

**IMPACT OF THE MAGOBBO SUGARCANE SCHEME ON THE
LIVELIHOODS OF SMALLHOLDER OUTGROWERS IN MAZABUKA
DISTRICT, SOUTHERN ZAMBIA**

By

Chrispin Radoka MATENGA

A Thesis Submitted to the University of Zambia in Fulfilment of the Requirements of
the Degree of Doctor of Philosophy in Development Studies

The University of Zambia

Lusaka

2020

COPYRIGHT

© 2020, Crispin Radoka Matenga. No part of this thesis maybe reproduced or stored in any form or by any means without prior permission in writing from the author or the University of Zambia.

DECLARATION

I, Chrispin Radoka Matenga, declare that the content of this thesis is my original work, certify that any material previously published or is written by another person is duly acknowledged, and that, this thesis has never been submitted to any University or other institution of higher learning for award of any academic qualification.

Signed:

Date:

APPROVAL

This thesis of Chrispin Radoka Matenga has been approved as fulfilling the requirements for the award of the Doctor of Philosophy Degree in Development Studies by the University of Zambia.

NAME:	SIGNATURE	DATE:
Examiner 1		
-----	-----
Examiner 2		
-----	-----
External Examiner		
-----	-----
Chairperson, Board of Examiners		
-----	-----
Supervisor		
.....

ABSTRACT

The aim of this study was to explore how outgrower schemes in the context of block farming, affects livelihoods of the smallholder sugarcane outgrower communities in Zambia. The study examined the Magobbo smallholder sugarcane outgrower scheme in Mazabuka District, in southern Zambia – a contiguous block of 433 hectares owned by about 99 households – launched in 2008 with substantial grant funding from the European Union. The study employed a sequential mixed-methods design for data collection and analysis conducted in three phases in 2013, 2014 and 2015 respectively. The research methods included qualitative methods (Phase one) that comprised seven focus group discussions; 14 in-depth key informants interviews and direct observation; a household survey (Phase two) administered to a sample of 105 households; and qualitative methods (Phase three) involving 23 life histories from nine households.

The findings show that the sugarcane outgrower model at Magobbo is atypical in that outgrowers play no role in production and farm management as their land has been consolidated into a contiguous single block farm and handed over to a service provider company under a management contract. Evidence show that the institutional arrangements in the outgrower block farming model have created uneven income gains from sugar resulting from a hierarchy of landholding sizes held by participants in the scheme with some groups of outgrowers registering increasing incomes than others. The study also reveals gender and generational differentials in livelihood outcomes with women and young people less likely than men to benefit from the scheme. The scheme precludes any land access in the block farm for production outside the contracted crop and discourages livestock management by smallholders in the area. The outgrower scheme, therefore, spawns a specialised livelihood portfolio centred on one crop – sugarcane – away from a more diversified and resilient combination of crops-livestock livelihood portfolio. Moreover, the findings show that the scheme has also generated some unintended negative social consequences in the area. The new ‘wealth’ coming from the scheme has acted to divide people over family land and provoked political contestation within the community, as some seek to exert control over the scheme, resulting in the breaking down of the extended family system and cohesive community bonds.

The overall conclusion of the study is that the outgrower scheme has radical consequences: higher incomes for some – and a seeming success of the outgrower model – but this comes at a cost, as land, livelihoods and social relations are reconfigured. The study, thus, recommends that promoters of smallholder outgrower schemes should encourage the development of institutional arrangements that take a broader view of smallholder livelihoods that goes beyond the narrow income metrics, as well as, maintain the role of smallholders as farmers actively involved in production of contracted crop for genuine improvement of smallholder livelihoods.

Keywords: outgrower; contract farming; smallholders; block farming; livelihoods; institutional arrangements; displacement; resettlement; political economy; extended livelihoods framework; IRR; marginalisation; Magobbo; Mazabuka; Zambia

ACKNOWLEDGEMENTS

This thesis culminates from a long journey of study at the Department of Development Studies at the University of Zambia. Indeed, a long journey punctuated with occasional detours and seemingly insurmountable challenges. Despite the challenges, the journey was worth the while. I am deeply indebted to many people and organisations that contributed to and supported the accomplishment of this work. For a thesis to become the thesis, there is usually someone guiding the work. First and foremost, to my Supervisor Professor Thomson Kalinda, I am highly grateful for your thorough advice and patience in awaiting for the chapters. Without your support and sound advice there would have been no thesis to talk about! I also pay special gratitude to my first Supervisor the late Dr. Bennett Siamwiza. You were such a pillar during the formative stage of this study but the spectre of death robbed me a supervisor in you.

This thesis benefited from two main academic projects. The thesis is a result of the research carried out under the DfID funded Land and Agricultural Commercialisation in Africa (LACA) Project hosted at the Institute for Poverty, Land and Agrarian Studies (PLAAS) at University of the Western Cape, under the auspices of the Future Agricultures Consortium. I am grateful to Professor Ruth Hall, the Coordinator of the LACA Project for accommodating my study in the project. Special thanks to Professor Ian Scoones co-principal investigator under the LACA project for his initial advice to this thesis. Professor Dzodzi Tsikata also co-principal investigator under the LACA project gave a valuable critique to the project material that also was of much help to this thesis.

The thesis also benefitted from the Finnish Foreign Affairs Ministry funded project - Higher Education Institutions Institutional Cooperation Instrument (HEI ICI): *Developing Development Studies* (2011 – 2016) involving the Department of Development Studies at the University of Zambia, Institute of Development Studies at the University of Dar es Salaam, Institute of Development Studies at the University of Helsinki and Department for International Cooperation and Philosophy at the University of Jyväskylä. The HEI-ICI project involved largely skills development for academic staff who were enrolled for PhD studies in their respective universities. I am grateful for the small grant towards this thesis from HEI-ICI. I would like to acknowledge Professor Jeremy Gould, Dr. Aldagot Komba, Professor Elina Oinas, Dr. Tiina Kontinen, Dr.

Colman Msoka and Dr. Gutu Wayessa for their role in shaping capacity as I and other PhD students embarked on this journey. To fellow former HEI-ICI students from the University of Zambia and the many collaborating universities in Tanzania, I say bravo! It was good fun to get into the mix and staying together in Zambia, Tanzania and Finland in search for capacity. Dr. Moonga Mumba, special thanks for your support and encouragement during the different stages of this work. You kept the conversation going even as my mood was low!

I am also grateful to Vera Rocca with who I collaborated fieldwork during phase one of this study. Cyriaque Hakazimana from the Institute for Poverty, Land and Agrarian Studies (PLAAS), University of the Western Cape deserves special mention for his zeal in the field during second phase of the study. Cyriaque, you were more than a mate in the field and you remind me of our confrontation with the elephant in Lower Zambezi National Park during time off our study schedule. It was as fun as it was scary! To my Zambian LACA Project-mate Mr. Munguzwe Hichaambwa from the Indaba Agricultural Policy Research Institute (IAPRI), your participation in the project contributed immensely to this work and I salute you for that. Special thanks to Mr. Langson Banda, formerly from the Central Statistical Office for his hand in quantitative data cleaning and analysis. Your contribution indeed shaped the quantitative component of this thesis to what it is. At the field level, I am greatly indebted to the many individuals and offices I visited. Special thanks to Mr. Cyprian Malambo, then deputy chairperson of the Magobbo Cane Growers Trust (MCGT) for being an all-weather friend during the three phases of the study. Mr. Malambo, you went out of your way to make sure I met all the persons of interest in the study in Mazabuka. Phase two of this study involved a quantitative survey that necessitated the use of enumerators. I am grateful to the enumerators who had to cope with a somewhat complicated and lengthy questionnaire.

Lastly, this work would not have been accomplished without the support of my family. To my younger daughters; Tapiwa, Kasungo and Fungai, you were an inspiration as we competed in 'studying'. The house was quiet as all of us were 'busy' studying at our own different levels. I hope the experience will inspire you to aim high.

Chrispin Radoka Matenga

Lusaka, 2020.

DEDICATION

To: Tapiwa, Kasungo and Fungai

TABLE OF CONTENTS

COPYRIGHT	ii
DECLARATION	iii
APPROVAL	iv
ABSTRACT	v
ACKNOWLEDGEMENTS	vi
DEDICATION	viii
LIST OF TABLES	xii
LIST OF FIGURES	xiii
LIST OF ABBREVIATIONS	xiv
CHAPTER 1: INTRODUCTION	1
1.1 Background to the study	1
1.2 Statement of the problem	7
1.3 Research aim	8
1.4 Research objectives and questions	8
1.5 Significance of the study	9
1.6 Limitations of the study	10
1.7 Structure of the thesis	11
CHAPTER 2: LITERATURE REVIEW	13
2.1 Chapter introduction	13
2.2 Outgrower schemes/contract farming in developing countries	13
2.2.1 Contract farming models and typologies	18
2.2.2 Positive impacts of contract farming	22
2.2.3 Negative impacts of contract farming	25
2.3 Agriculture commercialisation and the economy in Zambia	30
2.3.1 Socio-economic and political context	30
2.3.2 Agriculture and the economy	31
2.3.3 Agriculture commercialisation	33
2.3.4 Smallholder contract farming/outgrower schemes in Zambia	38
2.4. Sugar production and participation of smallholders in outgrower schemes in Zambia	44
2.4.1 History of sugar production in Zambia	44
2.4.2 Sugar and the Zambian economy	54
2.5 Chapter summary	60
CHAPTER 3: THEORETICAL FRAMEWORKS	62
3.1 Chapter introduction	62

3.2	Extended Livelihoods Framework	63
3.4	The Impoverishment Risks and Reconstruction (IRR) model	70
3.5	Chapter summary	73
CHAPTER 4: RESEARCH METHODOLOGY		74
4.1	Introduction	74
4.2	Philosophical perspective	74
4.3	Research strategy for the study	76
4.4	Mixed methods research approach	79
4.5	Case selection	82
4.6	Research methods, sampling, data collection methods and analysis	82
4.6.1	Mixed methods strategy of inquiry	82
4.6.2	Phase I qualitative: sampling and data collection methods	84
4.6.3	Phase II quantitative: sampling and data collection.....	90
4.6.4	Phase III qualitative: sampling and data collection	94
4.7	Data analysis and interpretation	97
4.8	Entering the field, ethical concerns and other challenges	99
4.9	Chapter summary	102
CHAPTER 5: DESCRIPTION OF THE STUDY AREA		104
5.1	Chapter introduction	104
5.2	Southern Province and Mazabuka District – an agricultural based region	104
5.3	Magobbo community	111
5.5	Chapter summary	115
CHAPTER 6: RESEARCH FINDINGS AND DISCUSSION.....		116
6.1	Introduction	116
6.2	Nature of the institutional arrangements of the outgrower scheme under study	116
6.2.1	History of evolution of the Magobbo scheme	117
6.2.2	Magobbo scheme institutional structure	122
6.2.3	Magobbo block farming scheme design.....	127
6.2.4	Access to and size of sugarcane plots	133
6.2.5	Access to irrigation water	135
6.2.6	Division of proceeds.....	139
6.3	Livelihood activities and resources in Magobbo	141
6.3.1	Demographic characteristics of households sampled for the quantitative survey ...	141
6.3.2	Income generating activities	142
6.4	Household access to and ownership of agricultural land	145
6.5	Income, expenditure and asset ownership	159

6.5.1	Impact of sugarcane outgrowing on income	159
6.5.2	Expenditure patterns	170
6.5.3	Asset accumulation	173
6.5.4	Livestock assets	175
6.6	Household well-being status	179
6.7	Household food security	183
6.8	Employment generated by the Magobbo outgrower scheme	192
6.9	Linkages in the local rural economy	204
6.10	Social consequences of the Magobbo outgrower scheme	211
6.11	Summary discussion of main study findings	230
6.11.1	Introduction	230
6.11.2	Nature and type of institutional arrangements in the outgrower scheme	231
6.11.3	Livelihood outcomes	234
6.11.4	Social consequences	237
CHAPTER 7: CONCLUSIONS		240
7.1	Chapter introduction	240
7.2	Theoretical reflections	240
7.2.1	Extended Livelihoods Framework	240
7.2.2	Impoverishment Risks and Reconstruction (IRR) model	242
7.3	Methodological reflections	242
7.4	Reflections on literature on contract outgrower schemes	244
7.5	Summary of key findings	245
7.6	Concluding remarks, policy implications and recommendations	254
7.7	Areas suggested for future research	259
REFERENCES		261
APPENDICES		278

LIST OF TABLES

Table 1: Smallholder Sugarcane Growers in Mazabuka District	47
Table 2: Area cultivated for sugarcane by all categories of growers in Mazabuka District	48
Table 3: Household sample size for quantitative survey	91
Table 4: Sample size	93
Table 5: Demographic characteristics of respondents in different household groups	141
Table 6: Distribution of income generating activities in magobbo (n = 141).....	143
Table 7: Crops grown for sale by households	144
Table 8: Land access, land cultivation and land size across households	147
Table 9: Mode of land acquisition by households in Magobbo.....	156
Table 10: Household perceptions about changes in land availability in last five years	157
Table 11: Household perception of land conflict over years	158
Table 12: Mean annual crop value by households	161
Table 13: Relative advantages/disadvantages of outgrower arrangement	168
Table 14: Priority expenditures by households	171
Table 15: Asset ownership by households (multiple response question)	173
Table 16: Households owning livestock (multiple response question)	176
Table 17: Distribution of households by self-assessed well-being.....	180
Table 18: Household perceptions about financial status compared to 5 years ago.....	181
Table 19: State of household main dwelling	182
Table 20: Household reduction in size of meals.....	185
Table 21: Household member skipping of meals whole day.....	186
Table 22: Change in household food security situation	187
Table 23: Household perceptions about changes in the number of crops grown	191
Table 24: Employment status of household members.....	194
Table 25: Employment status of household member by gender.....	197
Table 26: Employment status and age.....	199
Table 27: Average monthly wage for employees and gender	200
Table 28: Mean monthly wage by age	201
Table 29: Level of education by type of employment among members of households	202

LIST OF FIGURES

Figure 1: Zambia sugar's market segmentation, 2012-2013 and 2014-2015 seasons	60
Figure 2: An extended livelihoods framework	64
Figure 3: Three-phase sequential mixed methods design.....	83
Figure 4: FGDs with mixed groups of Magobbo community members	89
Figure 5: Participatory mapping of local economic linkages in Magobbo	97
Figure 6: Map of Zambia showing Mazabuka district and Magobbo scheme in Southern Province	106
Figure 7: Map of Magobbo block farm highlighting community sites	114
Figure 8: Institutional structure and roles of entities involved in the Magobbo scheme	123
Figure 9: Map of Magobbo outgrower scheme block	128
Figure 10: Employees irrigating cane fields at Magobbo scheme	136
Figure 11: Homestead vegetable gardens irrigated by overflow water	137
Figure 12: Number and size of sugarcane plots at Magobbo scheme in 2014/2015 season.....	148
Figure 13: Outgrower sugarcane income for August: 2014/15 growing season	163
Figure 14: Graves left unlevelled in sugarcane fields at Magobbo scheme	218

LIST OF ABBREVIATIONS

ABF	Associated British Foods
ACP	Agricultural Commercialisation Programme (2002-05)
ACP	African, Caribbean and Pacific
AMSP	Accompanying Measures for Sugar Protocol
ASIP	Agricultural Sector Investment Programme
ASP	Agricultural Support Programme
BSAC	British South African Company
CAADP	Comprehensive Africa Agriculture Development Programme
CBZ	Coffee Board of Zambia
CDC	Commonwealth Development Corporation
CDT	Cotton Development Trust
CGAM	Cane Growers Association of Mazabuka
CLUSA	Cooperative League of the USA
CMO	Common Market Organisation
COMESA	Common Market for Eastern and Southern Africa
DfID	Department for International Development
DID	Development Induced Displacement
EC	European Commission
ERC	Estimated Recoverable Crystal
EU	European Union
FAO	Food and Agricultural Organisation
FDI	Foreign Direct Investment
FISP	Farmer Input Support Programme
FNDP	Fifth National Development Plan (2006-2010)
FFA	Food First Approach
FRA	Food Reserve Agency
FSP	Fertilizer Support Programme
GDP	Gross Domestic Product

GRZ	Government of the Republic of Zambia
Ha	Hectare
HBS	Harvard Business School
HEI ICI	Higher Education Institutions Institutional Cooperation Instrument
HDI	Human Development Index
HIPC	Highly Indebted Poor Country
INDECO	Industrial Development Corporation
IAPRI	Indaba Agricultural Policy Research Institute
IFAD	International Fund for Agriculture and Development
IPPA	Investment Promotion and Protection Agreement
IRR	Impoverishment Risk and Reconstruction
KASCOL	Kaleya Smallholders Company Limited
LACA	Land and Agricultural Commercialisation in Africa
LINTCO	Lint Company of Zambia
MACO	Ministry of Agriculture and Cooperatives
MCB	Maize Control Board
MCGT	Magobbo Cane Growers Trust
MMC	Mazabuka Municipal Council
MMD	Movement for Multi-Party Democracy
MSCGT	Mazabuka Sugarcane Growers Trust
MSP	Management Service Provider
MOF	Ministry of Finance
MoFNP	Ministry of Finance and National Planning
MWUA	Manyonyo Water Users Association
NAMBOARD	National Agricultural Marketing Board
NAP	National Agricultural Policy (2004-2015)
OECD	Organisation for Economic Cooperation and Development
OSP	Outgrower Support Programme
PF	Patriotic Front

PLAAS	Institute for Poverty, Land and Agrarian Studies
PRSP	Poverty Reduction Strategy Paper
PRPs	Poverty Reduction Programmes
PSDRP	Private Sector Development Reform Group
RSR	Rhodesia Sugar Refinery
SADC	Southern African Development Community
SAP	Structural Adjustment Programme
SFAP	Support to Farmers' Association Project
SLF	Sustainable Livelihood Framework
TBZ	Tobacco Board of Zambia
UDI	Unilateral Declaration of Independence
UNDP	United Nations Development Programme
UNIP	United National Independence Party
VDC	Village Development Committee
WCD	World Commission on Dams
WDC	Ward Development Committee
ZDA	Zambia Development Agency
ZESCO	Zambia Electricity Supply Corporation
ZMK	Zambian Kwacha
ZSC	Zambia Sugar Company

CHAPTER 1: INTRODUCTION

1.1 Background to the study

In recent years, contract farming and outgrower schemes have received renewed attention against the backdrop of the growing global concerns on the alleged negative impacts of large-scale land acquisitions through purchases or leases largely by foreign agribusiness entities in developing countries. Some development analysts, researchers and development institutions such as the World Bank and the International Fund for Agricultural Development (IFAD) have proposed contract farming and outgrower schemes as alternatives to large-scale plantation-type agricultural investments that often results in displacement of local communities from their land while generating little employment for local labour (von Braun and Meinzen-Dick, 2009; Da Via, 2011).

It is generally agreed that there is no easy definition of contract farming (Glover, 1984). The literature on contract farming provides various definitions. Bijman (2008: 3) notes that much of the literature on contract farming acknowledges the diversity of contractual arrangements between farmers and contracting firms. Singh (2002: 1622) underlines this point by stating that:

... there is so much diversity in the type of firms, farmers, contracts, crops, and the socio-economic environment that it is better to focus on a specific situation than the generic institution of contract farming.

The picture is further complicated by the existence of a variety of players in the contractual arrangements that include the farmers, service providers, producer

associations or trusts, local private firms, multinational companies, governments and international aid and lending institutions.

Prowse (2012: 10-12) outlines several definitions from different authors and builds a definition from those offered by Rehber (2007) and Hamilton (2008). He describes contract farming as:

a contractual arrangement for a fixed term between a farmer and a firm, agreed verbally or in writing before production begins, which provides resources to the farmer and/or specifies one or more conditions of production, in addition to one or more marketing conditions, for agricultural production on land owned or controlled by the farmer, which is non-transferable and gives the firm, not the farmer, exclusive rights and legal title to the crop.

Baumann (2000: 8) and Bijman (2008: 3) observe that in much of the literature, the terms ‘contract farming’ and ‘outgrower scheme’ are often used interchangeably owing to the diversity of the contract farming phenomenon. Glover and Kusterer (1990), however, use the term ‘outgrower scheme’ to refer to a government scheme with a public enterprise and parastatal company, while referring ‘contract farming’ to the same arrangement in the private sector. In a similar fashion, throughout this study, these terms will be used interchangeably.

Contract farming is often perceived as an investment model that allows an agribusiness firm invest in agriculture in partnership with local smallholders while avoiding the

acquisition of land from them, thus, leaving the local land users in control of their land (von Braun and Meinzen-Dick, 2009). Contract farming and outgrower schemes are, therefore, increasingly seen as a win-win scenario whereby a foreign agribusiness firm has an opportunity to invest while the local smallholders retain control of their land while benefitting from access to financial services (credit), guaranteed markets, new technology, secured inputs and prices supplied by the agribusiness firm, and increased cash incomes (Glover, 1984; de Treville, 1986; Baumann, 2000; Da Via, 2011; Bangwe and Koppen, 2012). Contract farming schemes are also credited for engendering spill-overs such as, employment, social and productive infrastructure, including road infrastructure, electricity, communication, schools, health facilities etc. (Baumann, 2000; Key and Runsten, 1999). Some studies have, however, noted that when contract farming schemes involve allocation of farm plots as part of a settlement project or an irrigation scheme, or take the form of a nucleus estate where the agribusiness firm operates a central estate, there are some disruptions to local people's land access. Land reallocation in such schemes is often fraught with inequalities and abuses favouring migrants or elites' access to farm plots instead of the local people (Baumann, 2000: 33; Smalley, 2013: 7, 42, 43, 53).

During the 1990s, the potential benefits of contract farming in developing countries received particular attention in the wake of economic reforms that accompanied structural adjustment programmes, particularly downsizing of the role of the state in the economy and consequently a reduction in public expenditures. Liberalisation of the agricultural sector in particular entailed a near total government withdrawal from support programmes such as input subsidies, credit, staple crop price supports, and government research and extension programmes (Key and Runsten, 1999: 381). The

withdrawal of government support programmes to small-scale farmers left an institutional vacuum. Contract farming and outgrower schemes were thus seen, and promoted, as better placed to fill this vacuum as the contracting companies would easily assume the role of providing the service support to small-scale farmers.

Despite being an established model for several decades in Sub-Saharan African countries, outgrower or contract farming schemes have gained a new prominence in developmental and theoretical literatures in the post-2000 period prompted largely by negative perceptions about large-scale plantation-type agricultural investments that often result in displacement of local communities (von Braun and Meinzen-Dick, 2009). Some development analysts and development institutions (Da Via, 2011; Baumann, 2000) have, thus, reframed contract farming as something of a ‘magic bullet’ for smallholder incorporation into value chains, poverty alleviation and accumulation. Contract farming and outgrower schemes have been identified as well placed to raise the productivity of smallholders and promoting agricultural production for the market while also enhancing livelihoods of the participating households and their communities. However, the contemporary simplistic ‘win-win’ narratives around these contract and outgrower relationships cannot be uncritically accepted without clear evidence grounded in specific case studies. Indeed, as Baumann (2000, 9) observes, “[c]ontract farming should be examined case by case in order to understand its potential as a tool in rural development strategies...”

In Zambia today, the agricultural sector is considered the second key sector, besides copper mining and remains the priority sector in achieving the aims of sustainable

economic growth and poverty reduction in Zambia (GRZ/MoF, 2014). The sector employs between 67 per cent and 70 per cent of the labour force (World Bank, 2007: 5; Chapoto et al., 2012: 9) and, as is the case with many countries in the region, over 70 per cent of the Zambia's rural population depends on agriculture for its livelihood (AUC-ECA-AfDB Consortium, 2010: 6). Primary agriculture contributes about 35 per cent to the country's total non-traditional exports, and about 10 per cent of the total export earnings (ZDA, 2011: 3). The main agricultural export crops in Zambia are cotton, tobacco and sugar and these three make up approximately two-thirds of total agricultural exports (World Bank, 2007: 6).

Government development objectives since 2002 have prioritised the commercialisation of smallholder sector through outgrower schemes as a way to integrate poor farmers in rural areas into the national economy and global value chains (GRZ, 2002; Keyser and van Gent, 2007). This was to be achieved by linking smallholders with large-scale capitalist agricultural 'estates', largely through private sector managed outgrower schemes (World Bank, 2007). The concept of outgrower scheme in Zambia peaked in the early years of the new millennium as a result of the market liberalisation policies that took hold in the 1990 decade such that by 2004, approximately 35 to 40 per cent of the then 800,000 small-scale farmers in the country were involved in outgrower arrangements of some kind (Droppelmann, 2004: 5; Agrifood Consulting Limited, 2005: 151), with nearly all cotton, tobacco and paprika being produced under these arrangements (Tschirley, et al., 2009: 2). For sugarcane, an estimated 10 per cent is grown through smallholder contract outgrower schemes (Corporate Citizenship, 2014: 30).

Although quantitatively smallholder sugarcane outgrower schemes are dwarfed by schemes in other crops as pointed above, studies have shown that sugarcane had the highest gross margins on a per hectare basis compared to other crops grown on outgrower scheme basis (World Bank, 2007; Droppelmann, 2004). Thus, sugarcane is considered a key crop through which to alleviate poverty and improve livelihoods of small-scale farmers organised in outgrower schemes.

The sugar sub-sector is primarily private sector driven following the economic liberalisation and privatisation that commenced during the early 1990s with Zambia Sugar being the dominant company in the sugar sub-sector (Palerm et al., 2010: 1). Following the acquisition of Zambia Sugar by Illovo Sugar of South Africa in 2001, the company embarked on an expansion programme in 2007 that aimed at increasing the area under cultivation, as well as, the processing capacity of its mill.¹ The area expansion was to be partly met by consolidating prime land within the vicinity of the company's mill into growing sugarcane through outgrower schemes. Illovo Sugar's expansion programme was in reaction to the European Union (EU)'s announcement denouncing its longstanding Sugar Protocol that gave a higher price of sugar for specified quotas of ACP countries sugar exports on the EU market. The EU adopted temporary compensatory measures – the Accompanying Measures for Sugar Protocol (AMSP) countries – to assist affected countries cope with the changed sugar regime. The AMSP support to Zambia was focused on, among other things, the expansion of sugar production through smallholder outgrower schemes in Mazabuka District to supply sugarcane to Zambia Sugar. The Magobbo smallholder outgrower scheme was

¹ Lusaka Times, 19 February, 2008, 'Government happy with Zambia Sugar Company'. <http://www.lusakatimes.com/2008/02/gov-happy-with-zambia-sugar-company/>

thus, officially launched in 2008 as a partnership between Zambia Sugar and smallholders in Magobbo settlement, with substantial grant funding from the EU's temporary AMSP. The AMSP programme had a social objective, and, therefore, was intended to be used to facilitate poor smallholder farmers' entry into sugarcane production with a condition that development opportunities be equitably spread across the Magobbo community (Whydah Consulting, 2011).

1.2 Statement of the problem

In the recent past, contract farming and outgrower schemes have gained a new prominence in developmental and theoretical literatures in the post-liberalisation period (von Braun and Meinzen-Dick, 2009; Da Via, 2011; Cotula and Leonard, 2010; FAO 2013; and World Bank 2013). In most Sub-Saharan African countries, these schemes have been identified as well placed to overcome the production constraints, including markets, faced by many smallholders especially after withdrawal of government support programmes to small-scale farmers. However, in promoting the case for outgrower schemes in developing countries in, there has been an overemphasis by development institutions and policymakers on a single variable – income rise – as a yardstick to measure poverty reduction and livelihood outcomes of such schemes, yet livelihoods are multidimensional and embody interconnected elements that constitute livelihoods in a holistic manner. There has been little attention paid to other variables such as social, cultural and political (de Haan, 2010). These other aspects often put at the margins of livelihoods analysis by promoters of outgrower schemes are likely to weigh more negatively on the very livelihoods such schemes intend to promote (de Tревилle, 1986). Indeed, this calls for a holistic approach to livelihoods that includes social, cultural, political and economic in the analysis for a better

understanding of the complexity of livelihoods (de Haan, 2010). It is with this in mind that this study sought to embrace not only the economic dimension but these other often ignored dimensions for a better understanding of the complexity of livelihoods in development projects such as the Magobbo outgrower scheme.

1.3 Research aim

The aim of this study was to explore how nucleus estate – outgrower schemes in the context of block farming, affects livelihoods of the smallholder sugarcane outgrower communities in Zambia. The general objective of this study was to uncover the livelihoods impacts of the Magobbo outgrower scheme on the smallholder sugarcane outgrower households and the surrounding communities in Magobbo, Mazabuka District, southern Zambia.

1.4 Research objectives and questions

In order to achieve the above stated general objective, the study had the following specific objectives:

1. To identify and examine the institutional arrangements in the Magobbo sugarcane outgrower scheme.
2. To determine whether and/or how the Magobbo block farming outgrower scheme has improved livelihoods of participating smallholder outgrowers.
3. To analyse the social consequences of the outgrower scheme.

The main research question guiding this study was: How do outgrower schemes in the context of block farming affect the livelihoods of smallholders in the sugarcane growing communities?

The study therefore asked the following research sub-questions:

1. What is the nature of institutional arrangements of the Magobbo outgrower scheme?
2. What are the livelihood outcomes of the Magobbo outgrower block farming scheme?
3. What are the social consequences of the outgrower scheme on the outgrower households and the surrounding communities?

1.5 Significance of the study

Investigating the impacts of the Magobbo sugarcane outgrower scheme on smallholder livelihoods is significant for a number of reasons. The contribution of smallholder farming to economic growth and food security in Zambia cannot be overlooked. Government development objectives have prioritised commercialisation of smallholder sector through outgrower farming schemes as a way to integrate poor rural smallholders in the national economy. Contract farming, particularly, the nucleus estate-smallholder outgrower model has been foremost implemented in the sugarcane cultivation District of Mazabuka for more than 30 years now under the *smallholder settlement scheme*, and also for close to ten years now under the novel *smallholder block farming scheme* as a way to improve rural livelihoods. However, the significance of this case study in sugarcane outgrowing goes beyond the sugar sub-sector. In its

quest to integrate smallholders into the commercial value chains, the Zambian Government is considering scaling-up the nucleus-estate smallholder outgrower model in the “Farm Block” programme potentially to be implemented in the country’s ten Provinces (GRZ/MoFNP, 2005; Hallam, 2009). Thus, a study on livelihoods impact on smallholder outgrowers of this agricultural business model is in order to inform policy and practice.

1.6 Limitations of the study

This study, like any other is subject to some limitations. This study was conducted from an individual smallholder outgrower project perspective. At the time of commencing the study, there were only two sugar smallholder outgrower schemes operating in the country, all in one District of Mazabuka and promoted by Zambia Sugar Company (ZSC). A third smallholder scheme became operational a year after the study had begun and therefore could not be included in the study. The oldest sugar smallholder scheme in the district could not also be included in the study as it had over the years fundamentally changed in its design thereby losing its appeal as a smallholder entity. As the study does not involve all smallholder outgrower schemes in the sugar sector, the results ought to be treated with caution on that account. Needless to say the research design adopting a case study was meant to give deep insights of the phenomenon under investigation rather than how widespread it was.

Another limitation encountered in the study is the possible subjectivity of the researcher that would likely negatively impact on the findings arising from being close to the participants when conducting qualitative interviews and then interpreting the data. The researcher, in this case, exercised critical reflexivity to minimise bias in data

collection and interpretation. Firstly, the framing of the discussion topics was done in such a way as to give the research participants freedom to tell their story without too much preconceptions from the researcher. Secondly, the researcher reflected on every interview before the next by replaying the audio recorder in order to understand the responses from the participants and how the researcher probed. This helped minimise personal biases in data collection and interpretation by the researcher. A further limitation arose from the quantitative questions requiring respondents to state possible changes over time on a number of variables in the survey instrument based on respondents' perceptions. The reliability of the responses depended on the respondents' ability to recall events. The accuracy of the respondents' recollection of events could, therefore, not be strictly assured. These limitations were, however, minimised through the researcher's use of triangulation by way of mixed methods in data collection.

1.7 Structure of the thesis

This thesis is divided into seven chapters. Chapter One is an introduction of the research topic and discusses the statement of the problem and justification of the study while also outlining the research aim, objectives and questions, limitations of the study, as well as, the structure of the thesis. Chapter Two reviews literature on contract farming and outgrower schemes in general and then in Zambia in particular. The chapter also highlights the role of contract farming in agricultural commercialisation in Zambia and the policies adopted by government in enlisting and expanding the role of contract farming in the country. Lastly Chapter Two discusses contract farming/outgrowing as practiced in Zambia's sugar industry in Mazabuka District, the area of focus in the present study.

Chapter Three outlines the theoretical frameworks guiding the study. The chapter firstly presents the first-generation livelihoods framework while outlining its limitations and lastly details the extension of the framework into what is known as the Extended Livelihoods Framework. This is followed by an outline of the Impoverishment Risks and Reconstruction (IRR) theory that complemented the Extended Livelihoods Framework. Chapter Four is a reflection on the research design and methodology used by the study. It highlights the philosophical perspective adopted in the study and discusses the research strategy and the approach to methods employed. The chapter then outlines the actual research methods, sampling methods and data collection tools used as well as the methods of data analysis and interpretation. Chapter Four further discusses ethical concerns and other challenges met in the field.

Chapter Five presents an introduction to the study area looking at the social and economic developments and livelihoods of smallholders. The chapter discusses historical processes of land and agricultural development and the development of settlement schemes in the area. In Chapter Six we present the empirical findings of the study and discussion. Chapter Seven is a conclusion of the study. The chapter makes reflections on theoretical frameworks, methodology and literature and recapitulates the key findings of the study in relation to the research questions and discusses policy implications and makes recommendations and suggests areas for future research. Finally, Chapter Seven ends by suggesting areas for possible future research.

CHAPTER 2: LITERATURE REVIEW

2.1 Chapter introduction

This chapter is a review of literature on contract farming and outgrower schemes. The chapter first gives an introduction of the origin and spread of the phenomenon of contract farming and reviews the different models and typologies of the phenomenon as well as discuss the advantages and criticisms of contract farming from different ideological, methodological and disciplinary focus found in the literature. Secondly, the chapter highlights the role of contract farming in agricultural commercialisation in Zambia and the policies adopted by government in enlisting and expanding the role of contract farming in the country. Thirdly, the chapter details contract farming/outgrowing as practiced in Zambia's sugar industry in Mazabuka district which is the focus of the present study.

2.2 Outgrower schemes/contract farming in developing countries

Contract farming schemes are not new, but have existed for a long time (Eaton and Shepherd, 2001). Contracting of crops was a widespread practice in ancient Greece, where specified portions of particular crops were used to pay tithes, rents and debts. In China also, since the first century, contracting of crops in form of sharecropping were used, and in the United States of America, landowners received between one-third and one-half of crops as rental payment from sharecroppers during the 19th century (ibid). The formal contract arrangements between farmers and firms were, however, established during the early decades of the 20th century in America and colonies controlled by the European powers (de Treville, 1986; Eaton and Shepherd, 2001).

With the emergence of agribusiness in the western world in the 1960s, contract farming gained prominence as a form of agricultural organisation and spread to all regions of the world (de Treville, 1986: 14; Prowse, 2012:13). Contracting also expanded beyond crops to cover the livestock sub-sectors such as poultry, dairy and pork production (Prowse, 2012). In developing countries, contract farming emerged as a form of post-plantation production in which smallholders could be engaged as outgrowers for foreign owned processing firms to decrease political risks associated with plantation-style ownership following decolonisation (de Treville, 1986). In sub-Saharan Africa, contract farming emerged in the 1980s as government arrangements (Prowse, 2012) through parastatal firms but most now operate as private sector arrangements following economic liberalisation undertaken by many countries since the 1980s and early 1990s. Cotton, tobacco, sugar, coffee and horticultural exports are among the top crops grown in contractual arrangements in sub-Saharan Africa (ibid).

More recently, contract farming and outgrower schemes are increasingly viewed as alternatives to large-scale land acquisitions because of the many perceived benefits participating smallholders derive (Da Via, 2011: 10). The often cited benefits to small-scale farmers include, access to financial services (credit), ready markets, new technology, extension service, secured inputs and prices, increased cash incomes and employment (Glover, 1984; Glover, 1987; de Treville, 1986; Baumann, 2000; Eaton and Shepherd, 2001; Bijman, 2008; Da Via, 2011; Prowse 2012). During the 1990s, the potential benefits of contract farming in developing countries received particular attention in the wake of economic reforms that accompanied structural adjustment programmes, particularly downsizing of the role of the state in the economy and

consequently a reduction in public expenditures. Liberalisation of the agricultural sector in particular entailed a near total government withdrawal from support programmes such as input subsidies, credit, staple crop price supports, and government research and extension programmes (Key and Runsten, 1999: 381). The withdrawal of government support programmes to small-scale farmers left an institutional vacuum. Contract farming and outgrower schemes were thus seen, and promoted, as better placed to fill this vacuum as the contracting companies would easily assume the role of providing the service support to small-scale farmers. Outgrower schemes are, therefore, increasingly seen as a sustainable way to empower smallholder outgrowers economically while addressing their production constraints (Baumann, 2000; Bangwe and Koppen, 2012). These schemes are also credited for engendering spill-overs such as, employment, road infrastructure, electricity, communication, schools, health facilities etc. (Baumann, 2000; Key and Runsten, 1999).

Despite being an established model for several decades in Sub-Saharan African countries, outgrower contract farming schemes have gained a new prominence in developmental and theoretical literatures in the post-2000 period. Prompted largely by negative perceptions about large-scale land acquisitions for large-scale agricultural investments. Development institutions such as the World Bank and International Fund for Agricultural Development (IFAD) (Da Via, 2011; Baumann, 2000) have reframed contract farming as something of a ‘magic bullet’ for smallholder incorporation into value chains, poverty alleviation and accumulation. However, the contemporary simplistic ‘win-win’ narratives around these contract outgrower relationships cannot be uncritically accepted without clear evidence grounded in specific case studies.

Indeed, as Baumann (2000: 9) observes, “[c]ontract farming should be examined case by case in order to understand its potential as a tool in rural development strategies...”

Observers of contract farming and outgrower schemes are agreed that much of the literature on the subject is polarised. Many studies and the literature on contract farming differ ideologically, methodologically and in disciplinary focus (Glover 1984; Glover and Kusterer, 1990; de Terville 1986; Baumann 2000; Oya 2012).

Baumann (2000) observes that the Harvard Business School (HBS) and the Food First Approach (FFA) are two schools at the polarised extremes in the literature. The HBS sees contract farming in developing countries as an opportunity for technological transfer to smallholder farmers as well as enabling farmers to engage in market oriented production with limited risks (Baumann, 2000). The FFA also classified by others as a ‘neo-populist’, on the other hand, takes a dependency theory framework in its analysis of contract farming and is highly critical of agribusiness and contract farming. This approach, which is pro-peasant and concerns itself with issues of food self-sufficiency, sees contract farming in terms of an exploitative extension of international capital (Baumann, 2000; Oya, 2012).

Glover (1984) and Baumann (2000) have critiqued the HBS as largely focusing on what problems contracting presents to the agribusiness firm while not critically addressing the issues of smallholder grower welfare and the social and political aspects of the grower-firm relationship. While the FFA is highly critical of agribusiness and contract farming, it is also critiqued for its alleged heavy reliance on secondary and

often journalistic and anecdotal sources of information, as well as, for its lack of a rigorous comparative methodology (ibid).

It is, however, observed that in between these two extremely polarised approaches, there is a middle group represented by a few academics and practitioners who have carried out perhaps more thorough comparative studies from an individual perspective and attentive to the impact of contract farming on smallholder welfare (Glover 1984; Baumann 2000). These studies suggests that the impact of contract farming is far more complex than generally assumed, and that these impacts differ in relation to variables such as commodity type, government policy and macroeconomic context, as well as, specific institutional arrangements. Further, impact can as well vary over time in relation to these variables (de Treville, 1986).

Some researchers observe that much of the literature on contract farming has reduced the complex phenomena into a pro/anti debate. The pro-contract farming group often cites the benefits accruing to smallholders such as provision of technology, ready markets, secured inputs and prices, and increased cash incomes, employment, as well as, achieving government goals of earning foreign exchange or increasing food security for some basic consumable crop products such as sugar and tea. On the other hand, the anti-contract farming group points to increases in local socioeconomic differentiation, displacement of food crops from agricultural land by focusing on export crops, thus, creating food insecurity, removal of control of farming decisions from the hands of smallholders and placing them into agribusiness firm's domain and the skewing of profit-sharing in the interest of the firm (de Treville, 1986; Glover, 1984; Key and Runsten, 1999; Glover and Kusterer, 1990; Oya, 2012; Prowse, 2012).

Further, de Treville (1986) decries the tendency for the literature to decontextualize contract farming from its specific social, political and economic context. Noting that contract farming was born in the West, originating as an offspring of ‘agribusiness.’² de Treville (1986) argues that the phenomenon is “...both a product of, and conterminous with, western political, economic and social processes...” She is doubtful, therefore, that the contract farming schemes introduced into developing countries can be fully understood without also being considered in relation to the broader political, socioeconomic fabric in which such schemes operate. It is noted that the success of contract farming in the West is due to the pre-existing checks and balances that allow farmers to have recourse to jural procedures, effective laws regulating wage/labour, and worker-related interests, advocacy groups and the press. When contract farming is introduced into developing countries, such checks and balances are often missing resulting in a greater likelihood of exploitative scenarios emerging in relation to workers or contract farmers, vis-à-vis the scheme.

2.2.1 Contract farming models and typologies

Over the years, some observers of contract farming have developed models of the phenomenon (Minot, 1986; Glover and Kusterer, 1990; Little and Watts, 1994; Eaton and Shepherd, 2001; Bijman, 2008) and a typology of the contract farming schemes (Minot, 1986; Singh, 2002). Five broad contract farming models can be deciphered in the literature (Eaton and Shepherd, 2001; Bijman, 2008). These are: centralised model; nucleus estate model; multipartite model; informal model; and the intermediary model. These models can be differentiated by the type of contractor, the type of product, the

² The term ‘agribusiness’ generally refers to activities of transnational corporations (TNCs) involved in agriculture. These activities could include production, processing or trading of commodities or inputs and machinery (Glover, 1984: 1143).

intensity of vertical coordination between farmer and contractor, and the number of key stakeholders involved (Bijman, 2008: 3).

The *centralised model* is usually considered as the classical contract farming model. This is a vertically coordinated model that consists of a centralised agribusiness firm that buys produce from a large number of smallholders and processes or packages and markets the produce. In this model quality and quantity of produce is tightly controlled. The centralised model is generally associated with products that require a high degree of processing, such as sugarcane, tea, coffee, tobacco, cotton, dairy, poultry, pork and vegetables. The centralised models of contract farming are common in Africa where they are called ‘outgrower’ schemes. In Zambia, this model is applied largely to tobacco.

The *nucleus estate model* is a variation of the centralised model. In this model, the agribusiness firm (contractor) combines contract farming (outgrowers) with direct involvement in production through a central estate or plantation and processing plant. The central estate is often used for guaranteeing throughput for the processing plant but may also be used only for trial and demonstration and breeding purposes. The nucleus estate – outgrower models have often been used in connection with resettlement or transmigration schemes. This model is mainly used for tree crops, but there are examples of applications of this model in other crops. In Zambia, this model is applied largely to sugarcane.

The *multipartite model*, is usually a joint venture involving a statutory body and a private company that signs contracts with farmers. Multipartite models of contract

farming may involve other institutions, including those that are responsible for financial support/credit provision, production, and management, processing and marketing. Many governments in developing countries actively used this contract farming model as part of the liberalisation process in the 1980s and 1990s. An example of the multipartite model in Zambia is the Kaleya Smallholder Company Limited (KASCOL) in the sugar sector.

The *informal model* applies to individual entrepreneurs or small companies that sign contracts informally with farmers on a seasonal basis. Crops involved in this model are usually fresh fruits and vegetables that require only a minimal amount of processing, such as sorting, grading and packaging. Government support services are cardinal to the success of the informal model of contract farming as there is very minimal financial investment by the initiators. This model was common during the mid-1990s in paprika production in Zambia.

The *intermediary model* involves at least three parties to the contract farming arrangement. The agribusiness firm or contractor, normally a processor or major trader formally contracts with a collector (intermediary or middleman) who then informally contracts with farmers for the supply of produce. This model has elements of the centralised and informal models but there is no direct link between sponsoring agribusiness firm and farmers. The intermediate farming model is common in the cotton sector in Zambia.

Three broad categories of outgrower scheme contracts are cited in the literature. These are *market-specification contracts*, *production-management contracts*, and *resource-*

providing contracts (Bijman, 2008; Minot, 1986) *Market-specification contracts* are pre-harvest agreements between growers and contractors that specify price, quality, and timing of sale of produce by the farmer. In the market-specification contract, the farmer retains most of the rights over the farming activities and also bears most of the risk of production. *Production-management contracts* are those in which farmers agree to follow certain production methods and input regimes. In *production-management contracts* the contractor exercises a substantial part of decision rights over the production activities by the farmer. *Resource-providing contracts* obliges the contractor to provide key production inputs and extension services. Resource-providing contracts can include provision of market and production-management. Decision-rights in production in resource providing contracts can fall either with the contractor or the farmer depending on what is specified in the actual contract. According to Bijman (2008), this typology is developed from the farmer perspective, while Singh (2002) developed a similar typology of contracts but from the perspective of the contractor. The three types of contracts identified by Singh (2002: 1621) are: *procurement contracts*, *partial contracts*, and *total contracts*. *Procurement contracts* are those that only specify sale and purchase conditions; (b) *partial contracts* are those in which only some of the inputs are supplied by the contractor and produce is bought at pre-agreed prices; and (c) *total contracts* are those in which the contractor supplies and manages all the inputs on the farm and the farmer becomes just a supplier of land and labour. The models and types of contracts described above are not mutually exclusive as elements of more than one are often combined (Singh, 2002; Tschirley et al., 2009).

2.2.2 Positive impacts of contract farming

Outgrower schemes are now increasingly viewed as alternatives to large-scale land acquisitions because of the many perceived benefits participating smallholders derive. The often cited benefits to small-scale farmers include, increased income from the contracted crop, access to financial services (credit), guaranteed markets, new technology and skills transfer, extension service, secured inputs and prices, and employment (Glover, 1984; Glover, 1987; de Treville, 1986; Baumann, 2000; Eaton and Shepherd, 2001; Echanove and Steffen, 2005; Bijman, 2008; Da Via, 2011; Prowse, 2012; von Braun and Meinzen-Dick, 2009).

Several case studies have shown that participating contract farmers or outgrowers substantially increase their income by virtue of their participation in the schemes: Warning and Key, 2002 for peanut production in Senegal; Miyata, Minot and Hu (2007) for apple and green onion growers in Shandong Province, China; Singh (2002) for vegetable production in Punjab State, India. As Bijman (2008:14) notes, “[Contract farming] is not a goal in itself, it should lead to higher incomes and/or more stable income, thereby also contributing to a reduction of poverty.” While many studies are fairly optimistic that outgrower schemes were likely to raise the incomes of the participating poor smallholders, other studies do point that such income increase may only be short term (Baumann, 2000; Porter and Phillips-Howard, 1994). Waswa, Gwenyi-Onyango and Mcharo (2012) in their study of three sugarcane outgrower schemes in the Lake Victoria Basin, in Kenya established that the smallholders were left with between 31 and 34 per cent of the gross income while the company retained the rest with most smallholders’ income being retained as deductions for inputs and other costs. A study by Schüpbach (2014) on sugar outgrower scheme by Kaleyia

Smallholder Company Limited (KASCOL) and Zambia Sugar also found that participating smallholders complained about low disposable incomes from sugarcane production arising from high costs of inputs and irrigation. Thus, the range and regularity of income earned from outgrower crops is vital for scheme participants.

One of the chief benefits offered by contract farming is a guaranteed market for the contracted crop (Grossman, 1998). Assured market is usually a condition of the contract between the agro-industrial contracting firm and the contract farmer. Thus, contract farmers are obliged to sell all their contracted crop to the contracting firm (so long the commodity meets the quality standards set in the contract) in exchange for a production resources such as inputs. In turn the contracting firm is also assured a steady supply of the commodity at the right time and in right quality (Minot, 1986). Again, contract farming unlocks the door to credit that can enable resource-poor smallholders engage in production of non-traditional crops favoured in contract farming schemes (Key and Runsten, 1999). Non-traditional high value crops are more expensive to produce as they require a higher input regime than traditional crops. Therefore, participation in production of contract crops by resource-poor smallholders is only made possible by getting credit (ibid). Credit often comes directly from the contracting firm or the contractual arrangement itself may be accepted as collateral by commercial banks (Prowse, 2012).

Contract farming offers the growers the benefits of the contracting firm's technical assistance. Because the contracting firm requires a certain product quality, it invests in extension services to ensure more regular contact and strict supervision of the

outgrowers by its technical staff (Echanove and Steffen, 2005; Grossman 1998). Most contracts oblige the outgrowers to follow the firm's advice such as application of fertilizers and pesticides, scheduling of planting, varieties to plant, irrigation and harvest time to ensure high-quality product (ibid). Grossman (1998) citing Watts et al., (1988) in their study of contract farming in Sub-Saharan Africa showed that the ratios of extension agents to farmers in many schemes ranged from 1: 50 to 1: 200 compared to ratios of government agricultural extension officers, to farmers of 1: 1,000 to 1: 2,000 and over. Extension services are often accompanied by inputs whose costs are deducted in advance from the outgrowers pay. Related to the effective extension service offered by the contracting firm, contract farming is also often credited for introducing new technologies and skills transfer to smallholders as contracting firms pursue quality out-puts demanded by modern food markets which the former would not ordinarily afford due to high costs associated with their acquisition (Glover, 1984; Prowse, 2012). Grossman (1998), citing Watts et al., (1988) and Prowse (2012) point out that since most contract farmers also grow other crops, an opportunity presents itself for technology transfer and skill transfer between contracted and non-contracted crops as contracted smallholders may apply agro-chemical inputs to other crops. Some studies, however, cast doubt on how this potential benefit is realised in practice (see Glover, 1984; Smalley, 2013; and World Bank/UNCTAD, 2014) while others argue that the technology and technical skills offered by contract farming accrues to only a minority of farmers translating into uneven benefits not suitable to the needs of a developing country (Meliczek, 2000).

Some studies have shown that contract farming schemes do generate much employment important for some rural households as a source of or a supplement to

their livelihoods (Baumann, 2000; Smalley, 2013). In fact, one of the major justifications for agricultural investments in sub-Saharan Africa is employment creation for the local rural dwellers (Cotula, 2009; Aabo and Kring, 2012). Most crops grown under contract farming are labour intensive and hiring of seasonal labour by contract farmers is common. For instance, Minot (1986: 42) citing Courtenay (1980: 134) notes in the case of sugarcane that labour requirements for sugarcane harvesting are ‘probably the heaviest made by any tropical crop grown commercially.....’. In their study of contract farming in Sub-Saharan Africa, Little and Watts (1994: 225) noted that in Malawi, 80 per cent of contracted tea growers in Malawi employed labour while in Ivory Coast, 89 per cent of contract farmers employed labour. Although smallholder outgrowers hire seasonal workers for labour intensive contract crops, most of this employment is created by the large-scale growers who can easily afford to pay wages to the workers. However, it is noted that labour employed by smallholders receive the worst wage rates and perhaps very poor conditions of work compared to those employed on the estates (Baumann, 2000: 33; Tyler, 2008: 15). More employment is generated in contract farming schemes that include processing and packing plants (Smalley, 2013; Baumann, 2000).

2.2.3 Negative impacts of contract farming

Several criticisms have been levelled against contract farming in developing countries. The anti-contract farming group often speak of negative impacts and points to: increases in local socioeconomic differentiation; exclusion of poorer small farmers; displacement of food crops from agricultural land by focusing on export crops, thus, creating food insecurity; exploits unequal power relations, thus removing control of farming decisions from the hands of smallholders and placing them into agribusiness

firm's domain and the skewing of profit-sharing in the interest of the firm (de Treville, 1986; Glover, 1984; Key and Runsten, 1999; Glover and Kusterer, 1990; Baumann, 2000; Oya, 2012; Prowse, 2012; Smalley, 2013). Furthermore, contract farming allegedly disrupts power relations within farm households (Prowse, 2012; Behrman, Meinzen-Dick and Quisumbing, 2011; Poulton et al., 2008; Key and Runsten, 1999). Contract farmers also engage in side-selling of the contracted crop or other competitor companies engage in side-buying of contracted crops from contract farmers (Droppelman, 2004; Minot, 1986)

Some critics contend that in contract farming, agribusiness firms often contract with large-scale farmers, thus, excluding poorer small farmers (DFID, 2014; Baumann, 2000; Glover and Kusterer 1990; Smalley, 2013). Some observe that not only does contract farming exclude smaller poorer farmers but engenders considerable differentiation among smallholder farmers under contract (Baumann, 2000: 32). Critics also observe that socio-economic differentiation is not only about income inequality but how accumulation of capital by some groups in society transforms relations of production between classes. The rich capitalist farmers involved in contract farming invest in inputs and use wage labour as they are able to meet labourers' wages while at the same time the poorer small farmers are forced to sell-off their land to the wealthier farmers and instead became waged labourers (Smalley, 2013; Singh, 2002; Baumann, 2000). Smalley (2013: 40) in her review of contract farming in Sub-Saharan Africa observes that two processes of socio-economic differentiation occurring in contract farming regions are: 1) differentiation between contract farming participants and non-participants; and 2) differentiation among participants. Differentiation between contract farming participants and non-

participants largely occurs as a result of the participants using their access to credit and inputs to increase their productivity and/or expand their holdings as they can easily buy-off their poorer neighbours. On the other hand, differentiation among participants is determined largely by differential landholding in the contract farming scheme with wealthier farmers having larger and or higher quality landholdings.

Critics frequently argue that contract farming or outgrower schemes shift land and labour resources away from subsistence food crop production to commercial production of cash and/or export crops (Lappe and Collins, 1977; Minot, 1986; Glover and Kusterer, 1990). According to critics, growing contract crops for export may lead to household food insecurity due to more land and labour being re-allocated to the non-traditional cash crops (Glover and Kusterer, 1990; Van Den Broeck and Maertens, 2016; Dolan and Sorby, 2003; Omosa, 2002). While it is acknowledged that smallholders' shift to re-allocating more land to (non-food) contract crops which earn them increased income than traditional subsistence crops, the trade-off depends on the allocative pattern of the increased income from sale of contract crops i.e. whether the household head who controls the income would favour expenditure on food (Minot, 1986). In the context of less developed countries at least, studies have shown that women and children's nutrition have not improved and in a number of cases has actually deteriorated (Baumann, 2000). Williams (1985a) for instance, notes in the case of the Vuvulane Irrigated Farms (VIF) sugarcane outgrower scheme in Swaziland that malnutrition was more widespread among children of scheme participants despite these households receiving substantially higher incomes than those outside the scheme. Similarly, Williams (1985b) makes a similar observation with the case of Mumias Sugar Scheme of Kenya where increased income from participating in sugar

outgrowing steered high levels of alcohol consumption by men who controlled the payments. A recent literature review on contract farming and other commercialisation models (Smalley, 2013: 48-49) observed that there appears to be little evidence that contract farming actually improves food security, contrary to the expectations of those who advocate commercialisation of smallholders in developing countries.

Contract farming has also been critiqued as having a tendency to disrupt power relations within farm households and thereby increasing tensions within households as the intra-household distribution of labour and income are altered often to the disadvantage of women and children (Poulton et al., 2008; Behrman, Meinzen-Dick and Quisumbing, 2011; Prowse, 2012; Key and Runsten, 1999). Critics maintain that contracts are often made with male household head although the labour of other household members such as women and children would be required in commodity production. Male head of household's control of the income from the contracted crop often times leads to intra-household tensions and conflict arising from inequitable distribution of that income.

Contract farming is further criticised for exploiting an unequal power relationship between a company and farmers (Action Aid, 2015; Singh, 2002; Warning and Key, 2002; Baumann, 2000; Key and Runsten, 1999; Glover and Kusterer, 1990). Critics argue that contracting companies have more power and control over farmers as the former takes most important decisions in farming activities with the latter losing their decision making power in the process. This highly centralised control of all farming activities by the contracting company raises some concerns as to what extent the

smallholders have remained truly independent farmers. In essence, the central control means that contract farmers are more or less profit-sharing hired labourers on their own land than actual owners (Tyler, 2008; Grossman, 1998; Glover and Kusterer, 1990; Prowse, 2012).

Critics also argue that contract farming is a form of a 'subsidy' to capital as smallholder contract farmers subject themselves to 'self-exploitation' of household labour (Grossman, 1998; Fedder, 1977; Arroyo 1978). This is a tendency for smallholder farmers to continue working hard producing the contracted crop even in the face of low or declining commodity prices in order to obtain cash income to guarantee household reproduction (ibid).

Although contract farming is often hailed for allowing smallholder farmers to retain their land, there are instances in which it has caused disruptions to local people's access to land. In particular, in contract farming that requires the allocation of new plots to establish settlement schemes or expansion, smallholder farmers have been displaced (Baumann, 2000; Li, 2011; Smalley, 2013; Action Aid, 2015).

From the side of the contracting companies, contract farming is beset with the problem of side-selling of contracted crops by contracted farmers when parallel markets for the commodity exist in the region (Droppelman, 2004; Minot, 1986). The tendency is known as 'side-buying' when other competitor companies engages in buying commodities from farmers contracted out by other companies by offering superior

prices for the commodities. This phenomenon often leads to the collapse of contract farming schemes as the contracting companies fail to recover their financial resources extended to farmers in form of inputs and other costs.

2.3 Agriculture commercialisation and the economy in Zambia

2.3.1 Socio-economic and political context

Zambia is a former British colony, which got independence in 1964. The country rich in minerals, particularly copper, and agricultural potential, was once rated as one of the most prosperous countries in Sub-Saharan Africa. Classified a middle-income country³ at independence in 1964, Zambia began to slide into poverty in the 1970s and was relegated to a class of low-income countries⁴ (GRZ, 2006a). The country is one of the most urbanised in Sub-Saharan Africa with about 40 per cent of the population living in urban areas (AUC-ECA-AfDB Consortium, 2010: 6). The country has a mixed economy in which minerals mining still constitutes the backbone of the economy accounting for 70 per cent of the total export earnings. The decline in minerals mining that began in the 1970s coupled with the oil price shocks and rising world real interest rates resulted into severe balance of payments deficits and, ultimately, poor performance of the Zambian economy. By the first half of the 2000 decade Zambia was classified a Highly Indebted Poor Country⁵ (HIPC). Zambia scores very lowly in terms of Human Development Index (HDI) and in 2011, was

³ Middle-income countries have GDP per capita of between US\$826 and US\$3,255.

⁴ Low-income countries have annual real Gross Domestic Product (GDP) per capita (i.e. PPP terms) of US\$825 and below.

⁵ The HIPC initiative, in short, is a situation where a poor country dogged by high external debt and in dire need of external aid, would strive to meet certain economic and governance conditions (HIPC Triggers) in exchange for increased debt relief and additional external support, while the freed resources would be applied to poverty reduction activities.

ranked 164 out of 187 countries and territories based on life expectancy⁶ at birth (UNDP/GRZ, 2011). The period after 2000 has witnessed steady economic growth (5.7 per cent on average) largely resulting from a combination of increased foreign direct investment (FDI) mainly in copper industry and increased copper prices (World Bank, 2012a). In July 2011, the World Bank reclassified Zambia as a Low Middle-Income Country. However, 60 per cent of the population exist below the poverty line and almost half (42 per cent) of Zambia's population are considered extremely poor. Further, the occurrence of poverty is also marked by regional differences with almost 90 per cent of the population living below the extreme poverty line found predominantly in the rural areas (ibid). Income distribution is extremely skewed making Zambia one of the sub-Saharan Africa countries with the highest wealth inequality. Zambia's Gini coefficient in 2015 was recorded as 0.69, way above sub-Saharan Africa's average of 0.43 (GRZ/CSO, 2015; Mwenge, 2016).

2.3.2 Agriculture and the economy

In Zambia today, the agricultural sector is considered the second key sector, besides copper mining, that is driving economic growth and development. Agriculture remains the priority sector in achieving the aims of sustainable economic growth and poverty reduction in Zambia (GRZ/MoF, 2014). In all the national policy documents as well as national development plans, agriculture has been identified as a key sector besides minerals mining that can contribute to broad-based development aimed at poverty reduction. Thus, successive political establishments since independence have reiterated their intent to diversify from the copper-dominated economy by developing agriculture. The expansion of agricultural sector is seen as a way to help raise rural

⁶ Life expectancy at birth for Zambia in 2011 was 49 years.

living standards which have continued to lag behind urban incomes since independence (Wood and Smith, 1984). More recently, when opening the first session of the twelfth national assembly, President Edgar Lungu⁷ underlined thus:

Agriculture will be the major priority of our economic diversification agenda. The Rural people in particular, derives its livelihood on and off the land... Agriculture is, therefore, a key lever for improving rural livelihoods. To this end we will focus on boosting agricultural production, enhancing productivity and increasing earnings for our farmers. We have to make agriculture a real business venture even for small-scale and peasant farmers.

Of the country's total land area of around 75 million hectares, about 79 per cent of it is characterised as Guinea Savannah. Approximately 420,000 square kilometres of arable land are classified as having medium-to-high potential for agriculture. However, only about 15 per cent of this arable land is currently being utilised (World Bank, 2009: 51-52). Additionally, the country commands 40 per cent of water resources in the Southern Africa Development Community (SADC) region (ZDA, 2011). Furthermore, the country is generally considered to have a low population density ranging from 1 to 11 people per square kilometre in most of its productive regions (ibid). Thus, with its allegedly extensive areas of sparsely settled savannah woodland, relatively reliable rainfall ranging between 800 and 1,400 millimetres annually, increasing from south to north, and a low level of commercialisation among much of the farm population in the country, the potential for increased agricultural commercialization is considered high. Agriculture's contribution to the national GDP

⁷ Lungu, E. (2016) President Edgar Lungu's Full Speech to Parliament, September 30, 2016. <http://www.lusakatimes.com./2016/09/30/president-lungus-full-speech-to-parliament/>

has been fluctuating over the years; in the mid-1990s it was around 15 per cent, in 2004 it was around 21.4 per cent (World Bank, 2007: 5) and in 2015 it plummeted to 8.5 per cent (IAPRI, 2016: 2). The agricultural sector employs between 67 per cent and 70 per cent of the labour force (World Bank, 2007: 5; Chapoto et al., 2012: 9) and, as is the case with many countries in the region, over 70 per cent of the Zambia's rural population depends on agriculture for its livelihood (AUC-ECA-AfDB Consortium, 2010: 6). Primary agriculture contributes about 35 per cent to the country's total non-traditional exports, and about 10 per cent of the total export earnings (ZDA, 2011: 3). The main agricultural export crops in Zambia are cotton, tobacco and sugar and these three make up approximately two-thirds of total agricultural exports (World Bank, 2007: 6).

2.3.3 Agriculture commercialisation

Zambia has a long history of attempts to encourage large-scale commercial agriculture on the assumption by state authorities that the country is endowed with lots of available land that is agro-ecologically suitable for this purpose (Oakland Institute, 2011; Sipangule and Lay, 2015). The country's agricultural commercialisation efforts started in the early 20th century with the establishment of blocks of farmland along the railway line from Livingstone in the south to the Copperbelt in the north, and in some eastern parts of the country for white settler commercial farmers, processes which were driven by the British South African Company (BSAC) and British colonial office (Amberntsson, 2011; Kakulwa, 2012; Klepper, 1979). During that period, agriculture was developed to supply food to the mines in neighbouring Katanga, in the Democratic Republic of Congo (DRC) and later on the Copperbelt of Zambia. Plantation agriculture did not develop in colonial Zambia although early white settlers made

attempts to grow rubber trees in the northern parts of the country but without much success (Kakulwa, 2012).

In Zambia, land is administered through two tenure systems, involving “customary tenure” and “statutory tenure” (Himonga and Munachonga, 1991). This structure of landholding has its origins in the colonial state that created a discriminatory and highly unequal landholding system between Africans and white settler farmers through the 1928 Crown Land and Reserve Order (Anthony and Uchendu, 1970; Sichone, 2008). At independence in 1964, the native reserves and crown land comprised 94 per cent and six per cent of the territory respectively. Land laws enacted in the years following independence changed the native reserves into ‘customary land’ and the crown land into ‘state land’. Historically, commercial agriculture has taken place on state land, while traditional smallholder farming was done on customary land (Chapoto et al., 2012).

Most agricultural commercialisation programmes, such as the post-independence farm blocks and settlement schemes, were established on state land, which was compulsorily acquired by the state from white settler farmers (Chenoweth et al., 1995). In 1985, the government adopted a policy that allowed for conversion of up to 250 hectares of land held under customary tenure to leasehold tenure for foreign and domestic agricultural investment (GRZ, 1985, Hansungule, 1998; GRZ, 2006). In 1995, Zambia passed the Land Act that liberalised land markets and made land held under customary tenure in the country eligible for registration into leasehold title governed by statute, so as to attract investment (GRZ, 1995).

The colonial administration's policy of concentrating efforts on commercial farming in the Crown lands occupied by white settlers, and the neglect of native reserves occupied by native Zambians, resulted in the creation of a dual agricultural economy with two distinct production systems: large-scale commercial farms, which were often foreign-dominated on one hand, and the small-scale subsistence farms, on the other (Klepper, 1979). With independence, the new Zambian Government pursued agricultural policies that encouraged the development of a new class of farms - the medium-scale or emergent farms – considered to be economically viable to produce a surplus for the market through inputs and market and land access support (Klepper, 1979; Berry, 1993). Small-scale farming mainly producing the staple food crop – maize – is dominated by native Zambians and remains by far the largest of the three production systems numbering approximately 1.6 million smallholder households (Chapoto et al., 2012: 9). These farmers generally engage in dryland farming of staple food crops (principally maize) on permanent fields or shifting cultivation, others combine cultivation with pastoralism largely on customary land on an average 1.5 ha per household (Sipangule and Lay, 2015; ECIAfrica Consulting, 2012). Medium-scale farmers also produce maize and some cash crops, while the large-scale farmers produce various crops for both local and export markets.

Since attaining independence in 1964, Zambia has implemented various schemes in its effort to commercialise farming and increase productivity against the backdrop of the departure of many white settler farmers in the immediate post-independence years (Adams, 2003; Chenoweth et al., 1995). These attempts at commercialisation were

largely carried out by the state institutions informed by socialist thinking (Gould et al., 1998). The immediate post-independence government did not encourage large-scale farming among Zambian citizens, instead this type of farming was the preserve of state institutions (Adams, 2003) and the remaining white settler farmers. The state encouraged the expansion of smallholder commercial farming by establishing settlement schemes targeted at smallholders on state land. Furthermore, in efforts to commercialise smallholder agriculture, state-managed outgrower schemes⁸ were established in the 1960s and 1970s by agricultural parastatal companies.

During the early post-independence period, as during the colonial period, large-scale plantation agriculture was slow to develop save for the Zambia Sugar Nakambala Estates established in 1964 as a joint venture between the Zambian government and a private British company, Tate and Lyle. In the early 1980s, Zambia Sugar and the government of Zambia initiated a nucleus-estate outgrower scheme involving smallholders and a newly established private company, the Kaleya Smallholder Company Limited (KASCOL) to supply cane to Zambia Sugar (Kalyalya, 1988).

From the mid-1980s, growth in the country's agricultural sector was negatively affected by low investment, low productivity and production by smallholder farmers presented. The post-liberalisation period in Zambia since the early 1990s has, however, spawned a new agricultural economy that is export-oriented and relies on new investor large-scale farmers, corporate agribusiness firms, as well as an indigenous 'emergent'

⁸ These principally provided inputs on loan, extension advice and purchased produce from smallholder farmers scattered across the country.

elite class of farmers (Jayne et al., 2014). Liberalisation policies have also stimulated the growth of contract farming between private agricultural firms and smallholder outgrowers producing traditional and non-traditional export commodities including cotton, tobacco, cut flowers, fresh vegetables and sugarcane (Keyser and van Gent, 2007). By 2004, over one third of the then 800,000 small-scale farmers in the country were involved in outgrower arrangements of some kind (Droppelmann, 2004: 5; Agrifood Consulting Limited, 2005: 151), with nearly all cotton, tobacco and paprika being produced under these arrangements (Tschirley, et al., 2009: 2).

Although Zambia's agricultural policy envisages the development of both large-scale and small-scale agriculture, in the last decade it has been the explicit objective of the Zambian government to negotiate new commercial agro-deals, mostly with foreign agribusinesses (GRZ, 2006; GRZ, 2005). Commercialisation of large-scale agriculture is now the central focus as a result of government's desire to restructure and diversify the economy in order to reduce dependence on a single commodity – copper – which has often destabilised the national economy during global economic downturns (Sugiyama, 2007; World Bank, 2007).

The rapid agricultural commercialisation underway has been driven by a narrative that frames Zambia as having abundant, idle and available agro-ecologically suitable land and a stable political climate for foreign investment (Chu, 2013; Oakland Institute, 2011). The government has made several efforts to attract foreign investment in the agricultural sector, providing tax exemptions, duty-free inputs, and express land allocation via the country's land bank and farm blocks (GRZ, 2006; German et al,

2011). Despite the magnitude of large-scale farmland investments envisaged in the country, including the farm block programme targeting one million hectares across the country's ten provinces (GRZ/MoFNP, 2005), the potential implications of such investments on local agrarian economies and smallholder livelihoods is not well understood.

2.3.4 Smallholder contract farming/outgrower schemes in Zambia

In Zambia, outgrower contract farming dates back to the 1960s and 70s promoted by the first postcolonial government that established a plethora of parastatal boards and companies to promote the production and marketing of select crops by smallholders. The National Marketing Board (NAMBOARD), the Lint Company of Zambia (LINTCO) and the Tobacco Board of Zambia (TBZ) are examples that provided small-scale farmers with extension, credit and market outlets for maize, cotton and tobacco respectively (Likulunga, 2005). These crops grown by small-scale farmers were predominantly rain-fed using simple technology in form of hand hoes and ox-drawn ploughs by the majority of these farmers. The number of smallholders incorporated in these government/parastatal-operated schemes ranged from a few thousands to several hundreds of thousands. In the early 1980s, the Government initiated a private-led outgrower scheme in cultivation of irrigated sugarcane involving smallholder farmers to supply Zambia Sugar mill, a parastatal company then (Kalyalya, 1988). Zambia Sugar operated its own plantation to ensure stability of supply to its mill.

Following political liberalisation under the Movement for Multi-Party Democracy (MMD) Government led by Fredrick Chiluba that came into power in 1991 the new

political establishment committed itself to a liberalised economy, including the agricultural sector. With structural adjustment, central planning of the economy from the old order was abandoned as fiscally unsustainable. This entailed, among other measures, closing down of state marketing boards and removal of agricultural input subsidies and privatisation of nearly all parastatal companies, including those in agriculture (Amberntsson, 2011; World Bank, 2009; Keyser and van Gent, 2007). The abrupt withdraw by the state from the agricultural sector, however, left a vacuum in the provision of key agricultural services. It was the expectation of the MMD Government and international financial institutions that the policy reforms would increase agricultural prices and agricultural production. However, the private sector then, was ill-prepared to take over some of the services formerly undertaken by the state and parastatals (Gould et al., 1998; Burnell, 1994). The reforms failed to decrease poverty levels among the rural poor and actually accentuated food insecurity (Amberntsson, 2011: 98). Commitment to a liberal economy in the agricultural sector was accompanied by policy change to give strategic direction to the sector. Government adopted the Agricultural Sector Investment Programme (ASIP) 1996-2001 as the first and very ambitious programme through which to transit to a market economy in agriculture. Although the sub-components of ASIP were implemented by private actors, the programme encountered numerous implementation challenges and lost support from donors (OECD, 2008). The successor programme to ASIP was the Agricultural Commercialisation Programme (ACP) 2002 -2005 adopted by Government in 2002 as the umbrella programme for agricultural reforms within the context of the Poverty Reduction Strategy Paper (PRSP) 2002 – 2004 (GRZ, 2002). Government development objectives since 2002 have prioritised the commercialisation of smallholder sector through outgrower schemes as a way to

integrate poor farmers in rural areas into the national economy (GRZ, 2002). This was to be achieved by linking smallholders with large-scale capitalist agricultural ‘estates’, largely through private sector managed outgrower schemes (World Bank, 2007). The concept of outgrower scheme in Zambia peaked in the early years of the new millennium as a result of the market liberalisation policies that took hold in the 1990 decade. President Mwanawasa’s New Deal Administration through the PRSP 2002 - 2004 identified the agricultural sector as the ‘engine’ of poverty reduction in Zambia (GRZ, 2002; Droppelmann, 2004). Thus, support to small-scale farmers was identified as critical to the realisation of the objectives of poverty reduction among the mass of the citizens. Therefore, the PRSP formulated specific programme interventions aimed at engendering the successful participation of small-scale farmers in the agricultural commercial sector. In this vein, the Poverty Reduction Programmes (PRPs) in the agricultural sector, thus, provided support to a number of apex organisations promoting smallholder outgrower schemes. The Government adopted the Outgrower Support Programme (OSP) as a central strategy for supporting small-scale farmers under the Agricultural Commercialisation Programme (ACP).

The Ministry of Agriculture and Cooperatives (MACO) identified six principal crops under government supported OSP. These were Coffee, Cotton, Tobacco, Fresh Vegetables, Paprika and Cashew Nuts and entered into agreements with four apex organisations that were principal players in the promotion of outgrower schemes among small-scale farmers to facilitate the implementation of the support to small-scale farmers. The MACO, thus, signed a Memorandum of Understanding (MoU) with Tobacco Board of Zambia (TBZ) responsible for tobacco, Support to Farmers’ Association Project (SFAP), responsible for paprika and fresh vegetables, Coffee

Board of Zambia (CBZ) responsible for coffee and the Cotton Development Trust (CDT) responsible for cotton. The Government attached so much importance to development of outgrower schemes such that the OSP was the only programme component that received 100 per cent funding from the budgeted allocations (Droppelmann, 2004). In 2004, the Government adopted the National Agricultural Policy (NAP) 2004 -2015 which extended the elements of the private sector led agricultural development and private sector provision of rural credit through outgrower schemes (GRZ, 2004a). Many successful donor funded projects emerged towards the end of the ASIP whose aim was to remodel the thinking by smallholders to take ‘farming as a business’ approach and facilitate their access to markets. These included: the Agriculture Support Programme (ASP) funded by Sweden; the USAID-funded Cooperative League of the USA (CLUSA), the Zambia Agribusiness Technical Centre (ZATAC) and Land O’Lake; and the Smallholder Enterprise and Marketing Programme (SHEMP) funded by the International Fund for Agricultural Development (IFAD) (OECD, 2008).

Following the adoption of the National Agricultural Policy 2004 -2015, government also developed a new Farm Block Development Plan 2005-2007 involving areas of not less than 100,000 hectares per block (GRZ, 2005) with a component of smallholder outgrower scheme. Each farm block will be divided into four categories: the largest area allocated to a single investor is the *core-venture* with 10, 000 hectares. To this, is adjoined several *commercial farms* of between 1, 600 and 4, 000 hectares, *emergent farms* of between 50 and 900 hectares, and *small-scale farms* of between 10 and 50 hectares (Sitko and Jayne, 2014: 197). The farm block relationship with the small-scale farmers takes the form of an outgrower scheme in which the small-scale farmers

will grow the same crop as the other higher level farms that would be purchased and marketed by the core-venture.

Since the mid-1990s, therefore, Zambia has witnessed a proliferation of outgrower schemes as a result of the government policy and donor support to the agricultural sector. A study by Droppelmann (2004: 5) estimated that 35 - 40 per cent of Zambia's nearly one million smallholders at the time, were participating in outgrower scheme arrangements of various sorts, while the World Bank estimates that more than 400,000 households are involved in outgrower schemes (World Bank, 2012b). Some crops such as cotton, tobacco and paprika were nearly 100 per cent produced through smallholder such outgrower schemes (Tschirley, et al., 2009: 2). Other crops in outgrower schemes in Zambia have included, sugarcane, export vegetables, groundnuts, sorghum, sunflower, soy bean and coffee. A distinctive feature of outgrower schemes in Zambia is that most of them have been concentrated in more favourable regions with road and rail infrastructure and electricity thereby bypassing the more remotely located poor smallholders (Siegel, 2008: 39). Cotton is by far the largest in terms of numbers of participating outgrowers with approximately 280,000 farmers in 2004/05 season (ECIAfrica Consulting (Pty) Ltd, 2012).

While there has been some successes in terms of volumes of crops produced by some outgrower, side-selling of crops by farmers and side-buying by competitor companies, non-repayment of loans and weak or lack of arbitration mechanisms are some of the challenges that beset some such schemes (Springfellow, 1996; Likulunga, 2005; Abwino and Rieks, 2006; Keyser and van Gent, 2007; World Bank, 2007). Further challenges to the sustainability of outgrower schemes in Zambia have been identified

as the fluctuation of the global commodity prices and the lack of stability in domestic exchange rates (World Bank, 2007).

Generally, most outgrower schemes operating in the country generate positive financial impacts to both the smallholder outgrowers and the outgrower company in terms of the returns to land and labour although there are observable differences between sub-sectors (World Bank, 2007). According to a World Bank study (World Bank, 2007: 41) sugar had the highest gross margins on a per hectare basis of approximately US\$1,100 per hectare. This was followed by export vegetables with US\$500 – US\$850 per ha and coffee at US\$250 –US\$400 per hectare. Droppelmann (2004: 8) found out that the Kaleya Smallholder Outgrower Scheme considered in his study generated revenues about ten times more than other schemes in each year. The study (ibid), however, notes that outgrower farming can only be regarded as a supplementary cash income to participating smallholder farmers since the incomes generated would not lift these farmers above the poverty line of one-dollar-a-day. The study claims that the participating households were likely to generate incomes to meet their cash expenditure requirements such as school fees, hospital bills and clothing. A further challenge is that most of the outgrowers schemes mentioned above continue to be dominated by men. Outgrower schemes in which women have the highest participation are few and located in or around the urban areas and are engaged in the production of crops such as coffee and fresh vegetables (Droppelmann, 2004: 7). Such schemes do not involve the small-scale rural poor female farmers but a few urban-based ‘emergent’ elite female farmers.

2.4. Sugar production and participation of smallholders in outgrower schemes in Zambia

2.4.1 History of sugar production in Zambia

Sugar processing in Zambia commenced in 1960 with the establishment of a sugar refinery in Ndola town by the Rhodesia Sugar Refinery Limited (RSR) owned by Tate and Lyle. The sugar refinery, incorporated as the Ndola Sugar Company Limited (NSC), was supplied with raw sugar from Chirundu sugar estates established by Tate and Lyle in 1955 on the southern bank of the Zambezi River in Southern Rhodesia (what is now Zimbabwe) (Dinham and Hines, 1984; Kalyalya, 1988). The dissolution of the Federation of Rhodesia and Nyasaland in 1963 and the unilateral declaration of independence (UDI) by Southern Rhodesia in 1965 prompted Tate and Lyle to split RSR operation (ibid). In 1964, therefore, Tate and Lyle established the Nakambala Sugar Estate together with a processing factory as joint project with the Zambian government. The new sugar venture was allocated 17,000 hectares of freehold land on the southern bank of the Kafue River in Mazabuka District (Kalyalya, 1988: 9). In June 1965 the Zambia Sugar Company (ZSC) Limited was incorporated as a joint effort by Tate and Lyle and the Zambian government and replaced the NSC. Tate and Lyle held 80 per cent of the shares, the Zambian government held 12 per cent with the remaining eight per cent owned by private shareholders (Kalyalya, 1988). Zambia Sugar Limited was nationalised in 1973 following Zambian government's economic reforms that sought to increase the state's stake in the economy and the government through Industrial Development Corporation (INDECO) commanded a 51 per cent controlling share. Tate and Lyle was left with only 38 per cent shareholding and the shareholding structure radically changed over the year with Zambian government commanding 78 per cent of the company by 1984 with Tate and Lyle remaining with

only 11 per cent (ibid). During these early years of sugar production in the country, some settler private commercial farmers also joined the industry in the Mazabuka region and supplied sugarcane to Zambia Sugar's Nakambala mill. In 1968 there were about ten such commercial farmers. This number, however, reduced to just two by the early 1980s as the government pressured the farmers to sell their holdings to ZSC. Four of the farmers were forced to sell their holdings while another four reverted to production of other crops than sugarcane (Kalyalya, 1988). This move by government was to pave way for Zambian small-scale sugar production through a smallholder outgrower scheme whose model was still being researched at the time. The Kaleya smallholder scheme was established under the Kaleya Smallholder Company Ltd (KASCOL) in 1981 to supply sugar to Zambia Sugar Company's Nakambala mill.

Against the backdrop of economic and political liberalisation the country underwent in the early 1990s, ZSC was sold back in 1995 to the original owner - Tate and Lyle - and the Commonwealth Development Corporation (CDC) following a privatisation programme of the country's parastatal companies. In 1996 ZSC listed on the Lusaka Stock Exchange and became Zambia Sugar plc (referred to as Zambia Sugar throughout this study), and in 2001, the largest sugar producer on the continent, Illovo Sugar of South Africa, bought Zambia Sugar from Tate and Lyle (90 per cent shareholding) (Tyler, 2008). In 2006, the UK's leading beet sugar producer, Associated British Foods (ABF) acquired a majority shareholding in Illovo, and since 2016 has acquired full ownership (ABF, 2016).

The sugar sub-sector is primarily private sector driven following the economic liberalisation and privatisation that commenced during the early 1990s. Three other corporate sugar producers entered the sugar industry, namely, Kalungwishi Sugar established in 1999 in Kasama District in Northern Province, Kafue Sugar (Consolidated Farming Ltd.) established in 2003 on the northern bank of Kafue River in Kafue District in Lusaka Province, and Mansa Sugar established in 2017 in Chembe District in Luapula Province. All the three sugar companies maintain a single sugar processing factory each and are currently supplied solely by the core estates. Kafue Sugar has plans to involve smallholder outgrowers (ECIAfrica Consulting (Pty) Ltd, 2012; Chisanga et al., 2014a). Privatisation of the sugar sub-sector also attracted a re-entry of private large-scale commercial sugar farmers in the Mazabuka region in outgrower arrangements with Zambia Sugar. By 2014, at least 15 such large-scale outgrowers had established themselves in the area after invitation by Zambia Sugar. Zambia Sugar remains the dominant company in the sugar sub-sector, together with its outgrower schemes contributing about 90 per cent of the total national sugar production with less than ten per cent coming from two other companies (Palerm et al., 2010: 1).

The company commenced an expansion programme in 2007 that involved increasing the area under cultivation on its own nucleus estate and on Nanga Farms which was acquired from Zambeef Plc, as well as, on land owned by individual private large-scale commercial outgrowers. In one report it is indicated that 10, 500 hectares was the additional size of land brought into production since 2013 (Fynn, 2008: 30). Physical infrastructure to increase the processing capacity of sugarcane involved the construction of new canals of about 32 kilometres in length, and doubling the crushing

capacity of the company's sugar mill. The mill has now an installed capacity to produce 450, 000 tonnes of processed sugar.⁹

Zambia Sugar employs nucleus estate - outgrower model with both commercial growers, as well as, three smallholder outgrowers, namely, Kaleya, Magobbo, and Manyonyo. The three smallholder outgrower schemes that are in contract partnership with Zambia Sugar differ in size, number of farmers, and land tenure and management structure (Table 1). The oldest and largest of the three is the Kaleya scheme operated under the Kaleya Smallholder Company Ltd (KASCOL) that was established in 1981. Magobbo Smallholder scheme was officially launched in 2008 with sugarcane cultivation commencing in 2010 while the newest operation - Manyonyo scheme, started production during the 2013/14 season.

Table 1: Smallholder Sugarcane Growers in Mazabuka District

Name of scheme	No. of Ha	No. of Smallholders	Average Ha/Smallholder	Landholding structure
Kaleya	1,040	160	6.5	Tenants (14 year leases)
Magobbo	433	94	5	Collective 'block farm'
Manyonyo	555	136	4	Individually owned farms
Total	2,028	390	-	

Source: Compiled by author from Zambia Sugar data sets

⁹ Lusaka Times, 19 February, 2008, 'Government happy with Zambia Sugar Company'. <http://www.lusakatimes.com/2008/02/gov-happy-with-zambia-sugar-company/>

Table 2 clearly shows that Zambia Sugar commands the bulk of land under sugar production (59.3 per cent), while large-scale commercial outgrowers (including the KASCOL estate) and smallholder outgrowers command approximately 33 per cent and 7 per cent¹⁰ respectively, with production of sugarcane taking similar proportions. Thus, while sugarcane has always played a central role in outgrower farming in post-colonial Zambia in the Mazabuka region, the stark reality is that a comparatively very small proportion of smallholder farmers are actually involved in its cultivation. Therefore, Zambia Sugar's mill does not highly depend on smallholder outgrowers for its sugarcane throughput.

Table 2: Area cultivated for sugarcane by all categories of growers in Mazabuka District

Commercial growers	No. of ha	% total sugarcane land area
Zambia Sugar core estate including Nanga Farms ¹¹	17, 310	59.3
KASCOL core estate	1, 331.5	4.6
Large-scale commercial outgrowers (15)	8, 490.5	29.0
Sub-total	27, 132	93.0
Smallholder growers		
Kaleya	1, 040	3.6
Magobbo	433	1.5
Manyonyo	555	2.0
Sub-total	2, 028	7.1
Grand-total	29, 160	100.0

Source: Compiled by author from Zambia Sugar data sets

¹⁰ A report by Illovo Sugar (Corporate Citizenship, 2014: 30) and other Zambia Sugar reports though put the proportion of land and sugarcane grown by smallholder outgrowers at approximately 10 per cent. This figure erroneously includes proportion of land under KASCOL corporate estate which in fact is not a smallholder grower.

¹¹ Zambia Sugar owns an 85 per cent controlling share in Nanga Farms

It had always been the objective of the UNIP government with its 'socialist' ideals to embrace ordinary, smallholder farming families since the commencement of sugarcane production in the country in order to empower them socio-economically, meet the rapidly increasing domestic demand for sugar, as well as, to generate a surplus for export in order to earn foreign exchange for the country (Klepper, 1979; Kalyalya, 1988; Tyler, 2008). Several feasibility studies were undertaken since 1966 to determine a suitable model for the smallholder scheme. The government objective of including smallholders in sugar production was actualised in 1981 when the Kaleya Smallholder Company Limited (KASCOL) was initiated by Government as a joint project with the Commonwealth Development Corporation (CDC) in Mazabuka District, southern Zambia. KASCOL was owned and funded by four stakeholders: Zambia Sugar (then a parastatal company under government), Development Bank of Zambia (also with government stake), CDC and Barclays Bank (a private international financial institution) with each owning 25 per cent shares. The design settled for was to establish a private company dedicated to sugarcane production and farming services that would also oversee the development of a smallholder scheme with smallholder farmers to be settled on the company land (Kalyalya, 1988). The CDC's experience with similar schemes elsewhere in Africa was leveraged to design the organizational model for the smallholder outgrower project (Tyler, 2008). The government of Zambia donated 4,179 hectares of state land for the project adjacent to ZSC's Nakambala Estate. KASCOL was thus incorporated for that purpose as a management company to operate the Kaleya smallholder outgrower scheme. The smallholder scheme was to serve both as poverty alleviation tool in a rural area, as well as, an expansion strategy by ZSC. The initial response to the scheme by smallholders was that of scepticism as they doubted the intentions of the project. It was not until KASCOL had to recruit

eight of its own employees as pioneer outgrowers that interest grew from people around the Mazabuka region (Mujenja and Wonani, 2012). There was, therefore, a progressive increase in the number of outgrowers joining the scheme from 1984 until 1994 when the number reached 160 (Mungandi, Conforte and Shadbolt, 2012). Except for the initial eight volunteers from KASCOL, all other outgrowers were subjected to a selection process by a panel comprised of representatives from ZSC, KASCOL, Ministry of Agriculture and Cooperatives, Ministry of Labour and Social Security, area local chiefs, the District Governor who was chair of the panel (Mujenja and Wonani, 2012; Mungandi, Conforte and Shadbolt, 2012). Again, with the exception of the initial eight outgrowers from KASCOL who already had experience in sugar production as ex-employees of the KASCOL, the rest were subjected to a six-month training in cane agronomics (Mujenja and Wonani, 2012). Prospective participants that met the selection criteria came from the Mazabuka region and further afield, although in the latter years there was preference for people within the district. Settlers in the scheme included peasant farmers, ex-labourers, retired civil servants and retired military personnel.

The Kaleya smallholder outgrower scheme took a 'block farming' approach where local smallholders were resettled and allocated farm plots in a contiguous block of land owned by the company. This was to take advantage of economies of scale through synchronisation of certain production activities such as harvesting and haulage of sugarcane within the farm units (Tyler, 2008). Settlers were initially allocated 4 and 0.5 ha each for sugar production and dwelling place and cultivation of food crops for subsistence to ensure food security for the outgrower households respectively. Over the years, the land for each settler was eventually increased to 6.5 ha each (Church et

al., 2008; Mujenja and Wonani, 2012). The land is leased by the company to each settler for 14 year renewable leases. KASCOL cultivates approximately 1,331.5 ha of the balance of the land as a core estate. The company offers sugar-related farming advice to smallholders, as well as, directly undertake all mechanical operations, cane planting, harvesting and cane haulage on their behalf whose costs are deducted from farmers' cane proceeds. Individual outgrowers are responsible for irrigation, applying fertiliser and chemicals, weeding and disease control. Each outgrower signs a Cane Farmers' Lease Agreement with KASCOL and the agreement stipulates the obligations and rights for farmer and the company.

The initial shareholding structure in KASCOL has changed over the years, especially following the completion of repayment of the scheme development loans. Barclays Bank, CDC and Zambia Sugar all exited by selling their shares in the case of the first two and the latter having donated its shares to a newly created stakeholder- the Mazabuka Sugarcane Growers Trust (MSCGT). Currently, the shareholders are: Development Bank of Zambia, Mazabuka Sugarcane Growers Trust (MSCGT), Viewpoint Investment and the participating outgrowers holding 13.25 per cent through the Kaleya Smallholder Trust (KST) (Church et al., 2008; Mungandi et al., 2012; Struyf and Chuba, 2009; Mujenja and Wonani, 2012).

The KASCOL smallholder outgrower scheme is generally hailed as a technical success and sustainable venture that has served as a model for more smallholder sugar outgrower scheme development in the country. A number of studies have indicated that sugarcane yields and income to outgrowers have been exceptionally high in the

smallholder scheme (Tyler, 2008; Church et al., 2008; Struyf and Chuba, 2009; Palerm et al., 2010). Average net income for outgrowers in 2009 was estimated at 30 to 40 million Zambian Kwacha per year equivalent to between US\$ 5,000 to US\$ 8,000 per year at the time, which was over ten times the average rural household income in the Mazabuka region with smallholders receiving 43 per cent of the division of proceeds less deductions for inputs such as fertiliser, chemicals and other services (Struyf and Chuba, 2009; Palerm et al., 2010). In spite of these positive virtues of the scheme, smallholders have decried the tight central control of the whole enterprise by KASCOL management to ensure efficiency and high productivity thereby reducing smallholders into de facto labourers on their plots (Struyf and Chuba, 2009; Mungandi, Conforte and Shadbolt, 2012).

The second smallholder sugar outgrower scheme established in partnership with ZSC is the Magobbo smallholder scheme that was officially launched in 2008 with substantial grant funding from the European Union (EU) under the EU's temporary Accompanying Measures for Sugar Protocol (AMSP) countries. This study is focused on this smallholder scheme whose details are given in Chapter six as part of the findings.

The third smallholder sugar scheme with Zambia Sugar is the Manyonyo smallholder scheme situated approximately 30 kilometres from the company's mill in Nega Nega B Settlement within Mazabuka District. The land on which the scheme sits was earlier established as a settlement scheme by government from a pull of land that was owned by white settlers. The land was acquired by government and allocated to an

organisation called Family Farms that took the mandate to establish settlement schemes in Southern Province to alleviate land shortages faced by many indigenous Zambians in the area. The scheme was established by the Ministry of Agriculture's Small Scale Irrigation Project initially as a multipurpose irrigation project to grow various crops but decided to focus on sugar growing with the opportunity presented by Zambia Sugar's expansion programme at the time. It is co-funded by the African Development Bank and the Finnish government. The participating smallholders established the Manyonyo Water Users Association (MWUA) as the organisation representing smallholders in the development of the venture (Struyf and Chuba, 2009; Palerm et al., 2010).

The Manyonyo scheme comprise 555 ha¹² of land owned by 136 individual smallholders in Manyonyo settlement. Farmer selection was by virtue of geographic location in the preferred catchment area for the scheme, and unlike in the cases of Kaleya and Magobbo schemes, smallholders in the Manyonyo scheme cultivate sugar on their individually owned plots and have independent water rights and irrigation infrastructure from Zambia Sugar (ibid). Although mobilisation of the smallholders commenced in 2006, sugarcane cultivation only began during the 2013/14 season with the planting of seed cane supplied by Zambia Sugar¹³.

¹²As of 2016/2017 growing season, only 220 ha had been developed at Manyonyo Scheme and the scheme to include 40 more ha to reach a total of 595 ha and 9 more smallholders to reach a total of 145 smallholders. Times of Zambia, 14 July, 2016: 'Zambia Sugar outgrower scheme successful'; Zambia Sugar (2017) Zambia Sugar Annual Report 2017.

¹³ The Post Newspapers Zambia, November 14, 2013, 'State, Finnish envoy urges shift to irrigation.'

2.4.2 Sugar and the Zambian economy

In Zambia, sugarcane is treated as a sensitive and strategic sub-sector (Chisenga et al., 2014; Richardson, 2010), with the state always taking a close interest. State support to foreign investment in the sugar subsector derives from the desire of the state to maximise both foreign exchange through exports and other revenues through corporate taxes, as well as maximising employment generation. Furthermore, sugar production through the promotion of schemes that incorporate smallholder outgrowers is in line with the state's objective of supporting development and ensuring national self-sufficiency¹⁴ in an important commodity (See Dubb, Scoones and Woodhouse, 2017). The importance of the sugar sub-sector to Zambia's economy, thus, cannot be over-emphasised. Sugarcane is a high value agricultural crop that makes a significant contribution to the manufacturing sector with value added processing (ECIAfrica Consulting (Pty) Ltd, 2012). Key drivers of the growth in the Zambian sugar sector are its contribution to the national economy through increased foreign exchange earnings, growth of the Gross Domestic Product (GDP), economic diversification from copper mining, wage-employment creation and rural development. As one of the most successful non-traditional export crops for the country, the sugar sub-sector has over the last few years contributed around 6 per cent (US\$45 million) of the country's foreign exchange earnings, second only to the copper industry (Palerm et al., 2010; Richardson, 2010; Kalinda and Chisanga, 2014; ECIAfrica Consulting (Pty) Ltd, 2012). Sugar also contributes about 4 per cent of the country's GDP and, in a country with a very high unemployment rate, the industry is hailed as a major direct formal wage-employment generator, offering around 11,000 jobs (about three per cent of the

¹⁴ In developing countries, sugar provides on average 8 per cent of caloric intake (Bruntrup, 2006: 10).

country's total labour force), with total dependants probably exceeding 75,000 (Palerm et al., 2010: 1).

Classified as a “world class” player in sugar production, Zambia is consistently ranked one of the world's lowest-cost producers of sugar at less than US\$ 400 per tonne, together with Malawi, Tanzania, Zimbabwe, Sudan, Ethiopia, Cambodia, Swaziland and Mozambique and Laos (Tyler, 2008; Chisanga et al., 2014a; Chisanga et al., 2014b). Apart from being one of the lowest-cost producers in the world, sugarcane yields in Zambia and the Mazabuka region in particular, are among the highest, above 100 tonnes per hectare, due to the use of extensive irrigation technology (Fynn, 2008). These yields are more than twice the yields achieved in other Southern African countries that rely on rain-fed sugar cultivation. The agro-climatic conditions in the sugarcane growing region in Mazabuka District are excellent for sugarcane under irrigated conditions: these include frost-free winter, ample hours of sunshine exceeding 2,800 hours per annum and mean summer temperature of 25 degrees Celsius (Keyser and van Gent, 2007). Thus, sugar is central to Zambia's political economy – essential for state revenues, and core to the mission to attract foreign investment into the agricultural sector. Sugarcane remains the main crop produced in the country in terms of volume and value. In 2009 for instance, over three million tonnes of sugarcane were harvested compared to less than two million tonnes of maize, Zambia's main staple food crop (FAO, 2013: 3), largely on account of Zambia Sugar's expansion programmes. Zambia is self-sufficient in sugar, as the country produces more than double what it consumes (Figure 1). The domestic market is insulated from imports by a government policy decision that: requires that all refined sugar sold on the Zambian market be fortified with Vitamin A (Richardson, 2010); levies a 23.8 per cent tariff on

sugar imports from outside Common Market for Eastern and Southern Africa (COMESA) and Southern African Development Community (SADC) countries; and imposes restrictive import procedures (Chisanga et al., 2014b).

Given Zambia Sugar's dominance in the sugar industry in the country, the company is able to exercise monopsony power in the sugar market. Within the sugar economy, Zambia Sugar is highly significant, and exerts enormous influence in political circles due to its economic contributions. As observed by Richardson (2010), the company in Zambia has used this influence on both commercial banks and the Zambian state in preventing entry of other large corporate sugar producers in the Mazabuka region. This is in the context of preventing the emergence of competitor markets for sugarcane from outgrower schemes that could trigger side-selling by the outgrowers or side-buying by other sugar producers in the area. In 2001, before the commencement of the company's expansion programme, Zambia Sugar signed an Investor Promotion and Protection Agreement (IPPA) with the Zambian government through the Zambia Development Agency¹⁵ (ZDA) Act No. 11 of 2006 (Richardson, 2010). The government entered this agreement because of the perceived economic benefits of the investment in the expansion of sugarcane production. Under the IPPA signed between government and Zambia Sugar, the government was obligated to treat sugarcane as a sensitive and priority crop within government policy guidelines (ibid). This development agreement offered Zambia Sugar investment incentives that included importing equipment duty-free and access to finance at concessionary prices, and reduced corporate tax following a reclassification of the company in 2009 from an industrial enterprise into an agricultural venture (Richardson, 2010) thus, giving the

¹⁵ Zambia Development Agency (ZDA) is the main institution that deals with investment in Zambia.

multinational firm an undue competitive advantage as it is the only company that has hitherto enjoyed these incentives in the sugar sub-sector. For sugar companies operating across the region thus, Zambia is attractive given the strong state support, and the low-cost, high-efficiency production system. Yet structural monopsony power exercised by Zambia Sugar prevents the emergence of competitive market in sugar production in the Mazabuka region.

Zambia Sugar produces ten per cent of the Illovo Group's sugar output, but contributes 30 per cent of the Group's profits (Illovo Sugar, 2010). Illovo has operations in Tanzania, Malawi, Swaziland, Mozambique, Zambia and South Africa. Indeed, as Dubb (2017) notes, Zambia Sugar stands out as a 'profit powerhouse' among the Illovo Group's six southern African country operations, owing to its high efficiency in sugarcane production and the largest single-mill processing capacity at 450,000 tonnes per annum. Illovo in turn makes good use of Zambia's profit repatriation policy that allows an investor to repatriate all profits after tax obligations are met.

Furthermore, the growth of the sugar subsector in Zambia has for many years been spurred by the European Union/African, Caribbean and Pacific (EU/ACP) Sugar Protocol under the EU's Sugar Common Market Organisation (CMO), which allowed the export of a 23,000¹⁶ tonne annual quota of sugar to the EU market at a guaranteed minimum price (Tyler, 2008). The EU CMO in the sugar subsector was, however, reformed in 2006. Among other measures, the reform entailed a 36 per cent reduction of the EU guaranteed minimum price, reflected in the price obtained by ACP Sugar Protocol countries over a four-year period beginning in 2006–2007. The Sugar

¹⁶ ECIAfrica Consulting (Pty) Ltd (2012) puts the figure at 28,000 metric tonnes.

Protocol, thus, ended in 2009-10 and these changes necessitated an adaptation of the sugar sector to new market conditions with a lower EU sugar price (Palerm et al., 2010). The European Commission, therefore, proposed the Accompanying Measures for Sugar Protocol) scheme to help the affected countries that were dependent on the EU market. The EU's new market regime - 'Everything but Arms'¹⁷ scheme between the EU and the ACP countries allowed competitive ACP sugar producers to expand their sugar exports, quota-free and duty-free, to the EU market. Under this new arrangement, Zambia was permitted to export to the EU a maximum of 250,000 tonnes of refined sugar from 2009 until 2015 although at a reduced price (ECIAfrica Consulting (Pty) Ltd, 2012).

The AMSP support to Zambia was focused on expansion of sugar production by promoting smallholder outgrower schemes in Mazabuka District supplying sugarcane to Zambia Sugar. Yet the expansion of sugar estates in the Mazabuka region has not always been greeted positively at the local level. Kalyalya (1988) notes that local communities in Mazabuka, concerned about the acute shortage of land for subsistence farming, in 1980 objected to further sugarcane cultivation beyond the limits of Nakambala Sugar Estate and had rejected the establishment of the first-ever sugarcane outgrower scheme – KASCOL. Concerns about the expansion of sugar cultivation, through a variety of mechanisms including outgrower schemes, continue today (see Chapter 5).

¹⁷ Under the 'Everything but Arms' scheme, the 49 least developed countries (including Zambia) enjoy a quota-free, duty-free access to the EU market for all exports except for arms (see http://trade.ec.europa.eu/doclib/docs/2013/april/tradoc_150983.pdf, accessed March 18 2014).

The sugar sector in Zambia has, as shown above, moved between private and state control over the years, but as such a strategic sector, the state has always taken a close interest. The arrival of European support measures, in various forms, has been a key element. The close ties between the Zambian state, international sugar corporations and the international development agencies/donor community (firstly through the Commonwealth Development Corporation (CDC) and latterly the EU) has been central to the politics of sugar in Zambia, as elsewhere in the region, over many years. This broader political economy has in turn shaped the form and outcomes of Zambia Sugar's Nakambala Estate and outgrower arrangements on the ground.

Zambia Sugar has benefited greatly from these quota-free, duty-free sugar exports to the EU, and support for its expansion programme. While the EU market has been quite significant for Zambia Sugar's growth, exports to the EU have recently fallen by 30 per cent due to low prices for sugar now offered by the EU member states (Zambia Sugar, 2015). In 2015, the company began moving away from the EU and targeting the regional market. Figure 1, comparing two marketing seasons, is instructive (Zambia Sugar, 2013, 2015). During the 2014/15 season (Figure 1), a total of 424, 024 tonnes of processed sugar was produced by the Zambia Sugar mill. Out of this, the local market (both domestic consumers and industrial market) consumed 174, 018 tonnes (41 per cent), followed by the regional market, 158, 602 tonnes (37 per cent), and the EU market, 91, 404 tonnes (22 per cent). The export market, thus, consume more than half (59 per cent) of Zambia Sugar's current production. The 41 per cent of sugar consumed by the domestic market meets the country's local demand. While the EU market has been quite significant for Zambia Sugar's growth in the past, this market is on the wane with a reduction by 30 per cent triggered by low prices of sugar

now offered by the EU member states, as well as, surplus sugar on the global market (Zambia Sugar, 2015). The regional market, particularly Congo DR and the great lakes region (Uganda, Burundi, and Rwanda) is becoming increasingly more important for Zambia Sugar’s future growth taking over from the EU market.

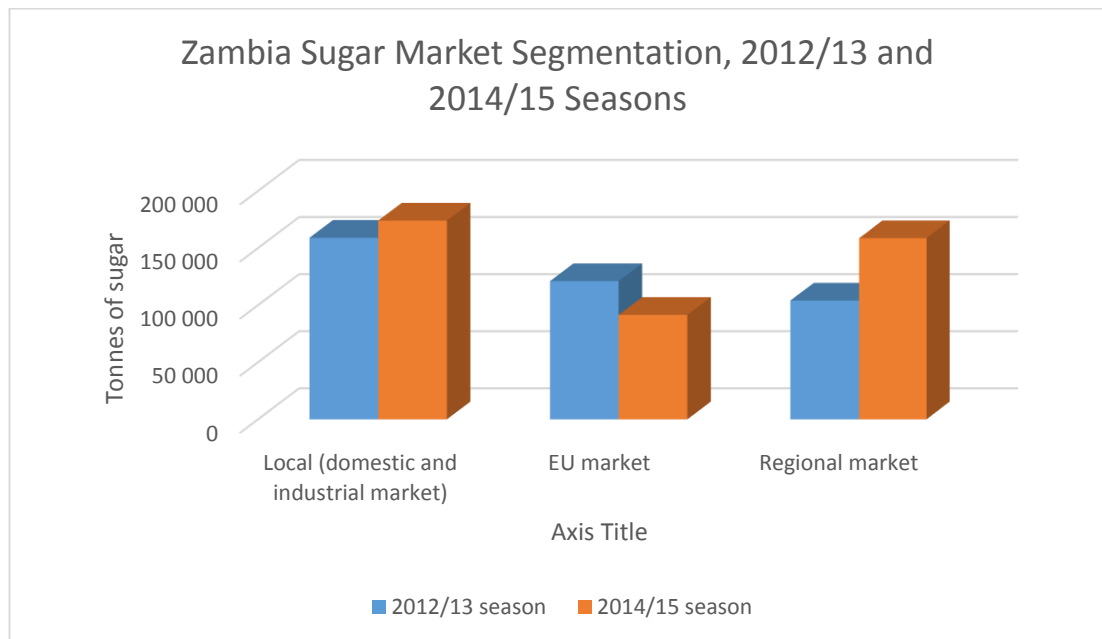


Figure 1: Zambia sugar’s market segmentation, 2012-2013 and 2014-2015 seasons

Source: Compiled by author from Zambia Sugar data sets.

2.5 Chapter summary

The chapter has firstly reviewed the literature on contract farming and outgrower schemes in general. The literature is as wide as the forms of contract farming schemes themselves. Studies conducted on contract farming and outgrower schemes differ in ideological, methodological and disciplinary focus such that they can arrive at different conclusions on their impacts. Most of these studies have laid much emphasis on ‘income rise’ as a measure of household welfare outcomes of contract farming and outgrower schemes leaving out social consequences and other impacts on both

participating and non-participating households in the outgrower communities. The review also reveals there is very little in the literature on theoretically embedded studies that take on a political economy approach in analysing outcomes of outgrower schemes on smallholder communities. Again, the literature review notes that, within the sugar sub-sector, most empirical work on contract farming and smallholder welfare in developing countries and Zambia in particular is fairly old, conducted at a time prominence was given to public contract farming schemes with heavy government involvement. More recently, however, emphasis has been placed on private sector driven outgrower schemes that are somewhat institutionally different from past schemes, and little is known about dynamics in these schemes. Furthermore, the literature reveals there has been little or no recent theoretically embedded empirical studies that take on a political economy approach in order to understand the livelihood impact of such novel institutional forms of outgrower schemes, particularly in the sugar sub-sector in Zambia. Again, there has been little or no study emphasising the significance of institutional arrangements in outgrower schemes. This study, therefore, aims to contribute to filling these gaps by studying a private sector-driven outgrower scheme that goes beyond analysis of income metrics using political economy analysis.

CHAPTER 3: THEORETICAL FRAMEWORKS

3.1 Chapter introduction

As observed in Chapter 2, literature on contract farming is wide and at the extreme, polarised. Thus, contract farming can be inquired from many disciplinary and theoretical perspectives. Owing to this diversity, researchers are inclined to focus on specific areas of inquiry in accordance with their disciplinary approaches. This study is essentially about livelihoods effects of sugarcane outgrowing on smallholder households and communities. It, therefore, delves into the smallholder livelihoods and the power relations laden therein.

Within the menu of theoretical approaches in the literature, this study has been guided by two theoretical perspectives, namely: 1) Extended Livelihoods Framework that is also referred to as 'Political Economy of Livelihoods' (Scoones, 2015); and 2) Impoverishment Risks and Reconstruction (IRR) Model for resettling displaced people (Cernea, 1997). The Extended Livelihoods Framework embodies all the elements of the Sustainable Livelihoods Framework but extends and explicitly brings back questions of power and politics that remained at the margins in the earlier livelihoods analysis. Lastly, the Impoverishment Risks and Reconstruction (IRR) model is presented. The IRR model is applied in this study as a lens through which to explain the possible impoverishment of the smallholders displaced by the development of the Magobbo sugar outgrower scheme block farm, aspects that cannot be picked by the Extended Livelihoods Framework . The IRR model can be linked with other conceptual frameworks, to achieve complementarity of perspectives and additional knowledge (Cernea, 1997). This study sought to achieve this complementarity by linking IRR model to the Extended Livelihoods Framework.

3.2 Extended Livelihoods Framework

The Extended Livelihoods Framework is nothing new but further elaboration of the original livelihoods approach. The livelihood approach, also labelled Sustainable Livelihood Framework (SLF), was developed in the 1990s as a tool for analysing livelihoods for the poor in developing countries. It emerged in response to earlier but unsatisfactory approaches to policies for encouraging development and poverty alleviation. The approach is credited to a 1992 IDS working paper by Conway and Chambers, and the approach was further developed by several other authors (e.g. Scoones 1998; Carney 1998; Ashley and Carney 1999). The United Kingdom, through the Department for International Development (DfID), commissioned the Institute of Development Studies (IDS) to undertake a series of research projects in Bangladesh, Mali and Ethiopia to analyse livelihood change in a comparative manner (Scoones 1998, 2009; de Haan 2012). Appendini (2001: 24) argues that the central objective of the livelihood approach was “to search for more effective methods to support people and communities in ways that are more meaningful to their daily lives and needs, as opposed to ready-made, interventionist instruments.” The livelihood approach is applied both as an analytical tool in research and as framework for development programming. The elaboration of the SLF by the UK’s DFID as a tool for planning and implementing development projects contributed to the wide adoption of the approach by many development agencies in their programming and organisational structures (Scoones 2009). With regards to its analytical function, the livelihood approach is employed as a tool for research to analyse livelihood impacts of different social phenomena and it is used in this study for this purpose. While there are several versions of the livelihoods framework (Scoones, 2009), this study is informed by the Extended Livelihoods Framework by Scoones (2015) depicted in Figure 2.

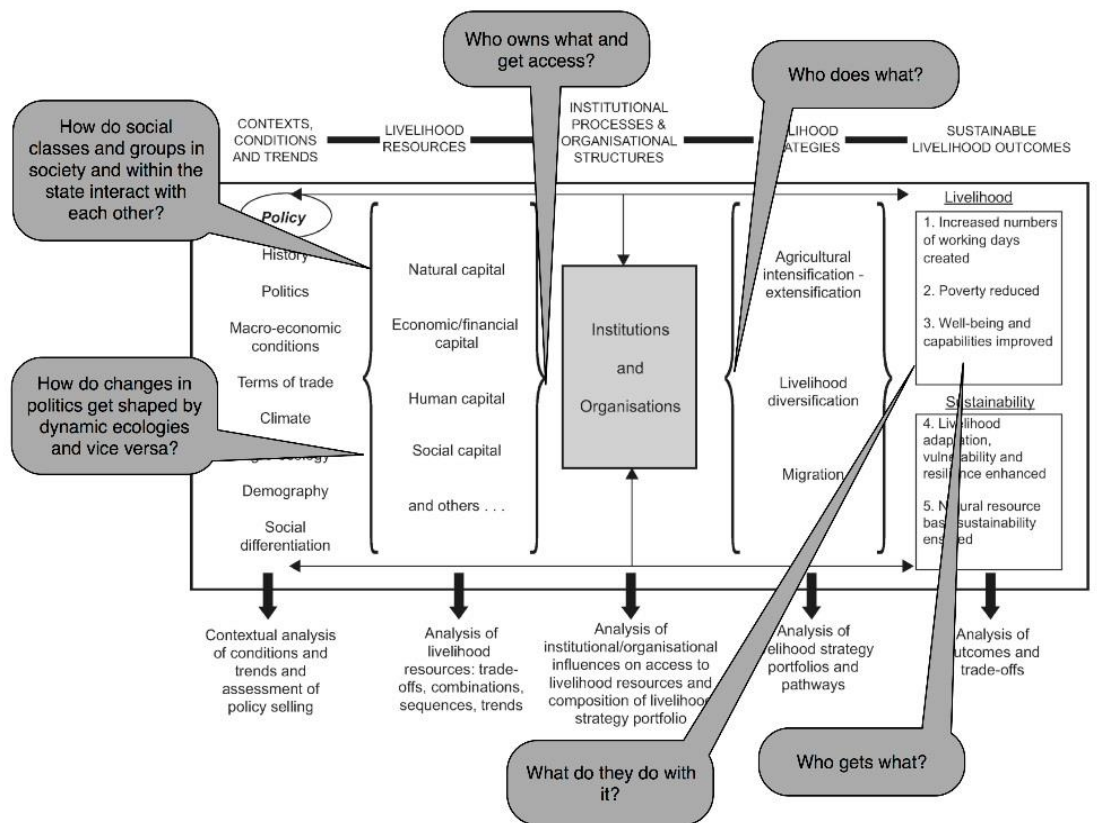


Figure 2: An extended livelihoods framework

Source: Scoones (2015)

Varied definitions of sustainable livelihood are offered in the literature and most are adapted from Chambers and Conway (1992). In this study, we use Carney's adapted definition describing sustainable livelihood (Carney, 1998: 2) thus:

A livelihood system comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base.

The sustainable livelihoods framework developed a chain linking elements of inputs, outputs and outcomes of livelihoods. As depicted by this conceptual model (Figure 2), a livelihood is an outcome of the interaction between “contexts, conditions and trends,” “livelihood resources,” “institutional processes and organisational structure,” and “livelihood strategies.” In this chain of interlinked elements, the inputs are the capitals or assets, the outputs being livelihood strategies and finally outcomes includes poverty levels, employment levels, wellbeing and sustainability (Scoones, 2009).

At the core of the livelihoods approach is the different types of livelihood capitals or assets (second column in Figure 2) and how these can be converted into sustainable livelihoods. These assets are human capital, natural capital, physical capital, financial capital, social capital, and many more, arranged in form of a pentagon (Scoones, 1998; Bebbington, 1999; de Haan, 2012). For poor people to achieve positive livelihood outcomes, they require a wide range of assets to be applied in combination as no single asset can satisfy all the needs the poor people try to fulfil (DfID, 1999). A corpus of literature on livelihoods analysis treats poor peoples’ access to assets as the foremost determinant towards achieving a sustainable livelihood. While poor people often depend on a combination of these assets/capitals to achieve sustainable livelihood outcomes, any alterations to this combination is likely to impact their livelihoods positively or negatively. Therefore, people cannot achieve positive livelihood outcomes if they depend on one specific type of asset.

The livelihood framework has been hailed for being people-centred, flexible (hence, can be applied to different situations), and for being ‘holistic’ since it can be applied to a diverse of sectors (Scoones, 2009). Despite its strengths and appeal, the livelihoods

approach has been criticised to a large extent for its focus on the micro-level, household and individuals, and thus, underplaying the role of structures, politics and power that may be critical in mediating access to livelihood resources (Scoones, 2009; de Haan, 2012; de Haan and Zoomers, 2005). As de Haan (2012: 349) notes: “Livelihood activities are not neutral. They engender processes of inclusion and exclusion and power is part that.” Livelihoods approaches have failed to engage with wider, global processes and their influence on livelihoods at the local level, including processes like economic globalisation, climate change, and questions about agrarian change. Some livelihoods studies have indeed relegated these structural features to the margins of livelihoods debates and have instead focused on poor people’s assets (Scoones, 2009; de Haan and Zoomers, 2005). The livelihoods approach has also been greatly critiqued for placing ‘resources’, ‘assets’, and ‘capitals’ as equivalents that can be interchanged (Scoones, 2009; de Haan, 2012). This tendency to call resources “capitals” is critiqued by de Haan (2012: 348) as this would lead to seeing livelihoods “in an economic view, placing the emphasis on material aspects such as production and income.” While material wellbeing in itself is important for poor people’s livelihoods, it also encompasses non-material aspects of wellbeing as Bebbington (1999: 2022) underlines:

[P]eople’s assets, such as land, are not merely *means* through which they make a living: they also give *meaning* to the person’s world... assets...are not simply *resources* that people use in building livelihoods: they are assets that give them the *capability* to be and to act...[assets should be understood] not only as ‘things’ that allow survival, adaptation and poverty alleviation: they are also the basis of an agents’ *power* to act and to reproduce, challenge or change the rules that govern the control, use and transformation of resources.

While observing that livelihood approaches centre around the question of access to assets as different people pursue their livelihoods, Scoones (2009: 187) decries the focus on the ‘asset pentagon’ and the use of ‘capitals’ metaphor as unfortunate, suggesting that questions of power and politics are central to how different people gain access to assets. O’Laughlin (2004: 387) further decries the lack of class analysis in the discourse of livelihoods as practitioners are overly concerned with “...‘empowering’ the poor, without being clear about how this process takes place or who might be ‘disempowered’ for it to occur.” And, as Foresti et al. (2007) observes, the approach also never fully explores differences at the household level and how decisions are taken.

In an attempt to re-invigorate the livelihoods approaches, there has been calls for a widening and “re-energising” of livelihoods perspectives by putting politics, power and social differences at the centre of livelihoods approaches, as well as, taking a perspective that requires going beyond the local level analysis, to examine the wider structures of inequality (Scoones, 2009). As Scoones (2015: 115) notes:

The extended livelihoods approach ... argues for close attention to the local and the particular, appreciating the complexity of people in places. But this has to be complemented with an understanding of the wider, structural and relational dynamics that shape localities and livelihoods. This is a challenge of moving across scales, from the micro to the macro, but perhaps more especially between analytical frames: between the detailed and empirical (the many ‘determinations’) and the more conceptual and theorised (the ‘concrete’). In this classical approach to method in political economy it is these multiple iterations between scales and frames that

becomes important, and reveals the way political processes structure and shape what is possible and what is not, for whom. Thus changes in commodity prices, shifts in terms of trade, the financing of agricultural investments, and political deals far away will impinge on the patterns of livelihoods seen in diverse localities. These in turn will affect processes of social differentiation, patterns of class formation and gender relations – and so livelihoods.

Bernstein, Crow and Johnson (1992: 24) provide perhaps the most comprehensive attempt to integrate livelihoods perspectives with these structural political economy concerns by asking the following questions with regard to agrarian structures: who owns what (or who has access to what?) Who does what? Who gets what, and what do they do with it? These political economy questions allow for understanding of who gains and who loses and why. Scoones (2015: 84-85), in deepening and extending the livelihoods analytical frame adopts these questions and adds two more as depicted in Figure 2 above: “how do social classes and groups in society and within the state interact with each other? How do changes in politics get shaped by dynamic ecologies and *vice versa*?” (italics his). The linking of these political economy questions to the original sustainable livelihoods conceptual model as depicted in Figure 2 constitute what is now called an ‘Extended Livelihoods Framework’ (Scoones, 2015). These political economy questions are elaborated below (Scoones, 2015: 84-85):

- *Who owns what (or who has access to what)?* This relates to questions of property and ownership of or access to livelihoods assets and resources.

- *Who does what?* This relates to the social divisions of labour, and the distinctions between those employing and employed, as well as gendered divisions.
- *Who gets what?* This relates to questions of income and assets, and patterns of accumulation over time, and so to processes of social and economic differentiation.
- *What do they do with it?* This relates to the array of livelihood strategies and their consequences as reflected in patterns of consumption, social reproduction, savings and investment.
- *How do social classes and groups in society and within the state interact with each other?* This relates to social relations, institutions and forms of domination in society and between citizens and the state as they affect livelihoods.
- *How do changes in politics get shaped by dynamic ecologies and vice versa?* This relates to question of ‘political ecology’, and how environmental dynamics influences livelihood and are in turn shaped by livelihood activities, through patterns of resource access and entitlement.

These political economy concerns, thus, brings an understanding of processes of distribution of property (including land), marginalisation, dispossession, patterns of work and labour division, distribution of income, and the dynamics of consumption and accumulation and social differentiation (Bernstein, Crow and Johnson, 1992: 24; Scoones, 2009: 187). Additionally, as analytical questions, the political economy questions can be applied at a range of levels, including individual, household, village, region or even nation and global (Bernstein, 2017; Bernstein, Crow and Johnson, 1992;

Scoones, 1998). The Extended Livelihood Framework, as was the case with the original SLF is not intended to depict reality in any specific setting but is to be used rather as an analytical structure for coming to grips with the complexity of livelihoods. It is, therefore, non-prescriptive in nature and confers some flexibility in its application (Scoones, 2015). The extended livelihoods framework offers an important lens for looking at complex rural livelihoods questions and this analytical frame is very relevant for the study of the impacts of outgrower schemes generally, and in particular, on smallholder livelihoods at Magobbo outgrower scheme in Mazabuka District.

3.4 The Impoverishment Risks and Reconstruction (IRR) model

Displacement and resettlement takes place when major development projects, which are of course important elements of economic growth, force people who have lived in a particular area for a long time to leave their homes, and their place in society, economic and agricultural activities, relationships and opportunities and any other immovable properties, to live in other places (Dogan, Batram and Hazar, 1999; Khasnabis, 2007). Literature on development induced displacement (DID) cites a number of categories or causes of displacement. These include water supply (dams, reservoirs, irrigation); urban infrastructure; transportation (roads, highways, canals); energy (mining, power plants, oil exploration and extraction, pipelines); agricultural expansion; parks and forest reserves; and population redistribution schemes (Cernea, 1999). Cernea (1995) notes that forced displacement is always crisis prone, even when necessary as part of broad and beneficial development programmes. In 2000, the World Commission on Dams (WCD) reported that DID comprise not only physical displacement but also displacement of livelihoods as it deprives people of the means of production and socio-cultural environment. Displacement and faulty resettlement

can impoverish people by removing or degrading the assets or resources which they had formerly relied upon to provide their livelihoods. The tragedy of displacement due to development projects is compounded because the affected people bear the costs but often do not have a share in the benefits reflecting an inequitable distribution of development's benefits and losses (Shiva, 1993; Cernea, 1995; 2000). Additionally, the displaced populations have experienced lack of consultation, insufficient or complete lack of compensation, human rights abuses, and lowering of living standards (Colchester, 2000).

The Impoverishment Risk and Reconstruction (IRR) Model was, thus, developed in the 1990s by Micheal Cernea to identify the impoverishment risks intrinsic to compulsory displacement and resettlement resulting from development-induced displacement and the processes for reconstructing the livelihoods of the displaced populations (Cernea, 1997). At the core of the IRR model are three fundamental concepts: risk, impoverishment, and reconstruction. These 'building blocks' are split into sets of specifying notions, each reflecting another dimension, or variable, of impoverishment or reconstruction. The modelling of displacement risks results from the deconstruction of the multifaceted process of displacement into eight interlinked components, namely, landlessness, joblessness, homelessness, marginalisation, food insecurity, increased morbidity and mortality, loss of access to common property resources, and community disarticulation (Cernea, 1999). To these risks, Downing (2002) and Muggah (2000) have added: Loss of access to community services (health clinics to educational facilities), and violation of human rights. The IRR model stresses that, unless specifically addressed by targeted policies, forced displacement can cause impoverishment among the displaced population by bringing into actuality these

interlinked risks. This model captures not only economic but also social and cultural impoverishment, reflecting the fact that displaced people lose natural capital (land, water, forests, pastures etc.), physical capital (basic infrastructure such as transport, communication, shelter, tools and machinery, farm equipment etc.), human capital (where a farmer may suddenly have no choice but to do a lowly paid wage labour) and social capital (as in community support) (Cernea, 1997).

Observing that all forced displacements are prone to major socioeconomic risks, Cernea is of the view that forced displacements are not totally condemned to succumb to these risks. Thus, the IRR model suggests that preventing or overcoming the pattern of impoverishment requires targeted risk reversal or mitigation strategies that entail ‘turning the model on its head’: from landlessness to land-based resettlement; from joblessness to reemployment; from homelessness to house reconstruction; from marginalisation to social inclusion; from increased morbidity to improved health care; from food insecurity to adequate nutrition; from loss of access to restoration of community assets and services; and from social disarticulation to networks and community rebuilding (Cernea 1997; Cernea, 2000). The IRR model, as a conceptual template, Cernea (1997) argues, is also flexible to allow for the integration of other dimensions when relevant and for adaptation to changing circumstances. An assumption in the IRR model is that the risks of impoverishment inherent in the displacement and resettlement process can be avoided by improvements in planning. However, de Wet (2004) points that resettlement is often an inherently complex process presenting difficulties in predicting and avoiding the impoverishment risks. He argues that the resettlement process is replete with complexities such as ‘non-rational’ political motives for resettlement and challenges with financing, as well as,

institutional capacity and, therefore calls for a flexible approach to resettlement planning (ibid). The study, thus, applies the IRR model as a lens through which to explain the impoverishment risks faced by the smallholders displaced by the development of the Magobbo sugar outgrower scheme block farm.

3.5 Chapter summary

This chapter presented the theoretical/analytical frameworks employed in this study. While appreciating the many disciplinary and theoretical perspectives from which the topic of impacts of contract farming on smallholder livelihoods can be tackled, the chapter has outlined the ‘Extended Livelihood Framework’ and the IRR model as the theoretical lenses to guide the study while advancing their analytic value. The study linked the ‘Extended Livelihoods Framework’ with the IRR model to achieve complementarity of perspectives and additional knowledge (Cernea, 1997). These theoretical frameworks help in the main, identify who loses and who wins and why in the enterprise of smallholder outgrowing in sugar in Magobbo area in Mazabuka District. Having elaborated the theoretical frameworks used by the study the next chapter discusses the methodology used.

CHAPTER 4: RESEARCH METHODOLOGY

4.1 Introduction

This chapter presents the methodology used in the study. By outlining a methodology, a researcher lends transparency to oneself and others on how he has undertaken the whole research process and how it has unfolded over time (Jonker and Pennink, 2010: 33, 34). The chapter is divided into eight sections. The first section is an introduction while the second section highlights the philosophical perspective adopted in the study. Section three outlines the research strategy of the study and this is followed by section four that details the approach to methods employed. The fifth section deals with case selection while section six outlines the actual research methods, sampling methods and data collection tools used. Section seven details the methods of data analysis and interpretation used in the study. The last section in this chapter discusses field considerations, including ethical concerns and other challenges.

4.2 Philosophical perspective

Stating one's paradigmatic positioning or worldview in research is important. A paradigm or worldview is simply a basic set of commonly held beliefs or values that guide action (Creswell, 2009: 6). These beliefs or values help to clarify the research design i.e. what to focus on, choice of methods, and how the research results are interpreted (ibid). Two important concepts often arise when a researcher seeks to state his or her paradigmatic positioning in conducting research: ontology and epistemology. King and Horrocks (2010: 8) maintain that ontological and epistemological issues are interlinked and may lead to somewhat confusing representations. While ontology is about *reality*, epistemology concerns itself with

knowledge. A researcher's view of ontology effects their epistemological persuasion on which, in turn, affects their view of human nature.

Simply defined, ontology is the science or study of being (King and Horrocks, 2010; Smith, 1998). Its focus is on the propositions about the nature of social reality. Blackburn (1996: 269) also defines ontology as the “branch of metaphysics that concerns itself with what exists.”

Epistemology, on the other hand, is defined as the philosophical theory of knowledge and concerns the important question of what counts as legitimate or acceptable knowledge (King and Horrocks, 2010: 8; Bryman, 2008: 13). According to King and Horrocks (2010: 8), “... *epistemology*, how we know what we know, a means of establishing what counts as knowledge, is central in any methodological approach”. Epistemological debates, therefore, evolve around the two main methodological paradigms of quantitative and qualitative research often believed to be representing polar opposites. The researcher's epistemological beliefs influence the way in which he or she conducts research. Hence, explicitly stating one's epistemological commitment when undertaking research is important because it gives a reader an adequate basis for judging the study (Potter, 1996: 283). Explicitly stating one's epistemological commitment in any research lends integrity to the research process or what Marshall and Rossman (2006) cited in King and Horrocks (2010: 8) call ‘epistemological integrity.’

The quantitative paradigm is based on positivism/post-positivism, an approach to research often called scientific method (Creswell, 2009: 7). In this objectivist paradigm, the ontological position is that an objective reality exists out there in the world independent of human perception (Sale et al., 2002: 44; Creswell, 2009: 7). The epistemological position in the quantitative paradigm is that the researcher and the researched are independent entities, and, “[t]herefore, the investigator is capable of studying a phenomenon without influencing it or being influenced by it...” (Sale et al., 2002: 44).

The qualitative paradigm, by contrast, is based on social constructivism-interpretivism (King and Horrocks, 2010; Sale et al., 2002). The ontological position in this approach to research is that social phenomena and their meanings are constructed by human beings (Creswell, 2009) and that there are ‘multiple realities’ or ‘multiple truths’ or ‘multiple interpretations’ based on one’s construction of reality” (Sale et al., 2002: 45; King and Horrocks, 2010: 11).

This study being an investigation of social phenomena, adopts a combination of qualitative and quantitative paradigms applying both ‘scientific’ method and interpretivism. This approach is followed as it allows the researcher the freedom and flexibility to use mixed methods for a greater understanding of the issues under investigation as highlighted in section 4.4.

4.3 Research strategy for the study

This study followed a case-study research strategy in order to answer the research questions asked. Creswell (2007: 73) maintains that “*case study* research involves the

study of an issue explored through one or more cases within a bounded system (i.e., a setting, a context).” Thus, case-study is differentiated from other research study designs by the characteristic of having identifiable boundaries. Yin (2003: 13) defines a case study as “an empirical inquiry that investigates a [contemporary] phenomenon within its real-life context...”

Case studies have increasingly been used as a research strategy in social sciences (Yin, 2003) and have long been popular in fields such as psychology, medicine, law and political science. Case study approaches have also been quite common in contract farming and outgrower schemes (e.g. Glover and Kusterer, 1990; Little and Watts, 1994; Porter and Phillip-Howard, 1997; Singh, 2002). Baumann (2000) also observes that it is not uncommon to examine outgrower schemes from an individual project perspective. This study preferred the case-study strategy as it provided an opportunity to conduct an in-depth examination of a phenomenon (Yin, 2003), and, therefore, helped create insights on complex processes and impacts of outgrowing activities on livelihoods of smallholder households and communities (Kahirul, 2008). The case study strategy also facilitates the use of multiple sources of information including observations, interviews, documents, archival records, audio-visual materials and physical artefacts (Yin, 2003; Creswell, 2007). According to Yin (2003: 14) case studies often includes quantitative evidence. The multiple sources of data help improve the quality of data and research findings. Further, the researcher chose a case-study research strategy following Yin’s advice that a case-study research strategy is better adopted when the “how” and “why” questions are being asked in the study (Yin, 2003).

Generally, there are two variants of case-studies: *single* and *multiple* case studies (Yin, 2003: 39). Four types of case study designs emerge from these two variants resulting from whether the case study has a unitary unit or multiple units of analysis. The four types of designs are: single-case holistic; single-case embedded; multiple-case holistic and multiple-case embedded (Yin, 2003: 39). The rationale for selecting any of the four major designs will depend on the nature of the research questions being asked.

A single case-study design was preferred for this study. The rationale for the choice to undertake a single case-study is that the Magobbo smallholder sugarcane outgrower scheme is a unique case of an outgrower farming or contract farming promoted by both South African sugar companies, notably Illovo in southern and east Africa (see subsection 6.2.3 in Chapter 6). Furthermore, a single case-study design potentially provides benefits in terms of depth and richness of data to be gathered taking into account the multiple sources of evidence and its flexibility to allow for both qualitative and quantitative evidence (Gerring, 2007; Creswell, 2007; Yin, 2003). The single case-study design adopted in this study is what Yin (2003) calls an *embedded* case-study as this involves the main unit of analysis, in this case being the Magobbo outgrower scheme, and the participating smallholder outgrowers being the subunits. According to Yin (2003: 46): “The subunits can often add significant opportunities for extensive analysis, enhancing insights into the single case.”

Although the case-study strategy is ideal for the current study, the strategy has received its fair share of critique. Most notable critiques being: 1) that case studies have difficulties in generalising their results beyond the conditions in which they are located or study regions and, therefore, unscientific (Yin, 2003; Flyvbjerg, 2004); 2) because of

the immersion of the researcher in the study, there is high propensity for biased views that can influence the researcher's interpretation of a phenomenon and hence the direction of findings and conclusions; and 3) that a case study takes too long and has the propensity to generate bulky and less comprehensible documents (Yin, 2003: 10-11). Yin (2003) and Flyvbjerg (2004), however, dismiss criticism levelled against the case study design's alleged lacking in scientific generalisation as misplaced, as such critics implicitly contrast the situation to survey research. Yin (2003: 10, 37) observes that unlike a survey research whose sample can be generalised to a larger universe (*statistical generalization*), case studies can generalize their findings to some broader theory that is known as *theoretical* or *analytic generalization*. Additionally, Flyvbjerg (2004: 424) contends that "[t]he case study is ideal for generalizing using the type of test that Karl Popper called 'falsification', which in social science forms part of critical reflexivity." Contrary to critics who maintain that case studies are only appropriate for *exploratory* research, Yin (2003:3) argues that because of the "how" and "why" questions asked, case-studies are more *explanatory* but can also serve a *descriptive* function. The single case-study strategy adopted by this study, is largely explanatory but has also embraced exploratory and descriptive purposes.

4.4 Mixed methods research approach

Although philosophically qualitative and quantitative methods come from two different traditions reflecting opposing worldviews, it has become common in the last few decades for researchers in the social sciences to combine them in a single research (Fielding, 2010). Referred by some in the literature as a 'third research paradigm' (Johnson and Onwuegbuzie, 2004: 14; Lund, 2012: 155) mixed methods research is the type of research that combines elements of quantitative and qualitative research

approaches in a single study. Johnson, Onwuegbuzie and Turner (2007: 123) defined mixed methods research thus:

Mixed methods research is a type of research in which a researcher or team of researchers combines elements of qualitative and quantitative research approaches (e.g., use of qualitative and quantitative viewpoints, data collection, analysis, inference techniques) for the broad purposes of breadth and depth of understanding and corroboration.

The advantage of mixed methods approaches is that the overall strength of a study is maximized than either qualitative or quantitative research Creswell (2009: 4). In mixing research methods, the researcher is able to utilize their respective strength while escaping their weaknesses (Lund, 2012: 156) citing Tashakkori and Teddlie, 1998). This also helps to have a much more complete accounts of social reality than when using a mono-method approach (Bryman, 1988). Therefore, the use of mixed methods research approach is purely pragmatic wherein the research questions, as opposed to philosophy of science in empirical studies are accorded high priority and the combining of the qualitative and the quantitative methods is used for answering such questions (Lund, 2012: 155-156). Pragmatism is a philosophical underpinning for mixed methods research (Creswell, 2009; Johnson and Onwuegbuzie, 2004). Howe (1988: 14) takes a compatibility thesis of the quantitative and qualitative research paradigms and maintains that “truth” is a normative concept, like “good,” and “truth is what works.” The hallmark of pragmatism therefore is in ‘what works’ in any research process (Howe, 1988). Mixed methods research approach allows for flexibility in conducting research, and the researcher can therefore be able to freely

account for and incorporate new variables that emerge during the research process. In conducting research, instead of focusing attention to methods, one ought to pay attention to the research problem and then use pluralistic approaches to understand the problem (Creswell, 2009: 10; Flyvbjerg, 2004).

The subject of smallholder agrarian livelihoods raises many complex questions, and any research in this area, methodologically, requires a combination of methods in order to get more comprehensive insights and crossing of disciplinary silos (Scoones, 2015: 98-101). This study is, therefore, inspired by, and took a pragmatic paradigm, employing a mixed methods strategy involving qualitative and quantitative approaches. Given the research questions the study has asked, the researcher is of the view that the most appropriate research approach to the current study is the mixed methods design. Researching the social phenomena of contract farming/outgrower schemes and smallholder livelihoods in a rural setting- the issue of concern in this study - is focused on human beings and human behaviour; therefore, capturing the participants' (smallholders and other informants) views of contract farming as they experienced it, is cardinal. Mixed methods research approach is well suited for studying the phenomenon of smallholder agrarian livelihoods in relation to outgrower schemes as this approach not only allows the construction of varied and multiple subjective meanings from the smallholders' real-life experiences with the outgrower scheme (Creswell, 2009: 8), but also the reduction of the phenomenon into measurable variables subject to descriptive statistical analysis. As has been already stated, case-study research does not preclude quantitative evidence. The appeal of mixed methods research design is, thus, the flexibility it lends to the researcher to pick out 'what works' for him.

4.5 Case selection

The case selection was purposeful but also guided by the need to study an outgrower scheme: 1) that was private sector driven; 2) that had a nucleus estate; and 3) a more contemporary scheme established at the time the current debates on the impacts of agricultural investment models had gained ground. The study site – Mazabuka District – was also purposively selected in that it was the only district in the country with smallholder outgrower farmers in sugarcane cultivation at the time this study commenced (Palerm et al., 2010). Again, the district is host to the largest private sector-owned sugar producing company – Zambia Sugar – owned by South African multinational agribusiness firm Illovo Sugar which became wholly owned by Associated British Foods since June 2016 (ABF, 2016). Zambia Sugar supplies more than 90 per cent of sugarcane produced in the country. The Magobbo smallholder sugarcane scheme was considered more appropriate for this study as it is a partnership between smallholders and a private company (with a nucleus estate) with no government involvement in its management and established during the expansion phase of Zambia Sugar as part of the EU's Accompanying Measures for Sugar Producing (AMSP) countries.

4.6 Research methods, sampling, data collection methods and analysis

4.6.1 Mixed methods strategy of inquiry

Sequencing of research methods matter when quantitative and qualitative research paradigms are used in combination in a single research (Bryman, 2006; Creswell, 2009; Lund, 2012). The current study applied the mixed methods sequentially following a three-phase design (Figure 3). (Johnson and Onwuegbuzie, 2004;

Tashakkori and Teddlie, 1998). This mixed method design is both sequential exploratory and sequential explanatory (Creswell, 2009). Thus, the design involved, firstly, qualitative data collection, followed by quantitative data collection and finally, further qualitative data collection. The first phase of data collection in 2013 was qualitative and exploratory in nature. Key issues and themes were identified with participants during this phase that were to be investigated further in later phases. The second phase in 2014 was a small-scale household quantitative survey used to collect numeric data on the issues under investigations. The third and final phase in 2015 involved qualitative data collection and analysis and served to further examine results from the quantitative phase in more detail through household life histories. Phase three was further used to map local economic linkages, as well as, filling any gaps left in phase one. The mixed methods design employed in this study is qualitative dominant as it gives more emphasis to qualitative data collection and analysis as underlined by capitalisation in Figure 3, and even by the fact that collection of qualitative data was done twice (phase one and phase three). Thus, the study is largely qualitative although the researcher believes it is important to include quantitative data and approaches that leads to richer data (Johnson, Onwuegbuzie and Turner, 2007). This mixed method design was preferred as it effectively answers the research questions posed in this study. Finally, this study integrates the findings of the three phases at the discussion stage.

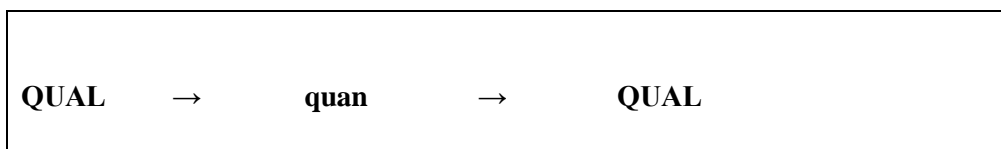


Figure 3: Three-phase sequential mixed methods design

Source: Modified from Johnson and Onwuegbuzie, 2004.

Note: “QUAL” represents qualitative, “QUAN” represents quantitative and “→” stands for sequential and capital letters denotes high weight.

4.6.2 Phase I qualitative: sampling and data collection methods

Phase one of this study was carried out between June and September 2013. In this phase, the researcher carried out in-depth qualitative studies on the origins, scale of operation, labour regimes, value-chains and wider politics of Magobbo sugar block farming outgrower scheme and Zambia Sugar (the nucleus estate and processing mill) that buys-off sugarcane produced by Magobbo scheme. In a way, the first phase was more or less exploratory, as well as, served to build rapport between the researcher and the research participants in the study area. This phase involved documentary review, key informant interviews, focus group discussions, and non-participant direct observations and taking photographs. These four methods formed part of Yin's six sources of evidence for case studies (Yin, 2003). The findings of phase one qualitative research aided in the development of the quantitative survey.

Documentary review

Documentary information was deemed relevant for this study. Apart from forming an important part of the study conception when identifying knowledge gaps to be filled by the study (Newing et al, 2011), review of relevant literature and documents is important as a method of gathering evidence that may be used for triangulating other sources of evidence and as background information about the organisations being studied (Yin, 2003). Relevant documents related to agricultural commercialisation in developing countries in general and those specific to outgrower schemes were reviewed. The researcher critically analysed documents including published and unpublished reports related to the establishment of the Magobbo sugarcane outgrower scheme (the case) such as feasibility studies and evaluation reports, documents of organisations managing the scheme (including the management service provider –

Nanga Farms Ltd, Mazabuka Sugarcane Growers Trust (MSCGT), the farmers' organisation- Magobbo Cane Growers Trust (MCGT) such as minutes of meetings and other written reports, constitutions, farmer registers, records of employment, records of land swapping and reallocation by the District Council etc. Newspaper articles and any other documents that were of interest were also reviewed. The researcher approached the various documentary materials with caution bearing in mind that they may not contain the whole truth as such documents were written for a different audience than the researcher and, therefore, were likely to contain some bias (Yin, 2003). To minimise this pitfall, the researcher subjected several documentary evidence such as the Magobbo scheme project proposal, scheme feasibility studies and scheme evaluation reports to critical discourse analysis (Fairclough, 1992). In this study critical discourse analysis is understood as “an explicitly critical approach...of studying texts...” (van Dijk, 1995: 17). This helped the researcher understand why smallholder livelihoods have been discursively framed in the manner they have in these documents.

Key informant interviews

Key informants are critical in gathering evidence in a case study. According to Bernard (2011: 150), “...key informants are people whom you can talk to ... easily, who understand the information you need, and who are glad to give it to you or get it for you.” Yin (2003: 90) also adds that key informants can suggest to the researcher sources of corroboratory or indeed contrary evidence. In this study, selection of key informants was based on purposive sampling also known as judgemental sampling. According to Bernard (2011: 145): “In purposive sampling you decide the purpose you want informants (or communities) to serve, and you go out to find some....You take

what you get.” Bernard (2011: 152) however, warns that informants are amenable to telling lies to researchers and, therefore, a researcher must exercise due care in choosing informants that are trustworthy and knowledgeable on the issue under investigation (i.e. “solid insiders”). He further cautions that: “When you have several prospects, check on [the informants’] roles and statuses in the community. Be sure that the key informants you select don’t prevent you from gaining access to other important informants (i.e. people who won’t talk to you when they find out you’re so-and-so’s friend)” (ibid: 152). The researcher was thus alive to this advice and carefully selected the key informants in order to minimise information bias. Miles and Huberman (1994: 27) further underscore that qualitative samples tend to be purposive rather than random.

With regards to the sample size, there is no agreed ideal number of key informants to be interviewed in qualitative research. Suffice to say that one may stop when there is little or no new information emerging from subsequent interviews that is of relevance to the researcher’s research questions, in other words, when you reach a point of saturation (Bernard, 2011: 154; Newing et al, 2011: 75). In the case of the present study, using an open ended interview guide (Appendix 1), the researcher conducted in-depth interviews with at least 14 key informants purposively selected from different categories of local people whom the researcher deemed had insight of livelihoods of smallholders in Magobbo before the initiation of the outgrower sugar scheme and after. The informants included people who had been involved in the local decision-making process regarding the initiation of the scheme, such as persons that participated in the community meetings. Other key informants deemed significant were selected from the district-level staff of the Ministry of Agriculture, Mazabuka Municipal Council,

Mazabuka Sugarcane Growers Trust (MSCGT), Magobbo Cane Growers Trust (MCGT), Magobbo Settlement Committee, Nanga Farms, Zambia Sugar, and other institutions that in one way or another had connections with the smallholder sugarcane outgrower scheme in the case study area.

With the permission of the informants, all but a few interviews were audio recorded. As Yin (2003: 92) observes, recording devices “certainly provide a more accurate rendition of any interview than any other method.” While recording interviews has this advantage of accuracy than any other method, it also has its own drawbacks. Firstly, if not done carefully, recording can distract the interview process. Secondly, recording interviews calls for transcription, a process that can be tiring as the researcher has to continue rewinding the conversations to get an accurate and complete verbatim record (Yin, 2003). In making the choice to audio-record the interviews, the researcher took due care to ensure the recording process did not distract the interview process and also dedicated enough time to transcribe the interviews. The researcher also took notes of the discussions. For the researcher, taking notes was not only precautionary in case the audio recorder malfunctioned, but was a strategy throughout the research process to record not only the interview but also note the context of the interview including the general atmosphere under which such interview was carried out. Recording non-verbal modes of communication such as gestures and facial expressions by the informant during the interview process can be more revealing about the issue under discussion. Except for a few, the researcher conducted the key informant interviews in English as this group of participants were fairly conversant with the language.

Focus group discussions (FGDs)

Focus group discussions (FGDs) have become popular as a qualitative method of obtaining information in case studies (Yin, 2003) and have become ‘...a valuable tool in the academic toolbox’ (Newing et al, 2011: 104) . It is a method that brings a group of interacting individuals having some common interest or characteristics who provide their input regarding a specific or focused issue. This helps obtain information on how groups of people think or feel about a particular topic. The advantage of a FGD is that it generates contrasting perspectives on an issue under discussion and participants are able to reveal the reasoning behind their opinions (Newing et al, 2011). In this study, FDGs with different categories of local people were conducted using a generic interview guide (Appendix 2). The groups included members of households that participated in the Magobbo sugarcane outgrower scheme, households that did not participate but were somehow affected by the presence of the scheme, and persons that were involved in the local decision-making process regarding the initiation of the scheme (see Figure 4). Seven focus groups were constituted to reflect a mix of views from different categories of participants based on gender, age and geographic location using purposive sampling. The focus groups were constituted as follows: two with a mixture of adult males and females, two with adult females only, one with adult males only and two with mixture of female and male youths across the five residential communities in the study area. The number of participants in each focus group discussion ranged from five to fifteen. The sampling method for participants in the focus group discussions was as much based on convenient sampling as it was on purposive. The researcher sought permission from the participants and audio recorded all the discussions while at the same time took notes for the reasons already advanced for the key informant interviews above. The researcher, being familiar with the local language of the study area, conducted all but one such discussions in Citonga language.

This notwithstanding, there is also a likelihood that certain meanings were lost in translation from Citonga to English. As Newing et al (2011: 209) underlines: “Translation is never an exact science because words and phrases in different languages do not map onto one another with absolute equivalence.”



Figure 4: FGDs with mixed groups of Magobbo community members

Source: Pictures by author

Direct observations/taking photographs

Non-participant direct observation was yet another important source of evidence in this study. Yin (2003) observes that direct observation in the field can range from formal to casual data collection activities and that direct observation of events offer an opportunity to take photographs at the case study site. According to Yin (ibid: 93),

photographs are important as they “...convey important case characteristics to outside observers.” The researcher made direct observations (both formal and informal) of some activities related to smallholder sugarcane outgrowing while taking photographs where appropriate. Direct observations and taking photographs as a method was used throughout all the three phases of this study.

4.6.3 Phase II quantitative: sampling and data collection

The quantitative side of this study involved a small-scale household survey which was conducted in Magobbo settlement in September 2014. As Murray (2001) notes, rural livelihoods are better understood through mixed methods, including small-scale sample surveys relating to a particular community. The main objective of the household survey was to collect numerical data to complement qualitative methods used in phase one of this study. Therefore, the quantitative data presented are not meant to make a claim to statistical representation. Nonetheless, findings of the study offer valuable insights that extend beyond this case study. The survey used a structured questionnaire (Appendix 3) administered to a sample of the population living within a five-kilometre radius from an identified centre point in the study area. The survey questionnaire included questions on household characteristics, employment, household agricultural production, outgrower contracting arrangements, livestock, housing and asset accumulation, incomes, expenditure and investment, remittances, crop production and marketing, food security, well-being, and perception of changes in the agrarian structure and the local economy over time. Interviews with respondents in the survey were conducted with the household head, and in a minority of cases, with a spouse in the absence of the head of household. Sampling for the survey was guided by certain requirements of a bigger Land and Agricultural Commercialisation in Africa

(LACA) Project, which this study was part of. The project was hosted at the Institute for Poverty, Land and Agrarian Studies (PLAAS) at University of the Western Cape. The LACA project, jointly funded by the Department for International Development (DFID, UK) and Economic and Social Research Council (ESRC, UK) under the programme: Institutional Arrangements in Land Deals in Africa: Local Impacts of Global Resource Scarcity, was aimed at investigating different institutional arrangements and associated business models for land and agricultural investments, and their respective impacts on livelihoods and resource utilisation, in three countries in Africa: Ghana, Kenya and Zambia.

Magobbo settlement is divided into five residential sections, namely, Canaan, Woodlands, Site and Service, Artisans and Kalonga, comprising a total of 289 households (Table 3). These residential areas constituted the study's focal area. The researcher obtained lists of households for each of the five sections of the settlement around the outgrower block from chairpersons of these sections. The lists served as sampling frames for each section. We drew a sample for the household survey by weighting the sample for each of the five communities proportionally to the total number of households in each of the five sections. Thus, using a sampling interval of roughly three households, a random sample size of 110 households was achieved.

Table 3: Household sample size for quantitative survey

Residential name	No. of households	No. of sampled Households
Site and Service	114	45
Artisans	60	20
Kalonga	57	20
Woodlands	32	13
Canaan	26	12
Total	289	110

Source: Survey data and author's computations.

While our survey questionnaire was administered to a sample of 110 respondents, it was also designed to also capture the demographic characteristics and socio-economic information about the respondent, as well as, other household members aged ten years and above. Therefore, the survey questionnaire in total captured socio-economic information on 470 members of the responding households. The rationale for including information about household members from the age of ten is that children by the age of ten in most rural areas were at work or economically active. Although the Employment of Young Persons and Children (Amendment) Act No. 10 of 2004 (GRZ, 2004b) prohibits a child under the age of 13 years from employment and allows a child between the ages of 13 and 15 to engage only in “light work”, children in Zambia are still highly involved in employment with approximately 96 per cent of the economically-active children in the age group 7-14 years of the total population working in agriculture (UCW, 2009).

In analysing the survey data, the study distinguished between households ‘involved’ in the Magobbo scheme as outgrowers, households directly employed by the scheme, and those households ‘not involved’ in the scheme at all as outgrowers or employees in the scheme but living in the locality (Table 4). This construction of the study’s sample formed the basis upon which data was analysed in order to discern the outgrower scheme’s impacts on livelihoods of scheme participants in Magobbo relative to the other two comparison groups. However, after initial running of frequencies and data analysis for the quantitative survey to check for any wrong entries or inconsistencies before the main analysis, the researcher discovered five questionnaires that could be described as ‘outlier cases’. These were respondent households that fell between two broad types. They were simultaneously outgrower

households and workers in the Magobbo scheme and the values emerging from these respondents distorted our comparative analysis between the three broad types mentioned above. These five questionnaires were thus removed from our analysis ultimately reducing our total sample size to 105 as indicated in table 4 below.

Table 4: Sample size

Description	Number of respondents
Involved in scheme as ‘outgrowers’	22
Employed in outgrower scheme	15
Not involved in sugar outgrowing or employment in scheme	68
Total	105

Source: Survey data and author’s computations.

The survey was carried out by a team of six enumerators identified locally in Magobbo settlement and recruited on part-time basis. The enumerators were identified from local residents who already had experience of conducting social research in the settlement and were therefore familiar with the local Citonga language and the context of the study area. Deliberate efforts were made to recruit both men and women to ensure that respondents not comfortable to be interviewed by persons of different gender would be interviewed by those of the same gender. Thus, enumerators comprised four men and two women. The enumerators were given a one day training to administer the survey. The training involved going through the entire questionnaire, section by section and question by question for all to understand the meaning and logic behind each question. The training also covered ethical issues such as how to introduce themselves to respondents as well as the purpose of the fieldwork, and the need to ensure adherence to the principle of confidentiality and the general respect for the respondents. Before the commencement of the survey, a reconnaissance of Magobbo

settlement was undertaken by the survey team to appreciate the settlement pattern around the outgrower block and to introduce the team and explain the project to either a secretary or chairperson of each of the five residential areas. In order to ensure quality, the researcher supervised the entire questionnaire administration exercise. The enumerators submitted completed questionnaires for each day and the researcher checked each questionnaire to ensure no incomplete questionnaires were submitted for data entry. Daily debriefs were held to check on the completeness and logic of data collected in each questionnaire for each previous day to ensure data quality problems were reported back to the enumerators and quickly corrected before the next day's data collection.

4.6.4 Phase III qualitative: sampling and data collection

Phase three conducted in July 2015 comprised qualitative methods in particular, life histories of different categories of participating outgrower smallholder households and non-participating households. The idea of this phase was largely to explain the patterns identified in the quantitative survey conducted in phase two of data collection, as well as, filling-up any gaps in the qualitative research conducted in phase one. Phase three also used participatory mapping techniques (see Figure 5) to identify the forms and extent of possible local economic linkages resulting from the implementation of outgrower scheme under study.

Life history interviews, in the literature variously referred to as, "life history methods/approaches/techniques," "biographical interviews," and "narrative research," are a method in qualitative research. Janesick (2013:151), however, sees these as

distinct approaches that share certain characteristics with each possessing “a unique flavour and set of goals and meaning.” What these approaches have in common is “the end result of capturing the lived experience of an individual or a collective of individuals by telling stories.” Watson and Watson-Franke (1985: 2) defined life history as “any retrospective account by the individual of his [or her] life in whole or part, in written or oral form, *that has been elicited or prompted by another person*” (italics his). In this study, life history approach, therefore, becomes a useful research tool for examining the lived experiences of smallholder households in Magobbo. We used life histories to gain an understanding of the situation of a household and its members in greater detail: their lives, work, education and experiences. Life history interviews enable the researcher to identify livelihood patterns of particular households. Topics for life history interviews in this study included: biographical details; family background – parents, children and other dependants; community setting; everyday life – household environment, domestic routines, household economy; work and migration etc. Thus, separate interviews were conducted within each respective household with the head of household and their spouses, male and female children aged at least ten years and above where these were found. Each household member told their own story based on their lived experiences. These interviews were cardinal in helping locate our analysis in the context of longer historical shifts in livelihood strategies of particular households in Magobbo settlement, and to explore intra-household relations and dynamics with a particular focus on gender and intergenerational perspectives. Households that participated in the life history interviews were categorised¹⁸ into rich, middle and poor households, and included those involved in the sugar outgrower scheme as outgrowers, employed

¹⁸ A wealth ranking exercise was conducted with some key informants who were familiar with households in the Magobbo community.

in the scheme, as well as, those not involved in any way with the outgrower scheme. Based on this stratification, nine households were purposively sampled in the study area and a total of 23 interviews within these households were achieved using an interview guide (Appendix 4). We did not aim at quantity but depth of data from informants. As Abu Bakar and Abdullah (2008: 4) observes: “In life history approach, large samples are unnecessary and maybe even inappropriate. Adequacy is dependent not upon quantity but upon the richness of the data and the nature of the aspect of life being investigated.” As was the case with key informant interviews and focused group discussions in phase one of fieldwork, the researcher sought permission from the participants and audio-recorded all the discussions while at the same time took notes.

Identifying and mapping possible local economic linkages arising from the Magobbo outgrower scheme in the study area was an imperative for this study. Not only does such mapping help identify the forms of linkages but also who benefits from them. Thus, participatory mapping exercises (Figure 5) were conducted with some local residents to identify these linkages if any.



Figure 5: Participatory mapping of local economic linkages in Magobbo

Source: Picture by author

4.7 Data analysis and interpretation

This study followed a three-phase sequential mixed methods research design collecting both qualitative and quantitative data at three different times during the study. The study, therefore, employed both qualitative and quantitative methods of data analysis. Data analysis was essentially an iterative process following the three phases of fieldwork conducted. According to Yin (2003: 109) “[d]ata analysis consists of examining, categorising, tabulating, testing, or otherwise recombining both quantitative and qualitative evidence to address the initial propositions of the study.”

In this section we present first methods of qualitative data analysis followed by methods of quantitative data analysis.

Unlike quantitative data that has clear conventions for analysis, analysing qualitative data can be a daunting task. There is sheer variety and diversity in approaches to analysis of qualitative data such that there is no single correct way or fixed formulas to conduct qualitative data analysis (Yin, 2003). Merriam (1988) cautioned that while

such diversity was valuable, it was important to maintain scholarly rigour and discipline. In this study, the researcher is inspired by Miles and Huberman's framework for qualitative data analysis that starts with data reduction through to drawing and verifying conclusions (Miles and Huberman, 1994: 12). As this study is in effect process research, qualitative data analysis is also informed by the concept of 'process tracing' (Langely, 1999). According to Langely (1999: 692) process research helps us understand "how things evolve over time and why they evolve in this way ... and process data therefore consists largely of stories about what happened and who did what when – this is, events, activities, and choices ordered over time." Following Langely (1999), this study used the narrative strategy for sense-making, identification of events and categories, and process description (Langely, 1999; Pettigrew, 1997).

As qualitative data from key informant interviews, focus group discussions and life histories were audio-recorded, the researcher invested lots of time and effort to systematically listen and then transcribe these interviews verbatim. Fully aware of the availability of several computer assisted software for qualitative data analysis, in the case of the present study the researcher opted to analyse qualitative data manually bearing in mind that it is not the computer but the researcher who does the actual analysis in the final place (Merriam, 1988: 203). The researcher transcribed data from different sets of interviews, manually analysed the data using content analysis and then categorised or coded under relevant themes. This process is underlined by Miles and Huberman (1994: 91) who point out that "...you begin with a text, trying out coding categories on it, then moving to identify themes and trends, and then testing hunches and findings, aiming first to delineate the deep structure." According to Merriam (1988: 175), coding is central to qualitative data analysis because it is directed at

discovering patterns in the data. Coding for this study was done at two levels, firstly the basic level, known as ‘descriptive coding’ allowing the researcher to summarise segments of the data but without making any inference on the data at all. The second higher level coding used in the study is known as ‘pattern coding’ which allows for making inferences (Miles and Huberman, 1994). These qualitative data analysis approaches assisted in data reduction and understanding of the Magobbo outgrower scheme block farming scheme, its process of development, its key components and its outcomes.

After collecting all questionnaires in the quantitative survey, quantitative data was cleaned firstly manually and secondly through running of frequencies to check for any wrong entries or inconsistencies before the analysis. Quantitative data analysis involved largely descriptive statistics giving frequency distributions of important variables of the study. These data are represented in tabular form and graphs. The Statistical Package for the Social Sciences (SPSS) Version 16.0 was the software used for the quantitative data analysis.

4.8 Entering the field, ethical concerns and other challenges

Entering the field is one of the most challenging tasks when doing fieldwork. In particular, who to talk to first and the timing matters for how smooth the whole endeavour would be. At the time of doing fieldwork for this study, a damning international Non-Governmental Organisation (NGO) research report¹⁹ had just been released a few months earlier about the alleged tax avoidance operations of Zambia

¹⁹ The NGO report: ActionAid (2013) Sweet nothings: the human cost of a British sugar giant avoiding taxes in southern Africa.

Sugar in Mazabuka. Everyone therefore was suspicious about any stranger inquiring on anything related to Zambia Sugar. As already pointed out earlier, this study was conducted in three phases. The introductory visit was the first phase in 2013. The researcher's first point of call in Mazabuka was the Office of the District Commissioner. In Zambia, District Commissioners wield enormous political power and once you get to explain your mission well with this office most obstacles can be cleared for you. Hence, the researcher explained the purpose of the study. Once cleared by the District Commissioner, the researcher next called on the District Council Office for further introductions and interviews. The first two offices referred the researcher to the District Agricultural Coordinator (DACO)'s Office that would give more information on the Magobbo outgrower scheme and who to talk to in the Magobbo community. It was at the DACO's Office that we were assigned an officer to take us around to the various local-level institutions and individuals for us to connect with the local community. Again, at the time of this fieldwork, it happened that there were 'issues' with the institution that was managing the outgrower scheme under study – the Magobbo Cane Growers Trust (MCGT). Therefore, there was again suspicion by the MCGT executive committee that we were either auditors or from the police inquiring into whatever 'issues' that had beset the Trust. It took about three days to get audience with the MCGT executive committee. After careful introduction that the researcher was an independent researcher from University of Zambia, the executive committee felt more comfortable and opened-up for discussions. Apparently, as a researcher, the was caught-up in the 'real politique' of sugar and the community in the area at the time. The researcher got the impression of a divided community over the very issues that were subject of this study. This meant that the researcher had to open his eyes wide and to be careful with the information he was getting from the various

informants. Thus, from the outset, triangulation as a method of research became all the more important to the study.

The study followed standard ethical considerations including adhering to confidentiality and seeking informed consent of the research participants. While the researcher explained carefully the purpose of the study, some participants were wary about signing consent forms. In such cases, only verbal consent was obtained instead of written consent. During the research process, interviewees and informants were informed verbally that their participation was voluntary and that they were at liberty to withdraw at any time from the research process. Participants were assured of anonymity in the study as their names would not appear in the study report (thesis). Thus, no individual respondent for this study is identified by name. All names used in the quoted verbatim text in this thesis are therefore pseudo names. As the researcher had to use audio recorders for most of the qualitative interviews and even take photographs of places, people and other items of interest, permission was sought from the participants and explanation given that the recorded interview and photographs would strictly be used for the stated research purpose only.

Building rapport with respondents in the study area was cardinal for the study. The researcher maintained the links established with some community members during phase one fieldwork and followed through with those links in phase two and phase three of fieldwork conducted in September 2014 and July 2015 respectively. From phase one through to phase three of the study, the researcher worked with and was in constant touch with two key informants through telephone conversations.

Perhaps the major ethical issue that arose during fieldwork was expectations from some participants about the outcomes of the study. Particularly where a researcher had to sample, whether purposively or randomly, some community members felt left out because their households were 'bypassed'. Generally, some community members expected some tangible personal benefits coming out of the study. This situation was made worse by the apparent 'fatigue' by the community in answering research questions time and again from different groups of researchers. How to explain to the 'bypassed' and the 'fatigued', presented some dilemmas to the researcher more especially where one had to go to the same community again and again following the three phases of the study. As with any other interpretive research, this study was also amenable to informant bias. In fact, some authors do warn that not only can informants have biased views (Yin, 2003), but can also outrightly lie to the researcher (Bernard, 2011: 125). Not oblivious to this fact, the researcher in this study ensured that informants were carefully chosen to balance between those who held cynical views about Magobbo outgrowers scheme as well as those who seemed to have been content with it. Although this strategy could not totally eliminate informant bias, it helped to minimise it.

4.9 Chapter summary

This chapter has presented the methodology used in the study. The chapter has highlighted the research strategy and gave specific details on its design. The chapter details information in case selection and its justification and outlined the actual research methods, sampling methods and data collection tools used in the study. The

chapter further elaborated the methods of data analysis and interpretation used in the study while also pinpointing some ethical concerns and other challenges met in the field.

CHAPTER 5: DESCRIPTION OF THE STUDY AREA

5.1 Chapter introduction

In order to appreciate an understanding of smallholder rural livelihoods in relation to agrarian change in the study area, this chapter presents an introduction to Southern Province and Mazabuka District in terms of historical processes of land and agricultural development. The chapter discusses a history of settlement schemes development in the area and the place of Magobbo (Lubombo Settlement) community. It highlights the social and economic development of the province, district and Magobbo community and introduces a discussion on livelihoods in Magobbo community.

5.2 Southern Province and Mazabuka District – an agricultural based region

Southern Province is one out of Zambia's ten provinces, and is considered largely rural with a line of rail passing through the centre of the province. According to the 2010 national census, the total population of Southern Province in 2010 was 1, 589, 926, which constituted 12 per cent of Zambia's total population (GRZ/CSO, 2012a; GRZ/CSO, n.d). The population growth rate is 2.8 per cent which equals the national average (GRZ/CSO, 2012a; GRZ/CSO, 2012b). The majority of this population (1,197,751) accounting for 75.6 per cent of the inhabitants of Southern Province resided in rural areas in 2010. The province had a total of 292,179 households of which 71,573 were female-headed. The average household size in the province is 5.4, slightly larger than the national average of 5.2 (GRZ/CSO, 2012b).

Average poverty levels in Southern Province in 2010 were around 67.9 per cent, with extreme poverty standing at 47.3 per cent (GRZ/CSO, 2012c: 184) and these figures are higher than the national average that stood at 60.5 per cent for poverty and 42.3 per cent for extreme poverty respectively, during the same year (GRZ/CSO, 2012a: 2). The dominant ethnic group is Tonga who are believed to have inhabited their present area for between three and four centuries now (Anthony and Uchendu, 1972: 220) but there has been considerable immigration by other ethnic groups as a result of the opportunities for employment offered by the sugar industry and other enterprises (Fynn, 2008).

Southern Province is a major agricultural region in Zambia, and contains some of the most fertile agricultural land in the country, along with the plateaus of Eastern and Central Provinces. The province is divided into two distinct parts, the Tonga Plateau and the Gwembe Valley (also known as the Zambezi Valley). The Valley lies in agro-ecological region I that typically receives the least rainfall of between 500 and 700 mm of rainfall per annum unsuitable for most forms of dryland farming. The area is suitable for the drought-resistant crops such as sorghum and bulrush millet. The Tonga Plateau, on the other hand, lies largely in agro ecological region II that receives between 800 and 1,000 mm of rainfall per annum (Scott and Mufwambi, 2004).

There were 10 districts in Southern Province as at 2010 (see Figure 6) although these have since increased to 14 at the time of conducting fieldwork for this study²⁰.

²⁰ There has been no official maps showing some of the new districts at the time of the study.

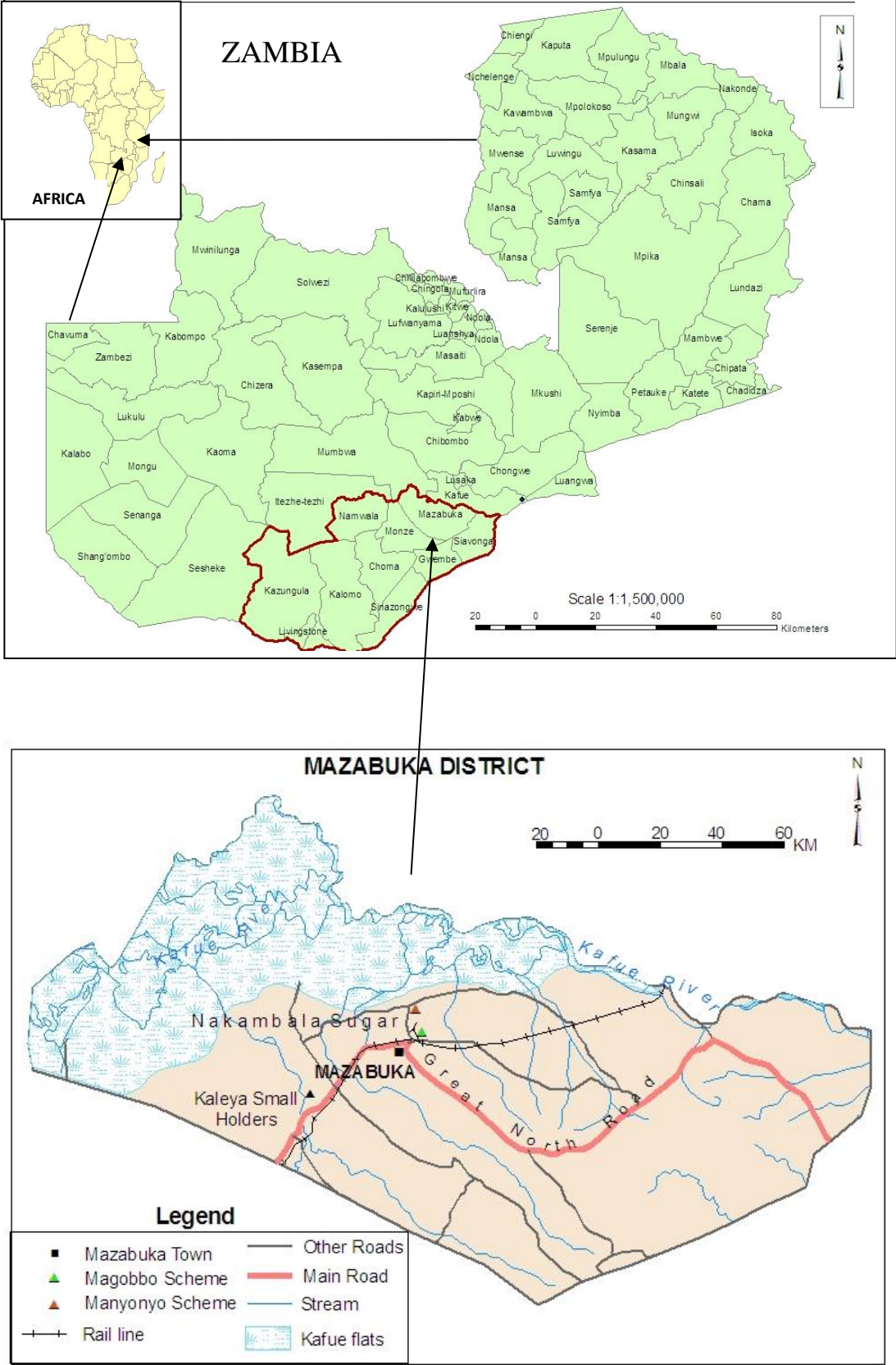


Figure 6: Map of Zambia showing Mazabuka district and Magobbo scheme in Southern Province

Source: Map generated by Cartographic Office GES, UNZA

Mazabuka District had the third highest population share in the province with 230,972 out of a total provincial population of 1,589,926 representing 14.5 per cent (GRZ/CSO, 2012a; GRZ/CSO, n.d). About 75.6 per cent of the district population reside in rural areas. Mazabuka District had the least annual rate of population growth of 1.3 per cent per annum (GRZ/CSO, n.d). The district has a total of 43,411 households (GRZ/CSO, 2012b). Mazabuka District currently has three Constituencies and 22 wards of which two are urban with the rest being rural (GRZ/CSO, 2012b). In terms of local governance status, Mazabuka District has developed from a rural council in the late 1950s to a municipal council in 1996. The status of municipal council is in fact credited to the increase in population due to expanding sugar industry through Zambia Sugar (MMC, 2005).

Situated in the north-eastern part of the Province, Mazabuka District shares its boundaries with Chikankata and Monze Districts, and Kafue River in the north. The latitudinal and longitudinal position of Mazabuka District is 29⁰ and 27⁰ East and 15⁰ and 17⁰ South respectively (Mazabuka Municipal Council, 2011). The district is situated in the Tonga Plateau in agro-ecological region II described above. It lies in high savanna area, 3, 000 to 4, 000 feet above sea level (Anthony and Uchendu, 1970). In the north and north-western direction, the district extends to the Kafue River and the flood plain, which historically, provided valuable dry season grazing for cattle. The climate of Mazabuka is typical of the Central African Plateau with three distinct seasons; a dry cool season lasting from mid-April to mid-August, a hot dry season lasting from mid-August to October, and a hot rainy season lasting from mid-November to early April (Mazabuka Municipal Council, 2005). Mazabuka is endowed

with a variety of soil types that are largely clayey. The soils generally range from good arable and irrigable land to poorly drained land with marginal irrigable status (ibid).

Leasehold tenure and customary tenure are the two land tenure systems functional in Mazabuka District. Prior to 2012, the district had a total land mass of approximately 6, 687 square kilometres.²¹ Of this, 4,510 square kilometres (451, 000 ha) was customary land while 1,930 square kilometres (193,000 ha) was state land. Total cultivated agricultural land was, approximately 290,000 ha (Mazabuka Municipal Council, n.d). Large areas in the district were heavily sought by the white settler farmers since occupation by the British South African Company (BSAC) and later the British Colonial Office (Vickery, 1986). During the colonial period thus, substantial amounts of land were alienated for white settler farmers who came to Southern Province after the construction of Rhodesian Railway (Anthony and Uchendu, 1972; Vickery, 1986). This is the land that was known as crown land. An estimated 60,000 Africans were moved from both sides of the line of rail to give way to settler farming (Lukanty and Wood, 1990: 6-8). Land pressures were greatest in Southern Province, particularly in Mazabuka that became the premier European farming centre of the Tonga Plateau, and of Northern Rhodesia between 1910 and 1915 (Vickery, 1986; Watts, 1992). The Tonga were evicted from some blocks of land on both sides of the line of rail into reserves, but no more than 40 miles from it (Anthony and Uchendu, 1972: 223). In a number of cases, some land allocated to European settlers by the BSAC had to be released back to the indigenous people to mitigate the shortage (Vickery, 1986).

²¹ In the last quarter of 2012 a new Patriotic Front (PF) Government took the reins of power and commenced the creation of new districts in the country. A new district – Chikankata – was created by taking some land out of Mazabuka and Siavonga districts. The exact size of land excised out of Mazabuka district was still not clear at the time of this study.

Mazabuka District has remained an area of heavy land contestation by the indigenous Tonga both during the BSAC/colonial times and post-independence era. Feelings about overcrowding in some parts of Southern Province run high resulting in the appointment by President Kenneth Kaunda of a commission of inquiry into land matters in the Province in 1982 (Vickery, 1986). The Commission of Inquiry observed that 40 per cent of Mazabuka District that also happened to be the best agricultural part of the district was alienated to a few private individuals and companies (GRZ, 1985: 31). The expansion of large-scale private estates is not always greeted positively at the local level. In fact, local communities in Mazabuka, concerned about the acute shortage of land for subsistence farming, had objected to further sugarcane cultivation beyond the limits of Nakambala Sugar Estates established in 1966. Local communities in Mazabuka District opposed the establishment of the first-ever smallholder sugarcane outgrower scheme – KASCOL - that began operations in 1981 (Kalyalya, 1988). Concerns about expansion by private estates, through a variety of mechanisms including block farming schemes, continue today.

Historically, Mazabuka District has been an area of agricultural innovation with the native Tonga people having accepted the use of an ox-drawn plough and other ox-drawn implements early on, as well as, acceptance and adoption of the green revolution farming techniques in form of hybrid seed, fertilizer and insecticides (Anthony and Uchendu, 1970: 217). In fact, it is documented that the first ox-drawn plough in Zambia (then Northern Rhodesia) was sold to an African farmer in Mazabuka in 1914 (ibid: 223). The district has also been an area of a colonial government agricultural improvement programme – the African Improved Farming Scheme – established in 1947. The African Improved Farming Scheme provided African farmers with an

economic incentive in form of a higher price for their maize produce when they adopted agronomic practices including fallows, contour ridging, reasonable standards of cultivation and weed control (ibid: 226). The district is most suitable for maize (corn) cultivation which is the principal crop grown by small-scale farmers and also supports crops like groundnut, soy bean, cotton, tobacco and under irrigation conditions the region is suitable for production of wheat, sugarcane and a wide range of horticultural products. The Tonga are also traditionally cattle owners and access to the grazing areas of the Kafue flats made it possible for them to maintain relatively large cattle populations (ibid). Cattle have always been of great importance among the Tonga in cultural terms, as a status symbol and as a key resource for a secure livelihood.

In the last few decades, however, the rainfall distribution pattern has been unpredictable, often times resulting in extreme weather events of both flooding and drought. The area is vulnerable to flooding since it is a flat land with close proximity to the Kafue River basin. This is one of the reasons why some smallholder farmers and other stakeholders around the area were keen that the landholders move away from dryland farming and venture into irrigable sugarcane cultivation when the opportunity presented itself through Zambia Sugar's expansion programme and the AMSP (Fynn, 2008).

Most of the land on which Zambia Sugar was developed for cultivation of sugarcane was originally alienated to white settler farmers, but subsequently taken over by the government and converted to state (leasehold) land following independence (Chenoweth et al., 1995). Some accounts reveal that in fact parts of the land had been

inhabited or encroached by some ‘squatters’ who were displaced with the initial establishment of the estate by the British firm Tate and Lyle in 1966, and, as the Tonga people were serious pastoralists, the development of the sugar estate prevented the movement of cattle across to the flood plain (Richardson, 2010). Richardson (ibid) citing WWF (2005) further states that the damming of the Kafue River resulting from the need to increase the capacity to generate hydro-electric power, and to maximise water for sugar irrigation by Zambia sugar also led to mass displacement of about 300,000 local inhabitants who relied on the Kafue flood plain for their livelihood activities including hunting, fishing, pastoralism and crop cultivation as they had to relocate to other areas. This displacement happened when Zambia Sugar was a state operated parastatal company.

5.3 Magobbo community

Magobbo community is located in Lubombo Settlement that is registered as Farm No. 125 (a) in Lubombo ward and Lubombo Agricultural Block in Mazabuka Central Constituency with a 99 year lease from government. The farm is largely leasehold land that was compulsorily taken over by government following independence and turned into a resettlement scheme for Zambian citizens (Chenoweth et al., 1995). It was initially owned by the Susman Brothers who acquired it during the BSAC occupation and used it for ranching activities. The land was later turned into a cooperative, first owned by Nanga Rural Development Cooperative and later owned by Magobbo Lubombo Cooperative (MCGT, 2007). The land was finally established as an Individual Farm Unit Settlement Scheme²² to provide settler members with individual plots for growing crops, as well as, with communal livestock grazing areas (Himonga

²² Individual Farm Unit Settlement Schemes are governed by statutory tenure and settlers are given leasehold title to their individual plots of land.

and Munachonga, 1991). Settlement schemes and other agricultural production schemes were meant to enhance the participation of small scale farmers in commercialisation of their production by giving smallholders land with leasehold title (ibid).

Lubombo Settlement Farm No. 125 (a) had approximately 1,800 ha of land that included both crop farming and communal grazing land. There were about 73 households and a total population of approximately 900 people, including extended family dependants in 2006 before the implementation of the smallholder sugar block farming scheme (Fynn, 2008; Whydah Consulting, 2011). The settlers comprised of small scale farmers, retired employees and other indigenous people. According to the baseline study conducted for the Magobbo outgrower scheme, the mean household size was 10 (ZHECT, 2010), larger than the provincial average that stood at 5.4 (GRZ/CSO, 2012b). Smallholder households held between 4 and 32 ha of land each and were engaged in rain-fed farming and pastoralism (Fynn, 2008). Most smallholders in the settlement were in possession of 14-year leasehold titles while others had ‘offer’ letters²³ before the Magobbo scheme was initiated. Land ownership in the settlement was largely dominated by men with women gaining ownership largely through inheritance after death of a husband or a father.

Before the introduction of the Magobbo sugar outgrower scheme most of the residents in Magobbo community were generally characterised as poor small scale farmers dependent on rain-fed agriculture as their main source of livelihood with maize as the

²³ ‘Offer letters’ are given to an individual by the local authority as a show of ownership to a given piece of land before formal title is applied for.

principal crop grown both as a staple and cash crop (Fynn, 2008; ZHECT, 2010). Poverty levels among the smallholders (as defined by the United Nations poverty line of less than 2\$/day) were approximated at 73 per cent of the population in Magobbo (ibid: 11), higher than the provincial level in 2010 that stood at around 67.9 per cent (GRZ/CSO, 2012c: 184). A number of households owned small herds of cattle with a few owning quite large herds. Tilling of land is done by draught power, but also manually by those without cattle and animal-drawn ploughs (Fynn, 2008; ZHECT, 2010). Farmers generally lacked farming inputs such as hybrid seed and fertilizer. Some farmers are members of cooperatives and access little quantities of government subsidised fertilizers and maize seed through the Farmer Input Support Programme (FISP). A few farmers also grew cotton under an outgrower scheme by Dunavant Cotton (Fynn, 2008). Farming by smallholders was, however, severely constrained by low skills, inadequate rainfall and/or floods, and limited access to production technology, inputs, credit, markets and opportunities for wealth creation.

During the study period there were five residential communities in the settlement (referred to as Sections throughout this study), namely, Canaan, Woodlands, Site and Service, Artisans and Kalonga, comprising a total of 289 households (see Figure 7). Most households in Canaan, Woodlands and Artisans were involved in the Magobbo sugar scheme while Site and Service situated in the central part of the settlement was designated by the Mazabuka Municipal Council as a more consolidated business area for trading and other services. By far the largest in terms of household numbers, Site and Service Section is inhabited largely by extended family members from households participating in the sugar scheme. These dependants moved because they were no longer considered part of the 'nuclear families' as land from which they previously

depended on for their livelihoods was converted from largely subsistence production to growing sugarcane – a commercial crop. This residential section is well serviced with electricity grid passing through it. A number of households own grocery shops, hammer mills and petty trading is common. Few households in Site and Service Section were also participants in the Magobbo sugar scheme. Kalonga Section was not part of the outgrower scheme but a few households gained entry into the scheme through swapping land with those whose land was inside the scheme designated area but owned land beyond the scheme maximum allowable limit of 6 ha per household.

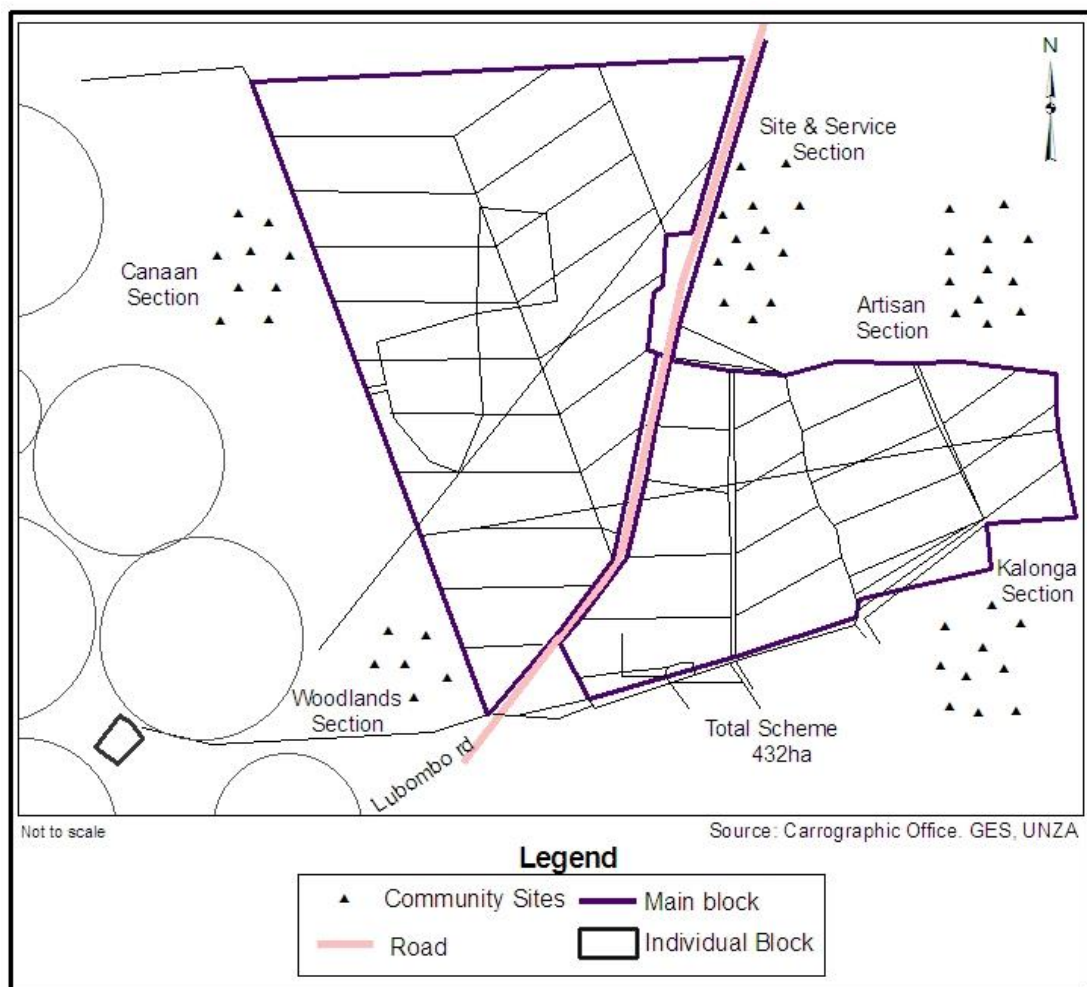


Figure 7: Map of Magobbo block farm highlighting community sites

Source: Map generated by Cartographic Office GES, UNZA

With regards to social infrastructure, there were no health facilities in Magobbo and the residents have to access such facilities afar at Nanga Farms or the neighbouring Lubombo community that takes over an hour's walk from the community (ZHECT, 2010). There is a Basic school – Magobbo Basic School – with Grades one to nine. Pupils have to access high school facilities outside the settlement.

5.5 Chapter summary

This chapter introduced the study area and chronicled the historical processes of land and agricultural development in Southern Province and Mazabuka District and Magobbo community. The chapter also presented the social and economic activities of the region.

CHAPTER 6: RESEARCH FINDINGS AND DISCUSSION

6.1 Introduction

This chapter provides the empirical findings and a discussion of the findings in relation to the objectives of the study namely: to examine the nature of institutional arrangements of the Magobbo scheme; to determine whether and/or how the Magobbo block farming outgrower scheme has improved livelihoods of participating smallholder outgrowers and surrounding communities; and to analyse the social consequences arising from the implementation of the scheme. This chapter begins by characterising the institutional arrangements of the Magobbo scheme. This is followed by sections describing and analysing the demographic characteristics of households sampled for the quantitative survey; livelihood activities and resources in the study area; livelihood outcomes on household access and ownership of agricultural land in the study area; income, expenditure patterns, asset ownership and household well-being; household food security; employment and labour; local economic linkages; and social impacts of the outgrower scheme.

6.2 Nature of the institutional arrangements of the outgrower scheme under study

Outgrower schemes embrace a wide variety of institutional arrangements, and diverse forms of contract (Bijman, 2008; Singh, 2002). Eaton et al., (2007: 1) citing (Kydd and Dorward, 2004; Williamson, 2000; and North, 1990) characterises institutional arrangements as including, inter alia, governance structures, formalised agreements and contractual arrangements between specific actors. These different institutional arrangements present different possibilities vis-à-vis livelihood outcomes for participating smallholders. Thus, interrogating the institutional arrangements of the

Magobbo outgrower scheme under study could lead to the development of informed policies to improve the design of smallholder outgrower schemes that enhance livelihoods of the participating smallholders. This section, in line with the first specific objective of the study, therefore, examines the institutional arrangements in the Magobbo sugarcane outgrower scheme. The section highlights the history of the evolution of the scheme, its operational design and institutional structure and the roles played by various stakeholders from the conception to the scheme's operationalisation. Additionally, the section presents details of land and water access by smallholders in the scheme, as well as, the division of proceeds from the sugar revenues. In order to understand dynamics in these institutional arrangements fully, we employ political economy questions of '*who owns what (or who has access to what?)*', '*who does what?*', and '*who gets what?*' from the extended livelihoods framework (Scoones, 2015). The framework confers some flexibility in its application and calls for innovation by the user and thus these questions can be asked and applied at different levels, including individual, household, village, region, nation, global and even at institutional level (Bernstein, Crow and Johnson, 1992; Scoones, 1998; 2015).

6.2.1 History of evolution of the Magobbo scheme

This study focuses on the Magobbo smallholder sugarcane growing scheme (referred to as the Magobbo scheme throughout this study) in Mazabuka District in southern Zambia. The scheme is an outgrower farming partnership between Zambia Sugar Plc (referred to as Zambia Sugar throughout this study) and the Magobbo community involving the cultivation of sugarcane under irrigation. The scheme is located at Lubombo Settlement near the edge of the Kafue flats about 12.5 kilometres north-east

of Zambia Sugar's processing mill. The scheme comprises a contiguous block of 433 hectares of land with approximately 100 smallholders registered as members.

Consultations for the establishment of the scheme commenced in 2005 between a group of the Magobbo community and Zambia Sugar when the former put in a request to the company following its expansion programme (Whydah Consulting, 2011). Having taken over the sugar company from Tate and Lyle in 2001, the Illovo group embarked on an expansion programme in 2007. The expansion involved increasing the area under cultivation and doubling the crushing capacity of the company's sugar mill to produce 450, 000 tonnes of processed sugar (Lusaka Times, 2008).²⁴ Area expansion was to be achieved by increasing cultivation of the company's own land nucleus estate (and acquisition of the Nanga Farms from Zambeef), as well as, expanding through commercial growers. Zambia Sugar invited white community farmers in the Mazabuka region close to its Nakambala estates to venture into sugarcane. The local Magobbo community struggling with dryland farming at the time, saw an opportunity for inclusion in Zambia Sugar's expansion plans in the area. A condition by Zambia Sugar was for the prospective outgrowers to register themselves into a legally recognised entity, and hence, the establishment of the Magobbo Cane Growers Trust (MCGT) in 2007. The Magobbo Cane Growers Trust (MCGT) (referred to as the Magobbo Trust throughout this study) with the assistance of the Mazabuka Sugarcane Growers Trust (MSCGT) (referred to as the Mazabuka Trust throughout this study) jointly submitted the application for funding to the EU.

²⁴ Lusaka Times, 19 February, 2008, 'Government happy with Zambia Sugar Company'. <http://www.lusakatimes.com/2008/02/gov-happy-with-zambia-sugar-company/>

Preparatory scheme activities commenced in 2007 with land surveys, demarcation, land reallocation to prospective outgrowers and land swapping processes with financial support from the Mazabuka Trust before the EU AMSP funding. Although the scheme spans many years of negotiations among different parties, it was officially launched in 2008 in close association with funding made available under the European Union's AMSP programme. The scheme was awarded by the EU a grant of €3,020,000 representing 60 per cent of total project costs estimated at €5 million. The grant also covered the costs of land preparation, roads, and irrigation infrastructure (Landell Mills, 2012). €1.5 million of funding representing 30 per cent of the cost towards actualising the Magobbo scheme (to be repaid over a period of 40 years) came from a commercial bank concessional loan, later transferred to and held by Zambia Sugar, ostensibly to minimize interest payment.²⁵ This was used as the Magobbo Trust's contribution (connection fee) to the new main irrigation canal - the East Kaleya Canal – constructed by Zambia Sugar for its own expansion that brought water to the Magobbo scheme, as well as eight other large-scale commercial sugar growers in the neighbourhood.²⁶ In addition, the Mazabuka Trust provided a total of €500,000 low interest loan as project own contribution towards initial scheme development costs that was necessary to secure a commercial loan from a bank. This loan was used for a feasibility study, and soil survey, sinking of two boreholes, resettlement of smallholders who were to vacate their homes to give way for a contiguous block of land for growing sugarcane, as well as for advance payments for subsistence to households to cover the period during which farmers had no income from their land since switching to growing sugarcane (Fynn, 2008).

²⁵ Interview, Zambia Sugar official, Mazabuka, 30th July 2013.

²⁶ Interview, Nanga Farms official, Mazabuka, 8 September 2013.

Upon agreeing to switch from traditional subsistence farming to sugarcane in a block farming arrangement, the prospective smallholders were asked to sign a commitment memorandum to growing sugarcane and relocation away from the development area (see sample of commitment memorandum: Box 1). Applying a critical discourse analysis to the said commitment form to grow sugarcane by smallholder farmers in the Magobbo scheme, the contents are symptomatic of an unequal power relationship between the smallholders and the contracting firm – Zambia Sugar. While the smallholders seem to have entered into the contracts voluntarily, they exhibited a lack of knowledge that the ‘clauses’ or wording in the commitment form were heavily weighted against them, even committing them to debt with their little understanding. By signing this commitment form, the smallholders committed themselves to altering their cropping patterns making them overly dependent on a single contract crop – sugarcane – with no exit option. With the contracting firm – Zambia Sugar – exercising monopsony as it controls all sugarcane production processes and exerts great market power, the smallholders have become overly dependent on the firm and run the risk of accepting less favourable contract terms in future. The smallholders have, thus, been trapped into a vicious circle in which they have to continue growing sugarcane for Zambia Sugar for many years to come in order to repay debts contracted through scheme development loans. The commitment form further exonerates other parties from blame in case of any eventuality such as collapse of the outgrower scheme or fall of the price of the contract crop on the world commodity market. This clearly leaves the smallholder farmer more vulnerable to risks.

Box: 1: Commitment form to grow sugarcane by smallholders

COMMITMENT FORM OF MAGOBBO FARMERS TO SUGARCANE GROWING

I am a farmer in Magobbo area and legal owner of the plot given below. On a part of my land I am going to grow Sugarcane in the next coming years. Because I am changing a part of my fields into Sugarcane growing I understand that current practices will change around and have an effect on my livelihood. I have not been growing Sugarcane before and I know that I therefore have to invest in this new business in the first few years. This includes the building of a water canal and the rebuilding of property of some farmers who are located in the Sugarcane scheme area and therefore have to move. This means that I have to get a loan with the bank or another institution. I understand that if the Sugarcane growing scheme develops well it will even take some years before I see my investments back and start making a profit.

I understand the consequences of sugarcane growing, such as the influences of world market prices, not having the same income for the next few years as I have now and maybe have to move to a new area. I am going to undertake sugarcane growing because I want to and see it as a good investment for the future. I will hold no one but myself responsible for changing current practices around.

Name:

NRC Number:

Date of Birth:

Plot Number:

Date:

Signature:

Handed by:

Position:

Source: Mazabuka Municipal Council

While the population was scattered widely across the settlement before commencement of the sugar scheme, beginning December 2009 into second quarter of 2010, 64 households were relocated away from the development area, their houses demolished and resettled in three newly designated residential communities adjacent

to the block farm²⁷ to make way for a contiguous sugar block. The Mazabuka Trust advanced a loan to the Magobbo Trust in the sum of ZMK 492, 200, 000 (approximately USD \$100, 000) with five per cent interest per annum to help affected households build alternative houses in the newly designated residential sections (MSCGT, 2009). According to discussions²⁸ with the Magobbo Trust committee members, it was agreed by all stakeholders that the loan for resettlement would be paid back by all sugarcane outgrowers regardless of whether they were relocated or not. The collective repayment by all farmers was in recognition that the relocation exercise gave the opportunity for the implementation of the sugar scheme to which all would benefit. According to key informants, each outgrower had to pay back the same amounts regardless of the size of their landholding in the scheme. This arrangement meant that those with relatively smaller plot sizes in the scheme were subsidizing those with larger plots who were already getting much higher incomes from sugar from their land.

6.2.2 Magobbo scheme institutional structure

There are several parties to the development and management of Magobbo sugarcane scheme. Major stakeholders are Zambia Sugar; the Mazabuka Trust; the Magobbo Management Company (MMCO); the smallholder outgrowers organised as the Magobbo Trust; and Nanga Farms Ltd - the management service provider. Other parties are the Magobbo Settlement Committee and Mazabuka Municipal Council. The institutional relationship is illustrated in Figure 8.

²⁷ Focus Group Discussion, Magobbo Trust Executive Committee, 21 June 2013.

²⁸ Ibid.

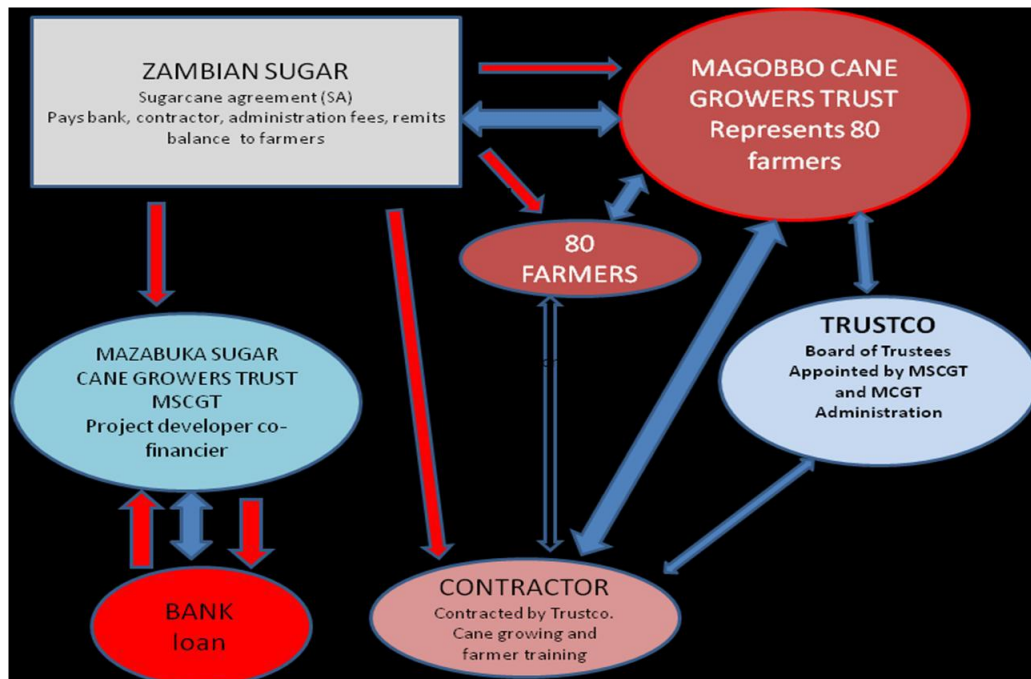


Figure 8: Institutional structure and roles of entities involved in the Magobbo scheme

Source: Whydah Consulting Limited, 2011

Zambia Sugar, which operates its own nucleus estate – the Nakambala Estate- and a sugar mill allocates an annual Cane Supply Agreement (CSA) to the Magobbo Trust. It was one of the conditions of the EU’s sugar reform accompanying measures that a cane buying agreement be in place before it grants 60 per cent of the Magobbo scheme development costs. The CSA²⁹ lists responsibilities by each party. Under the agreement, thus, Zambia Sugar allocates a sugarcane quota and has the right to purchase, process and market all the sugarcane by the Magobbo scheme produced under that quota (Fynn, 2008). Zambia Sugar has the responsibility to remit loan repayments and capital repayments to the commercial bank from the crop proceeds. In addition, the company remits operating costs and management fees to the management

²⁹ Efforts to get sight of a copy of the Cane Supply Agreement from Zambia Sugar/Nanga Farms or Magobbo Trust during the study proved futile.

service provider – Nanga Farms. Furthermore it remits an administration fee to Magobbo Trust and the balance of the proceeds, net of withholding tax, is paid to registered smallholder outgrowers as monthly dividends.

The Magobbo Trust is a local membership organisation in which all participating smallholders are registered. It represents farming and business interests of farmers in the scheme. The main aim of the Magobbo scheme as indicated in the Trust's Constitution is “...to empower...the Magobbo cane Growers Trust members in order to alleviate poverty in the community...by contributing to the growing of sugarcane” (MCGT, 2007: 5). The Trust has an executive committee comprising ten members elected by the membership for a period of four years (MCGT, 2007). The executive committee has the responsibility of day-to-day administration of the affairs of the Trust including social welfare and dispute resolution among its members. The Trust signed a five-year renewable³⁰ Management Service Agreement in 2011³¹ with Nanga Farms to undertake all aspects of cane farming operations. All services provided by the management service provider are deducted from the sugarcane proceeds from the Scheme block farm. The Trust has ten per cent representation on the Magobbo Management Company Board. It receives administration fees from Zambia Sugar as a levy on sugarcane proceeds.

The Mazabuka Trust is a non-profit making organisation created by Zambia Sugar in 2005 by the donation of Zambia Sugar's 25 per cent shareholding in KASCOL. It was established with the mandate to promote and facilitate the development of

³⁰ The Management Services Agreement is renewable by mutual consent between the parties.

³¹ Personal communication, Nanga Farms official, Mazabuka, 27 February 2015.

sugarcane growing and related activities by Zambian small and medium outgrowers in the Mazabuka region. The Mazabuka Trust took on an important role as a developer and co-financier of the Magobbo scheme. It assisted the Magobbo Trust in making applications both to Zambia Sugar and the EU for the establishment of the Magobbo scheme and co-funded it with 10 per cent of the initial development costs that were so cardinal as self-financing in order to receive both the 60 per cent EU grant of the total development costs of the venture, as well as, the 30 per cent balance of the costs through a bank loan.

Magobbo Management Company (MMCO)/TRUSTCO was incorporated to provide management, administration and operational oversight to Magobbo Trust. Both the Magobbo Trust and Mazabuka Trust are major stakeholders in the Magobbo Management Company and are represented on the Board of Directors. The Mazabuka Trust has a controlling interest in the company through its 90 per cent holding. It is an interim organisation to be deregistered once bank loans contracted for the scheme have been repaid and provided the Magobbo Trust has developed capacity to take over the management of the scheme unaided. For the most part, the Magobbo Trust has been providing the functions of MMCO as the company has never been properly operationalised.³²

Contractor/Nanga Farms Limited was appointed the management service provider for the Magobbo scheme by the MMCO. It is responsible for all aspects of cane farming operations in the Magobbo scheme and provides training to Magobbo farmers and undertakes to make Magobbo area a priority labour pool for the scheme block

³² Personal communication, Nanga Farms official, 27 February 2015.

farm. A five-year Management Service Agreement between the Magobbo Trust and Nanga Farms was signed in 2011 which defines the relationship between the two parties and this was at the behest of the bank providing a commercial loan to the scheme to ensure professional management of the scheme so that the loan could be recovered.

The Magobbo Settlement Committee, is elected from members of Magobbo Trust and are basically volunteers who work in collaboration with the Magobbo Trust on social development issues. This includes planning on the expenditure of sugarcane proceeds derived from the 20.7 ha of communal land known as ‘buffer zone’ owned by the Magobbo Trust within the sugarcane block farm. Mazabuka Municipal Council is responsible for land reallocation and registration of land offers to Magobbo farmers.

The state has no direct role within the scheme but played a facilitative role in the establishment of the scheme by signing an enabling memorandum of understanding (MoU) with the EU, the agency that provided substantial grant funding to the scheme under AMSP.

The Magobbo scheme institutional structure epitomises an unequal power relationship between the smallholders and Zambia Sugar. Zambia Sugar that owns the sole sugar mill in the area has exerted enormous control of the whole outgrower venture with the smallholders via the Mazabuka Trust. As has been pointed out already, the Mazabuka Trust, established ostensibly to help the development of small outgrowers in the Mazabuka region is a creation of Zambia Sugar through its donation of 25 per cent shares in KASCOL. The 90 per cent controlling interest by the Mazabuka Trust on the

Magobbo Management Company Board and the leverage it has by virtue of it having provided ‘co-financing’ of the scheme and appointment of Nanga Farms, a subsidiary of Zambia Sugar to provide all agronomic and management services to the scheme means that the Magobbo Trust members are only nominal owners of the scheme and have less room for manoeuvre. As a senior manager at Nanga Farms plainly put it in an interview:

If the [institutional] structure wasn’t like this then you would have people [Magobbo farmers] making decisions about things they know nothing about yet. Imagine what is happening now; they wanted to do their own [sugarcane] haulage and invest in the capital for this before they paid off their loans; they are not geared to manage at this point.³³

6.2.3 Magobbo block farming scheme design

The Magobbo scheme was modelled on ‘block farming’ but quite distinct from the KASCOL model and Manyonyo model described in Section 2.4.1. This entailed the pooling of individual smallholder-owned plots of land of between 4 and 6 hectares each into a larger contiguous block farm to create economies of scale in agricultural production (see Figure 9). Therefore, in order to create a contiguous block, community members residing in the sugar project area were displaced and relocated to new residential areas on the fringes of the scheme block. Within the many organisational authorities charged with establishing the outgrower scheme, a decision was made that all the prospective sugarcane outgrowers surrender their individual ownership to their

³³ Interview, Nanga Farms official, Mazabuka, 8 September 2013.

land, held either in the form of council ‘offer letters,’ from the Mazabuka Municipal Council or leasehold titles issued by the Ministry of Lands. Smallholder farmers, thus, surrendered their individual original ‘offer letters’ or leasehold titles and offered new ‘offer letters’ recognising plot ownership and specifying the new plot sizes dedicated to growing sugarcane within a contiguous block. The block was to be registered on a single ‘block title’ under the Magobbo Cane Growers Trust (MCGT) an institution established by the smallholders.³⁴ At the time of doing fieldwork for this study, the ‘block title’ was still under registration in the name of the Magobbo Trust at the Ministry of Lands.



Figure 9: Map of Magobbo outgrower scheme block

Source: Google earth

³⁴ Focus Group Discussion, Magobbo Trust Executive Committee, 21st June 2013.

This block farming model affects the land rights of the farming households as it has introduced substantial changes to the property rights regime of the existing agricultural landholdings in the area. Stakeholders interviewed expressed ignorance as to who proposed this land ownership structure but according to key informants, it was employed in this context to keep all the participating smallholders bound together to ensure that the loans advanced for scheme development were collectively repaid. Several focus group discussions held with smallholders and key informants pointed to the fact that individual smallholders cannot opt out of the 'block title,' until the loans contracted for the development of the scheme were paid back. The 'block farming' model at Magobbo is a variant of a model preferred by investors in the oil palm and sugar sectors (Vermeulen and Goad, 2006; Li, 2011; Molenaar et al., 2013; Smalley, Sulle and Malale, 2014; James and Woodhouse, 2017; Dubb, Scoones and Woodhouse, 2017), in which the nucleus estate or a management service provider takes control of land management and marketing of the crop, while land owners become shareholders. It has become popular in the sugar sector in southern and eastern Africa promoted by the EU under AMSP funding as a way of expanding land area for sugar estates, as well as accessing water (James and Woodhouse, 2016; Dubb, Scoones and Woodhouse, 2017; Smalley, Sulle and Malale, 2014). By involving landholders as shareholders in the sugar block farming schemes, the social objectives of supporting smallholders can be met, and donor funds accessed to support infrastructural development and expansion of sugar production (Dubb, Scoones and Woodhouse, 2017).

In the block farming arrangement at Magobbo, smallholders play no role at all in farm management, as their land is leased to the management service provider under a

management contract. Nanga Farms Ltd, a subsidiary of Zambia Sugar and in close proximity to Magobbo settlement was contracted as the management service provider. This block farming model in effect alienates a smallholder from the production processes in contract farming. These institutional arrangements blurs the distinction between contract farming and estate agriculture. Zambia Sugar argues that the block farming arrangement made it possible to invest in capital equipment; undertake joint services such as levelling of land and provision of irrigation canals; manage inputs such as fertiliser and chemicals; as well as organise labour, harvesting and haulage collectively. The rationale presented by Zambia Sugar, and supported by the EU, was that this was the way to assure economic viability through high productivity and efficiency, and so maximise returns (Fynn, 2008). As Li (2011) notes: “The planters’ rationale [for block farming] is efficiency: they argue that smallholders cannot be relied upon to apply fertiliser at the recommended rate, or to manage their holdings in a uniform and ‘professional’ manner.” ‘Professional management’ is one of the principles under which the EU’s sugar reform accompanying measures may be applied (cf. Fynn, 2008: 9; Whydah Consulting, 2011: 5). Thus, while it was envisioned to involve smallholders in the operations of the Magobbo scheme from the start, Zambia Sugar went ahead to plant the first crop (between August and December 2010) without the farmers’ involvement in order to satisfy investors (Whydah Consulting, 2011: 11). Based on this business and management thinking from large estates, the features of block farming in contract farming largely ignore the role of smallholders, and push a particular construction of ‘viability’ to the exclusion of others (Cousins and Scoones, 2010). The block farming arrangement, therefore, effectively extends the nucleus estate and a form of centralised management. At the local level, the block farming-cum-shareholder arrangement is favoured by some non-resident ‘absentee farmers’

with employment and/or business in nearby Mazabuka Town and further afield, who inserted themselves into the sugar scheme by purchasing land during the early stages of establishing the scheme.

The Magobbo sugarcane outgrower block farming arrangement is, however, a work in progress as the original design preferred by the EU was for each farmer to be involved in actual cultivation of his/her own sugarcane plot.³⁵ The lack of technical knowledge in sugarcane management by the smallholders and the alleged variability in soil quality in the block farm necessitated collective farming by a contracted service provider for the short to medium term until the smallholders had received enough technical skills and more homogeneity in soil quality achieved, thereafter, each farmer would have to manage their own fields (Whydah Consulting, 2011). It is estimated that 15 – 20 hectares are affected by salinization and would affect yields and income for some smallholders who would be allocated that land.³⁶ The option for farmers to work each one's own sugarcane plot, however, presents some challenges in as far as equitable farm plot allocation is concerned. This would call for the splitting up of the area through construction of small access roads to individual plots, an exercise that would diminish plot sizes as more land currently under cultivation would be taken by roads and would not be in the best interest of most farmers.³⁷ Moreover, interviews revealed that while individual smallholders have a specified number of hectares in the block farm, they did not know where their plots were located physically, and so, one cannot make a claim to a specific physical place within the scheme block. Variability of soil quality in the scheme block farm has also complicated matters as some areas were

³⁵ Key informant interview, Nanga Farms, Mazabuka, 9th August 2013.

³⁶ Memorandum, Nanga Farms official, 5th March 2015.

³⁷ Key informant interview, Magobbo Trust, Mazabuka, 8th August 2013.

unproductive and could hardly grow any sugar in the first few years of the scheme.³⁸ Therefore, splitting up the farm into specified individual plots would create discord among some groups and would threaten the sustainability of the scheme. In view of these challenges, the Magobbo Trust has opted to continue with the current model of farming the entire block collectively.³⁹ There is, however, some discussions among the farmers and other stakeholders that the Magobbo Trust could take over management functions from the current service provider if and when enough capacity is built. The first five-year Management Service Agreement between the Magobbo Trust and Nanga Farms expired in April 2016 and a new bridging agreement was signed between the parties for a further two years as the Magobbo Trust had not yet garnered enough capacity to take over the management functions. According to a key informant, most of the participating sugarcane smallholder outgrowers still lacked capacity due to low levels of education and were yet to master the necessary sugarcane agronomic skills for them to manage their own sugarcane fields. He emphasised thus:

We have requested two years more from the service provider Nanga; we are not yet ready to do it on our own. For example, we can't know how much fertiliser to apply; replanting of cane; harvesting time; hiring cane cutters, etc. 90 per cent of people (outgrower participants) are not exposed; they need to understand quality of cane before harvesting. Lack of education has been a problem to take over. Not all people came for training programmes!⁴⁰

³⁸ Memorandum, Nanga Farms official, 27th February 2015.

³⁹ Key informant interview (by telephone), former executive committee member, Magobbo Trust, Mazabuka, 18 May 2017.

⁴⁰ Key informant interview (by telephone), former executive committee member, Magobbo Trust, Mazabuka, 18 May 2017.

Consequently, the Magobbo Trust has in the interim hired RMI Outgrower Development, a Swaziland-based small company specialising in helping communities to uplift their economic circumstances through engaging in commercial agriculture to assist them in formulating and achieving a new vision; “to Grow and Graduate”: in particular to fully take over ownership, management of their business and operation of their outgrower farm block.⁴¹

6.2.4 Access to and size of sugarcane plots

As noted in Chapter 5, individual household farm sizes before the Magobbo scheme was established ranged from 4 to 32 ha for which they had either ‘offer letters’ from Mazabuka Municipal Council or 14 year leasehold from the Ministry of Lands. However, scheme promoters set four to six ha as lower and upper limit respectively, for each household to hold in the scheme. Based on the experience of the first-ever smallholder sugar outgrower scheme in Zambia – KASCOL and CDC projects in other countries such as Swaziland, they advised that not only would the lower plot size limit of four hectares of sugarcane give reasonable returns to sustain a family, but would also be manageable by a smallholder.⁴² Since most plot sizes were larger than the prescribed four to six hectares per household, the EU required that farmers holding land larger than the prescribed upper limit swap with other farmers living within Magobbo settlement but whose farm plots were outside the catchment area identified for sugarcane cultivation to ensure a more equitable participation in growing sugarcane by the community in the settlement. The EU-AMSP programme was intended to be

⁴¹ Personal communication, official, RMI Outgrower Development, Swaziland, 3 October 2016; Key informant interview (by telephone), former executive committee member, Magobbo Trust, Mazabuka, 18 May 2017.

⁴² Interview with sugar industry official, Mazabuka, 30 July 2013.

used to facilitate poor smallholder farmers' entry into sugarcane production with a condition that development opportunities were equitably spread across the community (Whydah Consulting, 2011). Indeed, one of the specific objectives of the project that developed the Magobbo scheme underlines thus: "Develop smallholder outgrowers in the cultivation of sugarcane in an economically viable, *equitable* and sustainable way in the Magobbo block in the Mazabuka District (emphasis mine)" (Whydah Consulting, 2011: 8). Swapping, it was reasoned, would also enable farmers to own landholdings within the sugarcane catchment area and outside as well from which they could grow other crops, particularly food crops, and keep livestock.

Farmer inclusion in the scheme was based on an individual's pre-existing ownership of land in the prime area falling within 15 – 32 kilometre radius from the Zambia Sugar processing mill in which the company was interested to cultivate sugarcane under its expansion programme. The political economy question of '*who owns what (or has access to what)*' (Scoones, 2015) is appropriate here. The criterion for inclusion of smallholders to the scheme, however, was not strictly adhered to, as some people from outside Magobbo community, often elites from nearby Mazabuka Town who had prior information about the outgrower scheme, connections and finance, gained access to the sugar plots. Thus, while the EU-AMSP programme was intended to be used to facilitate poor smallholders' entry into sugarcane production in Magobbo, outsiders that were not farmers at all also gained access, excluding local smallholders. From the foregoing, and in line with livelihoods approaches (Scoones, 2015; 2009; and de Haan, 2012), it is clear that politics and power have been at play in mediating access to land resources at the Magobbo sugar outgrower scheme. Thus, livelihood activities at the Magobbo outgrower scheme cannot be said to be neutral as they have engendered a

process of exclusion and inclusion (de Haan, 2012; Scoones, 2009). Politics of access to sugar plots in Magobbo have elicited social consequences that have negatively affected peoples' livelihoods (see Section 6.10).

6.2.5 Access to irrigation water

Irrigated sugarcane uses substantial amounts of water. The crop requires an estimated 36,000 litres per hectare in a 12 months period, which is four times the water required to grow maize over the same time period (Wetlands International, 2008, 33). Since sugarcane is treated as a priority crop by the Zambian Government, it gets preferential access to fresh water for irrigation. Irrigation water for Zambia Sugar and its outgrower schemes is drawn from the Kafue River. Crowned as the largest agricultural operation in Zambia following its expansion programme launched in 2007 (Richardson, 2010; UNCTAD, 2011), Zambia Sugar's water usage is substantial. Planting of sugarcane is done once every five years and harvest takes nine months starting in April until December each year. From January to March it is off crop season as there is no harvesting taking place. At present the Water Board of the Department of Water Affairs has granted water rights on the Kafue River as follows: Zambia Sugar - 1, 246,428 m³/day and its combined out grower schemes 575,540 m³/day (Palerm et al., 2010). According to an informant closely associated with the sugar industry, one hectare of sugarcane would require an estimated 13,000 cubic metres of water annually depending on soil type and type of irrigation employed. Irrigation with centre pivots was considered more water efficient than furrow, but the Magobbo scheme uses the latter, meaning using slightly more water. In essence, all these water rights combined have been granted to Zambia Sugar since all the sugarcane produced by the outgrowers is supplied exclusively to the Zambia Sugar Mill.



Figure 10: Employees irrigating cane fields at Magobbo scheme

Source: Picture by author

The engineering design of the Magobbo scheme allows the delivery of 400 litres of water per second sufficient for irrigating 438 hectares (Fynn, 2008). As is with the case of access to land, access to water for crop production is cardinal. Thus, the political economy question of *'who owns what (or has access to what)?'* (Scoones, 2015) is appropriate here. Access to irrigation water by the Magobbo scheme is governed by a water agreement between Zambia Sugar and the Magobbo Trust. While water rights for the scheme have been granted to Magobbo Trust by the Water Board of the Department of Water Affairs, these rights are controlled by Zambia Sugar that owns the main supply line. Water use is strictly applied to sugarcane growing within the scheme block farm and is closely monitored by Zambia Sugar to ensure no other crops are grown (see Figure 10 above). Growing of vegetables within the residential plots adjacent to the scheme block farm using overflow water from the overnight holding irrigation dam is, however, tolerated (see Figure 11). Thus, the control of irrigation

water by Zambia Sugar gives the company control over what crops outgrowers can cultivate (Fynn, 2008), and, in the event of an alternative market for sugarcane developing in the area, side-selling would be forestalled, as water supply to the outgrower block farm could easily be cut off.⁴³

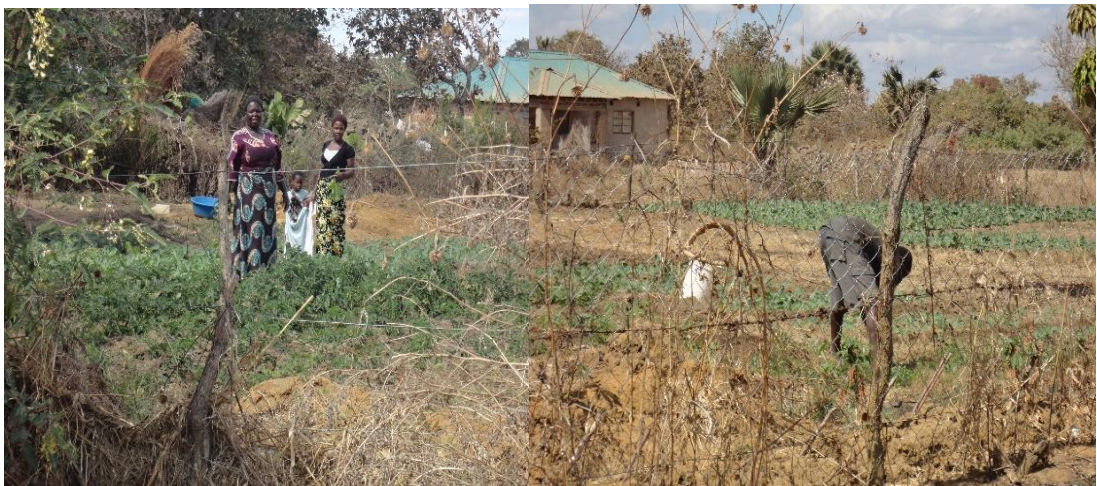


Figure 11: Homestead vegetable gardens irrigated by overflow water

Photos: by author

The Magobbo Trust pays user rights fees for access to irrigation water from the East Kaleya Canal – the main supply line (Fynn, 2008; Whydah Consulting, 2011).

⁴³ Interview, sugar industry official, Mazabuka, 16th July 2015.

Therefore, while theoretically the Magobbo outgrowers have been granted water rights by the Water Board of the Department of Water Affairs, in practice these rights are unsecure as they have no control over them. In the event of shortage of irrigation water, there is a greater likelihood that Zambia Sugar would restrict water to the scheme block which could affect sugarcane yields and consequently, reduce incomes of outgrowers. This kind of conflict has already been reported by smallholders at the neighbouring KASCOL smallholder scheme (Schupbach, 2014).

It is, also, intriguing to note the Mazabuka Trust contracted a €1.5 million loan on behalf of the Magobbo Trust ostensibly as a ‘connection fee’ to the main irrigation canal, yet this was a disguised funding of the cost of construction of the East Kaleya Canal, a project which Zambia Sugar had embarked on as part of its expansion programme to provide water to its own fields and those of other commercial growers in its vicinity.⁴⁴ Zambia Sugar anticipated that the cost of the East Kaleya Canal would be covered by the EU grant (Fynn, 2008) but that was somewhat conveniently passed on as a loan to the Magobbo Trust by the company through the Mazabuka Trust. While such a substantial debt was contracted on behalf of the Magobbo farmers, the irrigation asset remains the property of Zambia Sugar for which the Magobbo Trust will only have a space in the canal by virtue of its rights to draw water from the Kafue River after the loan is paid-off.⁴⁵

⁴⁴ Interview, Nanga Farms official, Mazabuka, 30th July, 2013.

⁴⁵ Interview, Nanga Farms official, Mazabuka, 9th August, 2013.

6.2.6 Division of proceeds

As it has been said already, the relationship between Zambia Sugar and the Magobbo Trust is governed by the Cane Supply Agreement (CSA). The Cane Growers Association of Mazabuka (CGAM), an informal organisation (to which all different units of sugarcane outgrowers around the Zambia Sugar mill area are members) is responsible for negotiating the terms of the agreement (including setting the sugarcane quota, pricing arrangements, cane delivery administration, Mill laboratory auditing, and negotiations on the length of the milling season on behalf of all growers). The agreement is indefinite but subject to review every three years. Under the agreement, the sugarcane outgrowers are granted supply quotas that obliges the outgrowers to exclusively supply Zambia Sugar over the contract duration. The sugarcane price is determined by the Estimated Recoverable Crystal (ERC) Committee, a local-level arrangement with representation of major sugar stakeholders in Mazabuka District including Zambia Sugar, the Cane Growers Association of Mazabuka (CGAM) and large-scale commercial outgrowers, and all the smallholder outgrower schemes. The ERC Committee based at Zambia Sugar superintends over the Direct Analysis of Cane (DAC) Laboratory that determines the quality of sugarcane that is delivered to the Zambia Sugar mill on a daily basis. Price per tonne varies depending on the levels of sucrose (a crystalline compound found in sugarcane extracted as ordinary sugar) in the harvested cane. Sucrose price is based on the Estimated Recoverable Crystal (ERC) and shared proceeds derived from the sale of sugar through a fixed revenue sharing formula known as Division of Proceeds (DoP). Zambia Sugar and the sugarcane growers meet annually at the commencement of the harvest period in April to set the sugarcane price. Sharing of proceeds between Zambia Sugar and smallholder outgrowers is not clear. The political economy question in the extended livelihoods

framework of *'who gets what'*? (Scoones, 2015) is, thus, appropriate here. This question relates to how equitable the benefit-sharing mechanism in the Magobbo scheme is in practice between Zambia Sugar and the smallholder outgrowers. Interviews with both Zambia Sugar and the Magobbo Trust representing smallholders revealed only that there was a formula used but without exactly stating how the formula shared the benefits between the parties. One report, however, reportedly that smallholder outgrowers receive 59.1 per cent of net divisible proceeds, with the rest going to Zambia Sugar (Corporate Citizenship, 2014). Interviews with smallholders bemoaned the lack of transparency on how their sugar incomes were calculated and accused their representative – the Magobbo Trust – of corruption and collusion with Zambia Sugar on determining their sugar incomes (see Sub-section 6.5.1 and Table 16 below). The smallholder outgrowers are paid a dividend in form of a salary based on the number of hectares each holds in the scheme and in relation to tonnage of cane supplied to the Zambia Sugar mill for each particular month, as well as the quantity of sucrose obtained from the harvested sugarcane. However, during interviews, the Magobbo Trust Executive Committee considered the price of sugar as fair and transparent, as they are represented on the ERC Committee. They alleged that the interests of the smallholder outgrowers coincides with those of large-scale commercial growers as far as sugarcane price determination is concerned and attributed their members' difficulties in understanding the formula for the division of proceeds to their low levels of education and literacy. After deductions for loan repayments, management fees and withholding tax, the balance is distributed to each smallholder according to the number of hectares each holds in the scheme. That money is remitted in form of a monthly salary/dividend directly by Zambia Sugar to the smallholders' individual bank accounts.

6.3 Livelihood activities and resources in Magobbo

6.3.1 Demographic characteristics of households sampled for the quantitative survey

The majority of the household heads for the sample were male (65 per cent) while women constituted 35 per cent (Table 5). Employed in scheme households and outgrower participating households had the greatest proportion of male heads (80 per cent and 77 per cent respectively). The mean household size and age for the respondents in our sample were 7.0 and 43, respectively.

Table 5: Demographic characteristics of respondents in different household groups

Characteristic	Outgrower participants		Employed in scheme		Non-participants		Total	
	N	%	N	%	N	%	N	%
Number of respondents interviewed								
Male	17	77.0	12	80.0	39	57.0	68	65.0
Female	5	23.0	3	20.0	29	43.0	37	35.0
Total	22	100.0	15	100.0	68	100.0	105	100.0
Mean age of household head	56		30		41		43	
Mean household size	7		7		6		7.04	
Respondent's education status								
No formal schooling	3	14.0	0	0.0	7	10.0	10	9.5
Primary (Grade 1-7)	11	50.0	6	40.0	32	47.0	49	46.7
Secondary (Grade 8-12)	6	27.0	9	60.0	27	40.0	42	40.0
Tertiary education (University/college)	2	9.0	0	0.0	2	3.0	4	3.8

Source: Survey data and author's computations

There is no significant difference in the mean household size between the different groups of households. However, the mean household size in the study sample is larger than the provincial and national averages that stand at 5.4 (GRZ/CSO, 2012b) and 5.1 (GRZ/CSO, 2012c) respectively, suggesting, therefore, that the household size was

large in the study area. Heads of outgrower scheme participating households were older, with a mean age of 56 years, compared to the non-participating households with mean age of 41 years. A noticeable feature of the mean age in the sample is the youthfulness of the respondents in the households employed in the scheme (30 years).

With regards to education status of household heads, close to 10 per cent of the heads of household had no formal schooling. Close to half (46.7 per cent) had attained primary education only (i.e. grades 1 – 7) while 40 per cent had reached secondary school (i.e. grades 8 – 12). Only 3.8 per cent of the household heads had reached tertiary level of education. A noticeable feature on level of education is that those from the outgrower participating households had the least proportion of household heads with post-primary schooling (36 per cent) compared to 60 per cent and 43 per cent for the households employed in the scheme and the non-participating households respectively. This implies that education was not the criterion for selecting participants in the outgrower scheme.

6.3.2 Income generating activities

A number of reports indicate that the residents in Magobbo community were generally poor small scale farmers dependent on rain-fed agriculture as their main source of livelihood (Fynn, 2008; ZHECT, 2010). In our survey, we asked respondents what were the households' main sources of income, including all economically active members aged ten years and above. As Table 6 reveals, about half of the (50.3 per cent) of respondents in the survey sample cited employment in the commercial farms/estates as their main source of income (see section 6.8 below for a detailed analysis of employment in Magobbo). Close to one third (35 per cent) mentioned

agricultural production as the principal source of income. The rest were spread across different non-farm income generating activities. This result corroborate findings of other studies that in rural households in sub-Saharan Africa and South Asia, farming activities were becoming less significant to the total livelihood package (Reardon, 1997; Ellis and Biggs, 2001).

Table 6: Distribution of income generating activities in Magobbo (n = 141)⁴⁶

Activity	No.	%
Employment in commercial farm/estate	71	50.3
Agriculture production	49	35
Retail/vending/wholesaling	5	3.5
Personal care services (e.g. hair care, child care etc.)	5	3.5
Educational skills/training services	2	1.4
Construction/building/maintenance	2	1.4
Mechanical services	1	0.7
Transport services	1	0.7
Manufacturing	1	0.7
Other	4	2.8
Total	141	100

Source: Survey data and author's computations

Although agricultural production emerged the second main source of income, it formed an important part of livelihoods activities for the community members in Magobbo. Thus, to understand the dynamics of this activity, respondents in our survey sample and informants in the household life history interviews, focus group discussions and key informant interviews were asked to state the main crops they produced for sale in the past 12 months prior to the survey in order of relative importance (Table 7).

⁴⁶ This number includes those members in responding households aged 10 years and above who are economically active.

Table 7: Crops grown for sale by households

1 st most important crop grown by household for sale						
Crop grown	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Sugarcane	16	84.2	-	-	-	-
Maize	3	15.8	1	33.3	21	75.0
Vegetables	-	-	1	33.3	3	10.7
Groundnuts	-	-			2	7.1
Sweet potatoes	-	-	-	-	1	3.6
Other grains	-	-	1	33.3	1	3.6
Total	19	100.0	3	100.0	28	100.0
2 nd most important crop grown by household for sale						
Crop grown	No.	%	No.	%	No.	%
Groundnuts	3	50.0	-	-	8	47.0
Vegetables	2	33.3	1	100.0	4	23.5
Sweet potatoes	1	16.7			1	6
Maize	-	-	-	-	-	-
Other	-	-	-	-	4	23.5
Total	6	100.0	1	100.0	17	100.0

Source: Survey data and author's computations

As can be seen from Table 7, the first and main crop grown for sale by the outgrower participating households is sugarcane (84 per cent) followed by maize at 15.8 per cent. Sugarcane is the only crop grown in the outgrower scheme block. On the other hand, for non-participating households, 75 per cent grew maize as a cash crop. The survey also shows that a few outgrower participating households (16 per cent) grew maize as

their main cash crop grown on land held outside the sugar farming scheme block. All the three comparator groups listed groundnuts, vegetables and sweet potatoes as their second most important cash crops.

6.4 Household access to and ownership of agricultural land

In developing countries, large numbers of the poor live in farming households (DFID, 2002). Access to land and security of tenure is, therefore, critical to the composition of rural livelihoods, as well as, reduction of vulnerability for these households that depend on agriculture for a living (Deininger, 2003; World Bank, 2002). In Zambia, agriculture is the main source of livelihood for most rural households (GRZ, 2006b). Secure access to land and other common property resources is, thus, critical for livelihood making for many rural smallholder households in the country. In order to assess the differential outcomes of the Magobbo outgrower scheme in relation to ownership and/or access to land and guided by our political economy question of '*who owns what (or has access to what)?*' in Scoones's extended livelihoods framework (Scoones, 2015), our survey asked the respondents in the three different groups of households in the sample whether they had access to land and the size of land they owned, cultivated and the mode of accessing the land. This comparison helped to understand how and/or whether the Magobbo smallholder outgrower scheme has had any positive or negative impacts on the different groups of households and within households in terms of access to land. Qualitative methods were also applied to determine gender and generational differences with regards to land access and/or ownership in the study area.

According to the nation-wide representative smallholder Rural Agricultural Livelihood Survey (RALIS)⁴⁷ (CSO/MAL/IAPRI, 2015), an overwhelming majority (98 per cent) of the rural households in Zambia have access to land. Furthermore, almost the same proportion do cultivate their land and own an average land size of 3.5 hectares. At district level where the outgrower scheme is located in Mazabuka, 100 per cent of households both accessed and cultivated their land and the average land size was 3.2 hectares (ibid). According to the survey results (Table 8), 91 per cent of the respondents in households participating in the outgrower scheme had access to land, which is the more reason why they were participating, compared to 85 per cent of non-participating households and 40 per cent of households that had at least a member employed in the outgrower scheme. Again, similar proportions of the respondents in outgrower participating households and those households with a member employed in the outgrower scheme cultivated the land they had access. An interesting finding is that far fewer respondents in the non-participating households (67.6 per cent) cultivated the land they had access to, compared to outgrower participating households (91 per cent).

The size of landholding among the sample households ranged from 0.1 to 30 hectares with a mean of 4.4 hectares and a Standard Deviation (SD) of 5.7. The mean land size owned by communities in the study area is relatively larger than the district average of 3.2 hectares (CSO/MAL/IAPRI, 2015). This is attributed to the scheme having been a government settlement scheme in which settlers were allocated relatively larger pieces of land compared to landholdings in customary areas. Survey results (Table 8) show

⁴⁷ Conducted by the Central Statistical Office in conjunction with the Ministry of Agriculture and Indaba Agricultural Policy Research Institute.

that households participating as outgrowers in the scheme owned larger farm plots (5.4 hectares) compared to the non-participating households and those households with members only employed in the scheme who held 3.9 hectares and 1.2 hectares each respectively.

Table 8: Land access, land cultivation and land size across households

Household category	Land variable				
	Access to land		Cultivating land		Average land size (ha)
	No.	%	No.	%	
Out grower scheme participants	20	90.9	20	90.9	5.4
Employed in scheme	6	40.0	6	40.0	1.2
Non-participants	58	85.3	46	67.6	3.9

Source: Survey data and author's computations

The differential land sizes by the three different groups of households in the study area can be attributed to the design of the outgrower scheme itself. As it has been said already, respondents in households employed in the sugar outgrower scheme had the least sizes of landholdings. These wage earners employed in the outgrower scheme who reported owning smallest land areas were often young people (with a mean age of 30 years as shown in Table 5 above), newly establishing homes, and under the patronage of more elderly heads of households who had placed their land under sugarcane cultivation (see section 6.8 below).

Furthermore, qualitative interviews revealed that the non-participating households held comparatively smaller landholdings than outgrower households due in part to the

development of a local land market in the Magobbo area in anticipation by both insiders and outsiders of further expansion of the sugarcane outgrower scheme. Consequently, some non-participating households began to sell-off portions of their landholdings in anticipation that the outgrower scheme would be extended beyond the limits of the initial 433 hectares. This trading in land ultimately reduced land sizes for some households.

Again, apart from differential landholding between the different groups of households in our sample, the study findings also revealed there were differential landholding among the outgrower participating group. As Figure 12 shows, three major groups of outgrower plot sizes can be discerned: 1) those owning less than the lower limit of 4 hectares initially recommended for the scheme (28 per cent); 2) those with the recommended minimum of 4 ha (37 per cent); and 3) those owning 6 ha (32 per cent).

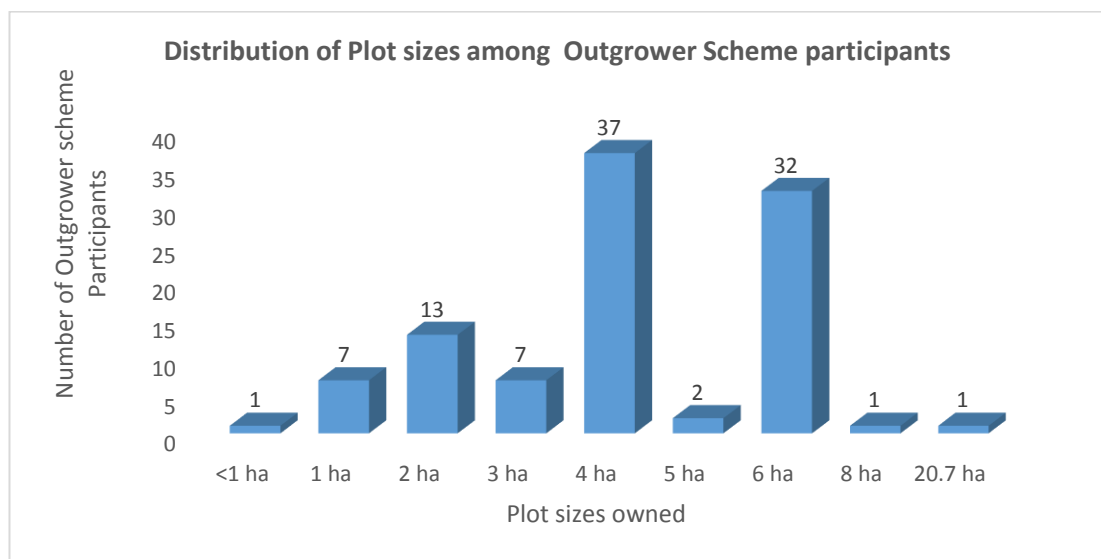


Figure 12: Number and size of sugarcane plots at Magobbo scheme in 2014/2015 season

Source: Author’s computations from scheme document.

Although women continue to be the backbone of agricultural production in Zambia as elsewhere in most sub-Saharan Africa contributing between 60 and 80 per cent of the labour power required for production of both subsistence and cash crops (Himoonga and Munachonga, 1991: 61), they generally do not have access to land and are marginalised in control of economic resources arising therefrom. The study findings show clear gender and generational differentiation in land access and ownership in the Magobbo outgrower scheme. Ownership of land in the scheme was largely dominated by men with women gaining access largely through inheritance after death of a husband or a father. At the time of this study, there were only 15 women out of 94 officially recognised smallholders registered in the scheme accounting for 16 per cent. The low level of female ownership of land in Magobbo area, and thus low participation in the scheme, can be explained by the historical discrimination of land ownership between men and women in settlement schemes in Zambia. Most agricultural settlement schemes focused on men as 'heads' of households, and, therefore, land for agricultural production in these schemes was largely allocated to men (Himoonga and Munachonga, 1991). Chenoweth et al. (1995) citing Ngenda (1993) also notes that in some settlement schemes, marital status was used as a criterion for allocation of land. Married women could, therefore, not be considered to own farmland in their own right. Furthermore, single women with no children could also not qualify to get land in these schemes unless a male figure attested on their behalf (ibid). A survey on land ownership by men and women by Himoonga and Munachonga (1991: 65), for example, revealed that 95.7 per cent of land allocations in the nine settlement schemes across Zambia were to men in contrast to only 3.7 per cent allocated to women. Lubombo Settlement in which the Magobbo outgrower sugar scheme is situated only had two women owning farmland in their own right out of a total of 65 land owners in

the early 1990s (Himonga and Munachonga, 1991: 65). These traditional norms of land ownership that discriminate against women were expressed as follows during focus group discussions in the study area:

At the time the demarcation of these [settlement land] plots took place, only men were given these plots. However, women started inheriting the plots after death of their husbands and/or fathers.⁴⁸

Some women have registered the farms in their sons' names upon death of their husbands; therefore, there could be more women owners of plots in Magobbo scheme but due to traditional inheritance norms, some widows who assumed ownership of the household land following death of their husbands instead registered the land in their sons' names.⁴⁹

Although legislation relating to land acquisition and allocation in Zambia was gender neutral then, few women still applied for, or were allocated agricultural land. This trend was perpetuated by factors such as administrative practices of those charged with the responsibility to allocate land, attitudes, existing cultural norms and socio-economic challenges (Himonga and Munachonga, op cit). Following recommendations made in the *National Gender Policy* (GRZ, 2000), government has taken affirmative action in the last two decades, to increase women's ownership of land in the country. Of noteworthy is Zambia's *Draft Land Administration and Management Policy 2006* (GRZ, 2006b). This policy recognises the fact that

⁴⁸ Focus Group Discussion, Manyonyo Water Users Association Executive Committee, Mazabuka, 20 June, 2013.

⁴⁹ Focus Group Discussion, Magobbo Cane Growers Trust Executive Committee, Mazabuka, 21 June, 2013.

acquisition and ownership of land in Zambia continues to be a major hindrance to women's participation in national development, and therefore stipulates that at least 30 per cent of any land being considered for allocation by the state or district councils should be reserved for ownership by women, while at the same time allowing them to compete for the remaining 70 per cent. Arising from the above, it is now government policy that women can acquire statutory land without reference to their marital status as was the case some decades ago. However, while it is government policy to reserve 30 per cent of any statutory land allocations to women, small-scale female farmers still face constraints in accessing this land due to high transaction costs such as the non-refundable application fees (Sitko and Jayne, 2014) and numerous trips to the Ministry of Lands headquarters in the capital city, Lusaka to deal with paper work and follow-ups. However, government's affirmative action towards gender parity in land acquisition has still failed to redress the existing imbalance in land ownership between men and women. In a study of outgrower schemes in Zambia, Droppelmann (2004: 7) notes that outgrower schemes in which small-scale rural poor women participate are few. The failure to address the gender inequalities in access to land can, therefore, be implicated for the unequal participation of women in outgrower schemes in the country.

In rural Zambia generally, young people access land through allocation by their parents or guardians. Parents often assign usufruct rights to pieces of family land to adolescent children as a way of teaching them life skills in agrarian livelihoods. However, life histories with young people in the study area revealed some differences in land access between those living in participating households in the outgrower scheme and those in non-participating households. Interviews with some young people from outgrower

participating households revealed that they no longer had access to any land on which to undertake own-cultivation as per capita farmland area had reduced. A 22 year old young man from a poor participating household that held 2 hectares of land in the scheme and staying with a single mother admitted that before the scheme, he had his own piece of land from the family landholding where he could grow his own maize apart from helping cultivate crops on the rest of the family land for the household. With the entire family landholding of two hectares ceded to the outgrower scheme, the young man could no longer access any land for own production. He was, however, employed to work in the scheme block farm by the service provider – Nanga Farms. Another young man aged 27 years from a middle wealth household participating in the scheme confirmed losing access to family land as a result of the outgrower scheme. As the following excerpts respectively illustrate:

I had a small piece of land that I used to cultivate for myself apart from helping with the family on the rest of the land. I am the eldest of the four children in the household. To me, I can say I am lucky because I have gotten employment in the scheme where I am doing different tasks. I do irrigation and sometimes applying chemicals and fertilisers. Although I no longer have access to land, at least I get a wage from work. I help my mother and the rest of the family. But of course we now have to buy mealie meal and other foods that we were growing on our own before the scheme. We just manage to survive despite involvement in the scheme and nothing more.⁵⁰

⁵⁰ Life history interview with a son of a poor farmer participating in the sugar outgrower scheme, Magobbo, 16th July, 2015.

My father had 22 hectares of land before the scheme was introduced. Now his land is divided up. He remained with 4 ha in the scheme and gave 6 ha to my aunt [his father's sister] who also registered in the scheme. My father also swapped the remaining land with some two other persons outside the sugar farm block. We now grow maize on the land he swapped for home consumption and also he sells some when there is a surplus. Before the scheme, I used to have my own land given to me by my father where I cultivated maize but now I am employed at the sugar scheme block farm and I am no longer growing maize for myself but just assist in my father's fields because he uses almost all that land.⁵¹

The situation was, however, different for youths in non-participating households in the outgrower scheme. Young people in these households reported that they had access to family land allocated by their parents. A 22 year old young male from a wealthy non-participating household in the scheme whose father owned 22 hectares of land and about 120 herd of cattle in Magobbo settlement acknowledged that he had access to family land and was able to grow his own crops for sale:

My parents gave me a portion of land to grow my own crops; I have been cultivating the last 5 years; it is a big piece of land I have but I do not cultivate all of it because I also have to help with cultivation in all the fields for my parents; I am also involved in looking after cattle.⁵²

⁵¹ Life history interview with a son of a medium wealth smallholder participating in the sugar outgrower scheme, Magobbo, 15th July, 2015.

⁵² Life history interview with a son of a wealthy farmer not participating in the sugar outgrower scheme, Magobbo, 14th July, 2015.

Similarly, a 17 year old young female from a poor non-participating household in the outgrower scheme whose family owns 4 hectares acknowledged accessing family land for her own farming:

I have my own plot of about one acre allocated to me by my parents; I grow groundnuts for sale so that I can buy what I need. I cultivate the plot on my own and I have control over the income I get from farming.⁵³

The situation is, however, different for youths in households participating in the outgrower scheme. Young people in these households indicated they no longer had access to land for their own farming due to the loss of land to the sugar block. As has been said already, many participating households also sold land in excess of the required limit in the scheme as opposed to swapping it with those outside the designated sugar growing area. Such households no longer had any or enough land left for allocation to their grown children from which they could earn a living. With neither land nor incomes from the outgrower scheme, young people are forced to find employment as a means to earn a living (see section 6.8).

Regardless whether they had access to land or not and whether their parents were doing well in farming or not, anecdotal evidence shows that such dependent young people did not see their future in farming. The 22 year old young male from a wealthy non-participating household in the scheme referred to above indicated he did not want to

⁵³ Life history interview with a daughter of a poor smallholder not participating in the sugar outgrower scheme, Magobbo, 15th July 2015.

remain in farming despite his parents' apparent success in farming. Instead, he looked forward to get a college place to train as a doctor since he had just completed grade 12 in the previous year. Similarly, the 17 year old young female from a poor non-participating household in the outgrower scheme also had no dreams for farming in the future despite the fact that she was currently involved in farming in her own right. At the time of the interview she was looking after her baby, having fallen pregnant in grade nine the previous year and had dropped out of school and had intentions of going back to complete her secondary education and then possibly train as a nurse.

As table 9 shows, households acquired their land in Magobbo in a variety of ways: purchasing, inheritance, borrowing, leasing and allocation by traditional authority. Purchasing was the main mode of land acquisition among scheme outgrower households (55.6 per cent), followed by inheritance. This finding corroborates other findings from qualitative interviews that some outsiders purchased their way into the scheme (see Section 6.2.1). As earlier stated, initial access to the land in the settlement was through allocation by the state. Land owners who were able to, applied and obtained provisional leasehold titles of 14 years while others upgraded to 99 year leases. While land in the settlement was initially allocated for free by government in the settlement area, some key informants reported that many farmers sold off all or part of their land to anyone who sought land or left 'caretaker' relatives and returned to their customary tribal areas. Trading in land intensified with the news of the impending sugar outgrower scheme. As one informant observed: *"Even before the*

*thing [outgrower scheme] started, they [Magobbo residents] were trading land and things came to the surface after... ”.*⁵⁴

Table 9: Mode of land acquisition by households in Magobbo

Household category	Purchasing		Inheriting		Traditional authority allocation		Leasing		Borrowing	
	No.	%	No.	%	No.	%	No.	%	No.	%
Out grower participant	10	55.6	5	33.3	2	22.2	0	0.0	0	0.0
Employed in scheme	1	5.6	1	6.7	0	0.0	3	33.3	1	8.3
Non-participant	7	38.9	9	60.0	7	77.8	6	66.7	11	91.7
Total	18	100.0	15	100.0	9	100.0	9	100.0	12	100.0

Source: Survey data and author’s computations.

Among the non-participating households, borrowing, allocation by traditional authority, leasing and inheritance, were the main ways through which they acquired land in the area while for the households employed in the scheme, it was largely by leasing.

In order to capture potential impacts of the Magobbo outgrower scheme on land availability and land conflicts in the study area, respondents were asked to state their perceptions on these two land parameters. We asked the respondents to state whether they perceived land availability and land conflicts to have increased, remained the same or reduced in the past five years. As shown in Table 10, all the three categories of households in our survey indicated that land availability had decreased in the past

⁵⁴ Interview, Nanga Farms official, Mazabuka, 9th August, 2013.

five years. Respondents were also of the view that land prices had gone up during the same time period and this was largely attributed to the decreasing land availability in the area due to growing informal land rental market.

Table 10: Household perceptions about changes in land availability in last five years

Perception of land availability	Outgrower participants		Employed in scheme		Non-participants		Total	
	No.	%	No.	%	No.	%	No.	%
Increased	2	9.1	0	0.0	8	13.8	10	10.6
About the same	4	18.2	4	28.6	19	32.8	27	28.7
Decreased	16	72.7	10	71.4	31	53.4	57	60.6
Total	22	100.0	14	100.0	58	100.0	94	100.0

Source: Survey data and author's computations.

The survey results (Table 11) show that across all the three categories of respondents, land conflicts have been perceived to have increased over the years. There was a near unanimity from life history, key informant interviews and focus group discussions in the view that land conflicts have been growing in the area. This was attributed largely to the perceived 'good' incomes derived from sugarcane and decreased land availability for those excluded from the scheme, hence conflicts over access to and ownership of land (see Section 6.10). Intra-family land conflict led to fragmentation of sugar plots in the scheme block farm, thus, bloating of the number of individual participants in the scheme. With the commencement of preparatory scheme activities in 2007, the number of participating households increased from 73 (Fynn, 2008) to 80

in the interim evaluation report (Whydah Consulting Ltd., 2011), then to 94,⁵⁵ a figure that is still being quoted in many official documents. A grower distribution list for the 2014/15 farming season (MCGT and Zambia Sugar, 2014/2015), however, indicates total beneficiaries numbering 101, including 99 registered individual persons and two trusts, namely the Magobbo Trust and Iqraa Building Trust.

Table 11: Household perception of land conflict over years

Period	Perception of Land conflict	Outgrower participant		Employed in Scheme		Non-participant		Total	
		N	%	N	%	N	%	N	%
1 Year ago	Better off	3	23.1	1	14.3	7	25.9	11	23.4
	About the same	1	7.7	2	28.6	1	3.7	4	8.5
	Worse off	9	69.2	4	57.1	19	70.4	32	68.1
	Total	13	100.0	7	100.0	27	100.0	47	100.0
5 Years ago	Better off	8	61.5	4	57.2	15	55.6	27	57.4
	About the same	3	23.0	1	14.2	8	29.6	12	25.5
	Worse off	2	15.5	2	28.6	4	14.8	8	17.1
	Total	13	100.0	7	100.0	27	100.0	47	100.0
10 Years ago	Better off	7	53.8	3	50.0	14	51.9	24	52.2
	About the same	4	30.8	2	33.3	9	33.3	15	32.6
	Worse off	2	15.4	1	16.7	4	14.8	7	15.2
	Total	13	100.0	6	100.0	27	100.0	46	100.0

Source: Survey data and author's computations.

From the foregoing, and in line with political economy question from the extended livelihoods framework of *'who owns what (or who has access to what)?'* (Scoones, 2015), it is clear that access to land is not equitable, with some groups in the Magobbo local community owning more land assets than others as seen from the differential land sizes owned in the scheme. Survey findings show that outgrower households owned comparatively more land than non-participating households and households with a members employed in the Magobbo outgrower scheme. Young adults have

⁵⁵ Interview, Magobbo Cane Growers Trust Executive Committee, Mazabuka, 21 June 2013.

particularly been negatively affected by the outgrower scheme vis-à-vis access to land as most of them could no longer access family land for their agricultural activities since most of it had been tied into the sugar scheme and sought employment as their main livelihood option. From key informant interviews and scheme records, only 16 per cent of 94 officially recognised smallholders registered in the scheme were women. The low level of female ownership of land in Magobbo area, and thus low participation in the scheme, can be explained by the historical discrimination of land ownership between men and women in settlement schemes in the country. The failure to address gender and generational inequalities in access to land can, therefore, be implicated for the unequal participation of women and young people in outgrower schemes in the country.

6.5 Income, expenditure and asset ownership

One of the major benefit of contract farming and outgrower schemes as pointed out in the wider literature is the rise in cash incomes of the participating smallholder farmers (Minot, 1986; de Treville, 1986; Key and Runsten, 1999; Baumann, 2000). Most impact studies on contract farming have thus focused on increase in the incomes and expenditures of participating households against their non-participating counterparts. Others include asset ownership and well-being of the respective households. In this section these issues are explored vis-à-vis the Magobbo outgrower scheme using both survey and qualitative data.

6.5.1 Impact of sugarcane outgrowing on income

The Magobbo scheme evaluation reports and narratives by informants point to the fact that incomes of sugar outgrowers in the Magobbo scheme have substantially increased

from what they obtained from rain-fed crop cultivation (Landell Mills Development Ltd, 2012; Whydah Consulting Ltd., 2011). According to an EU evaluation report on the scheme (Landell Mills Development Ltd., 2012: 36), households' annual incomes would increase from a low of US\$600 from cultivating rain-fed subsistence crops to US\$12,500 from growing sugarcane after the scheme reaches full operation from a plot size of five hectares. This estimate of income should, however, be treated with caution, as the harvests of the first two years or so (2011 and 2012) do not reflect the harvesting schedule over the eight- or ten-year production cycle.⁵⁶ Our survey data nonetheless shows a more realistic picture of the incomes realised by households participating in the scheme and also allows for comparisons to be made between outgrower scheme participating and non-participating households. Respondents from all the three categories of households were asked to state the amounts of cash incomes they derived from their main cash crops in the year prior to the survey (2013/2014 growing season). The average net income realised from sugar proceeds the growing season prior to our survey was US\$2,999 per household. Secondly, and as a way to triangulate, the researcher asked the respondents to also state the amount of cash incomes they realised from their main cash crops in the year prior to the survey. Table 12 summarises the mean annual crop values from sale of five important crops by each of the responding households. The difference in total cash income from the first and most important cash crop for the outgrower participating households – sugarcane – and the other two groups of households for the preceding year is striking. Outgrower participating households had by far superior cash proceeds (average of US\$3,520) than the other two groups of households growing other rain-fed crops (US\$56 and US\$188

⁵⁶ Interview with Zambia Sugar employee, Mazabuka, 8 September 2013.

respectively).⁵⁷ As seen from Section 6.3.3 above, the main cash crop for outgrower participating households was sugarcane while that of non-participating households was maize. The cash income from sugarcane of outgrower scheme participating households in this case is approximately nineteen times the average income for the rest of non-participating households still dependent on subsistence rain-fed crops. This finding is similar to Droppelmann's (2004: 8) where he established that a similar sugar scheme – the Kaleya Smallholder Outgrower Scheme – generated revenues ten times more than other schemes in each year.

Table 12: Mean annual crop value by households

Household category	Mean crop value (USD)					
	1 st crop	2 nd crop	3 rd crop	4 th crop	5 th crop	Total
Outgrower participant	3,520	676	2,705	19	0	6,920
Employed in scheme	56	57	95	0	0	208
Non-participant	188	50	38	16	5	297

Source: Compiled by author from scheme documents

In order to understand the sharing of proceeds from sugar between the parties to the contractual arrangement in the Magobbo scheme, as well as, among the outgrower participants, we employed the political economy question in the extended livelihoods framework of 'who gets what'? (Scoones, 2015). This question unravels how equitable the benefit-sharing mechanism in the Magobbo scheme is in practice (see section 6.2.6

⁵⁷ Exchange rate of US Dollar (USD) to Zambian Kwache (ZMW) in September 2014 was 1 USD = 5,252 ZMW.

above). Thus, using data from the scheme distribution list for revenues received by outgrower households from sugar for the month of August 2014/15 growing season (MCGT and Zambia Sugar, 2014), the researcher calculated the net proceeds due to smallholders against the gross revenue from sugar per hectare and also compiled both gross and net proceeds for each size of plot to illustrate the differences in income among participating households (Figure 13). Gross revenue from sugarcane per hectare was US\$ 988 while the net proceeds per hectare after all deductions for scheme development loans, input costs, service charges etc. was US\$ 282 (MCGT and Zambia Sugar, 2014), translating to a mere 28 per cent of the gross revenue per hectare, with the rest going to the contracting company and service provider. This finding is not surprising, as Glover and Kusterer (1990: 157) reminds us: ‘The contracting relationship is not a ‘zero sum game’; the distribution of benefits between the firm and its growers can affect the total magnitude of benefits available’. Thus, the study’s finding on the range of outgrower income corroborates findings of other studies. For instance, Waswa, Gwenyi-Onyango and Mcharo (2012) in their study of three sugarcane outgrower schemes in the Lake Victoria Basin, in Kenya established that the smallholders were left with between 31 and 34 per cent of the gross income while the company retained the rest with most smallholders’ income being retained as deductions for inputs and other costs. Again, a study by Schüpbach (2014) on sugar outgrower schemes also found that participating smallholders at KASCOL complained about low disposable incomes from sugarcane production arising from high costs of inputs and irrigation. Thus, the range of income earned from outgrower crops is vital for scheme participants to make any meaningful contribution to their livelihoods. From the forgoing, it is not an exaggeration to state that the pricing arrangements of sugar proceeds between Zambia Sugar and the Magobbo scheme smallholders are extractive

with the former using its monopsonic power to achieve maximum profits. It is not surprising, therefore, that Zambia Sugar has been dubbed a ‘profit powerhouse’ among the Illovo Group’s six southern African country operations (Dubb, 2017), owing not only to its high efficiency in sugarcane production but also how it gains advantage on pricing mechanism with its outgrowers. Zambia Sugar in turn makes good use of Zambia’s liberal profit repatriation policy that allows an investor to immediately repatriate all profits so long tax obligations have been met.

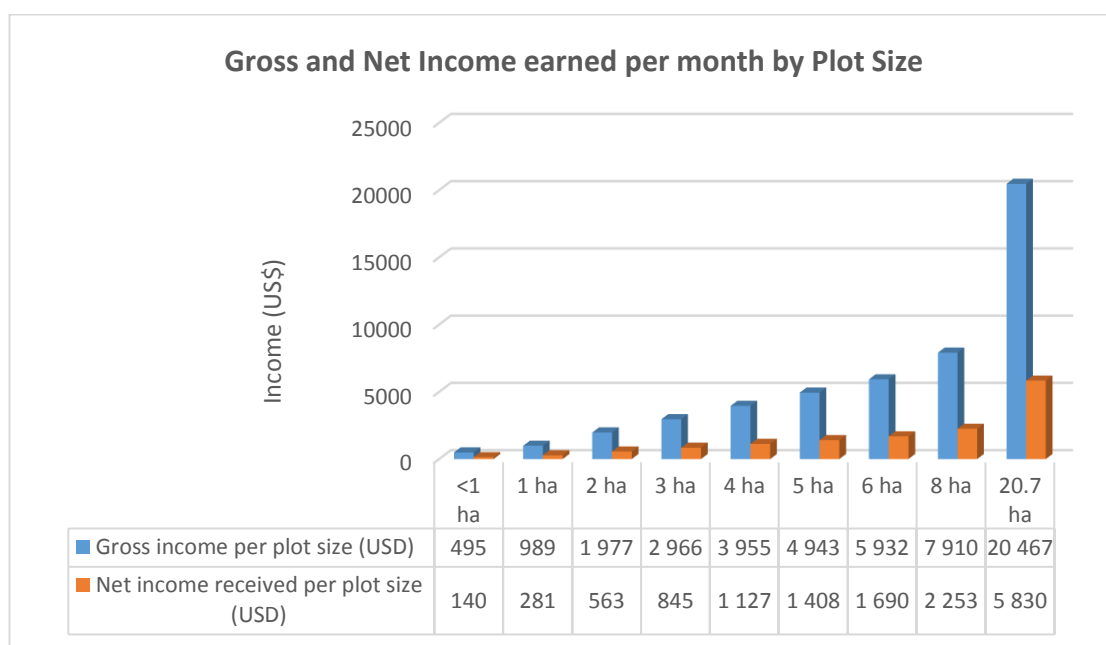


Figure 13: Outgrower sugarcane income for August: 2014/15 growing season

Source: Compiled by author from scheme documents

Again, the political economy question of ‘*who gets what*’? unravels how equitable the sharing of sugar income is among participating outgrower households. The uneven sugar plot sizes for outgrower participants in the Magobbo scheme has created a hierarchy of outgrower smallholders determined by the size of landholding in the scheme as illustrated in Figure 12. This hierarchy of landholding in the Magobbo scheme has generated uneven incomes from sugar, with some participants receiving

substantially higher incomes than others as shown in Figure 13 above. For instance, the average net income from sugar earned by 28 per cent of outgrower households owning less than 4 ha in the scheme was US\$457 compared to US\$1, 690 for 32 per cent of the outgrower households owning 6 hectares. This finding shows clearly a concentration of income among a few groups of smallholders, thus, creating socio-economic differentiation among participating households. The result concurs with the findings of the study by Smalley (2014) that reported that socio-economic differentiation among outgrower participants is determined by differential landholding in the contract farming schemes with wealthier farmers having larger or higher quality landholdings.

Results from qualitative interviews revealed that the incomes from sugarcane varied highly over months, growing seasons and between participating smallholders. Sentiments on the perceived levels of incomes received by households participating in the outgrower scheme thus reflected the size of the plot the respective households held in the scheme. As already pointed out, at least 28 per cent of the scheme participants held plot sizes below the recommended minimum of 4 hectares and, therefore, their shares of sugar income would not be economically viable as a means for enhancing their livelihoods. Another 37 per cent of outgrowers held the minimum of 4 hectares and their sugar incomes would be on the margins. The excerpts below illustrate the opinions of those who said income from outgrowing sugarcane was not inadequate:

There is very little money in sugarcane; at first we thought there was no money in maize so we try sugarcane that we thought had better returns; but there is nothing we

are getting; people are now missing growing maize which they used to sell and also eat.⁵⁸

The little money we get goes towards meeting school needs of the children some of who are in boarding schools; we have told them [scheme managers] to be giving us advances ... that they can be cutting from our monthly incomes but they have refused and we end up getting Kaloba⁵⁹ (credit) to survive (poor male sugarcane grower with 2 hectares).⁶⁰

The money [from sugarcane] is not enough to invest in any business; I would like to cultivate and sell vegetables but I cannot do that because the money is very little.⁶¹

From the above, it can be inferred that those with comparatively smaller plots viewed the incomes negatively while their counterparts with larger plots were more positive. Since the current Magobbo outgrower scheme involves no on-farm production by the smallholder landowners, this institutional arrangement has also attracted several family members, even those who had emigrated elsewhere, to lay a claim on sugar income, as it is perceived as 'rental income' which must be shared. Data shows that smallholder households in Magobbo have extended families with an average of 10 members per household that was likely to put further pressure on the new sugar income (Landell Mills Development Ltd, 2012) as it is divided too thinly across many persons, thus compromising the potential for some resident families to accumulate. Some non-

⁵⁸ Life history interview, Artisan section, Magobbo, Mazabuka, 14 July 2015.

⁵⁹ 'Kaloba' is an informal short-term loan between individuals with interest repayments terms of often up to 100 per cent of the principal sum. Failure to repay the loan within the specified time period attracts further interest and/or confiscation of property from the borrower.

⁶⁰ Life history interview, Canaan section, Magobbo, Mazabuka, 15th July 2015.

⁶¹ Participant, Focus group discussion with women, Woodlands Section, Magobbo, Mazabuka, 15th July 2013.

participating households also concurred that some sugarcane scheme participants received very little money as the following excerpt from a life history interview underline:

Sugarcane farmers get very little money; they even come to borrow money from us who do not grow sugarcane; we are not eager to join in sugarcane growing because we have seen the challenges of growing the crop.⁶²

Qualitative interviews with various key stakeholders in the scheme, as well as, documentation revealed that the first sugarcane crop was planted very late in 2010/2011 growing season and that only half the fields were harvested in the second year and that cane was of variable cane age. Carry over cane from the 2010/2011 growing season, therefore, exaggerated the yields for the 2011/2012 season harvest period as it had more biomass than normal. Consequently, incomes received by farmers during this time period were bloated and, therefore, atypical. Additionally, during the first year of the scheme, all participating farmers were paid an equal amount regardless of the number of hectares, such that in the subsequent years when each farmer had to be paid in relation to the plot sizes, a number of them became disillusioned. The scheme management service provider – Nanga Farms – acknowledged that equitable distribution of income from sugar among participating households and its variability over months and seasons was a complex matter that was not easy for some smallholders to understand, and that the expertise to ensure that it was adequately explained was lacking within the Magobbo Trust executive

⁶² Life history interview with a married woman from a wealthy smallholder household, Artisan section, Magobbo, Mazabuka, 15 July 2015.

committee.⁶³ On the other hand, the Magobbo Trust executive committee in place at the time of conducting fieldwork for this study contended that it communicated with its members, but that the members had difficulties in understanding certain issues about the scheme such as the calculations involved in the division of proceeds between the smallholders and Zambia Sugar due to their low levels of education and literacy. Outgrower scheme participants repeatedly claimed that income from sugar was being eroded by exorbitant deductions in form of service charges. Of particular concern to the participants was the sugarcane haulage service charges that some felt were not commensurate with the volume of work undertaken, and some members of the Magobbo Trust were of the view that their organisation was better placed to take over the management of this service.⁶⁴ However, an official from the management service provider, Nanga Farms was of the view that the Magobbo Trust did not have the knowhow to manage the haulage service. It is worthy giving the quote from the interview with the official verbatim, thus:

If the [institutional] structure wasn't like this then you would have people [Magobbo farmers] making decisions about things they know nothing about yet. Imagine what is happening now; they wanted to do their own [sugarcane] haulage and invest in the capital for this before they paid off their loans; they are not geared to manage at this point.⁶⁵

Evidence from our quantitative survey (Table 13) underlines the smallholders concern when respondents from outgrower scheme participating households were asked to list

⁶³ Interview, Nanga Farms official, Mazabuka, 8 September 2013.

⁶⁴ Interview, Magobbo Cane Growers Trust Executive Committee, Mazabuka, 21 June 2013.

⁶⁵ Interview, Nanga Farms official, Mazabuka, 8 September 2013.

in rank order the top four things their households were most happy (advantages) and not happy (disadvantages) about the Magobbo outgrower arrangement. A scoring metric was devised for each ranked advantage and disadvantage. Thus, for the advantages, the item ranked first was given a score of positive five followed by a score of positive four for the second ranked until the score of positive one for the fifth ranked item. The opposite was done for the disadvantages. Disadvantage ranked first was given a score of negative five followed by negative four for the second ranked until the score of negative one for the item ranked fifth. For each advantage/disadvantage these scores were summed to generate an indicator of its relative importance among the participating households in our sample. Thus, the first thing participating households liked most about the outgrower arrangement was *guaranteed buyer*, followed by *timing of payment, level of support and inputs* and *duration of contract*.

Table 13: Relative advantages/disadvantages of outgrower arrangement

Advantage/disadvantage	Score
Guaranteed buyer	43
Timing of payment	21
Level of support and inputs	17
Duration of contract	9
Training	8
Quality control	0
Intermediaries	0
Deductions	-37
Relations with Magobbo Trust	-33
Price determination	-18
Rate of pay per volume	-6
Price stability	-6
Outgrowers' role in industry	-5
Credit	-3
Other	-3

Source: Survey data and author's computations.

On the other hand, the first thing participating households did not like about the outgrower arrangement was *deductions*, followed by *relations with the Magobbo Trust* (their membership organisation), *price determination* and *rate of pay per volume* and lastly *price stability*.

These findings thus, are an indication that while outgrowers were happy about a *guaranteed market* for the contract crop through Zambia Sugar and support provided through the management service provider Nanga Farms, *deductions* placed on their income was a major concern. This suggests that while having a guaranteed market was a good thing for outgrowers, the level of income received was not reflecting the true value of sugarcane due to what they perceived as exorbitant deductions for services and loans. This is reinforced by the monopsony power of the agribusiness company – Zambia Sugar – as there is no alternative market in the Mazabuka region, and the nature of production arrangement in place where farmers leased their land to Zambia Sugar. This scenario consigns the smallholder outgrowers to depend on the good will of the contracting company, Zambia Sugar. Schüpbach (2014) made a similar finding with outgrowers expressing discontent regarding exorbitant deductions from their profits with a similar outgrower scheme – KASCOL – also contracting with Zambia Sugar.

While some outgrower participants in the scheme were upbeat about the increased household incomes due to growing sugarcane, this view was expressed during the first

three harvest seasons. Follow-up telephone interviews in 2017 with an informant⁶⁶ who is an outgrower revealed a changed tone on levels of incomes from sugar. A view expressed during these follow-up interviews was that incomes from sugarcane were gradually taking a downward spiral. This trend is consistent with a process known as ‘agribusiness normalisation,’ whereby in the initial or start-up phase, the agribusiness firm that promotes contract farming offers promotional incentives such as high commodity prices, relatively low quality standards and generous input and credit support which exceed what the agribusiness firm expects to maintain over the long run (Singh, 2002). This process often translates into lower producer prices and higher input costs with the initial ‘good prices’ gradually waning in the medium to long run. Agribusiness normalisation process is meant to attract participants into the scheme who become locked-in the contract to assure the supply of required quantities of the raw material of interest to the agribusiness firm (ibid).

6.5.2 Expenditure patterns

The household survey also inquired into how changes in sugar income were reflected in spending patterns. The researcher asked respondents from outgrower participating households, non-participating households and households with a member employed in the outgrower scheme to state what items they bought or services they paid for from their incomes in order of priority. The political economy question of ‘*what do they do with it*’? in the extended livelihoods framework (Scoones, 2015) is applied in this study to show how the sugar income of outgrower participating households is ultimately

⁶⁶ Key informant interview (by telephone) with former executive committee member, Magobbo Trust, Mazabuka, 18 May 2017.

expended and whether or what assets are accumulated in comparison to the other two groups of households. Table 14 summarises the results.

Table 14: Priority expenditures by households

Expenditure Item	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Food	8	38.1	11	73.3	57	87.7
Farming inputs	1	4.8	2	13.3	2	3.1
Farming equipment	0	0.0	0	0.0	0	0.0
Transport	1	4.8	0	0.0	0	0.0
School fees and related education costs	6	28.5	0	0.0	2	3.1
Health	1	4.8	0	0.0	0	0.0
Savings	0	0.0	1	6.7	0	0.0
Housing and accommodation	3	14.2	1	6.7	2	3.1
Clothes	0	0.0	0	0.0	0	0.0
Furniture	0	0.0	0	0.0	1	1.5
Land and other property	0	0.0	0	0.0	1	1.5
Other	1	4.8	0	0.0	0	0.0
Total	21	100.0	15	100.0	65	100.0

Source: Survey data and author's computations.

The top most expenditure item across the three groups of households is food. Of noteworthy is that while most respondents from outgrower participating households, households employed in the scheme and non-participating households listed food as the top most expenditure item, the proportion of outgrower participating households prioritising food purchases is less than that from the other two groups of households. This finding could be explained by 'Engel's law' that holds that as household income rises, expenditure share of food declines even if absolute expenditure on food rises

(Clements and Si, 2015). Thus, when households become more affluent, they are inclined to spend less and less share of their rising income on food purchases and put more money into durable commodities or investments. For scheme participating households, school fees and other education expenses were a top priority for at least 28 per cent compared to 3 per cent of the non-participating households. No respondent from the employed households indicated education as a priority expenditure, perhaps reflecting the fact that these were relatively young households with children of no schooling age at the time of the survey. Focus group discussions and household life history interviews also revealed that some outgrower participating households invested in their households' human capital by sending their children to good and relatively expensive private schools, thus, corroborating results from the survey. This finding suggests that incomes from outgrowing sugarcane provide an opportunity for participating households to invest in the future of their children thus improving their human capital. An interesting finding also as shown in the table is the lack of prioritising reinvestment of incomes into agricultural production equipment or inputs. Among the three comparative groups of households in the study sample, virtually none indicated spending money on farming inputs and farming equipment as a priority. This result is an indication that there were far fewer outgrower households that diversified their livelihoods strategies into farming activities, an indication of a movement towards a specialised livelihood portfolio largely dependent on sugarcane. This is not surprising, given the institutional arrangements of the Magobbo scheme that has bestowed the sugarcane production function to an intermediary company that carries out all services on behalf of smallholders.

6.5.3 Asset accumulation

Respondents in the survey were asked to directly indicate the different types of assets they owned. This was again in order to determine whether sugar incomes enabled smallholders to accumulate in comparison to the other two groups of households. Assets considered in this analysis include car/truck, motor cycle, bicycle, fridge, television set, radio, cell phone, plough, oxcart, engine and pump. Livestock assets are considered separately in the next sub-section.

Our survey results on household assets ownership by the three groups of households are summarised in (Table 15).

Table 15: Asset ownership by households (*multiple response question*)

Type of asset owned	Outgrower participants (n =22)		Employed in scheme (n = 15)		Non-participants (n = 68)	
	No.	%	No.	%	No.	%
Car/truck	5	22.7	0	0.0	1	1.5
Motor Cycle	2	9.0	0	0.0	2	3.0
Fridge	1	4.5	0	0.0	4	6.0
TV	15	68.0	4	26.6	35	51.5
Radio	19	86.3	13	85.0	49	72.0
Cell phone	21	95.4	14	20.5	57	84.0
Bicycle	20	91.0	14	20.5	49	72.0
Plough	2	9.0	0	0.0	3	4.4
Ox-cart	2	9.0	0	0.0	1	1.5
Engine Pump	1	4.5	0	0.0	0	0.0

Source: Survey data and author's computations.

While household assets such as radio, cell phone, bicycle, and television set were universally owned across the three groups of households, the proportion of respondents owning these assets was consistently higher among outgrower participating households than the other two groups. Contrasts between the outgrower participating

households on one hand, and the other two groups of households on the other, in terms of ownership of cars/trucks and motor cycles is striking. While 22.7 per cent of respondents in outgrower participating households in the survey sample owned cars/trucks, only one respondent from the non-participating households owned a car or truck and there was virtually no respondent in the employed households in the sample who owned a car or truck. Purchase of durable assets by some outgrower participating households was confirmed during many key informant interviews, household life history interviews and focus group discussions as the following excerpts underline:

Those who grow sugarcane build good houses made of bricks and iron sheets; they buy motor vehicles, farms and livestock and plots in town [...]⁶⁷

Now people are purchasing motor vehicles from [sugar] income from a single cane growing season. So they will be able to do more with many growing seasons to come. It is profitable compared to what we used to get when growing maize.⁶⁸

With income from cane growing, cane growers are driving motor vehicles, build good houses, and install solar power [in their homes], and are more healthy; ourselves are still walking and cycling. Their children go to good schools. ... Women [outgrowers] are even driving in Magobbo.⁶⁹

⁶⁷ Focus group discussion, Kalonga Section, Magobbo Settlement, 12th July, 2013.

⁶⁸ Focus group discussion, MCGT Executive Committee, 21st June 2013.

⁶⁹ Focus group discussion, Manyonyo Water Users Association (MWUA) Executive Committee, 20th June 2013.

During life history interviews, some households attested to investing their sugar incomes in property development in the nearby Mazabuka town and further afield. A number of outgrower households purchased plots on which they built real estates which they leased out; yet others purchased other farmland outside the scheme to continue with independent production of other crops. Some of the differences in asset ownership can be explained by the fact that rural elites and town dwellers had forced their way into the scheme on establishment, but most of the residents were previously as poor as those who were non-participants in the scheme, and had been accumulating, even over the period since the inception of the outgrower scheme.

6.5.4 Livestock assets

Livestock are an important asset in a rural setting and their ownership can be a measure of the wealth a particular household commands. The survey results (Table 16) show that some smallholder households kept different types of livestock and the most universally owned among the three different groups of households in our sample are chickens, cattle and goats. Among the small livestock, the most prevalent livestock type owned by all sampled households were chickens kept by 80 per cent, 79 per cent and 68 per cent of the households employed in the scheme, non-participating households and participating households respectively. This was followed by goats owned by 35 per cent of the non-participating households, 33 per cent and those households employed in the scheme and 22.7 per cent of outgrower participating households respectively. Sheep and pigs were concentrated among households employed in the outgrower scheme.

Among the large livestock, at least 31.8 per cent of the outgrower participating households, 32 per cent of the non-participating households and 23 per cent of households employed in the scheme respectively owned cattle. Cattle herd sizes in the sample households ranged from one to thirty-five animals with a mean of 3.18 animal

Table 16: Households owning livestock (*multiple response question*)

Type of livestock owned	Outgrower participants (n = 22)		Employed in scheme (n = 15)		Non-participants (n = 68)	
	No.	%	No.	%	No.	%
Cattle	7	31.8	3	20.0	22	32.3
Goats	5	22.7	5	33.3	24	35.3
Sheep	0	0.0	0	0.0	5	7.3
Pigs	1	4.5	0	0.0	6	8.8
Chicken	15	68.0	12	80.0	54	79.4
Ducks	5	22.7	2	13.3	10	14.7
Mean total value (USD)		184		60		1,065
Mean total sales (USD)		93		46		161

Source: Survey data and author's computations.

As it has been said elsewhere in this report, cattle has always been of great significance among the Tonga in cultural terms as a status symbol, and as a key resource for a secure livelihood. Cattle tend to be slaughtered during funerals and weddings (Moorsom, 2016). Not only is cattle used for draught power for ploughing, weeding and transportation, it is generally considered a 'moving bank' as livestock can be converted into cash at any time when a family has compelling needs. For instant, cattle might be sold in order to send a member of the family to school, to meet healthcare

costs or even to meet family consumption needs in a year of poor harvest and a need arises to purchase staple grain from elsewhere (Moorsom, 2016: 186). Additionally, cattle is largely used as bride price locally known in Zambia as *lobola* (Kalinda, Filson and Shute, 2000) and it is also common among some Tonga people to settle adultery cases by means of cattle. With the introduction of the Magobbo sugarcane outgrower scheme, however, outgrower participating households were requested to reduce their herds or find alternative land to take the animals to avoid livestock – sugarcane conflict (European Commission, 2007). Qualitative interviews indicated that some households had no choice but to sell-off all their animals or reduce their stock, while others opted to look for pieces of land elsewhere to take their cattle so that they could continue to benefit from the many values the animals bestow. Therefore, households keeping cattle either sold all or some of their animals or had to relocate them further afield as the following excerpts from focus group discussions underline:

Some sold cattle; in fact, most of them sold cattle. Only 2 people [in Canaan section] retained their cattle.⁷⁰

Some still have cattle, but there's not enough grazing land. Some sold cows and others took them far away. There were about six people in Woodlands [section] who had cattle but now only about half the number have retained their animals.⁷¹

When people became settlers here, they had livestock but when sugarcane came in, they were requested to reduce on the number of livestock; so now reducing them

⁷⁰ FGD in Canaan Section, Magobbo, Mazabuka, 15th July 2013.

⁷¹ FGD in Woodlands Section, Magobbo, Mazabuka, 15th July 2013.

means selling them and remaining without; but traditionally [Tonga] people would rather remain with their animals; so this is what prompted them to look for pieces of land elsewhere to take their animals.⁷²

Thus, many sold their much prized livestock, others relocated their animals afar and those who decided to keep their livestock within the settlement had to contend with constant conflict with sugarcane managers since cattle easily strayed into the cane fields. The scheme project application form (European Commission, 2007) proposed that, among other things, fences would be erected around the sugar fields to avoid the livestock-sugarcane conflict. The people raising cattle and goats especially including those from non-participation households in the scheme, complained that they could now not raise their animals freely as they did before the sugar scheme in the face of declining pastureland and inability to erect fences around the sugar fields by the Magobbo Trust. Cattle and goats found straying in the sugarcane fields attract a fine of USD 9.5 and USD 4.7 per animal respectively.⁷³

In order to determine the average value per livestock and hence the total value of livestock owned by households in the study area, respondents were asked to state the quantities of livestock their households owned, the number sold in the past 12 months and the income realised from such sales. Again, table 16 above summarises the mean values from sale of each type of livestock by each of the responding households. As can be seen from the table, the total livestock sales are very low compared to the total values owned especially so in the non-participating group of households. This is an

⁷² FGD, Magobbo Trust Executive Committee, 21st June 2013.

⁷³ FGD in Canaan Section, Magobbo, Mazabuka, 15th July 2013.

indication that households rarely sell-off their livestock unless they are under financial distress or only do so when faced with other emergencies.

6.6 Household well-being status

Well-being ranking allows for ranking households in terms of their quality of life among other uses (Montgomery et al., 2000). In the literature, household well-being status is computed using several variables as proxies (Filmer and Pritchett, 2001; McKenzie, 2003). These variables may include the size of land owned, type and number of livestock owned, type and number of other assets owned, materials used for building the main dwelling house and access to electricity. Another way of measuring well-being is through self-assessment often known in the literature as ‘subjective well-being’ (Weaver, Goncalves and Ryser, 2015; Linton, Dieppe, and Medina-Lara, 2016). In self-assessed well-being, respondents make personal judgment about the quality of their life in general (ibid). Our survey instrument, thus, provided for well-being self-assessment of respondents. Therefore, respondents were asked to state whether they were ‘very poor,’ ‘poor,’ ‘average,’ ‘above average,’ and ‘wealthy.’ These responses were then condensed into three wealth categories: ‘rich,’ ‘middle’ and ‘poor’ households. The largest proportion of respondents in the sample across the three groups of households assessed themselves as being in the ‘middle’ category. In spite of the substantial increases in incomes for some outgrower participating households (see section 6.5 above), it is remarkable that none of respondents acknowledged being rich (Table 17). This is explained by the fact that households in rural areas in Zambia tend to be modest in their self-assessment of either being rich or poor, and often state that they are of average wealth even if they owned many valuable assets.

Table 17: Distribution of households by self-assessed well-being

Well-being category	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Poor	4	18.2	4	26.7	25	36.8
Middle	18	81.8	11	73.3	43	63.2
Rich	0	0.0	0	0.0	0	0.0
Total	22	100.0	15	100.0	68	100.0

Source: Survey data and author's computations.

In order to further triangulate the above results, respondents were asked to state their current financial situation compared to one, five and ten years ago. However, taking into consideration the ability of the respondents to recall and other local dynamics involving the outgrower scheme in the year before the survey for this study, the researcher decided to compute results that compared their financial status to five years ago only. As results show (Table 18), 36 per cent of the respondents in outgrower participating households were better off compared to 26 per cent of the non-participating and 6.7 per cent of households employed in the scheme. Interestingly, 27 per cent of the respondents in the participating households reported a deterioration in their financial status compared to 22 per cent and 26 per cent of the non-participating households and households employed in the scheme respectively. The financial status of a relatively large proportion of the outgrower participating households (36 per cent) remained the same despite participating as sugarcane outgrowers. Thus, collectively, outgrower participating households whose financial status either deteriorated or remained the same (about 64 per cent) were likely those whose plot sizes were 4 ha or less and hence, received comparatively little sugar dividends than their counterparts who had more than 4 ha in the outgrower scheme, as noted elsewhere in this study. This result is consistent with findings of other studies that contract farming can result

in very modest gains and at times harm participating households (Glover and Kusterer, 1990; Little and Watts, 1994; Key and Runsten, 1999). Da Via (2011: 12) cynically calls areas where outgrower schemes are implemented as “typically not zones of prosperity but zones of poverty.”

Table 18: Household perceptions about financial status compared to 5 years ago

Perceived changes in financial status	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Better off	8	36.4	1	6.7	18	26.5
About the same	8	36.4	10	66.7	35	51.5
Worse off	6	27.3	4	26.7	15	22.1
Total	22	100.0	15	100.0	68	100.0

Source: Survey data and author’s computations.

Using the materials used for building the main dwelling house, number of rooms and access to electricity as a measure of well-being, there was no difference on the type of roofing material for the dwelling house across the three groups of households as almost all had iron sheets (Table 19).

While there was no difference on the type of roofing material for the dwelling house across the three groups of households, a comparatively larger proportion of outgrower participating households had dwelling houses with more rooms than the other two groups of households. Close to half, and just over half of the outgrower participating households and households employed in the scheme respectively had access to

electricity while it was only 29 per cent for the non-participating households. Spending money on house-building and improvements such as installing solar power was a top priority for many outgrower participating households, given that their original homes were demolished following their relocation to new residential dwellings to make way for the establishment of the outgrower scheme block.

Table 19: State of household main dwelling

State of household main dwelling	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Type of roofing material						
Grass thatch	0	0.0	0	0.0	1	1.5
Iron sheets	22	100.0	15	100.0	67	98.5
Total	22	100.0	15	100.0	68	100.0
Number of rooms						
1 – 2	2	9.5	6	40.0	34	50.0
3 – 4	7	33.3	7	46.7	24	35.3
5 – 6	7	33.3	2	13.3	4	5.9
7>	5	23.8	0	0.0	6	8.8
Total	21	100.0	15	100.0	68	100.0
With electricity						
Yes	10	45.5	8	53.3	20	29.4
No	12	54.5	7	46.7	48	70.6
Total	22	100.0	15	100.0	68	100.0

Source: Survey data and author's computations.

To summarise, only a smaller proportion of outgrower participating households' well-being improved as a consequence of the outgrower scheme based on indicators of self-assessment by the households and self-perceptions of financial status over time. The

well-being of the rest based on these indicators either remained the same or deteriorated over time despite participating as sugarcane outgrowers in the scheme.

6.7 Household food security

Household food security status is an important livelihood outcome especially for rural impoverished farming households. Food, is a crucial input into well-being as human beings have a biological need for the nutrients supplied from it (Barrett and Lentz, 2009). The World Food Summit defined food security as “ a situation that exists when all people at all times have physical and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” (FAO, 2006; Barrett and Lentz, 2009; Barrett, 2010). Food security rests on four hierarchical pillars: availability, stability of supply, access and utilisation (ibid). Food security can therefore be achieved when a number of dimensions of the four pillars are realised concurrently (Barrett, 2010). Food security can be measured from different levels, including, individual, household, community, regional, national and international. In this study, the researcher focussed on food security impact at the household level (Barrett and Lentz, 2009). It is, however, difficult to come to grips with precise measures of food security, and the complexity of the concept becomes all the more larger in so far as the concept goes beyond measuring the current nutritional status, to as well capture vulnerability to future disruptions in one’s access to food (Barrett and Lentz, 2009). Magobbo area in Mazabuka was generally considered to be food insecure due to, inter alia, extreme weather, lack of farming inputs and poor marketing. Thus, one of the objectives of the Magobbo outgrower scheme was to enhance food security of the local rural poor (Whydah Consulting Limited, 2011). This study does not delve into detailed issues of food security such as anthropometric

measures but focused on demand side pillar of household *access* to adequate food as an indicator of household food security. In our household survey, we thus asked the three comparator household groups how often they were compelled to reduce the number of meals consumed or skipping an entire meal all together in the previous year. The possible answers to these questions were ‘all the time’, ‘almost always’, ‘some of the time’, ‘seldom/rarely’ and ‘never.’ Further, respondents were asked whether and how their household food situation had changed over five years ago. The possible answers were ‘better off,’ ‘about the same,’ and ‘worse off.’ The qualitative methods were more flexible to ask these questions at household and community/village level as well.

Table 20 summarises the survey results with regards to possible reduction of the size of meals. The majority of the respondents in the sample across the three groups of households never reduced size of any meal in the previous year. However, of noteworthy is that more than a third (39.7 per cent) of the respondents in the non-participating households reduced the size of their meals some of the time compared to only a fifth (18 per cent) of the outgrower participating households and 20 per cent of the households employed in the scheme.

Table 20: Household reduction in size of meals

Reduction of meal	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
All the time	0	0.0	0	0.0	0	0.0
Almost always	1	4.5	1	6.7	2	2.9
Some of the time	4	18.2	3	20.0	27	39.7
Seldom/rarely	0	0.0	0	0.0	3	4.4
Never	17	77.3	11	73.3	36	52.9
Total	22	100.0	15	100.0	68	100.0

Source: Survey data and author's computations.

With regards to skipping meals whole day at any time during the previous year, Table 21 shows that the majority of the respondents in the sample across the three groups of households never skipped any meal in the previous year. It is interesting to note, however, that slightly more outgrower participating households (23 per cent) skipped meals sometimes whole day in the previous year compared to 20.5 per cent and 13 per cent of non-participating households and households employed in the scheme respectively.

Table 21: Household member skipping of meals whole day

Missing meal whole day in last 12 months	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
All the time	0	0.0	0	0.0	0	0.0
Almost always	0	0.0	1	7.0	1	1.5
Some of the time	5	23.0	2	13.0	14	20.5
Seldom/rarely	0	0.0	0	0.0	1	1.5
Never	17	77.0	12	80.0	52	76.5
Total	22	100.0	15	100.0	68	100.0

Source: Survey data and author's computations.

In terms of household perceptions regarding changes in the food security situation over the past five year period, the survey results show in table 22 that 45 per cent of the respondents in the outgrower participating households were better off compared to 29 per cent of non-participating households and 13 per cent of the households employed in the scheme. Interestingly, nearly 23 per cent of the respondents in the participating households reported a deterioration in their food security status compared to 10 per cent of the non-participating households and 13 per cent of the households employed in the scheme. The food security status of a relatively large proportion of the outgrower participating households (31 per cent) never changed despite participating as sugarcane outgrowers. Therefore, outgrower participating households who perceived their food security status as either having deteriorated or remained the same (about 54 per cent) were likely those whose plot sizes were four hectares or less and hence, received comparatively little sugar dividends to afford to buy adequate food for their households compared to their counterparts who had more than four hectares.

Table 22: Change in household food security situation

Status of household food security compared to five years ago	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Better off	10	45.5	2	13.3	20	29.4
About the same	7	31.8	11	73.4	41	60.3
Worse off	5	22.7	2	13.3	7	10.3
Total	22	100.0	15	100.0	68	100.0

Source: Survey data and author's computations.

Views on the effects of outgrowing of sugar on food security in Magobbo community from qualitative interviews were, however, diverse. Some participating smallholder outgrowers interviewed in focus group discussions had positive perceptions about the prospects of household food security despite switching to cultivating sugarcane. They claimed that in spite of the smallholders converting land previously used to grow traditional food crops to growing sugarcane, some still accessed land outside the sugar block which they acquired through swapping, purchase or leasing which they now use to grow food crops for home consumption.⁷⁴ In the words of one of the sugarcane outgrowers: “...people here are seeking pieces of land elsewhere nearby and far away so that they can continue to produce maize [the main staple food]....”⁷⁵ During a focus group discussion one female sugar outgrower stated that she bought a 10 hectares piece of land further afield in Choma District within Southern Province where she produces

⁷⁴ FGD, Site and Service section, Magobbo, Mazabuka, 11th July 2013.

⁷⁵ FGD, informant from MCGT Executive Committee, in Magobbo, Mazabuka, 21st June 2013.

food crops for her household's consumption and even for sale when there was a surplus, while another indicated that he had harvested 35 x 50kgs bags of maize from a farm plot held outside the scheme block during the 2012/2013 season. In focus group discussions many informants from outgrower households complained that unlike previously when their homesteads were within their farms, the fragmentation of their household farmland have obligated them to walk longer distances of more than three kilometres to these farm plots from their current homesteads.⁷⁶ Those who sought farmlands further afield had to completely relocate during the farming season in order to cultivate and tend to their fields. In most such cases, land would have been accessed in their original home customary areas where close relations assist in tending to the fields. The phenomenon is akin to the effects of Illovo's expansion through sugarcane block farming in Kilombero District in Tanzania where smallholder outgrowers had become 'commuter farmers' having to travel further afield tens of kilometres away where they have acquired alternative land for food crop farming after converting their traditional farmland to outgrowing sugarcane (Smalley, Sulle and Malale, 2014). The emerging pattern, thus, illustrates that some farmers still sought alternative farmland beyond the scheme block farm for growing both food crops and other commercial crops, as well as, keeping livestock.

Aside from the ability to grow their own food crops, some informants who are outgrowers maintained that even if the sugarcane farmers were not to grow their own food crops, they received enough cash income from sugarcane that enabled them to purchase the food they required. As the following excerpts underline:

⁷⁶ FDG with women, Woodlands and Site and Service Sections, Magobbo, Mazabuka, 11th and 15th July 2013.

Growing cane has not yet affected people here in terms of hunger; farmers of cane are able to buy maize; there are maize farms surrounding this area. Cane farmers have the income to buy the food they need. Smallholder maize farmers bring their trucks full of maize for sale.⁷⁷

What we do is when we get some money we go and buy maize where they sell and stock up in our home since we do not have land to grow our own food (Male outgrower from a non-poor outgrower participating household).⁷⁸

The positive perception on food security came from a particular social group among outgrower households. This social group, often composed of retirees from the civil service, teaching service, private sector including Zambia Sugar, etc., had relatively larger plot sizes in the sugar scheme that enabled them receive relatively larger sums and would afford to purchase enough food than others. This group also had alternative income sources from investments made outside the sugar outgrower scheme. However, a consistent theme among outgrower households that possessed less than four hectares of sugarcane in the scheme was that they were food insecure. These households, often exclusively dependent on sugar income, reported that the income was not enough to enable households purchase adequate food, while at the same time they had very little or no land at all left to produce own food crops. The following excerpt from life history interviews with an outgrower participating household underlines this concern:

⁷⁷ FGD, MCGT executive committee, 21 June 2013.

⁷⁸ Life history interview, Woodlands section, Magobbo, Mazabuka, 13 July 2015.

I have no land where to cultivate maize, so I depend on the little income that comes in from sugar and I manage to buy maybe two bags of maize only but with the large family this is not enough (poor male sugarcane outgrower with 2 ha).⁷⁹

Again, a widely held perception among participants in household life histories and focus group discussions was that some outgrower households spent their income from sugar carelessly (particularly men who are often heads of households) due to little experience in handling relatively large sums received by some, thereby leaving their households in hunger. Thus, while high income from sugar is necessary for food security, it is not by itself a sufficient. Household histories and key informant interviews have also revealed that such households often resorted to heavy borrowing through an informal local money lending system known as kaloba which attracts hundred per cent interest. This finding corroborates evidence from other studies that while the incomes from high value cash crops may be more than sufficient to meet a household's food requirements, the cultural changes necessary for more equitable intra-household resource distribution were often slow to come (Poulton et al., 2008).

Again, in order to triangulate evidence on the impact of the sugar outgrower scheme on household food security, we asked the respondents to state their perceptions of changes in the number of crops (both food crops for household consumption and cash crops) grown by their households over the past five years given the reduction of household land entailed by the institutional arrangements. The majority of the respondents in outgrower households (60 per cent) held the view that the number of

⁷⁹ Life history interview, Artisan section, Magobbo, Mazabuka, 14 July 2015.

crops they grew had decreased compared to only about a fifth (18 per cent) of the non-participating households and 20 per cent of the households employed in the scheme (Table 23). As it has been said already, smallholder land which previously was used to grow a variety of crops in Magobbo was now dedicated to one crop – sugarcane. Thus, some outgrower households could not access any land outside the sugar block to continue with food crop production for home consumption. Non-outgrower households on the other hand, more or less have continued to grow the same number of crops. These findings suggest that the institutional arrangements in the block farming model of the Magobbo sugar outgrower scheme encourages crop specialisation and, therefore, narrows farmers’ cropping options as opposed to crop diversification. The analysis confirms the argument by the Food First Approach (FFA) that contract farming outgrower schemes are associated with growing export crops at the expense of traditional food crops which can lead to household food insecurity due to more land being re-allocated to the non-traditional cash crops (Oya, 2012; Dolan and Sorby, 2003; Baumann, 2000).

Table 23: Household perceptions about changes in the number of crops grown

Changes in number of crops grown	Outgrower participants		Employed in scheme		Non-participants	
	No.	%	No.	%	No.	%
Increased	4	20.0	1	20.0	6	15.4
About the same	4	20.0	3	60.0	26	66.7
Decreased	12	60.0	1	20.0	7	17.9
Total	20	100.0	5	100.0	39	100.0

Source: Survey data and author’s computations.

In summary, the impact of the Magobbo outgrower scheme on food security has been mixed. Analysis shows the food security status of outgrower households is a function of 1) the level of income received from sugarcane (which itself is related to the size of the household sugar plot); 2) the food/income allocative behaviours of the respective households; and 3) the ability of an outgrower household to access land outside the scheme block to grow own-food crops. Thus, food security was assured for a small group of outgrower households owning relatively larger plots in the sugar scheme, as well as, having alternative sources of income from investments elsewhere. However, for the other group of outgrowers that had sub-optimal plot sizes in the scheme, as well as, unable to access land outside the scheme block to allow for own-food production, food security was a challenge.

6.8 Employment generated by the Magobbo outgrower scheme

Wage labour in rural areas is usually crucial to rural livelihoods, especially in the presence of rain-fed farming prone to variable weather conditions, as in Magobbo area. Therefore, wage work can contribute to livelihood sustainability for rural residents. The literature review conducted for this study (see Section 2.2.2) has shown that contract farming does generate much employment important for some rural households as a source of or a supplement to their livelihoods (Baumann, 2000; Smalley, 2013). As it has been said already, employment creation for the local rural dwellers is one of the major justifications for agricultural investments in sub-Saharan Africa (Cotula, 2009; Aabo and Kring, 2012). This section, therefore, highlights the impact of the Magobbo outgrower scheme on employment generation, type of

employment, gender and generational dimensions of this employment around the study area.

In an effort to assess the differential outcomes of employment at the Magobbo outgrower scheme in relation to gender and generation, we apply the political economy question of '*who does what?*' from our extended livelihoods framework (Scoones, 2015). Our Survey data (Table 24) shows that of the 470 household members⁸⁰ aged ten years and above captured by the survey questionnaire in the study area surrounding the Magobbo outgrower block, a total of 18.6 per cent were employed both on a permanent and casual basis. This employment is much higher than the corresponding employment participation of ten per cent in Mazabuka Constituency in which the Magobbo outgrower scheme is located (as captured by the nationally representative Rural Agricultural Livelihoods Survey (RALS) (CSO/ MAL/IAPRI, 2012).⁸¹ Only seven per cent of household members above the age of ten in the sample were directly employed in the outgrower block farm, less than their counterparts employed outside the scheme (11 per cent) in other neighbouring commercial agricultural enterprises. Generally, the proportion of household members in our sample employed on a permanent basis in the study area was more than that of casual employees.

⁸⁰ See Sub-section 4.6.3 in Chapter 4 for the rationale for including information about household members from the age of 10.

⁸¹ There is, however, a two-year gap between our survey of September 2014 and the RALS survey.

Table 24: Employment status of household members

Employment status	Permanent employment		Casual employment		Total		Household members unemployed	
	No.	%	No.	%	No.	%	No.	%
Inside outgrower scheme	21	4.5	14	3.0	35	7.4		
Outside outgrower scheme	38	8.1	14	3.0	52	11.1		
Total	59	12.6	28	6.0	87	18.6	383	81.5
Eligible for employment (10 years and above)	470							

Source: Survey data and author's computations

Labour opportunities in the Magobbo scheme farm block and the company estate are seasonal, and are largely short-term contracts of six months. Most jobs in sugarcane production are done manually with the bulky of the labour force being immigrant from far afield, largely Western Province, recruited primarily for cane-cutting. However, some labour for planting, weeding, irrigation and application of fertilizers and chemicals is sourced locally from the surrounding villages. According to informants, the preference to hiring of immigrant labour for cane-cutting than the locals is historical and follows the logic of large-scale plantations' desire to extract consistent, cheap, and disciplined labour that does not have access to land nearby (Li, 2011). A sugar industry official bemoaned the poor work culture of some local employees alleging that some frequently absented themselves from work.⁸² Interviews further revealed that the local Tonga people had historically distinguished themselves as successful own-account farmers and looked down upon the arduous cane-cutting

⁸² Interview, Zambia Sugar official, Mazabuka, 8 September, 2013.

labour, hence the sugar company's only option was to look for migrant labour, particularly from the country's Western Province. Men in Western Province had already demonstrated themselves as skilled in hard jobs in South Africa's mines under the Witwatersrand Native Labour Association (WNLA) which became popularly known as WENELA among natives (Nchito, 2010).

The exact numbers employed on the scheme block farm are not clear as figures are subsumed within those of the service provider – Nanga Farms. In the Grants Application document for the Magobbo scheme, it was estimated that about 146 part-time employees would be recruited from the smallholder farmers and their families with a further 40 seasonal employees recruited as cane-cutters (European Commission, 2007). According to the Corporate Citizenship Report a total of 6, 310 people were employed on the Zambia Sugar nucleus estate, including its subsidiary Nanga Farms in 2016/17 (Corporate Citizenship, 2017). Of this employment, only 1,979 (32 per cent) are permanent staff, with the rest (4,331 or 68 per cent) being seasonal (ibid). Nanga Farms directs some of the labour particularly that attached to its own sugarcane farms to work on the Magobbo scheme block.

A deliberate policy to employ at least one member from each outgrower household was, however, adopted by Nanga Farms and the Magobbo Trust. While the scheme initially had hoped to maximise the employment opportunities in the local rural Magobbo community by applying a local labour policy (Whydah Consulting, 2011), this was not strictly applied.⁸³ Therefore, a general view among informants in the study area was that employment generated by the outgrower scheme, as equally

⁸³ Focus group discussion, Canaan section, Magobbo Settlement, 15 July, 2013.

demonstrated by our survey result above, was not adequate compared to the population seeking jobs in the study area. As the following excerpts from focus group discussions underline:

Mostly it's adult children of outgrower participants that are working at Nanga Farms. Earlier, Nanga was taking one child from each household, but now it's not working like that... Now they are just getting people from Kalonga who don't have [sugarcane] fields in the scheme to work at Nanga Farms.⁸⁴

There is employment in the sugar sector as there are commercial sugarcane farmers – the Zambia Sugar estate and the other outgrower schemes; however, only those who had been earlier employed and considered to have experience are the ones that keep on getting the jobs. Those who have never worked are not getting the jobs; we get the forms and apply but we never get the jobs.⁸⁵

However, a key informant from Nanga Farms claimed that the recruitment process is based on an applicant having the right physical characteristics for the job and the necessary discipline. The informant bemoaned the poor work culture of some employees from Magobbo area, alleging that some frequently absented themselves from work.⁸⁶ According to the informant, such employees would not be hired back.

⁸⁴ibid.

⁸⁵ Female participant, Focus group discussion, Kalonga section, Magobbo Settlement, 12 July, 2013.

⁸⁶ Interview, Nanga Farms official, Mazabuka, 8 September 2013.

There are also gender and generational differentials in employment opportunities. As table 25 shows, in terms of absolute numbers, men in permanent employment are more than women in our sample. The survey results further show that there is a higher proportion of men than women employed on a permanent basis in the outgrower scheme block (26.8 compared to 12.5 per cent) while the opposite is true in the case of temporary or casual employment where women predominate (14.4 compared to 25 per cent). These trends are not peculiar to the outgrower scheme. Indeed, Table 26 equally shows a higher proportion of men than women are employed on a permanent basis in other enterprises outside the outgrower scheme (46.6 per cent compared to 31.3 per cent) while the opposite is true in the case of temporary employment. Not only are women under-represented in the ranks of permanent employment, qualitative interviews revealed that they predominate in highly seasonal and often unskilled jobs such as weeding and crop scouting, while men dominate irrigation, planting, and cane cutting, driving and motor vehicle maintenance.

Table 25: Employment status of household member by gender

Employment status	Male		Female		Total	
	No.	%	No.	%	No.	%
Permanent in Magobbo Scheme	19	26.8	2	12.5	21	24.1
Permanent outside Magobbo Scheme	33	46.5	5	31.3	38	43.7
Casual in Magobbo Scheme	10	14.4	4	25.0	14	16.1
Casual outside Magobbo Scheme	9	12.7	5	31.3	14	16.1
Total	71	100.0	16	100.0	87	100.0

Source: Survey data and author's computations

In agreement with our survey findings above, qualitative interviews with different groups of community members in the study area indicated that women did not benefit

from employment opportunities at the same level as men in the outgrower scheme. As a woman responded in a focus group discussion:

At first they were taking one person from each household for employment; now this year they are not doing that. Last year [2011/2012] there were 30 people taken; only 3 were women of the 30 working there. This year they say only one woman has been taken...⁸⁷

This kind of sentiment is not surprising. While the outgrower scheme has a deliberate policy to employ at least one member of each outgrower household, it was revealed in one focus group discussion that it is largely young sons that are availed such opportunities in line with patriarchal norms in the study area.⁸⁸ Young men are preferred as they are designated heirs to the household sugarcane plots. This male-bias is a testimony to the old colonial thinking that viewed men as ‘farmers’ and women as ‘wives of farmers’ (Sahle, 2006: 13-14) and reinforcing the tendency to marginalise women and to restrict them to care-giving related activities (Tsikata, 2015; Sahle, 2006; Harris, 1981; Beneria, 1979). Since society in Sub-Saharan Africa and other developing regions has ascribed most of the work of caring for children and families as the preserve for women, these reproductive responsibilities affects their ability to participate in the more rewarding productive and paid employment (Tsikata, 2015; FAO, IFAD and ILO, 2010). It is, therefore, not surprising that our survey found that there were far less women in paid employment in the Magobbo outgrower scheme compared to men.

⁸⁷ Female participant, focus group discussion, Woodlands Section, Magobbo Settlement, 15 July 2013.

⁸⁸ Focus group discussion, Canaan section, Magobbo Settlement, 15 July, 2013.

As with gender, generational disparities with regard to employment opportunities are striking (Table 26). More young⁸⁹ people than adults are employed in the outgrower scheme both on a permanent (31.3 versus 15.4 per cent) and a casual basis (16.7 versus 15.4 per cent). This finding is not surprising as adults concentrate on own-farm production, or are participants in the outgrower scheme while young people are excluded from outgrowing arrangements which are contingent on ownership of land in the scheme. These young adults who can no longer access family land for their own cultivation as most of it has been tied into the sugarcane scheme, therefore, seek often precarious employment as their main livelihood option.

Table 26: Employment status and age

Employment status	35 years and below		Above 35 years	
	No.	%	No.	%
Permanent in outgrower scheme	15	31.3	6	15.4
Permanent outside outgrower scheme	19	39.6	19	48.7
Casual in outgrower scheme	8	16.7	6	15.4
Casual outside scheme	6	12.5	8	20.5
Total	48	100.0	39	100.0

Source: Survey data and author's computations

As it has been said already, access to employment on the outgrower block farm is facilitated by the outgrower scheme management (the Magobbo Trust and Nanga Farms), with each outgrower household being guaranteed at least one job opportunity.

⁸⁹ According to the Zambia National Youth Policy (GRZ, 2015), young people, also known as 'youths' are those persons who are aged between 15 and 35 years.

The opposite is true in the case of employment outside the outgrower scheme where more adults than young people are employed both on permanent (48.7 versus 39.6 per cent) and casual basis (20.5 versus 12.5 per cent).

As with unequal access to employment, survey data (Table 27) shows gender differentiation in average wages between men and women who are employed to work in the outgrower scheme block farm. Men in permanent and casual employment earned much more than women (USD 54 versus USD 38).

Table 27: Average monthly wage for employees and gender

Employment status	Gender	Count	Mean wage (USD)
Permanent	Male	19	54
	Female	2	38
Total		21	

Source: Survey data and author's computations

As has been mentioned earlier, women find job opportunities in less-skilled and lower-paid types of work. Thus, the wage differential is more due to women finding job opportunities in the less skilled types of work whether permanent or casual and, hence, less paying. This finding is supported by the wider literature on the differential wages between men and women in work places. As Friedmann (1992: 111) aptly puts it:

Being on the whole less educated than men, women are also less skilled at many tasks. And many occupations, especially those with higher pay, are by custom reserved for men. Overall, therefore, women's earnings tend to be concentrated in the lowest paid jobs.

Therefore, as the above analysis shows, benefits of employment in Magobbo outgrower scheme have, been unevenly spread, and this gendered division of labour further limits women’s opportunities.

While our survey findings above show that more young people than adults are employed in the outgrower scheme both on a permanent and a casual basis, their monthly wages fall below those given to adult workers. As can be seen from Table 28, the wage differentials between young people and their senior counterparts are quite stark. This is due to the fact that older workers have stayed longer on the job and with their experience get more supervisory and other senior jobs that attract relatively higher wages than their younger counterparts.

Table 28: Mean monthly wage by age

Age	No.	Mean wage (USD)
35 years and below	21	65
Above 35 years	14	76
Total	35	

Source: Survey data and author’s computations

Level of education is crucial to determining access to employment in the study area. As Table 29 shows, the proportion of people in permanent or casual employment who have attained at least secondary school level of education in our sample (both in the scheme and outside the scheme) is higher than those who went only up to primary education level. Furthermore, the proportion of people with permanent employment in the scheme is much higher among those with at least secondary school level of

education (71.4 per cent) than those with permanent employment outside the scheme (50 per cent). This finding suggests a highly competitive job market in the study area where even casual jobs attracts people with relatively more years of schooling. The finding also corroborates evidence from qualitative interviews where some interviewees perceived jobs to be inadequate as they failed to find employment despite making applications. Such people were among those with relatively fewer years of schooling in a job market that demanded relatively higher level education even for unskilled casual jobs.

Table 29: Level of education by type of employment among members of households

Highest Level of Education	Permanent employment in Scheme		Permanent employment outside Scheme		Casual employment in Scheme		Casual employment outside Scheme		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%
No formal schooling	0	0.0	1	2.6	2	14.3	3	21.4	6	6.9
Primary Education (1 to 7 years of education)	5	23.8	15	39.5	4	28.6	3	21.4	27	31.0
Secondary Education (8 to 12 years of education)	15	71.4	19	50.0	8	57.1	8	57.1	50	57.5
Tertiary Education (College/ University)	1	4.8	3	7.9	0	0.0	0	0.0	4	4.6
Total	21	100.0	38	100.0	14	100.0	14	100	87	100.0

Source: Survey data and author's computations

Contrary to the scheme objective of maximising employment opportunities in the Magobbo area (Fynn, 2008; Whydah Consulting, 2011), both survey results and qualitative interviews show that employment generated by the outgrower scheme is important, but not extensive. Low levels of employment is attributed to the model of 'block farming' institutional arrangement at Magobbo which follows the plantation/estate model where labour is centrally recruited. Moreover, cane-cutting, the most labour intensive task in sugarcane farming is contracted out to migrant men

from Western part of Zambia. Thus, while the reviewed literature indicates that most crops grown under contract farming are labour intensive and hiring of seasonal labour by contract farmers is common (Little and Watts, 1994), in the case of the Magobbo scheme as is the case in the Zambia Sugar estates and Nanga Farms, far fewer local people are recruited due to the logic of employing migrant cane-cutting labour. Members of the outgrower participating households were given preferential employment access following a local labour policy applied by the management service provider.

A higher proportion of men were employed in permanent jobs than women while women predominated in the casual or temporary employment. Women were paid less than men for permanent jobs, a reflection that women found job opportunities in the less skilled jobs whether permanent or temporary. Unequal access to employment can be noted not only between women and men but also by age and education. Although more young people than adults are employed in the outgrower scheme both on a permanent and a casual basis, their monthly wages fall below those given to adult workers. Education is important in securing a job; those with secondary and tertiary level education thus dominate the ranks of permanent employment with those with primary level education dominating the temporary or casual employment. Consistent with a vast literature on women and employment in the agricultural sector in sub-Saharan Africa (Beneria, 1979; Harris, 1981; Sahle, 2006; FAO, IFAD and ILO, 2010; Tsikata, 2015), the study has established that employment practices in the Magobbo outgrower scheme demonstrates gender-differentiation of the workforce and rewards.

From the foregoing, it is clear that the institutional and political dynamics of labour access in the Magobbo scheme is particularly complex, with members of the outgrower households, largely young men, receiving preferential employment access while excluding others within the community. Therefore, fewer women, older men, those without secondary school level education and those not connected to outgrower households have access to employment in the Magobbo scheme.

6.9 Linkages in the local rural economy

One of the potential outcomes of contract farming is the benefit through their backward and forward linkages with the local economy, creating positive multiplier effects (Key and Runsten, 1999; Baumann, 2000). The spill-overs include employment (elaborated in Sub-section 6.8 above), technology transfer and skills development, market development in the local economy and development of social and productive infrastructures (Key and Runsten, 1999; Smalley, 2013; Sipangule and Lay, 2015; Glover and Jones, 2015). This section analyses these issues in relation to our case study area. In this study, we defined ‘local economy’ as the area within 5 kilometer radius from the outgrower scheme block. The analysis on local linkages refers, therefore, to this locality, rather than wider area or the entire Mazabuka District.

The feasibility study conducted for the establishment of the Magobbo outgrower scheme noted that:

[t]he “income earned from the sugar industry will have greater penetration into society through the mechanism of smallholder outgrower production...and will have greater

leverage on social development. It is reasonably anticipated that the multiplier effects from the increased income will stimulate development in a range of other agricultural activities as well as trading and social functions” (Fynn, 2008: 28).

As has been noted already, the Magobbo outgrower scheme bears the hallmarks of a plantation since it operates on a model whereby all services from labour recruitment, land preparation to harvesting and haulage of cane are undertaken centrally by a management service provider. Since outgrowers in this case do not engage in actual production of sugarcane, they neither employ labour nor purchase inputs and production equipment, as these are centrally procured in bulk from outside the rural Magobbo economy by the service provider company. Interviews with sugar industry officials and participatory mapping exercises with local community members have revealed that the scheme sources farming inputs such as fertiliser and agrochemicals in the neighbouring Mazabuka town, and the capital city, Lusaka, while major farming equipment (such as tractors, accessories for ground levelling, loaders and haulage trucks) are directly sourced from countries around the region, largely South Africa, where Zambia Sugar’s parent company Illovo is based. As such, no local depots have developed within Magobbo to cater for such services. Thus, other than labour, there are no other services that have emerged related to sugarcane production in the area. Again, as already noted, the bulk of labour employed to work on the Magobbo scheme block farm is recruited from far afield in Western Province, primarily for cane-cutting. A study by German and Parker (2015) revealed that 67 per cent of the respondents in their sample of seasonal workers employed in the Zambia Sugar and its outgrower units originated from Western Province and invested their incomes in various income generating activities that included purchase of cattle, petty trade and opening small

shops in their area of origin. Thus, the income earned by this ‘imported’ labour is largely repatriated to the area of origin of the respective workers and represents a form of ‘economic leakage’, thereby creating a very weak knock-on effect on the local Magobbo economy. As has been already noted (section 6.5.3), some outgrowers invested their locally generated sugar incomes in property development in the neighbouring Mazabuka Town and purchase of farmland outside Magobbo to continue with independent production of other crops, again, representing an economic leakage as opposed to economic linkage.

However, this study shows evidence that dividends for the shareholder outgrower smallholders and wages from a few employed around the Magobbo scheme have engendered positive spill-overs into the local economy through consumptive linkages. There is growing petty trading around the area, especially around the Site and Service Section of Magobbo with many small grocery shops springing up stocking essential commodities. Additionally, focus group discussions and key informant interviews revealed that there is a growing local trade in maize as farmers outside Magobbo deliver truckloads of maize for sale in the area, with outgrower households being the main buyers, as many of them no longer have land on which to grow the main staple food crop. Furthermore, a transport business in form of private taxis has developed in Magobbo as the outgrower community makes frequent travels to neighbouring Mazabuka Town. Thus, from the foregoing, it is clear that indirect income benefits to non-outgrower households are beginning to be generated through increased demand for goods and services by the direct income beneficiaries of the outgrower scheme, both outgrowers and wage earners employed by the scheme.

While contract farming is often credited for introducing new technologies and skills transfer not only to extra-contractual crops of contracted smallholders but also non-participating neighbouring communities (Glover, 1984; Grossman, 1998; Prowse, 2012), this study found weak evidence on such technological spill-overs. The type of crop grown by the scheme – sugarcane –is not among the main crops grown by the majority of smallholders in Magobbo and the surrounding communities, since only those contracted under the outgrower schemes can supply the crop to Zambia Sugar. Thus, the skills and techniques learned in sugarcane production by scheme participating households and those employed in the scheme cannot be transferred to extra-contractual crops cultivated by these groups of households and the neighbouring communities. The weak evidence on technological spillovers found in this study is consistent with findings of other studies elsewhere in Sub-Saharan Africa (see World Bank/UNCTAD, 2014; Meliczek, 2000; Smalley, Sulle and Malale, 2014; Smalley, 2013).

Other positive spill-overs expected from the establishment of outgrower schemes include construction or improvement of productive and social infrastructures (Sipangule and Lay, 2015). Again, our study finds weak evidence on the development of both types of infrastructures. As sugarcane in Magobbo is grown under irrigation, the main productive infrastructure constructed is the main Kaleya East Canal that channels water to the outgrower farm block and other in-field gravity-led irrigation furrows. As is with the case of technological spill-overs, this irrigation infrastructure is only for the sugar scheme block farm and can neither be utilised for extra-contractual

crop production by the outgrower households nor the non-contract households in the same or neighbouring communities.

During focus group discussions it was revealed that scheme authorities promised to improve social infrastructure including improvements to the only local school in the community by way of constructing three additional classrooms, construction of a health clinic and sinking three more community bore holes and joining them to the national electricity grid. Additionally, the community was promised that sugarcane fields would be fenced off to prevent livestock from straying and causing sugarcane crop damage. Originally, it was envisaged that the Magobbo scheme would be 'fair trade' enterprise with incomes derived from fair trade channelled to community infrastructure (European Commission, 2007). However, Magobbo never became a fair trade enterprise and, according to community interviews, social infrastructure was to be developed using income from the 20.7 ha communal sugar plot belonging to the Magobbo Trust. The local community expressed concerns at the lack of provision of such infrastructure as promised to the local community by both Zambia Sugar and the Magobbo Trust. The following excerpts from focus group discussions underline these concerns:

Clinic and outgrower scheme offices were supposed to be built, but they were not; there is no explanation about why it wasn't done; electricity power was promised too, and street lights and roads; they cannot pay for funeral tents, or the school getting electricity that would enable us to tap electricity to our own houses. The money is not

released from the communal land [20.7 ha] for communal infrastructure projects, and if anyone asks, they are sued [by the executive committee of the Magobbo Trust].⁹⁰

Roads are poor here; we have problems even when someone gets sick to take one to the hospital in an emergency, as vehicles cannot reach most households. The Magobbo Trust executive committee failed to fulfil the infrastructure it promised people in the area.⁹¹

Interviews with scheme service provider – Nanga Farms – revealed that the lag in the provision of social infrastructure in Magobbo community was caused by lack of unanimity of purpose such that the executive committee of the Magobbo Trust was either scared of doing anything with the money or they did not know how to manoeuvre with it.⁹² However, at the time of conducting the third phase of fieldwork for this study in 2015 the Magobbo Trust had purchased an electricity transformer that was used to connect the local school to the national grid. Apart from the transformer, no other infrastructure had yet been provided in the community. A key informant, however, revealed that much of the income had been largely used to purchase fuel and repair of two vehicles belonging to the Magobbo Trust. Furthermore, it was revealed that due to lack of unanimity of purpose among smallholder outgrowers over the collective income, a decision has been made by the Magobbo Trust to infuse it into the scheme outgrowers' monthly incomes.⁹³

⁹⁰ FGD, Woodlands section, Magobbo Settlement, 15 July, 2013.

⁹¹ FGD, Kalonga section, Magobbo Settlement, 12th July, 2013.

⁹² Interview, Nanga Farms official, Mazabuka, 9th August, 2013.

⁹³ Key informant Interview, former Magobbo Trust Executive Committee member, Mazabuka, 18th May 2017.

Zambia Sugar management⁹⁴ claims that much of the social infrastructure in the town of Mazabuka and the immediate surrounding areas has been developed, improved and maintained by sugar sector revenues from Zambia Sugar as part of its corporate social responsibility. This has included provision of essential services such as construction and/or upgrade of school infrastructure, health and water and sanitation in the district. While Zambia Sugar engages in supporting construction and upgrading social infrastructure in communities in Mazabuka District and beyond as part of its corporate social responsibility, evidence points to the fact that most of the infrastructure spill-overs have not been localised to the very smallholder communities that are in contract farming partnership with the Zambia Sugar.

Consistent with findings of other studies (Baumann, 2000; Little and Watts, 1994; Poulton et al., 2008), it is clear from this study that the Magobbo outgrower scheme operates largely as an ‘enclave’ benefitting a restricted group, and showing few linkages to the wider economy beyond employment and shareholder revenue streams for outgrower participating households. This, again, is largely due to the institutional arrangements that have designated the outgrower scheme to operate more or less like a plantation.

⁹⁴ Interview, Zambia Sugar official, Lusaka Head Office, 20th May, 2013.

6.10 Social consequences of the Magobbo outgrower scheme

In order to obtain a comprehensive and holistic view of contract outgrower farming and its impacts on the livelihoods of smallholder communities, this study went beyond looking at livelihoods from only an economic view focused on income, but also paid attention to possible negative social consequences arising from the model design and implementation of the Magobbo scheme. The overarching focus on the potential for enhancing incomes for outgrower schemes and other positive spill-overs to the neighbouring communities has resulted in little attention being paid to social consequences. In the view of de Treville (1986), both analyses of, and methods for implementing contract farming schemes need to be broadened in ways that firstly focus beyond simple cost/benefit analyses based on scheme/farmer profit and losses by incorporating contextual elements from the local society and economy, and secondly, examine long-range scheme impacts over several decades. As a development project, the Magobbo outgrower scheme bears the same hallmarks common to many development projects that involve alterations to the participants' physical, economic and social environments and generates social consequences on the community. As one of the specific objectives of this study was to analyse the social consequences arising from the Magobbo outgrower scheme, this section, therefore, identifies and analyses some of the unintended negative social impacts.

As it has been said already, the EU (the agency that funded the outgrower scheme to the tune of 60 per cent under AMSP measures) desired that smallholders who had land larger than the prescribed upper limit of 6 ha swap with other smallholders living in the settlement whose land was outside the catchment area identified for sugarcane cultivation to ensure equity for the community in the settlement scheme. According to

some interviews,⁹⁵ contrary to this desire, some of the landholders in the designated sugarcane growing catchment area instead of swapping preferred to sell their excess land for cash to people living outside Magobbo settlement. Indeed, according to key informants and community members interviewed, elite capture characterised the sugarcane plot allocation in Magobbo as those with connections or finance but not bona fide farmers coming from outside Magobbo were able to gain access during the initial process of reorganising the plots in order to make way for a contiguous block for growing sugarcane, while others were excluded completely.⁹⁶ Some such outsiders that had prior and privileged information about the outgrower scheme even found their way to senior positions of the Magobbo Trust executive committee causing much resentment among some households left out who contended that they were the true smallholders for which the scheme was established. Additionally, some influential families rejected the idea to let go of their land through swapping with others and, thus, subdivided within their households and registered members of the household differently. Scrutiny of a scheme document revealed that some households had as many as five members registered, owning between four and five hectares each in the scheme (MCGT and Zambia Sugar, 2014). Thus, people responded to the idea of the sugarcane outgrower scheme as individuals rather than as a community despite an explicit aim to empower communities.

During the process of demarcation and reallocation of sugarcane plots there were initial incidents of physical disruption by some members of the community often

⁹⁵ FGD, Kalonga section, Magobbo, Mazabuka, 12th July 2013; Interview, Nanga Farms official, Mazabuka, 9th August, 2013.

⁹⁶ Interview, Nanga Farms official, Mazabuka, 9th August, 2013; Interview, ZSC official, Mazabuka, 30th July 2013.

accusing the Mazabuka Council of favouring particular individuals. According to a report prepared by the Planning Department of the Mazabuka Municipal Council, when the project execution team started the plot demarcation process in one incident sometime in August 2007 at Site B of the sugarcane designated area: *“Some community members were uncooperative to the extent that it became very difficult to continue the demarcation exercise. Only a few individuals on the site from the community helped in clearing the bush while most of them were busy either arguing or holding some mini meetings which disrupted the whole programme at the end of the day”* (MMC, 2007: 3).

The scheme engendered some land conflicts in the area. Most such land conflicts were intra-family among the extended family members of the outgrower participating households. Accounts from several informants affirmed that land in Magobbo was initially considered by many residents to be of low value due to recurrent floods in the area and, therefore, some original landholders simply held on to the land by entrusting it with some relatives. According to key informants, before the sugar outgrower scheme was established, some landholders had little interest in their farmland in the settlement and a number of them had abandoned the farms but after land-use had changed from subsistence rain-fed crops to irrigated sugarcane – a high value commercial crop under the outgrower scheme, and the perception that participating households were now getting significant incomes – many family members of the original registered landholders in the settlement, including those that had emigrated elsewhere, began to lay claims to the land and the new incomes generated from it. In a number of cases, this has led to outright eviction of those extended family members from the land they had lived and worked for decades. Thus, many intra-family land

conflicts have been exacerbated by the perceived increase in the net returns to land due to agricultural commercialisation through uptake of sugarcane production by smallholders, increasing the incentive to evict tenants (both relatives and other caretakers). This was a situation acknowledged by both Zambia Sugar and the management service provider, Nanga Farms, but they chose not to do anything about it, as they allegedly did not want to become embroiled in the land issue and social matters and preferred to let the families affected resolve them,⁹⁷ or let the Mazabuka Municipal Council and the Magobbo Trust handle such matters. Similarly, the Magobbo Trust expressed the view that the executive committee would not like to impose on families, and that the families needed to resolve any intra-family conflict themselves.⁹⁸ This brought disharmony among families and triggered a lot of litigations in the Mazabuka Local Court, thus, threatening the smooth operation of the scheme.⁹⁹ Consequently, the authorities in the different governance structures of the Magobbo scheme agreed to register feuding members of the same families in their own right, enabling them to stake a claim on sugar income from an agreed number of hectares on registered family plots. Key informant interviews indicated such cases were many with at least a dozen or so documented.¹⁰⁰ In a focus group discussion, one such male victim of intra-family conflict over land stated that he had inherited his late elder brother's land that lay outside the designated sugar scheme but when the scheme came on board, he accessed the scheme by swapping land with another farmer who had excess land in the scheme area. In his own words he lamented thus:

⁹⁷ Interview, Zambia Sugar official, Mazabuka, 30th July 2013.

⁹⁸ Interview, committee member, Magobbo Trust, Mazabuka, 8th August, 2013.

⁹⁹ Key informant interview, Community Development Office, Mazabuka Municipal Council, Mazabuka, 8th August 2013.

¹⁰⁰ Key informant interview, Magobbo, Mazabuka, 14th July 2015.

Due to perceived profitability of growing cane, when I swapped with somebody to start growing cane, the children of my elder brother came to confiscate the papers and are now the ones who get the money. The land belonged to my late elder brother.¹⁰¹

At a wider community level, there have been a number of further sources of discontent. During the initial negotiations for the establishment of the Magobbo scheme, some people were reluctant to enter into the agreement because they were committed to traditional rain-fed agriculture and livestock keeping. Major divisions emerged in the settlement in the early years of the scheme, resulting in significant conflicts which still linger to date in the area. In particular, a section of the Magobbo community known as Kalonga comprising about 57 households were excluded from the scheme completely. Opinions on this exclusion varied. Some informants were of the view that there was an engineering challenge with the irrigation infrastructure. They argued that the main irrigation water canal and pumping stations were designed to serve a maximum of 440 hectares, and hence, the main water canal could not be extended further than that. However, just as in previous periods (Kalyalya, 1988), the scheme was seen by some groups in Magobbo community as land encroachment in an area that already had limited agricultural land and objected to the whole scheme. Interviews established that some groups in Kalonga section were reluctant to enter into the sugar growing agreement because they were committed to traditional subsistence agriculture, including rain-fed crop agriculture and pastoralism. They opined that this may have reflected the influence of a few farmers in the neighbouring Kalonga section who were well-off and had cattle and, hence, did not want to displace their cattle to give way to sugarcane cultivation. These rich livestock keepers, reliant on communal

¹⁰¹ Male respondent, FGD Kalonga Section, Magobbo Settlement, 12th July 2013.

grazing land that was to disappear in the outgrower scheme plans, were able to convince the rest that they should not join the scheme. At least nine members of the Magobbo community had remained reluctant to participate in the development, which in the view of the authorities, would have caused disruption of the project (Fynn, 2008; Palerm et al., 2010; Richardson, 2010). The sugar scheme planners, therefore, decided to avoid this section of the settlement. Yet the exclusion of some groups in the settlement is now a point of continued disgruntlement in the area, as those who were left out, and did not have livestock, felt they were cheated. In Kalonga Section, some community member interviewed lamented thus:

There was a promise to get cane growing started this season [2013]. We are told that we need to find a financier like what happened in the rest of the area in the settlement where cane is grown. This is where there is some kind of a frustrating issue because when the idea of growing cane in the whole Magobbo settlement started initially, it included all the smallholders households in the entire settlement; the money the EU gave to help start grow cane was meant to cater for all the Magobbo settlement smallholders who had applied to start growing cane.¹⁰²

Thus, perceived greater incomes from sugarcane received by the participating outgrower households has brought envy and frustration among the excluded groups fuelling inter-community conflict.

¹⁰² Focus group discussion, Kalonga Section, Magobbo Settlement, 12th July 2013.

As has been pointed out already, block farming of sugarcane at Magobbo required the consolidation of individual plots into a larger contiguous block for technical and managerial efficiency. This arrangement thus entailed the displacement and relocation of community members found living in the designated sugarcane block. Records and interviews established that a total of 64 households were displaced and resettled in three newly designated residential compounds adjoining the scheme block farm between 2009 and 2010. The displacement of residents, thus, took place in the context of both physical relocation of people from their homes, and livelihoods displacement. The relocation was, however, not without conflict. As noted above, some residents resisted to participate in the sugarcane growing project. Some informants argued that they had occupied the land they were to vacate for several decades and contained much-respected family graves that were to be levelled, an act they considered was a taboo. During a focus group discussion¹⁰³, one woman in Canaan Section of the Magobbo community bewailed her husband's grave was levelled during the process of land preparation for planting sugarcane at the commencement of the outgrower scheme against her wish to leave it untouched as there were some that were left undisturbed (Figure 14).

¹⁰³ FGD, Canaan Section, Magobbo, Mazabuka, 15th July 2013.



Figure 14: Graves left unlevelled in sugarcane fields at Magobbo scheme

Photo: Picture by author

Nonetheless, through persuasion or otherwise, everyone resident in the area designated for establishing the scheme ultimately had to oblige. This typifies some form of forced displacement with significant risks to the livelihoods of those affected. Some officials in scheme administrative structures suggested that the outgrower scheme would benefit the majority in the community through the expected rise in household incomes from sugar proceeds and hence the forced displacement of those few families that resisted resettlement was justified. Thus, the less powerful groups in Magobbo were denied their human rights in the name of the ‘greater good for the greater numbers’ as opposed to the ‘greater good for all’ (Khasnabis, 2007).

As the Magobbo scheme involved the displacement of communities, the question of compensation and resettlement deserved special scrutiny in this study, much as it is

complex given the nature of the scheme. In the opinion of the project initiators, the people that were to be displaced by the scheme were co-beneficiaries since they would receive increased incomes from the scheme as sugarcane outgrowers. In other words, the outgrower scheme was seen as offering the displaced people a better alternative means of livelihood given their dependence on rain-fed agriculture prone to the vagaries of climate that caused severe negative impacts on their livelihoods. Therefore, the idea of compensating people displaced by the scheme was not part of the scheme agenda. Instead, the private developer – Zambia Sugar – through the Mazabuka Trust arranged a collective resettlement loan facility with a five per cent interest rate for the smallholders through their Magobbo Trust for them to build new houses in the newly designated residential areas (MSCGT, 2009: 8). The Loan Agreement between the Mazabuka Trust and the Magobbo Trust (MSCGT, 2009: 2) thus underlined: *“There are currently persons and families residing on the Development Area and which persons are some of the beneficiaries of the Borrower under a trust constituting the Borrower...”*. The amount of money paid to each affected household was determined by the value (in terms of size and quality) of the original dwellings and other assets that had to be demolished.¹⁰⁴ According to the Loan Agreement, the affected persons would receive loans on the basis of gross current replacement cost and before each affected party received the resettlement loan they were obliged to submit to the lender – Mazabuka Trust – an irrevocable relocation commitment form (Box 1 in Section 6.3) (MSCGT, 2009: 5). During focus group discussions, some community members complained that there was no full disclosure that the money they received to rebuild their homes was as a matter of fact a loan for

¹⁰⁴ Interview, Magobbo Trust Executive Committee member, 8th August 2013.

which they had to repay from their future sugar incomes.¹⁰⁵ This lack of free, prior, and informed consent is symptomatic of the power imbalance between the parties in the consultative process. Others claimed the loan money they received for rebuilding their houses was inadequate and had to turn to their incomes from sugar to complete their homes, a situation many bemoaned was unfair.¹⁰⁶ This view was expressed in two focus group discussions as cited below:

We thought the money we received was a grant, but we realized it was a loan; and we were given less money than needed for a 3 bedroom house and now we have to complete building and making improvements to our houses from the income we get as dividends from growing sugarcane.¹⁰⁷

It was not really compensation because the money is being deducted from dividends. Compensation was according to the size of one's house and we don't feel this is compensation at all because of the little money we are getting.¹⁰⁸

Lack of contiguous land for the resettlement of the scheme participating households meant relocating the affected families in three different locations. As has been the case with many displacement and resettlement projects in developing countries (Cernea,

¹⁰⁵ FGD in Canaan Section, Magobbo, Mazabuka, 15th July 2013; FGD in Woodlands Section, Magobbo, Mazabuka, 15th July 2013.

¹⁰⁶ FGD in Woodlands Section, Magobbo, Mazabuka, 15th July 2013.

¹⁰⁷ Focus group discussion, Woodlands Section, Magobbo Settlement, 15th July 2013.

¹⁰⁸ Focus group discussion, Site and Service Section, Magobbo Settlement, 11th July 2013.

1997; Colson, 1971; de Wet, 2004), displacement and faulty resettlement can impoverish people by subtracting or degrading the assets or resources which they had formerly relied upon to provide their own subsistence and income. Losses of this sort figure in a number of the categories of 'impoverishment' (i.e. homelessness, marginalisation, loss of access to common property resources and community disarticulation) embodied in Michael Cernea's Impoverishment Risk and Reconstruction Model (Cernea, 1997) resulting from development-induced displacement. Some local community members who refused to swap their balance of land beyond six hectares were forced to pick the balance of their land in the marginal grazing area not suitable for cultivation (MMC, 2007). In a number of cases, the displaced were allocated land to build their dwelling houses in swampy areas not fit for human habitation (ibid).

The relocation of some households and plot reallocation exercise created the problem of community disarticulation in the Magobbo community. In reaction to some resettlers' desire to be resettled together in their kins groups, the Mazabuka Municipal Council observed thus: "Technically the people may not be put in the order they desire on the ground because this makes the planning for an organised plan difficult" (MMC, 2007). The planners for the Magobbo resettlement were, thus, oblivious to the consequences of disturbing the original social networks in the newly established residential areas. This lack of sensitivity to such social matters in resettlement by authorities is typical to many resettlement schemes in Sub-Saharan Africa (Tiffen, 1985) and dismantles social structure and kinship that are quite critical in livelihood making of the affected people (Cernea, 2000; Modi, 2009; Ravindran and Mahapatra, 2009). Given this context, clearly the planners for the resettlement of the displaced

families at Magobbo were unmindful to the socio-economic risks of the whole exercise or lacked in institutional capacity to avoid the risks.

Additionally, the new residential areas were characterised as mimicking urban high density settlements with their social challenges. Thus, in spite of the good intention that these new resettlement areas be “more consolidated ‘dwelling’ areas to provide for community cohesion” (Fynn, 2008: 12), social cohesion among the re-settlers has been less than hoped for with disputes among the smallholders related largely to land sales and swapping, land reallocation in resettlement areas and succession rights, as well as, wrestling for power to control the Magobbo Trust. In reference to social disharmony in the Magobbo community, one sugar industry official lamented thus:

The constitution [of the Magobbo Trust] has to be redone and the area broken up into sub-divisions. Cannot allow one [residential] section to poison everyone; let them bear the consequences [of their actions]. Zambia Sugar wants to propose a change in the structure [of the outgrower scheme block], with three or four areas that have equal voting. If Canaan has 100 ha to run, they would have to employ a supervisor to run their affairs and let them make a silly decision about their own affairs. Everyone is shielded from the consequences of their management decisions right now. It would be a major undertaking to re-establish a sugarcane project gone wrong.¹⁰⁹

Some scheme participants are outsiders with a number of them not residents in the Magobbo community. This has caused resentment from some local bona fide

¹⁰⁹ Interview, Sugarcane industry official, Mazabuka, 9th August, 2013.

community members that claimed were denied a chance to participate in the outgrower scheme privileging ‘absentee’ landlords.

As it has been said already, the largest plot (20.7 hectares) at the Magobbo Scheme block farm belonged to the Magobbo Trust held on behalf of members. This communal plot generates a significant amount of income with the Magobbo Trust receiving US\$ 5, 830 for the month of August 2014/15 agriculture season. This money would then translate to an annual income of US\$ 66, 000 if that figure is representative of each month. The use of this collective sugar income has been at the centre of conflict between scheme participants and the executive committee of the Magobbo Trust. Thus, the new ‘wealth’ flowing from the scheme has provoked political contestation within the community, as some seek to exert control over the scheme. It was reported that the first executive committee of the Magobbo Trust was ousted. Members of this committee are all residents of the Canaan Section of Magobbo community and is popularly known as the ‘Big 5.’ According to one informant:

All the nonsense is being caused by the old committee that is trying to establish a power base again. There are suspicions that some people have links with PF [ruling party Patriotic Front] and are trying to get a hold on the trust fund. Court injunctions have identified all the motives: the PF aligned chairman; the DC [District Commissioner] fishing for money; the section leader fishing for power. The old committee was starting to sell off land in the grazing area...¹¹⁰

¹¹⁰ Interview, Nanga Farms official, Mazabuka, 9th August 2013.

The executive committee of the Magobbo Trust has been accused of corruption and embezzlement of the collective income meant to fund social infrastructure in the community. In some focus group discussions it was expressed thus:

There is a problem with [MCGT] leadership. The money [from 20.7 ha communal land in the scheme] is being kept in a bank, but we don't have a say on who the person in charge is. They don't want to listen. If they don't want to know the opinions of the farmers, then why should they be there in power?¹¹¹

If our area is given a go ahead to grow cane, our thoughts are that we need to have our own committee different from the current one which is full of conflicts that are visible. It shows that development brings conflict with it.¹¹²

An informant bemoaned that it was not an easy task to handover management to the Magobbo Cane Growers Trust in the current environment where internal disputes between the farmers still raged on and characterised it as “development birth pains!”¹¹³

During the processes of zoning the resettlement sites and reallocation of space for construction of dwelling houses for the affected, women were considered to be a nuisance not to be entertained by the planning authorities during these exercises. A

¹¹¹ Focus group discussion, Woodlands Section, Magobbo Settlement, 15th July 2013.

¹¹² Focus group discussion, Kalonga Section, Magobbo Settlement, 12/07/2013.

¹¹³ Memorandum, Nanga Farms official, Mazabuka, 27th February 2015.

Report prepared by the Mazabuka Municipal Council's Planning Department involved in the land parcelling exercises for the Magobbo scheme recommended thus: "...women should not be on site while the demarcation is in progress [...] because their presence also has an effect to derail the programme" (MMC, 2007: 5). The overarching need to bulldoze through the decisions by the scheme planning authorities was without question gender insensitive and effectively foreclosed women's voices in the entire process. This finding corroborates results of other studies that found that women are worst affected by resettlement as they are not consulted in the processes of displacement and relocation and, therefore, gender concerns are put at the margins by the planners (Ravindran and Mahapatra, 2009). Generally, decision-making on displacement and resettlement takes place without input from those weak groups in society affected more negatively by the processes, particularly women and children.

While displacement has affected all groups of people in Magobbo, the impacts have weighed more heavily on women. Since women are in charge of most household reproductive activities, for instance, access to portable water for household use has been affected by their displacement. Whereas previously many households had dug water-wells within their homesteads, only a borehole each were drilled in the three resettlement areas which they considered inadequate for the population in the community.¹¹⁴ During focus group discussions women expressed concern, especially about the functionality of the boreholes, as well as, quality of materials used. They decried the frequent break-downs of the boreholes claiming they were far too inadequate for the population and also that the metal pipes used in the boreholes were

¹¹⁴ FGD in Canaan Section, Magobbo, Mazabuka, 15th July 2013; FGD in Woodlands Section, Magobbo, Mazabuka, 15 July 2013.

oxidizing causing the water to develop rust and bad taste. Additionally, women now had to cover longer distances and spend a lot more time queueing up to access water from the boreholes which were far and apart.¹¹⁵ Again, they have to travel a longer distance on foot to the neighbouring Nanga Farms where they have been allowed to collect firewood from land not yet brought into production.¹¹⁶ Because of difficulties in accessing firewood, some households have come to depend more and more on buying charcoal for their household energy needs, a situation they decried was draining their incomes. In one focus group discussion, it was revealed that some households were now spending between USD 5.7 and USD 7.6 every two to three weeks on buying charcoal.¹¹⁷ Additionally, they lamented that it was now more difficult for them to collect edible forest products like mushroom, indigenous leafy vegetables and tubers they previously used to collect at no cost.

Children too, like women, are among the worst affected by displacement and relocation. As Cernea (2000) notes, resettlement often disrupts schooling for children when incomes for the displaced plummet. In the case for children in Magobbo, resettlement into new residential locations was reportedly to have increased distances they had to walk to attend the only school in the area. Children in two of the three new resettlement areas had the distance to school increased and now have to walk up to 30 minutes to reach school when previously they used to take between 10 to 15 minutes (Whydah Consulting Ltd, 2011). The increased distance was likely to discourage some

¹¹⁵ FGD in Canaan Section, Magobbo, Mazabuka, 15 July 2013; FGD in Woodlands Section, Magobbo, Mazabuka, 15 July 2013.

¹¹⁶ FGD in Canaan Section, Magobbo, Mazabuka, 15th July 2013; Interview, Nanga Farms official, Mazabuka, 8 September 2013

¹¹⁷ FGD in Canaan Section, Magobbo, Mazabuka, 15th July 2013.

children from attending school leading to absenteeism and high drop-out rates. Interviews with some teachers at the school confirmed that the challenges of absenteeism and high drop-out rates were still endemic although they could not solely attribute this to the long distances the children had to cover to attend school.¹¹⁸

Increased incomes from sugar outgrowing has not been a good story for all. For some, divisions between household members has become a source of tension. With sugar incomes being paid into an individual bank account, this gives particular power to the account holder. In most cases this was the male household head, in whose name the leased land was registered. The individualisation of income through the sugar dividend has resulted in a breaking down of the extended family system and patterns of mutual support. Since the institutional arrangements at the Magobbo scheme involves no hands-on production by the landowner, there is no extra demand for labour as happens in other outgrower schemes. Therefore, the presence of extended family relations attracted by the new 'wealth' flowing regarded as 'rental income' that must be shared, may be resented resulting in disputes and in worst case scenarios, the division of a family plot creating fragmentation of household farmland as some members from some families stake a claim to sugar dividends by demanding to be registered as individuals from the family plot. Interviews alluded to this growing phenomenon particularly among siblings from polygamous households. A similar phenomenon is observed by other studies for the oldest Kaleya smallholder outgrower scheme managed by KASCOL within Mazabuka District (Struyf and Chuba, 2009; Schüpbach, 2014).

¹¹⁸ FGD, with teachers, Magobbo Primary School, Mazabuka, 4th September 2014.

A further major social concern raised is that despite the relatively large sums of money received by some households from sugar, money was often wasted by men, and not invested in household needs and accumulation opportunities due to inequalities in financial control at the household level. Some residents were wary of ‘moral decay’ resulting from the wealth from sugar proceeds as men made extended trips to the nearby Mazabuka Town as the following excerpts underline:

Some women in households growing cane have challenges. Men who have started getting lots of money have started marrying many women because of the money.¹¹⁹

Their [outgrowers] life styles due to increased income is affecting their health; when the old generation is gone, farms will end up being sold; many farmers have lost their lives due to HIV/AIDS resulting from the wealth from sugar proceeds.¹²⁰

Williams (1985b) makes a similar observation in the case of Mumias Sugar Scheme of Kenya where increased incomes from smallholder participation in sugar outgrowing steered extended trips to the nearby cities and high levels of alcohol consumption by men who controlled the payments.

¹¹⁹ Focus group discussion, Kalonga Section, Magobbo Settlement, 12 July 2013.

¹²⁰ Focus group discussion, Manyonyo Water Users Association (MWUA) Executive Committee, 20 June 2013.

Many informants have reported high levels of indebtedness among outgrower households through a local exploitative credit scheme known as *Kaloba*. This informal credit scheme has left many outgrower households perpetually in debt and therefore compromising the ability of some of these households to sustainably improve wellbeing, including food security. This careless spending of sugar incomes is acknowledged by both participating and their neighbouring non-participating households as the following excerpts from life history interviews and focus group discussions underline:

Some people are careless with their spending; immediately they get paid they get to town in Mazabuka and engage in careless expenditure.¹²¹

Those growing sugarcane have lots of money; but the challenge is that the sugarcane farmers are in the habit of borrowing money through a system known as *Kaloba*; so most of their money goes towards repaying debts.¹²²

These findings are consistent with findings of other studies as noted by a World Bank report (World Bank, 2009, 162-163):

... experience with commercial agriculture in Africa has shown that improved incomes do not always result in improved family welfare, given the tendency for men to control cash income. Indeed, far from improving welfare, the rise of commercial agriculture has been seen to increase the vulnerability of women and children as their

¹²¹ Life history interview with outgrower participating household, Artisan section, Magobbo, Mazabuka, 16 July 2015.

¹²² Life history interview, with poor non-participating household, Artisan section, Magobbo, Mazabuka, 16 July 2015.

former productive assets (that is land and labour) and activities become diverted to commercial agricultural activities over which they exert only limited control.

Thus, sugar income for some households has not been a boon as many households had relatively little experience in handling this new stream of income. Within households, the negative impacts of sugar income have weighed more heavily on women and children as these groups have no control of how the income is expended. Yet it is these same social groups that had to lose usufruct rights to family land that was ceded to a company for sugarcane production.

6.11 Summary discussion of main study findings

6.11.1 Introduction

This study set to uncover the livelihoods impacts of the Magobbo outgrower scheme on the smallholder sugarcane outgrower households and the surrounding communities in Magobbo, Mazabuka District, southern Zambia. In doing so, we employed two theoretical frameworks as lenses to guide the study. The Extended Livelihoods Framework guided in the analysis of how the Magobbo scheme impacted the livelihoods of the outgrower community more broadly, while the Impoverishment Risk and Reconstruction (IRR) Model complemented but specifically guided on impoverishment risks arising from displacement and resettlement of outgrowers. In this section we, therefore, summarise the discussion of our study findings. These are arranged in three sections in line with the study's specific objectives: nature and type of institutional arrangements in the Magobbo outgrower scheme; Livelihood outcomes; and the social consequences of the scheme.

6.11.2 Nature and type of institutional arrangements in the outgrower scheme

In the literature review conducted for this study, we established that while contract farming in sub-Saharan Africa has some common characteristics, they also vary across countries. Five broad contract farming models were described in the literature. These are: centralised model; nucleus estate model; multipartite model; informal model; and the intermediary model (Eaton and Shepherd, 2001; Bijman, 2008). These institutional arrangements can be differentiated by the type of contractor, the type of product, the intensity of vertical coordination between farmer and contractor, and the number of key stakeholders involved (Bijman, 2008).

The Magobbo outgrower scheme was designed on a ‘block farming’ model that entailed the pooling of smallholder family land into a communal larger contiguous block farm to be farmed as one entity by a management company contracted by the smallholder outgrowers in exchange for a monthly dividend. To achieve efficiency and productivity in sugarcane production, the contracting company in the business partnership decided that all aspects production be managed by an experienced company on behalf of smallholders. The role smallholders in these arrangements is primarily passive as they do not engage in the production. Thus, smallholders have been alienated from the actual production processes as the contracting company through its intermediaries centralises all scheme activities from land preparation and planting to harvesting and haulage. Additionally, all downstream activities of high economic value such as sugar processing and marketing are firmly in the hands of the contracting company – Zambia Sugar further excluding smallholders from capturing rents from these activities. Since smallholder’s role in these arrangements is primarily

passive, their participation in development of the scheme has been sacrificed on the altar of efficiency and profit maximization. Based on this business and management thinking from large estates, the features of block farming in contract farming largely ignores the role of smallholders as farmers, and pushes a particular construction of ‘viability’ to the exclusion of others (Cousins and Scoones, 2010). Only the contracted crop – sugarcane – is allowed to be grown on the scheme block land with irrigation water strictly applied only to the contract crop. In addition, the contractual arrangements effectively extinguish outgrowers’ individual tenure rights to land that has been ceded to the scheme by converting them to collective rights in form of a ‘block title’ from which they cannot withdraw since the block is effectively mortgaged to grow sugarcane in perpetuity.

Again, in these contractual arrangements, pastoral livelihoods by smallholders have been discouraged as this is perceived to be in conflict with sugarcane production in the scheme area and livestock owners have been compelled to remove them from the vicinity of the scheme block. The contractual arrangements, in essence, take away the independence of smallholder farmers to use their land for alternative production should need arise. Thus, smallholders’ relationship to land has radically changed as a result of the institutional arrangements adopted. Given this context, we argue that the institutional arrangements in the Magobbo scheme have subordinated smallholders to the power of the agribusiness firm and its allied intermediaries, capturing and incorporating them into new unequal social relations and patterns of accumulation – a situation others have called – adverse incorporation (Hickey and du Toit, 2007; du Toit, 2004). The Magobbo scheme initiators adopted a very particular type of institutional arrangements atypical from other sugarcane outgrower schemes found in

the literature. The block farming arrangement, therefore, effectively extends the nucleus estate and a form of centralised management. It is a way of expanding land area for Zambia Sugar estates, as well as, accessing irrigation water within the disposition area of the company's mill.

These institutional arrangements allow for the exploitation of an unequal power relationship between a company and farmers (Action Aid, 2015; Singh, 2002; Warning and Key, 2002; Baumann, 2000; Key and Runsten, 1999; Glover and Kusterer, 1990). In agreement with the existing literature, analysis shows that the contracting company has more power and control over farmers as the former takes most important decisions in farming activities with the latter losing their decision making power in the process. This highly centralised control of all farming activities by the contracting company raises some concerns as to the extent the smallholders in Magobbo have remained truly independent farmers. Since smallholders cannot engage production activities, even book keeping, the Magobbo scheme does not enhance their human capital. In essence, the central control means that contract farmers are more or less profit-sharing hired labourers on their own land than actual owners (Tyler, 2008; Grossman, 1998; Glover and Kusterer, 1990; Prowse, 2012).

Central control of farming activities is favoured in the sugar growing region of Mazabuka by the South African multinational Illovo Sugar now wholly owned by Associated British Foods. For example, in the KASCOL smallholder scheme, land is leased to farmers by a private company (KASCOL) for a renewable 14 year period. In the institutional arrangements, farmers play only a partial role in production including

irrigation, application of fertilizers and chemicals, and weeding. Other production functions such as field levelling, cane planting, cane-cutting and haulage are carried out by KASCOL on behalf of smallholders. As with the Magobbo scheme, the smallholders under the KASCOL model operate more or less like profit-sharing hired labourers on their own land. Additionally, the KASCOL smallholders also have no security of tenure on the land as they can be expelled from the scheme if they do not observe a set code of conduct.

6.11.3 Livelihood outcomes

How successful has the Magobbo outgrower scheme institutional arrangements been for the outgrower households, households employed in the scheme, and households not involved with the scheme but living within the area? For some who are involved, dividends are good, resulting in the possibilities of accumulation. The difference in average total cash income from sugar for the outgrower participating households, and the comparator groups of households is striking. In aggregate terms, outgrower households had by far superior cash proceeds than the other two groups of households growing other rain-fed crops, particularly, maize, or earning wages from employment. Evidence from the survey results and qualitative data shows income from sugar was a significant proportion of total income for most households, and central to their livelihoods. Analysis, however, shows the risk of reliance on sugar income varied depending on the livelihood portfolio for the respective smallholder households. Patterns of livelihoods for outgrower households ranged from those who were almost completely reliant on sugar income, to those who had other rain-fed farming operations on plots in the nearby communities and further afield to those with jobs and businesses

elsewhere. The cultivation of only a single contracted crop in the scheme and discouragement of livestock keeping suggests that the sugar outgrower scheme encourages a specialised livelihood portfolio centred on sugarcane. This creates significant livelihood risks for outgrower households. Some studies have shown that sugarcane productivity declines with age over time, and so will the income from sugar (Smalley, 2013 citing McCarthy, 2010). Studies also observe a danger that in case of economic recession or financial crises, contract farming schemes can collapse quite dramatically leaving the outgrowers that are overly dependent on the crop with no means of livelihood (ibid).

Thus, for the relatively few outgrowers holding relatively larger sugar plots, sugar dividends were on average good, resulting in the possibilities of accumulation, increased well-being and food security. Quantitative and qualitative data have both been indicative of increased household incomes received from the outgrower scheme. The incomes have enabled some smallholders to build good houses made of permanent materials such as bricks and iron sheets, buy motor vehicles, farms and livestock, property development and improve the family diet and sending children to good schools. Thus, for a relatively few outgrower households, their financial, physical and human capitals have been enhanced, reflecting improvement in livelihoods. These households were better placed to alleviate economic shocks through the financial capital from sugar and/or other investments made possible by this capital. However, such opportunities for accumulation and improving livelihoods and food security are not realised by everyone, as the distribution of these gains is uneven between outgrower households. Outgrower households with smaller plots emphasised negative impacts on livelihoods. Often pointed as the negative impacts include meagre incomes

from sugar, indebtedness, loss of opportunity to grow own food translating into food insecurity, and loss of opportunity to engage in pastoral livelihoods. Furthermore, the incomes from sugar attracted extended family members to outgrower households demanding that sugar wealth be shared. This puts further pressure on household income as it has to be spread too thinly, allowing for only simple reproduction (Bernstein, 2010), thus not leading to accumulation for investment. These households were less capable of increasing their capabilities to economic shocks within their households. Analysis showed that these households often resorted to ‘Kaloba,’ an informal short-term credit with shylocks that attracts interest of often up to 100 per cent of the principal sum. For these groups of outgrower households, dependence on sugar income has consigned them into new economic vulnerabilities. Clearly, the concentration of income among a few groups of smallholders has created socio-economic differentiation among participating households and between participating households and some non-participating households. This finding is consistent with those of other studies that contract farming can result in very modest gains and at times harm participating households (Glover and Kusterer, 1990; Little and Watts, 1994; Key and Runsten, 1999). Da Via (2011: 12) cynically calls areas where outgrower schemes are implemented as “typically not zones of prosperity but zones of poverty.”

Employment generated by the outgrower scheme is important, but not extensive. The institutional and political dynamics of labour access in the scheme are particularly complex with members of the outgrower households, particularly young men receiving preferential employment access. However, cane-cutting, the most labour intensive task in sugarcane farming and constituting the bulk of employment in the area, is contracted out to male migrant labour from the Western Province of Zambia. This practice

represents an economic leakage as wages are invested outside the area by the immigrant workers. The institutional arrangements whereby outgrowers are not involved in the production, but pass over their land to be managed as a block, effectively extends the nucleus estate and a form of centralised management with all procurements and other production activities done by the contracted management company. Thus, the scheme has not engendered strong economic linkages or spin-offs in the local economy as local people are not involved in the supply chain. However, the study has observed consumptive linkages triggered by the sugar dividends and wages from outgrowers and those employed respectively. But, the impact of these consumptive linkages is so minute to assure locally sustained development.

The Magobbo outgrower scheme involved the displacement and relocation of most outgrower households to pave way for a contiguous block farm. The impoverishment risks entailed in the IRR model (Cernea 1997) arising from the resettlement have been clear in Magobbo community. Failure to grow own food crops by some households, as these are precluded from the scheme block coupled with reported declining incomes from sugar has meant that food security for some of these households is in jeopardy.

6.11.4 Social consequences

This study also sought to analyse possible negative social consequences arising from the model design and implementation of the Magobbo scheme as one of its objectives. The study identified several social consequences resulting from the design and implementation of the sugar scheme. Major negative consequences were largely related to displacement and resettlement of the Magobbo community; access to the

sugar plots in the scheme; intra-household control of sugar plots and sharing of sugar income.

During the initial negotiations for the scheme between 2006 and 2007, some people objected to enter into the agreement because they were committed to traditional rain-fed agriculture and livestock keeping. Some livestock keepers were reliant on common grazing land that was to disappear in the scheme plans. Others argued that this was land they had occupied for several decades and contained much-respected graves that were being taken over by the company. The displacement and resettlement of most residents from the scheme project area to establish a contiguous sugar block has led to community disarticulation as social networks disintegrated resulting from the uncoordinated resettlement of people in new residential communities that did not pay due regard to their original neighbourhoods. Some households reported losing reciprocal ties with some of their neighbours they had lived with for decades that have been critical to livelihood making. Again, while displacement affected all groups of people in Magobbo, analysis shows that the negative impacts of the process of relocation have weighed more heavily on women and young people. For instance, the relocation increased distances to sources of water and wood fuel thereby increasing the burdens on women and children who are usually charged with the responsibilities to undertake these household reproductive functions.

While the promoters of the scheme aimed at equity vis-à-vis inclusion of a broad spectrum of households from the local community in the scheme, access to sugarcane plots in the Magobbo scheme was not equitable and lacked transparency. Some

influential outsiders with connections or finance gained advantage, thus, allowing local elites to grab land that enabled them to be inserted into the scheme. The matrix of land reallocation in the scheme area dictated who is included and who is excluded in the sugarcane scheme within the Magobbo settlement. While the idea and logic of swapping land between households with excess land in the scheme development area and those outside the development area but within the settlement area was good, the micro politics of implementation of the swapping and land trading process facilitated elite capture to the exclusion of some bona fide smallholder farmers in the locality. This elicited deep feelings of injustice among the groups excluded. Access to land in the block thus became highly contested at the time when the scheme was established. Intra-family conflict mostly over land ownership and sharing of sugar income has become the hallmark of the scheme as extended family members of outgrower households compete to control sugar income. Moreover, the perceived new wealth from the scheme provoked political contestation within the community, as some seek to exert control over the scheme. The divisions that emerged early on affected this picture of apparent harmony. With newcomers and elites gaining access to the scheme, it is far from the ideal of a 'community' initiative, and has acted to divide people, individualising property rights and disrupting community cohesion.

CHAPTER 7: CONCLUSIONS

7.1 Chapter introduction

This chapter is a conclusion to the study. The chapter firstly makes some reflections on methodology and theoretical frameworks used and the study's contribution to literature on outgrower schemes. Secondly, the chapter summarises the key findings of the study in relation to the guiding research questions. Thereafter, the chapter reflects on the policy implications of the study and ends by making suggestions for future research.

7.2 Theoretical reflections

This study employed two theories or analytical frameworks. These are the Extended Livelihood Framework otherwise known as the Political Economy of Livelihoods and the Impoverishment Risk and Reconstruction (IRR) Model. The Extended Livelihood Framework broadly framed the study while the IRR Model assisted in capturing dynamics of livelihood outcomes related to displacement and relocation of the smallholder outgrower participants in the Magobbo scheme. Below we reflect on the applications of these analytical frameworks.

7.2.1 Extended Livelihoods Framework

The extended livelihoods framework offers an important lens for looking at complex rural development questions and this analytical frame is very relevant for the study of impacts of outgrower schemes generally, and in particular, on smallholder livelihoods at Magobbo outgrower scheme in Mazabuka District. The introduction of the Magobbo

outgrower scheme altered the way smallholders in the area combine their assets/capitals as they construct their livelihoods. While an analysis centred on assets/capitals for smallholders' construction of livelihoods at Magobbo remains important, the extended livelihoods framework enabled us also to examine wider structural features that influence the nature of livelihood outcomes for outgrower participating households – the role of the state and the elites, the influence of private capital, and the changing trade regime in sugar. The story of Magobbo sugarcane outgrower scheme starts with the EU's temporary Accompanying Measures for the ACP Sugar Protocol Countries scheme (AMSP). The changing trade regime in sugar negotiated far away under the EU and the power of private capital in the name of Illovo Sugar now owned by Associated British Foods, the interest of the Zambian state and elites have all coalesced to influence the nature of the contractual arrangements and, hence, livelihood outcomes for smallholders at Magobbo. The terms of trade in sugar under AMSP meant a sharp reduction in the sugar price for ACP Protocol countries and a compensatory mechanism was negotiated and an agreement entered into with the Zambian state. Although the local smallholders had no influence whatsoever on these political-economic deals, their livelihoods are, nevertheless, impacted by them. Thus, instead of limiting focus on smallholder agency, the extended livelihoods framework allows for paying attention also to the wider structural forces that influence what is or is not possible for certain groups of smallholders (Scoones, 2015).

The Extended Livelihoods Framework is still evolving and its utility as an analytical tool for research should be flexible, challenging researchers to be innovative in applying it by asking the right political economy questions and exploring the relationships and connections in the analysis and finding the ideal methodological

combinations to answer them. In doing so, however, the challenge is that the framework, as was the case with its earlier predecessor, is likely to generate different variations of the approach.

7.2.2 Impoverishment Risks and Reconstruction (IRR) model

The application of the IRR theory to large-scale agricultural investment projects is rare in the displacement and resettlement literature, and even more so in small to medium agricultural investment projects. The theory has been applied largely to major development projects such as dams (for energy generation and irrigation) and other infrastructure projects. This study has demonstrated that while displacement caused by agricultural investment causes limited displacement in terms of volumes of the population affected, in comparative terms, the impoverishment effects of such projects are just as similar to those caused by mega projects and, therefore, warrants the same type of attention by policy makers and resettlement practitioners. The global land rush by the more prosperous nations of the world are leading to an ever increasing numbers of families forced to relocate from their homes to give way to different scales of agricultural investments including those of the size of the Magobbo outgrower scheme considered in this study.

7.3 Methodological reflections

This study used mixed methods that combined qualitative and quantitative data applied sequentially in three phases. The mixed method approach was adopted not as a matter of preference but purely for practical purposes. The researcher focused on the research question that dictated the use of a pluralistic approach to understand the problem.

While there is no mischief in applying mono-methods in research, mixed methods that combine qualitative and quantitative data helps a researcher construct a more comprehensive account of the issue under investigation than would be achieved by relying on a single method. In other words, the researcher is able to construct superior explanations of the observed phenomena. The combining of methods in this study proved effective at three levels: 1) the research design; 2) data collection and; 3) data analysis stages. At the research design stage, the first phase of qualitative data collection assisted the second phase quantitative component of the study by helping with instrument development. In the first phase of this study, key issues and themes were identified with participants and these assisted with developing a more comprehensive and structured household questionnaire (Appendix 2). At the data collection stage of this study, both qualitative and quantitative methods complemented each other in collecting data that helped clarify issues under investigation. For instance, relying only on qualitative data collection may lead to biased data from some key informants and participants in focus groups if they are not selected with due care. Thus, combining qualitative data with quantitative helped minimize this ‘information bias.’ During the data analysis stage of the study, qualitative data helped to interpret and describe quantitative findings i.e. to determine its meaning. While the quantitative method focused on numeric data that helped identify general patterns, it is poorly resourced as a method to explain the meaning of these patterns. Cognizant of the fact that each method has its own strengths and weaknesses, the researcher applied mixed methods in this study in a manner that ensured utility of their respective strengths while escaping their weaknesses.

This study's use of three phase sequential method in collecting and analysing data was innovative and allowed for collection of data over time as opposed to a one-off data collection method. There are several advantages arising from this approach. Firstly, the researcher is accorded an opportunity to check the accuracy of the data obtained from the different phases and making corrections, or take other measures in situations where the researcher cannot make such corrections. For example, the researcher dispensed with gender differences in wages for respondents in permanent employment in the Magobbo outgrower scheme from the analysis because the result between the quantitative and qualitative data was not in agreement. The researcher, with first-hand qualitative field experience was able to notice the inaccuracy in the quantitative data on this variable, something that would not have been possible if, for instance, one had relied only on quantitative data. Secondly, data collected sequentially over the three phases is richer and allows for a deeper understanding of how variables of interest changed over time. Thirdly, segmenting data collection in three phases over a three year period was helpful in building trust and rapport between the researcher and the research participants, thereby enhancing the reliability of research data in the process.

7.4 Reflections on literature on contract outgrower schemes

Most of the findings of this study are in agreement with the existing literature on outgrower schemes and contract farming in developing countries. There are, however, some aspects of the study findings that extended the literature due to the institutional arrangements in the Magobbo outgrower scheme. Evidence from our fieldwork point to the fact that contract farming comes in diverse and often complex institutional forms. In all this diversity, the common defining feature of outgrower schemes is not necessarily production by smallholders on their own land, but the use of smallholders'

land for contracted production. The Magobbo outgrower scheme institutional arrangements show that contract farming does not always involve participating smallholders cultivating their own land and using their own labour. Furthermore, this study has demonstrated that not only are smallholder outgrowers' relationship with the agribusiness firm defined by a formal contract but also by collective long-term loan agreements that indirectly lock-in the farmers into the contractual arrangements. In our case study, a commercial bank loan was contracted by a third party (Mazabuka Trust) on behalf of the smallholders' organisation (Magobbo Trust) and taken over by the contracting firm – Zambia Sugar – and the repayment period spread over 40-odd years. This study, thus, contributes to and extends the growing literature on the nature of institutional arrangements of outgrower schemes and their livelihood implications.

7.5 Summary of key findings

Before the Magobbo sugar scheme was implemented, smallholder agriculture in the study area was characterised as severely constrained by vagaries of weather (drought and floods), lack of access to production technologies, lack of inputs such as hybrid seed and fertilizer, limited access to credit and markets resulting in constrained livelihoods. The promoters of the Magobbo outgrower scheme claimed that enabling poor smallholders to commercialise agriculture by switching from mainly traditional rain-fed subsistence farming, to growing sugarcane under irrigation would enable the smallholders' under-employed land asset to be utilised productively, increase their household income from the sale of the contracted crop and, hence improve their livelihoods. This assumption was predicated on a 'win-win' narrative that prospective smallholder outgrowers would connect with international capital while they retain

their land asset and at the same time access credit for the development of capital infrastructure necessary for sugarcane production. The Magobbo scheme serves as a good case study for the current debate on the pros and cons of different institutional arrangements in international agricultural investments. This study set to uncover the livelihoods impacts of the Magobbo scheme on the smallholder sugarcane outgrower households and the surrounding communities in Magobbo. As Scoones (2015) observes, livelihoods are multi-dimensional and complex, and to get a full appreciation of impacts and outcomes for participating smallholders and those who do not, we explored issues concerning access to land and water for outgrowing, earnings for outgrowers and expenditure, accumulation/assets, food security, well-being and benefits such as employment generation and other linkages to the rest of the communities within Magobbo and the surrounding areas. The study further explored the social consequences arising from the implementation of the scheme and smallholder participation.

The main research question guiding this study was: how do outgrower schemes in the context of block farming affect the livelihoods of smallholders in the sugarcane-growing communities? In order to answer our main question the study asked the following sub-questions: 1) What is the nature of institutional arrangements of Magobbo outgrower scheme? 2) What are the livelihood outcomes of the Magobbo outgrower block farming scheme? and, 3) What are the social consequences of the outgrower scheme on the outgrower households and the surrounding communities?

The findings of this study suggest that the impact of contract farming is far more complex than generally assumed. The impacts are influenced by many factors,

including: institutional arrangements and the power relations between the contracting firm and the outgrowers; the level and distribution of sugar income among outgrower; intra-household dynamics in relation to gender and generation; nature and levels of employment generated by the scheme; local economic linkages; and displacement and relocation of smallholders and the livelihood displacement this entails.

Access to sugarcane plots in the Magobbo scheme was not equitable as some local elites, often influential outsiders gained advantage of the land swapping and trading processes to be inserted into the scheme causing resentment among the excluded local community members. Young people, particularly, have been dispossessed of their agrarian livelihoods as they can no longer access family land for their own cultivation as most of it has been tied into the sugarcane scheme and seek very often, precarious employment in the sugar estates around the area as their main livelihood option.

Smallholders' relationship to land has radically changed as the institutional arrangements in the Magobbo scheme not only entailed a reduction in size of household landholdings and extinguishing individual land tenure rights for scheme outgrowers, but also led to fragmentation of landholdings through the swapping process and/or purchase of agricultural land elsewhere by households that previously owned relatively abundant land in the scheme area.

As a result of the expansion programme of Zambia Sugar through the outgrower schemes, smallholder land is progressively getting under the control of corporate interest displacing traditional land uses that is within 30 kilometer distance of the

company mill. Thus, although the Magobbo outgrower smallholders have not been dispossessed of their land per se, the increasing concentration of their land under corporate interest constitutes a kind of ‘control grab’ of local smallholder production by the agro-industry (White et al., 2012: 634). Viewed in this way, the surrendering of individual claims to land in Magobbo as part of block farming means that the households have remained only nominal owners as they have no control over the production processes on the land, with smallholders becoming more or less profit-sharing hired labourers on their own land. Thus, contrary to a growing literature that contract outgrower farming does not involve dispossession of land from smallholders (FAO, 2009; von Braun and Meinzen-Dick, 2009), analysis shows that the Magobbo outgrower scheme does negatively affect the land rights of the smallholders, its availability, as well as, its access.

The positive income impact on participating smallholder households in the Magobbo scheme has been obvious. The difference in average total cash income from sugar for the outgrower participating households and the comparative groups of households was striking with some groups of outgrower participating households having by far superior cash proceeds than the comparator groups growing other rain-fed crops or earning wages. Income from sugar was a significant proportion of total income for some households, and, thus, central to their livelihoods but the risk of reliance on sugar income varied depending on the livelihood portfolio. While some households became almost completely reliant on sugar income, others engaged in other rain-fed farming operations on plots in the surrounding villages and further afield.

While the positive income impact of the Magobbo scheme on some participating households has been clear, the uneven size of landholdings in the scheme held by outgrower participants has created a hierarchy of outgrower smallholders leading to uneven incomes from sugar, with some participants receiving extremely higher incomes than others. Thus, incomes from sugarcane were highly variable among participating households relative to the size of landholding in the scheme by the respective households with some smallholders receiving really very low incomes. Consequently, opportunities for accumulation, increased well-being and food security have not been realised by everyone, as the distribution of these gains is uneven among participating households. As both qualitative and quantitative data has revealed, only a small proportion of outgrowers among participating households perceived their well-being as having improved due to their participation in the outgrower scheme. The well-being of the majority of the households based on these indicators either remained the same or deteriorated over time despite participating as sugarcane outgrowers in the scheme. Most of the outgrower households who reported their well-being status as either having deteriorated or remained the same were those among with the least plot sizes, hence, received comparatively little sugar dividends than their counterparts who had relatively larger plot sizes in the scheme.

The Magobbo scheme has radically changed the agrarian structure in the scheme area with major implications for the livelihoods for the outgrower participating households. Since only the contracted crop – sugarcane – is allowable for cultivation on the scheme block land which previously was used to grow a variety of crops before the scheme was established, the finding suggests the scheme forces a specialised livelihood centred on one cash crop and, therefore, narrows farmers' cropping options as opposed

to crop diversification. For most outgrower households the number of crops previously grown declined relative to non-outgrowers. This shift of production patterns entails economic risks to smallholders. The concentration on a single crop means that smallholders would be vulnerable to fluctuations in markets both in form of falling product prices, as well as, rising input costs. Additionally, since sugarcane is grown as a monocrop, smallholders face declines in sugarcane productivity in the long-term as the sugarcane crop ages with risk of declining incomes. While smallholders in Magobbo traditionally pursued a combination of crop-livestock livelihood portfolio used to meet their subsistence and income needs as a way to spread risks, the reduction in the communal grazing area entailed by the conversion of pastureland into resettlement areas and subsistence farming for the outgrowers has affected their pastoral livelihoods as many got rid of their livestock.

The displacement and relocation of Magobbo residents to pave way for the contiguous block farm is symptomatic of the impoverishment risks cited in the IRR model (Cernea, 1997; 1999; 2000). The displacement of Magobbo residents took place not only in the context of physical relocation from their homes, but also livelihood displacement. This has entailed asset loss in form of per capita reduction in household land and displacement of pastoral livelihoods that scheme participants had formerly relied upon to provide household subsistence and income. While rural people can substitute assets or capitals creating different livelihood portfolios (Scoones, 2009), the substitution of broad-based natural capital (land for cultivation, pastureland and forests for various products) for narrow financial capital (income) entailed by participation in the Magobbo outgrower scheme, leaves some groups in the community vulnerable to shocks, thus, threatening their livelihoods. Therefore, it can be inferred

that converting to sugarcane production by smallholders at Magobbo is in conflict with the more resilient broad-based pre-existing livelihood portfolios that involved a combination of crops and livestock production as this has extinguished traditional sources of sustenance and way of life of the smallholders. Previously, the Magobbo community engaged in different land-use practices based on their socio-economic needs. Land-use changes brought about by the outgrower scheme denies such land-use flexibility and smallholder outgrowers must continue with the sugar monoculture even when it can no longer be profitable. Therefore, the findings of this study on the outcomes of the outgrower scheme, seem contrary to the expectations of livelihoods framework used. That is, instead of all outgrower households becoming more resilient and less vulnerable to economic shocks, some households have become less resilient and more vulnerable, but the Extended Livelihoods Framework (Scoones, 2015; Bernstein, Crow and Johnson, 1992) helps understand why this is so. The political economy questions of: who owns what and get access? Who does what? Who gets what? and, what do they do with it?, are relevant here. To recite de Haan (2012: 349): Livelihood activities are not neutral. They engender processes of inclusion and exclusion and power is part that.” Analysis has revealed that power and politics have been at work in dictating who has access to sugarcane plots, what size, with what benefits in the Magobbo scheme. The IRR model (Cernea, 1997) has also been useful in illuminating the impoverishment risks of the resettlement process of the Magobbo residents. Resettling of households in communal grazing areas and restricting of pastoral livelihoods have increased vulnerability to impoverishment of the outgrowers and non outgrowers living adjacent to the sugar block.

As wage labour in rural areas is usually crucial to rural livelihoods, especially in the presence of dryland farming prone to variable weather conditions, this study sought to investigate the direct impact of the Magobbo scheme on employment in order to establish whether wage work in the scheme contributed to livelihood sustainability for Magobbo residents. The survey and qualitative data show that employment generated by the outgrower scheme is important, but not extensive. This is largely attributable to the institutional arrangements of the scheme which, unlike other outgrower schemes, follows the plantation/estate model where labour is centrally recruited with cane-cutting, the most labour intensive task in sugarcane farming being contracted out to male migrant labour from the Western Province of Zambia. The institutional and political dynamics of labour access in the scheme are particularly complex with members of the outgrower participating households, largely young men, receiving preferential employment access while excluding others within the community. Again, employment practices in the Magobbo scheme demonstrates gender-differentiation of the workforce and rewards with a higher proportion of men employed in permanent jobs than women while the latter predominate in the casual or temporary employment. Thus, Magobbo is still a highly patriarchal society which prioritises young men for employment in the scheme block farm as they are designated heirs to the sugarcane plots. This finding on employment dynamics is consistent with a vast literature on women and employment in the agricultural sector in sub-Saharan Africa more generally (Beneria, 1979; Harris, 1981; Sahle, 2006; FAO, IFAD and ILO, 2010; Tsikata, 2015).

While Zambia Sugar claims that its outgrower schemes not only empowers participating smallholders, but also benefit surrounding communities through

multiplier effects (Zulu, 2016), analysis shows limited evidence of the Magobbo scheme linkages to the local economy¹²³ beyond shareholder outgrower revenues and employment. However, consumptive linkages in the local economy have been demonstrated as incomes from outgrowers and wage earners create demand in the local economy. There is evidence of growing petty trading and a local transport business in form of private taxis.

The Magobbo scheme had unintended negative social consequences too. As the scheme institutional arrangements required a contiguous block of land for sugarcane cultivation, many families were displaced and resettled at the fringes of the block farm losing their much-respected graves that were levelled. While the rhetoric of the Zambia Sugar and donors focused on empowering a ‘smallholder community’ by initiating and implementing the outgrower scheme, access to land in the sugar block lacked transparency, and thus, became highly contested at the time when the scheme was established. With newcomers and elites gaining access to the scheme, it is far from the ideal of a ‘community’ initiative, and has acted to divide people, individualising property rights in land and income, and has resulted in the breaking down of cohesive community bonds, extended family system and patterns of mutual support in the area, and a separation of those benefiting from the scheme and those not. Major divisions have emerged in the Magobbo community, resulting in significant conflicts which are still lingering to-date with numerous court cases under litigation.

¹²³ ‘Local economy’ in this study is defined as the area within 5 kilometer radius from the outgrower scheme block.

7.6 Concluding remarks, policy implications and recommendations

Standard policy narratives in the wider literature present outgrower contract farming as an ‘inclusive’ business model that offers smallholders benefits of a diversified livelihood and accumulation, by connecting them with potentially lucrative global markets, without land dispossession, and, therefore, a ‘win-win’ deal to both participating smallholders and the contracting firm.

While sugarcane has played a pioneering role in contract outgrower farming in Zambia in general and in the Mazabuka District in particular, to date, a very small number of smallholders are actually involved in sugarcane cultivation compared to other crops such as tobacco and cotton, therefore, benefiting a very small fraction of smallholders country-wide. The key limitation of the Magobbo scheme is that the impact tends to be relatively narrow in its reach as it benefits a very small fraction of the overall population of the area. The 433 hectares under the Magobbo scheme represent only 1.5 per cent of land under Zambia Sugar’s sugarcane disposition area and supplies a similar proportion of sugarcane to the Zambia Sugar mill. Due to expensive capital outlays for large-scale operations and irrigation technology to access bulk water, there are limited possibilities for replication to the wider population in the district and the rest of the country. Again, within the outgrower participating households, the benefits have been highly skewed in favour of a small group with relatively larger plots in the scheme than the rest. Analysis also reveals that some outgrowers in the Magobbo scheme have continued to value the pursuit of independent farming activities for home consumption and/or cash, with some seeking farmland elsewhere to continue with their subsistence activities. This, therefore, shows that the Magobbo scheme, is in conflict

with the more resilient pre-existing livelihood strategies as it seeks to strike off the traditional sources of sustenance of the indigenous people in preference for a single capital – income – derived from sugarcane. It would be, therefore, gross misrepresentation to assess this size of smallholder sugarcane production in Magobbo or let alone the entire Mazabuka District, as ‘inclusive’ or a ‘win-win’ deal and positive for poverty reduction or livelihood improvement. Thus, the simple narrative that smallholders participating in the Magobbo outgrower scheme receive substantial incomes from their participation in the scheme and that, therefore, the scheme has improved the livelihoods of these once ‘poor’ rural people hides more than it reveals on what magnitude of smallholders are involved and how different groups within outgrower participants have been affected by the scheme. The positive impact of the Magobbo scheme on some outgrower households based on income, has been obvious as reflected in their unmatched asset accumulation when compared to non-outgrower households. However, based on indicators of self-assessment and self-perception of financial and food security status over time by the households in our sample, analysis shows that only a smaller proportion of outgrower households improved their well-being as a consequence of the outgrower scheme. For the majority of outgrowers with relatively smaller sugar plots, livelihoods have either remained the same as before the scheme was implemented, or deteriorated. These uneven sugar benefits are creating inequalities through socio-economic differentiation around the Magobbo area with some groups of smallholders accumulating, while others who get little income can only afford simple reproduction. Due to this differential impact, triggered by the very institutional arrangements, we argue that the impact on improving smallholder livelihoods in Magobbo, based on both economic and social variables, has been less than optimal and scheme, in its current design is likely to be unsustainable in the longer

term. The economic and social externalities are generally underplayed or downplayed within the contracting company, government and donor agencies.

For the contracting agribusiness firm – Zambia Sugar – the outgrower scheme has been massively beneficial, providing new land and water to expand production, and massive subsidisation of start-up costs from European Union funds and tax incentives from the Zambian state, all on the back of a claimed commitment to smallholder empowerment and pro-poor agriculture. Given the high sugarcane yields achieved owing to the ideal agronomic and climatic conditions for sugarcane production in Mazabuka district, as well as, the leverage the company commands through its web of self-created intermediaries in the scheme design, mean that corporate profits are assured and high. Analysis showed that Zambia Sugar and the management company – Nanga Farms – expropriates 72 per cent of the gross revenue per hectare from sugarcane supplied by the Magobbo smallholder scheme. We argue that the inclusion of smallholders in agribusiness value chain through outgrower schemes helps bolster the contracting company – Zambia Sugar’s public image locally and internationally that its investment is socially inclusive, apart from being commercially viable (Da Via, 2011; German and Parker, 2015). For the Zambian government, we argue that it is politically expedient to support the inclusion of smallholders in lucrative agribusiness value chains such as the Zambia Sugar-Magobbo scheme to show its policies are pro-poor.

This study has adduced empirical evidence on the impact of the Magobbo sugar scheme on smallholder livelihoods in the Magobbo settlement in Mazabuka District. Analysis reveals that the Magobbo outgrower scheme fundamentally transforms the

relationships between people and land, introduces a very new stream of income, and affects both community and intra-household relations. In so doing, the scheme has radically changed the local agrarian structure, with major implications. There are higher incomes for some – and a seeming “success” of the sugar outgrower model – but this comes at a cost, as land, livelihoods and social relations are reconfigured.

Based on the empirical findings, this study lead to some recommendations that aim at developing policy frameworks to improve the contribution of smallholder sugarcane outgrower schemes specifically, and outgrower systems more generally, to smallholder livelihoods. Promoters of smallholder outgrower schemes should encourage the development of institutional arrangements that take a broader view of smallholder livelihoods and seek to enhance, rather than remove other capitals/assets such as livestock from their production space. This will enable participating smallholders to flexibly fluctuate between independent subsistence production activities and commercial contract production. In other words, the more resilient pre-existing broad-spectrum livelihood portfolios must be encouraged alongside outgrower crops e.g. pastoral livelihoods should be maintained and some portions of farmland must be dedicated to subsistence crops to ensure food security. Promoters of smallholder outgrower schemes should consider institutional arrangements that establishes secure rights to land and water for smallholders. At best, outgrower schemes that seek altering existing landholding structures and land tenure rights in the host communities should be avoided. This will ensure that smallholders exercise sufficient control over the production processes on their land and permit them an exit option if outgrower production can no longer be profitable. Policy should ensure that outgrower scheme establishment is as participatory as possible in order to protect the

rights of marginalized groups such as women and youths within households, and those households with insufficient land that precludes them from participation in the outgrower scheme. Oft-times, these weaker groups in society are ignored during consultations, yet they are the ones that bear the brunt of the negative social and economic consequences of project developments.

The current institutional arrangements in Magobbo scheme can best be described as extractive in nature with the contracting company's main focus on profit maximization. This is ensured through Zambia Sugar's dominance of the sugarcane production space and management through a plethora of intermediaries that gives little or no space for smallholders to play active role in crop production and management of the sugar business. In this regard, initiators of sugar outgrower schemes should design and implement institutional models that maintain the role of smallholders as farmers actively involved in production and decision making on most important aspects of the whole enterprise in order to increase the likelihood of more rents going to the smallholders. While the state plays a facilitative role in outgrower establishment in the country, its regulatory role is very weak leaving smallholders at the mercy of the all-powerful agribusiness partners with their exploitative tendencies. This study revealed that outgrower schemes such as the Magobbo sugar scheme give rise to negative social consequences even if they also have positive development outcomes. Therefore, initiators of such schemes should anticipate such negative externalities (many of which arise from the design of the outgrower model) and conduct a well-informed social impact assessment that would feed into the model design in order to avoid or minimize them. In order to obtain a comprehensive and holistic view of contact outgrower farming and impacts on the livelihoods of smallholder communities, this study went

beyond looking at livelihoods from only an economic view focused on income, but also paid attention to possible negative social consequences arising from the model design and implementation of the Magobbo scheme. Policy should, thus ensure the role for an independent third party or regulatory institution is established in order to protect the interests of the outgrowers. The third party should play an advisory role from the scheme preparatory stages way up to dispute resolution between the contracting parties.

7.7 Areas suggested for future research

While this study produced a range of information, it certainly has not been exhaustive. There is, therefore, opportunity for further research in the subject area. In this regard, the study makes the following four specific recommendations for further research.

1. This study, like many livelihood studies on contract outgrower farming, is from an individual project case study perspective. The findings of the study, therefore, are as much highly geographical as they are crop specific, therefore, limiting its claim to generalisation of conclusions. Other studies encompassing many similar cases within a single study must be undertaken in order to bring deeper insights to help understand the implications of such schemes on community livelihoods. Alternatively, research in this area must embark on meta-studies that brings together primary data from many case studies with a view to broaden generalisations.

2. Outgrower farming, as with many other forms of farming is likely to suffer from environmental externalities in the long term, thus, compromising future benefits. Given that sugarcane is grown as a mono-crop for long periods of time, other studies into possible negative environmental effects from this monoculture would be appropriate.
3. Outgrowers in the Magobbo sugarcane scheme are organised into a producer organisation as with other sugarcane schemes in the study area. Understanding how these producer organisations are organised and function to empower their smallholder members is crucial and, therefore, deserve inquiry.
4. A separate study on the long-term impacts of displacement and resettlement on smallholder outgrowers in the Magobbo scheme is recommended as some impacts take a longer time horizon to manifest.

REFERENCES

- Aabo, E. and T. Kring. 2012. "The Political Economy of Large-Scale Agricultural Land Acquisitions: Implications for Food Security and Livelihoods/Employment Creation in Rural Mozambique." Working Paper 2012-0004: UNDP.
- ABF, 2016. "Acquisition of Illovo Minority Interest Update." (London, ABF. Available at http://www.abf.co.uk/media/news/2016/acquisition_of_illovo_minority_interest_update. Retrieved 31 May 2016.
- Abu Bakar, N. R. H., and M. Y. H. Abdullah. 2008. "The Life History Approach: Fieldwork Experience." *Jurnal e-Bangi*, 3(1), 09, 1-9.
- Abwino, N, E., and H. Reiks. 2007 "Out-grower System through contract farming - Zambia." Grolink/Agro Eco. Report nr: 2007 – 04.
- ACF/MACO/Michigan State University. 2010. Submission to the Committee on Agriculture and Land Study on: "The Status of customary land and how it affects the rights of indigenous local communities." Lusaka: Food Research Project.
- Action Aid, 2015. Contract farming and outgrower schemes: Appropriate development models to tackle poverty and hunger? Action Aid.
- Adams, M., 2003. Land tenure policy and practice in Zambia: issues relating to the development of the agricultural sector. Oxford: Makoro Ltd. Draft. January 2003.
- AgriFood Consulting Limited. 2005. "Synthesis Study on Options for Smallholder Commercialization." Project P091803 under the Zambia Smallholder Commercialization Strategy. Prepared for the Government of Zambia and the World Bank. Bethesda, Maryland.
- Amberntsson, P., 2011. The Past of Present Livelihoods: Historical perspectives on modernization, rural policy regimes and smallholder poverty - a case of Eastern Zambia. PhD Thesis, University of Gothenburg.
- Anseeuw, W., M. Boche, T. Brey, M. Giger, J. Lay, P. Messerli, and K. Nolte. 2012. "Transnational Land Deals for Agriculture in the Global South" – Analytical Report based on the Land Matrix Database. Number 1.
- Appendini, K., 2001. Land and Livelihood: What do we Know, and What are the Issues? In: A. Zoomers (Ed.) *Land and Sustainable Livelihood in Latin America*. Amsterdam: Royal Tropical Institute/Vervuert Verlag, 23-38.
- Arroyo, G., 1978. Agriculture and Multinational Corporations in Latin America. In: V. Harle (Ed.) *The Political Economy of Food*. Rants, England: Saxon House, 176-214.
- Arslan, A., S. Khalilian, and M. Lange. 2011. "Dealing with the Race for Agricultural land." Kiel Policy Brief, No. 31, June, Kiel Institute for the World Economy.

- Ashley, C. and D. Carney. 1999. "Sustainable livelihoods: lessons from early experience." London: DFID.
- AUC-ECA-AfDB Consortium. 2010. "Land Policy in Africa: Southern Africa Regional Assessment." Addis Ababa: AUC-ECA-AfDB Consortium.
- Barrett, C. B., 2010. "Measuring food insecurity." *Science*, 327(5967), 825-828.
- Barrett, C. B. and E. C. Lentz. 2009. Food Insecurity. Chapter for the International Studies Compendium Project. Final Version.
- Baumann, P., (2000) "Equity and Efficiency in Contract Farming Schemes: The Experience of Agricultural Tree Crops." Working Paper 139. London, ODI.
- Bebbington, A., 1999. "Capitals and Capabilities: A Framework for Analysing Peasant Viability, Rural Livelihoods and Poverty." *World Development*, 27(12), 2021-2040.
- Behrman, J., R. Meinzen-Dick, and A. Quisumbing. 2011. "The Gender Implications of Large-Scale Land Deals." IFPRI Discussion Paper 01056. International Food Policy Research Institute.
- Bernard, H. R., 2011. Research methods in anthropology: Qualitative and quantitative approaches. UK: Altamira Press.
- Bernstein, H., 2017. "Political Economy of Agrarian Change: Some Key Concepts and Questions." *RUDN Journal of Sociology*, 17(1), 7-18.
- Bernstein, H., 2010. Class Dynamics of Agrarian Change. Halifax: Fernwood Publishing.
- Bernstein, H., B. Crow, and H. Johnston, (Eds), 1992. Rural Livelihoods. Crisis and Responses. Oxford: Oxford University Press, in association with The Open University.
- Blackburn, S., 1996. The Oxford Dictionary of Philosophy. Oxford: Oxford University Press.
- Blaikie, N., 1991. "A critique of the use of triangulation in social research." *Quality and Quantity*, 25, 115-136.
- Borras, Jr., S. M., 2009. "Agrarian change and peasant studies: changes, continuities and challenges – an introduction." *The Journal of Peasant Studies*, 36(1), 5-31.
- Bruntrup, M., 2006. Everything But Arms (EBA) and the EU-Sugar Market Reform – Development Gift or Trojan Horse? Discussion Paper 10/2006. Bonn: German Development Institute.
- Bryman, A., 2008. Social Research Methods. 3rd ed. New York: Oxford University Press.
- Bryman, A., 2006. "Integrating quantitative and qualitative research: how is it done?" *Qualitative Research*, 6(1), 97-113.
- Bryman, A., 1988. Quantity and quality in social research. London, Routledge.

Burnell, P., 1994. "Zambia at Crossroads." *World Affairs*, 157(1), 19-28.

Central Statistical Office (CSO), Ministry of Agriculture and Livestock (MAL) and Indaba Agricultural Policy Initiative (IAPRI)., 2015. *Rural Agricultural Livelihoods Survey (RALS)*. Lusaka: IAPRI.

Central Statistical Office (CSO), Ministry of Agriculture and Livestock (MAL) and Indaba Agricultural Policy Initiative (IAPRI)., 2012. *Rural Agricultural Livelihoods Survey (RALS)*. Lusaka: IAPRI.

Cernea, M., 2000. *Understanding and Preventing Impoverishment from Displacement: Reflections on the State of Knowledge*. In C. McDowell, (Ed), *Understanding Impoverishment: The Consequences of Development-Induced Displacement*. Providence, Rhode Island and Oxford: Berghahn Books.

Cernea, M., 1997. "The Risks and Reconstruction Model for Resettling Displaced Populations." *World Development*, 25(10), 1569-1588.

Chambers, R. and G. Conway, 1992. "Sustainable rural livelihoods: practical concepts for the 21st Century." IDS discussion paper, 296. Brighton: IDS.

Chapoto, A., S. Haggblade, M. Hichaambwa, S. Kabwe, S. Longabaugh, N. Sitko, and D. Tschirley, 2012. "Agricultural Transformation in Zambia: Alternative Institutional Models for Accelerating Agricultural Productivity Growth and Commercialisation." Working Paper No. 64. Lusaka: IAPRI.

Chenoweth, F., J. Knowles and G. Ngenda, 1995. *Settlement programmes*. In: Roth, M., and S. G. Smith, (Eds.), *Land Tenure, Land Markets, and Institutional Transformation in Zambia*. Madison: Land Tenure Center, LTC Research paper 124, 173-198.

Chisanga, B., F. H. Meyer, A. Winter-Nelson and N. J. Sitko, 2014a. "Does the Current Sugar Market Structure Benefit Consumers and Growers?" Working Paper 89, Lusaka: Indaba Agricultural Policy Research Institute (IAPRI).

Chisanga, B., J. Gathiaka, G. Nguruse, S. Onyancha, and T. Vilakazi, 2014b. "Competition in the Regional Sugar Sector: The Case of Kenya, South Africa, Tanzania and Zambia." Draft Paper for presentation at pre-ICN conference, 22 April.

Church, A. D., G. M. Groom, D. N. Thomson, and V. R. Dlamini, 2008. "Small-Scale Cane Grower development Models: Some Lessons from Sub-Saharan Africa." *Proc S Afr Sug Technol Ass*, 81, 116 – 127.

Clements, K. W. and J. Si, 2015. *Engel's Law, Diet Diversity and the Quality of Food Consumption*. Business School, the University of Western Australia. siteresources.worldbank.org/.../engel-s-law-diet-diversity-quality-of-food-consumptio... (visited on 23/08/2017)

Colchester, M., 2000. "Dams, Indigenous people and Vulnerable Ethnic Minorities." Cape Town, South Africa: Thematic Review 1.2 prepared as an input to the World

Commission on Dams. <http://www.dams.org/kbase/thematic/tr12.htm> (visited on 14/03/2014)

Colson, E., 1971. *Kariba Studies IV - The Social Consequences of resettlement*. Manchester: Manchester University Press.

Corporate Citizenship, 2017. "Illovo Sugar: Zambia Socio-Economic Impact Assessment – Internal Management Report." London, Corporate Citizenship.

Cotula, L. and Leornad R. 2010. "Alternative to Land Acquisitions: Agricultural Investments and Collaborative Business Models." London: International Institute for Environment and Development.

Cotula, L., 2009. "Land grab or development opportunity? Agricultural Investments and land deals in Africa." London: International Institute for Environment and Development.

Creswell, J. W., 2009. *Research Design, Qualitative, Quantitative, and Mixed Methods Approaches*. London: Sage Publications.

Creswell, J. W., 2007. *Qualitative Inquiry and Research Design- Choosing Among Five Approaches*. London: Sage Publications.

Da Via, E., 2011. 'The Politics of "Win-Win" Narratives: Land Grabs as Development Opportunity?' Paper presented at the International Conference on Global Land Grabbing, 6-8 April 2011. Organised by the Land Deals Politics Initiative (LDPI) in collaboration with the Journal of Peasant Studies and hosted by the Future Agricultures Consortium at the Institute of Development Studies, University of Sussex.

de Haan, L., 2012. 'The Livelihood Approach: A Critical Exploration', *ERDKUNDE*. 66 (4), 345 – 357.

de Haan, L., 2010. "Perspectives on African Studies and development in sub-Saharan Africa." *African Spectrum*, 45 (1), 95 – 116.

de Haan, L., and A. Zoomers, 2005. "Exploring the Frontiers of Livelihoods Research." *Development and Change*, 36 (1), 27-47.

Deininger, K, and D. Byerlee, 2011. "The Rise of Large Farms in Land Abundant Countries: Do they have a Future?" *World Development*, 4 (4), 701-714.

Deininger, K., 2003. *Land policies for growth and poverty reduction. A World Bank Policy Research Report*: Washington DC: World Bank and Oxford University Press.

Department for International Development (DFID) 2002. "Better livelihoods for poor people: The role of agriculture." DFID Issues Paper, Consultation Document, August 2002.

de Treville, D., 1986. "Contract Farming, the Private Sector, and the State: An annotated and Comprehensive Bibliography with particular reference to Africa,"

Contract Farming in Africa Project Working Paper No. Two, November, 1986. Binghamton New York: Institute for Development Anthropology.

de Wet, C., 2004. Why do things always go wrong in resettlement projects? In Pankhurst, A. and F. Piguet, (Eds) *People, Space and State: Migration, Resettlement and Displacement in Ethiopia*, Addis Ababa, Addis Ababa University.

DFID 2014. Agriculture and the Private Sector. Agriculture and growth evidence paper series. June 2014. Available from https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/318353/AG_and_private_sector__final_.pdf

DFID 1999. Sustainable Livelihoods Guidance Sheet: Introduction. Available from <http://www.livelihoods.org/info/info/guidancesheets.htm1#1>

Dinham, B., and C. Hines, 1984. *Agribusiness in Africa – A study of big business in Africa's food and agricultural production*. Trenton: Africa World Press.

Dogan, A. H., M. Batram, and T. Hazar, 1999. "The new approach to development project-induced resettlement in Turkey." *International Journal of Water Resources Development*, 15(3), 291-300.

Dolan, C. S., and K. Sorby, 2003. *Gender and Employment in High-Value Agriculture Industries*. Agriculture and Rural Development Working Paper 7.

Doss, C. R., 2001. "Men's Crops? Women's Crops? The Gender Patterns of Cropping in Ghana." Paper presented at the AAEA meetings, August 2001, Chicago, Illinois. Preliminary Draft.

Downing, T. E., 2002. *Avoiding New Poverty: Mining-Induced Displacement and Resettlement*, International Institute for Environment and Development.

Droppelmann, K., 2004. *Report on the ACF Out-grower Survey Analysis in 2004*. Lusaka: The Agricultural Consultative Forum Secretariat.

Du Toit, A., 2004. "'Social Exclusion' discourse and chronic poverty: A South African case study." *Development and Change*, 35(5), 987-1010.

Dubb. A., 2017. "Interrogating the Logic of accumulation in the Sugar Sector in Southern Africa." *Journal of Southern African Studies*, 43(3), 471-499.

Dubb, A., I. Scoones, and P., Woodhouse, 2017. "The Political Economy of Sugar in Southern Africa – Introduction." *Journal of Southern African Studies*, 43(3), 447-470

Echanove, F., and C. Steffen, 2005. "Agribusiness and farmers in Mexico: the importance of contractual relations." *The Geographical Journal*, 171 (2), 166-176.

Eaton, D., G. Meijerink, J. Bijman and J. Belt, 2007. "Analysing the role of Institutional Arrangements: vegetable value chains in East Africa." Paper prepared for presentation at the 106th seminar of the EAAE: Pro-poor development in low income

countries: Food, agriculture, trade, and environment, Montpellier, France, October 25-27, 2007.

ECIAfrica Consulting (Pty) Ltd 2012. "Potential of non-traditional exports in Zambia – growth, employment and distribution of wealth and income." Third Draft Report submitted to the International Growth Centre (IGC).

Ellis, F. and S. Biggs, 2001. "Evolving Themes in Rural Development 1950s-2000s." *Development Policy Review*, 19(4), 437-448.

Elson, D., 1999. "Labour Markets as Gendered Institutions – Equality, efficiency and empowerment Issues." *World Development*, 27(3), 611-627.

European Commission 2007. Support to the Magobbo Sugarcane Outgrower's scheme in Mazabuka District-Zambia. Grant Application Form. Budget line(s): BGUE-B2007-21.060300-C1-AIDCO 2007 Sugar Accompanying Measures for Sugar Protocol Countries.

Fairclough, N., 1992. *Discourse and Social Change*. Cambridge, Polity Press.

FAO, 2013. *Trends and Impacts of Foreign Investment in Developing Country Agriculture: Evidence from Case Studies*. Rome: FAO.

FAO, 2011. Report of the Expert meeting on international Investment in the agricultural sector of developing countries. 22-23 November 2011. Rome: FAO.

FAO, IFAD and ILO 2010. *Gender dimensions of agricultural and rural employment: Differentiated pathways out of poverty – Status, trends and gaps*. Rome: FAO, IFAD and ILO.

FAO, 2009. *From Land Grab to Win-Win: Seizing the Opportunities of International Investments in Agriculture*. Policy Brief 4, June 2009. Rome: FAO.

FAO, 2006. *Safety nets and the right to food. The Right to Food Guidelines. Information papers and case studies*. Rome: FAO.

Fedder, E., 1977. *Strawberry Imperialism: An Enquiry into the Mechanics of Dependency in Mexican Agriculture*. Research Report Series No. 1, Institute of Social Studies.

Fielding, N., 2010. "Mixed methods research in the real world." *International Journal of Social Research Methodology*, 13(2), 127-138.

Filmer, D. and L. H. Pritchett. 2001. "Estimating wealth effects without data – or tears: An application to educational enrolment in states in India." *Demography*, 38 (1), 115-132.

Flyvbjerg, B., 2004. Five misunderstandings about case-study research. In Seale, C., G. Gobo, J. F. Gubrium, and D. Silverman, (Eds.), *Qualitative Research Practice*. London: Sage Publications, 420-434.

Foresti, M., E. Ludi, and R. Griffiths, 2002. *Human Rights and Livelihood Approaches for Poverty Reduction*. London: Overseas Development Institute.

Friedmann, J., 1992. *Empowerment: The Politics of Alternative Development*. Oxford: Blackwell Publishers Ltd.

Fynn, J., 2008. *Feasibility Study to Assess Possible Support to the Magobbo and Manyonyo Smallholder Sugar Outgrower Schemes under EC Sugar Reform Accompanying Measures: Final*. September.

German, L., and L. Parker., 2015. "Model Development? Zambia Sugar and the Uneven Terrain of Social Benefits." Paper prepared for presentation at the "2015 World Bank Conference on Land and Poverty", March 23-27, 2015, The World Bank, Washington DC.

German, L., G. Schoneveld, and E. Mwangi, 2011. "Processes of Large-Scale Land Acquisitions by Investors: Case Studies from Sub-Saharan Africa." Paper presented at the International Conference on Global Land Grabbing, 6-8 April 2011, Institute of Development Studies, University of Sussex. LDPI.

Gerring, J., 2007. *Case Study Research: Principles and Practices*. London: Cambridge University Press.

Glover, J. D., and K. Kusterer, 1990. *Small farmers, big business: contract farming and rural development*. London: Macmillan.

Glover, J. D., 1987. "Increasing Benefits to Smallholders from Contract Farming: Problems for Farmers' Organizations and Policy Makers." *World Development*, 15 (4), 441-448.

Glover, J. D., 1984. "Contract Farming and Smallholder Outgrower Schemes in Less-developed Countries." *World Development*, 12(11/12), 1143-1157.

Gould, J., T., Takala, and M., Nokkala, 1998. *How Sectoral Programs Work: An analysis of education and agriculture sectorprograms in Zambia, Ethiopia, Mozambique and Nepal*. Policy Papers 1/1998. Helsinki: Institute of Development Studies.

GRAIN, 2008. *Seized! The 2008 land grab for food and financial security*. GRAIN Briefing.

GRZ/CSO, 2015. *2015 Living Conditions Monitoring Survey (LCMS) Report*. Central Statistical Office, Lusaka.

GRZ/CSO, 2012a. *Zambia 2010 Census of Population and Housing –National Analytical Report*. Lusaka: Central Statistical Office.

GRZ/CSO, 2012b. *Zambia 2010 Census of Population and Housing – Volume 11 National Descriptive Tables*. Lusaka: Central Statistical Office.

GRZ/CSO, 2012c. Living Conditions Monitoring Survey Report 2006 and 2010. Central Statistical Office, Lusaka.

GRZ/CSO 2011. Zambia 2010 Census of Population and Housing – Preliminary Population Figures. Lusaka: Ministry of Finance and Economic Development.

GRZ/CSO, n.d. Southern Province: 2010 Census Final Population and Electoral Information. Retrieved from <http://www.zamstats.gov.zm/report/Census/2010/Provincial/2010%20Summary%20Census%20Wall%20Chart%20-%20Southern%20Province.pdf> 21st December 2016.

GRZ/MoFNP, 2005. Farm Block Development Plan 2005- 2007. Lusaka: Ministry of Finance and national Planning.

GRZ/MoF, 2014. Revised Sixth National Development Plan 2013 – 2016. Lusaka: Ministry of Finance.

GRZ, 2015. 2015 National Youth Policy. Lusaka: Ministry of Youth and Sport.

GRZ, 2006a. Vision 2030: To be a prosperous Middle-Income Nation by the year 2030. Lusaka: Ministry of Finance and National Planning.

GRZ, 2006b. Fifth National Development Plan 2006 – 2010. Lusaka: Ministry of Finance and National Planning.

GRZ, 2004a. National Agricultural Policy 2004 – 2015. Lusaka: Ministry of Agriculture and Cooperatives.

GRZ, 2004b. Employment of Young Persons and Children (Amendment) Act No. 10. Lusaka.

GRZ, 2002. Poverty Reduction Strategy Paper 2002 – 2004. Lusaka: Ministry of Finance and National Planning.

GRZ, 1985. Report of The Commission of Inquiry into Land Matters in the Southern Province. 25th June, 1982. Lusaka: Government Printers.

Grossman, L. S., 1998. The political economy of bananas – contract farming, peasants, and agrarian change in Eastern Caribbean. Chapel Hill and London: University of North Carolina Press.

Hall, R., 2011. “Land Grabbing in Southern Africa: The Many Faces of the Investor Rush.” *Review of African Political Economy*. 128: 193-214.

Hallam, D., 2009. “International Investment in Agricultural Production.” Paper presented at the Land Grab: the Race for the World’s Farmland.” Woodrow Wilson Center, Washington DC, 5 May 2009.

Hickey, S., and A. du Toit, 2007. "Adverse incorporation, social exclusion and chronic poverty." CPRC Working Paper 81. University of Manchester/University of the Western Cape. CPRC.

Howe, K. R., 1988. "Against the Quantitative-Qualitative incompatibility thesis, or Dogmas die hard." *Educational Researcher*. 17: 10 - 16.

IAPRI, 2016. *Zambia – Agriculture Status Report 2016*. Lusaka: IAPRI.

IFAD, 2011. "Responding to 'land grabbing' and promoting responsible investment in Agriculture." IFAD Occasional Paper 2.

Illovo Sugar, 2010. *Integrated Report 2010*. Available at <http://www.illovosugar.co.za/investors/integrated-Annual-Reports/2010>. Retrieved 23 May 2016.

James, P., and P. Woodhouse, 2017. "Crisis and Differentiation among Small-Scale Sugarcane Growers in Nkomazi, South Africa." *Journal of Southern African Studies*. 43(3), 535-549.

Janesick, V. J., 2013. *Oral History, Life History, and Biography*. In: A. A. Trainer and E. Graue (Eds), *Reviewing Qualitative Research in the Social Sciences*. New York and London: Routledge, 151-165.

Johnson, R. B., A. J. Onwuegbuzie, and L. A. Turner, 2007. "Towards a Definition of Mixed Methods Research." *Journal of Mixed Methods Research*. 1(2), 112-133.

Johnson, B., and A. J. Onwuegbuzie 2004. "Mixed Methods Research: A research Paradigm whose Time Has Come." *Educational Researcher*. 3(7), 14 – 26.

Jonker, J. and B. Pennink 2010. *The Essence of Research Methodology: A Concise Guide for Master and PhD Students in Management Science*. London: Springer.

Kalinda, T., and B. Chisaga, 2014. "Sugar Value Chain in Zambia: An Assessment of the Growth Opportunities and Challenges." *Asian Journal of Agricultural Sciences*, 6(1), 6-15.

Kalinda, T., G. Filson, and J. Shute, 2000. "Resources, household decision making and organisation of labour in food production among small-scale farmers in southern Zambia." *Development Southern Africa*, 17(2), 165-174.

Key, N., and D. Rusten, 1999. "Contract Farming, Smallholders, and Rural Development in Latin America: The Organization of Agroprocessing Firms and the Scale of Outgrower Production." *World Development*. 27(2), 381-401.

Keyser, J. C., and R. V. van Gent, 2007. *Competitive Commercial Agriculture in Africa (CCAA): Zambia Competitiveness Report*. Washington DC: The World Bank, Environmental, Rural and Social Development Unit, Africa Region.

- Khasnabis, R., 2007. "Land Acquisition, Corporate Capital and Social Justice." Department of Business Management Calcutta University. Available at www.macrosan.net/index.php?andview=articleandaid=1004.
- King, N., and C. Horrocks, 2010. *Interviews in Qualitative Research*. London: Sage Publications.
- Kydd, J. and A. Dorward, 2004. "Implications of Market and Coordination Failures for Rural Development in Least Developed Countries." *Journal of International Development*, 16(7), 951-970.
- Lahiff, E., 2003. "Land and livelihoods: the politics of land reform in Southern Africa." *IDS Bulletin*, 34(3), 54-63.
- Lappe, F. M., and J. Collins, 1977. *Food First - Beyond the Myth of Scarcity*. Houghton: Mifflin.
- Leach, M., R. Mearns, I. Scoones, 1999. "Environmental Entitlements: Dynamics and Institutions in Community-Based Natural Resource Management." *World Development*, 27(2), 225-247.
- Li, T. M., 2011. "Centering labour in the land grab debate." *The Journal of Peasant Studies*, 38(2), 281-298.
- Likulunga, M, L., 2005. *The Status of Contracting Farming and Contractual Arrangements in Zambian Agriculture and Agribusiness*. A Report Prepared for FARNPAN, December 2005.
- Little, P. and M. Watts. 1994. *Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa*. Madison, Wisconsin: University of Wisconsin Press.
- Linton, M., P. Dieppe, and A. Medina-Lara. 2016. Review of 99 self-report measures for assessing wellbeing in adults: exploring dimensions of well-being and developments over time. *BMJ Open* 2016;6:e010641. doi:10.1136/bmjopen-2015-010641 (Downloaded from <http://bmjopen.bmj.com/> on August 24, 2017).
- Loewenson, R., 1992. *Modern Plantation Agriculture: Corporate Wealth and Labour Squalor*. London: Zed Books.
- Lund, T., 2012. "Combining Quantitative and Qualitative Approaches: Some Arguments for Mixed Methods Research." *Scandinavian Journal of Educational Research*, 56(2), 155-165.
- Lusaka Times, 2008. "Government happy with Zambia Sugar Company," *Lusaka Times*, February 19th, <http://www.lusakatimes.com/2008/02/gov-happy-with-zambia-sugar-company/>
- Magobbo Cane Growers Trust (MCGT), 2007. *Constitution for Magobbo Cane Growers Trust*. Mazabuka: MCGT.

Magobbo Cane Growers Trust (MCGT) and Zambia Sugar, 2014. Magobbo Grower Distribution List 2014/2015. Mazabuka: MCGT and Zambia Sugar.

Mann, H., C. Smaller, 2010. Foreign land purchases for agriculture: what impact on sustainable development? New York: UN Department of Economic and Social Affairs.

Mazabuka Municipal Council, 2005. 2005 Updated and Standardised Mazabuka District Situation Analysis (DSA). Mazabuka: Mazabuka Municipal Council.

Mazabuka Municipal Council, 2011. Mazabuka District Medium Term Expenditure Framework (MTEF) 2011-2013. Mazabuka: Mazabuka Municipal Council.

Mazabuka Municipal Council, (n.d) Mazabuka Integrated Development Plan (IDP). Mazabuka: Mazabuka Municipal Council.

Mazabuka Sugarcane Growers Trust (MSCGT), 2009. Loan Agreement between Mazabuka Sugarcane Growers Trust and Magobbo Cane Growers Trust, 29th September 2009. Mazabuka: MSCGT.

McKenzie, D. J., 2003. "Measuring inequality with asset indicators." BREAD Working Paper 42, Bureau for Research and Economic Analysis of Development. Cambridge, MA: Center for International Development, Harvard University.

Meliczek, H., 2000. Food technology as a means of alleviating hunger and poverty. Rome: Food and Agriculture Organisation.

Merriam, S. B., 1988. Case Study Research in Education: A qualitative approach. San Francisco: Jossey-Bass.

Mies, M., and V. Shiva. 1993. Ecofeminism. London: Zed Books.

Miles, M. B., and A. M. Huberman, 1994. Qualitative data analysis: An expanded source-book. Thousand Oaks, CA: Sage Publications.

Minot, N. W., 1986. Contract Farming and its Effect on Small Farmers on Less Developed Countries. Michigan State University Working Papers. Working Paper No. 31.

Miyata, S., N. Minot, and D. Hu, 2007. Impact of Contract Farming on Income: Linking Small farmers, packers, and Supermarkets in China. International Food policy Research Institute (IFPRI) Discussion Paper 00742.

Modi, R., 2009. Reconstructing Livelihoods? Observations from Resettlement Sites in Gujarat. In R. Modi (Ed), Beyond Relocation: The Imperative of Sustainable Resettlement. New Delhi: Sage Publications, 155-182.

Molenaar, J. W., M. Persch-Orth, S. Lord, C. Taylor, and J. Harms, 2013. Diagnostic Study on Indonesian Oil palm Smallholders: developing a better understanding of their performance and potential. Washington DC: International Finance Corporation.

- Montgomery M. R., M. Gragnolati, K. A. Burke and E. Paredes 2000. "Measuring Living Standards with Proxy Variables." *Demography*, 37, 155- 174.
- Moorsom, T. L., 2016. 'Black Settlers': Hybridity, Neoliberalism and Ecosystemic Change Among Tonga Farmers of Southern Zambia, 1964-2008. PhD Thesis, Queen's University, Kingston, Ontario, Canada.
- Muggah, R., 2000. 'Through the Developmentalist's Looking Glass: Conflict-Induced Displacement and Involuntary Resettlement in Colombia', *Journal of Refugee Studies*, 13(2), pp. 133-164.
- Mujenja, F., and C. Wonani, 2012. Long-term outcomes of agricultural investments: Lessons from Zambia. London: IIED.
- Mungandi, S., D. Conforte, and N. M. Shadbolt, 2012. "Integration of Smallholders in Modern Agri-food Chains: Lessons from the KASCOL Model in Zambia." *International Food and Agribusiness Management Review*, 15(3), 155-176.
- Mwenge, F., 2016. "Reversing rising income inequality in Zambia." Lusaka: Zambia Institute for Policy Analysis and Research.
- Nchito, W. S., 2010. "Migratory patterns in small towns: the cases of Mazabuka and Kalomo in Zambia." *Environment and Urbanisation*, 22(1): 91-105.
- Newing, H., C.M. Eagle, R.K. Puri, and C. W. Watson, 2011. *Conducting Research in Conservation – A Social Science Perspective*. London: Routledge.
- OECD, 2008. *Zambia: Sustaining Agricultural Diversification. Business for Development*. OECD.
- O'Laughlin, B., 2004. "Book reviews." *Development and Change*, 35(2), 385-403.
- Omosa, M., 2002. "Export Horticulture and livelihood Strategies: A Focus on the Opportunities and Constraints Facing Smallholder Farmers in Kenya." Working paper. Nairobi.
- Oya, C., 2012. "Contract Farming in Sub-Saharan Africa: A Survey of Approaches, Debates and Issues." *Journal of Agrarian Change*, 12(1), 1-33.
- Palerm, J., T. Sierevogel, and M. Hichaambwa, 2010. *Strategic Environmental Assessment (SEA) of the Sugar Sector in Zambia*. EU.
- Peters, P., 2012. "Conflicts Over Land and Threats to Customary Tenure in Africa Today." Center for International Development Working Paper No. 247. Harvard University.
- Porter, G. and K. Phillips-Howard. 1997. "Comparing Contracts: An evaluation of contract farming schemes in Africa." *World Development*, 25(2), 227-238.
- Porter, G., and K. Phillips-Howard. 1994. "Outgrower barley cultivation on the Jos Plateau, Nigeria: a case study of agricultural innovation." *The Geographical Journal*, 160(3), 319-327.

Potter, W., 1996. *An analysis of thinking and research about qualitative methods*. New Jersey: Erlbaum and Associates.

Poulton, C., G. Tyler, P. Harzell, A. Doward, J. Kydd, and M. Stockbridge. 2008. "All-Africa Review of Commercial Agriculture in Africa: Lessons from Success and Failure." Background paper for the Competitive Commercial Agriculture in Sub-Saharan Africa (CCAA) Study.

Ravindran, L. and B. Mahapatra, 2009. *Gender Issues in Displacement: A Study of Irrigation Projects in Southern Orissa*. In: R. Modi, (Ed.) *Beyond Relocation: The Imperative of Sustainable Resettlement*. New Delhi: Sage Publications.

Reardon, T., 1997. "Using Evidence of Household Income Diversification to Inform Study of the Rural Nonfarm Labour Market in Africa." *World Development*, 25(5), 735-47.

Richardson, B., 2010. "Big Sugar in Southern Africa: Rural Development and the Perverted Potential of Sugar/Ethanol exports." *Journal of Peasant Studies*, 37(4), 917-38.

Sahle, E. N., 2006. "Gender, States, and Markets in Africa," *Studies in Political Economy*, 77, Spring.

Sale, J. E. M, L. H. Lohfeld, and K. Brazil. 2002. "Revisiting the Quantitative-Qualitative Debate: Implications for Mixed-Methods Research." *Quality and Quantity*, 36, 43-53.

Scoones, I., 2015. *Sustainable Livelihoods and Rural Development - Agrarian Change and Peasant Studies*. Nova Scotia: Fernwood Publishing.

Scoones, I., 2009. "Livelihoods perspectives and rural development." *The Journal of Peasant Studies*, 36(1), 171-196.

Scoones, I., 1998. *Sustainable Rural Livelihoods: A Framework of Analysis*. IDS Working Paper 72. Sussex, Institute of Development Studies (IDS).

Scott, G., and C. Mufwambi, 2004. *Tinker, Tailor, Fisherman, Farmer? Local Level Impacts of Food Aid in Rural Zambia and their Long-term Food Security*. Lusaka: Forum for Food Security in Southern Africa.

Sen, A., 2000. *Social Exclusion: Concept, Application, and Scrutiny*. Manila, Philippines: Asian Development Bank.

Sen, A., 1990. *Gender and cooperative conflicts*. In: I. Tinker (Ed), *Persistent Inequalities: women and world development*. New York: Oxford University Press.

Singh, S., 2002. "Contracting Out Solutions: Political Economy of Contract Farming in the Indian Punjab." *World Development*, 30(9), 1621- 1638.

Sitko, N. J., and T. S. Jayne. 2014. "Structural Transformation or elite land capture? The growth of "emergent" farmers in Zambia." *Food Policy*, 48, 194-202.

Smalley, R., E. Sulle, and L. Malale, 2014. "The role of the state and foreign capital in agricultural commercialisation: The case of sugarcane outgrowers in Kilombero District, Tanzania." Working Paper 106. Western Cape, Future Agricultures.

Smalley, R., 2013. "Plantations, Contract Farming and Commercial Farming Areas in Africa: A Comparative Review." Land and Agricultural Commercialisation in Africa (LACA) Project Working Paper series. Working Paper 055.

Smith, B., 1998. An Introduction to Ontology. In: D. Peuquet, B. Smith and B. Brogaard (Eds.). *The Ontology of Fields*. Santa Barbara, CA: National Center for Geographic Information and Analysis, 10-14.

Songwe, V., K. Deininger. 2009. *Foreign Investment in Agricultural Production: Opportunities and Challenges*. Washington DC: The World Bank.

Springfellow, R., 1996. "Smallholder outgrower schemes in Zambia." Research report completed under ODA Crops Post-Harvest Programme, Project Number AO439, Londres: Natural Resource Institute.

Struyf, G. and N. Chuba. 2009. "Final Report: Study of the feasibility of the expansion of sugar outgrower schemes in Zambia." Framework contract EUROPEAID/119860/C/SV/multi Lot 1 Specific Contract N. 2008/164722 with TRANSTEC. European Commission.

Tashakkori, A. and C. Teddlie. 1998. "Mixed Methodology: Combining qualitative and quantitative approaches." *Applied Social Research Methods Series*, 46. Thousand Oaks, CA: Sage Publications.

Taylor, M., and T. Bending. 2009. "Increasing commercial pressure on land: Building a coordinated response." Discussion paper, International Land Coalition. Rome: Secretariat at IFAD.

The Oakland Institute, 2011. *Understanding land Investment Deals in Africa. Country Report: Zambia*. Oakland: The Oakland Institute.

The Post Newspapers Zambia, 2013. "Finnish envoy urges shift to irrigation." *The Post Newspapers Zambia*, November 14th.

The Post Newspapers Zambia, 2012. "58 million hectares available for farming – Chenda." *The Post Newspapers*, Friday October 12th.

Tiffen, M., 1985. "Land Tenure issues in Irrigation Planning Design and Management in Sub-Saharan Africa." Working Paper No. 16. London: Overseas Development Institute.

Tschirley, D., I. Minde, and D. Boughton. 2009. "Contract Farming in Sub-Saharan Africa: Lessons from cotton on what works and under what conditions." *Regional Strategic Analysis and Knowledge Support System, Issues Brief*, No. 7.

Tyler, G. (2008) 'All-Africa Review of the Experiences with Commercial Agriculture: The African Sugar Industry – A frustrated Success Story.' Background paper for the Competitive Commercial Agriculture in Sub-Saharan Africa (CCAA) Study.

UCW, 2009. Understanding children's work in Zambia - Report on child labour. ILO, UNICEF, World Bank.

UNCTAD, 2011. An Investment Guide to Zambia: Opportunities and Conditions. New York and Geneva: United Nations.

UNDP/GRZ, 2011. Human Development Report – Zambia 2011. Lusaka: UNDP.

Vermeulen, S., and N. Goad. 2006. Towards better practice in smallholder palm oil production. Natural Resources Issues Series No. 5. London: International Institute for Environment and Development.

Van Den Broeck, G. and M. Maertens. 2016. "Horticultural exports and food security in developing countries." Bioeconomics Working Paper Series. Working Paper 2016/2. Belgium. <http://ees.kuleuven.be/bioecon/>

van Dijk, T. A., 1995. "Aims of Critical Discourse Analysis." Japanese Discourse, 1, 17-27.

Vickery, K. P., 1986. Black and White in Southern Zambia: The Tonga Plateau Economy and British Imperialism, 1890-1939. Connecticut: Greenwood Press Inc.

von Braun, J. and R. Meinzen-Dick. 2009. "'Land Grabbing' by Foreign Investors in Developing Countries: Risks and Opportunities." Policy Brief 13. April 2009. Washington DC: International Food Policy Research Institute.

Warning, M. and N. Key 2002. "The Social Performance and Distributional Consequences of Contract Farming: An Equilibrium Analysis of the *Arachide de Bouche* Programme in Senegal." World Development, 30(2), 253-66.

Waswa, F., Gweyi-Onyango, J. P. and M. Mcharo. 2012. "Contract sugarcane farming and farmers' income in the Lake Victoria Basin, Kenya." Journal of applied Biosciences, 52, 3685-3695.

Watts, M. J., 1994. Life under Contract: Contract Farming, Agrarian Restructuring, and Flexible Accumulation. In: P. Little and M. J. Watts (Eds) Living under Contract: Contract Farming and Agrarian Transformation in Sub-Saharan Africa. Madison, Wisconsin: University of Wisconsin Press, 21-77.

Watts, R., 1992. "Zambia's Experience of Agricultural Restructuring." In: Csaki et al (Eds) Agricultural Restructuring in Southern Africa. Papers presented at an International Symposium held at Swakopmund, Namibia, 24-27 July, 1990. Windhoek: Association of Agricultural Economics of Namibia.

Watson, L. C. and M. B. Watson-Franke, 1985. Interpreting Life Histories: An Anthropological Enquiry. New Jersey: Rutgers University Press.

Weaver, F., J. Goncalves, and V. Ryser. 2015. "Socio-economic inequalities in subjective well-being among the 50+: contributions of income and health." Working Paper Series. Geneva school of Economics and Management.

Wetlands International, 2008. Biofuels in Africa: an assessment of risks and benefits for African wetlands. Amsterdam: Wetlands International.

White, B., S. M. Borras Jr., H. Ruth, I. Scoones, and W. Wolford, 2012. "The new enclosures: critical perspectives on corporate land deals." *The Journal of Peasant Studies* 39(3-4), 619-647.

Whydah Consulting Ltd, 2011. Interim Evaluation of the Magobbo Cane Outgrowers Project – Final Report. Lusaka: Whydah Consulting Ltd.

Wiggins, S., J. Kirsten and L. Llambi. 2010. "The Future of Small Farms." *World Development*, 38(10), 1341-1526.

William, S., 1985a. Commonwealth Development Corporation: A sugar production and settlement in Swaziland. In: Williams, S. and R. Karen (Eds). *Agribusiness and the Small-Scale Farmer*. Boulder, Colorado: Westview Press, 57-76.

William, S., 1985b. The Mumias Sugar Company: A nucleus estate in Kenya. In: Williams, S. and R. Karen (Eds). *Agribusiness and the Small-Scale Farmer*. Boulder, Colorado: Westview Press, 35-56.

Winship, C., and R. D. Mare. 1992. "Models for sample Selection Bias." *Annual Review Sociology*, 18, 327-50.

Wood, A. P, and W.Smith, 1984. "Zambia up for grabs? The regionalisation of agricultural aid." *Area*, 16(1), 3-7.

World Bank, 2013. *Growing Africa: Unlocking the Potential of Agribusiness*. Washington, DC: World Bank.

World Bank/UNCTAD, 2014. *The Practice of Responsible Investment Principles in Large-Scale Agricultural Investments: Implications for Corporate Performance and Impact on Local Communities*. Washington DC: World Bank group.

World Bank, 2012a. Zambia: Country Brief. <http://web.worldbank.org/WBSITE/EXTERNAL/COUNTRIES/AFRICAEXT/ZAMBIAEXTN/o,,menuPK:375684...> (visited on 29/10/2012).

World Bank, 2012b. *Agribusiness Indicators: Zambia*. Washington DC: World Bank.

World Bank, 2010. *Rising Global Interest in Farmland: Can it yield sustainable and equitable results?* Washington DC: World Bank.

World Bank, 2009. *Awakening Africa's Sleeping Giant: Prospects for Commercial Agriculture in the Guinea Savannah Zone and Beyond*. Washington DC: World Bank.

World Bank, 2007. World Development Report 2008: Agriculture for Development. Washington DC: World Bank.

World Bank, 2002. World Development Report 2002: Building Institution for Markets. Washington DC: World Bank.

Yin, R.K., 2009. Case Study Research: Design and Methods. London: Sage Publications.

Yin, R.K., 2003. Case Study Research: Design and Methods. London: Sage Publications.

Zambia Sugar, 2017. Zambia Sugar Annual Report 2017.

Zambia Sugar, 2015. Zambia Sugar Annual Report 2015.

Zambia Sugar, 2013. Zambia Sugar Annual Report 2013.

ZDA/GRZ. 2010. Development and Commercialisation of Nansanga Farm Block. Prequalification Information Memorandum. Lusaka, Zambia.

ZHECT, 2010. Baseline Survey Report of the Magobbo Sugarcane Outgrowers Scheme in Mazabuka. Lusaka: ZHECT.

Zulu, H., 2016. "Zambia Sugar outgrower scheme successful." Times of Zambia, 14th July. <https://www.times.co.zm> (visted on 24/09/2016).

APPENDICES

Appendix 1: Qualitative research guide for key informants

Ownership and production

1. **Ownership structure:** Who is the owner of the agricultural company/venture? National or international? Sole or joint venture? Private or public ownership?
2. **Origins:** Where is the company / investor / commercial farmers from? How organised are they as a collective? And how legitimate is their occupation of land in the eyes of various groups?
3. **History:** What is the age of the business, how long has it been operating, what history of changes in ownership, what has driven this, and what outcomes for relations with workers and local communities?
4. **Finance:** Where does the finance come from? What other enterprises (up/downstream, construction, or service sector for agriculture) is the company / investor / commercial farmers involved in? What off-farm incomes are there, and how do these influence farming strategies? Diversifying out of agriculture or into agriculture?
5. **Political support:** What relations, subsidies or tax conditions or market support do they have?
6. **Production:** What crop/s are being produced, what are the maturation timeframes, what production technologies are adopted, what is the degree of labour intensity or mechanisation and what influences this? What is the extent of irrigation?
7. **Changes over time:** if project is older, have there been any changes in the crop or institutional arrangement (e.g. from one model to another)? What is the nature of vulnerability to climatic and market crises, or withdrawal of political support – ie. how resilient is this model?
8. **Inputs:** what inputs, machinery and services are used in production, and where are these sourced from? Have input supply and service industries emerged?
9. **Processing and value chains:** is produce processed by the company / investor / commercial farmers, on-site or elsewhere, and what are the value chains?
10. **Markets:** For what markets are they producing, and what market conditions/criteria influence production decisions?

11. **Discourses:** What discourses, strategies and positioning are adopted by the company / investor / commercial farmers to characterise their production and presence in the local and national economy? What counter-narratives emerge from local communities, and what do these say about notions of land, ownership and property from diverse perspectives? What narratives of (land / food) scarcity are prevalent, how does this frame the notion of scarcity, for whom, and what ‘fixes’ are presented?
12. **Number of outgrower Schemes:** How many outgrower schemes does the company work with? Why has the company adopted this model?
13. **Contract terms:** What are the basic terms of the contract? What is the system for purchase and payment? How are profits and risks distributed, and what effects does this have on livelihoods and possibilities for outgrower accumulation?
14. **Profitability:** What is the level of profitability for outgrowers, how variable is this, and how does this influence their production choices (eg. accumulation by some, exit by others)?
15. **Inputs and services:** What is the nature and level of input supply support from the company? What credit, extension services, and ploughing or other land preparation services, at what cost?

Land

1. **History of land tenure and use:** what was the historical (ie. prior to commercialization) pre-existing tenure system and how was this gendered? What was the pre-existing use of the land and how was this gendered?
2. **Current land tenure:** what are the current tenure conditions (ownership / lease, duration, terms)? How was the land acquired, from whom, and through what process?
3. **Agrarian structure:** What is the size and structure of landholdings and how has this changed over time? How much of the estate is under crop?
4. **Agro-ecology:** What are the agro-ecological conditions? How marginal is it (quality of soil, rainfall, length of rainy season, vegetation)? How has the landscape been transformed by changed land uses? What is the water access, rights, irrigation options, what are the implications for downstream users, for whom?

5. **Displacement and compensation:** Did any displacement occur, how many people were affected, was this gendered? How were settlement patterns affected and what happened to the displaced people? What compensation was there, if any, in what form (cash / land / other in-kind), what was its value, who was it given to, and how was this gendered? Were relevant legal frameworks and policies concerning displacement and compensation followed and/or enforced?
6. **Access to the commons:** was access to natural resources disrupted (eg. water, firewood / fuel, grazing, forest products, etc), and how was this gendered?
7. **Land:** Who owns and controls the land used by outgrowers, how is this gendered, and what sizes of plots are involved? What is the ratio of lands owned by farmers and company?
8. **Cash versus food crops:** What are shares of communal land devoted to company crop and to food crops? How compatible are these, and how has women's land access and use been affected?
9. **Who gets contracts:** Who are the outgrowers who have contracts with the nucleus estate, and what is their gender composition? What are the entry criteria / barriers, and how are these gendered?

Labour

-
1. **Employment:** What is the scale and character of wage employment (permanent / temporary, casual / seasonal) and how is this differentiated by gender and age? What are the demographic characteristics of workers (life cycle stage, education, marital status)?
 2. **Recruitment:** What is the nature of the labour market, who are the workers, are they from among the displaced or migrants, and how are they recruited (eg. via traditional leaders)?
 3. **Payment:** What are the wages, conditions of employment (hours, safety, etc) and employee benefits, and how is this varied by gender and other criteria? Is there payment in kind (eg. rations) and what is the frequency and variability of pay?
 4. **Expenditure:** What do workers / outgrowers do with their incomes? What are expenditure and investment patterns? What about farm owners and managers: where do they spend and invest (ie. in locality – and on what – or elsewhere in country or abroad?).

5. **Livelihoods:** What options for diversified livelihoods? Can women and men supplement their livelihoods (on and off season and on and off farm)? What natural resource use is possible, and who benefits / loses out from this?
6. **Nucleus versus outgrower:** What is the composition of labour on nucleus farm and outgrower farms?
7. **Outgrower relations:** what are the relations between company and outgrowers, and what management systems are in operation?
8. **Hired labour:** what is the extent and character of hired labour on outgrower plots, how is this gendered, what informs hiring practices? differentiation?

Appendix 2: Qualitative research guide for focus group discussions

Land

1. **History of land tenure and use:** what was the historical (ie. prior to commercialization) pre-existing tenure system and how was this gendered? What was the pre-existing use of the land and how was this gendered?
2. **Current land tenure:** what are the current tenure conditions (ownership / lease, duration, terms)? How was the land acquired, from whom, and through what process?
3. **Agro-ecology:** What are the agro-ecological conditions? How marginal is it (quality of soil, rainfall, length of rainy season, vegetation? How has the landscape been transformed by changed land uses? What is the water access, rights, irrigation options, what are the implications for downstream users, for whom?
4. **Displacement and compensation:** Did any displacement occur, how many people were affected, was this gendered? How were settlement patterns affected and what happened to the displaced people? What compensation was there, if any, in what form (cash / land / other in-kind), what was its value, who was it given to, and how was this gendered? Were relevant legal frameworks and policies concerning displacement and compensation followed and/or enforced?
5. **Access to the commons:** was access to natural resources disrupted (eg. water, firewood / fuel, grazing, forest products, etc), and how was this gendered?
6. **Land:** Who owns and controls the land used by outgrowers, how is this gendered, and what sizes of plots are involved? What is the ratio of lands owned by farmers and company?
7. **Cash versus food crops:** What are shares of communal land devoted to company crop and to food crops? How compatible are these, and how has women's land access and use been affected?
8. **Who gets contracts:** Who are the outgrowers who have contracts with the nucleus estate, and what is their gender composition? What are the entry criteria / barriers, and how are these gendered?

9. Labour

10. **Employment:** What is the scale and character of wage employment (permanent / temporary, casual / seasonal) and how is this differentiated by gender and age? What are the demographic characteristics of workers (life cycle stage, education, marital status)?
11. **Recruitment:** What is the nature of the labour market, who are the workers, are they from among the displaced or migrants, and how are they recruited (eg. via traditional leaders)?
12. **Payment:** What are the wages, conditions of employment (hours, safety, etc) and employee benefits, and how is this varied by gender and other criteria? Is there payment in kind (eg. rations) and what is the frequency and variability of pay?
13. **Expenditure:** What do workers / outgrowers do with their incomes? What are expenditure and investment patterns?
14. **Livelihoods:** What options for diversified livelihoods? Can women and men supplement their livelihoods (on and off season and on and off farm)? What natural resource use is possible, and who benefits / loses out from this?
15. **Nucleus versus outgrower:** What is the composition of labour on nucleus farm and outgrower farms?
16. **Hired labour:** what is the extent and character of hired labour on outgrower plots, how is this gendered, what informs hiring practices? differentiation?

Appendix 3: Household Questionnaire

Questionnaire Identification Number (supervisor to complete)

Land and Agricultural Commercialisation in Africa

Enumerator reads out the following to the Respondent:

This survey is part of a Land and Agricultural Commercialisation in Africa research project designed to understand the impact of agricultural commercialisation on people's livelihoods and local economies in general. We will be asking you to provide some background information about your household and its livelihoods. Depending on the number of your household members and the relevance of some sections of the questionnaire to your household, the interview may take about 45 minutes or longer to be completed. You are allowed to ask questions at any stage of the interview and you may refuse to answer any question that you may feel uncomfortable to respond to without any consequences. You may also choose to withdraw your participation in this study at any time. We would like to assure you that this study will pose no risk to you or any other member of your household or community. All information that you give us will be kept confidential and you will not be identified by name or address in any of the reports or other output that we plan to produce.

Enumerator: Please tick to indicate you have read the above to the respondent:

Signature.....Date.....

This questionnaire should be administered to any adult household member who is knowledgeable about the household members' livelihoods

Section A: General identifiers

A1	Total number of persons in the household	
A2	Name of the case study	
A3	Name of the community /village	
A4	Name of the interviewer	
A5	Name of the supervisor	
A6	Date of interview (dd/mm/yyyy)	
A7	Interview start time	

<i>For office use only</i>
<p><i>Interviewer:</i></p> <p>1) <i>Please do remember to answer A8 and A9 at the end of this questionnaire.</i></p> <p>2) <i>Please do remember to provide your country team contact for queries and complaints as per below.</i></p>

<p>Should you have any question, queries, or complaints about this interview, please free to:</p> <p>Call us at.....</p> <p>Fax us on.....</p> <p>Or e-mail us at.....</p>
--

Section B: Household roster

INTERVIEWER READ OUT: in this section we are going to ask you questions about the people who are **usually part of your household** and **eat from the same pot** including children and anyone who are not here right now.

B2. PERSON CODE PCODE	B1. Name of all household members INTERVIEWER: START WITH RESPONDENT FIRST	B3. Sex INTERVIEWER: CIRCLE THE APPROPRIATE CODE Male Female	B4. Age in <u>years</u> INTERVIEWER: WRITE 0 FOR HOUSEHOLD MEMBERS WHO ARE BELOW 1 YEAR OLD Years	B5. What is the highest educational level completed by....? INTERVIEWER: CIRCLE THE APPROPRIATE CODE No formal schooling Primary Education Secondary Education Tertiary Education (1-7 years of education) (8-12 years of education) (university/college)
01		1 2		1 2 3 4
02		1 2		1 2 3 4
03		1 2		1 2 3 4
04		1 2		1 2 3 4
05		1 2		1 2 3 4
06		1 2		1 2 3 4
07		1 2		1 2 3 4
08		1 2		1 2 3 4
09		1 2		1 2 3 4

Section C: Employment

INTERVIEWER READ OUT: In this section we would like to ask you about members of your household aged 10 years and above who do some farming wage work, or any other economic activity including food production for the family.

C1	C2	C3	C4	C5	C6	C7								
<p>Does...have a regular formal job? (with a regular wage of salary)</p> <p>INTERVIEWER: REFER TO THE LIST OF ALL NAMES OF HOUSEHOLD MEMBERS PRODUCED IN B1 ABOVE AND WRITE THE PCOES AND ANMES FOR ALL INDIVIDUALS WHO MEET THE CRITERIA READ OUT ABOVE</p>	<p>Did...sometimes have a job on casual or temporary basis in the past year</p> <p>INTERVIEWER: QUESTION C2 FOCUSES ONLY ON CIRCLED PCODES IN C1</p> <p>INTERVIEWER: CIRCLE THE APPROPRIATE CODE</p>	<p>Does....have a regular job at..... (Plantation/commercial from case study)?</p> <p>INTERVIEWER: QUESTION C3 FOCUSES ONLY</p> <p>INTERVIEWER: CIRCLE THE APPROPRIATE CODE</p>	<p>Did ...sometimes have a job on casual or temporary basis at..... (plantation/commercial farm case study) in the past year?</p> <p>INTERVIEWER: QUESTION C4 FOCUSES ONLY ON CIRCLED PCODES IN C1</p> <p>INTERVIEWER: CIRCLE THE APPROPRIATE CODE</p>	<p>If yes to any of the previous questions (C2, C3, C4,C5), what does.....earn per week after any deductions?</p> <p>INTERVIEWER: QUESTION C5 FOCUSES ONLY ON CIRCLED PCODES IN C1</p> <p>INTERVIEWER: CIRCLE THE APPROPRIATE CODE</p>	<p>What is...’s occupation?</p> <p>INTERVIEWER: QUESTION C6 FOCUSES ONLY ON CIRCLED PCODES IN C1</p> <p>INTERVIEWER: CIRCLE THE APPROPRIATE CODE</p> <p>Supervisor Farm work Driver Other (specify)</p>	<p>INTERVIEWER: QUESTION C7 FOCUSES ONLY ON CIRCLED PCODES IN C1</p> <p>INTERVIEWER: CIRCLE THE APPROPRIATE CODE</p>								
Pcode	Name	Yes	No	Yes	No	Yes	No	Yes	No	Local Currency				
		1	2	1	2	1	2	1	2		1	2	3	4
		1	2	1	2	1	2	1	2		1	2	3	4
		1	2	1	2	1	2	1	2		1	2	3	4
		1	2	1	2	1	2	1	2		1	2	3	4

INTERVIEWER: WRITE THE PCODES AND NAMES FOR ALL HOUSEHOLD MEMBERS OVER <u>10 YEARS OLD</u>		C8 What sector is...involved in? INTERVIEWER: ENTER THE APPROPRIATE CODES (YOU CAN ENTER MORE THAN ONE CODE IF A PERSON IS INVOLVED IN MULTIPLE INCOME GENERATING ACTIVITIES)	C9 How far away does.....work? INTERVIEWER: ENTER THE APPROPRIATE CODE (ONLY FOR THE PERSON'S MAIN INCOME GENERATING ACTIVITY)
		1=Primary production (including agriculture) 2=Agro Processing 3=manufacturing (any) 4=Handicraft (artisanal) 5=Retail/vending/wholesaling 6=Transport services 7=Construction/building/maintenance (buildings etc) 8=Mechanical/repair services (cars, implements etc)	9=Personal care services (e.g. Hair care, childcare etc) 10=Financial services/micro lending/money lending 11=Brokering/middleman/dealing 12=Education/skills training services 13=Hospitality/tourism/catering/tavern-running 14=Waste management/recycling 15=Professional or technical services (law, surveying etc)
Pcode	Name		

Section D: Household agricultural production

INTERVIEWER READ OUT: In this section we would like to ask you some questions about your household agricultural production. The questions are about farming activities that are undertaken on the land that your household has access to.

D1	Does your household have access to land? INTERVIEWER: CIRCLE THE APPROPRIATE CODE (IF N, SKIP TO SECTION E)	
	Yes	1
	No	2
D2	How much land does your household have access to? INTERVIEWER: CONVERT TO HECTARES NOTE: An acre is about 0.4 hectares and one hectare is about 2.5 acres	----- acres
		----- hectares
D3	How did your household acquire this land (if different plots, the most valuable in terms of production)? INTERVIEWER: CIRCLE THE APPROPRIATE CODE (or more than one if appropriate)	
	Inherited	01
	Allocated by traditional authority	02
	Leasing it (for payment in cash or in kind	03
	Bought it	04
	Borrowed it	05
	Occupied it without permission	06
	Other (specify)	07

D4	Does your household cultivate the land that it has access to? INTERVIEWER: CIRCLE THE APPROPRIATE CODE (if no, skip to section E)	
	Yes	1
	No	2
D5	How much of your land is cultivated by your household? INTERVIEWER: CONVERT ACRES INTO HECTARES Note: an acre is about 0.4 hectare and one hectare contains about 2.5 acres	-----acres
		-----hectares

D6	Rank 5 main things (in order of importance to your family) from the list below that your household grows <u>for home consumption</u> .	
	INTERVIEWER: ENTER THE APPROPRIATE CODES IN ORDER OF IMPORTANCE	
	01=Maize 02=Groundnut 03=Other grains 04=Vegetables 05=Sugarcane 06=Mangoes 07=Pineapples 08=Tea 09=Coffee 10=Forestry 11=Potato 12=Cocoa 13=Cashew 14=Sweet Potato 15=Cassava 16=Beans 17=Other (specify)----- 18=Other (specify)-----	1 st most important:
		2 nd most important
		3 rd most important
		3 rd most important
5 th most important		
D7	Who does most of the work of cultivating the crop/s your household uses for its own consumption? (even if they are not household members)	
INTERVIEWER:CIRCLE THE APPROPRIATE CODE Choose one		
	Elderly women (more than 50 years of age)	01
	Middle age women (between 30 and 50 years of age)	02
	Young women (under 30 years of age)	03
	Elderly men (more than 50 years of age)	04
	Middle age men (between 30 and 50 years of age)	05
	Young men (under 30 years of age)	06

D8	Rank 5 main things (in order how much money you make) from the list below that your household grows for sale and how much cash income do you think your household got for each of these crops last season		
	INTERVIEWER: ENTER THE APPROPRIATE CODES IN ORDER OF IMPORTANCE		
	01=Maize 02=Groundnut 03=Other grains 04=Vegetables 05=Sugarcane 06=Mangoes 07=Pineapples 08=Tea 09=Coffee 10=Forestry 11=Potato 12=Cocoa 13=Cashew 14=Sweet Potato 15=Cassava 16=Beans 17=Other (specify)----- 18=Other (specify)-----	Crop	Amount (Currency)
		1 st most important	
		2 nd most important	
		3 rd most important	
4 th most important			
	5 th most important		
D9	Who does most of the work of cultivating the crop/s your household uses for its own consumption? (even if they are not household members)		
INTERVIEWER:CIRCLE THE APPROPRIATE CODE Choose one			
	Elderly women (more than 50 years of age)	01	
	Middle age women (under 30 years of age)	02	
	Young women (under 30 years of age)	03	
	Elderly men (more than 50 years of age)	04	
	Middle age men (between 30 and 50 years of age)	05	
	Young men (under 30 years of age)	06	

Section E: Changes over time in the local economy

INTERVIEWER READ OUT: In this section we would like to ask you some questions about some changes that have happened over time in your household and village or community in general

E1	What have been the changes in your farming over the past five years? INTERVIEWER: CIRCLE THE APPROPRIATE CODE	More (increased)	About the same	Less (decreased)
	Cultivated area	1	2	3
	Number of crops cultivated	1	2	3
	Fertilizer use	1	2	3
	Employment of labour	1	2	3
	Yield of crops	1	2	3
E2	Is land availability in your village more, less or about the same if compared to five years ago? INTERVIEWER: CIRCLE THE APPROPRIATE CODE			
	More	1		
	About the same	2		
	Less	3		
E3	Is the land price more, less or about the same if compared to five years ago? INTERVIEWER: CIRCLE THE APPROPRIATE CODE			
	More	1		
	About	2		
	Less	3		
E4	Is job availability more, less, or about the same if compared to five years ago?			
	More			
	About the same			
	Less			

E5	Compared to the cost of living, are the wage levels more, less, or about the same than five years ago?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	More	1
	About the same	2
	Less	3
E6	Is the farming production level in your <u>household</u> more, less, or about the same if compared to 10 years ago?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	More	1
	About the same	2
	Less	3
E7	Is the farming production level in your <u>village/community</u> more, less, or about the same if compared to 10 years ago?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	More	1
	About the same	2
	Less	3

E8	Is the farm profitability in your <u>household</u> more, less, or about the same if compared to five years ago?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	More	1
	About the same	2
	Less	3
E9	Is the farm profitability in your <u>village/community</u> more, less, or about the same if compared to five years ago?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	More	1
	About the same	2
	Less	3
E10	Does your household meet more, less, or about the same food needs from own production if compared to five years ago?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	More	1
	About the same	2
	Less	3

Section F: Contracting/outgrowing

INTERVIEWER: Please skip this section if the household is not involved in any outgrowing arrangements.

INTERVIEWER READ OUT: In this section we would like to ask you some questions about your household's contract arrangement with(case study name)

F1	Does your household supply crops to(name of processor)?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE (If no, skip to section G)	
	Yes	1
	No	2
F2	How much of your household's land is used to grow the crop/s that you sell on contract to the company outgrower?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	All	01
	More than three quarters (¾)	02
	More than half but less than three quarters (¾)	03
	Half	04
	More than a quarter but less than half	05
	Some but less than a quarter	06
	Don't know	07
	Other (specify).....	08

F3	How much money did your household make from selling crop/s that your household sell on contract to the company last season?	Amount (currency)
	INTERVIEWER: CONVERT TO YEAR	
F4	Who spends more time in the household working to cultivate the crop/s your household sell on contract to.....(case study name)	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	Elderly women (more than 50 years of age)	01
	Middle age women (between 30 and 50 years of age)	02
	Young women (under 30 years of age)	03
	Elderly man (more than 50 years of age)	04
	Middle age men (between 30 and 50 years of age)	05
	Young males (under 30 years of age)	06

F5	Is the <u>amount of time</u> that household allocates to the crops it sells on contract higher, lower or more or less the same if compared with that	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	Much more time on contract crops	01
	Slightly more time on contract crops	02
	More or less the same on both	03
	Slightly more on household crops	04
	Much more time on household crops	05
F6	In the past year, did your household <u>employ other people</u> as workers (labour) to cultivate crops on your land to sell on contract? If no, skip to F8.	
	INTERVIEW: CIRCLE THE APPROPRIATE CODE	
	Yes	
	No	
F7	Is the amount of hired labour that your household uses to cultivate the crops it sells on contract higher, lower, or more less the same if compared with the family unpaid labour.	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	All hired	01
	Mostly hired	02
	About the same	03
	Mostly household labour	04
	All household labour	05

F8	In what year did your household first enter into a contract with(case study name)		
F9	Have your household have regular contracts since then?		
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE		
	Yes	1	
	No	2	
F10	From the list below, rank top 4 things your household is most <u>AND</u> least happy about in its contract arrangement with(case study name)?		
	INTERVIEWER: ENTER THE APPROPRIATE CODES IN ORDER OF IMPORTANCE IN THE APPROPRIATE COLUMN		
	01=Guaranteed buyer 02=Duration of the contract 03=rate of pay per volume 04=Timing of payment 05=Deductions 06=Level of support and inputs 07=Training 08=Intermediaries 09=Price determination 10=Quality control 11=Credit 12=Price Stability 13=Outgrower association/trust 14=Outgrowers' role in the industry 15=Other (specify)	Most happy	Least happy
		1 st most happy	1 st least happy
		2 nd most happy	2 nd least happy
		3 rd most happy	3 rd least happy
4 th most happy		4 th least happy	

Section G: Livestock

INTERVIEWE READ OUT: We would like to ask you about the livestock that are owned or taken care of on the land that your household has access to

G1	Type of animal	G1.1 Did your household own...during the last 12 months? INTERVIEWER: CIRCLE THE APPROPRIATE CODE IF NO SKIP F1.3; F1.3; F1.4 Yes No	G1.2 How many ofare owned by your household now?	G1.3 How many.....did your household sell in the past 12 months?	G1.4 What was the total value of sales in local currency?
	Cattle	1 2			
	Goats	1 2			
	Sheep	1 2			
	Pigs	1 2			
	Chickens	1 2			
	Ducks	1 2			
	Other (specify)				

G2	Type of animal Product	G2.1 In the past year, how many units of...did your household <u>produce</u> per month?	G2.2 How many units of ... did your household <u>sell</u> per month on average?	G2.3 What was the <u>average price</u> per unit	G2.4 In the past year, in how many months did your household sell this?
	Milk (litres/gallons)				
	Eggs (dozen/12 eggs) Specify if any other unit is used				
	Other (specify)				

Section H: Housing assets

INTERVIEWER READ OUT: In this section we would like to ask you some questions about your household's main dwelling and the assets it owns.

H1	What type of roofing material is used in the main building that your household lives in?	
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	
	1=Plastic sheets	01
	2=Grass/thatch	02
	3=Stone r slate	03
	4=Iron sheets	04
	5=Brick tiles	05
	6=Concrete	06
	7=Timber	07
	8=Other (specify)	08

H2	How many rooms are there in the main building that your household lives?	
H3	Does your household have access to electricity	
	INTERVIEWER:CIRCLE THE APPROPRIATE CODE	
	Yes	1
	No	2

H4	Type of asset	How many of each of these does your household own?
	Motor bicycle	
	Computer	
	Car/truck	
	Fridge	
	Radio	
	Bicycle	
	T.V.	
	Cellphone	
	Of these, how many are Smart phones (with email/internet access)	
Other (specify)		

Section I: Expenditure and Investment

INTERVIEWER READ OUT: In this section we would like to ask you some questions about some of the things that your household spends money on and the places where those things are bought

I.1	Please, rank the top 5 things your household has spend money on starting with the thing your household has spent the most money on, in the last twelve months	
	INTERVIEWER: ENTER THE APPROPRIATE CODES IN ODER OF IMPORTANCE	
	01=food 02=Farming inputs (e.g. agrochemicals, seeds) 03=Farming equipment 04=Transport 05=School fees and related education costs 06=Health 07=Paying back debts 08=Savings 09 Housing and accommodation 10=Clothes 11=Furniture 12=Employees' wages 13=Land or other property 14=Tax 17=Other (specify)-----	First
		Second
		Third
	Fourth	
	Fifth	

I.2	Where has your household spent money on these things in the last year			
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE			
	INTERVIEWER: ENTER HERE BELOW THE CODES FOR THE FIVE THINGS IDENTIFIES IN I1 (the previous question)			
		Below 10 km away	10-50 km away	More than 50 km away
	First:	1	2	3
	Second:	1	2	3
	Third:	1	2	3
Fourth:	1	2	3	
Fifth:	1	2	3	

Section J: Investment

INTERVIEWER READ OUT: In this section we would like to ask you some questions about some of the things that your household spends money on in instances it has extra cash.

J.1	In situations when your household has had more money than usual, what have you done with it?	
	INTERVIEWER: ENTER THE APPROPRIATE CODES IN ORDER OF IMPORTANCE	
	01=Pay off debt 02= Move to another area 03=buy a car/truck 04=Buy furniture 05=Put into savings 06=Ordinary household expenses	First
	07=Invest in property 08=Invest in livestock 09=Invest in education 10=Improve my home 11=Establish a business 12=Other (specify)-----	Second
		Third
		Fourth
	Fifth	

Section K: Remittances

INTERVIEWER READ OUT: In this section we would like to ask you some questions about money and/or other things that your household members may have sent or received from their relatives living elsewhere.

K.1	K1.1 Has any member of your household sent money or large gifts to support a family relative or anyone else living elsewhere in the past 12 months? INTERVIEWER: CIRCLE THE APPROPRIATE CODE		K1.2 Estimated value in local currency Interviewer: Add up the value of money and in kind in case the household sent both
	Yes	1	
	No	2	
K2	K2.1 Has any member of your household received money or large gifts to support a family relative or anyone else living elsewhere in the past 12 months? INTERVIEWER CIRCLE THE APPROPRIATE CODE		K2.2 Estimated value in local currency Interviewer: add u the value of money and in kind in case the household received both
	Yes	1	
	No	2	

Section L: Food Security

INTERVIEWER READ OUT: In this section we would like to ask you some questions about the situation of food in your household.

L.1	In the last 12 months, has your household ever cut the size of the meals or skip meals because it did not have enough food?				
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE				
	All the time		01		
	Almost always		02		
	Some of the time		03		
	Seldom/rarely		04		
Never		05			
L.2	In the last 12 months, did any members of your household ever not eat for whole day because your household did not have enough food?				
	INTERVIEWER; CIRCLE THE APPROPRIATE CODE				
	All the time		01		
	Almost always		02		
	Some of the time		03		
	Seldom/rarely		04		
Never		05			
L.3	How had your household's food situation that you have just described in question L1 and L2 changed over time. INTERVIEWER: CIRCLE THE APPROPRIATE CODE	Better off	About the same	Worse off	
		One year ago	01	02	03
		Five years ago	01	02	03
		Ten years ago	01	02	03

Section M: Wellbeing

INTERVIEWER READ OUT: In this section we would like to ask you some questions about how you perceive the economic situation of your household and how this has changed over time.

M.1	Would you say that currently your household is:			
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE			
	Very poor	01		
	Poor	02		
	Average	03		
	Above average	04		
	Wealthy	05		
M.2	Were you living here 5 years ago?			
	INTERVIEWER; CIRCLE THE APPROPRIATE CODE			
	Yes	01		
	No	02		
M.3	Would you say that your household is financially better off, about the same, or worse off as you were.....			
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE	Better off	About the same	Worse off
	One year ago?	01	02	03
	Five years ago?	01	02	03
	Ten years ago?	01	02	03
M4	If better or worse, what explains the changes over time? (qualitative question)			

--	--

M5	Are there conflicts over land in this area?			
	INTERVIEWER: CIRCLE APPROPRIATE CODE			
	Yes			1
	No			2
M6	If there are conflicts over land in this area, are they worse, about the same, or better (fewer, less serious) than they were:			
	INTERVIEWER: CIRCLE THE APPROPRIATE CODE			
		Better	About the same	worse
	One year ago	01	02	03
	Five years ago	01	02	03
	Ten years ago	01	02	03
M7	If better or worse, what explain the changes over time? (qualitative question)			

INTERVIEWER READ OUT: Finally, we would like to ask you your personal details so that we can be able to contact you again in case we may need further information about your household or we may invite you to participate in a meeting where we share the results of this study in your village. Your name will not be disclosed.

A8	Name:	
	Surname:	
A9	Telephone number (cell phone):	

Appendix 4: Qualitative research guide

I HOUSEHOLD LIFE HISTORIES

Stratify households based on quantitative analysis in phase two, to ensure that different categories of households are included as follows:

- ‘Not involved’ (in the outgrower scheme)
- ‘Involved’ as smallholder (in the outgrower scheme)
- ‘Involved’ as workers (in the outgrower scheme)

Household category	Outgrower area
Not involved	Wealthy households Poor household
Involved as outgrower farmer	Wealthy household Poor household
Involved as worker	Wealthy household Poor household

** Note: ‘wealthy’ and ‘poor’ are relative terms here; the point is to get pictures of how the livelihoods of better-off and worse-off households’ livelihoods are changing and the role of agricultural commercialization in this process*

1. Details of each respondent: tell me about where you are from and key moments in your life, up to now?

- Name (optional/respondent pseudonym); sex, age, education, home village, size and nature of your household
- Birthplace, where did you grow up and how did you find yourself in this place at this time?

- Parents and guardians and what economic activities they were involved in. Is this in anyway related to what you are doing now? Probe for skills and resource transfers
- If married, how did you meet your spouse, when did you marry and how has this influenced your livelihood activities

2. *Livelihoods and economic activities*: tell me about how your family survives, what activities you are all involved in and how this has changed over time?

- Structure of household; its livelihoods portfolio and how it organizes livelihood activities – collective activities; individual portfolios; areas of cooperation; control of earnings; distribution; and assets acquisition and control.
- Capacities in which you are involved in commercial agriculture or not over the years; establish relationship with the models; involvement of other household members.
- History of your involvement in commercial agriculture – when, why, how, and how has this developed over the years? (Establish current status and probe for details of individual livelihood portfolio)
- Labour history – have you worked for anyone in commercial agriculture before? How did that start, and how did this develop over the years? Are you still involved?
- History of labour transactions – do you hire anyone to work for you? When did you start doing this, and how has this developed over the years?
- History of land transactions – do you own any land in your own right? If so, how did you come to own each of your holdings; which do you currently use and for what? Have you used commons resources to support any aspect of your livelihood? If so, what is the situation now – would you say you have experienced any changes in access to the commons?
- History of capital accumulation and use – sources of financial resources, uses of financial resources in relation to participation in economic activities;
- Technologies – history of technological acquisitions and use

3. ***Gender identities and ideologies:*** tell me about who does what in your household, and also how women's roles and men's roles are arranged?
- Housework and other reproductive activities and their implications for your commercial activities – how have you organized housework over the years? Who currently is involved in what, and what do you yourself do? Does housework affect your commercial activities?
 - Gender ideologies – what kind of beliefs about men and women's work have guided your choice of livelihood activities and how you organize these. Have these beliefs changed since you were young? Any proverbs or sayings that have influenced you?
 - Gender and other identities – has being male or female influenced your livelihood choices in any ways? If so, explain. Has being male or female affected your access to or control of resources in the course of your life? If so, explain how this has happened. How have you capitalized on your advantages/or mitigated your disadvantages as a man or woman? Are there any other identities which have also been important in your livelihoods? If so, which identities and how have they been important?
4. ***Recent changes and the future:*** tell me about the changes you have seen in this area recently and how it has affected your family and you specifically?
- What are the main changes that you have seen in this area over the past 5-10 years in this area? (prompt for more information about the outgrower scheme and its influence)
 - How has your own life changed and why? (add prompt questions to get detail and determine how agricultural commercialization has influenced these life changes)
 - What has changed inside your household, in terms of who does what? (in relation to farming but also other activities including paid work and unpaid household work)
 - What do you see unfolding in the future for your household? (prompt for detail on gender and generation)

II MAPPING LOCAL ECONOMIC LINKAGES

1. **Economic linkages:** What linkages does the company have into local economy: service sector, up and downstream industries? What links to informal economy in surrounding area? What financial services and what availability of credit for smallholders? What (new) livelihoods are created or supported as a result?
2. **Settlement and migration:** What are settlement /urbanisation /migration trends and what does this mean for market conditions? And for re-valuation of land?
3. **Other enterprises:** What other enterprises are significant in the area, what competition for labour and what options for alternative employment?
4. **Technology and skills:** What technology /skills transfer is promised and happening, what is the uptake and how is this gendered?
5. **Infrastructure:** What infrastructure is available in the area, and is this facilitating commercialisation or resulting from it? What spillover opportunities are there from infrastructure established by/for large farms (eg. use of dams, etc)? What synergies with small-farm sector? What requirements are there for company / investor / commercial farmers to provide certain infrastructure or services for the local community? Have they done so?
6. **Smallholder production:** Outside of the estate, nucleus estate and commercial farms, what does smallholder production look like? Who is producing, what, how much, at what cost, for what purposes, and with what changes in the character and scale of smallholder production, accumulation, and levels of food availability overall?
7. **Livelihood impacts:** What livelihood impacts are observable or reported by local people, as a result of the (changes in or introduction of) commercial farming in the area? How has food security (availability and affordability) changed, for different groups?
8. **Divisions of labour:** What changes in livelihood portfolios and production systems have been observed, how have labour burdens changed (especially women's), and how has the distribution of productive and reproductive labour changed among household members?
9. **Accumulation:** What are the income/wealth patterns of outgrowers and non-outgrowers, what patterns of accumulation are evident within these groups, and how are these gendered?

Use participatory appraisal techniques to map local economic linkages engendered by the commercial farming enterprise – how input and output market relations are constructed and where they go.

Three steps in mapping:

- Step 1 is to map the spatial picture of where the inputs come from (are bought from) and where up to the outputs are sold to.
- Step 2 is to map a spatial picture of where the expenditures are spent (what is bought with proceeds from sales from farming).
- Step 3 is to scale the lines by width or size of arrows to indicate scale of input, output and expenditure linkages.