

**The Gendered Implications of the Expansion in Commercial Sugarcane Production:  
A Case Study of Contract Farming in Magobbo, Zambia**

by

Vera Rocca

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**Abstract**

*This paper presents evidence on the gender differentiated effects in the nucleus-estate outgrower arrangement from a case study of a sugarcane outgrower scheme in the community of Magobbo, Zambia. Specifically, the paper explores women's participation in the scheme, access to employment, decision-making, control of household income, and access to natural resources. Women are disadvantaged in these areas overall, though there is a key generational difference. As well, both women and men enjoy increased economic stability and improvements in family diets. I find that the outcomes observed are influenced by: 1) the existing inequalities in access to land and discriminatory gender norms; 2) the institutional arrangements of the outgrower model; and 3) the gendered division of labour. These findings contribute a nuanced discussion of the gender differentiated effects of agricultural investments to the literature on women in contract farming and large-scale land acquisitions for agriculture.*

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## **Introduction and Context**

Large-scale land acquisitions have increased in recent years, particularly after the 2007 – 2008 food crisis. Together, biofuel production, expected increases in agricultural commodity prices, and concerns over food security are driving up the demand for agricultural land. Africa has been the target of much of the new investment in land. The International Land Coalition estimates nearly 24 million ha of land deals were concluded in Africa out of a total of 36 million ha since 2000 (Anseeuw 2014, Land Matrix 2014). Such an increase in the scale of land acquisitions raises concerns about its social impact, especially in countries with food insecure populations with weak land tenure regimes. Researchers have devoted attention to understanding the recent and controversial rush for land in attempt to assess the potential benefits and risks. Throughout this literature, however, the gendered impact of this expansion has received less attention (Daley 2011a, Berhrman et al. 2012, Julia & White 2012).<sup>1</sup> This paper contributes to understanding gender differentiated social outcomes from commercial pressures on land, and the underlying factors that influence these outcomes.

Agriculture is critically important to rural populations in developing countries. The International Fund for Agricultural Development and the United Nations Environment Program estimate that there are 2.5 billion people globally involved in managing 500 million small farms (IFAD & UNEP 2013). The majority of rural populations depend on agriculture for their livelihood. With so many people dependent on agriculture, growth in the agricultural sector may be at least two times more effective in

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<sup>1</sup>These sources are among few that address the gendered impacts of land deals.

reducing poverty than growth in other sectors<sup>2</sup> (World Bank 2007, p 6). Changes in agricultural systems such as the recent increase<sup>3</sup> in investment in large-scale farming will therefore have profound impacts on developing economies and the livelihoods of agricultural-dependent populations.

In Africa, this current wave of large-scale land investments creates an opportunity to develop agriculture, a sector that has been starved of investment, especially since the era of structural adjustment where the state's role in the agriculture sector was scaled back (Noguiera 2006). Agricultural based economies in Africa have spent less than 4 percent of their agricultural GDP on investments in farming. This amount compares to the 10 percent average spent by countries in South and East Asia, the Middle East and North Africa whose economies have become less dependent on agriculture. Lack of investment in research and development and low technological inputs are factors in the stagnant cereal yields across sub-Saharan Africa (World Bank 2007). Large-scale investments could help fill an agricultural yield gap (Deininger & Byerlee 2012), though the extent of this gap in yields has been disputed (Scoones et al. 2013). The investments could also create wage employment, increase access to markets and technology, and bring social infrastructure to communities as well as provide local tax revenue (Deininger & Byerlee 2012).

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<sup>2</sup> Possible channels for agriculture's impact on poverty reduction are: 1) rising incomes for agriculture dependent populations; 2) cheaper food for rural and urban poor; 3) agriculture's contribution to GDP growth and effect on non-farm sectors; and 4) the role of agriculture in leading to an economic transition to a goods and services based economy (DFID 2004 in Cervantes-Godoy and Dewbre 2010).

<sup>3</sup> Estimates of the extent of large-scale land deals vary widely. The International Land Coalition estimated that 80 million ha was under negotiation while the World Bank estimated that deals were announced covering approximately 56.6 million ha before the end of 2009 in under one year (The Economist 2011; Deininger et al. 2011). The International Food Policy Research Institute estimated 15 to 20 million ha of land was subject to negotiation since 2006 (The Economist 2009).

There are also risks and possible negative impacts that have been highlighted in recent literature on large-scale land investments. These possible negative impacts include the displacement of people and the alienation of land without adequate compensation, loss of livelihood and resources, resource conflict, the erosion of traditional land rights, and adverse short and long-term impacts on the environment (Cotula et al. 2009, Deininger et al. 2011, Kugelman & Levenstein 2012). Some of this critical research has been driven by advocacy campaigns and its results are not always consistent with the findings of academics (Edelman 2013). The highly critical view has been characterized as a “‘neopopulist’ pro-smallholder farmer, anti-labour, anti-foreign investment narrative” (Scoones et al. 2013, p. 477). Other analysts concede that there are potentially negative and far reaching risks, but believe that regulation and adherence to a code of conduct makes possible a win-win situation for investors and people affected by the deals (Deininger et al. 2011, Braun and Menzin-Dick 2009). Arguably, however, as Oya points out, both pro and anti land investment narratives have failed to address complexities, confuse potential outcomes with real impacts and ignore “complex and contradictory ways in which such benefits might actually materialize over time” (Oya 2012, p. 1535). There is a need for careful research that explores these outcomes.

The outcomes of large-scale land investments are likely to be socially differentiated across gender, ethnic groups, age cohorts, and income brackets (Cotula and Leonard 2009). Women, for example, may not be involved in the consultation and negotiation processes with investors, they may lose access to resources on the land that they depended on, and may not benefit from the opportunities for employment and increased income (Behrman et al. 2012). Understanding how large-scale deals may



change women's access to land and resources, influence labour burdens and affect earnings is particularly important since women make a significant contribution to the world's production of agricultural commodities and food.<sup>4</sup> An investment in agriculture presents the opportunity to re-negotiate the distribution of resources. When land deals are well-designed, existing inequalities can be challenged and the distribution of assets can be advantageous to women (Behrman et al. 2012). At the same time, existing inequalities may be perpetuated or discrimination against women can be worsened. Daley warns that "any change in land relations is likely to be affected by systemic gender discrimination" (Daley 2011a, p. 13).

The institutional form of an investment in agriculture may also affect the socio-economic outcomes of these arrangements. There is discussion in the literature, for instance, on which farming models produce the best social outcomes (Vermeulen & Cotula 2010a, Smalley 2013). Certain types of arrangements such as contract farming whereby farmers can be vertically integrated as suppliers in producer value chains, are perceived by some to provide smallholders with better development opportunities compared to other models, a win-win arrangement for farmers and the contracting company (Hallam 2011; Deininger et al. 2011; Liversage 2011; von Braun & Meinzen-Dick 2009).

The rush to invest in agricultural land may increase the absolute scale of contract farming arrangements, even though plantation farming may be comparatively more

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<sup>4</sup> An exact measure of women's contribution to food production is impossible to determine given existing data. See Cheryl Doss (2010). *If women hold up half the sky, how much of the world's food do they produce?* Available at <http://www.fao.org/3/a-am309e.pdf>; Available data aggregated across countries shows that women make up 43 percent of the agricultural labour force and nearly 50 percent on average in Africa. See The SOFA Team and Cheryl Doss (2011) *The role of women in agriculture*. Available at <http://www.fao.org/docrep/013/am307e/am307e00.pdf>

significant in the scale of its land usage. Outgrower schemes can sometimes be associated with the expansion of large-scale commercial farming as their production complements the plantation's production. This arrangement, often called the nucleus-estate outgrower model, involves a large central plantation (the nucleus-estate) and processing facilities surrounded by outgrower farms that can range widely in size. In this way, small farms become subsumed into large-scale production without the need for companies to acquire direct ownership of all the land necessary for their production. The model's significance is increasing because of the massive expansion in outgrower schemes currently underway (Hall 2011).

Contract farming schemes now emerge in slightly different forms from the past, closely connected to large-scale land deals and the private sector since it has become common policy to focus on the incorporation of smallholders into agricultural value chains in Africa (Little and Watts 1994, Oya 2012, Prowse 2012). Contract farming may experience a resurgence under "dual policy" strategies of countries such as Senegal, Mozambique, Zambia and Ethiopia. These countries want to promote large-scale commercial investment to increase agricultural competitiveness, while vertically integrating smallholder production into global value chains (Oya 2012). It is thought that through vertical integration, smallholders can gain access to credit and inputs that allow them to increase productivity. Most agricultural policy documents in fact favour investments in smallholder farming (World Bank 2007, UNCTAD 2009, Oya 2012). Political motivations increase the significance of the model as well. Large-scale commercial agricultural projects that return to large plantation style models may be politically unviable if there is no attempt to vertically integrate smallholders within these

projects. Contract farming, however, can also be an exercise in public relations when it would be more efficient to contract from larger-scale commercial outgrowers (Oya 2012, Smalley 2013). By giving the impression of being pro-poor, the schemes may be able to attract funding from foreign aid donors as well (Bauman 2000).

Given the likelihood that contract farming arrangements will increase and the lack of empirical evidence on the gendered impacts of increasing commercial pressures on land, this paper explores gendered outcomes in the nucleus-estate outgrower model. I examined this model through the study of the expansion in sugarcane commercialization in Mazabuka District, Zambia. The focus of this study is on one outgrower scheme that began supplying sugarcane to Zambia Sugar Plc (simply known as Zambia Sugar throughout) in 2011. The fieldwork was carried out in Mazabuka District, Zambia, from June to August 2013 through a mix of qualitative methods including focus group discussions and key informant interviews, as well as a survey carried out with 45 women. This study asks two central questions: 1) Are there gender-differentiated effects of the expansion in large-scale commercial agriculture through the outgrower scheme in this study, and if so what are they? And 2) What explains the gendered allocation of the costs and benefits of land investments in the nucleus-estate outgrower model? Based on the literature on women and contract farming, I hypothesized that gender inequalities and norms that restrict women's access to, and control over land and resources would also restrict the benefits they obtain from outgrower schemes (von Bülow & Sørensen 1993, Carney 1994, Dolan 2001). Second, I anticipated that the type of crop produced may be an important determinant of women's gains and losses since the production of some crops is

male-dominated. Upon commencing fieldwork, it became apparent that the structure of the farming business model is also an important factor to consider.<sup>5</sup>

In exploring the allocations of costs and benefits to women, I applied concepts from the Women in Development and Gender in Development feminist perspectives (Molyneux 1985, Moser 1993). Specifically, fieldwork aimed to understand women's practical gender needs and strategic interests as well as their multiple gender roles including productive, reproductive and community management. The assumption was made that the household is not a unitary actor, but rather is subject to contestation over control of resources and sometimes, divergent interests (Whitehead & Kabeer 2001). Research findings of this study indicate that existing gender discrimination in women's control of land within marriage negatively affects women. On the other hand, widows have been able to benefit from participation in a way that fulfills their strategic interests for greater equality in development processes. While the scheme does not significantly worsen inequalities for women, it perpetuates existing ones within new forms of production. Married women are disadvantaged in their participation in the scheme, intra-household decision-making, and control over household income. Married and widowed are disadvantaged by their access to employment, natural resources and in community leadership structures. In spite of greater time burden in the gathering of firewood, women's overall productive workload has decreased as a result of the business model adopted in the structure of the scheme. The decrease in workload is connected to the use of a management contract for production at this stage in the outgrower scheme. This

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<sup>5</sup> I also refer to this as the "institutional arrangements" of the outgrower scheme. A farming business model can be described as the way an agribusiness structures the use of its resources, and how it manages its partnerships and customer relationships to make profit. More inclusive business models would involve local landholders and suppliers to share value among them (See Vermeulen and Cotula 2010).

arrangement employs the use of a company experienced in growing sugarcane so the farmers are not managing their individual plots. This study also suggests that some effects of the scheme fulfill practical needs for both women and men such as enhanced economic stability and improvements in family diet. *Overall this study finds that the sugarcane outgrower scheme has fulfilled some of women's practical gender needs and strategic interests, particularly for widows, while producing an allocation of benefits less favorable to women overall. There are, however, some benefits and potential losses in the switch to sugarcane production that cut across the gender division producing gains and potential losses for both women and men. This study argues that the gender inequalities and norms, including the gendered division of labour, interact with the structure of outgrower model to determine women's gains and losses.*

## **1-Review of Literature**

This section reviews relevant literature starting with concepts that will be applied to this study from the Women in Development (WID) and Gender and Development (GAD), feminist development perspectives. Second, I outline the potential gains and losses for women that have been discussed within the recent literature on the expansion in large-scale commercial agriculture. Third, this section presents empirical evidence on women in contract farming, exploring its impact on women.

### *Women in Development and Gender and Development*

This paper applies concepts from the Women in Development (WID) and Gender and Development (GAD) perspectives. These perspectives provide a framework to

examine the divergent impacts of the contract farming arrangement on women and men. The WID approach emerged in the 1970s, and was focused on increasing women's involvement in productive activities. Proponents of WID maintained that development planning had previously excluded and discriminated against women. WID focused on achieving equity for women in processes of development on the basis that women were being excluded from modernization (Rathgeber 1990). WID therefore examined women's production in terms of its impact on development projects. Examples indicated that projects aimed to increase income and productivity would not likely obtain their goals if they did not consider women's productive activities (Dey 1981 in Razavi & Miller, 1995, Tinker 1997). Income-generating activities and women's cooperatives were popular development projects within WID to redress women's exclusion (Rathgeber 1990).

The GAD approach emerged in the 1980s as a response to the limitations of WID in its focus on increasing women's contribution to existing development processes (Moser 1993). The approach placed more emphasis on the social relations between men and women such as their socially constructed roles, women's subordination to men, and the structural changes needed to achieve women's equality (Rathgeber 1990, Moser 1993, Young 1997). The GAD perspective therefore focused attention on women's needs beyond inclusion in productive economic activities. For example, increased investment in women's productive roles could increase the burden on women, placing undue responsibility on them for production and the provision of services in their community. This added burden could negatively affect women's health and well-being (Vaughn 1986 in Razavi & Miller 1995). The GAD perspective emphasizes the importance of women's welfare within the context of women's practical versus strategic gender interests, a

distinction first articulated by Maxine Molyneux (1985). Caroline Moser later adapted the concept of interests into the GAD Planning Framework using the word “needs” to describe how gender interests are translated into planning measures (Moser 1993).<sup>6</sup> In this framework, practical gender needs are those that fulfill an immediate and often material need that women or men have.<sup>7</sup> Satisfaction of those needs does not alter the relationship between men and women. Examples of practical needs include income, adequate amounts of nutritious food, and access to clean water. The fulfillment of strategic interests for women, on the other hand, alters the unequal power relationship with men and enhances equality between women and men. Examples of women’s strategic gender interests include access to employment opportunities, education, and the alleviation of childcare duties. This study takes WID as a starting point looking at the extent of women’s inclusion in the processes of agricultural commercialization, and then uses the GAD perspective to analyze women’s gains or losses in terms of their practical gender needs and strategic gender interests.

Despite these differences, both WID and GAD share the assertion that the household is not a singular socio-economic unit (Collier 1988, Moser 1993, Kabeer 1994, Whitehead & Kabeer 2001). This perspective contrasts the assumption in neoclassical

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<sup>6</sup> I chose to use the terms “practical gender needs” and “strategic gender interests,” consistent with Kate Young’s (1997) rationale to distinguish between mundane needs and interests that require collective consciousness and a change to the existing order. The terms “practical gender interests” and “strategic gender needs” can also be found in literature, and needs and interests have sometimes been used interchangeably (March et al. 1999, 19-20). Maxine Molyneux (1985) first introduced the terms practical and strategic gender “interests.” Caroline Moser (1993) introduced the word “needs” to refer to the practical planning element in satisfying a “gender interest,” and popularized the word needs in Moser’s Planning Framework. Moser defines a gender “interest” as the area of prioritized concern. To illustrate how the two terms are conflated, Moser (1993) calls the abolition of the gendered division of labour a “strategic gender need” and Molyneux (1985) uses this same example, which she calls a “strategic gender interest.”

<sup>7</sup> Such use of the word “needs” however, has been criticized as implying that women are passive recipients of planning efforts (March et al. 1999, 64). To clarify, the use of the word “needs” in this study does not indicate that women have no agency or importance in the process of fulfilling these planning measures.

economics that the household is a unitary actor. An asymmetrical power relationship between men and women produces frequent negotiations within the household as women challenge their subordinate position. Men and women do not always share income or resources with each other, and regularly do not have equal control over how spending decisions are made. Significant inequality can exist within the household where self-interest drives economic decisions (Moser 1993). The nature of the division of resources within the household and responsibilities towards other family members can also vary according to the type of marriage contract entered. Polygamous households will, for example, have distinct systems of resource allocation and reciprocity that makes them difficult to define as a single household unit (Moser 1993).

The GAD perspective places more emphasis on looking within the household to examine the intra-household inequalities in control over resources and decision-making. Women's bargaining power in the household can be influenced by their economic contribution to household income, or perceived economic contribution (Sen 1987, Kabeer 1994). Women's contribution may be undervalued if it is based on non-market activities (Bhatty 1980, Kabeer 1994). Culturally determined spending responsibilities can also undermine women's perceived contribution to economic well-being when their income goes to consumption needs such as food and clothing (Moser 1993). Women themselves may undervalue their contributions, and therefore accept inferior control over household decisions. Women may also internalize cultural norms, which dictate that husbands should control their wives' incomes (Moser 1993).

Writing from the GAD perspective, Moser (1993) questions how planning interventions can be better targeted to achieve gender equality examining who controls



resources and how these decisions are made. A key distinction is that access to a resource is differentiated from control: women often have access to land, but they are unable to control its use. One finding from an examination of intra-household resource allocation is that the person who is the direct recipient of a resource, such as income, most often controls its use (Moser 1993). By extension, when women are the recipients of payments for goods, they are likely to control this income. This literature on intra-household relations informs this paper while I seek to contribute evidence on these dynamics in the context of smallholder incorporation into agricultural production.

In addition, GAD distinguishes between women's productive, reproductive and community involvement roles (Moser 1993, March 1999, Parpart 2000). Women's productive work is any remunerated wage labour, income generation activity or agricultural activity they are engaged in. Reproductive work captures women's non-remunerated activities such as caregiving for children or elderly, household maintenance such as cooking, collecting water or washing. The community involvement role can often be overlooked, but women may be engaged in volunteer activities, often religious in nature, or the management of natural resources. There is a gendered division of labour that defines women's work within these three categories. The gendered division of labour is rigid in assigning reproductive household work to women both within and outside capitalist arrangements. This reproductive work places a burden on women as it is often not valued as real work; therefore, wives work longer days than their husbands in most societies (Moser 1993). Finally, community involvement is often separated along gender lines. Men tend to dominate political participation while women's community involvement is related to the provision of collective basic needs (Moser 1993). Both

women's productive and reproductive responsibilities are examined in this study to illustrate the changes to these roles under new modes of production and the effect of increased income. The paper also draws on GAD's emphasis on examining women's leadership to understand how women are incorporated into community management structures.

When applied to an analysis of changes in agricultural economies, concepts from WID and GAD help researchers understand the complex ways that women are affected. The concepts focus attention on the initial control of resources and how this influences the allocation of benefits. In terms of understanding the benefits and costs of agrarian change, GAD specifically provides a framework to examine the fulfillment of short-term material needs versus those that are structural concerning women's social position vis-à-vis men. Changes in agrarian systems will also imply changes in gendered responsibilities. How these roles are allocated depends on the underlying gender norms and GAD helps understand how new agricultural activities (often productive), will affect other areas of work. These conceptual tools from WID and GAD are useful in determining if social and economic changes will challenge gender discrimination, maintain the existing gender relations, or worsen women's position.

#### *Gender Differentiation in the Outcomes of Large-scale Land Deals*

Women face systematic gender discrimination in their access to and control of land and resources in societies globally (Agarwal 1994, Deere & Leon 2003, Meinzen-Dick & Mwangi 2008, Daley 2011a). This discrimination may be perpetuated or

worsened through commercial land deals in agriculture, though the current evidence on the gendered outcomes of large-scale land acquisitions is limited (Chu 2011, Behrman 2012, Cotula 2013). There are also competing views on the emerging evidence on the potential for women to benefit from employment opportunities arising from land deals (Daley 2011a, Tsikata & Yaro 2013, Cotula 2013). Contributions to the literature on gender and large-scale land acquisitions literature are based on secondary analysis of women and farming systems, and to a lesser extent, emerging primary evidence from recent investments themselves.

The majority of analysis on women in land deals centre on the negative impacts of land deals on women. Daley (2011a) presents four factors that leave women vulnerable in the face of expanding commercial agriculture: 1) women's constrained access and control of land; 2) barriers to women's participation in decision-making; 3) women's income poverty compared to men's; and 4) women's physical vulnerability. Daley argues that adverse impacts of land deals are best organized under these broader categories in contrast to the focus on women's control of household resources and income generating opportunity alone (Clancy 2008). Her fourfold classification is useful to organize some of the channels through which women may be impacted by large-scale land deals.

First, with regard to women's access and control of land, there is acknowledgement in the emerging literature on land investments that women's land rights are more insecure, which can be detrimental to women's livelihoods (Deininger et al. 2011, Behrman et al. 2012, Cotula 2013). In the cases reviewed in the World Bank study on the increased investment in agriculture, Deininger et al. (2011) found that women were disadvantaged through a greater burden in accessing common pool resources such as

water and firewood. For instance, in two communities in Northern Ghana Tsikata and Yaro (2013) note that women's time burden increased in the collection of firewood, and tree and shrub resources were no longer available.

Second, there is consensus that women are left out of the processes of negotiation with investors. Analysis identifies that women's lack of control and ownership over land disadvantages them during negotiations (BMZ 2009, Deininger et al. 2011, Berhman et al. 2012, Cotula 2013). In case studies from 14 countries in Africa, Asia and Latin America, Deininger drives the conclusion that investors considered men the primary landholders so women were left out of negotiations (Deininger et al. 2011). Berhman et al. confirm this observation and add that those who have the authority to sell or lease makes a difference for women. If it is the government that has the authority then men and women suffer, though women will to a greater degree because of their lack of formal titles to use in bargaining. If it is the chiefs or local village authority that control land transfers, then women's interests can be neglected because male chiefs can perpetuate the existing gender norms (Berhman et al. 2012). For example, Julia and White (2012) note that investors approached community leaders who were all male in their study of the gendered impacts of oil palm expansion in Indonesia. The identity of the investor could play a role in shaping processes of negotiations as well, excluding women's participation. Berhman et al. (2012) notes that some Middle Eastern investors see women as dependents rather than farmers so it is not deemed necessary to consult them. Even when women provide much of the labour, they are left out of negotiations. Both Daley (2011a) and Berhman et al. (2012) cite evidence from Mozambique that women are heavily involved in farming within the biofuel sector and the majority rural workforce, yet they are still excluded from

consultation and do not sign documentation associated with these processes (Nhantumbo and Salomão 2010). There is also the issue that women face time burdens and care responsibilities that prevent them from participating (Julia & White 2012). This exclusion from negotiations will likely perpetuate or worsen existing gender inequalities.

Third, Daley (2011a) argues that women are less likely to benefit from employment contributing to their relative income poverty compared to men. This income poverty constrains women from accessing land through markets that can contribute to their exclusion from negotiations and other privileges for landholders in processes of commercialization. Similarly, Tsikata and Yaro (2013) argue that men received the majority of the formal employment benefits from two commercial operations in Ghana. In one of their cases, women were the majority of the farm workers, though it is evident the authors do not regard this as an overall advantageous scheme since women dominated only casual positions with lower remuneration (Tsikata & Yaro 2013).

Cotula (2013) cautions that sweeping generalizations about women's vulnerability to large-scale land investments should be avoided. Even if women's jobs are lower paid, they may appreciate this opportunity for employment that gives them greater economic independence. Another viewpoint is that women may benefit from increased wages, though likely not the poorest women. In an economic model that captures differences in gendered employment patterns in the biofuel sector in Mozambique, Arndt et al. (2011) speculate that female workers' wages could rise significantly. The authors argue that increased demand for skilled labour and shortages of female workers with primary education would contribute to the rise in wages for semi-skilled female labour. The poorest women may not benefit, however, because of the requirement for primary

education (Arndt et al. 2011). The reality is that this is a speculative model and biofuels have not taken off as planned in Mozambique with only three percent of the land allocated to biofuel projects planted (Locke & Henley 2013). Nonetheless, there are some authors that call attention to women's potential to earn wages as an improvement in their lives. These differences in opinion illustrate that benefits created by employment may be mixed and subjective depending on whether one views casual employment as an improvement to women's initial situation. Women may view this employment as fulfilling a practical gender need for paid work or serving their strategic interests in that they may have better negotiating power in the household through increased income.

The fourth dimension of women's vulnerability links gender based violence to women's dispossession, a little discussed topic within the impacts of land deals on women (Daley 2011a). Wandia (2009) notes that "dispossession of indigenous lands is frequently an extremely violent process, which has included crimes of rape, murder and torture of women as a means to subjugate indigenous populations." Julia and White (2012) also trace increased gender-based violence to the growth in oil palm plantations in Indonesia's Kalimantan region, the centre of oil palm expansion in Southeast Asia. A deeper analysis of how land deals impact on women's physical vulnerability remains to be completed, but this study will not address this issue because of the difficulty and sensitivity associated with obtaining this information.

Beyond Daley's four dimensions of women's vulnerability, another factor that may influence the outcomes of land deals on women is the type of farming model (Berhman et al. 2012, Smalley 2013). Because the upsurge in acquisition of agricultural land is recent, there is little evidence on the gendered impacts under different farming

arrangements such as contract farming. Studies by Tsikata and Yaro (2013) and Julia and White (2012) document the mostly negative consequences of contract farming arrangements for women. Julia and White show how women's livelihoods were undermined and women lost their right to inherit land when it was formally registered to grow palm oil. In contrast, women had greater access to compensated productive work since they dominate the daily workforce in oil palm plantations in area. Similarly, women represented 58% of the workforce in a community in Northern Ghana in the production of mangos on the nucleus estate and processing plant, though women also suffered a loss in access to land for their own farming (Tsikata & Yaro 2013). These findings suggest that contract farming may provide wage labour opportunities for women on the nucleus estate, but at the same time worsen their access to and control of land.

Overall, this literature on the gendered impacts of the increase in land deals indicate that women may be negatively affected by land investments as they are faced with the dispossession of land and communal resources, while employment opportunities do not compensate for losses (Daley 2011a, Berhman et al. 2012, Tsikata & Yaro 2013). Women's lack of control over land influences these outcomes (Daley 2011a, Berhman et al. 2012). The evidence also clearly suggests that women will be disadvantaged in decision-making and negotiations with investors (Berhman et al. 2012, Julie and White 2012). On the other hand, women may have access to new or higher wage earning opportunities that were previously unavailable (Arndt et al. 2011, Cotula 2013). Women themselves may view these employment opportunities positively. This study aims to build on this evidence of women in contract farming within the context of the expansion in large-scale commercial agriculture.

*Women in Contract Farming*

Outside of the literature on land deals, past studies on women in contracting farming provide evidence that explains how the current outgrower schemes may affect women's lives. Existing scholarship on women in contract farming consists mostly of qualitative case studies and indicates that men are more often the contract holders (von Bülow & Sørensen 1993, Dolan 2001, Eaton & Shepard 2001, Maertens and Swinnen 2009). Women's existing access to and control of resources, including land, can influence whether women obtain contracts. Dolan's work (2001) studying French beans contract farming in Kenya, for example, shows that women's control of land is a leading predictor of their ability to benefit from contract farming schemes. More than 90% of contracts were issued to men since men were overwhelmingly the titleholders as the result of post-independence tenure formalization, and the companies needed contractors to have secure access to land and labour (Dolan 2001). Porter and Phillips-Howard (1997) studied a barley outgrower scheme in Nigeria from 1991 to 1992. They speculate that few women were contracted by the scheme because it required irrigated farming which few women had access to as they typically lack the financial resources required for this infrastructure or the ability to hire labour. In their study in Senegal, Martens and Swinnen (2009) also argue that women's lower participation in French bean farming results from their weaker claims to irrigation infrastructure.

There are cases where women are the majority of the contract holders, though the reasons remain unexplored. In Kenya, an analysis of contract farming in selected value chains reveals that women were 80% of the participants in one French bean contracting scheme (Strohm & Hoeffler 2006). Similarly, in Zimbabwe women were approximately



60% of the contracted farmers of horticultural crops (Masakure & Henson 2005). Neither study is solely focused on gender differentiation so they do not address the determinants of women's participation. Another study offers an explanation for a reduction in contracts with women. In the Gambia, Little (2000) found it was common for women to receive contracts to supply produce to agribusinesses from their communal vegetable gardens in the 1980s, but this changed under the liberalization of the horticultural export sector, which favoured production on large farms. Though Little's case offers the changing political economy as an explanation to levels of women's participation, the other cases point to the gap that remains in the literature in understanding the gendered outcomes of contract farming.

Though women are not often the contract holders, their labour is heavily involved in contract farming, and their labour often increases under these arrangements which can lead to struggles between husbands and wives (Mbilinyi 1988, Glover & Kusterer 1990, von Bülow & Sørensen 1993, Carney 1994, Dolan 2001, Reynolds 2002). In their evaluation of contract farming schemes in Africa, Porter and Phillips-Howard (1997) estimate that women's labour was responsible for 60 to 70% of sugarcane farming production, but only 43% of contract farmers were women. In Kenya, women's farming burden increased in tea and French bean cultivation. During peak periods of maize cultivation, middle class and poorer female farmers experienced an especially heavy burden with the combination of cash crop and tea cultivation (von Bülow and Sørensen 1993). In Dolan's study (2001), French bean cultivation required careful labour and long hours. Men were in charge of the initial labour for clearing the land, but the more time intensive planting, weeding and picking fell on women in accordance with a gendered

division of labour. Carney (1994) also demonstrates that men were able to manipulate customary arrangements in The Gambia to gain control over land and women's labour even though the management of a rice outgrower project required joint titles. In this case, only when women had plots of land could they claim their customary usufruct rights and were able to control the benefits of their own labour. Women's rejection of the non-remunerated appropriation of their labour has led to well-documented disputes between husbands and wives (von Bülow & Sørensen 1993, Carney 1994, Dolan 2001). These intra-household conflicts were cited as the main marital problem in Meru, Kenya for households growing French beans (Dolan 2001). Women's response has sometimes been to withdraw their labour from the production of the cash crops, or cease to apply farming inputs. This evidence from sub-Saharan Africa indicates that women's labour burdens are likely to increase in any contract farming arrangement and that women may even struggle to control their own labour.

Another important factor that may dictate the distribution of benefits are gendered cropping patterns. A commonly accepted assertion is that cash crops for trade are "men's crops," while food crops for subsistence are "women's crops," as their production and marketing are respectively controlled by men or women (Gladwin 1992, Elson 1995, Ezmuah & Di Domenica 1995, Amanor 1999). It is difficult, however, to separate how much control over production of cash crops is explained by social norms versus the extent to which access to productive resources—or lack thereof—is a factor (Vargas Hill & Vingeri 2011). Given this apparent distinction, men are more likely to benefit from investments made in the intensification of cash crops (Quisumbing & Pandolfelli 2008, Gündel 2009, Vargas Hill & Vingeri 2011). As Davison and Elson (1995) note, however,

this gendered division of production may not hold across regions or countries, as the production of some crops can be under male control in one place and under female control in another. There can also be changes over time if men take control of crops that were traditionally female when the crops become commercialized (Dolan 2001).

Adding another caveat to this common assumption, Doss argues, on the basis of national agricultural survey's data on farmers' production in Ghana, that most crops cannot be classified as "women's crops" or "man's crops." Her findings indicate that both men and women are involved in the production and sale of all crops in Ghana, although female farmers are less likely to grow crops for sale than men. Doss (2002) also concedes that there are exceptions: men are more heavily involved in the production of select crops for sale including rice, sorghum, tobacco and coffee. Some crops are also disproportionately grown either by men or women, depending on the region in Ghana and the definition of the farmer. Both men and women, however, tend to rely on growing the same crops, making the distinction between crops more important than the differences by gender at the level of household agricultural production.<sup>8</sup> Doss's study challenges the argument that the production of crops can be neatly divided along gender lines though it does not dispel evidence that the production of crops for sale disproportionately involves men. Given the evidence of men's control of crops for sale, the type of crop may influence the gendered division of the benefits resulting from an investment. It is also possible that control over marketing will vary by region and over time.

In contrast to studies that focus on women's exclusion from production and sales processes, there is ample evidence that export oriented high-value agricultural supply

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<sup>8</sup> Doss's (2002) data is derived from the Ghana Living Standards Survey 3 that interviewed plot holders within each household. Doss's article is therefore about family farming at the household level and does not address gendered patterns of agricultural wage labour on large farms.

chains have created employment opportunities for women through the feminization of the agricultural sector (Dolan & Sorby 2003, Singh 2003, Maertens & Swinnen, 2009). For example, Dolan and Sorby (2003) analyze women's role in the production of flowers, horticultural produce, canola, vanilla and poultry. Women occupy at least 50 percent of the employment in those industries in Kenya, Uganda, Zimbabwe, Colombia and Ecuador. The factors that may affect these employment levels are favourable perceptions of women's compliance and dexterity. Considering women's lack of control over income generated through contract farming, wage employment, especially in horticulture, is seen as offering better opportunities for women while contract farming may offer the least fulfillment of women's interests (Watts 1988 in Porter & Howard 1997, Maertens & Swinnen 2009). Wage employment in high value agricultural commodities is relevant in the analysis of the nucleus-outgrower estate model since there are employment opportunities offered through the main plantation and processing facilities.

There is a need for more empirical evidence to better understand how women are affected in contract farming within recent processes of expanding large-scale commercial agriculture. Behraman et al. (2012) specifically call for data that explores women's time, income, and production, the impacts of resettlement, and differences in men and women's perception of land deals. The literature on women and contract farming also remains small with a few case studies specifically focused on gender in comparison to the vast literature on technical management and efficiency issues, or class based critiques. This study adds empirical evidence on how women fare under the nucleus-estate model, a model that has elements of both plantation and contract farming. It will therefore serve as a comparison on women's participation, labour, employment and control over resources.

## **2-Hypotheses and Methodology**

### *Assessing the Satisfaction of Practical Gender Needs and Strategic Gender Interests in an Outgrower Scheme*

To build on the literature on women in land deals and contract farming, I use concepts from WID and GAD to analyze the gender differentiated effects of the expansion of large-scale commercial agriculture in the case of a particular outgrower scheme. Applying the lens of WID, I explore women's subordinate position to men in Zambian society as well as elements of women's exclusion from the development process.

I explore the extent to which outcomes of the contract farming arrangement fulfill practical gender needs and strategic interests. Practical gender needs this study focuses on include changes in food production and access to land, diet, labour burden, and material well-being. The strategic gender interests this study explores are access to employment opportunities and training, control over household decision-making and the ability to participate and exercise leadership in community management activities. This paper also considers men's practical needs and outlines the areas where both men and women are similarly affected by the outgrower scheme. The analysis does not investigate men's strategic gender interests, which would have involved a separate analysis to understand their role in the household and perceptions of masculinity and customs.

This paper examines gender roles, but it does not cover all of the activities that women may be involved in within the Magobbo community.<sup>9</sup> Attention is placed on

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<sup>9</sup> For instance some activities that may be significant for women but were not examined, or only investigated superficially are: participation in local political groups, involvement in religious groups, involvement in school councils, and non-farm employment or income generating activities.

activities that were most likely to be impacted by the change in production including farming work, wage employment, collection of resources including firewood and charcoal, household care responsibilities, and participation in training and community decision making.

To understand the gendered allocation of the costs and benefits of land investments in the nucleus-estate outgrower model, it is necessary to define them and specify how they are allocated. The literature on women in contract farming suggests that significant costs will likely be imposed on women through an increased agricultural labour burden in the absence of control over increased income (Carney 1994, Bülow & Sørensen 1993, Dolan 2001). Other costs can be the loss of productive land, leaving little for food production, and a loss of access to resources such as firewood, forest products or water. Environmental degradation is another cost relevant in the nucleus-estate model since the outgrower farms are part of the expansion of intensive monoculture cultivation, but it is not examined in this study. The benefits are often participation in an outgrower arrangement (e.g. signing contracts individually with a company or as a collective of farmers), increased income, access to employment (on the plantation or processing plant), and the transfer of technology, knowledge and skills. Table 1 presents an illustrative breakdown of women's practical gender needs and strategic gender interests that could be associated with the nucleus-estate outgrower model.

**Table 1: Illustration of Women's Practical Gender Needs and Strategic Gender Interests in the Nucleus-Estate Outgrower Model**

Women's Practical Gender Needs	Women's Strategic Gender Interests
<ul style="list-style-type: none"> <li>• Income from employment on the nucleus farm (the estate or plantation)</li> <li>• Income associated with increased local economic growth</li> <li>• Access to adequate amounts of nutritious food</li> <li>• Access to natural resources that sustain livelihoods (e.g. fuel, water, grazing land).</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in the scheme through sole or joint ownership of land used for contract farming</li> <li>• Decision-making power over increased household resources (e.g. remuneration for productive labour)</li> <li>• Wage employment that increases wives' bargaining power with husbands</li> <li>• Equal wages</li> <li>• Meaningful participation and decision-making power in the community</li> <li>• Education</li> <li>• Technical training on production</li> <li>• Lower reproductive household time burdens</li> </ul>

*Source: Author's adaptation for this case study based on definitions and examples in Moser 1993, March et al. 1999, Parpart et al. 2000, Moser 2005*

The table also reveals that it is sometimes difficult to distinguish between activities that fulfill practical needs versus strategic interests. Employment, for example, contributes to the practical need for income, but often alters the power relations between men and women.

This study uses an idiographic approach to assess the extent to which this case conforms or deviates from the typical allocations of costs and benefits for women in the contract farming and gender and land deals literature. Within the Mazabuka District, sugarcane production expanded by 11,400 ha since 2006, in response to changes in the European Union (EU) trade regulation governing sugar, reducing Zambia's preferential

access to their markets.<sup>10</sup> Most of the expansion took place on large-scale commercial farms in the area surrounding the plantation, with a smaller proportion on smallholders' farms. The combination of a large-scale plantation surrounded by outgrowers makes this site fairly typical example of the nucleus-estate model. These criteria justify the selection of this case for studying the emerging trends in gender differentiation. There are four smallholder outgrower schemes in various stages of development surrounding the 14,455 ha plantation owned by Zambia Sugar. I chose to study the outgrowers in the Magobbo settlement specifically to focus on a recent conversion to sugarcane outgrowing, since they had only begun growing sugarcane in 2010. Two other sites had not entered production and the other option was a long running scheme in existence since the 1980s, organized as the Kaleya Smallholders Company Ltd. (KASCOL), and it has been well-studied (Church et al. 2008, Mungandi et al. 2012, Wonani 2013). Wonani's study, in fact, analyses gender equity in the Kaleya outgrower scheme therefore serving as a useful comparison on gender outcomes under a distinct institutional arrangement of contract farmers. This study of Magobbo, a newer scheme, complements Wonani's to provide a deeper understanding of variation among outgrower arrangements.

Fieldwork was undertaken in the Mazabuka District around the Nakamabala Sugar Estate and in surrounding outgrower communities over three months from June to August 2013. Qualitative methods were used to collect information including focus group discussions and key informant interviews. Some of the initial key informant interviews, group interviews and focus group interviews were undertaken with a colleague from The

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<sup>10</sup>See section on "Zambia Sugar Expansion" for a discussion of these changes. In short, a number of sugarcane producing countries complained about the preferential prices some former colonies were receiving on their sugarcane exports to the EU.



University of Zambia who was involved in carrying out a multi-country study on large-scale land based investments. We identified informal administrative divisions called settlement “sections” in the community of Magobbo where the outgrowers are located. Five different focus group discussions were held with participant outgrowers and residents in the area of the scheme who are not members of the Magobbo Cane Growers’ Trust (Magobbo Trust) and have no ownership of land located within the sugarcane catchment area.<sup>11</sup> The leadership of two separate outgrower arrangements in the Mazabuka district were interviewed, including the Manyonyo Water User’s Association and the Kabesha Trust, as well as the leadership of the Magobbo Trust.<sup>12</sup> Two of these group interviews with the leadership of outgrower schemes did not have an equal gender balance as men dominated the leadership in these groups. Two focus group discussions in the settlement sections were heavily dominated by women because of the difficulty in controlling who showed up to the focus group. A total of 25 key informant interviews were held with individuals among the Magobbo Trust members and their families, the Magobbo Trust executive committee members, project management and service providers, and local and national government officers. Three interviews that were held with women in another community during a brief scoping exercise provided further insight into women’s general challenges accessing benefits from agricultural investment in Zambia.

A brief quantitative survey was designed to examine women’s perceptions of how

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<sup>11</sup> The “Magobbo Trust” is not the legal name of the trust, which is the Magobbo Cane Growers’ Trust abbreviated as MCGT, but it is used here for simplification to avoid using MCGT repeatedly.

<sup>12</sup> The use of the word scheme describes Manyonyo as the Water Users’ Association is the entity largely involved in the planning August 2013 based on a key informant interview. There was a document demonstrating the Kabesha sugarcane outgrowers are formally organized as a trust already, though it has not entered any production agreements with Zambia Sugar. The researcher could not verify its authenticity of this document or the official legal name of this trust, so this wording should be taken with caution.

the recent sugarcane outgrower scheme in Magobbo has affected their lives in the following areas: 1) crop production and food security; 2) income, including women's control of this income for those who are married; 3) access to natural resources; and 4) changes in women's labour patterns. The purpose of the quantitative survey was to triangulate the information presented during the qualitative phase. The survey also intended to offer insight into household decision making between wives and husbands through pointed questions with individual married women on how income was allocated. In terms of design, the survey used participant recall and relied on participants' memory and ability to make before and after comparisons. This method was used because there was no effective baseline information that could be utilized to assess the four elements of social change the survey sought to measure.

Through a translator interpreting between English and Tonga, I conducted the survey with 14 female participants registered in the Magobbo Trust, and 16 wives of participants, a sample that over-represented female-headed households. The survey used purposive sampling to target female outgrowers registered with the Magobbo Trust since it was determined in the qualitative phase that these women were largely widows in female-headed households. Widows are uniquely vulnerable because of their tenuous access to land and lower incomes, so the targeting sought to ensure greater representation of this group in the study since negative impacts are often concentrated among them. Targeting widows could have varying effects on the results. First, widows might negatively exaggerate the results since they may have tenuous access to land and lower access to employment than younger women. Lower access to employment may be explained by the fact that they are on average older, and it is possible there are more

widows with physical constraints that prevent them from working compared to younger women. A second possibility is that because widows are often more vulnerable and have lower living standards, they could gain more in comparison to married women who are better off, thereby creating a positive bias in the results. Third, unlike younger women with the care burdens of young children, widows may be free to take on employment, again creating a positive bias in the results. It is unclear which one of these hypothetical explanations may have had more influence over the results.

Though this is a single case study, two neighbouring communities, Kabesha and Manyonyo, were used together as a control group to assess variables and factors that were comparable across communities (e.g. number of meals consumed per day currently and the time devoted to fetching water). Kabesha is approximately 15 km from Mazabuka, but sparsely populated because of previous flooding in the area, and Manyonyo is approximately 30 km away. Both communities were similar in terms of production and other economic activity based on observation from the fieldwork. A distinct questionnaire for these two communities aimed to cover the same four categories of variables as the survey administered in Magobbo. It was also possible to use five of the same questions across both questionnaires. This control group survey was administered to 15 female non-participants from these neighboring communities, 8 widowed or divorced, and 7 married to compare with the Magobbo sample of roughly half widows versus married women.

The qualitative work combined with the questionnaire provide a tentative picture of the gendered differentiated impact of this arrangement and offer insights into some of the general changes in livelihoods in Magobbo associated with the expansion of commercial agriculture in the nucleus-estate model. There are, however, many

methodological limitations to this study as well as time and resource constraints. The survey was not representative of the different categories of participants and non-participants, though in the case of widows that were registered participants in the Magobbo Trust, it was possible to achieve a greater percentage of representation. Because of the small number of registered widows, 93% (or 14/15) of widowed farmers were interviewed. More extensive quantitative and qualitative work would be needed to verify the observations and assess how this scheme evolves since production only began in 2010. This limitation in assessing social gains and losses is true of all studies examining recent land deals.

The survey also did not explore in-depth changes in the lives of non-participants with the Magobbo Trust, though some had varying levels of family connection to participants and associated entitlements. Some individuals belonging to these two groups were present in the focus group discussions so it was possible to gain insight into why they were not participants. Because of time constraints, it was also not possible to thoroughly explore generational differences or relations among women. Another limit to this study was that there was no gender analysis conducted separately with male and female focus groups. The analysis of practical gender needs and strategic interests took place through the mixed gender focus group discussions and women may not have always been comfortable voicing concerns. Because of the broad scope of questions meant to understand the complexity of the outgrower scheme, the focus group questions that informed the gender analysis were only part of these discussions. The format was therefore not ideal, because it did not provide the time and space for an in-depth discussion of women's gender needs and roles. The survey and some individual

interviews sought to triangulate information and overcome the limitations of the focus groups in eliciting women's opinions. Women were given the option to share additional information during these individual interviews. A key strength of this study then, was the ability to explore individual women's opinions on key variables rather than generalizing based on focus group discussions.

A brief analysis on the position of outside researchers compared to the research participants is also relevant in a discussion of the strengths and weaknesses of the research design. Like all social scientific research involving individuals, the position of a researcher compared to the research participants can affect the data that is obtained. As a white woman from Canada entering a community in Zambia, I would have been viewed much differently than a local Zambian woman. I would have been perceived to hold a greater amount of power than a Zambian woman as an educated foreigner. As an instructor at The University of Zambia, my colleague would also be perceived to be privileged and much wealthier than the average resident in Magobbo. Being from a wealthy country that has traditionally given aid money to Zambia may have also influenced locals' perceptions of me since I may have been viewed to have connections with sources of funds. There may have been the perception among research participants that I can assist them in some way to their advantage.

It is, however, impossible to definitively understand what perceptions local research participants have of you.<sup>13</sup> It is also possible that we were perceived as more

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<sup>13</sup> One group of women admitted to my translator and I that they were very distrustful of a Zambian sociology student from Lusaka who had come to study the outgrower project for only three days. She used a recording device on her cell phone that contributed to their mistrust of her. These women from Magobbo went so far as to speculate that she practiced "Satanism."

neutral than other parties that had come to speak to the residents in Magobbo about the scheme who had a direct connection to the project, such as evaluators contracted by the European Union (EU). The University of Zambia is also well known and my colleague and I had official documentation associating us with the university. If research participants perceived us as fairly neutral, we may have had an advantage in that people would feel comfortable speaking their minds without an agenda.

Assuming that the residents in Magobbo perceived my colleague and I to be advantaged, or having connections with sources of financing or decision-makers, they may have had an incentive to try to gain from us somehow. For instance, farmers may say that the project has not contributed to a satisfactory increase in their income hoping that we may have been able to help them achieve greater gains. Alternatively, non-participants may have chosen to emphasize a narrative of being unfairly left out and how they should also have been included in the outgrower project even if they chose not to participate. Non-participants may have shared this story thinking that we would help them in their pursuit to join the sugarcane outgrower scheme.

The interests of those who have greater power in the community could also influence the messages communicated. Those with greater power or control of the project involved in its management may want to emphasize the benefits from the commercialization of sugarcane and downplay any negative outcomes. Because of their work in shaping the project, those with a management role may also have an incentive to hide their contribution to any negative outcomes of the project.

Because both my colleague and I were aware of the ethics of entering a

community for research purposes and how we may be perceived as offering some monetary advantage to farmers, we took care to introduce ourselves as researchers. Both of us explained our research projects, why we were working together and clearly outlined our affiliation with The University of Zambia. We communicated that outgrowers may be able to benefit through their participation in terms of any useful cross-country comparative insights that could be eventually shared with the community.

The first entry point into the community was a government agricultural extension worker who helped organize group interviews with various groups of sugarcane outgrowers or would-be outgrowers that had not started planting yet. From there, discussions with a United States Peace Corps volunteer revealed that Magobbo was divided into community sections so it would be efficient to use the voluntary leaders of those sections as contacts who could set up focus groups with farmers. Taking this approach avoided relying on the executive committee of the Magobbo Trust to organize the focus groups. The executive committee of the Magobbo Trust could have chosen people from the community they knew would present a favourable view of the project and of their role. However, relying on section leaders may have been subject to biases as well since there was conflict reported between the settlement leader and the Magobbo Trust. This isolated conflict indicates there could have been a wider conflict among elected volunteer community representatives and the executive committee members of the Magobbo Trust. In this case, community representatives may have chosen focus groups participants that would present the Magobbo Trust negatively. Thus, either approach to organizing the focus groups could have introduced biases. It was more efficient under time constraints to organize the focus groups using section leaders rather than going door-

to-door explaining the research purpose to each potential participant in all five sections. In fact, if we had chosen this door-to-door method, we would have been likely taken to the elected community section leader anyway by one of the first people we approached given how community hierarchies are respected. From there the leader would have gone around with us to organize the focus groups or instructed us where to go.

Because of the potential bias in focus group results, individual interviews with women sought to triangulate the data obtained. I gave these interviews more weight in determining conclusions since women had the opportunity to express their opinion without everyone listening. Non-widows interviewed were selected based on their availability at the time of the survey and the women interviewed usually directed my translator and I to another household involved in the outgrower scheme nearby. Section leaders did not play a role in determining who we spoke with. These women spoke directly with the female translator who was a local to the area but not from the Magobbo community. The choice of a female translator from the area, but not Magobbo, was strategic to create distance between her and the participants so she was not involved in their affairs. As she was local, however, she would not be viewed as a total outsider unfamiliar with the lives of those in a sugarcane-producing area possibly allowing for more honest answers. A female translator was also chosen because women are more comfortable talking with other women in Zambian society, especially with regard to intra-household relations.

Because of the varying interests both farmers and those involved in the management of the project may have had, I was careful to acknowledge what I simply could not know as a result of my position to the research subjects. I cannot know, for example, if allegations of corruption hold any weight or why so few participants come



from the Kalonga section in Magobbo. Even though one story may seem more convincing because of my subjective position as an educated Westerner, there are some events I simply cannot know which I have acknowledged in my findings.

Given the above discussion, it is evident there are some potential constraints resulting from my position and that of my colleague relative to the research participants that I attempted to mitigate through triangulation. There is, however, one potential advantage to being a researcher associated with a respected university if participants feel free to voice concerns openly and honestly with you, not expecting much in return for the chance to voice their opinion. My colleague and I made all efforts to explain we were researchers there to learn from them and not change the course of the project.

### **3- Women, Land and Agricultural Policy and Practice in Zambia**

Women's access and control of land in Zambia is shaped in part by whether the land in question is part of the statutory or customary system. Zambia has both state land governed by the statutory laws and customary land governed by traditional norms and local courts presided by chiefs and headmen. In both systems, all land is vested in the president since the 1975 Lands Act so it is not formally possible for anyone to own land in perpetuity with a freehold title. The 1995 Lands Act, the latest legislation governing land tenure in Zambia, states "all land in Zambia shall vest absolutely in the President and shall be held by him in perpetuity for and on behalf of the people of Zambia" (The Lands Act Chapter 184 Act No. 29, 1995). Thus, the president owns all land in the country and the government may grant 99-year renewable leasehold titles and may appropriate land

for specified public purposes. The 1995 Lands Act recognizes customary tenure, allowing traditional authorities to control customary land according to local custom and to grant usufruct rights to families and individuals. Land under customary control cannot be titled as long as it remains part of the customary system. Customary land can be moved to the statutory system for the purpose of obtaining a leasehold title. The chief will give his or her permission for the applicant to alienate the land from the customary system, the first step in obtaining a title on customary land. The applicant must then pursue titling at the local district office to obtain a leasehold title from the Commissioner of Lands. Once land is alienated from the customary into the statutory system, it is not possible for it be converted back to customary land. The customary authorities such as chiefs and headman most commonly address disputes on customary land though people have the right to take their concerns to a higher judicial authority. Land disputes may therefore end up in the local court, or the magistrate's courts (the second highest level of court in Zambia) if parties can afford to access these systems, creating two forums for resolving land conflict. The local court is the most accessible formal court since its procedures are uncomplicated and it is decentralized.

Customary land dominates Zambia and covers approximately 94% of the land total, though that proportion is diminishing (Place 2009, p. 1327-1328). As a consequence, customary arrangements define the majority of Zambians' ability to access land and their tenure security. In a study commissioned by Zambia's Gender in Development Division (GIDD) (2005), responsible for gender mainstreaming in the country, over 95% of people surveyed did not have a title to their land, meaning that customary access to land predominated among the people surveyed. Given the

predominance of customary land, customary practices govern most women's land rights throughout the country.

Practices in the customary system may be more detrimental for women, particularly for widowed women. The Government of Zambia has indicated that customary practices may disadvantage women in their Draft Land Policy 2006: "Administration of land based on different customs is not consistent with equality of rights of all people to land. In its current form, customary tenure does not offer sufficient protection for disability care, gender equality and resource conservation as provided for in the Constitution of Zambia" (GRZ 2006a, p. 7). The Draft Land Policy also notes that HIV/AIDS has made widows more vulnerable: "In many places close relatives grab the land and orphans and widows lose access to the land on which they on which they derived their livelihood" (GRZ 2006, p. 7). The statutory system may offer better protection to widows in terms of the guarantee for women's independent access and control of land in the case of intestate property succession. Overall, women may have better protections in the formal courts in Zambia since they have the mandate to uphold the constitution, which disallows discrimination based on gender. Women can also benefit from affirmative action applicable to state land. Despite some protections, women are still disadvantaged in both systems (Machina 2002, Chapato et al. 2007).

According to a survey done by the GIDD (2005), the majority of women are able to access land with 88.8% of women surveyed reporting access to land for subsistence and production through various means (p. 44). This figure on women's access to land is derived from surveying women living under both state and customary tenure arrangements. It is also important to note that the statistic is not nationally representative

since the survey was carried out in only six districts in three provinces in Zambia. There appear to be no wider national level statistics on women's access and control of land in both systems. The GIDD survey also suggests that though the majority of women have access to land, they are often unable to control the use of this land. The ownership and control of land is seen as the domain of men (GRZ-GIDD 2005). Women expressed the most concern about the lack of control over income from the sales of crops produced on the land, and 35% of married women reported they were not involved in any decisions on land use (GRZ-GIDD 2005, p. 50).

### *Women and the Statutory System*

Men own at least 90% of statutory land in Zambia (Zambia Land Alliance 2002, p. 3). The draft land policy to implement the 1995 Lands Act, which claims to be gender neutral, has not reversed this gender gap in access to land (GRZ 2006a). According to a representative from the Zambia Land Alliance, this law "ignores the long historical reality of an unequal society in which women have not had access, ownership or control over land," highlighting how the law takes no account of the cultural norms that prevent women from accessing land (Machina 2002, p. 6). High transaction costs and burdensome procedures also make it difficult for women to purchase statutory land. Registering a land title often requires multiple trips to Lusaka, the capital. The option of joint titling exists but it is not often used. While the low frequency of joint titles in Zambia warrants further research, the trend may in part be explained through men's attitudes that are resistant to women owning land. One man interviewed by the Zambian Land Alliance researchers voiced his opinion that "when women have their own land, they sometimes tend to undermine their husbands positions of control as head of the home...such situations

would destabilize many marriages” (GRZ-GIDD 2005, p. 50). This man’s opinion illustrates that persistent patriarchal attitudes and men’s fear of losing power in the household can influence how state law is applied. These reasons provide an overview of women’s lower levels of ownership of land in Zambia important to understanding how benefits in agricultural investments are allocated.

One of the important ways that women gain access to land in Zambia is through inheritance, which is a right protected through state law when an estate lacks a will. The survey on women’s access to land indicated that 22.2% of women surveyed, the largest group of respondents, gained access to land through inheritance (GRZ-GIDD 2005).<sup>14</sup> The state has institutionalized the protection of women’s inheritance rights. When there is no will, the Zambia Intestate Succession Act (1989) states that widows should receive at least 20% of the inheritance. The Act specified that the largest portion, that is 50%, should be divided equally among the children. One portion is still set aside for the family line and goes back to the parents if they are alive. According to a representative from the District office in Mazabuka, if the deceased’s parents are not alive, “parents” in practice is interpreted more broadly as the family lineage of the deceased such as the late husband’s brothers and sisters. The last 10% is reserved for any dependents that the deceased was guardian over. Interviews with key informants revealed that frequently in practice, the 20% reserved for “parents” and 10% for dependents is combined and split between the widow and children so that widows obtain the right to 35% of the estate rather than the

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<sup>14</sup> The survey interviewed women with land in the statutory and customary system. The survey did not present its results separated by women in the statutory and customary systems. Though this figure is not exclusively about inheritance in the statutory system, it was the best source I found that indicates the importance of inheritance for women gaining access to land in Zambia. It is included here for illustrative purposes on the importance of inheritance for women’s access to land in Zambia, rather than presenting definitive statistics on the percentage of women that access land through inheritance in the statutory system. This figure must also be viewed with caution because it was not a representative survey.

mandatory 20%.

The Intestate Succession Act has protected widows in cases of “property grabbing” where relatives from the late husband’s side of the family come to try to control land that is part of the matrimonial property of the widow. The general impression expressed by women in Mazabuka was that the Zambian government has taken the problem of property grabbing seriously in that the court currently always sides with the widow. This trend demonstrates that widows are afforded some protection through the enforcement of the Intestate Succession Act. Though the law makes some attempt to provide protections for women, it fails to recognize women’s contribution to the matrimonial home. Widows are only able to stay in the matrimonial home for as long as they remain single, but if they remarry, they must leave. A widower, however, would be able to stay in the matrimonial home even if he remarries (FAO n.d.).

Often, the Intestate Succession Act is unnecessary to apply since there is an oral will that is respected by the family, which specifies the allocation of properties as well as the administrator(s) of the estate. Husbands may or may not choose to leave the land to their wives in these cases. Residents in Magobbo indicated that the decision to register property with the children rather than the widow is influenced by the age of the widow and the perception that children are better placed to manage the land. Also, daughters are less frequently selected as administrators both in wills and in the application of the Intestate Succession Act, since they are expected to leave the community upon marriage. The cultural preference for men’s control of land influences the decisions made over statutory lands through wills and the application of the Intestate Succession Act. The norms in the customary and state systems can thus influence each other (Mulolwa 2006,

p. 7).

### *Women and the Customary System*

Chiefs and headmen govern access to land and inheritance, and resolve disputes across all customary lands in Zambia. With over 70 ethnic groups in Zambia, there is significant diversity in the details of customary laws from one area to another. In spite of this diversity, according to authors of the survey on women's rights to land in Zambia, the majority of cultural traditions do not support women's independent ownership and control of land (GRZ-GIDD 2005, Machina 2002). Women may control as little as 5% of all land in the customary system in Zambia (Place 2009, p. 1329).

The Tonga, the predominant ethnic group in the area for this case study are considered matrilineal but the maternal relatives' claims have now diminished (Mvunga 1982). The Tonga have historically been matrilineal, tracing their decent through the maternal line. Children adopt the maternal clan's customs, but marriages are patrilocal. Because wives are expected to leave their homes upon marriage, they have not typically controlled property (Mizinga 2000). Property was passed on through the husband's maternal relatives, often nephews or uncles (Mvunga 1989, Mizinga 2000). These inheritance patterns strained Tonga marriages beginning in the colonial period with the accumulation of land and wealth through agriculture. One stressor was that wives and their children did not benefit from the husband's growing estates, and there were documented cases of this causing tension and divorce (Mizinga 2000). On the other hand, some Tonga men who were becoming increasingly wealthy wanted their children and wives to be the direct beneficiaries, rather than passing property onto the maternal kin

(Mizinga 2000). These reasons may explain the change in inheritance norms and why there is a greater plurality of customs now with a trend towards bilateral inheritance (i.e. for sons and daughters of the deceased to inherit property) (Mvunga 1982). As the claims of maternal relatives on the husband's side have lost weight in determining inheritance entitlements, male privilege and control over a family's estate has merely shifted from uncles and nephews in the husband's maternal lineage, to the sons of the deceased.

Mulolwa (2006) argues that the customary system does, however, provide single women who are widowed, unmarried or divorced access and control over a portion of land for sustenance. A single woman in any of these categories would forfeit the customary ownership and control of land when she gets married in both patrilineal and matrilineal systems (Mulolwa 2006, p. 8). At least in the customary system then, marriage seems to limit the ability of women to control land. Of married women, only 12.1% controlled plots compared to women of female-headed households, where 28.7% claimed they controlled decisions about the land. This information was obtained from surveys in rural customary areas where 95.7% did not have formal title, therefore representing conditions within the customary system (Milimo 1990 study in GRZ-GIDD 2005, p. 23).

While single, widowed and divorced women may be more likely to control land, they may also experience the most conflict and are the most vulnerable to dispossession in the patrilineal and patrilocal customary systems. Widows may sometimes have access to land in patrilocal ethnic tribes, as Mulolwa has argued, but not control over this land because they are perceived as holding it for their sons (Sitko 2010). Relatives from the husband's side may try to take control of this land upon the death of a husband, contesting the claims of the widow's sons—particularly if the widow is young and there is a chance



that she may have children in a future marriage that could claim a stake in the same land (Key informant interview #18, 2013, Chapato et al 2007). In this case, women do not have the protection of the state law and courts because it is customary land. Divorced women may be forced to return to their maternal home and not be entitled to anything from the land they have invested labour in for the duration of their marriage. Back in their home villages, the women may have no claim to any land since they have been away for so long (GRZ-GIDD 2005).

### *Women and Agricultural Policy in Zambia*

The Zambian government recognizes that women have a prominent role in agriculture but are disadvantaged in their access to land. In particular, the government recognizes that women's contribution to agriculture is undervalued, which limits their ownership of land (GRZ 2006a). Though accurate figures are difficult to discern, the FAO estimates that Zambian women contribute 75% of the agricultural labour (FAO n.d.).

The government of Zambia has taken steps to reduce some barriers to women's access of land. Taking into account the recommendations of Zambia's 2000 Gender Policy, the 2000 and 2006 Draft Land Policies state that 30% of all state lands should be allocated to women. The Fifth National Development Plan 2006-2010 also included the target that 30 percent of land be reserved for women which is thought to have increased female ownership of land according to the mid-term review of Zambia's Joint Gender

Support Program (Mwenechanya 2011).<sup>15</sup> The Ministry of Lands also reserves 10% of newly available state land for women, though it tends to be in remote areas (Wonani 2013).

Though the government acknowledges that women's access to land and its role in agriculture are important, it has been unable to fulfill its official goal of greater gender equality. In the Fifth National Development Plan (FNDP) 2006-2010, the government committed to ensuring that women receive at least 30% of any land through land allocation processes. The government also committed to improve women's access to agricultural extension and credit (GRZ 2006b). However, the budget for the implementation of the FNDP did not include any spending for the gender equality commitments (Wonani 2013). The FNDP identified the Ministry of Agriculture and Cooperatives (MACO) as one of the ministries responsible for implementing these goals of the FNDP. MACO failed to mainstream gender considerations, citing a lack of money, training and support from the GIDD. As a consequence, the government's agricultural programs do not effectively address gender inequality. The Ministry makes announcements that women's equality is incorporated into their programs, but this is not the reality in practice. The Gender Focal Points in the Ministry at various levels of government have reported receiving no training and their performance on implementation of any gender planning is not assessed (Farnworth & Munachonga 2010).

The Sixth National Development Plan (SNDP) 2011-2015, specifies that attention

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<sup>15</sup> The Joint Gender Support Program was a partnership between the Government of Zambia and the United Nations Development Program aimed to increase the capacity of the Zambian Government to mainstream gender planning in public policy and implementation. The program also aimed to support the implementation the goals of the Fifth National Development Plan 2006-2010 related to increasing gender equality.

will be placed on interventions in agriculture and land policy to mainstream gender considerations into government planning. The only initiative relevant to agriculture and land policy was the harmonization of customary and statutory ownership, which may enhance women's protection in the customary system from property grabbing. In terms of agriculture, there is no mention of how the government will make support to female farmers more responsive (GRZ, 2011). The commitments to improving women's access to land and agricultural extension have regressed from the FNDP to the SNDP and implementation has fallen short of what was planned as well. Patriarchal traditions can threaten women's access to land, and they limit women's ability to control resources such as land. The government's affirmative action has failed to redress women's discrimination and enable women to enjoy equal land rights as men. The government's inability to address the gender inequalities in access to land is one of the reasons for the unequal allocation of benefits in the outgrower project. The resulting low levels of women's land ownership put them at a disadvantage in investments in agriculture that require ownership of land.

#### **4-The Context of the Outgrower Study**

In order to assess the gendered outcomes of the Magobbo outgrower scheme, it is necessary to understand the scheme's institutional arrangements. The smallholder sugarcane outgrower scheme in Magobbo is one of three recent schemes in Mazabuka District, which are in various stages of development—the Magobbo scheme being the furthest developed of the three. Planting was undertaken in 2010, and the first partial harvest was in 2011. The creation of these outgrower schemes was made possible by

Zambia Sugar's expansion in milling capacity to adjust to changes in the European Union (EU) sugar trade regime. Unlike other cases of large-scale land investment deals, the representatives from Magobbo initiated discussions with Zambia Sugar in 2005, not the other way around. The Magobbo scheme did not become a reality, however, until EU donor funds were sourced to finance operations in 2010.

### *Geography of the Area*

The outgrower scheme is located in a well-established area of commercial sugarcane production, the Mazabuka District, one of 12 districts in the Southern Province of Zambia. Within Mazabuka District there are 20 wards and the Magobbo community lays within the Lubombo Ward, which had a population of 21,143 and 4,420 households as of 2010 ("Zambia 2010 Census of Population and Housing," 2011). Three wards are urban, 17 are rural, and there are 401 villages in other rural areas of Mazabuka. Magobbo itself is much smaller, with a population of approximately 900 and an average of 9 people per household (Fynn 2008).

Sugarcane fields border the Mazabuka township in all directions, and Zambia Sugar's plantation surrounds the town except to the south. Magobbo is located to the east and is approximately 12 km away from the sugarcane mill, north of Mazabuka town. The land in Magobbo joins the western expansion of Zambia Sugar with the eastern expansion that took place through the acquisition of Nanga Farms in 2009 (Fynn 2008).<sup>16</sup> The Kafue Flats adjacent to the Kafue River extend for 180km on both its sides while Magobbo lays just on the edge of the Kafue Flats floodplain. Residents in the area voiced complaints

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<sup>16</sup> John Fynn's report mentions that the expansion through Nanga Farms was currently underway. The acquisition formally took place in 2009 with the acquisition of 85% of the shares of Nanga Farms.

that land in this area is subject to flooding and drought prone, which made sugarcane cultivation an attractive option. Though it is a medium rainfall area of Zambia, the climate is more drought-prone than other regions to the north (Fynn 2008). Farmers in Mazabuka have thus struggled to produce staple crops while Mazabuka is one of the most productive areas in the world to grow sugarcane (Fynn 2008).

### *History of the Land and the Development of Zambia Sugar*

Much of the land directly surrounding the current Zambia Sugar plantation has remained state controlled land since independence. During colonial rule, the British carved out land adjacent to railways, urban areas and mining areas designated as Crown Lands, and reserved for whites. Sixty thousand indigenous Zambians were re-located in 1928 and 1929 when Crown Lands were established (Lukanty and Wood 1990). Fertile soils, irrigation from the Kafue River and proximity to a railway led to the colonial government's decision. White settlers in Mazabuka owned several large cattle ranches. After independence, land from these ranchers was converted to settlement land for Zambians. The newly independent government of Zambia granted plots to families leaving reserves and other migrants that wanted to settle in Mazabuka for subsistence farming.

Commercial sugarcane cultivation in the area began in the 1960s. The British sugar company Tate and Lyle and the Zambian government incorporated Zambia Sugar Company Limited in 1965 with 80% ownership in the hand of Tate and Lyle and government ownership of 12%. The remaining 8% was divided among other private shareholders (Kalyalya 1988). By 1968, the Nakambala Sugar Estate was established in

its full-scale operations cultivating on 1,380 ha on previously forested land (Kalyalya 1988; District Situational Analysis 2005). The Government of Zambia took a controlling interest in Zambia Sugar Ltd. in 1973 with 51% shares held by Zambia's Industrial Development Corporation while Tate and Lyle's shareholding was reduced to 38%. The remaining shares were privately owned (Kalyalya 1988). This government takeover represented the beginning in Zambia Sugar's history of state control in line with the dominant policies of heavy state involvement in agricultural production in the post independence era in Africa.

The Zambia Sugar Company was a parastatal operation for over 20 years. Zambia Sugar returned to private ownership in 1995 in the period of market-based reform. Tate and Lyle, the UK based sugar giant, became its largest owner. In 2001, South Africa's Illovo Sugar, which had been buying sugar mills and estates in the southern African region, purchased controlling shares of Zambia Sugar (Lewis et al. 2013, Richardson 2009). Currently, Associated British Foods has the majority share (51%) in Illovo Sugar South Africa, which is the regional leader in large-scale sugarcane, with operations in South Africa, Tanzania, Mozambique, Malawi, Swaziland, as well as in Zambia.

### *Zambia Sugar's Expansion*

Zambia Sugar announced its intentions to expand operations in 2007 in response to changes in the EU sugar trade regime. In 2005, Thailand, Brazil and Australia, three large sugarcane-producing countries, lodged a joint complaint through the World Trade Organization (WTO) about the EU's export subsidies. The WTO decided in favour of the large sugarcane producing countries forcing the EU to restrict its subsidized exports

(Richardson 2009). Richardson (2009) argues that the EU was willing to make concessions in the sugar sector anyway as they were interested in other gains through the WTO system and preferred a new form of trade agreements with former commonwealth countries. For this reason, the EU unilaterally denounced the Sugar Protocol that benefitted former commonwealth countries in Africa, the Caribbean and the Pacific (ACP) through preferential prices. These changes in the EU sugar trade regime began in 2006 and resulted in a 36% drop in the price that ACP countries obtained for sugarcane by 2009 (Palerm et al. 2010). In an attempt to smooth the transition to lower prices, countries that were affected were eligible for financial aid through the Multi-annual Indicative Programme for the Accompanying Measures for Sugar (AMS) (Palerm et al. 2010). Among the instruments of this program was the lifting of the quotas in place during the period of preferential pricing. Countries that were affected by the change were able to increase exports, though by no more than 25% per year (Tyler n.d.). After 2015, the Everything But Arms scheme between Europe and Least Developed Countries will guarantee duty free and quota free access to the EU market for Zambia. Zambia's sugar industry is therefore well positioned to take advantage of the change in regime because it is one of the most efficient producers (Richardson 2009).

By 2013, Zambia Sugar's exports increased by 147% while local sales have risen by 73% since 2006 (Zambia Sugar Plc. 2009 and 2013). Zambia Sugar increased the production capacity of the plant, making it the largest sugarcane processing plant in Africa, and the area of land designated for sugarcane production expanded to feed the plant's increased capacity. In doing this, Zambia Sugar sought to increase the supply of sugarcane in order to export more to the EU. The expansion of the available area for

growing sugarcane involved the expansion of Zambia Sugar’s own plantation on existing land that they owned. The expansion also involved outgrower contracts with 15 surrounding large-scale commercial outgrowers (6 of which had not grown cane prior to the expansion), as well as small-scale outgrowers of various scale. Table 2 which follows presents details that show how much land was made available for sugarcane production comparatively on Zambia Sugar’s plantation, on commercial outgrowers’ farms, and land owned by smallholders:

**Table 2: Breakdown of the Expansion in the Area Available for Sugarcane Farming from 2006 to 2013**

<b>Sugarcane Growers</b>	<b>Total Available Area for Sugarcane Production Prior to Expansion 2006</b>	<b>Available Area for Cane Growing 2013</b>	<b>Variance</b>
Zambia Sugar Plantation including Nanga Farms <sup>17</sup>	12,900.55 ha	17,310 ha	+4,409.45
Commercial outgrowers <sup>18</sup>	2,146.50 ha	8,490.5 ha	+6344 ha
Smallholder outgrowers and smallholder run commercial farm <sup>19</sup>	2,162 ha	3,360 ha	+1198 ha
<b>Total</b>	17,209.5 ha	29,160.6 ha	11, 951.1 ha

*Source: Adapted by Author Based on Information from Zambia Sugar Plc*

As seen in this above table, commercial outgrowers represent the most significant source of the increased supply of raw cane. Smallholder-run operations will supply only 11.5% of sugarcane, and even less if the 1,297 ha farm run by the Kaleya Smallholders Company Ltd. (KASCOL) as a large plantation is subtracted from the total. Only 7% of

<sup>17</sup> Zambia Sugar has an 85% ownership stake in Nanga Farms Plc

<sup>18</sup> Six of these farmers had not grown sugarcane prior to the Zambia Sugar plant expansion

<sup>19</sup> KASCOL Ltd., the organization of 160 smallholder farmers runs a 1,297 ha plantation as a commercial operation. KASCOL increased their growing area 209.5 ha but it is unknown to the author if this took place on the smallholder farms or the commercially operated plantation. Also note that 555 ha from the Manyonyo smallholder scheme was allocated for production of sugarcane but production had not yet got underway at the time of the collection of information in May – August 2013.



production takes place on small farms of 4 to 6 ha under different tenure arrangements. Zambia Sugar is therefore not highly dependent on smallholder production. As of the time of this study in 2013, there were approximately 160 outgrowers registered with KASCOL and 94 with Magobbo with the potential of hundreds more to become smallholder suppliers of cane through the Manyonyo scheme. These outgrower families are dependent on Zambia Sugar for the purchase of the sugarcane grown on their land producing an uneven relationship of dependency.

#### *Institutional Structure of the Magobbo Outgrower Scheme*

The outgrower project in Magobbo formed part of the efforts to increase sugarcane cultivation to feed the expansion of Zambia's Sugar's production capacity. During Zambia Sugar's expansion of the sugar mill, commercial farmers began growing more cane and new producers entered into supply contracts with Zambia Sugar. A group of smallholder farmers in Magobbo saw the opportunity to supply sugarcane to Zambia Sugar as the company was beginning to contract with larger farmers in the area. Representatives from different sections in Magobbo entered discussions with Zambia Sugar on behalf of the 73 farmers initially interested in growing sugarcane. Focus groups conducted revealed there were at least two female representatives in these initial discussions. These farmers sought technical advice from the Mazabuka Sugarcane's Growers' Trust (the Mazabuka Trust), which is an organization set up to assist smallholders.<sup>20</sup> Zambia Sugar set up the Mazabuka Trust in 2005 through dividends the

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<sup>20</sup> The "Mazabuka Trust" is used as a simplification of the legal name, the Mazabuka Sugarcane Growers' Trust to avoid the use of the acronym, the MSCGT.

company received from their 25% shareholding in KASCOL.<sup>21</sup> In practice, Zambia Sugar has some controlling influence in the Mazabuka Trust since employees from Zambia Sugar's management can be trustees. The field research did not reveal the exact nature of Zambia's Sugar's influence over the Mazabuka Trust, but noted that its office, where at least some of its affairs are managed, is stationed at Zambia Sugar's main office in Mazabuka District.

The scheme moved forward past the planning phase in 2007. After representatives from Magobbo engaged Mazabuka Trust for assistance, the Mazabuka Trust took on an important role in guaranteeing the technical and financial viability of the project. On the recommendation of the Mazabuka Trust, a feasibility study was carried out as well as soil testing conducted by consultants. In 2007, the Magobbo Trust was established. The farmers decided a trust was the best form of organization for the farmers to interact with the company as opposed to a farmers' cooperative or corporation that would have more stringent regulations. The Mazabuka Trust also helped farmers access water rights from the Water Board of Zambia, paying for the Magobbo Trust's rights to extract water from the Kafue River. Importantly, the Mazabuka Trust was also fundamental in facilitating the outgrowers' access to donor money from the European Union (EU). A €3 million grant to fund the development costs of the project, such as preparing the land, was made and was managed by the Mazabuka Trust. The loan from the EU represented approximately 60% of the costs of the project. The other 40% was financed by the outgrowers themselves

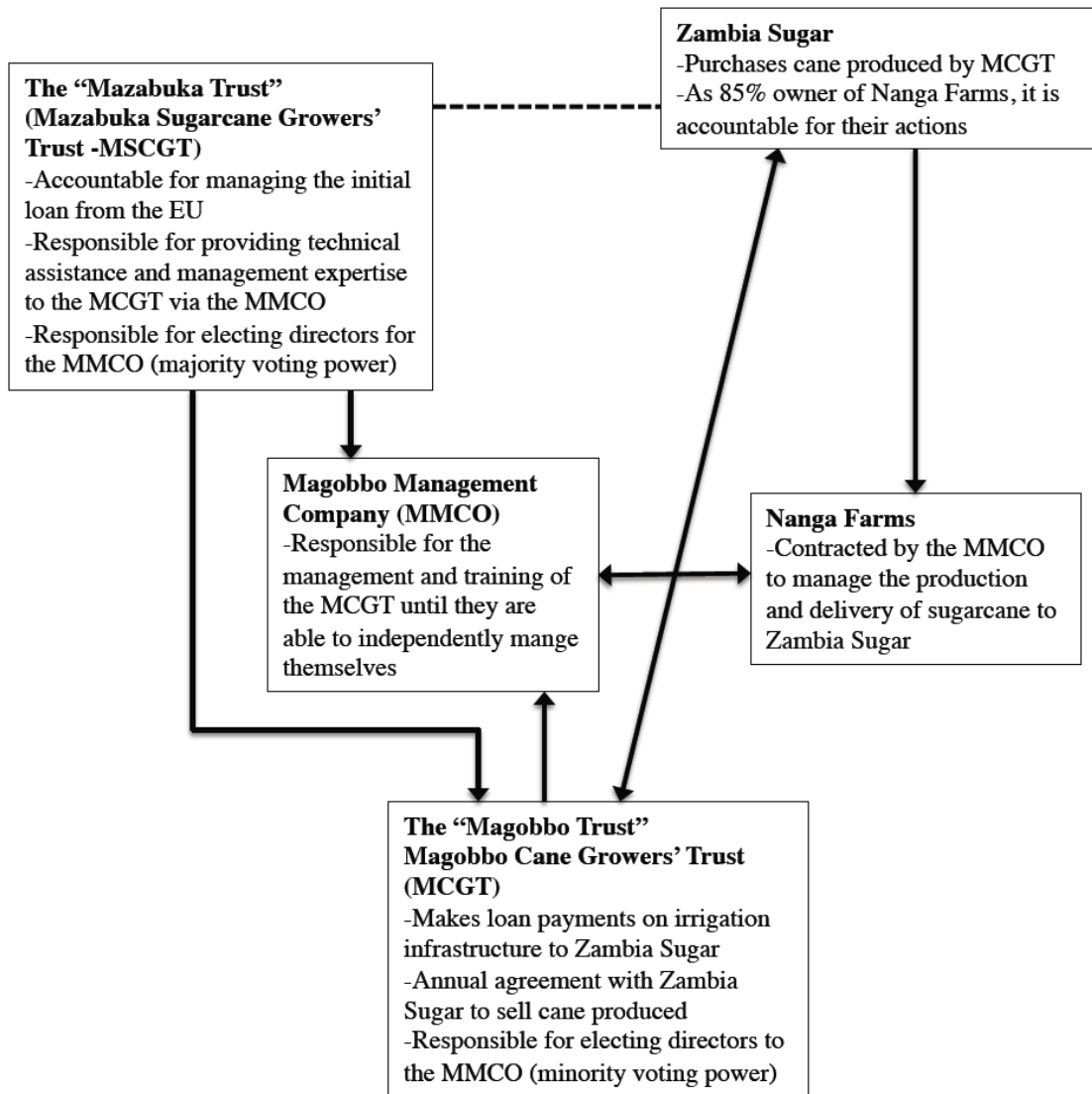
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<sup>21</sup> Based on the information available, it was not clear how independent MSCGT is today from Zambia Sugar. They are legally separate entities but employees from Zambia Sugar can be trustees on MSCGT board. It appears the MSCGT may be an organization set up to help Zambia Sugar fulfill its activities in corporate social responsibility.

through a bank loan—later transferred to Zambia Sugar—and a small loan from the Mazabuka Trust for relocation.

Zambia Sugar also built the water infrastructure needed to deliver water from the Kafue River to several sugarcane operations west of the mill as part of their expansion in production capacity. The company agreed to provide finance for the smallholders' rights to receive water from the irrigation canal to various outgrowers. The Magobbo Trust had initially taken on a commercial bank loan to compensate Zambia Sugar for the rights to extract water from the irrigation canal Zambia Sugar built. This loan was later transferred from the commercial bank to Zambia Sugar with a 40-year term with concessional rates in order to offer the same financing to the Magobbo Trust that was offered to larger-scale commercial outgrowers. Figure 1 illustrates the relationships between the entities involved in terms of their responsibility and accountability to one another.

**Figure 1: Relationships of Responsibility and Accountability Between the Entities Involved in the Magobbo Sugarcane Scheme**



In order to receive the initial bank loan, the labour for the outgrower operation had to be structured differently than the KASCOL model in Kaleya where farmers are managing their own plots. Farmers in Magobbo did not have the requisite knowledge of the entire process of growing and managing cane, and for this reason the bank as well as project management agreed it was necessary that a service provider manage the production of sugarcane. Thus, farmers are not working on their own plots and because

the land has not been demarcated into individual plots they have little awareness of where their individual plot is located.

Nanga Farms was selected as the management service provider for the sugarcane operations having offered the lowest cost services, in part, because it is adjacent to the Magobbo Trust farmers' landholding. There was also an understanding between the Magobbo Trust, Nanga Farms and the EU that had a role in overseeing Magobbo Trust's funding that Nanga Farms would build the capacity of the Magobbo Trust to run the operation themselves in the near future. A Magobbo Management Company (MMCO) was created to this effect, as an interim organization to help run the affairs of the Magobbo Trust. The Mazabuka Trust and the Magobbo Trust have a 90% and 10% representation in voting respectively in appointing the directors of the MMCO.

Under these arrangements, risk is managed through the expertise of the MMCO, creating a shielded environment for the farmers in the short to medium-term. There is a greater degree of risk present in the long-term viability of the scheme if farmers fall short of achieving effective management capacity, and if conflict within the Magobbo Trust continues, impeding their ability to operate profitably. If they cannot operate profitably households face destabilizing economic losses, and the Magobbo Trust could face difficulties in repaying its loans. The Magobbo Trust's most significant debts are owed to Zambia Sugar for 30% of the total project costs. Zambia Sugar also runs the risk of not being able to recover the investment in the irrigation canal from the Magobbo Trust. Since Zambia Sugar holds the loan for the infrastructure, it has a vested interest in seeing that the farmers succeed. One key informant responsible for managing some of the affairs of the Magobbo Trust said the block title is not being used as collateral. Without the land as

collateral, Zambia Sugar's interest in the farmers succeeding would be even higher so they can avoid assuming losses. However, without seeing the contractual agreements between Zambia Sugar and the Magobbo Trust, it is not possible to verify the details of the loan. Zambia Sugar also carries a heavy reputational risk if the relationship breaks down with the Magobbo Trust, and has been subject to widely publicized bad press before for alleged tax evasion (Lewis et al. 2013).

A few government organizations, including the informal community level government, have some form of interaction with the scheme as well. With the designation of a trust, the Magobbo Trust has an obligation to produce a benefit wider than among the members of the trust in order to "alleviate poverty in the community" (Constitution for Magobbo Cane Growers' Trust 2007).<sup>22</sup> The Magobbo Trust constitution indicates the alleviation of poverty in the community at large is connected to the financial empowerment of its members. The Magobbo Settlement Committee, a group of elected leaders that hold their positions as volunteers will interact with the Magobbo Trust on social development issues including spending from sugarcane proceeds derived from approximately 20 ha of communal land prior to the project. The Mazabuka Municipal Council oversaw all issues arising from land tenure. Problems arose in the technical demarcation process, as the district government was not able to carry this out accurately and had to bring in an outside contractor. This process produced confusion though the contractor's demarcation exercise is being upheld as the correct one. The Mazabuka Municipal Council must now address the fallout from this confusion as well as enforce the tenure arrangements of the project with the land swapping process described in the

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<sup>22</sup> Trusts in Zambia can apply for certain tax exceptions when they prove they can produce a wider social benefit

next section. The local court in Mazabuka also has a role in this scheme, as it has become the relevant court for dispute resolution. This court is currently overseeing a defamation case between the Magobbo Settlement Chairman and the Magobbo Trust.

### *Land Tenure and Relocation*

The area surrounding Zambia Sugar's plantation, that formed part of this study, has been state land since the British alienated it from traditional governance prior to independence. Customary authorities, therefore, do not have legal influence over these lands. Moreover, in practice these authorities are not involved in making decisions about land governance. Overall, 30% of the land in the Mazabuka District is state land, and the rest is customary land (Mazabuka Municipal Council 2005). Most of the land in the Mazabuka District therefore still forms part of the customary system, though the area of concern in this case study has been state land since independence. This is important since commercialization in this area does not involve land being alienated from the control of traditional authorities.

There were, however, substantial changes in land tenure for the farmers who became part of the Magobbo Trust. To ensure technical and financial feasibility, the plans were for sugarcane cultivation to take place on one contiguous block so farmers were required to combine their land to create a "block title," a form of joint ownership of land.<sup>23</sup> Forming a block title required farmers to surrender their "council offers" to their plots.<sup>24</sup> Individual council offers are the precursors to formal titles whereas a block title is

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<sup>23</sup> See Smalley, Sulle and Malale (2014) for a discussion of block farming in sugarcane.

<sup>24</sup> The "council offer" is an official letter from the Mazabuka District Authority indicating ownership of the land and ability to apply for a title. Few farmers apply for the title since the process is cumbersome and the "council offers" represent sufficient tenure security for most farmers.

collectively owned by all those whose names are on the block title deed. As part of the restructuring of the tenure rights to the land, a transfer of land among households in Magobbo was carried out in 2007 to maximize the number of cane growers. This was referred to as the “swapping” process and overseen by the District Council. Before the sugarcane project, plots in Magobbo had ranged from 5 ha to 25 ha. The landholdings of most individual farmers in the sugarcane catchment area were larger than the 4 ha to 6 ha the Mazabuka Trust and EU established as the limit per outgrower, based on the KASCOL experience with smallholders’ ability to manage a plot of that size. The EU, Mazabuka Trust and the Maggobo Trust’s executive committee therefore asked the landholding farmers inside the catchment area to swap with farmers in Magobbo that had land outside the catchment area identified for sugarcane cultivation. This process of swapping enabled the majority of farmers whose initial land was outside the catchment area to gain access to a plot within the allotted area. Land swapping records are on file with the District Council that indicate the amount of land transferred, the location of the plot, and to whom it was transferred.

The land transfer process led to some social tension and was not exclusively confined to residents in Magobbo. Individuals from Mazabuka town purchased plots of land during the initial reorganization of plots within the catchment area. Though the policy was that land swapping should exclusively occur between landholders in the Magobbo community, some informants indicated that people outside the catchment area were unwilling to swap their land for a plot to grow sugarcane. In at least a few cases, however, farmers with land in the catchment area preferred to sell their land to someone who could pay cash, rather than participating in the swapping system, reflecting the active



market for land in this area with a concentrated rural population (Jayne et al. 2014).<sup>25</sup> It was not possible to gain a clear picture of the extent of both refusals to swap land and land sales to residents in town. The fact that some people from outside Magobbo were able to purchase land just before sugarcane production began has created resentment and tension from people in Kalonga, an area that has remained outside production as of the time of this research (Focus Group Discussion #2, 2013).

After the swapping process was complete in 2007, houses were leveled and relocated to make way for the sugarcane catchment area. In total, 64 households were relocated. Homes were appraised and heads of household given compensation commensurate to the value of their home. As mentioned, the individual receiving income tends to exert greater control of the use of this income (Moser 1993). This means that married women could have been excluded from exerting control over the compensation money and the building of new homes. Compensation to these households were financed through a loan of approximately \$100,000 USD granted by the Mazabuka Trust to the Magobbo Trust in 2009, which has to be collectively repaid by all members of the trust over five years. Deductions come from proceeds that farmers receive from growing sugarcane.

## **5-Research Findings**

This section turns to the research findings from the qualitative study and the survey data collection. First, the summarized findings are presented in Table 3 on the

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<sup>25</sup> See Jayne et al. (2014) for a discussion on rising land pressures in sub-Saharan Africa including localized land pressures in rural areas across Africa, as well as growing land rental and purchase markets.

following page. Second, I present the areas in the scheme where women are disadvantaged and explore the fulfillment of women's practical gender needs and strategic gender interests. Third, I examine how women's reduced productive workload cannot easily be interpreted as a gain for all, or loss, because of differences in women's preferences. Finally, the last section examines the fulfillment of both women and men's practical needs and potential losses (i.e. risks present at the time of study in the institutional arrangements of the outgrower scheme).

**Table 3: Summary of Findings on Gender Differentiation**

<b>Gains</b>	<ul style="list-style-type: none"> <li>• Widowed women have increased income and economic stability and are able to control their income</li> </ul>
<b>Losses</b>	<ul style="list-style-type: none"> <li>• There are low levels of participation in the scheme for women compared to men</li> <li>• Women have access to fewer employment opportunities that offer lower wages than men</li> <li>• Fewer numbers of women benefit from the transfer of knowledge and skills on cultivating sugarcane</li> <li>• Wives are not always able to participate in decisions over the use of increased household income resulting from the outgrower scheme</li> <li>• Future access to firewood is jeopardized and the current</li> </ul>

	collection is longer or more money must be spent on fuel (both charcoal and firewood)
<b>Ambiguous</b>	<ul style="list-style-type: none"> <li>• Women's reduced workload is currently freeing up more time for other tasks</li> <li>• Women's reduced workload, however, is also a symptom of exclusion from employment and reduced plot sizes on which to cultivate</li> </ul>
<b>Non-gender differentiated gains and potential losses</b>	<ul style="list-style-type: none"> <li>• (+) Increased economic stability, resilience to weather and improved diets</li> <li>• (-) Low level of bargaining power with Zambia Sugar, which is not dependent on Magobbo Trust's production</li> <li>• (-) The risk of the division of plots (plot fragmentation) beyond economically sustainable levels worsened by the scheme</li> <li>• (-) Vulnerability to price fluctuation</li> <li>• (-) Poorly defined rights in the Magobbo Trust threaten economic gains for participants and to produce conflict<sup>26</sup></li> </ul>

## 5a-Disadvantageous Outcomes for Women

### *Participation*

Women's participation as registered outgrowers in the Magobbo Trust is lower than men's as a result of the existing gender gap in the control of land. At the time of this research, the number of official outgrowers registered with the Magobbo Trust was 94. These officially registered outgrowers have voting rights and bank accounts where they receive payments for sugarcane cultivated on their portion of land within the catchment area. Of these 94 registered farmers, 15 were women (16%). All but one of the 14 women who were members of the Magobbo Trust who I interviewed, are widows, illustrating the

<sup>26</sup> Conflict is already evident with significant tensions between some of the outgrowers and community members in Magobbo and the elected Executive Committee of the Magobbo Trust. The Chairman of the Trust in fact stated that the reason meetings of the Magobbo Trust and the community have been suspended is because of the fear that physical violence may break out.

generational divide influencing participation in the scheme. The other 16 women I interviewed in the quantitative survey were wives of participants. In this area, it is still the norm for women to access land through their husbands. Women therefore do not have their names registered on the “council offers.” In accordance with this norm, the vast majority of those holding registered council offers were men.

At this point, it is useful to compare women’s participation in Magobbo with the tentative sugarcane outgrower scheme in Kabesha—the one scheme of the three recent ones that was still only in the planning phase at the time of the field research. The situation unfolding in Kabesha challenges the existing gender norms in the inequitable distribution of land. The greater inclusion of women was possible because the District Council’s affirmative action enabled women to gain access and control over land through the provision of financial aid and instituting quotas to allocate land to women. Kabesha is an area adjacent to Magobbo with even greater propensity for flooding. After people migrated away from the area and abandoned their lands, the district council declared it a disaster zone and aside from the very few families that remained, the lands were legally considered deserted. When Zambia Sugar began its expansion, the few residents left in Kabesha were interested in exploring the potential to grow sugarcane on their land, which was only marginally productive for staple crops. When Zambia Sugar showed interest in sourcing sugarcane from Kabesha, the District Council got involved to partition the land in the area. A condition the District Council had when distributing the council offers to applicants, was that 30 percent of the land be given to women, in accordance with the recommendation in the National Gender Policy from 2000. Since most people had abandoned the land and moved on, the area had been declared a disaster zone for some

time, and plots were distributed without any government fee. The only cost incurred by those who wanted to participate and eventually grow sugarcane was the cost of surveying. The government made this surveying accessible to the few who could not afford to pay, as well as offering the option to pay in installments. Through this direct targeting of women, even those who could not afford to pay, they challenged the male-dominated pattern of land ownership. In the end, these active efforts to include women resulted in 77 women participating out of 225, or 34%, compared to 16% in Magobbo. This is a different context than Magobbo given that this land was re-allocated but it still provides an example of a proactive attempt to challenge norms. Though the Kabesha scheme is just in the initial phases of organization, the state intervention to include women was a proactive policy to challenge gender norms to serve women's practical and strategic gender needs that was missing in Magobbo.

Though participation in the outgrower scheme in Magobbo has been determined by the gendered norms of ownership and control of land, there is the potential that some women may come to inherit plots from their fathers in the future given the apparent changing customs in the area. The Kaleya smallholders' operation shows that women may be chosen as the managers of the plots for their families. Kaleya also started out with a low rate of women's participation and has 27% female participation now. In contrast to Magobbo, the largest demographic of women who own plots of sugarcane in Kaleya are young single women who have never been married, and have come to own the land through inheritance. These women constitute 51% of the female owners. Another 30% of the female owners are married women (Wonani 2013). Participation of women in Magobbo may therefore become more gender equitable in the future depending on the

succession arrangements the members of the trust introduce. Since the succession arrangements have not been clarified by the Magobbo Trust, there is an opportunity to set them up in a way that fulfills women's strategic interests. Interviews with key informants, however, revealed that there may still be some preference for sons to inherit property.

#### *Access to Employment and Knowledge Transfer*

Women's economic participation in the sugarcane sector is low though employment in the sugarcane sector is an important source of formal employment in Zambia. Richardson (2010) estimated that employment in the sugarcane sector is 10% of all formal wage labour in the country. The *Zambian Strategic Environmental Assessment of the Sugarcane Sector* estimates that participation of women ranges between 15 to 30%. This assessment also suggests that this low level of participation does not seem to be a concern for major companies since they have no gender policy in place (Palerm et al. 2010). Among the outgrower schemes, the KASCOL scheme in Kaleya has three categories of wage employees, and all these categories are male-dominated. There were 6 fixed term non-unionized female contract staff (22%); there was only 1 female fixed-term unionized contract staff member (3%); and, 17% of seasonal wage employees were female (Wonani, 2013).<sup>27</sup> At Nanga Farms, the management service provider is cultivating the farmers' land in Magobbo, and women's participation breaks down as follows in two illustrative low and peak season months:

**Table 4: Employment Statistics for Nanga Farms Disaggregated by Gender for Two Illustrative Months**

<b>Peak Harvesting Season (October)</b>	<b>Low Season (February)</b>
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<sup>27</sup> This section is reliant on Wonani 2013 because her work has the only source of gender disaggregated data on KASCOL to serve as a base of comparison with the numbers provided by Nanga Farms that I obtained.

<b>Classification</b>	<b>Men</b>	<b>Women</b>	<b>Female (%)</b>	<b>Classification</b>	<b>Men</b>	<b>Women</b>	<b>Female (%)</b>
Fixed Term	222	16	7%	Fixed Term	204	10	5%
Seasonal	571	19	3%	Seasonal	92	10	10%
Casual	114	251	45%	Casual	185	59	24%
Total	930	149	14%	Total	481	79	14%

*Source: Adapted by Author from Nanga Farms – Year Unspecified*

Women's participation in the wage labour force at Nanga Farms in these two illustrative months is fairly consistent with the overall range of women's participation in the sector (Palerm et al. 2010). Part of the reason for the low presence of women in the sector is the perception that sugarcane is a man's crop. Women in the Southern Province are mostly responsible for food crops whereas cash crops are under men's control (Wonani 2013). In sugarcane farming, a gendered division of labour exists that limits women to a minority of the jobs and to tasks that have a shorter duration (Wonani 2013). For example, sugarcane is a perennial crop and does not need to be replanted on a yearly basis, and women are normally hired for this planting. Cane cutting by contrast, an activity limited to men, occurs every year (Focus Group Discussions #1 – 5, 2013). The jobs that women can hold in the sugarcane sector are mostly limited to planting, weeding and disease control. Women and men both hold jobs as irrigators and shift supervisors, while men exclusively dominate cane cutting, fertilizer application and herbicide spraying (Focus Group Discussions #1- 5, 2013 and Key Informant Interviews). Truck drivers are almost always male in the sugarcane sector; rarely is there a woman employed as a truck driver. In the mining sector, by contrast, women have been able to drive trucks (C. Wonani, personal communication, March 6, 2014). Women's opting to remain outside the formal labour market could also explain low levels of women's participation. Evidence of women's willingness to participate in the sugarcane sector is limited; however, some

interviews suggested that women's demand is higher than the supply of farming jobs that are open to them.

Women are under-represented at the management level as well. Wonani's work showed that only 22%, or 6 women, out of a total of 27 management staff, are women. Though it was not possible to obtain statistics across the sector for women in management positions, the perception, derived through qualitative fieldwork, is that the number of women in management positions is low (Focus Group Discussions #1 – 5, 2013 and Key Informant Interview #19, 2013). Existing educational disparities underpin the gap in women's participation in management positions. Overall in sub-Saharan Africa, enrollment rates of women in higher agricultural education and research are lower than for men. In a 14-country sample, the enrollment rate is 24% for women (Beintema & Marcantonio 2010). The rate of female staff employed in agricultural research or as instructors in higher education has increased by over 10% in Zambia from 2000/2001 to 2007/2008. The gap remains substantial though, with approximately 20% female staff working in agricultural research or education (Beintema & Marcantonio 2010). Employers' educational requirements may also present a barrier for women to access managerial positions. Commercial sugarcane farms like Nanga Farms require Grade 12 or higher for office clerks, and Grade 12 and higher education in agriculture for supervisory positions. Given the gap that Beintema & Marcantonio (2010) describe, the pool of qualified women who can be hired for farm management positions is smaller.

In Magobbo, there is a general concern that there is an inadequate transfer of knowledge on the management of sugarcane cultivation, and women's access to that knowledge is further hampered by their unequal access to employment (Focus Group



Discussion #4, 2013). The outgrower scheme was originally planned to mirror the Kaleya scheme in that farmers take control of the management of their own plots, but it was not possible to initiate the scheme in this way because of farmers' lack of technical knowledge on sugarcane cultivation. Given that sugarcane is mostly produced on large-scale commercial farms in the area, smallholders were not familiar with the entire production process of the crop. Some individuals in Magobbo had experience thanks to wage employment in a certain aspect of cane production such as cutting, weeding, and fertilizing, but smallholders in the community were not familiar with the details of the whole process (Key Informant Interview #19, 2013). As indicated, a management service provider was therefore necessary to guarantee that sugarcane would be grown profitably, and Nanga Farms was selected for that purpose.

In order to build the capacity of sugarcane growers to manage the process on their own, the Magobbo Management Company is responsible for the transfer of knowledge and skills. Focus group participants mentioned that the complete transfer of cane management should take place in approximately five years (Focus Group Discussion #4, 2013). Workshops were held to familiarize farmers with the management of sugarcane. The second part of the planned knowledge transfer activities was for one physically capable member per household to gain employment experience at Nanga Farms. There are various phases to growing cane including land preparation, planting, cultivation and harvest. Each family member had the opportunity to learn the farm work associated with each phase through rotating farm work at Nanga Farms. These elected farm workers from Magobbo families were not only working on their own block of land, but also on cane fields owned by Nanga Farms. Participants expressed skepticism about whether these

training activities would happen within the five-year time period, or at all (Focus Group Discussion #2 and #4, 2013). Though the intention was for one member per household to learn how to grow sugarcane, in reality it was not possible for Nanga Farms to respect this commitment. The company cited disciplinary concerns as the primary issue with workers from Magobbo (Key Informant Interview #19, 2013).

Qualitative evidence reveals that very few women from Magobbo were able to participate in the training through the labour rotations. Though it was not possible to obtain exact numbers of women employed in Magobbo as a direct result of the outgrower scheme, focus group discussions and individual interviews with women suggested their involvement was substantially lower than men's. One focus group said there were no women employed in their section and another revealed that there was only one women working in the cane fields in their community sections (Focus Group Discussions #2 and #4, 2013). Women interviewed reported only knowing 3 to 7 women working at Nanga Farms for those that knew any. The largest group of respondents could not name even one neighbor who received employment, representing 8 of 22 respondents that answered the question (Individual Interviews, 2013).

The cane growing families were responsible for selecting the individuals to work in the fields and they selected mostly male household members. The decision to select mostly men for this technical transfer of skills was likely influenced by the gendered division of farm labour in sugarcane and that women's primary roles are seen as biological and social reproduction (Moser 1993, Benería & Sen 1997). The shift to sugarcane commercialization therefore does not challenge these entrenched norms, or contribute to fulfilling women's strategic interest in obtaining equal access to

employment. It is possible that families rationalized that if they sent a woman for the training through employment, she may only learn planting, weeding, disease control and irrigation, whereas a man could learn everything. Electing a male family member for training highlights the perception that men and women both internalize, that sugarcane farming is a man's job in Zambia (Wonani 2013). The decision is also rational if a family is looking to maximize its income. If women are confined to jobs that are not as well compensated as men's work or where lower numbers of working days are required, then it is logical to send a man for training. A man's comprehensive knowledge of cane growing gained through this training would make him a more employable labourer on another farm in the future and he would have the knowledge to teach his family how to manage their own plot of cane.

#### *Involvement in Decision-Making*

A clear positive outcome of involvement in the outgrower scheme is increased consumption reported through focus group discussions and across almost all households surveyed. There was increased consumption of a variety of household goods and services such as furniture, other houseware, televisions and many household improvements. Contract farming arrangements may increase overall household income (Glover & Kusterer 1990, Maertens & Swinnen 2009), thereby raising consumption for households with very low levels to begin with. It should be noted that it is not clear in this study what the exact increase was in overall income since the baseline assessment carried out does not appear to have been rigorous in its calculations. There are, however, strong indications

of a substantial increase in income.<sup>28</sup>

Married women may not be able to control this increased revenue to the same extent as men, or at all in terms of investment decisions and household purchases. Widows, by contrast, will be able to make decisions on consumption and investment. With an overall increase in household income, women may be able to control a larger absolute amount of household income, but a lower percentage of the total household income than previously (Glover & Kusterer 1990). The percentage of income women control may have even declined because of the loss in sales of traditionally female-marketed crops such as groundnuts. Answering these questions conclusively is beyond the scope of this study, but would add to a complete picture of the intra-household dynamics of resource control. What quantitative research did indicate in this study is that women are involved in decisions over how income is spent within approximately half of all households. The data tables 5 - 9 that follow present frequencies that illustrate married women's perception of their involvement in key household decisions over consumption:

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<sup>28</sup> See "Benefits" under the section Shared Benefits and Risks for a further discussion of reported changes in income

**Table 5: Intra-household Decision-making on Food Purchases and Quantity**

Q11	Frequency	Percentage
Wife	3	18.75%
Husband	3	18.75%
Both	10	62.50%
Total	N=16	

**Table 6: Intra-household Decision-making on the Purchase of a Solar Panel**

Q12a	Frequency	Percentage
Wife	1	6.67%
Husband	6	40.00%
Both	8	53.33%
Total	N=15	

**Table 7: Intra-household Decision-Making on Paying for School Fees**

Q12b	Frequency	Percentage
Wife	0	0.00%
Husband	9	56.25%
Both	7	43.75%
Total	N=16	

**Table 8: Intra-household Decision-Making on Purchasing a TV**

Q12c	Frequency	Percentage
Wife	0	0.00%
Husband	5	31.25%
Both	11	68.75%
Total	N=16	

**Table 9: Intra-household Decision-Making on Buying a Bicycle**

Q12d	Frequency	Percentage
Wife	0	0.00%
Husband	9	56.25%
Both	7	43.75%
Total	N=16	

Though the sample is not large, it appears that women may be more able to exert influence over decisions that concern their gendered roles such the purchase of food, corresponding to women's expected food preparation responsibilities. In the case of food as Table 5 illustrates, women either independently control the decision or are involved in the food purchase decisions in 81% (13/16) of the cases. Though the data are tentative, it appears that women perceive themselves as having most control in decisions concerning food purchases.

Women also appear to be involved, in the majority of married households, in the decision to purchase a television and many women mentioned that this is a family decision so the children would be included in the purchase decision as well. Further research would be needed to confirm that men are more independently in control of paying for children's school fees and purchasing a bicycle. Women perceive that men independently control these decisions in 56% (9/16) of the cases for both decisions. In approximately half the cases or 53% (8/15), women are involved in the decision to purchase a solar panel.

This data should be interpreted with caution since the sample is small; however, a larger sample in 2010 was taken that is consistent with these tentative findings. The survey of 67 participants in Magobbo (35 male and 32 female) was an intended baseline study for the outgrower project. In the study, 51% of respondents indicated that both men and women should have decision-making responsibilities over household resources. A smaller but substantial amount, 43%, thought that household resource use should be the responsibility of men (Nabanda & Lubasi 2010). When respondents were asked whether women are allowed to participate in "household decision-making," broadly defined, 65% of respondents said women are allowed. Almost a third of respondents (30%) indicated that women were not allowed to participate in household decision-making. The year of the baseline study was the first year cane had been planted so they would not yet have revenues from the scheme. The tentative findings in this later fieldwork and the baseline imply that the existing gender inequality in decision-making was not altered in any way by the scheme, and that gender inequality was perpetuated. Through the lens of strategic gender interests, the scheme did not help women increase their control of resources within

the household.

Decision-making at the community level seems to include women in terms of their presence, but the degree of their participation may not be meaningful. Focus group discussions indicated women were part of the initial group of farmers that approached Zambia Sugar about the possibility of growing sugarcane but it is not clear from these discussions how many women were involved and what their role was in the initial conversations with Zambia Sugar (Focus Group Discussion #5, 2013). Women's leadership was not prominent in the Magobbo Trust's first executive committee, which was initially male-dominated according to one source (Palerm et al. 2010). It is not clear why the women remained outside of the initial executive committee if they were involved in the initial discussions with Zambia Sugar. The determinants of women's participation in leadership would be better understood through exploring why women involved in initial discussions did not want to, or were unable to take on leadership roles within the scheme.<sup>29</sup>

With regard to women's participation in channels of community decision-making, there were no female section leaders in the community at the time of the research. In terms of participation in the Magobbo Trust executive committee governing the sugarcane scheme, there were an equal number of men and women at the time of this study. After one gender sensitivity training workshop held in the community, members of the Magobbo Trust agreed that the decision-making body should be more inclusive of women. The number of women on the executive committee increased to about 40%

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<sup>29</sup> Due to the time constraints and limitations of this study, it was not possible to explore women's perceptions of their leadership in the Magobbo scheme.

following this training (Palerm et al. 2010). Numerical representation in decision-making bodies does not automatically lead to meaningful participation. The Magobbo Trust's constitution indicates that the executive board members have certain decision-making authorities. The constitution specifies, for instance, that they have power to formulate or propose amendments to the constitution. The constitution also outlines the executive committee's power to manage the day-to-day general administration of the Trust's affairs; however, the way in which the women appear to be involved in the day-to-day affairs of the trust is uncertain. The numbers of men and women on the executive committee may be even, but only men are in the three most important leading roles as "chairman," "vice-chairman," and "secretary" responsible for Magobbo Trust's finances. If women's involvement in the Magobbo Trust's decision-making structures were superficial, it would not serve women's strategic gender interests to a large extent. By contrast, this scenario would illustrate how the existing power relations can be maintained even in something that appears gender equitable on the surface through equal numbers.

It appears that prior to the launch of the outgrower scheme, women's control of land and level of participation in wage labour was low, and their involvement in household decision-making appears to be similar before and after the scheme. While there are some indications that affirmative action on the part of the Magobbo Trust executive committee has brought women into leadership positions, that participation may be largely symbolic. Further exploration is needed to confirm this observation. Women's strategic interest in exercising greater authority over decision-making in the household and at the community-level appears to have been largely unaltered, as they remain excluded from access to and control over decision-making power and resources.



### *Access to Natural Resources*

The expansion of commercial agriculture has been critiqued for increasing the difficulty for women to fulfill their gendered role in the provision of resources such as water and fuel (Tandon & Wegerif 2013, Spieldoch & Murphy 2012). Collecting water may become more burdensome since access to water sources is restricted because of the enclosure of large areas of land. The fencing off or the destruction of forests could make firewood scarce and send women further away for sources of fuel, or force families to divert financial resources to fuel provision such as buying charcoal.

In the quantitative phase of this research, I explored women's perception of changes in access to natural resources. The data indicate that most women felt their access to resources was impacted and that firewood is the biggest concern for women as shown below in Table 11:

**Table 10: Reported Difficulty in Accessing Resources for Household Maintenance**

<b>Has the sugarcane project made it more difficult to access any resources?</b>		
<b>Q13a</b>	<b>Frequency</b>	<b>Percentage</b>
No	3	10.00%
Yes	26	86.67%
N/A*	1	3.33%
Total		N=30
<i>*This participant in the scheme lived in Mazabuka town and did not feel like the question was applicable to her</i>		

**Table 11: Resources that Respondents Reported Difficulty Accessing**

<b>Which resources are difficult to access?</b>		
<b>Q13b</b>	<b>Frequency</b>	<b>Percentage</b>
Water	9/26	34.62%
Firewood	23/26	88.46%
Grazing land	6/26	23.08%
Other	0/26	0.00%
Total		N=26

As the Tables 10 and 11 illustrate, the majority of women consider that the project made it difficult to access some type of resource as 87% (26/30) believed they have been negatively affected by beginning to grow sugarcane. When these respondents provided detail on which resources were now more difficult to access, the largest percentage or 88% (23/26) agreed that their access to firewood was negatively affected. In comparison, the majority of respondents did not perceive access to water and grazing land as a problem.

The 11,400 ha expansion of sugarcane in the area has brought a greater absolute area of land under cultivation as well as diverted previously cultivated land to sugarcane production. Women used to easily gather firewood from nearby fallow land adjacent to their homes but now collect it from fallow lands that belong to Nanga Farms. The trip to Nanga Farms to gather firewood is allowed by the company only on weekends. Women reported that this activity may take up to half of their day depending on how often they must go. The chore is perceived as more burdensome than previously. Nanga Farms's policy is that deadwood can be collected and taken away, though women are supposed to avoid cutting down trees for firewood. In practice, women cannot find enough deadwood so they cut down trees and in some cases hire ox carts to take larger quantities of firewood away. Nanga Farms is aware of this violation of the policy but tolerates the situation at present. In the future, Nanga Farms plans to bring this forested area of their land under cultivation as well and therefore future access to firewood is uncertain. What was once easy for women became more labour intensive, and future access is uncertain altogether. It is important to note, however, that access to firewood could have become a problem regardless of the outgrower scheme because of increasing land pressure in the area. There

is a notable lack of natural forest cover in the nearby areas surrounding cane fields in Mazabuka.

Just over one third of respondents found access to water was problematic—a smaller percentage than those who noted that firewood was an issue. This perception was influenced by the fact that 18 of the 30 respondents surveyed had hand dug wells on their property before the scheme. Fetching water from any point further than that on their property would therefore be viewed as more of an inconvenience. The largest increase in the amount of total traveling time it takes to collect water was for drinking water, which was reported to have increased from 0 to 45 minutes but there were only two other respondents who reported substantial increases of 15 and 30 minutes each. The woman with a 45 minute increase in the time it takes to collect water had a water point on her property previously and relocated further away than others in the community. Most respondents reported just a minimal increase, 4 reported a decrease in traveling time, while 7 no change. Some respondents' interpretation of the question of their current access to water may have been different so these results must be taken with caution. It was not clear if all women fully understood that the question inquired about the total time collecting water, rather than the distance collecting water or the time walking to the site.

In focus group discussions and when additional information was offered during the survey interviews with women, respondents complained about the poor quality of the boreholes that had been installed to replace the previous ones dismantled to make way for the sugarcane catchment area. The installation had been overseen by the Magobbo Trust executive committee and funded by Zambia Sugar. The pipes had already begun to rust, resulting in poor quality water with a rusty appearance and taste. Faulty pumping

equipment also necessitates greater effort than normal for this kind of well, so women spend more time trying to fill their containers and queues form at the borehole. Some respondents noted that older women find they are sometimes unable to pump the water so they have to send younger women in their family.

Observations of the conditions of on-property wells in the area, however, suggest that water quality does appear to have been an issue before the switch to sugarcane farming. The walls are often made of clay instead of plaster, the cover is scrap metal and does not seal over the well, the water is contaminated with particulates, and the water point can be situated too close to latrines. The majority of respondents indicated that these hand dug home water point wells were only being used for bathing and dishes. In some cases this non-potable water may have been consumed as some women indicated they used their well for all their household water needs. Families have begun to dig wells on their property again and it would be difficult to confirm if they are using this water to drink as well. Regardless of whether the consumption of water from on-property wells continues, the scheme appears to have worsened the problem of water quality and increased Magobbo women's burden fetching water because of defective borehole equipment. A key practical gender need thus remains unfulfilled and though men are not affected in the way that women are by the defective equipment they too suffer the consequences of contaminated water.

### 5b-Ambiguous Change for Women

The contract farming literature that explores gendered dynamics suggests that women's work burden increases because their labour is directed to the new crop while they are responsible for continued household food production. Husbands often compel their wives to work on contract farming plots, invoking norms that require their wives to provide labour. The resulting tensions as well as instances of resistance have been documented in the literature (Carney 1994, Bülow & Sørensen 1993, Dolan 2001). The case of Magobbo is not consistent with that literature since farming services are provided under a management contract with Nanga Farms so women's farming labour is not appropriated within the household. Every woman working in Nanga Farms's sugarcane fields, including the catchment area in Magobbo are remunerated, though there are few female employees overall compared to male. Since the number of jobs provided to women on Nanga Farms remains low, the majority of women have noted that their workload has declined as shown in Table 12 below:

**Table 12: Women's Perception of their Change in Workload**

<b>Q16</b>	<b>Frequency</b>	<b>Percentage</b>
Decreased	24	80.00%
Unchanged	3	10.00%
Increased	3	10.00%
Total	N=30	

Women explained the reduction in workload as the result of farming less now or sometimes not at all, with no additional activities required of them that replace the previous farming workload. These women now have more time for reproductive household activities that are determined by the gendered division of roles and

responsibilities. The three respondents who noted that their workload has increased linked this to building activities they are supervising. Building projects women may be supervising include rebuilding their own homes after relocation, or investing in newly acquired properties.

These results could be interpreted as fulfilling women's practical gender need for reduced workloads since they are burdened with farming and household maintenance activities. However, women may also have a strategic gender interest in employment equity, and the practical need for income. A question that arises in this context is which gender needs and interests outweigh the others? Tentative qualitative evidence from this study, based on key informants' observations, suggests that women's demand for work outstrips the supply available to them at their skill level (Key Informant Interview #3 and #19, 2013). The reduction in workload then, reflects less farm work but also the fact that women are unable to access employment. Two women interviewed indicated that they would prefer to be farming more land, but they do not currently have access to a greater amount of farmland since rent for an additional parcel of land is too high for them. In this way, the reduction in workload is not a positive outcome for these women. On the other hand, another woman saw the reduction in farming work as a positive outcome since farming is burdensome. The topic merits further exploration into the nature of women's interests since the reduction in workload could be welcomed by some women, while not by others.

## 5c-Shared Benefits and Potential Losses (Risks)

### *Benefits*

The outgrower project generates positive and negative outcomes that cut across the gender divide in terms of women and men's practical gender needs. These are areas where both genders experience similar benefits or losses. One way in which the project has benefited families is through improved resilience. Though the exact change in income remains uncertain, all sources indicate a significant improvement in income after households started receiving revenue from growing cane. The baseline study states that income was between ~\$16USD – \$80USD per month for smallholders surveyed. Another source, the EU *Final Evaluation of the Sugar Accompanying Measures for the Sugarcane Protocol Countries - Zambia* report, states that income for the average smallholder prior to the scheme was \$600 USD per annum (or \$50 USD per month) (Landell Mills Ltd. 2012). This EU evaluation report also states that income is now ~\$12,500 USD per annum (~\$1,040 USD per month). These figures have to be viewed cautiously since authors of these reports did not provide information on the methodology used to calculate income. Figures also indicate a considerable increase from the first year's income reported by the Magobbo Trust's executive committee, which claimed that farmers' income was \$4,500 per annum on average (or \$375 USD per month) in 2011. The first harvest in 2011 was only a partial harvest since the planting began late in 2010. A typical harvest year would result in greater monthly incomes from sugarcane. Sugarcane planted too late in 2010 was allowed to carry over to the 2012 harvest so it had become larger in biomass than normal, therefore the 2012 harvest was atypical. The figures stated in the EU report are likely over inflated using the data from the 2012 harvest year, which was not representative of a

typical year. The improvement in farmers' incomes is confirmed qualitatively through women's perception of changes to their families' economic well-being. As mentioned, women may not control how this income is spent but the survey data indicates that women perceive the economic well-being of their families has improved as a result of growing sugarcane:

**Table 13: Women's Perception of Changes in Economic Well-being**

<b>Q8a</b>	<b>Frequency</b>	<b>Percentage</b>
Decreased	1	3.33%
Unchanged	2	6.67%
Increased	27	90.00%
Total	N=30	

The above table shows that 90% of women interviewed thought their families' economic situations had improved (this sample includes both female-headed households and women from married households). Households are better off now and more resilient in comparison to previous patterns of production, characterized by a combination of flooding and drought fulfilling women and men's practical gender needs. Focus group discussions revealed that the flooding was a major concern for residents in the area before and seen as a threat to their livelihood.

In addition to improved economic resilience, the survey data and qualitative evidence suggest that families' diets and food security have improved as a result of the project. There is concern in the literature that involvement in contract farming results in the diversion of productive farmland from subsistence crops to the production of cash crops, though the empirical evidence is unclear on this relationship (Martens & Swinnen



2009). With the change in production, farmers can be left worse off without the subsistence crop to rely on and thus more food insecure. Indebtedness and price instability could affect farmers' ability to purchase food as well. With the arrival of cane production, however, 80% of women interviewed in Magobbo (24/30) have noted an improvement in their families' diets:

**Table 14: Changes in Household Diet**

<b>Q5</b>	<b>Frequency</b>	<b>Percentage</b>
Worse	1	3.33%
No change	3	10.00%
Improved, but not by much in the past year	2	6.67%
Improved	24	80.00%
Total	N=30	

Respondents were also asked about the number of meals eaten per day, as a general indicator of food security.<sup>30</sup> They were asked about the number of their meals consumed before and after the project and the frequency of meals before and after are presented below in Tables 15 and 16. It should be noted that the indicator in practice is not amenable to the use of whole numbers as some respondents expressed a range in the number of meals per day consumed. This necessitated creating other categories as the data illustrates:

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<sup>30</sup> This indicator found in a Food and Agriculture Organization of the United Nations indicator guide as a way to measure access to food and food consumption at a household level. See FAO (2005) Nutrition Indicators for Development Guide by Marie, B. Retrieved from <http://www.fao.org/docrep/008/y5773e/y5773e05.htm>

**Table 15: Number of Meals Reportedly Consumed per Day Before the Outgrower Scheme**

Q6a	Frequency	Percentage
1	2	6.67%
1.5*	1	3.33%
2	11	36.67%
2.3**	1	3.33%
3	14	46.67%
3.5*	1	3.33%
Total	N=30	

**Table 16: Number of Meals Reportedly Consumed per Day After the Outgrower Scheme**

Current Number of Meals per Day		
Q6b	Frequency	Percentage
2	4	13.33%
2.5*	1	3.33%
3	21	70.00%
4	4	13.33%
Total	N=30	

*\*Half of a percentage point numerically represents the respondent having reported a range between the next closest lower and higher whole numbers*

*\*\*2.3 numerically represents a single respondent who reported that she eats 2 sometimes 3 meals, but more often 2*

As this data illustrates 83% (25/30) of Magobbo respondents report three or more meals per day compared to 50% (15/30) before the project. In addition to increased frequency of meals, respondents note more variety of their diet including more meat and fish, and the use of more cooking oil. Even though respondents attribute these improvements to the project itself, the data has to be taken with caution since the neighboring communities used as a control group indicated a similar frequency of meals currently:

**Table 17: Current Number of Meals per Day Reportedly Consumed in Manyonyo and Kabesha**

Current Number of Meals/Day Manyonyo & Kabesha		
Q4a	Frequency	Percentage
2	3	20.00%
3	11	73.33%
4	1	6.67%
Total	N=15	

The majority of respondents surveyed in Manyonyo and the Kabesha settlement report three or more meals per day (80% or 12/15 respondents). These communities were chosen for their similarity to Magobbo geographically in an attempt to isolate the effect of the project on the changes in Magobbo. The data suggests that there may have been a general improvement in food security in the area. In fact, 47% or (7/15) respondents indicated there was a time in the past when they ate fewer meals per day. Though the sample is very small, it raises the possibility that food security may have improved in this rural area east of Mazabuka as a whole. Respondents in Kabesha and Manyonyo may not be able to purchase the same variety of food as the women surveyed in Magobbo as those in Magobbo were perceived by the other community as having a higher living standard. As with improvements in household economic well-being these gains fulfill practical needs for both genders.

#### *Potential Losses (Risks)*

In addition to these crosscutting benefits, there are risks present in growing sugarcane that could jeopardize improvements in economic well-being. One of the risks is the fragmentation of land and income from growing sugarcane. Fragmentation occurs when assets or income become divided among a greater number of individuals. Both customs and the legal system interact with the current arrangement of the outgrower scheme to produce fragmentation. In Zambia, those who work the land on family farms benefit from its yields. There may also be relatives that are owners of the family farm who live in other areas of the country and are not providing farming labour for the family plot.

These relatives do not expect proceeds from traditional food crops or from cash crops such as cotton that were being cultivated on a small-scale to be shared with them. Since they did not provide labour to produce these crops, they would not claim a share. The individual could return to this family farm and begin farming alongside his or her relatives, and norms would dictate that this would create an entitlement for the farmer to benefit from the family farm as well.

Under the arrangements of this scheme, the fact that family labour is not currently required to cultivate the sugarcane appears to be changing the claims that are made to the production from the land. Income from sugarcane cultivation is being treated in the same way as rental income that would be divided among all the children that inherited a property rented out. Extended family relatives are therefore demanding that money be shared with them as well. The Zambian Intestate Succession Act states that half of the land devolves to the children and therefore legally entitles all children to share in the deceased's land. In other cases, a will created may have included all or multiple children. Legally then, these relatives are entitled to a share of the income from the land if the property devolved to all the children.

At the district level, however, the "offer letters" that the District Office granted to farmers specifying their right to grow cane are supposed to effectively block other claimants. There is a contradiction between the National Intestate Succession Act's rights for children as heirs to the family farm and the contract with the District Office stipulating that the individual registered on the offer letter is entitled to a specified amount of hectares to grow sugarcane. This contradiction in legal mechanisms is significant because the elimination of the labour requirement under the current system leads to extended

family members claiming entitlement to benefit from sugarcane production on the land. These additional claims can worsen the increasing fragmentation of land that may have been present regardless of the scheme. Farm size has been declining in Zambia in rural areas that are more densely populated than those that are more remote (Jayne et al. 2012). Even though there is underutilized arable land in Zambia, it is not accessible so land pressure and declining farm size is a challenge that prevents land-constrained farmers from being able to produce surplus crops (Hichaambwa & Jayne 2012). Moreover, demarcating individual farmers' plots may reduce the plot sizes for each farmer because of the space that feeder roads would occupy in the catchment area. There has been discussion on the possibility of identifying and separating individual plots. Income may also be divided among large extended families with an average of 10 individuals per outgrower (Landell Mills Limited, 2012). The increase in income could be diluted if it is spread too thin and plot sizes remain constrained in an area where much land is already devoted to growing sugarcane. Gains women reported in overall wellbeing and economic stability for their family could therefore be eroded depending on successional arrangements.

Claims from extended family members also produce social instability through intra-family conflicts. At least 13 such cases of intra-family conflict led to increases in the initial number of participants in the Magobbo Trust. There appears to have been conflict surrounding access to land in the block title, individual rights to participation in the Magobbo Trust, and rights to receive payments in separate bank accounts. For example, conflict ensued after a brother refused to pay his sister revenue from 1 ha of the total 6 ha sugarcane plot. She owned 1 ha of this farm prior to the project because it was a family

farm. In this particular case, it is unknown if the sister also resided in the area but in the end, the Magobbo Trust had to make sure both were registered to receive individual payments from Zambia Sugar. In another case, the former Magobbo section leader (an elected voluntary community leader) had been farming his family's land for 30 years in Magobbo. When sugarcane cultivation replaced the cultivation of food crops, his brother who had not been farming on this land, came back to stake a claim.

A further risk is indebtedness. Collectively, producers have taken on large amounts of debt, for instance a \$2.1 USD million loan through Zambia Sugar over a 40-year term. The interest rate is concessional, i.e. lower than the interest offered through commercial banks. There are also shorter-term loans that total approximately \$ 830,000 USD with terms of 10 years and under. The interest rates on these loans range between no interest loans for small sums of money to 7%. Some authors have been critical of contract farming arrangements for the vulnerability it creates through indebtedness (Glover & Kusterer 1990 and Little and Watts 1994). Depending on the terms of the contract, debt could result in the dispossession of land for failure to repay loans (Little & Watts 1994). For the Magobbo Trust and its members, it appears their land cannot be appropriated this way for failure to pay. Another criticism of the impact of contract farming on smallholders is the imbalance in power between the buyer and producers in monopsonist conditions. In this situation, a single purchaser interacts with a larger number of producers, which can worsen returns for farmers. Fees charged for inputs and services from the company may increase while prices farmers receive do not rise enough to offset the costs. This situation can decrease the independence of the farmers and they may become indebted to the company (Little & Watts 1994).

The differential power relations between Zambia Sugar and the Magobbo Trust are substantial. For the farmers, payments for the production of sugarcane are a primary source of income that sustain their livelihoods. From the sample in the survey, 63% (19/30) of respondents stated that their families still have access to land for farming though they are not able to produce the same variety of crops. Farmers are making non-farm investments with income from sugarcane payments in assets that could be future sources of income. The income from sugarcane farming, however, may remain an important source of income for families. For Zambia Sugar, the area of land under cultivation in Magobbo only represents 1.5% of their total disposition area for growing cane. The majority of the land available to Zambia Sugar to feed its production comes from large-scale commercial outgrowers supplying Zambia Sugar (29%), and its own vast plantation (59%). Zambia Sugar is therefore not very dependent on the production it receives from Magobbo.

In some cases the processing companies are very dependent on small-scale producers, as demonstrated by tea production in Kenya and the Kenya Tea Development Authority (Now the Kenya Tea Development Agency - KTDA). Initially, foreign owned tea processing companies were dependent on thousands of smallholders. The influence of smallholder farmers has grown since 1960 when they contributed only 7% of production. Currently, smallholder tea production has grown to 62% and smallholders control processing and own the KTDA, which is supplied by approximately 550,000 smallholders (Byerlee 2012). In the sugar sector in Tanzania, the Kilobero Sugar Company is owned by Illovo Sugar and purchases sugarcane from 8,000 farmers that have 11,900 ha under production. A situation with a multitude of suppliers produces its own challenges with

power imbalances if farmers are not part of organizations such as associations that represent their interests. The relationship with Magobbo producers is distinct from the dependency on smallholder producers in these examples and could be best described as a corporate social responsibility project for Zambia Sugar. As a corporate social responsibility project, Magobbo Trust does not have much leverage with the company if conditions change over the 40-year period they are indebted to Zambia Sugar. This relationship makes farmers dependent on the good will of those in management.

Variable market conditions for sugar could also make it more difficult for the Magobbo Trust to service the large collective debts, especially if prices for sugar drop or the EU restricts imports of African sugar. It is difficult to predict how conditions may change in the future though the control over sugar pricing is high. The sugarcane market is highly distorted as the price of sugarcane is controlled all over the world through subsidies and tariffs (Tyler n.d., Hayes 2014). The true free market price of sugar may even be unknown (DraKoln, n.d.). In addition, the real free market price could be so low that even very efficient producers such as Brazil and Australia could find it difficult to sustain production (Tyler n.d.). Farmers may face rising costs of inputs with no corresponding increases in price. In the United States, for example, the trend is that prices of inputs such as for fertilizer, chemical inputs and labour rise while prices stagnate (Hayes 2014). In such conditions combined with poor climate, mills have sometimes had to halt production altogether as was the case with mills in Brazil in the late 1990s (Wolford 2004). Producers may also experience delayed payments, as is the case in India with the fall in sugarcane prices since a peak in 2010 (Thakur, 2014) and in Tanzania (Smalley et al. 2013). In terms of the effects of quotas and restrictions, the EU will allow



unrestricted access to their market for African producers after 2015 (Richardson 2009). If the EU were to decide to restrict access in the future, production may have to be cut back. If there were a significant decrease in price of sugar smallholders may also be negatively impacted compared to large-scale commercial outgrowers with greater bargaining power.

What still has not been clarified by the Magobbo Trust is if producers will be allowed to switch out of sugarcane into other crops if market conditions are poor, and more favorable to the production of alternative crops. The Magobbo Trust Executive Committee chairman insisted there is no clause to allow farmers to switch out of sugarcane production while another key informant in the management of the scheme contradicted this view. Another consideration is that demarcating individual plots in the contiguous sugarcane block to allow for individuals to grow other crops would subtract from the total size available for farming because of the necessary feeder roads. Without the flexibility to switch to produce other crops, farmers may be locked in to a disadvantageous scenario with rising input prices and low commodity prices.

In addition to the ambiguity over smallholders' ability to determine the crop they produce, there are other rights and responsibilities left undefined by the Magobbo Trust's constitution. The trust is in the process of amending their constitution, realizing that as it currently stands, it is inadequate. Some of the rights and responsibilities that have not been clarified include: When can someone be dismissed from the Magobbo Trust for disruptive behavior and what happens to his or her assets? Can someone withdraw from the block title and under what conditions? The members of the Magobbo Trust have also not yet clarified succession rights in the arrangement. In Zambia, unless stipulated, group titles are under joint tenancy meaning that when one person dies, another individual

belonging to the group title is able to take over the percentage belonging to the deceased. This is the current form of tenancy governing the block title that the Magobbo Trust is in the process of registering at the Ministry of Lands.<sup>31</sup> This form of tenancy contrasts cotenancy where the landholder in the block is allowed to retain his or her share to pass on to an identified inheritor. The Magobbo Trust and its members will have to reduce uncertainty through constitutional amendments. Inability to resolve these issues could result in arbitrary decisions to ban members, or conflicts over succession that could destabilize the arrangement and produce financial losses for some families.

In summary, these risks may in effect become losses potentially reducing or reversing the gains in household income and food security that currently fulfill both women and men's practical gender needs. The outgrowers have taken on substantial debts that may be difficult to repay if there are disadvantageous fluctuations and political decisions affecting the sugar market. Zambia Sugar's dependence on mostly large-scale outgrowers and their own estate worsens the bargaining position for the Magobbo Trust should market conditions deteriorate in the future. Zambian inheritance law and the nature of the scheme that presently does not require the use of family labour to grow sugarcane has allowed additional claimants among extended family to benefit from the profits of the scheme. This adds to the risk of fragmentation of the proceeds beyond sustainable levels of population growth. Finally, undefined rights and responsibilities may cause tension and conflict that results in the exclusion of some families from the benefits to participation as cane growers in the Magobbo Trust, and even the alienation of land. All of these risks

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<sup>31</sup> Informants note that the process of registering the block title has been cumbersome citing administrative delays and corruption. As of the time of this research, the trust only had a council offer for a block title from the Mazabuka District Council and were in the initial stages of registering the block title with the Ministry of Lands in Lusaka.

threaten the positive, poverty-reducing impacts of the scheme. Table 18 summarizes the above findings presented in Section 5 on the fulfillment of practical gender needs and strategic gender interests:

**Table 18: Overview of Findings on the Fulfillment of Practical Gender Needs and Strategic Interests**

<ul style="list-style-type: none"> <li>• Some of women's and men's practical needs are fulfilled: <ul style="list-style-type: none"> <li>○ Greater resilience (e.g. increased household incomes enabling households to respond better to shocks)</li> <li>○ Improved diets</li> <li>○ Increased consumption of basic goods</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Some of women's practical needs are at risk or unfulfilled: <ul style="list-style-type: none"> <li>○ Need for sustainable sources of energy</li> <li>○ Continuance of contaminated water</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Many of women's strategic gender interests are unfulfilled: <ul style="list-style-type: none"> <li>○ Low participation in the outgrower scheme</li> <li>○ Lack of employment opportunity and transfer of knowledge</li> <li>○ Continued exclusion from household decision-making</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• Ambiguous change for women: <ul style="list-style-type: none"> <li>○ Decrease in productive labour</li> </ul> </li> </ul>

## Conclusion

The Magobbo outgrower scheme is a case that nuances the discussion on the gendered effects of investments in agriculture since it produces important benefits for women, especially widows, even amongst an overall negative distribution of benefits for women. Many studies have demonstrated that development interventions in agriculture in contract farming produce outcomes that reinforce gender inequality or worsen the existing

gender relations (Mbilinyi 1988, von Bülow & Sørensen 1993, Dolan 2001). Within contract farming, cases have shown that women have been disadvantaged because they face higher labour demands, but poor access to participate in schemes or control income derived from their labour. The literature on large-scale land acquisitions as well has mostly highlighted the negative potential outcomes for women, though there was mention of the positive potential of wage employment by some authors (Cotula 2013, Behrman et al. 2012). The tentative findings of this study suggest that there are in fact some important practical gender needs are being met, while for widows, their strategic position in society is being altered in a way that challenges the existing gender norms and increases their status. However, this scheme does not challenge the gender norms for married women.

From the GAD perspective, it appears the scheme is contributing to the fulfillment of women's practical gender needs for economic stability and sufficient quantities of diverse foods, which could help explain the reasons the scheme is supported by women, instead of resisted. These are areas where men and women are both experiencing gains, though improved diets implicates some increase in women's work for food purchases and preparation. Existing inequalities in household decision-making continue as married women are still excluded from participating fully in these decisions. All women are disadvantaged by the unequal distribution of employment, knowledge transfer and their participation in leadership structures. Further work and representative samples would be needed to prove this entirely, but the qualitative work supports the emerging patterns in the survey data.

A more proactive gender policy would have been needed to make the scheme more gender equitable including joint titling and bank accounts, and women's

participation in the Magobbo Trust's meetings, women's leadership training, and an affirmative action policy for hiring greater numbers of women. Such changes could produce resistance from men. The GAD approach could be useful in such a situation with its emphasis on changing norms around gender relations in ways that involve men (Rathgeber 1990, Visvanathan 1997). I also acknowledge that the practice of polygamy that is prevalent in the area, though perhaps to a lesser degree among younger generations. Polygamy would arguably make it impossible to achieve a gender equitable distribution of benefits in this scheme given the inherent inequality of this institution (Brooks 2009, The OECD Social Institutions and Gender Index n.d.). My research did not explore the dynamics of polygamous households but future research could explore these dynamics. Different wives in the household may be affected by schemes in disparate ways (Baden 2013).

In calling attention to differences between groups of women, this paper is aligned to some claims and evidence that it is more acceptable for a widow to control land in Zambia because she is single, despite their disadvantaged position in society on the whole (Milimo 1990 in GRZ-GIDD 2005, Mulolwa 2006). This suggests that it may be more difficult to alter relations within a marriage, which is something that may be perceived as more threatening to men's dominant position in the household. The results of married women's incorporation into the scheme are also consistent with the literature on the lack of control that women have over resources within the household. Schemes that do not require the outright ownership of land could be more gender equitable (Wonani 2013).

In terms of employment, this study also provides evidence in support of those cases that observe fewer employment benefits accruing to women (Tsikata & Yaro 2013,

Wonani 2013), however, this may be highly dependent on the crop in question and the gendered division of labour in existence before an expansion in commercialization (Behrman et al. 2012). Thus, from the WID perspective women are being left out of this development process under these arrangements where their labour is less significant and valued than it is for the production of food crops.

The lack of employment accruing to women supports the argument that existent gendered cropping patterns will determine how women's labour will be incorporated in changing agricultural economies. Few women are employed compared to men because cane cutting, one of the most labour intensive tasks, is viewed as men's work in this production system in Zambia restricting women to more infrequent, more poorly compensated tasks. The gendered gap in agricultural education also underpins the lack of women in supervisory or management roles. Ilovo is strict in reinforcing this gender division of labour across its operations (Richardson 2009). Further work of a larger scope may take a comparative approach to explore gender differentiation in agricultural commodities, as there is evidence that some high value crops are more dependent on women's labour (Dolan & Sorby 2003, Martens & Swinnen 2009).

What is also significant about this outgrower scheme, are the gendered effects of the institutional arrangements, specifically, the use of a management service provider for the production of cane. These arrangements mean that smallholders have become agricultural wage laborers on their own land. Through the use of a "block title," creating one contiguous area for sugarcane farming, the farmers are operating as an estate, though feeder roads have not separated farmers' individual plots at the time of the study. Women's labour is not employed to the same degree as men's under this mode of

production. Farmers' alienation from processes of production in contract farming has been observed before, and this scheme under its current organization is another example of this (Little & Watts 1994, Oya 2012). It is also important to acknowledge that this scheme is recent having harvested for the first time in 2011 so follow up would be needed to see how the contractual arrangements unfold and what this implies for production and gender differentiation. If the plots were separated to allow for some smallholder control over production, this scheme would become another form of block farming, where plots are next to one another to take advantage of economies of scale in the application of inputs and use of technology. This may be the current trend in the southern African region for outgrower schemes (Smalley et al. 2014, R. Hall personal communication November 25, 2014), a model that is increasing in significance in Africa for political and economic reasons (Oya 2012).

The gendered implications of this kind of these outgrower schemes with large management contracts for production are not well understood. For example, this study shows that women's productive labour burdens have declined, freeing up time for reproductive tasks, which are now a greater proportion of their work. Under this arrangement, they do not experience the kind of unremunerated appropriation of their labour that they have in the past, but this may have undermined the position of some women. Some women may view the reduction in labour as a strategic loss since there is less reliance on their productive labour and they cannot access wage employment. Others may welcome the reduction of arduous farm labour. My research did not investigate the reasons for these differences. This shows that practical gender needs and strategic gender interests are not necessarily the same for all women, pointing to potential generational and

class differences (Rathgeber 1990, Benería & Sen 1997). Further research could investigate the reasons for women's divergent interests, and explore the gendered implication of changing institutional arrangements in the nucleus-estate outgrower model that are blurring the distinction between this model and purely estate production.



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## Appendices

### *Appendix 1- Survey for Women at Magobbo*

**Draft Questionnaire for 25 July 2011**

**Version 2.2**

**Name:**

**Marital Status:**

**Section:**

**Participant: Y/N**

#### **Production**

1. Do you have land for farming now? Y/N

2. Did you have land for farming before the project? Y/N

3. What do you produce on the land now? [1=Maize, 2=groundnuts, 3=sweet potatoes, 4=soybeans, 5=cowpeas, 6=vegetables, 7=cotton, 8=other (specify)\_\_\_\_\_, 9=Not farming the land].

4.a. What did you produce on the land before the sugarcane project? [1=Maize, 2=groundnuts, 3=sweet potatoes, 4=soybeans, 5=cowpeas, 6=vegetables, 7=cotton, 8=other (specify)\_\_\_\_\_].

*[If respondent produces maize, ask:]*

4b. How many bags did you produce before the sugarcane scheme? Number of bags\_\_\_\_\_ or doesn't know \_\_\_\_\_

4c. How many bags do you produce now? Number of bags\_\_\_\_\_ or doesn't know \_\_\_\_\_

5. Has your family's diet changed because of this project? Y/N How?

6a. How many meals per day do you eat now?

6.b. How many meals per day did you eat before the project?

7a. Did your family receive food aid in the year before the project began in the December to March period? Why?

7b. Did you receive food aid the last year in the December to March period? Why?

#### **"Income and Assets"**

8a. Do you think you have more, or less income now because of the sugarcane investment? Or is your income unaffected? 1=more, 2= less, 3=unchanged.

8b. [If more,] what are you **able to buy** that you could not before?

8c. [If less,] what are you **not able to buy** that you were able to purchase before?

9a. Are you making major house improvements? Y/N

9b.[If yes] What are you improving?

9c.[If yes] How did you earn the money to make these improvements?

### Household control of sales/ income

[Ask only # 10 to 12 if married]

10a.[Only ask if wife has been farming] When you harvest maize and other crops, who takes the crops to the market to sell? Wife/husband/both/depends on the crop?

10b.[If 10a "depends on the crop" ]Which ones do only you [the wife] sell? \_\_\_\_\_

11.Who makes household decisions on what food, and how much food to buy? Wife/husband/both?

12.Who makes household decision on purchasing:

- a. a solar panel for electricity (wife/husband/both)
- b. paying school fees (wife/husband/both)
- c. a TV (wife/husband/both)
- d. a bicycle? (wife/husband/both)

### Access to Resources

13a.Has the sugarcane project made it more difficult to access to water, firewood, forest products, or grazing land, or any other resource from the land? Y/N

b. [If yes,] which resources are more difficult to access: [1=water, 2=firewood, 3=grazing land, 4=other (specify)\_\_\_\_\_]

c. [If project has affected access to firewood], do you think this project has changed the amount of money your family must spend on firewood/charcoal? [1=more,2= less, 3=unchanged]

14a.How much time does it take to get water for *drinking*?

14b.How much time did it take to get water for *drinking* before the project?

15a.How much time does it take to get water for *bathing/dishes*?

15b. How much time did it take to get water for *bathing/dishes* before the project?

### Women's Labour

16.Has your workload increased, decreased or stayed the same as a result of the Magobbo sugarcane outgrower project? [1=increased/2=decreased/3=unchanged] Why?

17.Do you know how many women were given jobs by Nanga Farms in your section?

*Appendix 2-Survey for Women at Manyonyo and Kabesha*

Questionnaire - 12 August 2013

Version 1.0

Name:

Marital Status:

Section or location:

**Food Production and Food Security**

1. Do you have land for farming now? Y/N

2a. What do you produce on the land now? [1=Maize, 2=groundnuts, 3=sweet potatoes, 4=soybeans, 5=cowpeas, 6=vegetables, 7=cotton, 8=sunflower 9=other (specify)\_\_\_\_\_, 10=Not farming the land].

2b. [If respondent farms maize,] How many bags do you produce now? Number of bags\_\_\_\_\_ or doesn't know\_\_\_\_\_

3. Would you want to farm sugarcane? Y/N Why or why not?

4a. How many meals per day do you eat now? 4b. Was there a time in the past when you ate less? Y/N

4c. [If yes,] when (what years) and why?

5. Did you receive food aid the last year in the December to March lean period? Why?

6a. Were there some years in the past 10 years (since 2003) when you received food aid? Y/N

6b. [If yes,] what years did you receive it? [List years they remember\_\_\_\_\_]

**Income and Assets**

7. [Open question] How do you compare your standard of living with those in the Magobbo Sugarcane project? [7&amp;8 N/A if respondent isn't familiar with Magobbo]

8. [Open question] Are people in Magobbo able to purchase items that you cannot? What? Please List\_\_\_\_\_

9a. Are you making major house improvements currently or planning to in the next six months? Y/N

9b. [If yes,] What are you improving?

**Access to Resources**

10a. Where do you go to collect firewood? 10b. How long does it take to collect firewood? 10c. Do you have to pay for firewood? 10d. Do you pay for charcoal? 10e. [If yes for either,] how much do you pay per month?

11a. How much time does it take to get water for *drinking*? OR is your water source for *drinking* on your property?

11b. For how many years has this been your source of water for drinking?

12a. How much time does it take to get water for *bathing/dishes*, or is this the same water as that for drinking?

12b. [*If it's not the same water,*] for how many years has this been your source of water for bathing/dishes?

**Women's labour**

13a. Have there been any changes in the amount of work that you are responsible for in the last 5 years (since 2008)? [1=increased/2=decreased/3=unchanged]

13b. [*If work has increased or decreased,*] what has changed with your workload?