understood.

- Research into why women may resist apparently beneficial technologies. A Zimbabwean study shows that women dispersed peanut plants throughout their plots rather than in rows, thus disguising the extent of their planting. Although this was more labour-intensive, men did not realize how much money their wives were making by selling groundnuts, or the significance of the social capital the women reaped through bartering, giving and paying people in kind with groundnuts [⁸³]. Research in Zambia may produce equally valuable findings.
- Participatory technology development into labour-saving technologies including improved tools, mulching etc for weed control. A women's self-help group in India worked with the AME Foundation to conduct experiments with three improved groundnut management technologies: gypsum application, rhizobium and farmyard manure. Encouraged by the results they shared their experience with the whole federation. This led to the federation becoming a platform for the dissemination of improved varieties and their associated cultural practices [⁸⁴].

Gender-based constraint: Groundnuts are a multiple use crop yet value chain interventions may unwittingly undermine multiple usages by encouraging the production of standardized marketable varieties.

- Ensure that value chain interventions recognize the multiple uses of groundnuts and introduce multi-faceted interventions, and varieties, accordingly.

⁸³ Vijfhuizen (1996). Cited in Farnworth (2008).

⁸⁴ Cited in Farnworth and Jiggins (2006).

4.3. Vegetables

Vegetables for the domestic market are grown by both commercial and smallholder farmers. The domestic market is facilitated by several channels, with commercial farmers being the major suppliers of multiple retailers, shops and institutions. Smallholder farmers supply village and district markets, roadside stalls, street vendors and also engage in farm gate sales. More than 75% of domestic vegetables are sold through the latter channels. Multiple retailers absorb very little domestic production [⁸⁵]. This mainly due to the limited stocks they demand as well as their stringent quality requirements. Less than 10% of fruits and vegetables in urban areas of Zambia are purchased through supermarkets and minimarts [⁸⁶].

For this assessment, vegetables are categorized into:

1. Staple vegetables commonly consumed in urban households including tomato, rape, onion and cabbage;
2. Traditional leaves including pumpkin, sweet potato, cassava and bean leaves;
3. Okra (lady's finger) and the African egg plant commonly known as 'impwa' locally; and
4. Other vegetables not included above.

Vegetable production proffers minimal labour conflicts with field crops as rain-fed vegetables are quite often produced as by-products of primary commodities such as pumpkins, sweet potatoes, cassava, etc. Other types of vegetables are normally grown during the dry season under irrigation, or under ground water seepage in wetlands.

Staple vegetables (including tomato, rape, onion and cabbage) offer good opportunities for income generation, being quite high value in their raw state. Indeed, unprocessed staple vegetables form 59% of total household expenditure on vegetables. Such vegetables also offer potential for value addition. In Zambia, anecdotal evidence suggests that a good number of women rely on vegetable sales to look after their families and even to buy assets such as livestock. The challenge is developing effective market linkages between rural producers and urban consumers. This would stimulate further production.

Traditional leaves (pumpkin, sweet potato, cassava and bean leaves, for example) are normally a woman's domain since they are grown as by-products to the main crops in the field in the rainy season. However, they can be grown as vegetables in their own right under irrigation. Leafy vegetables fetch premium prices in urban markets and form 20% of the urban households' expenditure on vegetables [⁸⁷]. The main challenges in the value chains are effective linkages to urban markets and better processing methods to improve the quality of produce supplied to markets during the off-season. Women normally sun dry leaves but improved drying methods have been developed by stakeholders such as Sylva Catering. These are not yet widely disseminated.

Okra can be grown as a rain-fed crop in dedicated fields or homestead gardens. It can also be irrigated in the dry season. The African egg-plant is semi-perennial and grows all year round. Its productivity increases with dry season irrigation. Okra and the African egg-plant command good prices in urban areas of Zambia and form 9% of the urban households' total expenditure on vegetables (UCS, 2007/8).

The gender dimensions of vegetable value chains are shown in Table 4.3.

Table 4.3.: Gender Characteristics in Vegetable Value Chains

Characteristics	Gender issues
Role in value chain	Women are highly involved in vegetable production. Retail selling of vegetables is dominated by women but women are intimidated by brokerage at wholesale markets.
Research	There is little research, except for variety trials and the determination of irrigation requirements by crop.
Female-headed households	Analysis of the SS08 data shows that the proportion of female-headed households <input type="checkbox"/> Growing and selling staple vegetables is only 52% and 50% respectively that of male-headed households;

⁸⁵ Farnworth (2008).

⁸⁶ Hichaambwa *et al.* (2009).

⁸⁷ Based on analysis of the CSO/MACO/FSRP Urban Consumption Survey, 2007/8 data

	<ul style="list-style-type: none"> ❑ Growing and selling traditional leafy vegetables is much higher at 90% and 79% respectively that of male-headed households; ❑ Are more involved in the growing of okra and African egg-plant (proportion participating is 117% and 134% respectively that of male-headed households); ❑ Selling okra and African egg-plant is relatively higher (100% and 86% that of their male-headed counterparts).
Production	<p>Women provide 70% of the labour input in the production of vegetables including post-harvest handling.</p> <p>Several small-scale appropriate technologies for processing vegetables exist including solar drying, making pasting and canning. Vegetable processing, mostly drying or boiling before drying is done almost entirely by women at the farm level. Dissemination and uptake of improved technologies is poor.</p>
Marketing	<p>Women in male-headed households play a minor role (20%) in marketing while those in female-headed households play a major role (80%).</p>

Gender-based Constraint: Lack of monies for inputs. The participation of female-headed households in the production and marketing of staple vegetables (tomato, rape, onion, cabbage) is much lower than that of their male-headed counterparts due to a lack of money to buy inputs especially seed, seedlings, fertilizer and chemicals.

- ❑ Community-based distribution of seedlings, together with the provision of fertilizer and chemicals on credit, would enable women and other vulnerable farmers to participate in this lucrative value chain.

Gender-based Constraint: Lack of irrigation technologies. Data is not available on how widespread the irrigation of vegetables using buckets is, but anecdotal evidence suggests it is quite common though inefficient and labour-intensive.

- ❑ Low cost small-scale irrigation technologies such as treadle pumps are useful technologies. However, reportedly children have been taken out of school to work treadle pumps. A study in Mpika District showed that farmers did not adopt treadle pumps due to its high labour demands [⁸⁸].
- ❑ Small drip irrigation kits are less labour-demanding but have high establishment costs.
- ❑ Provision of appropriate irrigation technologies to groups of 4 to 6 vegetable growers on a loan basis through rural-focused gender-sensitive micro-financing institutions.
- ❑ Encourage pooling of financial resources (husband and wife contributing cash) to purchase irrigation technologies such as motorised pumps in productive areas.

Gender-based Constraint: Chaotic brokerage at wholesale markets affects women more than men. Though wholesale markets account for more than 90% share of the market of vegetables in urban areas, they suffer from inadequate investment and are generally unsanitary, being extremely muddy during the wet season and dusty in the dry season. Smallholder farmers at wholesale markets, especially Soweto in Lusaka, the largest in the country, are forced to sell their commodities through agents or brokers who charge an official commission of about 10% and add an extra (secret 10%). No farmer is allowed to sell directly at Soweto, which is run by political party cadres. Women farmers attempting to sell produce are more disadvantaged than men since they are more intimidated by the chaotic brokerage activities [⁸⁹].

- ❑ Improving market linkages must take into account soft market infrastructure such as brokerage facilities at wholesale markets.

Gender-based Constraint: Women cannot access appropriate transport to take vegetables to better markets. Most women vegetable traders depend on transit trucks that are owned and driven by men.

- ❑ Provide financing for purchasing appropriate transport to organised marketing cooperatives for vegetable growers.

4.4. Sweet Potato

Sweet potato is a useful food crop in Zambia accounting for 2% of the total land area cultivated [⁹⁰]For many years sweet potato has been key in providing food for self-consumption at household

⁸⁸ Akamandisa (2010).

⁸⁹ Tshirley, D. and M. Hichaambwa (2010).

⁹⁰ Orłowski *et al.* (2010).

level, especially during years of poor maize harvests. However, it has increasingly become a cash crop particularly among smallholder women farmers. Important quantities of sweet potato are transported by Zambian women to Livingstone, Kazungula and Sesheke for sale to Botswana, Zimbabwean and Namibian traders (mostly women) for re-sale in Botswana. Sometimes traders come up as far as Monze to buy sweet potatoes to transport to Botswana. Sweet potato is popular in Botswana where it is used instead of bread for breakfast.

The gender dimensions of the sweet potato value chain in Zambia are shown in Table 4.4.

Table 4.4.: Gender Characteristics in the Sweet Potato Value Chain

Characteristics	Gender issues
Role in value chain	Women are involved in the value chain as producers, sellers as well as buyers at both wholesale and retail levels and especially at retailing in urban markets.
Research	Bio-fortification with vitamins and minerals improves nutritional value. ZARI has released 3 sweet potato varieties to date.
Female-headed households	Analysis of the SS08 data shows that the proportion of female-headed households involved in the growing of sweet potato is 90% that of their male headed counterparts. The involvement of female-headed households in selling sweet potatoes is 95% of that of male-headed households.
Production	Depending on the region, the production of sweet potatoes may rest solely with women. In some areas men participate but women do most of the activities.
Marketing	Sweet potatoes are an increasingly important cash crop for women, especially for women living in the vicinity of urban markets and highways.

Sweet potatoes are a low input crop which is normally planted after all other crops have been planted and weeded. The main input cost is that of planting vines. These are normally kept over from the previous season. Sweet potato can be stored underground for up to 8 months which enables sales to be spread. It can be boiled, sliced and sun-dried after which it stay for the whole year providing a ready source of food, and income when sold.

Gender-based Constraint: The bulkiness and short shelf life of sweet potato poses important processing and marketing challenges to women.

- ❑ Encourage underground storage.
- ❑ Explore and develop slicing, drying, and other processing methods.
- ❑ Develop female friendly marketing groups with commodity bulking and transport facilities.

4.5. Cassava

Cassava is the second most important staple food crop in Zambia. It has experienced rapid growth in production levels in recent years, but the informal nature of the sector means that there is uncertainty about the available basic statistics. Increasingly, cassava is becoming an important cash crop due to increased productivity through the planting of improved varieties. Although the share of cassava production that is commercialized is highly uncertain, informants consider it to be in the order of 5 to 10 percent of production ^[91]. Cassava marketing in Zambia is limited by the large distances between production and urban centres.

Most cassava traders at wholesale markets, such as Soweto in Lusaka, are men aged from 26 to 45. This gender and age profile may be due to the physical strength required to travel around the country lifting bags of cassava and loading them on to trucks. Women cassava traders are usually found at local markets in the townships where they sell small quantities

The gender dimensions of the cassava value chain are shown in Table 4.5.

Table 4.5: Gender Characteristics in the Cassava Value Chain

Characteristics	Gender issues
Role in value chain	Women participate in the value chain as producers, sellers and buyers.

⁹¹ World Bank (2008).

chain	
Research	Variety improvement has played an important role in increasing productivity over the years, giving higher returns to women's labour where the improved varieties have been adopted.
Female-headed households	Analysis of the SS08 data shows that the proportion of female-headed households growing cassava is almost the same as that of male-headed households (98%). However, the proportion of female-headed households that sell cassava is higher (113%) than that of the male-headed households. This implies that cassava commercialisation could be more important for the female than male-headed households.
Production	In male-headed households, land preparation and ploughing is largely conducted by men. Women perform most of the planting, weeding and harvesting. On farm processing - including peeling, soaking and pounding is solely done by women.
Marketing	Farm level sales to traders are conducted by both men and women. Sales at retail markets are made by women in mostly small quantities. The marketing and transport of cassava from production to consumption (urban areas) is largely done by male traders who sell to women retailers in urban markets.

Gender-based Constraint: Processing technology is often primitive, with women pounding. Some women even grind cassava with rocks.

- ❑ Improve post-harvest processing. Mills the size of maize hammermills have been installed for women groups in some areas of Zambia, such as in Kanakatapa in Chongwe District.
- ❑ Encourage creative product development. Cassava flour can be processed into products such as buns, scones and biscuits.

Gender-based Constraint: Commercialisation is difficult to achieve given the small and fragmented producer base which is usually distant from consumption markets.

- ❑ Bulking of the commodity in addition to establishment of processing facilities near production areas would be helpful as the processed commodity is of higher value and can be profitably transported over long distance and has longer shelf life.

4.6. Livestock

Seventy one per cent of rural households in Zambia own some form of livestock [92]. A clear difference by household wealth quintile is only observed for cattle, with 19% of households in the top quintile owning cattle compared to 11% of those in the bottom quintile. These differences are more profound by province than by quintile, with cattle more likely to be found in Central, Eastern, Lusaka, and Southern Provinces (Agro-Ecological Zone II). Significant numbers of cattle can be found in Western Province as well.

Table 4.6 below shows the gender dimensions of the goat, sheep, pig and cattle value chains. Both small and large livestock are not usually used for home consumption except under special circumstances such as ceremonies and festivals, visits and funerals. Animals may be consumed when they die naturally, or they are killed because they are sick and the chances of having them cured are slim.

Table 4.6: Gender Characteristics in the Livestock Value Chain

Characteristics	Gender issues
Role in value chain	Women have limited ownership of livestock, and are much more likely to own and manage small ruminants such as sheep and goats than cattle. The participation of women in the sale of small ruminants is high but trading (buying for re-selling) is dominated by men.
Research	Improvement of breeds especially for goats for better meat and milk productivity offers improved income generation potential for women farmers
Female-headed	Analysis of the SS08 data shows that the proportion of female-headed

⁹² Siegel (2008).

households	<p>households</p> <ul style="list-style-type: none"> <input type="checkbox"/> Owning and selling cattle is 53% and 51% respectively that of male-headed households; <input type="checkbox"/> Own 40% of the average number of cattle owned by male-headed households; <input type="checkbox"/> Owning and selling pigs is 65% and 57% respectively that of male-headed households; <input type="checkbox"/> Own 62% the average number of pigs owned by male-headed households; <input type="checkbox"/> Owning and selling goats is 65% and 58% respectively that of male-headed households; <input type="checkbox"/> Own 53% of the average number of goats owned by male-headed households; <input type="checkbox"/> Owning and selling sheep is 53% and 21% respectively that of male-headed households; <input type="checkbox"/> Own only 32% of the average number of sheep owned by male-headed households; <p>Producing and selling fresh and sour milk is 45%, 42% and 47% respectively that of male-headed households.</p>
Production	<p>Men and boys generally tend livestock though women play a role in some cases. Small ruminants like goats owned by women in small numbers can be tethered around trees with grass for their grazing and water brought to them.</p>
Marketing	<p>Urban traders go to rural areas to buy livestock for selling in urban areas. Some local men also buy livestock from other farmers and ferry these to urban areas for re-sale.</p> <p>Livestock are normally sold as live animals. Processing starts in urban areas after the animals are slaughtered. Men are more involved in slaughter and butchering.</p>

Cattle

Cattle ownership and sales are a domain of male-headed households. Woman ownership of cattle among smallholder farmers in Zambia is limited. In some regions, female-headed households do own and manage cattle. Women in male-headed households who originally come from matrilineal systems may technically 'own' cattle, but these are typically managed by their male relatives who have use rights to the cattle's manure, milk and draught power and also keep the cattle at their own homesteads. Such women must ask their male kin for permission should they want to sell an animal. Anecdotal evidence suggest that male kin quite frequently sell animals without the female owner being informed. Further, male relatives allegedly often inform women, in the case of livestock death, that it is 'their' animal which has died.

Gender-based Constraint: Limited ownership of cattle by women, especially in female-headed households, limits access to, and control over, cattle draught power, milk, and manure.

- Promote cattle ownership in women's groups and individual households according to the 'pass on the gift' principle.
- Train women in cattle husbandry including harnessing draught power.

Gender-based Constraint: Male management structures in some ethnic groups overrides women's ownership and use rights of cattle.

- Challenge and sensitise communities to translate women's ownership rights into use and sale rights.

Small Ruminants

Small ruminants, especially goats, provide strong potential for women's income generation. Their initial investment and management costs are relatively low, their reproduction rate is high, with twinning in some cases and they are easier to market by virtue of their smaller size and the smaller capital outlay.

Gender-based Constraint: Prevalent management practices result in ecosystem harm and can result in devastated gardens and farm plots. This weakens the acceptability of small ruminant ownership to women.

- Depending on the availability of space and natural fodder, goats can be herded away from homesteads or can be tethered to graze within limited areas.

- ❑ Promote goat ownership through community based multiplication activities or the 'pass on the gift' principle.

4.7. Poultry

Although both women and men own chickens, women and children tend the birds. Women also decide which bird is to be sold or slaughtered. Village chickens fetch a premium price in Zambia. Poultry provide important sources of animal protein but are also assets that can easily be converted into cash. They are frequently sold or bartered in response to household or farming needs. The requirement for schoolbooks or fees at the beginning of the school year triggers such sales. Most social occasions are marked by the slaughter of chickens (the arrival of important guests, cultural festivals *etc.*). Chickens are also used to pay for minor misdemeanours, and they feature prominently in local rituals. Women show a keen interest in poultry production as it easily fits in with their other duties around the homestead.

The gender dimensions of the poultry value chain are shown in Table 4.7.

Table 4.7: Gender Characteristics in the Poultry Value Chain

Characteristics	Gender issues
Role in value chain	Women participate in all stages of the poultry value chain.
Research	Improving the local chickens through selective breeding would help improve productivity. Currently very little research is being conducted, though Prof Samui Kenny is conducting work on local chickens at Batoka Ranch, which is owned by GART.
Female-headed households	Analysis of the SS08 data shows that female-headed households <ul style="list-style-type: none"> ❑ Owning and selling chickens is 86% and 80% that of male-headed households respectively; ❑ Own 62% of the average number of chickens owned by male-headed households; ❑ Owning and selling guinea fowls is 61% and 84% that of male-headed households respectively; ❑ Own 57% of the average number of guinea fowls owned by male-headed households; ❑ Owning and selling ducks and geese is 68% and 65% that of male-headed households respectively ; ❑ Own 50% the average number of ducks and geese owned by male-headed households; ❑ Producing and selling eggs is 81% and 83% that of male-headed households respectively.
Production	Local chickens are allowed to scavenge but are provided with overnight housing which is usually erected by men. Women look after the chickens by monitoring those that are laying and hatching. They sometimes provide grains as feed supplements. Women have also been known to administer herbal remedies to their chickens. Vaccination is not widespread.
Marketing	Urban traders go to rural areas to buy chickens for selling in urban areas, typically purchasing from women. Some local men may aggregate and sell chickens in urban areas. The chickens are normally sold as live birds at markets where they fetch premium prices. Dressing, when it is done, is done by women. Sylva catering in Lusaka, in conjunction with Freshpikt, has started canning local chickens.

Gender-based Constraint: Poorly developed market linkages with competition from the strongly developed commercial sector. Women typically engage in farm gate sales.

- ❑ Develop local market linkages by setting up buying and selling centres at the district and sub district levels.
- ❑ Develop local processing facilities at district and sub district levels to maximise value added.

Gender-based Constraint: Inadequate research into productivity, management and disease control. This leads to high mortality rates, inbreeding and poor overall rates of production and productivity.

- ❑ Develop improved management systems appropriate to women's time schedules.

- ❑ Develop credit and other facilities to increase production and productivity.
- ❑ Develop women-friendly transport and marketing systems to increase benefits to women.

CHAPTER 5. THE GROUNDNUT CHAIN IN MPIKA DISTRICT, NORTHERN PROVINCE

The fieldwork was carried out in Northern Province, Mpika District, in December 2010. The findings are structured as follows:

- 5.1. Livelihoods Profile of Mpika District, Northern Province.
- 5.2. Development Actors in Mpika Town.
- 5.3. Gender Profile.
- 5.4. The Groundnut Value Chain.
- 5.5. Conclusions from the Fieldwork.

5.1. Livelihoods Profile of Mpika District, Northern Province

Northern Province accounts for 20 percent of Zambia's land area and about 14 percent of the population. The poverty rate is about 80 percent, and non-agricultural employment is virtually non-existent [⁹³]. There is an undocumented itinerant workforce of mainly young men and women (estimated at 500 in Mpika town itself) who seek casual work on a daily basis [⁹⁴].

The Zambia Health and Demographic Survey of 2007 does not report HIV prevalence rates among adults aged 15 to 45 years by district but earlier estimates (2000) by CSO put the prevalence rate in the province at 12.5% in Chilubi and 14.8% in Kasama and Mungwi, with Mpika recording 13.8% [⁹⁵]. The national HIV prevalence rate has fallen from 15.6% in 2001/2 to 14.3% in 2007 with Northern Province having the lowest rate at 6.8%. This compares favourably to Lusaka with the highest rate at 20.8% [⁹⁶].

Mpika District lies in the Central Plateau (Zone 2) of the province. This accounts for approximately 60% of the province's suitable agricultural land and covers Kasama, Chinsali, Mporokoso and Luwingu districts as well [⁹⁷]. The two main farming systems found in this zone are the traditional chitemene and more permanent systems, including commercial maize-based systems. In most cases, the systems are mixed, depending on a variety of factors including woodland availability and the degree of commercial orientation. Both systems are dominated by four main cash crops: maize, cassava, finger millet and beans. Other widely grown crops include groundnuts, sweet potatoes, bambara nuts and a variety of local vegetables.

The major constraints on agricultural production in Northern Province are identified in a World Bank (2005) paper as poor infrastructure and market integration, the lack of irrigation, the prevalence of acidic leached soils and weak provision of credit - leading it to assess the agricultural potential of the area to be 'moderate' [⁹⁸]. These constraints remain in 2010 along with others occasioned by the sluggish nature of the Zambian economy as a whole.

Unlike other areas of Zambia, cassava rather than maize is the major food staple with 50% of the nation's production being grown in Northern Province [⁹⁹]. In 2000, Northern Province accounted for 20% of the country's groundnut production, 56% of its millet production, and 21% of its sorghum production [¹⁰⁰] and it is unlikely that these proportions have changed significantly since then. Other crops grown include impwa (eggplant family), finger millet, cassava, groundnuts, beans, maize, pumpkin, sweet potatoes, cabbage, sorghum and vegetables including onions and tomatoes. Coffee and sugar plantations are few, yet important. Cattle are rare, partly due to social norms prevalent among Bemba that consider cattle herding of little value. Small ruminants including sheep and goats, and poultry are raised, though none in large numbers. Livestock production is limited by tsetse fly and trypanosomiasis. Integrated crop-livestock systems scarcely exist and virtually all smallholder land preparation is carried out using hoes. A few farmers have

⁹³ Siegel and Alwang (2005).

⁹⁴ Key informant interview: Jonas Sampa, Foundation for Wildlife and Habitat Conservation (December 2010).

⁹⁵ Hichaambwa *et al.* (2003).

⁹⁶ Central Statistical Office (CSO), Ministry of Health (MOH), Tropical Diseases Research Centre (TDRC), University of Zambia, and Macro International Inc. (2009). Zambia Demographic and Health Survey 2007. Calverton, Maryland, USA: CSO and Macro International Inc.

⁹⁷ ARPT (1986).

⁹⁸ Siegel and Alwang (2005).

⁹⁹ Siegel and Alwang (2005).

¹⁰⁰ Government of Zambia (2000); FAO-Agstats (website). Cited in Siegel and Alwang (2005).

been engaged in dambo cultivation which offers great promise in promoting off-season vegetable production provided the functioning of the delicate agro-ecological system is maintained.

Historically, Northern Province was a net exporter of maize during the 1980s due to policies promoting maize production in that decade. The 1990s, with a withdrawal of support particularly with respect to fertilizer saw a massive decline in maize production, with production falling to less than half of pre-reform levels. Today, all farmers grow maize because of its better nutritional quality and ease of processing compared to other staples. However, production, especially for commercial purposes, would not be viable without input and marketing subsidies due to poor soil fertility.

The collection of wild foods, particularly caterpillars for human consumption, is a significant source of income from September to December [¹⁰¹]. It is not known whether families consume sufficient quantities to meet protein needs, but anecdotal evidence suggests significant levels of stunting and malnutrition.

Land is relatively abundant. In Northern Province landholdings are larger than elsewhere in Zambia, averaging 6.54 ha per household [¹⁰²]. Of this, only around 2 ha are cultivated due to labour constraints [¹⁰³]. Almost all households (97.8%) are engaged in crop production, just over a quarter in livestock (28.5%) and two thirds in poultry (67.4%) [¹⁰⁴]. The growing season in Northern Province as a whole is 120-150 days. The highly acidic soils need lime in addition to fertilizer, and overall soil fertility is declining [¹⁰⁵].

Although the current Farmer Input Support Programme (FISP) has had some success in promoting maize and its associated inputs, the area as a whole shifted from chitemene (slash and burn) cultivation techniques in the 1970s to fixed fields fed with fertilizer in the 1980s back to chitemene again [¹⁰⁶]. Indeed, chitemene was a universal practice in the fieldwork site selected for the current study and operates, according to respondents, on a three year cycle with careful crop rotation designed to maximize soil fertility [¹⁰⁷].

In Mpika District, average monthly precipitation varies sharply across the year. The rainy season begins in October with precipitation averaging 61 mm, climbing to 91 mm in November, to 181 mm in December and 190 mm in January. In February, precipitation declines to 97 mm and in March to 23 mm. In May and June average monthly precipitation reaches only 4 and 3 mm respectively and June, July and August average 13 mm [¹⁰⁸]. The marked seasonality of the agricultural year results in huge surges in labour requirements in the fields which are hard to meet, particularly for women who carry out the bulk of agricultural work. Labour constraints are particularly severe in the rainy season (October to February/March). The use of oxen or tractors for ploughing is almost unknown.

The study team wanted to ascertain the relative importance of groundnuts to local livelihood strategies so women and men producers were asked to work in separate groups to prepare and then discuss sex-disaggregated seasonal calendars across all crops. Most women respondents came from female-headed households. They were asked to present and discuss their own case, and also depict 'typical' gender roles. The findings, depicted in Figure 5.1. show that although women do the bulk of the work in most crops across the production cycle, men were significantly involved at particular points with particular crops. This is important because it contrasts with broad-brush assessments by other key informants in Non Governmental Organisations (NGOs) and the agricultural services that women do 'everything'.

¹⁰¹ See http://en.wikipedia.org/wiki/Gonimbrasia_belina and Kenis *et al.* (2006).

¹⁰² Siegel and Alwang (2005).

¹⁰³ White *et al.* (2005).

¹⁰⁴ CSO [2001], Preliminary Report of Census 2000, 1999/2000 PHS Data, p.15. Cited in Siegel and Alwang (2005).

¹⁰⁵ Siegel and Alwang (2005).

¹⁰⁶ White *et al.* (2005).

¹⁰⁷ Farmer group discussion and key informant interview (Martin – extension worker). December 2010.

¹⁰⁸ <http://www.myweather2.com/City-Town/Zambia/Mpika/climate-profile.aspx?month=1> Accessed December 12th 2010.

Figure 5.1.: Sex Disaggregated Seasonal Calendar, Chikalakala, Mpika District, Northern Province

Crop	December	January	February	March	April	May	June	July	August	September	October	November
Maize	P♀	W♀	W♀ F♀	H♀	H♀	H♀	H♀	T♀	B♀ M♀	Waiting for Cash!	Waiting for Cash!	P♀
Okra	P♀	W♀	H♀	H♀	v.little	v.little	-	-	-	-	-	P♀
Groundnuts	P♀	W♀	W♀	H♀	H♀	H♀	D♀	D♀	S♀	M♀	Ss♀	P♀
Beans	P♀	-	H♀	H♀	H♀	v.little	T♀	B♀	B♀	M♀	Ss♀	P♀
Finger Millet	P♀ broadcasting	-	-	-	-	H♀	H♀	Put in crib	T♀	Men steal for beer!	M♀ Pr♀ brew beer	P♀
Cassava	P♀ simple work	-	W♀	W♀	W♀	H♀	H♀	H♀	H♀	D♀	Pr♀ dry/sell chips	P♀
Sweet Potatoes	P♀	-	-	H♀	H♀	Pr♀ peel, dry, chop	Pr♀	Pr♀	-	D♀	-	P♀
Sorghum	P♀	P♀	W♀	-	-	H♀	D♀	T♀	B♀	St♀ M♀	M♀	P♀
Vegetables	P♀	W♀	E♀	H♀	H♀	H♀	-	-	-	-	-	P♀

Source: Women Farmers, Chikalakala, December 9th 2010

Legend

Women	♀	H	Harvesting	<p>REMARKS BY RESPONDENTS</p> <p>Planting: Cassava: the simple work of planting is done by men and women.</p> <p>Weeding: Maize: a tough job such that you sleep deeply and wake up very late the following day. Okra: weeding okra is women's work. Groundnuts: men say it is simple to grow and weed groundnuts but the truth is that it is hard work. Beans/ Sweet Potatoes/ Finger Millet: not usually weeded. Vegetables: both women and men weed vegetables.</p> <p>Harvesting: Maize: both men and women. Children can harvest under instruction. Groundnuts: men dig and women collect. Single women either do both tasks or hire someone to dig for them.</p> <p>Sorghum: men help to prevent birds eating the grain.</p> <p>Cassava: cassava harvested in August in preparation for the rainy season.</p> <p>Processing</p> <p>Cassava: women dry cassava chips.</p> <p>Finger miller: women prepare beer.</p> <p>Marketing</p> <p>Maize: though women and men market maize men are more involved.</p> <p>Seed Selection</p> <p>Groundnuts: women shell and keep the best seed for planting in the quantity required.</p>
Men	♂	T	Threshing	
Children	☐	S	Shelling	
		B	Bagging	
Lp	Land Preparation	D	Drying	
P	Planting	Pr	Processing	
W	Weeding	M	Marketing	
E	Earthing Up	Ss	Seed Preparation/ Selection	
F	Fertilising	St	Storage	

Selected findings from the sex-disaggregated seasonal calendars and the ensuing discussions [¹⁰⁹] are captured together with analyses provided by other key informants in Table 5.1.

Table 5.1: Production Constraints and Opportunities

Activity	Comments
Land preparation	Women find all aspects of land preparation physically strenuous and painful (chest pains, fatigue), including chitemene (cutting down trees and burning) and hoeing thereafter. Single women pay men in chickens, beer and clothes to do the chitemene. Women want to have ox-ploughs and be trained in their use.
Labour at all points	Women sow most crops (except broadcasting millet which is mostly done by men). They weed and harvest crops at almost the same time due to the single rains. Single women find it particularly hard to manage. They suffer poor yields due to lack of timely labour input. Men help with land preparation and digging up groundnuts but men never help with weeding, partly because this is particularly time-consuming. Herbicides not widely used because they are believed to destroy the soil. Extension workers consider that ineffective planting (broadcasting instead of rows, for example) make weeding unnecessarily onerous. Women are believed to be more careful at weeding than men.
Inputs	Single women are unable to purchase improved seeds but only recycle. If women ask for assistance it always comes too late. Women lack money and other means to pay workers or purchase fertiliser and seed.
Pest control	Women lack information on how to control pests and diseases, especially on beans and vegetables.
Extension Advice	Single women cannot follow the advice of extension staff due to lack of money. Men would like advice on how to increase groundnut production, but to date they have not received any training. Lack of coverage due to budget constraints and lack of officers.

5.2. Development Actors in Mpika Town

Mpika town houses a great number of development actors, ranging from NGOs to government services to business associations. Many of these are engaged in innovative work in terms of methodology. Typically, all had excellent insights into the livelihood strategies of their target groups, their constraints and opportunities, and their capacity development needs. At the same time, each development actor tended to have a rather narrow focus upon 'their' chunk of the chain, and in some cases this led them to propose initiatives that were not properly researched, such as groundnut processors for making peanut butter - even though no self-evident market for peanut butter exists. Other ideas were capital intensive and logistic-heavy, such as bulking facilities in villages, and were yet to be realised.

Development actors place great emphasis on group development work, particularly women's groups, which they see as key to empowerment. At the same time it became clear that the costs of membership, including fees and selection criteria, militated against the most poor (women and men).

This said, levels of expertise are high. Any intervention should acknowledge and work with existing organisations rather than set up parallel structures. Gaps in expertise in any one organisation can be met through bringing organisations together for value chain development, including capacity development as required.

5.3. Gender Profile

¹⁰⁹ Gender-disaggregated farmer group discussions, and separate key informant interview with Martin Mukolwe, MACO extension worker. December 2010.

The team's research suggests that combative gender relations lie behind the apparent placidity of farmers in the face of overt exploitation by buyers (see sub-section 5.4.). Women respondents said: *'Women are custodians of money but they do not spend it.'* They argued that their lack of control over income meant that they preferred to be paid in kind because men typically take and spend money without consultation. *'We do not keep our money. We turn it into other goods. We want payment in material form [cups, plates etc]. This is harder to transform into other things.'* Women revealed that they often hide any money they have, typically with neighbours. Further comments by women and men producers are presented in Box 5.1.

Box 5.1.: Control over Income

Women

Men control our income.

If the woman complains she is beaten and can even be divorced.

Yes, that is the biggest problem we face. Men want to control all our finances.

We don't keep our money, in most cases, in the village. We keep food.

The problem is that men steal the food to exchange for beer or for another woman.

Immediately the food is turned into cash it goes into the men's pockets.

The man can send you to sell, but immediately you come back he wants the money. He even pretends to be annoyed with you to get the money. We give him all the money.

Men

We budget together.

Women know family problems better than men.

You can't be given ZMK500,000 to enjoy alone as man by your wife ... NEVER ... not even ZMK100,000 to use on beer on Sunday.

As a man if after agreeing on a budget with your wife you then you misuse the money in town, you will fail to come back home.

You can even fail to drop at the correct bus stop to your home. You will drop some where else and send someone to ask if your wife is at home ... you can find your clothes outside and be told to go away ... *'I have never seen a foolish man like you who can spend all the money alone.'* ... *'Get out you are a dog....'*

Both women and men agree that men take poor expenditure decisions, often spending scarce household monies on alcohol and women. This is universally ascribed, by both genders, to men's lack of understanding of household needs, including the needs of children. One extension worker remarked, *'Men tend to be reckless. They get drunk. They defend their expenditure decisions by saying 'I'm the head of the household'. Men dominate all decision-making unless older children intervene'*. Women caterpillar buyers concur with this opinion of men's spending habits, claiming they face little competition from male buyers because they fail to reinvest, preferring to spend in bars. The micro-credit scheme organised by the Development Organisation for People's Empowerment (DOPE) targets women due to their excellent payback rate. About 30% of their loan portfolio is male *'because failure will not matter so much'* given the high payback by women who make up the remaining 70% of the portfolio.

At the same time men report that they are responsible for key household expenditure decisions including mattresses, blankets, bicycles, livestock, fertilizer, and tools. Clearly these expenditures include important productive assets. It is not clear whether men actually retain control over them, and whether these assets are passed to the widow should the man die.

The findings have important implications for planned interventions in the region. A normative analysis would suggest that since the Bemba population in this area subscribes to a matrilineal (descent through the female line) and matrilocal (man moves to his wife's village) form of social organisation, social norms should result in women having the upper hand. To explain the deviation from these norms, women producers and other observers claimed that their own parents had observed how women were 'treated' by the older generation and that this tradition was hard to break. *'In Bemba chiefdoms people respect men more. This is rooted in people's minds. Even if the women has an idea men say, 'Ah, she's making a noise'.* Staff at the District Agricultural Coordinator's Office (DACO) said: *From birth on we are told the man should control the purse. Payment is given to the one who takes the produce but the one who does the work gets almost nothing.* Other respondents noted: *Marketing is where the man comes in. The man determines how to spend the money even though women can look after it. Immediately they start to do*

commercial it turns to the man. Immediately you start bulking. In Bemba tradition a woman cannot spend without the assent of the man, even if the woman is a teacher¹¹⁰.

In sum, there are two sources of ‘tradition’ - first, social norms which still govern marital practice (for example, most men still move to their wives’ villages) and second, colonial and post-colonial practices which have defined men as heads of household and decision-makers over many decades. A baseline study - in any part of Zambia - would need to carefully analyse normative gender relations and actual gender relations in order to design appropriate interventions aiming to foster gender-equitable relations in value chains.

A significant though tentative finding was that farmers who have experienced some kind of household level training, whereby all household members are drawn into the development process, demonstrated very different approaches to expenditure. According to local informants, the most effective of these was the training offered under ASP and its predecessor programme, Economic Expansion of Outlying Areas (EEOA) [¹¹¹]. Anecdotal evidence garnered through key informant interviews suggests that farmers currently enrolled as master farmers on local programmes (such as the Chikakala Marketing and Conservation Co-operative, who are utilizing dambos for dry season production) or viewed as ‘successful businessmen’ by the extension services, are graduates of the ASP/EEOA.

5.4. The Groundnut Value Chain

Agricultural value chains in the research area characteristically involve a multitude of small players occupying tiny niches with very small margins in many cases. Groundnuts are no exception. Agricultural produce is scarcely processed or marketed within Northern Province due to the lack of processing and packaging facilities and poor consumer purchasing power. Rather, it is moved right out of the province. Under these circumstances a flourishing local economy with localised demand and supply networks, local circulation of money, and a multitude of actors occupying various economic niches cannot exist. Women in particular, who face serious time and mobility constraints, are far less able than men to participate in the supra-regional sketchy economic networks that do exist and are thus mainly restricted to working as producers and farm labourers, generally on neighbouring farms.

Apparently, the whole area has become ‘demonetised’ since the 1980s [¹¹²]. Labour and inputs are typically paid for through chickens, beer and groundnuts - both on the informal market and also in NGO-producer interactions. Household income flows are tightly tied to harvesting and sale of crops (April - September approximately), meaning that it is difficult to meet financial commitments and food needs at other points in the year. The hungry season is January and February.

5.4.1. Producer Participation in the Groundnut Chain

Box 5.2 outlines the multiple roles groundnuts play in the local economy. Both women and men value groundnuts for household consumption and sale. Failure to acknowledge the dual usage of groundnuts resulted in the total failure of a major intervention by the ASP to introduce a higher yielding variety, the MGV4. This variety has high oil content and is thus difficult to pound. It results in an oily relish which is highly unpopular and decays rapidly. Had women been consulted MGV4 would not have been introduced. Although standardised shelling machinery was introduced alongside MGV4 this expenditure was wasted since local and chalimbana varieties cannot be shelled effectively due to their varied sizes.

The extent to which groundnut production for sale competes with household needs is not known.

Box 5.2: Multiple Roles Played By Groundnuts In The Local Economy

Groundnuts are considered a ‘women’s crop’ in the Mpika area by many stakeholders including the agricultural services. Discussions at producer level show a more complex picture. Men grow

¹¹⁰ Key Informant Interview: Jonas Sampa, Foundation for Wildlife and Habitat Conservation

¹¹¹ See the evaluation by Farnworth, C.R. and Munachonga, M. (2010) Zambia Country Report: Sida UTV Working Paper 2010:8. Please note that in the current study the sample was very small (a few individuals) but remarks regarding the effectiveness of the Household Approach of the ASP were reiterated independently by almost all interviewees (MACO, NGOs, Business Associations, farmers).

¹¹² White *et al.* (2005).

groundnuts on Chifwani and Mushime fields. Women also set aside a plot of land to grow groundnuts for household consumption, an area which men never enter. Whilst women perform the bulk of the productive work, men in male-headed households help to prepare the land and dig out the groundnuts for harvesting by the women. Cassava is intercropped with groundnuts to maximise land use.

Apart from sale, groundnuts are used in a variety of ways at household level. They are typically used as a relish since people do not use cooking oil, and they provide a snack to take to the fields. For this, women roast cassava and fry groundnuts. Sometimes sweet potatoes are pounded and mixed with groundnuts. Groundnuts are also mixed with maize to prepare food for weaning. To ensure the family's food needs with respect to groundnuts are met for the whole year, women set aside a pot filled with nuts. This is covered with a layer of mud to prevent theft.

Workers are paid in groundnuts rather than cash (beer, clothes, and chickens are also used).

Key constraints in groundnut production include labour, particularly weeding, which must be repeated at least three times during the growing season. Traditionally groundnuts are sown by broadcasting and not in rows which makes weeding more onerous. They are often grown with maize and must be planted at the first rains. Seed quality can be poor since farmers almost exclusively use recycled seed instead of replenishing with new stock. Some farmers do not buy seed from neighbours for fear of witchcraft.

5.4.2. Buyers/ Traders

A network of buyers, both Zambian and Tanzanian, purchase and transport agricultural goods to Tanzania, the Democratic Republic of Congo (DRC), the Copperbelt and to Lusaka through *ad hoc* arrangements with lorry drivers who ferry sacks of groundnuts, millet and the like illegally alongside their legitimate cargo. Given the great weight of the sacks (120 kgs for millet and rice) buyers pay loaders to get produce onto trucks and off again. Buyers rarely convey produce to its final destination, rather, a single buyer is a bit piece in a lengthy chain which ferries goods from buyer to buyer to buyer. With respect to groundnuts, no buyers interviewed for this study (who were the buyers purchasing from the farmers themselves) knew the exact final destination of the produce. A Zambian male 'briefcase' buyer commented:

I sell a lot to the Copperbelt, mainly to Kitwe and Ndola. The problem is the prices. To take them there is expensive. There are low margins. When I sell the groundnuts to the buyers in the Copperbelt they sell them again to small traders, to Zambians and to Congolese. I don't know what happens after that. It is not in our interest to know where they are taking the groundnuts. For me, the issue is that it is expensive to take them to the Copperbelt. I just hike on the road to Kitwe. I pay the loaders. I take 30 x 120 kgs.

A Tanzanian buyer revealed that groundnuts purchased in the Mpika area are eventually turned into groundnut oil by processing plants in Tanzania. His role in the chain is to buy the groundnuts from the producers and bring them to the Zambian/Tanzanian border where he sells them to more middlemen. Both Tanzanian and Zambian buyers claimed that demand for groundnuts and finger millet was not being met by local producers and that they would like to see a significant increase in production. Table 5.2 provides an overview of the links between the first level buyers and other buyers. It does not contain details of any costs since it was not possible to obtain this information.

Table 5.2: Linkages in Groundnuts Selling Prices

Zambian Buyers Buy at ZMK15 000/ meda	<ol style="list-style-type: none"> 1. Resell to Tanzanians (ZMK18 000/ meda) 2. Resell at Congo border to middlemen who take the produce across the border to sell 3. Resell in Copperbelt to local business people 4. Sell to retailers in Mpika
Tanzanian Buyers Buy at ZMK15 000 /meda, or purchases from a Zambian bulk buyer (accumulator) at ZMK18,000	<ol style="list-style-type: none"> 1. Resell at Tanzanian border (ZMK30 000 meda) to middlemen who buy at the border and take to Moshe. 2. Some Tanzanians resell in Isoka, Chinsali and Mpika.

Apparently there are a few Tanzanian women who come regularly to the area to buy groundnuts. They travel together for security purposes and buy from towns close to the border such as Nakonde, Isoka and Chinsali. The male Tanzanian buyer said that most potential women buyers were put off by the harassment at the border which is routinely applied to both male and female traders. *‘Women are afraid, the border guards hassle everyone but women are more easily intimidated. Men know their rights more than women’*. He declined to comment as to whether sexual harassment may play a role in putting off women traders, but added that it is harder for women traders to enter the sector because they have less capital than men. The Zambian informant claimed that there were around five women buyers active in Mpika who transported produce to the Copperbelt and other destinations within Zambia. He commented. *‘Women are tough. They don’t negotiate. They have problems at home - food, school fees - they have to manage. Their behaviour reflects that. They have more needs that they have to provide for. Men underestimate those problems’*. All buyers cross-subsidise their businesses through reinvestment into other goods rather than save cash.

Female Zambian traders in Mpika town market operate micro-businesses with low margins. They offer at least three commodities at any one time to maximise sales, such as beans, caterpillars, and groundnut. Respondents generally buy groundnuts early in the season direct from the farmers, and then purchase small amounts to make up stocks from male traders patronising the fringes of the market who have bulk-bought groundnuts. Women traders revealed they would prefer to buy more groundnuts in bulk direct from the farmer in order to increase their margins, but that limited capital prevented them from making more than one or two trips in a season. Female traders also argued that women select better quality groundnuts than men and this is why they wanted to do their own selection. The weight of the bags (120 kilogrammes) is a critical constraint since women have to employ loaders as well, whereas men are strong enough to lift them on their own.

Whilst women traders generally expressed satisfaction with their business - one informant had been selling in the market for twenty years - they would like to expand their businesses. For this they require capital. However, currently, credit providers scarcely exist and are rarely used. Whilst some women attempt to market their groundnuts at other venues, this can be complex and difficult: *‘The procedures involved at Amanita where I supplied groundnuts last year are so many that you have to spend up to two weeks chasing your money. When you arrive they tell you they need to test for oil content, then they weigh, and then you have to be coming to check for your payment over a number of days. Now who will look after your family while you are away for such a long time?’*

5.4.3. Buyer - Producer Interface

At the producer-buyer interface, produce is usually paid for ‘in kind’ (salt, soap, clothing, cups, plates and pots). Farmers are aware that they are exploited in this relationship. Women respondents claimed that they receive a chitenge (wrap) worth ZMK7 000 for a gallon of caterpillars that can be sold for ZMK27 000. Information collected during the current study is verified by an IDS study (2005) which asserts that buyers charge between two and ten times more for barter goods than they paid for them [113]. Table 5.3 shows how the producer - buyer interface functioned in 2010. It shows that the most poor are the most vulnerable to approaches from buyers early in the year, accepting a very low price in barter goods in order to meet their basic needs. Farmers are evidently price-takers and tend to operate independently of each other making them vulnerable to buyers who can easily go elsewhere if farmers do not accept the price offered. Women respondents appeared to have had poor experiences with group work in the past though they acknowledged the potential value of coming together to bulk produce for collective marketing.

Table 5.3.: Producer-Buyer Interface for Groundnuts around Mpika town in 2010

Month/Price	Remarks by respondents
April: buyers buy crop in the ground. They pay ZMK5 000 equivalent (salt, soap etc) for 5 kgs (one meda).	The most poor are prepared to sell crops at this stage for essential items. Some farmers involved may be poor planners. For the buyer, this is a high risk strategy since the crop could fail. If this happens then payment is rescheduled to the following year. A financial buffer is clearly needed to

¹¹³ White *et al.* (2005).

	cater for such eventualities.
May: ZMK8 000/ meda for harvested groundnuts	This is a difficult time of year due to labour requirements on the farm. Children and adults paid in groundnuts to work on the farm.
June: ZMK10 000 / meda for bagged groundnuts	
July: ZMK15 000 / meda for bagged and shelled groundnuts	Same price at farm gate and in town (Mpika). This is due to the ubiquity of groundnuts. Tanzanians and local business people come at this time to buy shelled nuts.
August/ Sept: ZMK18 - 20 000 /meda	Groundnuts are getting scarcer. Farmers buy at this time for seed if they had a poor harvest or failed to set aside enough seed.

5.4.4. Value Addition

Currently no value addition takes place in the region. The groundnuts exported to Tanzania are generally processed into groundnut oil. Finger millet, another popular crop with the Tanzanian buyers, is used to fortify porridge for infants. Further research is needed into why these market niches are not exploited in Zambia's Northern Province or in Zambia more generally.

Discussion with local business organisations and NGOs revealed strong interest in processing groundnuts into peanut butter and indeed one organisation had already purchased processors. However, a shopkeeper in Mpika claimed that there were many pitfalls to this scheme. First, all households know how to make crunchy peanut butter, and secondly, peanut butter was hard to shift at ZMK8 000 a jar, particularly when the maximum value of groundnuts within the jar was around ZMK1 000. He explained that packaging and labelling was a key bottleneck in upgrading, there being no local facilities. He sends honey from Mpika 200 kilometres to a bottling and labelling plant in Kasama. The honey is then returned to his shop, a round trip of 400 kilometres.

5.6. Conclusions from the Fieldwork

Many factors impinge upon the effectiveness of the groundnut chain in Northern Province, and in Mpika District specifically. Demand is very high and is unmet. Given self-sufficiency in groundnuts at household level in farming households, local markets depend on urban dwellers and on farmers purchasing seed for planting. Prices climb exponentially from harvesting onwards. The most poor sell the crop at a very low price whilst it is still in the ground in order to acquire basic necessities. Those who can afford to wait do so. The most poor also buy groundnuts for seed when they are most expensive, just before the planting season.

The groundnut chain is complex and hard to map. Traders play a key role, selling on for small profits to the next level in the chain. Product is almost always shifted illegally as side baggage on trucks. This situation arises due to the high cost of transport and due to penalties on foreign trucks at the Tanzanian and Congolese borders.

Women are concentrated at the very lowest level of the chain as producers. Groundnuts are key to their household nutrition and food security strategies and also serve as currency to pay workers on their fields. Although women may market groundnuts, they find it hard to retain control over income generation, with men typically taking all expenditure decisions. This leads women to favour bartering strategies, whereby groundnuts and other crops are exchanged for goods which are hard to re-translate into cash. Combative gender relations over expenditure decisions critically enable the exploitative producer-buyer interface. Poverty, associated with low levels of production and productivity, lack of alternative market outlets, and low human capital development, compound the weakness of producers in the chain.

The lack of appropriate loans for the poor and women inhibits their participation in the value chain, particularly as buyers. For instance, women in retail markets typically own micro-businesses. Their businesses stay small due to lack of capital and lack of specialisation. They rely on cross-subsidising one aspect of the business through the profits generated from another rather than seeking loans to enable growth. The large size of the bags and hence the need to pay loaders also hampers direct purchasing by many women traders.

Some Zambian and Tanzanian women buy large quantities direct from the farmers. Acknowledged to drive a hard bargain, their participation is restricted by harassment at international borders as well as an overall lack of capital with which to start.

ANNEX 1: REFERENCES

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WEBSITES

- FSRP website: www.aec.msu.edu/fs2/zambia/index.htm
- International Water Management Institute website: www.iwmi.org

ANNEX 2: SCHEDULE

Date	Time	Activity	Contact Details
Monday, November 29	14:30	Gender Analysis Team meeting	
Tuesday, November 30	09:30	PROFIT Rueben Banda, Chief of Party Jemeh Egwuagu, Deputy Chief of Party Joshua Munkombwe, Agriculture Input Coordinator Jonathan Mwewa, M&E	Email: reuben@profit.org.zm Email: jemeh@profit.org.zm Email: josuamunkombwe@profit.org.zm
	13:00	Kristy Cook, USAID Zambia Mission	Email: kcook@usaid.gov
	15:00	Oscar Maroto, Programme Director, C-FAARM, Catholic Relief Services	Email: omaroto@zm.saro.crs.org
Wednesday, December 1	10:00	Team meeting	
	13:00	USAID Mission Director, Melissa Williams, courtesy call	Email: mewilliams@usaid.gov
	13:15	Jeff USAID, Mission Contracts Officer	Email: alevin@usaid.gov
	13:30	USAID Economic Growth Team <ul style="list-style-type: none"> ❑ Adam Jung, Program Development Officer ❑ Abeje Zegeye HIV/AIDS Management Program Specialist ❑ Beatrice Hamusonde Women Justice & Empowerment ❑ Andrew Levin, Economic Growth Team Leader ❑ Alexis Jones, Development Leadership Initiative (DLI) Economic Growth Team 	
Thursday, December 2	09:00	Valerie Chanda Chibuye, Programme Officer, Food Security and Relief, DanChurch Aid Zambia	Email: fs.zambia@dca.dk Cell: + 26 097 7644835
	11:00	Sula Nakanyika-Mahoney, Gender/Youth and HIV Smart-Fs Consultant, ACTESA	Email: sulamahoney@yahoo.com , Cell: 0966/0977773952
	14:00	Dellia Yerokun, UNDP	Email: Dellia.yerokun@undp.org
	15:00	Helen Chirwa, CRS	Email: helenchirwa@zm.saro.crs.org
Friday, December 3rd	08:30	Njira Mtonga, Women's Land Rights, ActionAid (in meeting, submission made by email)	
	10:00	Joseph Nkole, Executive Secretary, Cotton Association of Zambia	
	11:00	Dick Siame, Country Director, IFAD Lomthunzi Jere, Program Officer, IFAD	Email: dnsiame@yahoo.co.uk Email: lomthunzijere@yahoo.co.uk
	13:00	Eva Ohlsson (SIDA), Kristy Cook (USAID/Zambia)	
Saturday, December 4th	13.00	Gender Analysis Team meeting	
	18.00	Paul Muwowo (director of DOPE)	

Monday, December 6th		<ol style="list-style-type: none"> 1. Mpika Business Development Association: Patrick Chelu, Business Development Officer - MPK, and Kampamba Jonas Bwaly, MDBA member, MDBA member, Kaole Village. 2. Jonas Sampa, Wetlands Action, Mpika. 3. Interviews with women groundnut sellers at Mpika market: Mrs Ireen Chishala, Mrs Charity Muma Chishala, Mrs Maggie Mwapa, Mrs Josephine Mwansa, Loveness Nankamba. 4. Interview with Tanzanian groundnut buyer, Mr. Mwambenja 5. Interview with Zambian groundnut trader/ briefcase buyer, Mr Michael Bwalya 	<p>Cell phone for Mr Chelu: 0979 65676 Email: Patrickchelu@hotmail.com Cell phone for Mr Kampamba: 0978 714399</p>
Tuesday, December 7th		<p>District Commissioner's office</p> <ol style="list-style-type: none"> 1. Hassan M. Siambebele, District Administrative Officer 2. Precious Miti, District Community Development Officer 3. Charles Chidka, Agricultural District Office Coordinator 4. Barbara Chimbwe, Resettlement Scheme Manager <p>MACO District office staff</p> <ol style="list-style-type: none"> 5. Mr. Mulenga Maipambe, Senior Agricultural Officer 6. Mr. Kasanga K. Ergbert, Principal Agricultural Supervisor, Acting Crop Husbandry Officer 7. Ms. Vellani Kawanda, Nutrition Officer 	<p>Cellphone: 0977 351465 Email: zanjimiti@yahoo.com and cellphone: 0977 163037</p> <p>Email: chijokamanly@yahoo.com and cellphone: 0978 503078/ 0966 684339 Cellphone: 0979 063054 and 0966 8999855</p>
Wednesday, December 8th		<ol style="list-style-type: none"> 1. Martin Mukuka Mukolwe, Extension Worker, Chikakala 2. Visit to Mwila Pascal, model farmer (dambo farmer) 3. Meeting with mother and daughter team of caterpillar traders (declined to give names) 	
Thursday, December 9th		Small Group Discussions with Producers (see separate listing)	
Friday, December 10th		Return to Lusaka	
December 11th-14th		Writing up, several Gender Analysis Team Meetings, preparation of powerpoint presentation for debriefing to USAID	
Monday, December 13th		Meeting with SO5 members at USAID/Zambia	
Wednesday, December 15th		Gender Analysis Team Debriefing at USAID	

Producer Meeting at Chikalakala (two separate meetings held, with women and with men)

Name	Gender	Crops Grown	Plans/Remarks	No. of Children
Paul Shula	M	Beans, maize, & tomato	Dambo farmer	7
Bwalya Wisdom	M	Tomato, Cassava	Left school due to lack of funds	Single

			plans to go back to school after dambo harvest	
Kangwa Regina	F	Maize, groundnuts	Widow	4
Annet Mumbi Chibende	F	Finger millet, groundnuts & Cassava	Husband left to copperbelt married to another woman	3
Mwango Davison	M	Beans, groundnuts & cassava	Shifting cultivation farmer	12
Mwila Pascal	M	Maize, Cassava, onion	Dambo farmer	4
Muma Patrick	M	Maize, beans, cassava & groundnuts	Keeps cattles	7
Cosmas Mutale	M	Tomatoes, bananas, beans & cassava	Dambo farmer	7
Emaldah Kabwe	F	Groundnuts, beans, & cassava	Hires people to work for her payments from Dambo crops	6
Thresa Mwaba	F	Groundnut & beans	Work for food to support children and rear chickens for payments to labours	3
Dorothy Lupupa	F	Bean, groundnuts & Cassava	Husband gone to town	6
Annette Chanda	F	Groundnuts, beans & finger millet	Husband gone to town married to another woman	5
Catherine Chanda	F	Groundnuts, beans,	Dambo farmer husband died in 1997	7
Mary Mwamba	F	Maize, groundnuts, beans	Hires labour for shifting cultivating fields	4