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**Agricultural Extension and Commercialisation in Rural Malawi:
Implications for Livelihoods, Class and Gender Differentiation**

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A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy
(PhD) in Poverty, Land, and Agrarian Studies

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Abstract

This doctoral research aims at understanding the relationships between agricultural extension, commercialisation, and social differentiation and their implications for livelihoods in rural Malawi. The research addresses a gap in knowledge about inequalities that are produced as a result of commercialisation and access to agricultural extension. The research analyses the contribution of three extension approaches (commodity-specialised, business-oriented, and government extension) to market-based agriculture among smallholder farmers growing tobacco, groundnuts and maize; the impact of engaging in markets and participating in extension activities on livelihoods; and the class and gender differences resulting or impacting on market-based farming and extension access. The study adopts a mixed methods research design combining qualitative and quantitative data, but predominantly qualitative. The research was conducted in three villages in rural areas of Lilongwe district in central Malawi, through 126 household surveys, 12 focus group discussions, 11 key informant interviews and 13 life histories. The research uses the Marxist agrarian political economy framework to understand social relations determining access to means of production and agricultural extension, resulting in class and gender differentiation and livelihood outcomes. A feminist political economy lens is employed to understand gender differences in access to extension services, market participation, and livelihood outcomes, arguing that women are constrained in their pursuit of economic activities because of the underlying disadvantages and inequalities but also the burden of multiple roles they play. The study also draws on the diffusion of innovations literature to understand the nature of extension services and their contribution to commercial farming. The study uses the political economy lens to understand inequalities in agricultural extension which is rare, but also linking the role of agricultural extension in driving market-based agriculture and livelihoods which is a gap in literature especially in Malawi.

Commercialisation is happening among smallholder farmers in Malawi but most of it is 'distress driven' involving the sale of agricultural produce (some of which is meant for food), as well as land and labour. This distress selling is driven by both short-term shocks and longer-term stresses, lack of basic necessities to maintain simple reproduction but also the need to secure a means of production, which is inevitable in a capitalist system. Agricultural extension, regardless of the approach, makes a minimal contribution to commercial farming, such that it is market participation that triggers extension participation rather than the reverse. Market-based agriculture has positive outcomes among accumulators such as income and asset accumulation, improved expenditure and dietary diversity and negative impacts among both those who are engaged in expanded reproduction and those who are in distress selling. Among those in distress selling, there is low food availability as most producers are forced to sell their food at times of distress, leading to shortfalls in certain periods. Among those in expanded reproduction, there are more inequalities between the rich and the poor in access to means of production, and between men and women in decision making, division of labour, access and control of productive resources and income, often in favour of men. It is mostly male-headed households that engage in expanded reproduction and accumulation. Female-headed households mostly engage in distress selling as they have fewer assets and opportunities to secure income and assets from alternative sources.

The push towards commercial farming is based on the assumption that it leads to positive impacts but this research argues that it deepens inequalities among class categories resulting in the rise of a class of a few rich small elite capitalists who consolidate land from the poor to engage in expanded reproduction and accumulation, and depend on off-farm income sources which they invest back into farming, and among gender categories resulting in more benefits for men, thus disadvantaging women. The majority are forced to sell their produce driven by

distress and responses to short-term shocks and longer-term stresses, and sell their land and labour under distress to maintain their simple reproduction. These processes of accumulation through market-based agriculture result in class formation and differential livelihood trajectories. The research findings suggest modest but observable class differentiation within a sample of 126 households, with a small group trapped in simple reproduction squeeze (11%), a much larger group involved in simple reproduction (56%), an upper middle group pursuing a strategy of agricultural-based accumulation (30%), and a very small group of investor households involved in expanded reproduction (3%). Using a livelihood trajectory typology coined by Dorward et al. (2009) and Mushongah (2009) the study linked the class categories to the livelihood trajectories, and those engaged in simple reproduction are characterised as *'hanging in'* (51%) within farming, those in a simple reproduction squeeze as *'dropping out'* (6%) of farming or are 'too poor to farm', those involved in expanded reproduction as *'stepping up'* (23%) their farming activities and the accumulators are those that are *'stepping out'* (20%) of farming to non-farm businesses.

It is concluded that the narrative to shift from subsistence to commercial agriculture has produced more inequalities creating *'winners'* and *'losers'*. The push for commercial agriculture does not pay attention to class and gender-based inequalities which become more prominent and continue to disadvantage the majority and benefit a few. The minimal contribution of agricultural extension is because there are other factors beyond knowledge and skills dissemination that hinder market-based agriculture, such as wider structural constraints and class-based differences which agricultural extension is unable to reconcile. The application of the hybrid framework in which the agrarian political economy was the overarching framework in studying the dynamic relationships between agricultural extension, commercialisation and livelihoods, brings out nuance in the implications of the processes of accumulation happening as a result of development of capitalism in the Malawian countryside. These are seen through the deepening inequalities and differentiated impacts of these processes across classes and gender categories.

Keywords: agricultural commercialisation, agricultural extension, agrarian political economy, accumulation, distress selling, class and gender differentiation, livelihoods, rural Malawi

Declaration

I declare that *Agricultural extension and commercialisation in rural Malawi: Implications for livelihoods, class, and gender differentiation* is my own work, that it has not been submitted for any degree or examination in any other university and that all sources that I have used or quoted have been indicated and are duly acknowledged in references.

Full name: Loveness Msofi

Date: 07 November 2023

Signature:



Dedication

To my husband Elton and my children, Tiyamike, Takondwa and Tadala.



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I would like to acknowledge God almighty for making it possible for me to pursue my studies. I also acknowledge the tremendous support I have got from my supervisors, Professor Ruth Hall and Dr. John Thompson. Besides being my supervisor, Ruth has been my role model, my inspiration, and my mentor. John has also been inspiring and a mentor. I also acknowledge the role played by my classmates and other colleagues at PLAAS for encouragement and support.

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List of Abbreviations

5DE	5 Domains of Empowerment
AC	Agricultural Cluster
ADMARC	Agricultural Development and Marketing Corporation
AEDC	Agricultural Extension Development Coordinator
AEDO	Agricultural Extension Development Officer
AFAAS	African Forum for Agricultural and Advisory Services
AICC	African Institute of Corporate Citizenship
AIS	Agricultural Innovations System
AKIS	Agricultural Knowledge and Innovation Systems
APMB	Agricultural Production and Marketing Board
APRA	Agricultural Policy Research in Africa
ARET	Agricultural Research and Extension Trust
BES	Block Extension System
CGIAR	Consultative Group on International Agricultural Research
CSA	Commodity Specialised Approach
DADO	District Agricultural Development Officer
DAES	Department of Agricultural Extension Services
DAESS	District Agricultural Extension Services System
EPA/EA	Extension Planning Area/Extension Area
FBS	Farmer Business School
FCS	Food Consumption Score
FFS	Farmer Field School
FGD	Focus Group Discussion
FMB	Farmers Marketing Board
FODS	Farmer Organisation Development Strategy
GDP	Gross Domestic Product
GFRAS	Global Forum for Rural Advisory Services
GoM	Government of Malawi
GPI	Gender Parity Index
HCI	Household Commercialisation Index
HDDS	Household Dietary Diversity Score
ICRISAT	International Crops Research Institute for Semi-Arid Tropics
KII	Key Informant Interview
LADD	Lilongwe Agricultural Development Division
MAFAAS	Malawi Forum for Agricultural and Advisory Services
MGDS	Malawi Growth and Development Strategy
MMRA	Mixed Method Research Approach
MoAFS	Ministry of Agriculture and Food Security
MoAIWD	Ministry of Agriculture, Irrigation and Water Development
MOE	Market Oriented Extension
NAEASS	National Agricultural Extension and Advisory Services Strategy
NAEP	National Agricultural Extension Policy
NAP	National Agricultural Policy
NARs	National Agricultural Research
NAS	National Agribusiness Strategy
NASFAM	National Smallholder Farmers Association of Malawi
NGO	Non-Governmental organisation
NSO	National Statistical Office

OVOP	One Village One Product
PCA	Principal Component Analysis
PRA	Participatory Rural Appraisal
RA	Research Assistant
SADP	Smallholder Agribusiness Development Project
SAPs	Structural Adjustment Programmes
SMS	Subject Matter Specialist
SSA	Sub-Saharan Africa
T and V	Training and Visit
TAMA	Tobacco Association of Malawi
ToT	Transfer of Technologies
VSLA	Village Savings and Loans Association
WEAI	Women Empowerment in Agriculture Index
WEI	Women Empowerment Index



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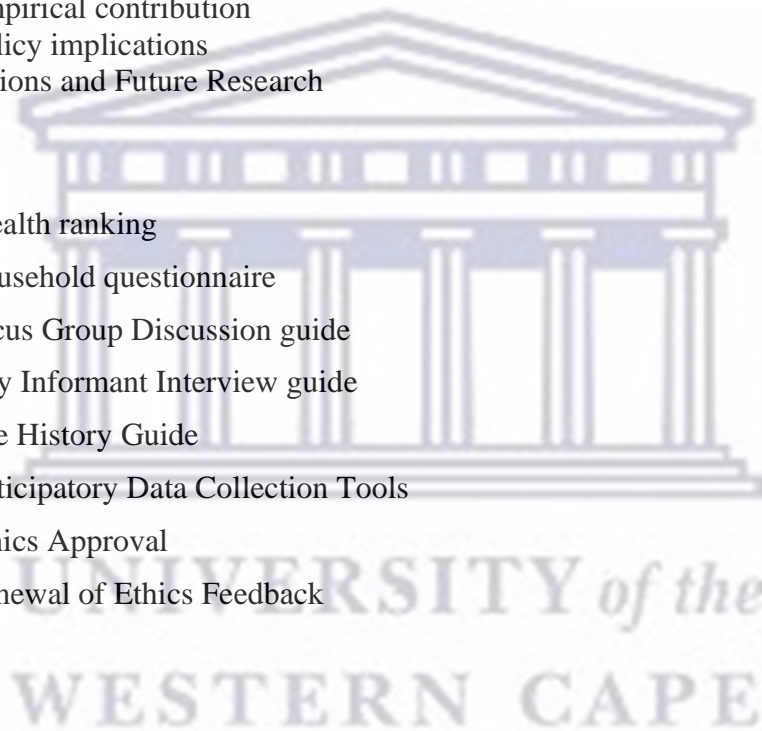
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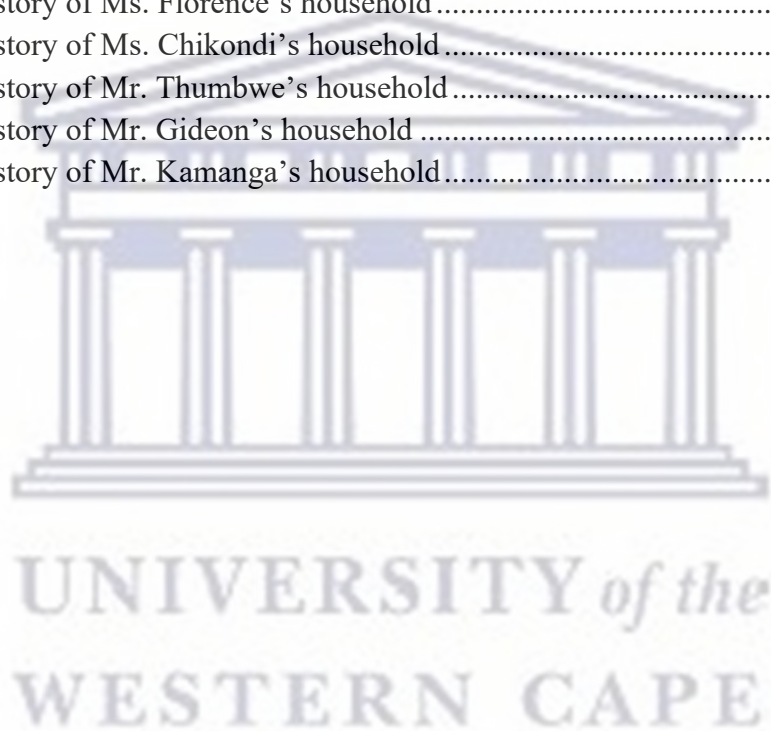
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Chapter 1: Introduction

1.1. Introduction

Agriculture remains central to most economies in sub-Saharan Africa (SSA) as it contributes heavily to their exports, livelihoods and economic development. The majority of the population is rural and depends on farming for livelihoods but agriculture productivity in SSA lags behind other regions, for instance South Asia and East Asia (Fuglie et al., 2020). Some of the problems include overdependence on rain-fed agriculture, land fragmentation, poor capitalisation of land, and climate change (Fuglie et al., 2020).

Commercialisation of agriculture is a dominant narrative driving economic development, especially in countries that depend on agriculture. The idea is driven by the assumption underpinning modernisation theory that a shift from traditional subsistence farming to modern commercial agriculture is desirable (Prajapati et al., 2014; Carletto et al., 2017a; Koopmans et al., 2018). In SSA in particular, the narrative is pushed by the World Bank with investment in sectors including technology development, knowledge and innovations, seed companies, and agricultural extension and advisory services (Scott, 1998). The modernisation paradigm has been criticised for perceiving the western experience as a guide for countries of the global south and that western civilisation is superior to traditional societies (Hout, 2016). Within the initiative to modernise agriculture through commercialisation, agricultural extension plays a pivotal role in knowledge and technology dissemination as well as providing skills and other support services. Government extension systems are given the mandate to drive the process and support is provided towards the same (Scott, 1998).

Within agricultural extension systems, the main objective is agricultural modernisation which shapes approaches used such as transfer of technology within the diffusionist paradigm (Davis et al., 2019). Despite the view that agricultural extension is one of the pathways through which innovations are passed to farmers within agricultural modernisation, others have argued that extension has remained technical, as it does not account for the social-political factors in its work, hence one of its weaknesses (Cook et al., 2021). Furthermore, even the technologies themselves are often devoid of socio-political considerations. Cook et al. (2021) argue that extension services have remained partial and disconnected from farmers' realities, relationships, and practices. They advocate for what they call 'humanised extension' that enables inclusion and reflection on power, place, and people and for extension to examine socio-political processes that hinder farmer empowerment (Cook et al., 2021).

This research draws on the Marxist agrarian political economy framework to understand the contribution of agricultural extension to commercial farming. The framework has not been widely used in the field of agricultural extension which often assumes a straightforward relationship between diffusion of innovations and adoption resulting in specific outcomes. This assumption ignores the complex contextual environment within which potential adopters operate, and the social and power relations among adopters which results in differentiated access and utilisation of the knowledge and skills. The aim, then, is to apply a critical lens to the analysis of the dynamics of class and gender differentiation in access to extension services and how these differences impact on market-based farming activities. This research examines the extent to which commercialisation is happening and its impacts on livelihoods within the context of agricultural extension. On the one hand, agricultural commercialisation is the shift from 'subsistence farming' (engaging in consumption-based farming) to 'commercial farming' (engaging in market-based agriculture) (von Braun and Kennedy, 1995). On the other hand, agricultural extension services are described as information, knowledge, and skill development

to enhance the adoption of improved agricultural technologies and facilitate linkages with supply services such as input supply, output markets and credit facilities for farmers to improve their standards of living (Berhanu et al., 2006). The assumption underpinning mainstream agricultural extension which is the thrust for the diffusion of innovations and adoption paradigm, is that if farming communities have access to this market-oriented agricultural extension, they will be able to engage in market-based agriculture.

This chapter presents the background of the study and the context within which the study is conducted. The chapter further presents debates in the field of agricultural commercialisation and extension, problem statement, significance of the study, and research questions. The definition of terms, assumptions, limitations and delimitations of the study are also explained in this chapter. Finally, the chapter summarises the organisation of the entire thesis.

1.2. Background and Debates

Agriculture is significant to transitional economies, especially those that are predominantly agriculture based. The agricultural sector still takes a huge share of GDP and employment (Andersson Djurfeldt et al., 2018), income for the world's poor (Barrett et al., 2017), and livelihoods for the poor (Dorward et al., 2004). African governments often adopt policies to develop the agricultural sector but others have argued that they also do so to serve personal interests and to remain in power by serving and appeasing the interests of those that are powerful (Bates, 1981) creating a class of winners and losers. In Africa, commercialisation of agriculture can be traced back to the colonial era, where colonial governments encouraged the adoption and promotion of cash crops and the development of transport systems to aid market access (de Haas, 2019). The colonial legacy still exists in most African states. They export produce through agencies that were predetermined by the colonial governments to serve as single buyers, who buy produce at administratively determined prices and sell them at prevailing world market prices (Bates, 1981).

African agriculture has been predominantly influenced by the World Bank through its Structural Adjustment Programmes (SAPs)¹ since the 1980s which benefited large-scale commercial farmers as subsidies to small-scale farmers were withdrawn (Havnevik et al., 2007). Most African countries were encouraged towards modernisation and industrialisation of agriculture, with the assumption that traditional agriculture was backward, hence the adoption of modern farming techniques through large-scale farming to improve productivity and reduce hunger. The state played an important role in supporting smallholder farmers through marketing boards and crop authorities (Havnevik et al., 2007). On the other hand, Bates (1981) has argued that the modernisation process results in the displacement of the peasantry as they are forced to surrender their resources to the rich and sometimes the state and the industrial sector. The continuing land fragmentation due to population increase, coupled with infertility of the soils has rendered farming challenging and has resulted in impoverishment among many, especially the resource-poor farmers. Over the years, research centres such as the CGIARs and National Agricultural Research centres have tried to develop improved and innovative technologies to cope with the challenges of decreasing yields. Some regions such

¹ SAPs are economic policies for developing countries promoted by the World Bank and International Monetary Fund (IMF) by providing loans to developing countries on the condition that they adopt these policies.

as Asia have experienced improvements in yields but not so much so in others such as Africa, due to other factors such as climate variability which is exacerbated by over-dependence on rain-fed agriculture, lack of technical skills, and low capitalisation of land (Birner and Resnick, 2010; Havnevik et al., 2007). Large-scale farmers have enjoyed better yields and livelihoods, unlike smallholder farmers. In addition, however, the introduction of technologies and innovations is based on political interests both in their determination, supply, and in their distribution and uptake (Turzi, 2016; Harrigan, 2003; Berhanu and Poulton, 2014; Chinsinga, 2009b).

Agricultural extension plays a crucial role in improving agricultural production and alleviating rural poverty (Cai and Davis, 2017). But for whom and to what extent are extension services achieving these roles? It has been recognised that the agricultural extension system needs to adapt to the changing nature of the agricultural sector and the objectives being pursued, one of which is agricultural commercialisation (Van den Ban and Samanta, 2006; Gebremedhin, et al., 2006a). Evidence exists elsewhere of the role of extension services in enabling the process of market participation. Most of studies report a correlation between access to market information (Ingabire et al., 2017), access to farmer groups or cooperatives (Eskola, 2005), adoption of technologies (Kumar, Singh and Kaswan, 2012; Gebremedhin et al., 2006a), and access to agricultural training and engagement in commercial agriculture (Hamilton and Hudson, 2017; Zivkovic et al., 2009). Although, Chimombo et al. (2022) found that even those farmers who are in farmer cooperatives struggle to access markets and sell their produce; sometimes they are even more disadvantaged than those who are not in cooperatives. Gebremedhin et al., (2006) argue that among the many institutional support services needed to cause the transformation process of agriculture from subsistence-oriented production to market-oriented production, the agricultural extension service plays a critical role. Linking smallholder farmers to markets depends on both the supply side, thus producing a marketable surplus, on the one hand, and the demand side, thus functioning markets, on the other (Andersson Djurfeldt, 2017). In these activities, agricultural extension plays a pivotal role in ensuring that farmers produce enough to have a surplus to market through the dissemination of improved technologies, promoting good agricultural practices, and linking farmers to markets. However, this study is interrogating which farmers are benefiting from these services.

Despite the envisioned important role of agricultural extension, the sector faced reduced budgetary support over the years (Birner and Resnick, 2010) and other structural challenges, including lack of commitment and political support and an increased staff-to-farmer ratio which affects extension work (Ponniiah et al., 2008; Swanson et al., 1998). Reduced budgetary support is due to difficulties in tracing the impacts of extension services (Feder et al., 2001; Anderson and Feder, 2003). The extension system needs to develop a wide range of skills and knowledge to be able to respond to the rising demand for market-oriented agriculture, which has not been the case, as Gebremedhin et al. (2012) argue that extension services have largely been production oriented. The agricultural extension system, being predominantly state-led means that it is suffering the challenges of shrinking resources and the provision of services often to a few contact farmers located in easy-to-reach areas or even recently through mobile phones, rendering extension services ineffective among many (Havnevik et al., 2007). Despite pluralism, Non-Governmental Organisation (NGO) coverage is limited in rural areas, as the focus is on specific areas and within a specific period and as their services predominantly take a project approach that is often limited in scope, time, and coverage (Swanson et al., 1998).

Smallholder farmers have become increasingly dependent on the markets for both inputs and outputs. This means that a functional marketing environment is crucial to enable market participation among smallholder farmers. Smallholder market participation is affected by poor access to productive assets that affect production outputs; lack of access to financing

institutions to access credit and other financial resources; lack of access to production technologies to generate a marketed surplus; and high transaction costs (Barrett, 2008; and Alene et al., 2008), of which are more prominent among some farmers (resource-poor and women) than others. Socio-economic factors such as infrastructure and physical challenges; scepticism among farmers on the benefits of market participation given the risks involved (Singh-Peterson and Iranacolaivalu, 2018); lack of transportation from farms to the markets; lack of marketing skills and information; insufficient land availability to expand production; poor production and farm management skills; and low education levels resulting in the poor interpretation of information (Musa et al., 2018) limit farmers' progression from subsistence to commercial farming.

Various studies identify drivers of agricultural commercialisation, including resource endowment, household size, age, sex of household head, access to off-farm income, location, market and physical infrastructure, age of household head, the land area available, assets, access to shared equipment, technology, vocational training, risk-taking behaviour, and rainfall pattern as factors affecting the degree to commercialisation (Fredriksson et al., 2017; Olwande et al., 2015; Rabbi et al., 2017). In Malawi, Radchenko and Corral (2018) identified household access to agricultural inputs, resource endowment, market and ecological conditions, household size, gender of household head, access to staple foods and distance to markets as determinants of cash crop production among smallholder farmers. Furthermore, Chirwa and Matita (2014) have identified food security, access to fertilisers, wealth and market access benefits as determinants of commercialisation. This study interrogates the drivers of agricultural commercialisation with particular attention on the role of agricultural extension. A study by the World Bank in 2012, found that only 10-12 percent of the small farmers are able to access vital extension services mainly because large farms crowd out the small farmers access to key benefits (World Bank, 2012). Small farmers tend to focus on their livelihood needs first and not on their farms as enterprises and that any extension support that small farmer receive is geared towards improving productivity and not towards profitability to make sure that their lives are sustainable (GFRAS, 2012). The insights from the World Bank study guided new perspectives to agricultural extension services and practices to implement changes such that agricultural extension needed to move from simply promoting poverty reduction to enhancing wealth creation; and that the goal of extension services should expand from productivity enhancement to include profitability enhancement (GFRAS, 2012). However, the extent to which agricultural extension is achieving this and who is benefiting is what this study seeks to unravel.

The changing nature of farming from a small-scale subsistence orientation to large-scale, extensive, commercial farming places agricultural extension in the middle of this shift through provision of technical knowledge and skills in response to the changes (Phelan, 2007). The shift has also triggered changes in extension services from the 1960s where the focus was on increasing production, to the 1970s and 1980s where the focus shifted to improving efficiency (Phelan, 2007). Since the 1990s, much of the extension work has included a marketing component with the aim of linking farmers to markets. The role of agricultural extension agents is to work in ways that support agriculture as a fully commercial activity through: creating more opportunities both on and off the farm; helping farmers to modernise their local farming communities; and providing more profitable opportunities for farmers to support better lives (GFRAS, 2012).

With growing pluralism, there is cooperation between public, private and mixed extension systems and approaches, multiple providers and types of services, different funding streams and multiple sources of information in the extension system. This provides farmers with an opportunity to gain access to business development services through different types of

supporting agencies. This can help them meet business needs and enable them to compete more effectively in the target markets (GFRAS, 2012). But debates point to the persistent production-oriented nature of agricultural extension and the challenges faced to effectively perform and adapt to the changing needs of extension services in the wake of agricultural commercialisation. What is missing in these debates is whom these services are provided to and for what impacts. Berhanu et al. (2006) have reported that extension services are mainly top-down and less participatory, supply driven, faced with low capacity of extension experts and development agents, low morale and high turnover of extension staff, and shortage of operational and budget and facilities. In Malawi for instance, the budget for the government extension services in 2012 was only 1.6 percent of the total national budget, most of which was spent on salaries (more than 90 per cent) (Cai and Davis, 2017). The international donor agencies also provide substantial funding to extension services, for example, a budget of around \$1.5 million per year through NGOs and around 5 million Euros in the year 2017-2018 through specific programmes and projects (Cai and Davis, 2017). However, this funding has been diminishing over time as inflation has also been increasing.

As changes from subsistence to commercial farming are happening, wealth accumulates in the hands of few large farmers squeezing out small-resource poor farmers, although differentiation exists even among smallholder farmers, and so they should not be treated as a homogenous group. In capitalism, the social relations among the poor and the rich in access to means of production result in the poor leasing out their land to the rich so that they can keep it while the rich purchase or rent in land for expanding their production activities (Hall et al., 2017; Lenin, 2009). In Malawi, Ricker-Gilbert and Chamberlin (2016) found those who rent in land have positive returns whereas those who rent out land register negative returns. The rich dominate both the input and output produce markets because of their ability to access land, labour and inputs, while the poor sell their labour power which becomes their commodity (Lenin, 2009). The social economic relations that exist among the peasantry point to the contradictions that exist in the commodity economy, which include competition, struggle for economic independence and monopoly, land grabbing through purchasing and renting, concentration of production in the hands of a few, forcing the majority into the ranks of proletariats, exploitation of the majority by capital, and hiring of farm labourers (Lenin, 2009).

Men and women engage in different economic and livelihood activities because of gender relations in access to productive resources, different interests but also cultural norms that limit women to certain activities (Chitsike, 2000; de Brauw, 2015; Fischer and Qaim, 2012; Quisumbing et al., 2014). From a feminist perspective, gender relations in decision making, division of labour, access and control over productive resources and income are in favour of men disadvantaging women (Bikketi et al., 2016; Carnegie et al., 2020; Mgalamadzi et al., 2021; Quisumbing et al., 2014). In commercialisation, men tend to take charge of commercial crops while women are in charge of the food crops (Carr and Carolina, 2008; Doss and Haven, 2002; Orr et al., 2016; Sørensen, 2016). Gender inequalities exist as households shift from simple reproduction activities to expanded reproduction and accumulation, often disadvantaging women (Dancer and Sulle, 2015; Andersson Djurfeldt et al., 2018; Dzanku et al., 2021; Mgalamadzi et al., 2021; Mojirayo, 2014; Muriithi, 2015).

Access to extension services is different among farmers of different social classes and gender (Mudege et al., 2016, 2017; Ragasa, 2014; Ragasa et al., 2012). This produces further inequalities as certain groups benefit more from these services than others. Extension service providers have often targeted well-off 'progressive' farmers with the assumption that they will pass on information to other farmers (Knorr, Gerster-bentaya, & Hoffmann, 2007), but the longer the chain of communication, the more likely that information distortion will occur (Ragasa and Niu, 2017). Women face challenges when allocating their time to extension

services because of the burden of social reproduction responsibilities (Ragasa, 2014; Ragasa et al., 2012, 2019). Extension service providers often target men as heads of households assuming that messages will trickle down to other household members (Mudege et al., 2016, 2017; Ragasa, 2014; Ragasa et al., 2012).

This study is conceptualised within the broader agrarian political economy theory, contributing to these debates by analysing class and gender differences in agricultural commercialisation, access to extension services and livelihoods.

1.3. Problem Statement

Commercialisation of agriculture is a dominant narrative in driving rural economic growth and transformation. However, the extent to which commercial farming is happening and the benefits to rural people needs to be investigated. Governments have made deliberate efforts to promote market participation among smallholder farmers, including investments in agricultural extension but the extent to which extension services are contributing towards commercial farming and who is accessing these services, with what impacts, needs to be understood. Studies show that market-based farming contributes to improving livelihoods by enabling access to income, improving food security, and general welfare (von Braun and Kennedy, 1994; Ogutu et al., 2020; Radchenko & Corral, 2018; Cazzuffi et al., 2020). This study has examined the extent to which these benefits are realised by smallholder farmers in Malawi. With differentiated access to resources including extension services, opportunities, and social positions in the society, differences in levels and outcomes of commercialisation also need to be determined. This study analysed the impacts of differential access to extension services and market participation on class and gender differences.

Despite efforts by the government and other development agencies in pushing for smallholder commercialisation, others have argued that the process is not truly taking off (Chinsinga et al., 2021). This is also evidenced in the fact that these smallholder farmers end up buying food despite engaging in selling maize (Jayne et al., 2008, 2010a) and the distress-driven commercialisation (Dzanku et al., 2021). Market participation, especially in rural areas, is hindered by inadequate marketing infrastructure, limited access to marketing services, poor service provision and inconsistencies in policies (Nankhumwa, 2019). The aim is to understand the status of smallholder commercialisation, the role of agricultural extension, and the impact of market-based agriculture on livelihoods, interrogating the dynamics of social differentiation from an agrarian political economy perspective.

1.4. Research Questions

The study analyses the contribution of different extension approaches to commercial orientation and examines implications for class and gender differentiation. The study further investigates the impact of market participation on livelihoods, interrogating the dynamics of class and gender differentiation. Therefore, the overarching research question that this research addresses is as follows: *What are the interactions between agricultural extension, commercialisation and social differentiation processes in Malawi and what are the implications for rural livelihood security?* The following specific research questions were addressed:

1. Is agricultural extension contributing to agricultural commercialisation?
2. How is agricultural commercialisation impacting on livelihoods?

3. How are class and gender differences being shaped and are shaping commercialisation and extension access?
4. What factors are contributing to the development of livelihood trajectories?

Three broad themes and concepts are pivotal in this research: agricultural commercialisation, agricultural extension services and livelihoods. Class and gender dynamics are interrogated across these broad themes in terms of both shaping the dynamics and the outcomes. The thesis draws from and contributes to the literature on commercial agriculture (particularly the levels, drivers and livelihood outcomes of commercialisation); agricultural extension (particularly its roles and impacts), livelihoods (particularly livelihood outcomes and livelihood trajectories), social differentiation (in particular, class and gender), and their intersections.

1.5. Significance of the Study

The study seeks to understand the contribution of agricultural extension services to commercialisation of agriculture, the impact of commercialisation on livelihoods of farming households, and the dynamics of class and gender differentiation in commercialisation, access to extension services and livelihood outcomes. This study contributes to knowledge gap that exists first in situating agricultural extension as one of the drivers/enablers of commercialisation; but also, the gap in knowledge on Malawi as there have been few and localised studies on factors influencing smallholder farmers to commercialise and degree of commercialisation among smallholder farmers such as those by Chirwa and Matita (2014) and Lifeyo (2017). The study also contributes to knowledge on challenges and limitations of agricultural extension which have been presented by others in Malawi (Masangano and Mthinda, 2012b; Ragasa and Kaima, 2017); Phiri et al., 2012); Chowa et al., 2013; and Knorr et al., 2007), and elsewhere (Gebremedhin et al., 2006a, 2012, 2015; Lemma et al., 2014).

The analysis of social differentiation from a political economy perspective in extension access, commercial farming and livelihoods brings in new perspectives to the field of agricultural extension which, as argued by Cook et al. (2021) that this has been neglected as extension mainly focuses on the technical side and less on social relations. The study also builds on literature on differences in access to extension services among different groups of farmers based on class or gender (Ragasa, 2014; Ragasa et al, 2012, 2016; Mudege et al., 2016, 2017). This study also contributes to debates on social differentiation in commercialisation (Lenin, 2009; Quisumbing et al, 2014; Dancer and Hossain, 2018).

This study draws from the Marxist agrarian political economy theory to understand the dynamics of class and gender differentiation in the process of commercialisation, access to extension services and livelihood outcomes. The research identifies classes based on local description of wealth, employing a class-analytic approach drawing from Lenin (2009), Bernstein (2010), Cousins (2010), and Zhang (2015). The application of the agrarian political economy theory is rare in the field of extension but also a class-analytical approach is rare in the Malawian context.

The study also employs the livelihoods approach from a political economy perspective (Scoones, 2015; Vicol, 2019) to understand the livelihood outcomes of processes of market participation and access to extension services, because of the realisation that the livelihoods approach is not really a theory but a set of interrelated questions to analyse household livelihood status. The Dorward et al. (2009) framework of livelihood trajectories is used to further understand livelihood trajectories and factors contributing to these (Mushongah, 2009). The study provides a deeper understanding of the framework by following stories of

households moving into these different livelihood trajectories, and understanding who among class and gender categories are moving into which livelihood trajectories, but also what is the role of commercialisation and agricultural extension. Again, this is an important contribution to the field of extension and in Malawian context as such studies are rare.

The study contributes to policy formulation from different fronts. First on policies that push for smallholder commercialisation with the assumption that it is a preferred development course by exposing the challenges smallholder farmers are facing but also the inequalities that are produced as households engage in commercial farming, benefiting some at the expense of others. The evidence is crucial in informing the targeting of beneficiaries of these policy initiatives but also for coming up with ways of reducing these inequalities. Secondly, the study provides evidence of the role of agricultural extension in the process of commercialisation, highlighting the bottleneck and the limitations. This evidence is helpful to discover ways in which the challenges can be dealt with to maximise the contributions from agricultural extension but also to limit expectations of what the sector can do. The evidence informs extension service providers on their programming and targeting of extension service beneficiaries to produce tailor-made services for different groups of households. Thirdly, the study fills the knowledge gap on the extent of commercialisation, the contribution of extension services and livelihoods, the class-based and gender inequalities, challenges and opportunities for households and development organisations to be aware and taken advantage of.

1.6. Definition of Terms

This section describes important terms for the study, drawing on literature and in relation to the theoretical frameworks used. The section also provides a description of how and why the terms are used in the study.

Accumulation in the context of capitalism is understood as the accumulation of profit to invest in production or trade or finance to make even more profits (Bernstein, 2010). The research considers the accumulation of capital, land, labour and other factors of production, both as drivers and outcomes of agricultural commercialisation.

Agricultural commercialisation is a rise in the share of marketed output or purchased inputs per unit of output (von Braun and Kennedy, 1994). The study looks at agricultural commercialisation from the output side, where there is an increased market surplus, and is measured by the value of agricultural sales divided by the value of total agricultural production (von Braun and Kennedy, 1994); the input side where there is increased purchase of inputs and is measured by the value of inputs acquired from the market divided by the value of total agricultural production (von Braun and Kennedy, 1994); use of hired labour; and the amount of land dedicated to crops that are meant for sale (APRA, 2018).

Agricultural extension services are defined extension service as a service of information, knowledge and skill development to enhance adoption of improved agricultural technologies and facilitation of linkages with other institutional support services such as input supply, output marketing and credit. The study adopts and adapts the definition by Gebremedhin et al. (2006).

Class within the agrarian context refers to a “social group identified by its position in social relations of production and its relations with other classes” (White, 2020). It is the “social relations of production between classes of producers (labour) and non-producers” (Bernstein, 2010, p. 124). The study considers class formation being shaped and shaping market participation, access to extension services and livelihoods.

Class differentiation is a dynamic process involving the emergence or sharpening of ‘differences’ within agrarian or rural populations (White, 2020). The differentiation is “based on the contrasting locations in social relations around property and control over key means of production including land, labour, capital and technology” (Edelman & Borras, 2016, p. 41). The differentiation may be because of different access to resources but land access and ownership are the most important differentiating features among rural-based working classes and groups (Edelman and Boras, 2016). Class differentiation is described as the existence of differences (class formation) among farming households, which are shaped and shape involvement in agricultural commercialisation, access to extension services, and livelihoods.

Distress selling is the urgent sale of produce at discounted prices driven by unfavourable conditions (pressing needs) for the seller (Bhanot et al., 2021). Among the net grain buyers, distress selling is when they sell grain especially during the harvest period and later buy grain again within the same season (Jayne, 2010; Jayne et al., 2008). The focus on distress selling is not only in terms of selling produce but also selling their means of production such as renting out their land and selling labour power to provide for their immediate needs and for survival.

Gender is the culturally assigned behaviours and meanings attributed to the social categories of men and women and the relations between them, in all aspects of social activity, including access to resources, rewards of remuneration for work, and the exercise of authority and power (White, 2020). Among the dimensions of social differentiation, gender is the most important one in African agriculture as it determines social power relations, asset accumulation and livelihood opportunities (Dancer & Hossain, 2018a).

Gender differentiation can be seen both in the society and at household level through employment opportunities, leadership positions, division of labour, control over resources and ownership of resources (Dancer and Hossain, 2018). The study employs gender differentiation to understand how they are shaped and shape engagement in commercial farming, access to extension services and livelihoods. Gender differentiation is considered within households to look at differences among men and women and in a society among male- and female-headed households.

Extension approach is the essence of an agricultural extension system; it is a style of action within the system and expresses the thinking of the system. It is similar to a guideline for the system that informs, stimulates and guides the structure, leadership, program, resources and linkages in the system. An approach to extension consists of a series of procedures for planning, organising and managing the extension institution as well as for implementing practical extension work (Ponniah et al., 2008). This study analyses the nature and characteristics of the three extension approaches, thus the commodity specialised approach, the government extension approach and the business-oriented extension approach and their contribution to commercial farming.

Livelihoods comprise the capabilities, assets and activities for a means of living, and they defined a sustainable livelihood as the one that can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets while not undermining the natural resource base (Chambers and Conway, 1992). This Chambers and Conway paper was considered the starting point of what was later known as the “sustainable livelihood approach” (Scoones, 2015, p. 6). The focus is on livelihood outcomes of agricultural commercialisation and participation in agricultural extension, but also analysis of *livelihood trajectories* as households are engaging in different strategies and the role of market participation and access to extension services.

Trajectory means a path in time, and Bagchi et al. (1998) has described the term *livelihood trajectory* as the consequence of changing ways in which individuals construct their livelihoods over time. Livelihood trajectories provide insights into the changing welfare and capabilities of individuals and groups of people in society. The livelihood trajectory approach can also be used to understand how and why some households are able to cope and maintain their livelihood security while the majority could not (Shah, 2010). Borrowing from Douglass North's dependency theory, which talks about how the future choices are impacted by the past, a trajectory would also be determined by the choices that the individual makes a long his/her life (Sheikh & Jadoon, n.d.). This study uses the livelihood trajectory concept to understand the different paths that farming households move into and understand why this is the case, identifying the role of agricultural commercialisation and extension services, and interrogating the dynamics of class and gender differentiation.

Smallholder agriculture refers to the manner and 'scale' of the farm operation and not necessarily its size where the owners or farmers themselves manage and work on the farm, often mainly with the help of family members and sometimes with the use of hired workers (White, 2020). The research is based on smallholder farmers' engagement in market-based and the role of agricultural extension and impacts on the livelihoods, but also class and gender differentiation among smallholders.

1.7. Assumptions, Limitations and Delimitations

This section outlines the assumptions for the study, the limitations and the delimitations. The assumptions include the following: first, that study participants are honest with their responses and that they answer the questions to the best of their knowledge. It was expected that respondents would provide answers to the questions that they could have not been prepared to answer, but they may also have problems recalling some information or they may simply choose not to tell the truth for various reasons. To ensure honesty, participants were given an opportunity to accept or refuse to be interviewed; they were interviewed at their convenient time; questions were clarified in their local language, and the tools were pretested to know what answers were expected but also to remove ambiguity. Second, that the sample selected for the study is an accurate representation of the sample population. This is because the research used a list of village names that was given by village representatives. They could have forgotten some household members, but they could also have chosen to leave out some households or even included members that do not exist. Third, that the topic is relevant for the communities chosen and that the agricultural activities that were assumed to be happening in the area are indeed taking place. This is because it was assumed that the sample population is engaged in specific agricultural activities, growing specific crops, accessing extension services and engaging in markets.

The following was the scope (delimitations) of the study: firstly, the study was limited to three villages (Chimera, Chinkhowe and Kachono) to understand the dynamics of agricultural commercialisation, access to extension services, livelihoods and class and gender differentiation. The villages are located in Mitundu EPA, Lilongwe rural. The villages were chosen because of the presence of extension service providers, active farmer groups and households growing the crops under focus (maize, tobacco and groundnuts). Secondly, a study of farmers in the villages was limited to those who grow maize, tobacco and groundnuts among other crops. This was done to understand levels of commercialisation of these crops since the crops are the most common ones and widely grown for both simple reproduction and expanded reproduction. This was done to identify those who belong to specific groups where they access

extension services that are provided by specific extension service providers who promote these crops. Thirdly, the study targeted those participating in extension services to understand the contribution of extension services in commercialisation of agriculture and livelihoods, but also how it is shaping and being shaped by class and gender. Fourthly, the study was limited to farming households to understand the role of extension services in commercial farming and the impact of commercialisation on livelihoods, in relation to other livelihood activities aside farming.

The following are the limitations of the study: first, the cross-sectional nature of the study, which could limit the analysis of livelihood trajectories, as data were collected once-off instead of over a period of time. However, the use of life histories as a tool to collect data helped participants to recall what happened to them over a period of their life and identify possible causes for their current situation. Data collected through trend analysis helped participants recall major changes that have occurred in their villages. Secondly, time and resource constraints limited the scope of the study, conducting the study in only one district and only 1 EPA within the district. However, this did not alter the analysis of the issues as doing it in different districts or EPAs would have only provided a spatial difference. Thirdly, the third phase of data collection was done during COVID-19 which made it difficult to meet with communities as they became suspicious of outsiders, but the use of gate keepers to convince and mobilise them was helpful; also the COVID-19 prevention measures including keeping a distance, wearing face masks and distributing soap for handwashing as well as hand sanitisers helped to gain their confidence.

1.8. Summary and Organisation the Thesis

Agricultural commercialisation, defined as a shift from farming for simple reproduction to engaging in expanded reproduction (capitalist farming) is a dominant narrative for driving rural development in Africa and a positive step towards agricultural development and economic development as well as the improvement of livelihoods and welfare (Carletto et al., 2017a). Because of this, governments and development agencies have made efforts to promote agricultural commercialisation, and in Malawi, efforts in terms of policy, programme and projects have been made. One sector to which this support is channelled is the agricultural extension sector. Literature (Berhanu et al., 2006; Gebremedhin et al., 2015) elsewhere suggest that extension services have been production-oriented (improving productivity or focusing on production activities of the value chain) and not market-oriented (promoting marketing activities of the value chain). Chinsinga et al. (2021) argue that despite efforts, commercial agriculture among smallholder farmers in Malawi has not really taken off because of a ‘triple crisis’ involving land, productivity, and marketing of produce. There are debates about the positive and negative impacts of agricultural commercialisation and the implications of class-based and gender inequalities. The study contributes to debates on the role of agricultural extension in market-based farming and, impacts on livelihoods but also how market participation and access to extension services shape and are shaped by the dynamics of social differentiation based on class and gender.

Chapter 1 describes the conceptual basis of the study, including background and debates, problem statement, significance of the study and research questions. It has described the novelty of the research by explaining that what is to be studied is not common knowledge by identifying gaps in research, including geographic area. The chapter also describes the background of the problem and the context in which the problem occurs. It also briefly describes the theoretical framings of the study. The chapter details the problem statement

specifying the nature and scope of the problem and how the study contributes to solving the problem. The chapter also provides the definition of terms and concepts used in the study as well as how the terms and concepts are applied and operationalised. Lastly, the chapter outlines the assumptions, limitations and delimitations of the study.

Chapter 2 provides scholarly grounding of the studies related to the research. It discusses the theoretical framework from which the study draws, including the Marxist agrarian political economy in understanding social relations in access to means of production and extension services, and how these social relations produce class differences using a class-analytical approach. The chapter also describes the livelihoods approach to understand livelihood outcomes of agricultural commercialisation and extension access from a political economy perspective identifying winners and losers, but also the livelihood trajectories concept to map changes in livelihood strategies of households and the role of commercial farming and extension access. The chapter also discusses the diffusion of innovations theory and other concepts including the Transfer of Technologies (ToT), Agricultural Innovations Systems (AIS) and Market Oriented Extension (MOE) in extension to understand the nature and characteristics of extension services households are getting. The chapter then discusses literature on agricultural extension, commercialisation, livelihoods and class and gender differentiation, with the aim of situating the study within the existing body of literature but also identifying gaps, and complementarities. The aim of Chapter 2 is also to engage in existing debates on the topic and identify gaps in the literature that the study attempts to fill. The chapter also details the theoretical framings that underpin the study with the aim of making a contribution or expanding the understanding of these framings in contemporary terms.

Chapter 3 provides details of how the study was performed, specifying the research design, study sites, study population and sample selection, data collection methods and tools, data validity and reliability, data collection and management, data analysis procedures, ethical considerations, and the limitations and delimitations related to the study methodology. The study adopts a mixed methods research design, but it is predominantly qualitative, in which both qualitative and quantitative data is collected to ensure rigour, breadth and depth offered by the different methods. The methods are used both simultaneously to ensure triangulation, and sequentially to explore the situation and explain the findings of other methods.

Chapter 4 provides historical perspectives of agriculture and agricultural extension in Malawi and beyond. The first section of the chapter provides an introduction to the chapter. The chapter then describes the agrarian question in Malawi, the land and labour questions and trends in production and marketing of maize, tobacco and groundnuts (focal crops in the study). The chapter then describes the history of agricultural extension in Malawi and beyond, a brief description of extension approaches (including those under focus here) and the history of agricultural commercialisation in Malawi.

Chapter 5 provides empirical results on the relationship between agricultural extension and commercialisation. The chapter gives an overview of the agricultural extension services describing the characteristics, the providers, who has access to what services, what the households do with the services they receive and the usefulness of the extension messages. The chapter also looks at the impact of extension services including the relationship between agricultural extension and commercialisation. The chapter further interrogates the dynamics of class and gender in access to extension services and impacts on commercialisation and livelihoods.

Chapter 6 presents findings of the impact of commercial farming on livelihoods. Specifically, the chapter analyses the levels, drivers and livelihood outcomes of agricultural commercialisation, again interrogating the dynamics of class and gender.

Chapter 7 discusses how engagement in commercial farming and access to extension services shapes and is shaped by the dynamics of class and gender differences. The chapter describes local understanding and criteria for class differentiation, describes the existing classes and the intersections with gender. The chapter then describes the characteristics of these classes and gender differences in relation to market participation, access to extension services and livelihood outcomes.

Chapter 8 analyses livelihood trajectories in relation to livelihood outcomes and factors contributing to the development of these trajectories including the role of commercialisation and access to extension services but also interrogating the dynamics of class and gender in livelihood trajectories. The chapter presents people's stories to understand drivers of these livelihood trajectories.

Chapter 9 provides a synthesis of the entire study and documents implications for theory, methodology and policy. The chapter also provides conclusions, presenting key findings in relation to literature and the contributions the study is making.



Chapter 2: Literature Review, Theoretical and Conceptual Frameworks

2.1. Introduction

The literature review focuses on scholarly work on the relationship between agricultural commercialisation and agricultural extension as well as the relationship between commercialisation and livelihoods. The literature also focuses on how the dynamics of class and gender shape and are shaped by processes of commercialisation, access to extension services and livelihood outcomes. The literature review intends to locate this research within the context of the existing literature; to place this work in the context of its contribution to understanding the topic; to reveal any gaps that exist in the literature; to resolve and provide viewpoints in the conflicts among contradictory previous studies; and to identify areas requiring further research.

This chapter has four sections. Section 2.1 provides the introduction to the chapter describing what the literature review covers, how the chapter is organised and how the literature was surveyed, including the search terms and databases used. The literature review uses sources such as books, other theses, journal articles, reports, working papers, conference proceedings and web sources. The main databases used include ScienceDirect, AGORA, the IFPRI website, FAO website, and World Bank website, Google Scholar, government department archives, and university archives. Furthermore, social media sources such as Twitter, ResearchGate, and Academia Edu were used to obtain articles and research work from individual scholars or organisations such as FAO.

The introduction also provides a background to the problem explaining its evolution in both historical and contemporary terms and identifying gaps that necessitated the development of the research topic. The research contributes to the body of knowledge on the impact and role of agricultural extension and impacts of commercial farming on livelihoods. Section 2.2 details the theoretical frameworks for the study, specifying theories from which the study draws insights, justifying the choice of the theory, clarifying how the study connects to the theory and the contribution the study makes to the theory. The section also describes how the research questions are aligned to the theory. The study is framed within the broader Marxist agrarian political economy framework so as to understand the social relations in access to resources and spaces that determine engagement in different livelihood activities, including commercialisation and also the differential access to extension services and the resulting impacts on livelihoods, class and gender differentiation. This is with the understanding that social relations among different classes and gender categories determine their access to means of production enabling them to occupy different social positions with different outcomes and, in the process, there are winners and losers (Akram-Lodhi, 2007; Bernstein, 2010).

The study draws insights from the livelihood approach described in section 2.3 to understand the different livelihood outcomes in relation to processes of agricultural commercialisation and access to extension services, while analysing the social relations determining these livelihoods. The livelihoods approach is specifically looked at from a political economy lens, asking questions: 'who owns what', 'who does what', 'who gets what' and 'what do they do with it' (Bernstein, 2010; Scoones, 2015). The study also employs a livelihood trajectory framework to identify livelihood strategies and factors that contribute to these trajectories (Dorward, 2009; Dorward et al., 2009; Pritchard et al., 2017) including the role of commercial farming and access to extension services. Again, the study looks at livelihood outcomes and livelihood trajectories from a class and gender perspective, identifying winners and losers.

To understand the role of extension services, the study draws on the theory of diffusion of innovations (Rogers, 1983) by examining the underlying assumptions behind the extension approaches used but also broadly drawing on extension concepts that inform the delivery of agricultural extension services. The diffusion of innovations theory is described in section 2.4. Again, from an agrarian political economy perspective the study analyses who accesses what services and what impacts they have on livelihood strategies, livelihood outcomes and the dynamics of class and gender. Furthermore, from a political economy perspective, the idea is that the decision to participate in extension activities is based on who (class and gender) and their access to resources and opportunities, however, participation may, in turn, lead to differential outcomes for livelihoods, class and gender differences.

The agricultural extension concepts examined to understand the nature and delivery of extension services include the Transfer of Technologies (TOT) model, the Agricultural Innovations Systems (AIS) model and the market-oriented extension model. With the TOT model, the emphasis is on outsiders (extension service providers) developing technologies or extension messages that they feel are required by the users (farmers) with little consultation with the potential users (Abdul Wahab et al., 2012; Agnew, 1982; Andrzejczak, 2017; Kaimowitz, 1990; van Crowder, 1988). The AIS model emphasises the involvement of a wide range of stakeholders (including farmers) in developing technologies and knowledge generation to take into account the views of stakeholders but also to tap into their expertise and experiences, with the aim of holistically addressing the challenges facing agriculture (Agwu et al., 2008; Davis and Heemskerk, 2012; Morriss et al., 2006; Roseboom, 2004; Spielman et al., 2008; Temel et al., 2003; Weyori et al., 2018; World Bank, 2012). The market-oriented extension model emphasises tackling extension from a value chain point of view with emphasis not only on production but also on other activities of the value chain (Chipeta et al., 2008; Gebremedhin et al., 2012; Gebremedhin et al., 2015; Kahan, 2011; Kahan and Singh, 2010; Lemma et al., 2014). All these could have implications regarding who is accessing these services, what the impact of the services being provided is, who benefits and who does not benefit?

Section 2.5 provides a review of the literature related to the research topic. The section reviews literature on specific themes: agricultural commercialisation, its meaning, its drivers and outcomes and relationship with livelihoods; agricultural extension, its meaning, history, evolution and institutional arrangements and the challenges; literature on livelihoods outcomes and livelihood trajectories is also reviewed; and literature on class and gender differentiation is also reviewed. The section also provides literature on the role of agricultural extension in agricultural commercialisation and the relationship between commercialisation and livelihood outcomes. Section 2.6 describes the conceptual framework that has been developed based on the theories that have informed the research questions that determined the research methods to achieve the research outcomes. Section 2.7 provides a summary of the literature review chapter, summarising key points in the chapter and providing a transition to Chapter 3.

2.2. Agrarian Political Economy

The study employs the Marxist agrarian political economy theory to understand the context within which farming households are operating and the social relations between classes and genders that shape agricultural activities, in particular agricultural commercialisation and including access to resources, access to extension services, engagement in markets and differences in livelihood outcomes. Agrarian political economy assesses the social, political and economic dynamics of rural agrarian change, emphasising the social relations and

dynamics of production and reproduction, property and power in agrarian formations and their processes of change, both historical and contemporary (Bernstein, 2010). The theory helps towards an understanding of the contemporary processes of agrarian change, including rural resource access and use, land conflicts and key socio-political processes facing rural areas (Akram-Lodhi, 2007). This also stems from the understanding that livelihoods in particular contexts are influenced by power and politics, which affect patterns of production, accumulation, investment and reproduction among different social groups (Scoones, 2015). The Marxist theory is based on the view that commercialisation generates differential rewards that lead to the division of producers in terms of ownership of the means of production, leading to conditions of capitalist accumulation based on the exploitation of labour (Berry, 1993).

The Agrarian political economy theory provides an important understanding of agrarian change and politics shaping these changes (Levien et al., 2018). Its theoretical tradition lies in the foundational work by Marx and Engels which was elaborated by classical theorists such as Kautsky, Luxemburg, Lenin and Gramsci but also Mao in the nineteenth and twentieth centuries (Levien et al., 2018; Smalley, 2013). Later, other scholars such as Terry Byres and Henry Bernstein explored different questions on how capitalism seizes agricultural production and differentiates the agrarian classes; what the contribution of agriculture to the establishment of capitalist mode of production is and; what the implication of all this are to the political behaviour of agrarian classes (Levien et al., 2018).

The agrarian political economy is relevant in addressing the tendencies of class differentiation as class categories are incorporated and have to reproduce themselves through the capitalist social relations as petty commodity producers or as rural-based classes of labour, combining the sale of their labour power and farming (Bernstein, 2015). These tendencies tend to be common even in a Malawian context where rural households are found to be in a situation in which, for them to survive, they do not only have to produce but they also have to depend on selling their labour-power for cash or sometimes for inputs to continue their production and reproduction. Sometimes this is done to ensure that they do not lose their land which, with the rising commodification of land, it has become increasingly tempting to sell. Peasant farmers should be understood as being differentiated into classes as they reproduce and accumulate (Bernstein, 2010).

The agrarian political economy is employed to offer insights in understanding dynamics around access to extension services which are shaped or shape the processes of production and reproduction. The theory helps to explore class and gender differentiation, as the processes of production and reproduction occur within the agrarian structure in which capitalist farmers sit alongside peasants in the ongoing processes of expanded commodification of both products and labour (Akram-Lodhi, 2007). This is why the agrarian political economy theory is used to understand the context which determines access to extension services which in turn result in or are determined by process of agricultural commercialisation, which then has differential impacts on livelihoods. Class analysis is very important to Marxist agrarian political economy, as it explains the power and social relations that exist within groups in the process of capitalist development (Smalley, 2013). Furthermore, despite looking at smallholder commercialisation, the study recognises that smallholders are differentiated. Marxist classical agrarian political economy has been widely applied to provide insights into the differential impacts of agrarian change processes. For instance, Smalley (2013) has used the theory to provide insights into the assessment of the different models of farming, i.e., plantations, contract farming and commercial farming, looking at the involvement and effects on rural societies in Sub-Saharan Africa. This study uses the theory to understand differentiation among farming households in the context of market-based farming, access to extension services and livelihood outcomes. In another study, the theory was used to understand the growing inequalities that resulted from

neoliberal restructuring of the maize agriculture which resulted in dependency on imports and increased food security in Guatemala (Isakson, 2014). In Mozambique, Muianga used the Agrarian Political Economy theory to analyse the emergence of new classes of rural agrarian capitalists and their position in the processes of agrarian change and transformation (Muianga, 2019). (Muianga, 2019)

2.3. Class Differentiation

Lenin's writing on the *Development of Capitalism in Russia* is mostly referred to in class differentiation theses. In a capitalist mode of production, there is disintegration of small farmers into agricultural entrepreneurs on the one hand and workers on the other (Lenin, 2009). In his categorisation of the classes of peasants, Lenin used quantitative data based on different variables some of which are described in Table 2.1. He categorises households into three categories: poor peasants, whom he also referred to as the badly off, middle farmers, and rich peasants whom he often called the well-to-do.

Table 2-1: Lenin's peasantry classification

Characteristics	Poor peasants	Middle peasants	Rich peasants
Area under crops	Cultivate little land (less than 10 ha) or some do not cultivate any land	Cultivate between 10 – 25 ha of land	They cultivate more than 25 ha of land The area under crop indicates their commercial orientation
Farming objective	Cannot cover their needs with income from farming although they produce for consumption and have very little to sell for other needs – subsistence-oriented	Produce for subsistence but also have some for sale – semi-commercial oriented. Their position is transitional such that they could swing to either poor or rich at any time, their position is unstable	These produce for sale. They are able to produce enough such that they separate their crop area into food area (provides sustenance to family and farm labourer); fodder area (livestock feed); farm service area (buildings) and the remaining is the size of commercial area – Commercially oriented
Gross annual income	Low, mainly from outside farming than from farming	Medium	High – more from outside farming than from farming
Labour usage	Sell their labour-power since the income from farming the land is not	Use family labour and employ workers, but they use more	Employ more workers, both wage and day labourers

		enough to reproduce themselves and their families, they serve as farm labourers for fellow farmers	family labour than they hire	
Land ownership		Have little allotment land, they lease out land to rich and middle farmers to obtain some additional income, some do not own any	Own less land, a few manage to purchase or rent land	Have more allotment land, they purchase and rent land and turn into small land owners and capitalist farmers
Ownership of implements and financial resources		Own none or very few unimproved implements	Own a few less improved implements	These have more and better/improved implements
Ownership of livestock		Own none or up to 1 draught animal	Own between 2-4 animals	Own 5 and more animals. They combine capitalist livestock raising (commercial) with large scale capitalist cropping.
Involvement in nonfarm activities	income	Are often engaged in non-agricultural employment and other businesses such as shop keeping. They belong to the rural proletariats	Their income from agriculture is lower than their annual expenditure	They are involved in other non-farming activities at large scale as well
Farming system used		They farm year after year, often same type of crop which leads to poor quality produce and low harvests. Not many use manure	Some use manure, some do not	They let their farm rest which improves the soil and harvests as well as the yields. They use manure because they have animals, use improved implements and technologies, and have labour.
Expenditure and standards of living		Spend more on food than on inputs, but consume less and less quality food Low standard of living	Spend less on food but consume more Moderate standard of living	Spend more on inputs than on food and consume good food. High standard of living

	Spend more on personal consumption	Spend more on productive consumption
Other descriptions	Rural proletariats, allotment-holding wage workers	Rural bourgeoisie, peasant bourgeoisie

Source: Authors' construction based on the literature (Lenin, 2009)

The table describes a number of characteristics that differentiate peasants; although some are considered to be negative, Lenin (2009, p. 129) explains:

‘leasing land’ and ‘employment’ are of negative significance, since they indicate the decline of the farm, the ruin of the peasant and his conversion into a worker. All the others are of positive significance, since they indicate the expansion of the farm and the conversion of the peasant into rural entrepreneur.

In capitalism, it becomes inevitable for the poor to lease out their land and for the middle or rich farmers to purchase or rent land, as land becomes a commodity or a ‘money-making machine.’ The wealthier peasants rent more land despite having comparatively more allotment land. In Russia, the distribution of allotment land is much more equalised, but things change as a result of land leasing, renting and purchasing. Despite differences in the context within which these are studied but there are similarities with the situation in Malawi where land holding sizes are almost similar across classes, but the differences come in when land renting is considered. With capitalism, the role of allotment land diminishes as the poor are forced to lease their land to sustain their reproduction and the rich rent or purchase more land to expand their reproduction. The poor are often allotment-holding farm labourers and day labourers since their main source of livelihood is the sale of their labour power and not farming itself (Lenin, 2009). The rich and the poor rent in land for entirely different reasons: on the one hand, the rich rent or purchase land with the aim of selling the products from the land; on the other hand, the poor rent land so that they can cling to the land because they are farmers at heart (Lenin, 2009).

With access to land, labour, improved implements, and farming techniques, the rich control a large share of the agricultural produce; hence, they also sell a large share. This means that both the input and output markets are dominated by the rich. The poor only have little produce and they often buy additional produce to supplement their own production, with income obtained from selling their labour-power. Again, despite differences in the context in which these are analysed but similarities exist with what is happening in Malawi where rich farmers have better access to inputs, enabling them produce more, on top of which they also aggregate from the poor farmers who, after depleting their produce, end up buying from the rich using the money they earn from working in rich people’s farms or households. In certain cases, they exchange their labour power with food (maize) or other necessities, including inputs or clothes.

The transformation into capitalism takes place when there is concentration of crop areas and the enhancement of the commercial character of agriculture, which leads to the sale of labour power among the poor and the purchase of it by the rich (Lenin, 2009). Both the rich and the poor are engaged in selling commodities, such that among the poor, the commodity is their labour power, while among the rich, the commodities are the goods produced for sale. Hiring

of day labourers is an important characteristic of the rural bourgeoisie. The tendency to hire labourers increases with an increase in economic strength, characteristic among the rich, despite noting from the table that the rich are provided with more workers in their families (Lenin, 2009).

The poor earn low income which is mostly from outside farming, usually more from farm work than from farming itself, and they spend more on food, although they consume less food and it is of poor quality. The middle peasants have moderate income from both farming and other sources, and they spend less on food but consume more. The rich earn more income from other sources (off-farm enterprises) than from farming, and they spend more on food and consume more food and of good quality. The lower income from farming among the rich is because most of the output produced on the farm is consumed in the maintenance of their huge number of farm labourers but also by the draught animals. The poor spend more on personal consumption; hence, the transformation of the peasantry into rural proletariats results in the creation of the market for articles of consumption. The rich spend more on productive consumption hence, the transformation of the peasantry into rural bourgeoisie results in the creation of a market for means of production. Furthermore, the labour-power among the poor is transformed into a commodity at the same time, and the means of production are transformed into capital (Lenin, 2009). The middle farmers cover their own maintenance only in the best years under favourable conditions. Their position is precarious such that they often swing to either end depending on the conditions of production. They usually cannot make ends meet without resorting to loans to be paid through labour service (selling of labour power). Every crop failure forces them into the position of the rural proletariat (Lenin, 2009).

As the process of differentiation is taking place, the natural economy is displaced by the commodity economy. The peasants then become dependent on the commodity economy for almost everything, including their personal consumption (accessing means of subsistence), farming (accessing means of production and selling produce) and payments of taxes (including rents). This is the order of capitalism. As Lenin (2009, p. 173) puts it, “The Russian peasants are not antagonists of capitalism; they are its deepest and most durable foundation.”

In the agrarian political economy, class is based on the social relation of production; a class can therefore only identify itself in relation to another class. For instance, family farms are considered a class because of their relations with capital as exploited by capitals both directly as capitalist exploitation or indirectly by self-exploitation in ways that benefit capital (Bernstein, 2010). Bernstein first starts the debate about class differentiation by analysing the different terms related to the concept of farming. Clearly, terms such as ‘small scale’ farmer or ‘family’ farmer need to be understood differently, both normative and analytically. With the development of capitalism, the social character of small-scale farming changes as peasants become petty commodity producers who have to reproduce themselves through engagement with the markets, thus ‘commodification of subsistence’. However, petty commodity producers are also subject to class differentiation. Bernstein’s classification dwells much on the spatial (sizes of the farm), levels of technology used, reliance on family labour, subsistence orientation and type of farming.

To explain the differentiation of family farms, Bernstein explores the relations and dynamics of commodification, petty commodity production, class differentiation, and classes of labour. Commodification is when the elements of production and reproduction are produced for and obtained from the market, and in capitalism, this rests on the social relations of capital and labour. It also means that there is commodification of subsistence but also of other things such as the conversion of land into private property (primitive accumulation), commodification of crops (forced commercialisation), commodification of means of consumption, means of

production, labour (commodity labour power) and land. Petty commodity production combines the position of capital and labour within an individual or household, which creates a contradictory unit as class positions are not evenly distributed within the households given the gender division of labour, property, income and access; there are contradictions with regard to reproducing the means of production (capital) and the producer (labour); and contradictions of the combination of class positions (Bernstein, 2010).

Class differentiation occurs because of the involvement of small-scale farmers or peasants in commodity production, which results in the commodification of subsistence. His classification also stems from Lenin’s classification of classes of peasants, but Bernstein explains more based on social relations of production and reproduction and the interaction of the classes of labour and capital. Bernstein’s description of classes is presented in Table 2.2.

Table 2-2: Bernstein’s class differentiation

Class	Description	Relationship to Lenin’s peasant groups
Emergent capitalist farmers – expanded reproduction	There are farmers who are able to accumulate productive assets and reproduce themselves as capital on a larger scale.	Rich peasants
Medium farmers – simple reproduction	These are able to reproduce themselves as capital on the same scale of production and as labour on the same scale of consumption.	Middle peasants
Poor farmers – simple reproduction squeeze	These are those who struggle to reproduce themselves as capital, and struggle to reproduce themselves as labour from own farming.	Poor peasants
Marginal farmers – too poor to farm	These lack one or more of the following to reproduce themselves through their own farming: enough land of good quality, capacity to access means of production and capacity to command adequate labour	Poor peasants

Source: Author’s own construction based on the literature (Bernstein, 2010)

Bernstein’s description of the classes of farmers dwells strongly on the ability to reproduce, the scale of production, and command of labour. On the one hand, he describes the emergent capitalist farmers as those who are able to employ wage labour in addition to family labour or in certain instances in place of family labour, the emphasis being that the emergent capitalist farmers are capable of hiring labour. This resonates with what was described by Lenin, which actually forms a central part of the capitalist mode of production, as it is the basis of the social relations between capital and labour and underpins capitalism. On the other hand, poor farmers

are faced with a contradiction of reproducing themselves as both capital and labour such that they sometimes end up squeezing themselves to extreme levels by reducing their consumption to maintain possession of a piece of land, buy inputs or pay debts. Bernstein describes medium farmers as those who usually establish their commodity enterprises at the expense of the poor. However, their class is unstable such that they are susceptible to sliding into either side, thus poor or rich, depending on the conditions.

Another characteristic that is peculiar to class differentiation is the involvement in off-farm employment, and Lenin talks about the role these play in supporting farming or impeding farming. Bernstein explains the role of off-farm activities in bringing income that can be used for consumption funds (reproducing labour) but also for investment funds (reproducing capital). Among the emergent capitalist farmers, off-farm activities such as crop trading, transport, and renting out draught animals provide necessary support to farming as they engage in diversification of accumulation. Among medium-scale farmers, a combination of farming and off-farming helps them earn income for reproducing their farm production. Among the poor farmers, involvement in off-farm activities is a survival strategy for them to reproduce themselves mainly through sale of their labour power. However, their involvement in farm work may mean that they do not have time to work their land, which is a disadvantage, although in capitalism, the crises of some classes present opportunities to other classes (Lenin, 2009).

In South Africa, a class-analytic approach was used to describe class formation among small-scale farmers in the context of land reform. The description used class-analytic perspective centred on the concepts of petty commodity production and accumulation from below to understand these differences. This is based on the fact that smallholders are not a homogenous group but are differentiated in terms of their objectives for farming, thus farming to contribute only part of their social reproduction, farming to meet most of the needs of social reproduction, and farming to produce surplus for profit, reinvestment and accumulation (Cousins, 2010).

The social relations between capital and labour define the two essential classes of capitalism, thus the capitalist and the working class (proletariats). In capitalism, small productive enterprises that are based on family labour power are described as petty commodity producers. They combine the classes of capital and labour within the enterprise, they own the means of production, and they use their own labour power, although some occasionally hire labour. The categorisation used the degree to which agriculture contributes to social reproduction or expanded reproduction and the degree to which hired labour is used in the agricultural production process. The following categories were described: 1) Supplementary food producers – these are producers who farm small pieces of land, they do not have access to wage income and they often rely on additional forms of income such as social grants and petty trading for their simple reproduction; 2) Allotment holding wage workers – these work small plots but are mainly dependent on wages for their simple reproduction; 3) Worker-peasants – these farm on substantial scale but are also engaged in wage labour, and they combine these sources of income for their simple reproduction; 4) Petty commodity producers – these are able to reproduce themselves from farming alone or with minor additional forms of income; 5) Small-scale capitalist farmers – these rely substantially on hired labour and they engage in expanded reproduction and capital accumulation; and 6) Capitalists – whose main income is not from farming. Farming is on a small scale, but its main source of income is another business (Cousins, 2010).

In another categorisation by Vorley, (2002), three classes of farmers were identified: 1) The small-scale family farmers also known as vulnerable farmers or net buyers who are self-sustaining farmers focusing on growing enough food to feed their families with occasional sales of goods to market. This is the group that is in transition and in many cases the farm is a

complementary source of food and income, but their livelihoods often include other non-farm and off-farm activities. They are characterised by limited resources in terms of land, water and money, they are often not well-educated, they make up the bulk of the farmers in the community and they make up approximately 30-50 percent of farmers. 2) Medium-scale farmers, also known as market neutral smallholders, who make up approximately 20-30 percent of farmers, are key contributors to the production and marketing of major food crops such as cereals and oil seeds, they have access to at least 2-10 hectares of land, may have primary school education and have better access to credit and other resources than small-scale farmers. They are often more progressive, often in leadership positions within farmer organisations. 3) The large-scale commercial farmers usually do not make use of public extension services, they have access to resources such as capital, marketing information, technologies and ICT as well as paying for specialised services which include market development, management and financial services (Vorley, 2002).

The different categorisation of classes presented here show some similarities in the classes observed but also the characteristics of these classes, the differences are mainly the context within which these were analysed. Drawing on this scholarly work on class differentiation, this study employs the class-analytic approach to categorise classes among smallholder farmers involved in producing maize, groundnuts and tobacco among other crops and livelihood activities; they are engaged in commercial farming and access diverse extension services. As households are engaging in different livelihood strategies including market-based farming, selling labour power, small-scale businesses, they become differentiated into class categories. In Malawi, these class positions are elusive and fluid such that over a period of time, they change depending on the situation both of the households and the wider context. The differentiation is based on various factors which are crucial to the rural Malawian context, including land, labour, capital, food security, access to off-farm income and access to basic and support services.

2.4. Gender Differentiation

The processes of development affect men and women differently. For instance, development of capitalism lead to the modernisation of agriculture and results in restructuring subsistence farming, bringing about gender-based disadvantages altering division of labour between men and women, increasing workload for women, women losing control of crucial resources such as land and exacerbating their exclusion from accessing improved agricultural technologies which men dominate (Momsen, 2004). The gender relations and struggles over resources and benefits produce social differentiation (Berry, 1993) and situations and processes such as commercialisation produce and deepen inequalities among social groups (Peters, 2004; Hall et al., 2017). In the context of market-based agriculture and livelihoods, questions around power relations, individual empowerment and agency can help provide insights as to who are the winners and losers, but also the systemic factors affecting individual's or households' capacity to move into different pathways (Dancer and Hossain, 2018).

Studies in social differentiation draw insights from different theories and concepts. They draw insights from theories of intersectionality which try to understand the interaction of multiple forms of social categories including gender, age, class religion, sexuality and ethnicity and how these shape social structures (Dancer and Hossain, 2018; White, 2020). This study draws on intersectionality of class and gender to understand inequalities in engagement in commercial farming, access to extension services and livelihoods. Studies on social differentiation, especially those based on gender, also draws on feminist theory which analyses patriarchal structures and social relations which perpetuate oppression and exploitation (Dancer and Hossain, 2018).

The research draws on feminist political economy to understand inequalities and social relations between men and women that determine women's social positions in the household and the society, in turn impacting on their access to resources (including time) and opportunities to engage in commercial farming, to access extension services and determine their livelihood status. From a feminist perspective, both the labour power that goes into production and reproduction are central to the dynamics of capitalist accumulation (Roberts, 2017). Marxists did recognise that the reproduction of labour power is important to the process of capitalism but it was not fully theorised until feminists took up the task to pay more attention to it. They focused on how accumulation of capital created gender division of labour, the separation of production and social reproduction and the relegation of social reproduction work to private households (Roberts, 2017). The critique was that the separation of production and reproduction allowed Marxists to see the question of women's oppression and class struggles in the processes of capitalist accumulation as a mere addition and of secondary concern (Roberts, 2017). The study uses the feminist political economy approach to understand how processes of capitalism through the shift to commercial farming and unequal access to extension services brings about gender inequalities and disadvantage women, impacting on their livelihoods.

2.5. Livelihood Approach

The research also draws insights from livelihood frameworks in trying to understand the livelihood situation of farming households in the context of agricultural commercialisation. This is looked at from the political economy perspective, bearing in mind that on the one hand, with commercialisation taking place, livelihoods of farming households change differently because commercialisation is happening to different degrees. On the other hand, their livelihood condition determines their participation in the markets.

A livelihood perspective on development has influenced policy advocacy and donor support in agricultural development. Another key concept of the livelihood perspective is the classification of material and social assets into natural, human, social, physical and financial forms of capital. The approach also emphasises the notion that livelihood strategies are influenced by institutions and organisation (Cousins and Scoones, 2010). The notion of sustainable livelihoods can be traced back to the 1820s, when the work that was done reflected the livelihood approach, it was just not called as such. Then, the term sustainability came in in the 1980s and 1990s with concerns about linking development to the environment. It was not until 1992 when Chambers and Conway produced a working paper on sustainable livelihoods that the term emerged. In their paper, Chambers and Conway defined livelihood as comprising the capabilities, assets and activities for a means of living, and they defined a sustainable livelihood as the one that can cope with and recover from stresses and shocks, maintain or enhance its capabilities and assets while not undermining the natural resource base (Chambers and Conway, 1992). Their paper was considered the starting point of what was later known as the sustainable livelihood approach (Scoones, 2015). A livelihood framework was developed to help understand the complexity of livelihoods, and one of the common frameworks was that of the Department for International Development (DfID). This framework served as a guide for research and asked the questions expressed (Scoones, 2015, p. 34) as follows:

Given a particular context (of policy setting, politics, history, agro-ecology, and socioeconomic conditions), what combinations of livelihood resources (different types of capital) result in the ability to follow what combinations

of livelihood strategies (agricultural intensification/ intensification, livelihood diversification, and migration) with what outcomes?

Key elements of this sustainable livelihood framework include the following:

- 1) The *vulnerability context*, which represents the external environment in which people exist, trends, shocks and seasonality, which people have limited or no control over but have a great influence on the livelihoods and availability of assets (Globalisation Livelihood Options of People living in Poverty (GLOPP), 2008). Scoones argues in his book that most of the studies that use this framework, ‘context’, are external and sometimes considered remote, but this viewpoint is limiting, as context is not exogenic and influences all aspects of livelihoods (Scoones, 2015). The context within which households operate to enable them access to resources, opportunities and spaces that enable them to pursue different livelihood strategies including commercial farming and other off-farm activities.
- 2) *Livelihood assets* – these are people’s strengths and thus ‘assets’ or ‘capitals.’ The sustainable livelihood approach analyses how people convert these assets or capitals into positive livelihood outcomes. The belief is that people require a range of assets to achieve positive livelihood outcomes, and the approach identifies five types of assets or capitals, viz., human capital, social capital, natural capital, physical capital, and financial capital (GLOPP, 2008). The DfID framework presents these capitals in a pentagon but others argue that it is limiting, as it is difficult to map the relationships between them. The term ‘capitals’ itself is limiting, as it reduces the complexity of livelihood processes to economic units. The five capitals are limiting, as there are others that could be considered, such as political capital or cultural capital. The use of the term capital notably for natural capital is erasing power from the complex nature into a single potentially tradeable asset, and these limitations have been noted by different scholars (de Haan, 2012; Mdee, 2002; Morse and McNamara, 2013; Scoones, 2015). The study posits that the households’ assets form an integral part in their pursuit for different livelihood strategies but also determine their participation in extension activities and engagement in commercial farming. The study further postulates that household capital endowments also determine and are determined by the class and gender differences.
- 3) *Policies, institutions and processes* – these determine access to various types of assets, livelihood strategies and decision-making bodies and sources of influence, terms of exchange between capitals and returns to any given livelihood strategy. They have a direct impact on whether people are able to achieve a feeling of inclusion and well-being. There are different terms referring to this element in different frameworks of the livelihood approach, where some refer to it as transforming structures and processes, others, mediating institutions and organisations, sustainable livelihood governance, or drivers of change (Scoones, 2015). The policy environment, institutions and processes are critical in enabling households’ benefit from their participation in extension activities, enable them to participate in input and output markets, enable households to pursue profitable livelihood strategies, and shape the dynamics of class and gender.
- 4) *Livelihood strategies* – these represent a combination of activities and choices that people make to achieve their livelihood goals. They depend directly on the assets available and are influenced by policies, institutions and processes (GLOPP, 2008). The study considered a combination of livelihood strategies pursued by households including farming and off-farm activities, but also survival mechanisms such as selling land, labour power and produce.

- 5) *Livelihood outcomes* – these are achievements or outputs of livelihood strategies such as income, improved well-being, reduced vulnerability, and improved food security (GLOPP, 2008). The study looks at livelihood outcomes such as food and nutrition security, income and expenditure, women empowerment and livelihood trajectories.

The sustainable livelihood approach has received criticism concerning its inability to consider politics and power dynamics in the context of livelihoods and that the approach neglects the structural foundations of inequalities of poverty that are rooted in class and gender relations (de Haan and Zoomers, 2005). For this reason, the study employs a combination of the political economy perspective and livelihood approach to understand the dynamics of livelihoods. Livelihoods are often influenced by power and politics hence livelihood analysis should consider historical patterns of structurally defined relations of power between social groups, processes of economic and political control by the state and other powerful actors, and different patterns of production, accumulation, and reproduction in society, which, in other words, is referred to as the ‘political economy of livelihoods’, which relates to Marxist tradition of political economy (Scoones, 2015). Employing a political economy approach to livelihood analysis allows for a detailed description of a diversity of livelihood strategies and evaluation of longer-term livelihood trajectories and their structural conditioning (Scoones, 2009). The understanding of livelihoods in the context of class is important for understanding long-term trajectories of agrarian change and processes of differentiation (Bernstein, 2010). Furthermore, it is relevant to go beyond description and pure empirical methods in livelihood analysis towards a more theorised conception of livelihoods within structural contexts (O’Laughlin, 2002). It also allows a move from a mere description to an explanation, linking specific to wider patterns and processes (Scoones, 2015). Scoones, in his proposition of the extended version of the livelihood approach to understand the political economy of livelihoods, indicated the need to ask the right questions offered by Bernstein: *Who owns what (or who has access to what)? Who does what? Who gets what? What do they do with it?* (Bernstein, 2010) These questions provide an important starting point for livelihood analysis with linkage to the political economy of wider agrarian change dynamics (Scoones, 2015). To better analyse the implications of agricultural extension services and agricultural commercialisation for the livelihoods of farming households, this study draws insights from both to understand the situation holistically.

The framework has often been used in studies of livelihoods; for example, Orr and Orr (2002) reviewed changes in rural livelihood in southern Malawi following market liberalisation. They found that market liberalisation increased the need for resource-poor smallholders to develop marketing strategies (growing crops that were highly marketable but did not reduce maize production) that provide them with income security. The blended approach of the political economy of livelihoods has also been applied in a number of studies, for example, Scoones et al. (2012) in Zimbabwe, where they linked a class analysis of agrarian dynamics to a description of livelihood strategies (Scoones, et al., 2012). In another study, Mark Vicol used the political-informed livelihood approach to understand the intersections of contract farming, rural livelihood trajectories and agrarian change in India (Vicol, 2019). Other studies have looked at the sustainable livelihood framework from different perspectives. For instance, from a psychological perspective, the framework emphasises the principles of participation of locals and understanding the local culture in understanding poverty and development in a drive to eradicate poverty (Petersen and Pedersen, 2010). Also, from a developmentalist perspective, development is looked at as a livelihood improvement and poverty reduction strategy (Cousins and Scoones, 2010). From a gender perspective, livelihoods approach helps to understand how women access resources to build livelihoods assets and the structural barriers affecting women to build sustainable livelihoods (Lemke et al., 2013). In the Malawian context, livelihood

outcomes are differentiated across class and gender confirming the political economy of livelihoods. Different class and gender categories pursue different livelihood strategies based on their access to means of production and opportunities, including access to income, markets, and resources.

2.6. Livelihood Trajectory

The study employs the livelihood trajectory framework described by Dorward et al., (2009) to further understand the livelihood outcomes of market-based agriculture and access to extension services. The framework differentiates between people who are *'hanging in'* as those who are barely surviving, struggling and failing to accumulate or improve. In this strategy, assets are held and activities are engaged in to maintain livelihood levels in the face of adverse socioeconomic circumstances. Those who are *'stepping up'* are those who are accumulating assets and improving livelihoods based on their core livelihood activities. The current activities are engaged in with investments in assets to expand to increase production and income to improve livelihoods. Those who are *'stepping out'*, are those who are doing well but are diversifying to new activities and some move to new locations. Josphat Mushongah added another category, *'dropping out'*, referring to those who are moving towards destitution and exit (Scoones, 2015). According to Mushongah, the livelihood trajectories suggested by Dorward emphasise the role of assets and activities in explaining livelihood welfare outcomes at the household and individual levels (Mushongah, 2009). Mushongah's thesis was a longitudinal study of a period of 20 years to understand the livelihood change of 71 households from 1986-2006. In addition to the three strategies, he added the fourth one characterised as *'dropping out'* or in the process of *'dropping out.'* These households were destitute with few or no assets, poor social relations and limited livelihood activities (Mushongah, 2009).

This classification has been applied widely, for example by Scoones et al. (2012) in their work to describe the different livelihood strategies of households in rural Zimbabwe. They applied this classification in relation to different class typologies. They tried to breakdown these strategies and juxtapose the categories with other analytical class categories. For instance, those who were *'hanging in'* were identified as asset-poor farmers, while others were categorised as struggling semi-peasantry. Those who were *'stepping out'* were categorised as worker-peasants, and those who were *'stepping up'* were categorised as *'accumulating from below'* through petty commodity production and were part of the emergent rural petit bourgeoisie, rural entrepreneurs and those *'accumulating from above'* (Scoones et al., 2012).

The classification has also been applied in the Agricultural Policy Research in Africa (APRA) research on analysing different pathways of agricultural commercialisation and implications for livelihoods. For instance, in Malawi, researchers employed the framework in a longitudinal study where they identified four dominant categories, thus the *'hanging in'* *'stepping out'*, *'stepping up'* and *'dropping out'*, plus another category that was seen to be *'stepping in'* (Matita et al., 2021). The *'hanging-in'* category included those whose main source of income was agriculture, and they have not expanded or diversified. The *'stepping up'* households were those whose main source of income was still agriculture, but they have expanded and diversified. The *'dropping out'* households were those whose main source is now wage labour, but they also rely on remittances and social cash transfers. The other category was *'stepping out'*, who were households whose greater proportion of income was non-farm and who rely on other salary or business income sources. The *'stepping in'* category were those whose income from agriculture increased from zero at baseline (Matita et al., 2022).

This framework is employed to categorise households into different livelihood trajectories and trace the role of agricultural commercialisation and access to extension services but also to juxtapose the livelihood trajectories with class and gender categories. To understand factors that lead to the development of these trajectories, households were followed up using life histories. The study confirms the differentiated pathways to livelihood trajectories as households pursue different livelihood strategies, including market-based farming. The livelihood trajectories are fluid such that at different points in time, households occupy different trajectories. Within the livelihood trajectories, differentiation exist depending on factors determining those positions. These factors include availability of land, labour, capital; government policies, local politics and social networks.

2.7. Diffusion of Innovations Theory

The link between agricultural extension and commercialisation can be predicted due to the fact that for farmers to engage in market-based farming, they need the capabilities and capacity that are crucially provided by agricultural extension services, especially in rural areas where the main sources of information, advice for farmers is the agricultural extension service (Adesina and Baidu-Forson, 1995). What this means is that the manner in which agricultural extension services are delivered considering the messages, the purpose, the methods used, and the assumptions and the rationale behind them is very important to ensure that extension services are effective in achieving their objectives in this regard. To understand these dynamics, the study draws from Everet Rogers' theory of diffusion of innovations.

One of the assumptions of the diffusion of innovations theory is that agricultural development is something that progresses in one direction and that in any innovation, adoption will occur in a series of adoption stages by different groups of people based on their characteristics, such as the assumption that ideas will be adopted early by early adopters, late by late adopters and very late or not at all by laggards. However, others have criticised the idea that with diverse farming and livelihood strategies that farmers engage in, they will choose different economically viable paths due to different aspirations regarding their social and natural environment as well as variations in the way they organise their livelihoods and the role agriculture plays in relation to non-agricultural activities (Leeuwis, 2004). The research draws from the theory of diffusion of innovations to understand the nature of extension services, in particular, approaches that are being used to disseminate information and the rationale behind these. In extension work, different approaches and methods which have evolved over time, are used based on different assumptions, driven by the modernisation model, which have differential impact on adoption of technologies and consequently impacts on changes or outcomes. The type of extension services and the delivery, especially the frequency of contact, has an effect on the impact of agricultural extension services. Different approaches have the potential to produce differentiated outcomes but the impact depends on the wider structural context within which farmers are operating. The relationship between delivery of agricultural extension services and its envisaged outcomes is not straightforward as there are other factors that come into play, including government policies that determine farmers' ability to take advantage of these services. The challenges facing the extension sub-sector cripple delivery of services and the benefits farmers can get. In trying to understand the manner in which extension services are delivered, the study draws on concepts described below.

2.7.1. Transfer of Technologies (ToT)

The transfer of technologies or technology transfer model is informed by the diffusion of innovations and adoption theory. On the one hand, diffusion is a process by which an

innovation is communicated over time to members of a social system. On the other hand, adoption is the process by which an individual passes from the time they hear about an innovation to the time they adopt it (Rogers, 1983). The ToT model is a one-way model of an agricultural knowledge system where researchers play the role of creating 'breakthroughs', and these breakthroughs are transferred to extension for delivery to users. Scientists come up with a product that an extension has to sell (Kaimowitz, 1990). The premise of the ToT model is that technical knowledge is generated by science and industry, transferred by extension services and utilised by farmers (Okwu and Daudu, 2011). The aim is to increase production capacity and improve the market position of agriculture (Klerkx et al., 2016). The approach is top-down, as the assumption is that farmers lack knowledge and modern technologies, so technical knowledge has to be disseminated to them (Kahan et al., 2014).

According to Gebremedhin et al. (2006b), the ToT model has been the basis for the conceptualisation and definition of agricultural extension, which means simply a mechanism for information and technology transfer. Kaimowitz (1990) argues that the ToT model is hard to replace in most agricultural extension systems, yet most analysis of the model has shown that it is inappropriate, as it has a number of weaknesses, such as only being successful in delivering technology to progressive farmers, leaving out the poor, and that it is inadequate in understanding the knowledge system because of its one-way linear nature. William Rivera argues that this model of agricultural research and extension is unlikely to produce technologies that are suited for farmers in their diverse and complex environments, hence the need for more participatory approaches (W. M. Rivera, 1988). Despite the model being widely criticised, it is still frequently being applied in public and private extension programmes (Ndah et al., 2014). This ToT concept is used to understand the nature of extension approaches with the assumption that the way extension services are delivered could have an impact on commercial-oriented farming and in turn, impact on livelihoods. From a political economy perspective, the study aims to understand how the ToT model takes into account the social classes and gender differences but also social relations and power dynamics among the beneficiaries and how the services are tailor made to suit social conditions of rural people.

2.7.2. Agricultural Innovation Systems (AIS)

The AIS is driven by a systems thinking perspective and value chain approach to agricultural extension. The AIS has evolved from a concept into an entire discipline with principles of analysis and action. More recently, the theoretical underpinnings of the innovation systems concept have improved to include evolutionary economics theories of learning, institutional theories and systems theory (Agwu et al., 2008; Roseboom, 2004). Different approaches to promoting agricultural innovation have emerged since the 1980s. During the mid-1980s, the emphasis was much on the creation of the National Agricultural Research Systems (NARS) to strengthen research at the national level and encourage technology transfer and invention. During the 1990s, the focus changed to the pluralistic Agricultural Knowledge and Information Systems (AKIS), which emphasised client participation and financing, technology adoption and adaptation, and knowledge exchange mechanisms. More recently, the focus has shifted to the AIS, which incorporates major agents such as universities, firms, and other organisations that can tap into the growing stock of global knowledge, assimilate and adapt knowledge to local needs, and create new technology and products (World Bank, 2012).

Promoting innovations in agriculture requires that there be strong coordination support for research, extension and education. This should be done while fostering innovation partnerships and links along and beyond the agricultural value chains to enable agricultural development. The AIS is even more necessary with the new agricultural trends regarding its complex agricultural markets, networked knowledge, and competitive advantage linked to capacities for knowledge application, coordination and improved links between main actors in the innovation

system (Larsen et al., 2013). The AIS provides a plan for identifying, designing and implementing investment approaches that can strengthen innovation systems and promote agricultural growth (World Bank, 2012). An *innovation system* is defined as a network of organisations, enterprises, and individuals who are focused on bringing new products, new processes, and new forms of organisations into economic use, together with the institutions and policies that affect their behaviour and performance (World Bank, 2012). Extension is seen as a major player in furthering rural innovations and development. Over decades, the theory and practice of extension has changed from educating farmers on new agricultural technologies and linear approaches to a more systemic approach where multiple actors form a system as a whole.

The thrust of the AIS lies in the realisation that the traditional linear model of the research extension system alone cannot sufficiently address the challenges of the new trends. Hence, innovation systems approaches are preferred, as they offer holistic and multidisciplinary approaches to innovation and processes to agricultural development (Agwu et al., 2008). These new trends are in terms of emerging markets, urbanisation, and globalisation, which not only influence patterns of consumption, competition and trade but also drive agricultural development and innovations, with more providers of knowledge coming into the picture, and they bring new ways of interaction to generate ideas or develop responses to changing agricultural conditions. Traditional research, education and extension are usually not sufficient to bring knowledge, technologies, and services to farmers and entrepreneurs and to get them to innovate. Innovations require a much more interactive, dynamic and flexible process in which actors deal simultaneously with many conditions and activities beyond the traditional domains of research and extension.

The study employed the AIS to analyse the nature and characteristics of the extension approaches in developing and disseminating innovations and technologies and linkages between actors along the value chains. The study also used the concept to better understand the effectiveness of agricultural extension in promoting commercialisation but also how it helps to navigate around the social inequalities in access to extension services. It was envisaged that each extension approach is aligned to either one or a combination of these concepts, but it was also expected that some overlaps and gaps exist in the actual implementation of these approaches.

2.7.3. Market Oriented Extension (MOE)

Chipeta et al. (2008) defines market-oriented extension services as those services that assist small- to medium-scale farmers and other actors in agricultural value chains to increase their access to markets and secure benefits from commercialisation. MOE embeds the value chain approach to extension. MOE provides a diverse range of services because of the argument that producers and other actors along the value chains require a broad range of extension services to enhance their market orientation and competitiveness. MOE performs other tasks, such as those related to improving production, meeting quality requirements and product value addition. The services involve facilitating institutional change processes and building linkages among different value chain actors. MOE services may include technical know-how to improve the quality, quantity and timing of production; know-how to enable value chain actors to meet market or value chain quality requirements; know-how related to economics, business management and markets; capacity development for strengthening producer and other value chain actors' groups; facilitating and accompanying changes in value chain management; and facilitating linkages among different actors along value chains (Chipeta et al., 2008). Figure 2.1 illustrates the MOE compared to production-oriented extension.

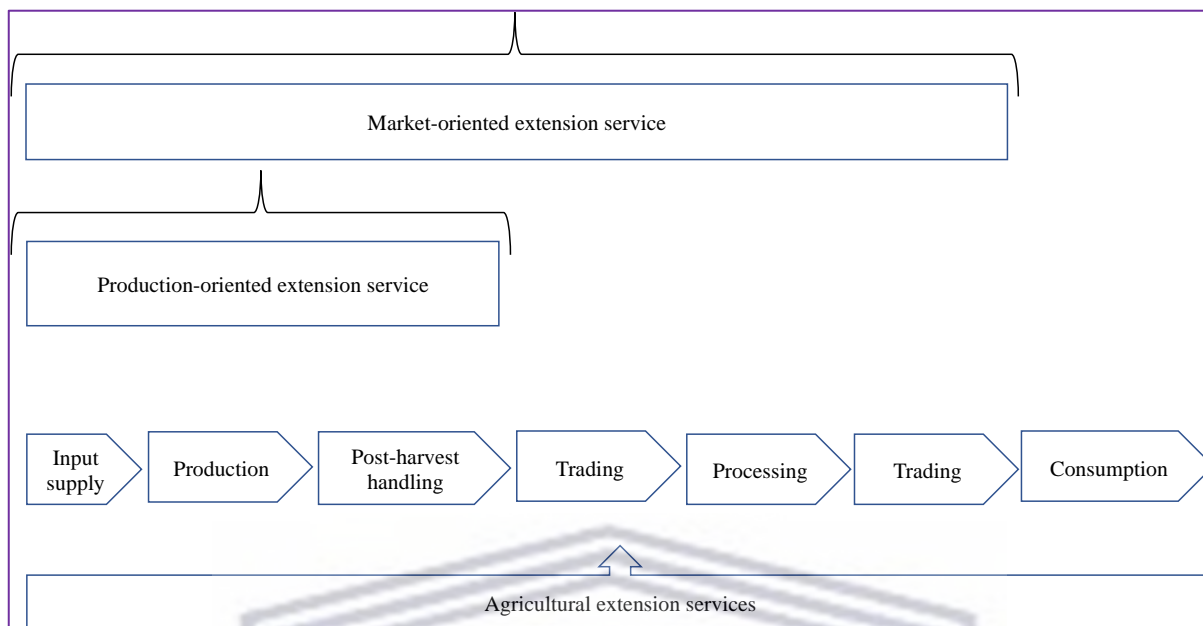


Figure 2-1: A comparison between production and market-oriented extension system.

Source: Gebremedhin et al., 2015

MOE has been necessitated due to the changing environment of the agricultural market. Even in rural areas, there is a growing need for a shift from traditional subsistence farming systems with the realisation that these systems no longer provide for a decent living and the need for diverse forms of employment. It has become a reality that a majority of the rural population is increasingly engaging in markets (Chipeta et al., 2008). The developments that happen pose both challenges and opportunities for rural people, hence the need for advisory services that can reduce the effects of the challenges and enhance the benefits from the opportunities. Additionally, with liberalisation, market structures are changing with new supply chains coming in both domestically and internationally, which often favour well-off farmers and disadvantage the majority of resource-poor farmers. Some of the causes for these challenges include lack of commercial know-how and information, constraints related to production and quality of products, lack of capital, inability to take risks due to small margins of survival, poor coordination and linkages among actors of the value chains, oligopolistic nature of market structures, weak governance in rural areas and lack of enforcement of laws, and declining public investment in agricultural development, particularly in advisory services.

There is a growing recognition that extension services have predominantly focused on increasing production and productivity to achieve food security goals, and some studies have provided evidence for this, for example Cai and Davis (2017); Gebremedhin et al. (2015); Gebremedhin et al. (2012); Knorr et al. (2007); Kumar et al. (2012); and Lemma et al. (2014). Others have noted that traditional production-oriented services fall short in promoting commercial farming (Bhati et al., 2017). Other studies have emphasised the need for agricultural extension to take a market orientation course; for example, Kumar et al. (2012) who argue that with the globalisation of markets, farmers need to transform themselves from mere producers and sellers in domestic markets to producers and cumulative sellers in international markets. Agricultural extension plays a critical role to this end by shifting from merely transferring technologies (which is emphasised in the TOT model) to disseminating appropriate market information (which is the thrust of MOE).

Extension needs to refocus the messages from just ‘what to produce,’ ‘when to produce,’ ‘how to produce’ and ‘how much to produce’, to also add, ‘when and where to sell’, ‘at what price’ and ‘in what form to sell’. Extension has to play a role in providing linkages between production and marketing systems, agro-processing and other value chain activities (van den Ban and Samanta (2006). Other studies, however, have recognised that despite the importance of the extension system, there are challenges such as extension agencies lacking knowledge and skills to perform these tasks (Lemma et al., 2014). This challenge has also been noted in the Malawian context in that extension agents lack skills and expertise to be able to cope with the growing diverse and specialised skills demand from farmers who are venturing into high-value enterprises as a result of market liberalisation policies (Knorr et al., 2007; Masangano and Mthinda, 2012).

2.8. Commercialisation, Agricultural Extension and Social Differentiation

The literature review locates this research within the context of existing literature; places this work in the context of its contribution to understanding the topic; reveals any gaps that exist in the literature; resolves and puts viewpoints in the conflicts amongst contradictory previous studies; and identifies areas requiring further research. The study positioned itself within the debates on commercial agriculture, its drivers and impacts as well as the role of extension services. Sub-section 2.8.1 one looks at literature on agricultural commercialisation, the second sub-section 2.8.2 reviews literature on agricultural extension, the third sub-section 2.8.3 presents literature on class and gender differentiation in relation to commercialisation and extension access.

2.8.1. Agricultural commercialisation

A transition from subsistence or semi-subsistence to commercial agriculture represents a key ingredient for the economic development of low-income countries, as it enhances trade and efficiency, leading to economic growth and welfare improvement (Carletto et al., 2017). Others have referred to the transition from low productivity, semi-subsistence agriculture to high productivity, commercialised agriculture as ‘agrarian transformation’ (Barrett, 2008). Commercialisation in agriculture can take different forms (von Braun and Kennedy, 1994). First, it may occur on the output side of production with increased marketed surplus, and in this case, it is measured as the value of agricultural sales in the markets divided by the value of total agricultural production. This measure was also reported by others (Strasberg et al., 1999; Govereh et al., 1999; Carletto et al., 2017). It can also occur on the input side with increased use of purchased inputs; in this case, it is measured by the value of inputs acquired from the market by the value of the total agricultural production (Wiggins et al., 2011). In most cases, commercialisation of agriculture occurs jointly on the input and output sides of production.

Agricultural commercialisation can be defined as a rise in the share of marketed output or of purchased inputs per unit of output. A shift from basic food crops that are produced and predominantly consumed on the farm, to cash crops that are produced mainly for sale in the market, is viewed as part of the agricultural commercialisation (von Braun and Kennedy, 1994). Commercialisation is not restricted to cash crops since the so-called food crops are frequently marketed to a considerable extent and the so-called cash crops are retained to a substantial extent on the farm for home consumption, for example, groundnuts in West Africa (Pender and Alemu, 2007; Sørensen, 2016). Others have defined commercialisation of agriculture as a process whereby peasants start producing primarily for sale in distance markets rather than to meet their own needs for food or sell in local markets (Roy, 2011), which describes more of an agrarian transition rather than agricultural commercialisation which is

more at household level or a production unit. Leavy and Poulton (2007) define commercialisation as the degree of participation in the output market with a focus mostly on cash incomes. Another dimension of commercialisation is that as households become commercialised, they rely more on hired labour than family labour, and in some cases increased mechanisation. This study examines commercialisation from both the input and output sides but also looks at the extent of input purchase, land renting and hiring labour to better understand the degree of commercialisation. It also recognises that commercialisation can take another form which is 'distress-driven' (Dzanku et al., 2021) involving the sale of key assets including produce (food), land and labour.

Scholars have classified farmers on the basis of their engagement in commercial farming. For example, Pingali and Rosegrant (1995) classified households into subsistence, semi-commercial, and commercial based on their level of market participation. These categories have different objectives, sources of inputs, production mixes, and household income sources, which reflect the multidimensional nature of commercialisation. This classification assumes that smallholder farmers are transitioning from subsistence to semi-commercial and to commercial, which may sometimes not be the case because there are some farmers who can just become semi-commercial or commercial. Smallholder farmers grow market-destined crops in addition to the subsistence food crops they grow, and this is done to ensure food self-sufficiency since commercial crops are associated with risks and transaction costs. In Malawi, Cromwell et al. (2005) categorised smallholder farming households into commercial small farms, which make up 10 percent of the small farms; small farms with commercial development potential, which make up 50 percent; and severely resource-constrained small farms, which make up 40 percent.

In understanding the degree of commercialisation, the first question to ask is whether households sell any of their output, such that some authors have suggested a household commercialisation index that equals the gross value of all sales divided by the gross value of all production multiplied by 100. The commercialisation index of zero means that the household is totally subsistence, and the value of 100 means totally commercialised; thus, the greater the value, the higher the degree of commercialisation (Leavy and Poulton, 2007). However, this index may not mean a positive scenario or beneficial market orientation, as someone who produces little and sells all may be regarded as totally commercialised and the one who produces more and sells part of it may be less commercialised. In addition, another criticism is in terms of distress sales, where most poor households that are desperate for cash may sell all their produce soon after harvest and may appear to be highly commercialised while not impacting positively on household welfare. Different studies have used the commercialisation index to determine the scale, level, and degree of commercialisation, for example, Gebreselassie and Sharp (2008) in Ethiopia who found that 40% of the respondents were commercially oriented and at a level considered higher than the national level; Ingabire et al., (2017) in northern Rwanda, found that 30% of the households participated in the market as sellers, while 70% were producing for home consumption.

The share of smallholder households completely dependent on farming for their livelihoods remains high (Jistrom, et al., in Andersson Djurfeldt et al., 2018). The smallholder-based rural development model strongly emphasises commercialisation; hence, linking small farmers to agricultural output markets – global and domestic – is essential for encouraging pro-poor agricultural growth. The possibility of linking smallholders to markets depends both on the supply side (production of marketed surplus) and demand side (functioning of markets). Some of the interventions to encourage smallholder commercialisation in rural Africa include improving access to productive assets, financing and improved production technologies to

generate marketable surplus to make market participation feasible and worthwhile and reduce transaction costs (Barrett 2008; Alene et al., 2008).

Barriers to market participation among smallholder farmers include poor infrastructure and physical challenges, and scepticism among communities regarding the benefits of engaging in markets given the high risks (Singh-Peterson and Iranacolaivalu, 2018). Other barriers include poor physical infrastructure, such as roads, lack of transportation to the markets from the farms, lack of marketing skills and information, poor marketing infrastructure, high transaction costs, insufficient land availability to expand production, poor production and farm management skills, and low education levels, which result in an inability to interpret market information (Musa et al., 2018). Another study looked at factors affecting the commercialisation of indigenous chickens and found that the prices of alternative products, quantity of chickens sold and quantity of chickens consumed significantly affected the sales rate. Supplementary feeding significantly affected the rate of commercialisation. High disease outbreak, lack of fencing and housing, high feed costs, lack of markets, low productivity, lack of credit access, poor growth and maturity, and low market prices were the constraints to commercial chickens farming (Siyaya and Luyengo, 2013). Commercialisation is further hampered by challenges in access to means of production including land, labour and capital; poor markets for produce; low productivity levels; and high levels of poverty and persistent food insecurity.

The shift from subsistence to commercial farming is facilitated by a number of factors. Different studies have looked at drivers or determinants of agricultural commercialisation and these include: household endowments of productive and farm assets, technology and transaction costs, household size, having a male household head and an off-farm income stream, location, physical infrastructure, the age of the head of the household, the land area available to the household, and a positive attitude towards risk (Abdullah et al., 2019; Fredriksson et al., 2017; Olwande et al., 2015; Rabbi et al., 2017). Other factors include land availability and size, adequate and reliable rainfall, higher expected prices of produce, education level and vocational training participation, livestock ownership, access to electricity (Olwande et al., 2015; Rabbi et al., 2017; Eskola, 2005). Gebreselassie and Sharp (2007) found that higher non-farm incomes were associated with lower levels of commercialisation. In another study in Kenya, (Kirui and Njiraini, 2013) found that commercialisation was determined by age, gender (female less likely), distance to bank, number of crop enterprises, level of non-farm and total farm income, and location. Radchenko and Corral (2018) in their study in Malawi found the following as determinants of cash crop adoption: household agricultural inputs, endowments, market and agro-ecological conditions, household size, gender of household head, access to staple foods, and distance to markets. Commercialisation is driven by a number of factors including access to means of production, access to labour, collective action, access to extension services, access to support services such as credit, market information and infrastructure, and access to non-farm income. However, most households do not have access to these which contributes to challenges in pursuing commercial agriculture.

Policies of many national governments and international development agencies accord a central role to the intensification and commercialisation of smallholder agriculture as a means of achieving poverty reduction. Some of the potential benefits of commercialisation of agriculture include stimulating rural growth through improved employment opportunities, increasing agricultural labour productivity, direct income benefits for employees and employers, expanding food supply and potentially improving nutrition status (Leavy and Poulton, 2007). Other studies have reported the impacts of commercial farming and some found positive impact including improved consumption, improved food security, improved nutrition, better standards of living and improved welfare (Rabbi et al., 2017; Eskola, 2005; Gebreselassie, and Sharp, 2007). In Malawi, Radchenko and Corral (2017) also looked at the nutrition-related outcomes

of cash crop production using Integrated Household Survey (IHS3) data collected between 2010 and 2011 by the NSO. Increased income alone from agricultural commercialisation is not sufficient for improved nutritional outcomes. In Malawi, distress-driven commercialisation has affected the benefits farmers can obtain from market participation. Market-based agriculture results in both positive impacts (income, expenditure, asset accumulation, and dietary diversity) and negative impacts (food availability, class and gender inequalities, and commodification of land and labour).

2.8.2. Agricultural extension

This section reviews literature on extension services, its definition, the many facets about it, and the history. There are many definitions of agricultural extension and advisory services, and views on these terms have changed over time. Moris (1991), defined extension service as the mechanism for information and technology delivery to farmers. According to Leeuwis (2004), extension means the training and dissemination of messages about specific technologies, and the meaning has recently expanded to include assisting farmers in forming groups, dealing with the marketing of agricultural products and partnering with a wide range of service providers, such as credit institutions (Leeuwis, 2004). The term agricultural advisory services reflect the broader definition and encompass the set of instructions that support and facilitate people engaged in agricultural production to solve problems and obtain information, skills and technologies to improve their livelihoods and well-being (Birner et al., 2006). The World Bank provided a more comprehensive definition of extension service, as a process that helps farmers become aware of improved technologies and adopt them to improve their efficiency, income and welfare (World Bank, 2012). A much broader definition of agricultural extension service includes facilitation of linkages of farmers with other institutional support services such as input supply, and credit and agricultural produce markets, hence agricultural extension can be defined as a service of information, knowledge and skill development to enhance adoption of improved agricultural technologies and facilitation of linkages with other institutional support services such as input supply, output marketing and credit (Berhanu, and Tegegne, 2006). Agricultural extension in the context of agricultural commercialisation is not just about dissemination of knowledge, skills and technologies to farmers, or linking farmers to markets and support services, but should also include assisting farmers in negotiating for prices of both inputs and produce but also enable capitalisation of means of production.

Extension has evolved from being understood as extension for everybody, technology transfers, and to increase productivity, and being referred to as advisory services, being specialised and market oriented. Coordination of extension has evolved from being coordinated by the central government to being private and pluralistic. Funding in extension has shifted from being public to private and to outsourcing extension activities. Implementation of extension has evolved from being top-down to participatory, from production-oriented approaches to market-driven approaches, and from general crops and livestock to specialised export commodities (Mangnus and Bitzer, 2015). Governance has been identified as one of the critical weaknesses of public agricultural extension systems in many developing countries (Bitzer, et al., 2016). Governance failures such as corruption, political misuse, authoritarian approaches, and patronage block the performance of public services. Some governments have responded to these failures through the introduction of governance reforms to public extension services. Some of these reforms include decentralisation, which denotes change in structure of the state and change in the level of decision making. Other reforms include privatisation and outsourcing as well as pluralism in extension services (Bitzer et al., 2016).

In Malawi, extension governance failures have impacted the performance of the delivery of extension services, and the system has implemented some of these reforms, such as decentralisation and pluralism. Before adopting pluralism, Malawi had a state-run, centrally

managed agricultural extension system. This is in agreement with what Bitzer et al. (2016) reported that most agricultural extension systems in developing countries have the origins of state-run, centrally managed systems that focus on linear technology transfer from researchers through extension agents to farmers. These were adopted to respond to the need to increase productivity, especially for food crops, during the Green Revolution in Asia (Hounkonnou et al., 2012). Supply-driven approaches such as Training and Visit (T and V) were promoted and introduced in almost all countries in Sub-Saharan Africa (SSA) and many other developing countries since the 1970s to facilitate a smooth flow of information to farmers who were seen as passive beneficiaries. The T and V was, however, under critique in the early 2000s for its financial unsustainability, and eventually support for this type of extension was terminated.

Other authors (Anderson and Feder, 2004; Birner and Anderson, 2007) have identified other governance failures of agricultural extension systems, such as low political priority and support for extension for food crops; dominance of bureaucratic procedures; top-down decision making and lack of farmer participation in extension planning and implementation; strong upwards accountability towards bureaucratic hierarchies and donors but weak downwards accountability to users of extension services (farmers); poor performance incentives for public extension officers; weak interaction with agricultural research; misuse of extension officers for political purposes (such as campaigning for the ruling party); and patronage of local agencies along ethnic and religious lines. These have rendered public extension outdated in many developing countries. In response to these failures, governments were pressured mainly by international donors to bring about radical reforms that included the decentralisation of services, which is motivated by objectives of making services more demand-driven and farmer-led, improving the efficiency of governance and responding to differing agro-ecological conditions in the country; outsourcing of services to private either non-profit or commercial organisations; and privatisation of services. Outsourcing is referred to as contracting out public extension services to private sector organisations with the view of lowering government expenditure and increasing the efficiency of services through greater demand orientation and accountability to clients (Heemskerk et al., 2009). The privatisation of services has been considered an alternative to the reliance on public funding for extension services, with the assumption that the private sector is free of administrative and political constraints and is more capable of allocating resources efficiently (Chapman and Tripp, 2003; Kidd et al., 2000).

Malawi adopted the demand-driven and pluralistic extension policy in 2000 (GoM, 2000), officially allowing NGO and private sector involvement in the provision of agricultural extension services with the aim of improving the response to the varying demands of farmers and the delivery of extension services. The current extension policy is still under development, although at a very advanced stage, and it will soon be launched and operationalised. However, Cai and Davis (2017) have reported that among the various issues being considered in the policy, they include those to do with coordination of extension activities, standardisation and quality control of service provision, including harmonisation of extension approaches and methods, and what extension approaches and methods should be recommended for up-scaling, function and roles of various extension actors, and a critical analysis of the role of extension in emerging issues such as climate change. Malawi's agricultural extension sector adopted a pluralistic and demand-driven extension services policy since 2000, allowing multiple stakeholders to operate and enabling farmers to demand the services they need. However, agricultural extension services remain top-down in nature and the government remains the principal provider of extension services.

One challenge in a pluralistic extension system has to do with the coordination of activities since these different providers have different ways of working. This coordination function is considered to be the role of the public sector at the district, regional and national levels to

ensure that the activities, scope, scale and approaches of different service providers are accountable, quality is assured, farmers are able to influence extension services and lessons are shared among service providers. However, the extent to which the public sector is doing this is not clear, as for example, in Malawi, the coordination and harmonisation of extension services has been a challenge, and experiences from different countries have shown that there is a problem with coordination and collaboration between various service providers (Bitzer, et al., 2016). This has resulted in unnecessary costs, duplication and inconsistencies in service delivery. In addition, there has been a high fluctuation in the number of service providers, leading to dynamic and highly fragile systems in which the public sector often remains the main provider of agricultural extension services (Davis and Heemskerk, 2012). This agrees with what Masangano and Mthinda (2012) found that there are many players in agricultural extension service delivery as a result of the pluralistic policy, but the government extension service remains the largest in terms of staffing and coverage.

In response to the coordination challenge, the government of Malawi created different organisational structures. At the district level, the District Agricultural Extension Services System (DAESS) organises farmer demands through Stakeholder Panels and coordinates service delivery through extension coordinating committees but also the district councils through decentralisation. At the national level, the Malawi Forum of Agricultural Advisory Services (MAFAAS), which is a country chapter for the African Forum for Agricultural Advisory Services (AFAAS) established by stakeholders, serves as an information-sharing body concerned with coordination, standardisation, quality and capacity building. However, Sigman et al. (2014) have reported that both the DAESS and MAFAAS are not fully functional, adding that the DAESS has different administrative structures that are either not working well or are non-existent. This was also corroborated by Simpson and Singh (2013), who reported that there is a general concern that too much is being attempted with too few resources, leading to weak local structures, insufficient integration of smallholder farmers into demand articulation and prioritisation, and a lack of coordination among different extension service providers. However, these findings contradict what Masangano et al. (2016) found in their study, where they assessed the feasibility and status of implementation of the District Agricultural Extension Services system (DAESS), who argue that the DAESS system is effective but needs to be enhanced by formalising and creating additional structures and that there is also a need to train and sensitise the stakeholders of the system. However, it is not clear from the paper how effectiveness was measured. Authors are also recommending adding more structures at different levels but this recommendation is not based on findings, so is the recommendation on conducting more sensitisations.

Others have found that in Malawi, most of the advice received is on crop production practices, and males, those with higher education, wealthier households, and those residing closer to the main road are more likely to receive agriculture-related advice than females, females in male households and youth (less than 35) (Ragasa and Niu, 2017). The provision of services is still heavily supply-driven rather than demand-driven, as envisioned by the extension policy. In terms of pluralism, agricultural extension development officers (AEDOs) still play a large role in the provision of advice; others are NGOs, community-based or farmer-based organisations, and fellow farmers. The main methods of information dissemination are to groups, radio, and face-to-face (Ragasa and Niu, 2017). Several studies have noted that agricultural extension services have, for a long time, focused on increasing production and productivity to achieve food security (Gebremedhin, 2015; Gebremedhin, et al, 2006). However, Gebremedhin et al. (2006) argue that the role of extension is more critical for commercial-oriented farmers than for subsistence farmers because as farmers produce for the markets, issues of quality and standard of produce become much more important than during subsistence production, since

competitiveness depends on the quality of produce; changing market conditions and consumer preferences means that farmers also adjust their production, grading, sorting, packaging and value addition to suit the conditions; and that timely and effective transmission of marketing information is imperative. Despite a few improvements and emphasis on market-oriented extension, extension messages remain predominantly production oriented. This is because the problems affecting productivity persists.

The agricultural extension system has been faced with a number of challenges that are crippling extension work and compromising the benefits farmers and other extension players can obtain. These challenges have been studied, and a number of authors have reported these challenges. For example, Ponniah et al. (2008) identified the following challenges: low staff to farmer ratio, which means there was low coverage; more extension resources being directed towards commercial farmers, including specialised producers of cash crops and export commodities and a few towards smaller marginal farmers; not all extension was directly related to knowledge transfer; extension staff being involved in non-extension activities in most of their time; declining levels of spending for extension; difficulties in tracing cause and effect, which has further implications on political support, budget provision and accountability; poor coordination and links with research, credit input supply systems, credit and marketing organisation; lack of commitment by senior government officials, which affects implementation of funding support; inadequate public funding; and insufficient relevance of new technology necessary to improve productivity (Ponniah et al., 2008). Other challenges include inadequate resources, an inadequate number of trained extension workers, a lack of coordination and harmonisation of activities and approaches, a lack of proper means of transportation for field extension agents, farmers' resistance to modern technologies, and a lack of incentives among extension workers (Masangano and Mthinda, 2012). Another challenge that has been reported consistently in studies relates to the competency of agricultural extension agents to deliver quality services to farmers, especially government extension agents. Their capacity has also been problematic due to lack of motivation and staff morale, mainly due to poor salaries, inadequate training and poor living conditions in rural areas for extension workers, especially in the Malawian context.

A study in Ethiopia found that agricultural development officers were competent theoretically but required training in the use of the theory they have and recommended that employers conduct seminars, workshops and in-service training (Melak and Negatu, 2012). Similarly, a study in Ghana found that dissemination of farming technologies is affected by lack of funds (institutional and management), low involvement of farmers (participation/stakeholder involvement), farmer educational levels (capacity/enabling), training of extension agents (capacity), and farmers' perceptions of the technology (attitudes/perceptions) (Asiedu-darko, 2013). Another study in Nigeria found that agricultural extension is affected by the inadequacy and instability of funding (institutional/management), poor logistical support for field staff (institutional), use of poorly trained personnel at the local level (capacity), ineffective and inappropriate agricultural technologies for farmers (capacity/participation/ institutional), large staff to farmer ratio (institutional), and lack of client participation in programme development (participation) (Imoloame and Olanrewaju, 2014). Most of these challenges persist and some, such as poor funding, lack of staff motivation, high staff to farmer ratio, have got worse due to inflation levels, poor living conditions and remuneration, but also an increase in population.

The impact of extension services has been evaluated differently and is affected by the format by which services are delivered and the environment within which recipients of the services operate. Extension services have been known to have a number of impacts, including productivity, income, and adoption of technologies. However, it is important to recognise that extension services alone are not enough to improve productivity, income or adoption of

technologies (Anderson and Feder, 2003). A number of studies have examined the impact of extension which includes adoption of technologies (Birkhaeuser et al., 1991); improving crop yield and quality (Cerdán-Infantes et al., 2008); improving technical efficiency (Dinar et al., 2007); improving productivity (Elahi et al., 2018; Olagunju and Adesiji, 2013; Ragasa et al., 2017); enabling output market participation (Gebremedhin et al., 2012); improving expenditure on inputs (Machila et al., 2015); improving consumption growth and reducing poverty (Dercon et al., 2009); improving income (Hamilton and Hudson, 2017; Loki et al., 2021; Machila et al., 2015; Nkonya et al., 2007); and improving food security (Pan et al., 2018; Ragasa et al., 2017; Wesley and Faminow, 2014). However, despite these important roles of agricultural extension, there is a recognition that there are other structural factors that affect the work of extension, such as market distortions and infrastructural bottlenecks (Anderson and Feder, 2003), which jeopardise the effectiveness of the extension services. The wider structural challenges continue to affect the work of extension hindering its impacts such that the contribution of agricultural extension to commercialisation and livelihoods is minimal.

2.8.3. Class and gender differentiation

Class differentiation is a concept within the Marxist tradition and more especially Leninism (van der Ploeg, 2018). According to Marxists or Leninists, the process of differentiation is a resultant phenomenon of the processes of commodity production and capital accumulation. Differentiation occurs over time among farmers through the formation of two antagonistic classes on the one hand, agrarian capitalists who control large land sizes and on the other, a class of proletarianised workers who have lost their land to consolidation by the agrarian capitalists (van der Ploeg, 2018). Modernisation theorists think differentiation is central to agricultural development as it results in disappearance of small farms and growth of large farms, but the process is also seen as competition and not exploitation. Class differentiation can take different paths, either through ‘accumulation from below’ where better-off farmers develop into capitalist farmers or ‘accumulation from above’ where feudal land owners change into capitalist farmers (van der Ploeg, 2018). What is observed is class differentiation based on ‘accumulation from below’ but also processes of exploitation.

The idea of smallholders being a homogenous group driven by populist, neo-classical and neo-liberal theorists, is challenged by Marxist theorists who argue that smallholders are highly differentiated because of the social relations in access to resources and means of production (Bhattacharyya, 2007). Often the focus is on the struggle smallholders have against land dispossession but there is another side that also need to be explored in understanding the agrarian class structure and thus the capital-labour relations. Of course, once capital dispossesses people of their land, capital goes further to extract their labour since they become landless workers, and the only resource they have to offer is their labour power to maintain survival (Habibi, 2022). However, in contemporary times, it is not only the landless whose labour is exploited but also the marginal farmers whose land is unable to sustain their simple reproduction often due to lack of inputs (Habibi, 2022). So, they depend on selling their labour power to survive (Bernstein 2010). They engage in selling their labour power even to their fellow smallholders, hence among smallholders one class thrives at the expense of another through extraction of labour (Habibi, 2022; Lenin, 2009). Class differentiation happens because of unequal access to means of production but also involving the sale of land and labour power to maintain simple reproduction.

In examining the agrarian class structure, only looking at a single indicator (for instance land ownership) is inadequate but there is a need to also focus on other market relations, including labour, product and means of production, but also other non-agricultural activities such as race, gender, ethnicity and national identity (Habibi, 2022). In his categorisation Habibi identified two classes among the smallholders, one comprising of the majority petty land owners who

sell their labour to survive and are part of the labouring class, and another class of a few smallholder capitalist farmers who extract their neighbour's labour for accumulation (Habibi, 2022). In West Bengal, Rakshit (2011) identified two classes based on adoption of capital-intensive technologies. On the one hand, farms that are based on hired labour adopt more capital-intensive farming techniques and operate on a larger scale. On the other hand, there are farms that are based on family labour regardless of the size (Rakshit, 2011). A number of indicators are identified as determinants of class differentiation but the main ones are availability of capital, land and labour, and often, lack of access to capital (inputs) results in sale of land and labour.

In the context of processes of capitalist accumulation resulting from commercialisation of agriculture, social differences based on class and gender are perpetuated by the social relations and struggles over resources that produce and deepen inequalities in favour of some groups at the expense of other groups (Dancer and Hossain, 2018; Hall et al., 2017). Commercialisation results in accumulation of wealth in the hands of a few leading to class differentiation but also leading to unequal distribution of income and other benefits from market participation among men and women as men lead in making decisions and controlling resources and income (Mgalamadzi et al., 2021). Women farmers face more challenges to access means of production and engage in markets than men. This limits their potential to engage in commercial farming and further limits the benefits they can get (Quisumbing et al., 2014). In access to extension services, class differences could be observed in decisions to participate in extension activities which is determined by social relations in access to resources, but also how extension service providers target beneficiaries. Gender differences can also be observed in the participation of men and women in extension services which could also be due to social relations in access to resources, opportunities including time, and the power relations determined by culture and social norms that limit women's movement and restrict them to certain spaces (Ragasa and Niu, 2017; Mudege et al., 2017). Studies have demonstrated gender inequalities in poverty, where more women than men are living in poverty which others have called the feminisation of poverty (Bradshaw et al., 2017). Among class categories, the poor are likely to remain or become poorer because of the social relations in access to means of production including capital (the rich are in a better position to access), land (consolidated by the rich for accumulation and sold by the poor for survival), and labour (sold by the poor for simple reproduction to the rich for continued production and accumulation).

2.9. Conceptual Framework

The conceptual framework presents the theory of change of the study linking the theories underpinning the study, the central themes and research questions. Two conceptual frameworks are presented, the first was conceptualised at the beginning of the study depicting the relationships that exist between the main themes and the context within which the study was conducted. Figure 2-2 presents the first conceptual framework. The research envisioned a linear and almost one-way relationship across themes. The context describes the environment within which farming households operate considering household factors such as resource endowments, household size and ability to take advantage of opportunities; at community level, considering factors such as common resources such as water, local politics that determine access to these common resources, community organisations; external factors such as policies in agriculture and trade, climate, marketing environment. The assumption was that these contextual factors will determine households' access to extension services.

This study assumes that delivery of extension including messages, and usefulness which are determined by the approaches used informed by the AIS, ToT, and MOE concepts, or a combination of these, may have different impacts on farming households' ability to engage in different livelihood activities. It also envisions that households engage in agricultural commercialisation to various degrees and other livelihood strategies such as subsistence orientation, diversification, small-scale businesses, *ganyu*² and employment, or a combination of these. It also assumes that different livelihood strategies will result in different livelihood outcomes in terms of food security, asset accumulation, income and expenditure and women empowerment at household level. Furthermore, these livelihood outcomes will determine the different livelihood trajectories including 'dropping out', 'hanging in', 'stepping up', and 'stepping out.'

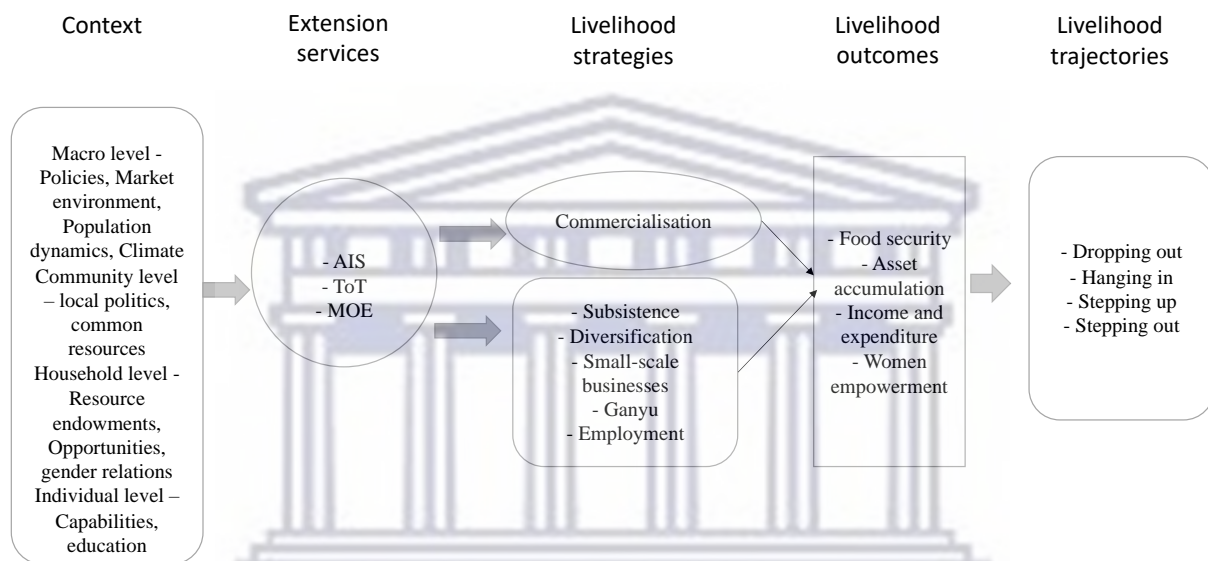


Figure 2-2: Conceptual framework 1

Source: Author's own construction

Figure 2-3 presents the conceptual framework that was tested in this thesis on how extension services are contributing to promoting agricultural commercialisation and in turn, impact on livelihoods, and the dynamics of class and gender. It presents the theory of change subjected to theoretical framings and literature on extension services and commercialisation as well as livelihoods discussed in this chapter, but also the research questions, including the political economy questions. Based on these theories and bodies of literature several assumptions were made, firstly, differentiated farming households engage differently with agricultural extension resulting in different degrees of commercialisation and other livelihood strategies. Secondly, different levels of commercialisation result in different livelihood outcomes which are differentiated by class and gender. Thirdly, the different livelihood outcomes result in differences in livelihood trajectories over time. Fourthly, social differences determine who has access to what (resources and extension services), who does what (livelihood strategies), who

² Ganyu is the term used to describe short-term rural labour relationships with the most common being weeding or ridging on the fields of other smallholders or estates (Whiteside, 2000; Sitienei, Mishra and Khanal, 2016).

gets what (livelihoods outcomes and trajectories), and what do they do with it (class and gender inequalities).

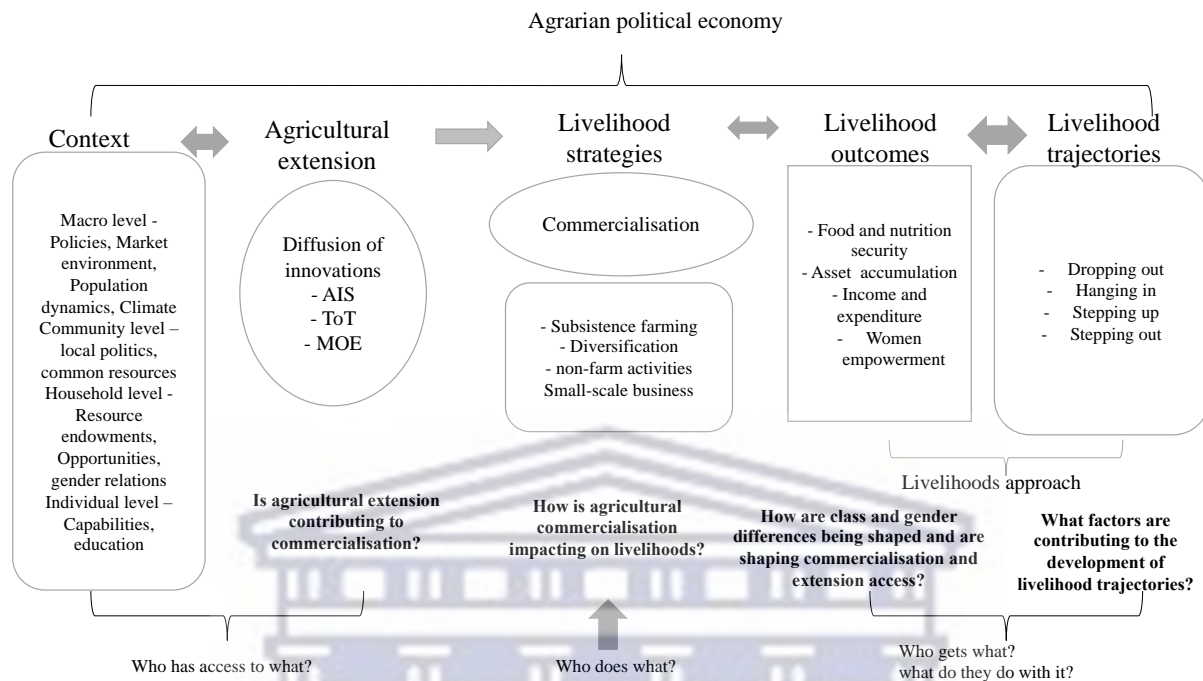


Figure 2-3: Conceptual framework 2

Source: Author’s own construction based on literature (Akram-Lodhi, 2007; Bernstein, 2010; Dorward et al., 2009; Lenin, 2009; Mushongah, 2009; Rogers, 1983; Scoones, 2015)

The study is conceptualised within the broader agrarian political economy theory, hence the application of the political economy questions across the themes to help interrogate the relationships. This is based on several understandings and assumptions. First, the context in which households operate result in differentiation in access to resources and other opportunities that result in differences in capabilities to engage in livelihood activities. This study assumes that households have different access to extension services which could be as a result of prior differences based on the context but also the context resulting in differences in access to extension services hence the double-sided arrows. With the understanding that the way extension services are delivered could have different impacts, the study has used the diffusion of innovations theory examined through the different concepts to understand how extension services are delivered so as to assume its impacts. It assumes that differences in the context and access to extension services will result in differential engagement in livelihood strategies prompting to ask the question ‘who does what’ also interrogating the question of class and gender.

The livelihoods approach was used to understand livelihood outcomes as a result of engagement in commercialisation and or other livelihood strategies. The study has also employed the class-analytic approach within the agrarian political economy to understand differences in livelihood outcomes including gendered differences, asking the questions ‘who gets what’ and ‘what do they do with it.’ The last part advances the livelihood approach to provide nuance to the understanding of livelihood approach through interrogating differences in livelihood trajectories and digging deep into the life histories of households to determine the role of extension services and commercialisation in their current status.

2.10. Chapter Summary

The chapter discusses the review of literature related to the study and the theoretical frameworks underpinning the study and the conceptual frameworks. The chapter starts with an introduction that describes what a literature review covers, and the sources used in the literature search. The introduction also gives a brief description of the research problem and research questions to give a context within which the literature review is conducted. The chapter then provides a detailed description of the theoretical and conceptual frameworks. Specifically, the Marxist classical agrarian political economy within which the study is broadly conceptualised to provide insights into the overall processes of agrarian change happening in a shift to commercial farming and access to extension services, what is driving these changes and explaining class and gender differentiation in the process. The application of the Marxist agrarian political economy framework is rare in the field of agricultural extension and in Malawi hence this study fills this gap. The chapter also describes the political economy of livelihoods approach (Scoones, 2015; Vicol, 2019), drawing on both political economy and a livelihood framework to understand livelihood changes in relation to commercialisation and extension services access. By linking these two frameworks in an attempt to address the critiques that the livelihood framework has received, the study contributes to strengthening these debates and filling the gap in knowledge of the improved livelihood framework. The livelihood trajectories framework (Dorward et al., 2009; Pritchard et al., 2017) is employed to help explain changes in the livelihood trajectories of farming households in the context of extension services and agricultural commercialisation. This study builds on this framework to present perspective from Malawian context and contribute some nuanced and new perspectives of the framework.

The theory of diffusion of innovations (Rogers, 1983) is also employed to analyse the delivery of extension services with specific focus on the concepts of Transfer of Technologies aligned to the single crop and the whole farm extension approaches informed by the modernisation paradigm and capital accumulation; the Agricultural Innovations Systems concept (World Bank, 2012) which is aligned to the business-oriented extension approach informed by the livelihoods approach and capital accumulation, and the Market Oriented Extension which is aligned to the single approach and the business-oriented extension approaches informed by modernisation theory, livelihoods approach and capital accumulation. The aim is to build on the understanding of the theory and concepts but also to contribute to the development of the theory in light of the study findings. The gap that is being addressed is in terms of new knowledge that is generated to advance the understanding of these theories and their practicality in contemporary times.

The chapter then describes literature related to extension services, starting with the meaning of extension services, its evolution, governance, challenges, and roles and impacts of extension services. One of the gaps in agricultural extension literature is its role in driving or enabling commercial agriculture. Most studies do not implicitly or explicitly study the relationship between agricultural commercialisation and agricultural extension as this study has done. Literature on agricultural commercialisation is also reviewed, specifically the definition and general understanding of agricultural commercialisation, level and degree of agricultural commercialisation and the classification of farmers based on agricultural commercialisation activities, drivers of agricultural commercialisation, and livelihood impacts of agricultural commercialisation. The study builds on literature on agricultural commercialisation and contribute a Malawian perspective of the level and degree of commercialisation, but employing the agrarian political economy and the political economy of livelihood framework to analyse the impacts of market-based farming is the gap that the study is filling. The chapter also reviews

literature on agricultural commercialisation in relation to extension services to understand the role of extension services in promoting agricultural commercialisation. The chapter also reviews literature on class and gender differentiation in relation to commercialisation and access to extension services. There is also a gap in literature on the relationship between commercial based farming and dynamics of class and gender especially from Malawian context which this study is filling. The final part of the chapter provides an illustration of the conceptual framework for the study. The conceptual framework combines the research conceptualisation, the research questions and the theoretical frameworks. The next chapter details the methodology used in the study following a mixed methods approach.



Chapter 3: Methodology

3.1. Introduction

This chapter describes the research approach and the methodology used in the study. The study is predominantly qualitative but employs a mixed method research design, collecting both qualitative and quantitative data. The study uses a case study approach by only targeting a few villages growing specific crops and accessing different extension services. The rest of the chapter is organised as follows: the second section presents the research design and approach, then the methodology in more detail, including a description of the study population and sample selection. The chapter also describes the data sources and data instruments, issues of validity and reliability, data collection procedure and management, including data handling and analysis. The chapter then discusses ethical considerations, limitations and delimitations pertaining to the methodology. It concludes with a summary of the chapter.

3.2. Mixed Methods Research Approach

The study adopts a cross-sectional research design where data is collected and analysed from a sample at one time, unlike a longitudinal study that collects data over a long period of time. In a situation where changes over time needed to be established, the study relied on participants to recall and recount through the use of specific tools (trend analysis and life histories). A mixed method research design focuses on collecting, analysing and mixing both qualitative and quantitative data (Creswell and Plano Clark, 2011). The idea is to use quantitative and qualitative approaches in combination, to provide a better understanding of research problems rather than using either approach on their own. The pragmatist approach allowed the study to benefit from both methods since the quantitative approach collected data from a sample large enough to make generalisations, while the qualitative approach collected detailed and in-depth information from a small sample, hence building on the strength from both (Blanc, 2011).

Others have argued that complex social phenomena have various dimensions and linkages that can best be understood via a range of diverse methods (Creswell et al., 2003). The study has preferred a mixed methods design to answer the research questions but also understands different phenomenon and the relationships between them. Besides, others have questioned the conventional assumption that sample surveys always provide better data results and recommended a combination of qualitative and quantitative methods to better understand complex dynamics (Scoones, 1995). In addition, these methods complement each other in terms of depth vs. breadth, as one offers depth (qualitative) and the other offers breadth (quantitative). More studies have been conducted using mixed methods for the sake of obtaining greater results in understanding and explaining livelihoods and poverty, including those by Devereux (2001) and Ellis and Freeman (2005). Figure 3.1 illustrates the research approach.

Mixed methods research involves the integration of qualitative and quantitative research to achieve a meta-inference that cannot be achieved by employing one alone (Guetterman, 2017). This approach has recently become popular in the study of complex problems. Employing mixed methods has become very natural among researchers such that others even do it without being aware of it. However, there is a need to have a rationale and justification for employing mixed methods research design as they are often rigorous, time-consuming and resource-consuming (Guetterman, 2017). The qualitative and quantitative methods are combined sequentially (for one method to inform or feed into the other) and simultaneously to triangulate

the information gathered. Specifically, the study employs the ‘exploratory sequential’ (starting with qualitative moving to quantitative methods sequentially), then ‘convergent’ (conducting both qualitative and quantitative methods simultaneously) and finally ‘explanatory sequential’ (moving from quantitative to qualitative sequentially) designs to combine qualitative and quantitative methods.

Different studies that are related to this study have used mixed methods research design including Bigler et al. (2017) who used an explanatory sequential mixed method design to study the gendered agricultural transformation specifically looking at the rural labour market, wage gap and care penalty in Rwanda. Their rationale for the choice of the design was threefold: first, because the issue had not been adequately studied; second, because using both would offset the weaknesses of the other alone; and third, because a mixed method approach helped them uncover multiple perspectives of the dimensions of precarious employment (Creswell and Plano Clark, 2011). In another study, Bikketi et al. (2016) employed a mixed method design to understand the gendered division of labour and feminisation of responsibilities and their implications for development in Kenya, again because of the strength brought about by both methods compared to using one alone. Johnson et al. (2016) used mixed method research to understand asset ownership and control among women and how that impacts their agricultural activities and consequently their development at the individual and household levels. Hakizimana, et al. (2017) in Kenya employed a mixed method approach to compare outcomes of agricultural commercialisation in terms of land relations, labour and livelihoods across the three dominant models of commercial agriculture, i.e. small-scale, medium-scale and large estates.

This study used various qualitative and quantitative methods. First, participatory qualitative methods to explore the study sites. Specifically, the study uses wealth ranking, social mapping and trend analysis to understand the status of the villages in terms of their agricultural activities, agricultural commercialisation, agricultural extension experiences and livelihoods. The study used participatory methods to validate not only the context of the study but also the methodology to be used. Participatory research methods have been used in other studies; for example, Donovan and Poole (2014) used exploratory and participatory methods to validate asset concepts and methodology before embarking on their study, which was aimed at examining the capacities in terms of asset endowments of producers to enable them to participate in higher value markets. In another study, Cliffe et al. (2016) used workshops with stakeholders to evaluate learning processes that were aimed at improving farmers’ knowledge and skills in using seasonal climate forecasting. Other studies have also applied the participatory research methods used in this study. For example, Ivy Drafor in her study in Ghana used wealth ranking among other participatory appraisal methods to understand gender and small farmers’ commercialisation (Drafor, 2014). In her thesis, Maxine Kelly analysed sustainable rural livelihoods in Malawi and used wealth ranking to identify priorities of the communities in terms of what they characterised as improved standards of living (Kelly, 2000). In their study, Place et al. (2007) also employed wealth ranking to understand rural poverty and investment in western Kenya. Again, in Malawi, Ellis et al. (2003) used wealth ranking to categorise households into different categories in their study on livelihoods and rural poverty. Aliman Shah used a wealth ranking exercise during her master’s study to categorise households into wealth groups based on their criteria of these wealth categorisations. The study examined household livelihood trajectories in the context of man-made and natural disasters in Pakistan (Shah, 2010). Bagchi et al. (1998) also used wealth ranking and village mapping in their study of livelihood trajectories in Nepal. Again, Maxine Kelly used ‘trend lines’ to understand trends in rainfall, population, land productivity, crops and input prices in her Ph.D. work on sustainable rural livelihoods in Malawi (Kelly, 2000). Village mapping was also one of the

participatory methods used by Kelly in her Ph.D. work to understand the villages in terms of physical structures and infrastructure and to identify problems in the community and potential for improvement (Kelly, 2000).

Apart from these participatory research methods, this study used other qualitative methods including key informant interviews and focus group discussions simultaneously with the household survey to triangulate information collected from the household survey. These methods have been employed in a number of studies related to this study (Chirwa and Dorward, 2014; Masangano et al., 2017; Ragasa and Mazunda, 2018; Tsikata and Yaro, 2014). Life histories were also conducted as a follow-up to the household survey to understand changes in livelihoods among farming households. The method has been used in a number of studies related to this study (Hakizimana et al., 2017; Hall et al., 2017; Neves and du Toit, 2013).

This study adopted a case study design focusing on multiple case studies, being the three villages where different extension approaches are implemented by various extension service providers, with a focus on specific crops; i.e.:

- 1) In Chinkhowe village, a government extension approach is implemented by the Department of Agricultural Extension Services (DAES) under the Ministry of Agriculture, Irrigation and Water Development (MoAIWD), and the crop under focus is maize. Despite maize being the focal crop, the extension approach mainly follows a 'whole farm' strategy and services are provided for other crops and activities.
- 2) In Chimera village, a commodity-specialised extension approach is implemented by the Agricultural Research and Extension Trust (ARET), with specific focus on tobacco and services are provided only for the crop.
- 3) In Kachono, a business-oriented extension approach is implemented by the National Smallholder Farmers' Association of Malawi (NASFAM), focusing on groundnuts but also other legumes such as soybean. NASFAM's aim is to promote a practice, in this case, 'farming as a business.'

The study could have been done in any other village, focusing on other extension approaches, and concentrating on other crops but the choice of the villages was based on initial consultations with extension service providers and local leaders to identify active groups of farmers accessing specific extension services. The crops were chosen because they are commonly grown for food and for sale.

The case study design was adopted because it is an ideal methodology for holistic investigation (Yin, 1994). The purpose of a case study is to answer 'what', 'how', and 'why' questions (Quan, 2009). This is why this study has sought to answer the question 'what' by analysing extension services being accessed, the levels of commercial farming, and livelihood outcomes; to answer the 'how' question by analysing the drivers of commercialisation including role of extension services, and how class and gender dynamics are shaping or being shaped by processes of commercialisation and access to extension services; and to answer the 'why' question by analysing the livelihood outcomes including class and gender differences and livelihood trajectories as a result of participating in markets and accessing extension services. Others (Zainal, 2007) have questioned the robustness of case studies despite being used widely in social science studies where in-depth explanations of social behaviours are sought.

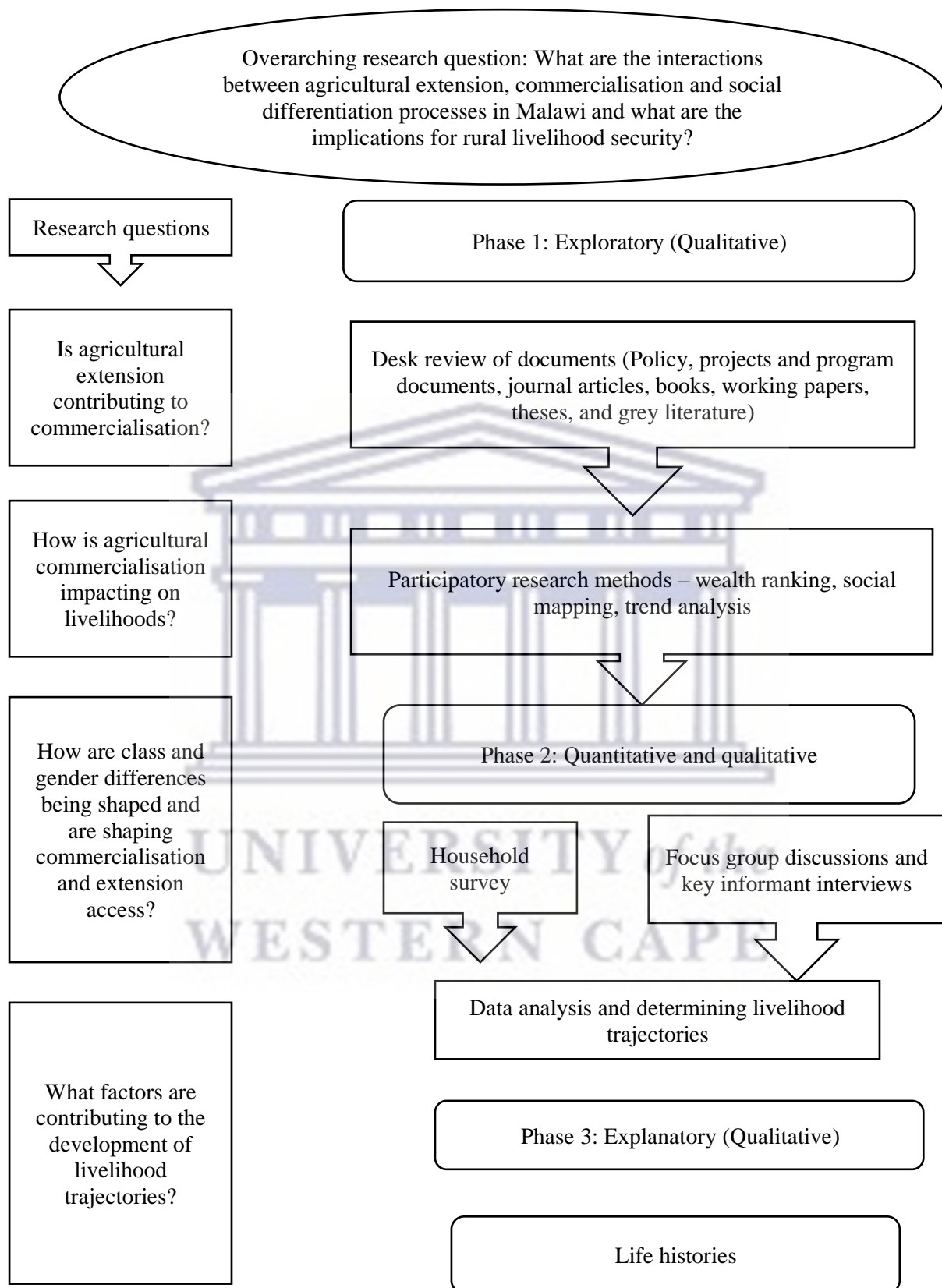


Figure 3-1: Research approach

Source: Author's construction

Figure 3-1 illustrates the research approach describing how the research objectives were achieved through various activities of the study. The figure also shows the different phases of data collection and analysis aimed at answering the different research questions. The first stage involved conceptualising the research idea which led to the exploratory phase where qualitative data was gathered to understand the study sites. This was followed by a desk review to further understand the problem that was being addressed through analysis of gaps that exist and how the research could be designed to fill these gaps. The next stage involved the first phase of field work using participatory research methods to collect qualitative data on wealth categories, social mapping and trend analysis. The mapping of households also helped to map out study population from where the sample was drawn. The second phase of field work involved quantitative data collection through household surveys which were triangulated with focus group discussions and key informant interviews. The stage was followed by months of data entry and transcription, cleaning and analysis. Then the final phase of data collection followed which involved collecting qualitative data through life histories. The final stage involved data transcription analysis and write up.

3.3. Study Sites

The study was conducted in the Lilongwe district, Malawi. The choice of the district was based on the presence of active farmer groups accessing extension services from different extension service providers, employing different extension approaches. The district was also chosen because it presents all the cases, but also because it is a city hence it is economically vibrant. Lilongwe has the highest population density in the country with a large number of farming households, of whom most grow maize among other crops. Lilongwe is one of the largest districts in the central region, with an estimated population of 1,637,583 according to the 2018 population and housing census (NSO, 2018). The agricultural administrative unit at the district level is called the District Agricultural Development Office (DADO). The Lilongwe DADO is under the Lilongwe Agricultural Development Division (LADD). It is divided into Lilongwe West and Lilongwe East. The district has a total of 19 Extension Planning Areas (EPA)³, of which 7 are in Lilongwe East and 12 are in Lilongwe West. The district has a total number of 323 sections, of which 126 are in Lilongwe East and 197 are in Lilongwe West. The district covers an estimated total land area of 586,946 ha, of which 375,529 is Lilongwe West and 211,317 is Lilongwe East.⁴ Of the total land area, approximately 84 per cent is arable. There are 18 Traditional Authorities in Lilongwe district, 8 in Lilongwe East and 10 in Lilongwe West. In 2016, the district registered a total of 444,770 farm households, 178,216 in Lilongwe East and 269,554 in Lilongwe West. The following are the EPAs in the district: Lilongwe West (Demera, Ukwe, Ming'ong'o, Mpingu, Thawale, Malingunde, Mitundu, Chileka, Chilaza, Mlombwa, Mwala-Nthondo, and Mngwangwa); Lilongwe East (Chiwamba, Chitekwere, Chigonthe, Chitsime, Nyanja, Mkwinda, and Mpenu) (LADD, 2016). The study was done in Mitundu EPA which is in Lilongwe West.

³ An EPA is the lowest level of planning, management and monitoring of agricultural activities. It is manned by the Agricultural Extension Development Coordinator (AEDC); under the EPAs are sections which are manned by the Agricultural Extension Development Officer (AEDO)

⁴ This is according to the 2016 quarterly report for LADD

From the district, 1 EPA was selected from Lilongwe West based on the presence of active farmer groups accessing extension services from specific providers implementing different extension approaches. This was also informed by consultations with stakeholders done in the preliminary phase of data collection. The location of the district and the EPA are shown in the map in Figure 3-2.

In the EPA, three villages were targeted and these include Chinkhowe, Chimera and Kachono. The villages were purposively sampled based on the presence of vibrant and functioning groups of farmers growing, among other crops, maize, tobacco and groundnuts. In Chinkhowe village, the Ministry of Agriculture Irrigation and Water Development, through the Department of Agricultural Extension Services (DAES), promotes the adoption of technologies through Agricultural Clusters (AC) in an effort to achieve food security, nutrition and income security. An AC is a collection of farmers undertaking similar agricultural enterprises in the same catchment area or locality (DAES, 2008). The Agricultural Clusters initiative uses the village as an entry point. The rationale behind the promotion of ACs is that a well-organised group of farmers is a great economic force for growth and development, as envisaged by the Malawi Growth and Development Strategy (MGDS). The initiative enables integrated packaging of interventions for greater efficiency by getting farmers organised for effective action for the market in addition to food and nutrition security needs. The objectives of the ACs include the following: to impart agricultural knowledge and skills and change the attitude of farmers in the catchment area and to foster the development of farmer organisations with similar enterprises. The process of forming ACs involves conducting sensitisation meetings, identifying catchment areas, mobilising farmers with similar enterprises, registering all the farmers, collecting and documenting their information such as land holding sizes, forming committees, identifying common problems, and developing action plans to deal with the problems. The activities in the clusters involve implementing action plans, farm planning, mounting on-farm demonstrations, monitoring implementation conduct field days, and conducting reviews (DAES, 2008).

In Chimera village, farmers grow tobacco among other crops, and they receive extension support from the Agricultural Research and Extension Trust (ARET). These farmers are organised into groups under ARET. Some groups that ARET works with are already organised by tobacco companies and are under contract farming with these tobacco companies. Nonetheless, ARET works with all these groups to provide technical extension services. However, these farmers also receive other services from other organisations, such as tobacco companies and government extension workers.

In Kachono village, farmers are growing among other crops, groundnuts and soybeans with extension support from the National Smallholder Farmers Association of Malawi (NASFAM). NASFAM is an affiliate of several associations based on geographic areas and cash crop specialisation. Some associations specialise in one cash crop, while others specialise in a mixture of cash crops. The NASFAM aims to promote 'farming as a business' among smallholder farmers. It was established in 1994 to provide its members with capacity building, training on crop selection and production, training on agronomic practices, extension services on field crop management, harvesting and post-harvesting management and market access facilitation. NASFAM operates nationwide with field-based operations focused around Karonga, Rumphi, Mzimba, Kasungu, Ntchisi, Nkhotakota, Mchinji, Lilongwe, Ntcheu, Balaka, Namwera, Zomba and Mulanje. Its extension network is organised in such a way that the smallest operational unit is the club, which is made up of approximately 10-15 farming households. Clubs combine to form action groups, which are key points in the extension network for the dissemination of information to members and bulking of member crops. Action groups combine to form NASFAM associations, which are legally registered entities, members owned and managed by farmer boards. Figure 3-2 shows the location of the villages.

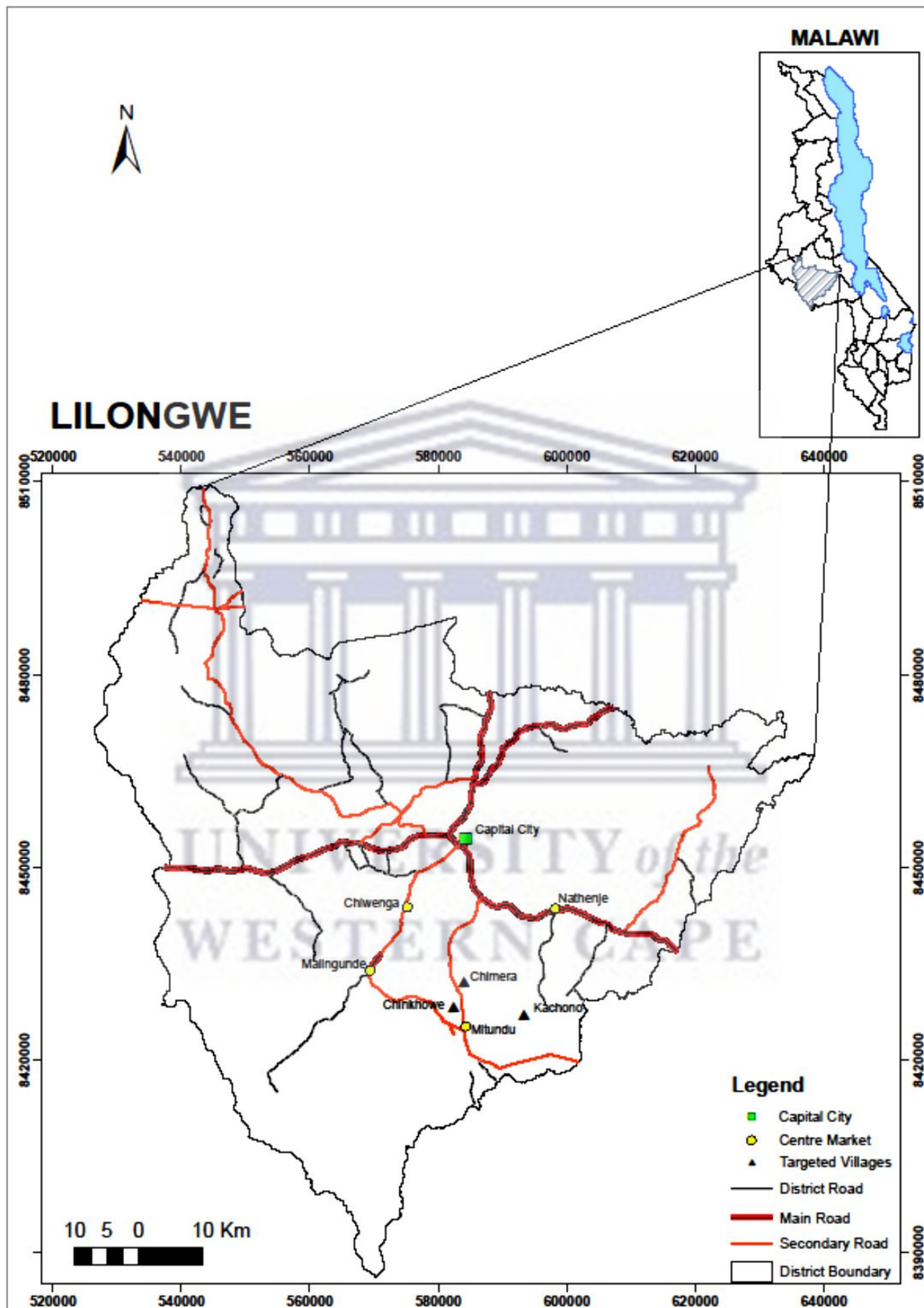


Figure 3-2: Location of the study sites

3.4. Population and Sample Selection

To collect rich data, different categories of respondents were sampled using various sampling techniques depending on the type of respondents. A multistage sampling approach was used. The study targeted farmers that were growing maize, tobacco and groundnuts among other crops and were accessing extension services from different providers. The study also targeted extension workers from different providers. The first stage involved sampling districts, the EPA, and villages. The study was conducted in Lilongwe district, Mitundu EPA and in Kachono, Chimera and Chinkhowe villages. The second stage involved sampling farming households using systematic random sampling to select participants for the household survey, while in the case of focus group discussions, stratified random sampling was used where sex of the respondents formed the strata from which participants were selected.

The study employs both probability and nonprobability sampling techniques. The probability sampling technique used was systematic random sampling which was used to select participants for a household survey. The nonprobability sampling technique used is purposive sampling where participants were selected based on researcher's judgement depending on the purpose of the study (Showkat and Parveen, 2017). The study used purposive sampling to target districts, EPA, villages and key informants based on their characteristics and the purpose of the study. Different studies have used the technique to select samples (Banda et al., 2017; Bigler et al., 2017; Andersson Djurfeldt, 2017; Lahai et al., 2013; Spielman et al., 2011; Zwane et al., 2015).

To select farming households for a household survey, systematic random sampling was used where a list of households from each village was obtained and entered in Microsoft Excel, random numbers were generated and then the households were ordered in ascending order based on the random numbers, and thereafter, every 5th household was selected. Additional households were selected which were used as replacements in case the original household could not be traced or was not available during the interview period. Stratified random sampling was used to select participants for focus group discussions. In a stratified random sampling, the population elements are divided into strata on the basis of some characteristics, and from each of these smaller homogenous groups, a sample is drawn (Showkat and Parveen, 2017). In this case, sex of respondent formed the different strata from which a sample was drawn. According to Showkat and Parveen (2017), stratified random sampling can either be proportionate or disproportionate. The former is the one in which the size of the sample from the strata is proportionate to the size of the population in the strata. The latter is the one in which size does not matter but researchers' judgement does. This study employed disproportionate stratified sampling because for a focus group discussion, a specific number of participants was sought regardless of the proportional size of the population. Stratified random sampling has also been used in a number of studies (Alibaygi et al., 2012; Haenssngen and Ariana, 2017; Hensel et al., 2017; Nawn, 2016; Noltze et al., 2013).

The population sizes for the villages were as follows: Kachono (130) required a sample size of 97, Chimera (122) required a sample size of 92, and Chinkhowe (96) required a sample size of 76. However, due to resource and time constraints, and since the study was performed when strict COVID-19 measures were enforced, the sample sizes for all the villages were reduced to 42 households per village using disproportionate stratified sampling for household surveys. This sample is justified because according to Creswell (2012), approximately 30 participants can be selected for a correlational study that relates variables. For focus group discussions, separate male and female farmers were selected to participate in the study using stratified random sampling. Furthermore, farming households to participate in life histories were selected using stratified random sampling, whereas key informants were selected purposively. In

summary, 126 households (109 male-headed and 17 female-headed) were selected for a household survey, 65 participants (34 men and 31 women) were selected for participatory methods (wealth ranking, social mapping and trend analysis), 43 participants (18 men and 25 women) were selected for focus group discussion, 11 participants (7 men and 4 women) were selected for key informant interviews, and 13 households (9 male-headed and 4 female-headed) were sampled for life histories. Table 3-1 shows the sample selection for the study.

Table 3-1: Sample selection

Phase	Methods	Village	Sample		
Exploratory phase	Participatory methods (wealth ranking, social mapping, trend analysis)	Kachono	Males 10 Females 11		
		Chimera	Males 11 Females 9		
		Chinkhowe	Males 13 Females 11		
		Second phase	Household survey	Kachono	42 households
				Chimera	42 households
				Chinkhowe	42 households
Focus discussions	group	Kachono	6 males 7 females		
		Chimera	6 males 9 females		
		Chinkhowe	6 males 9 females		
		Key informants		Kachono	2 lead farmers 1 chairperson 1 field officer
				Chimera	1 lead farmer 1 extension worker
				Chinkhowe	1 lead farmer 1 extension worker
District level	1 head of extension (ARET) 1 head of training and extension (NASFAM) 1 chief agricultural extension officer				
Explanatory phase	Life histories			Kachono	4 households
				Chimera	4 households

Source: Author's field notes

The selection of the extension approach was purposive. These approaches have varied and included different designs and mandates, providing different perspectives and an opportunity to understand their rationale and underlying assumptions. Three extension approaches were examined, including: the government or ministry-based extension approach provided by the public sector, the Commodity Specialised Approach (CSA), which is from the private sector, and the business-oriented extension approach provided by farmer-based organisations.

The choice of crops was based on their long history in the country and importance for both food and sale and have been targeted by government and development agencies as priority crops. Maize was targeted because it is a crop that is mostly grown in Malawi, and much of the government efforts are directed towards it, for example, the Farm Input Subsidy Programme. The crop is also highly marketed, based on FAOSTAT data, as farmers grow mainly for food and they sell surplus. Tobacco was selected because it is a major cash crop not only for the country but also for smallholder farmers in terms of the value of output, based on FAOSTAT data. In addition, it has an organised extension system that is provided by private companies and ARET. Groundnut was targeted because the crop is increasingly being grown and marketed among smallholder farming households, and recently, due to challenges with tobacco which requires heavy capital investment compared to groundnuts, especially among smallholder resource-poor farmers, hence groundnut has become a fallback crop. The crop has received attention from government and NGOs such as NASFAM, AICC, and ICRISAT, who are promoting it as one of the alternatives to tobacco.

3.5. Data Collection Methods and Tools

The researcher used different data collection methods and tools to answer different research questions. Both primary and secondary data were collected, and below is a summary of the data collection methods and tools used in the study.

3.5.1. Desk review

A desk review was used to prepare for field research and complement research findings. The main sources of data for this method were project documents, implementation plans, policy documents, reports, published sources and grey literature. The purpose of a desk review was threefold: first, to provide enough background information for the field work; second, to collect data to answer research questions; and third, to discuss findings and contribute to the debates. A desk review was guided by a checklist developed based on the objectives. A number of studies have been performed either entirely based on desk review or using desk review as one of the methods in data collection. For instance, Cai and Davis (2017) conducted a study on the status of Malawi's extension and advisory services system and providers based on a review of the existing literature, which included annual reports, monitoring and evaluation reports, academic studies, and government policies.

3.5.2. Participatory research methods

Participatory research methods were used in the preliminary stage of data collection to enable the exploration of villages in which data were collected. The purpose of these methods was twofold, first to obtain an understanding of the villages in terms of the sampling population and the characteristics to enable the researcher to draw a sample for the study in relation to their engagement with extension activities and agricultural commercialisation activities. The second purpose was to collect data related to the wealth groups existing in the villages and

trends regarding farming, agricultural extension, agricultural commercialisation, livelihoods, markets, and well-being indicators, among others. Three participatory research methods were used, and these are described below.

3.5.2.1. *Wealth ranking*

The wealth ranking exercise was aimed at developing different categories of wealth that are unique and specific to the area depending on the locals' categorisation. The aim was to describe the main wealth groups in the area using people's own definition of well-being, describing categories and their distinguishing characteristics. In terms of the procedure that was followed for this process, first, participants were grouped in separate groups of men and women. Then they were asked to describe their understanding of wealth and different characteristics or aspects that differentiate wealth groups. This included income, food, land, livelihoods, crops grown, household assets, and livestock ownership. Then, based on the criteria, participants described the groups present in their village. Next, separate groups convened to discuss and agree on the wealth groups available and to assign each household a specific category based on the criteria. All households in the village were listed, their names were written on a coloured card, and depending on the criteria, participants were asked to place each household into a wealth group. After sorting the households into welfare categories, the group then discussed the trends, considering which group had more households and why.

3.5.2.2. *Social mapping*

Social mapping is a visual method of showing the relative location of the households and distribution of different types of people together with the social structure and institutions of an area. The main focus was to show the location of the households categorised during the wealth ranking exercise and to discuss the characteristics of these households in relation to agricultural commercialisation, extension services and livelihoods. Again, participants were put in separate groups of men and women, and they were asked to draw a map for their village. The group discussed which features to include on the map including roads, rivers, forests, schools, churches, boreholes, playgrounds, crop field health centres, extension offices/meeting places, markets, agro-dealers, community centres, and electricity. A symbol was assigned to each feature, for instance, a church was represented by a cross. Then, participants were asked to mark all the features on the map and locate all households marked during wealth ranking on the map. Then, again, separate groups convened to look at both maps and discuss the maps. A discussion on how the map was looking, especially where the households of similar wealth groups were located and why, was conducted.

3.5.2.3. *Trend analysis*

A trend analysis was performed to show changes and patterns of these changes over time. The exercise helps to understand how and why the changes have occurred, what the views of different people about the changes are, their expectations and fears for the future, and strategies for improving the trend. A trend analysis was used to describe the current condition and trends in agricultural commercialisation, extension services and livelihoods. Specifically, the tool was used to discuss trends in crops grown, production levels, marketing trends, commercialisation levels, access to extension services, livelihood changes, women empowerment, the food security situation, the nutrition situation, and poverty levels. The exercise was performed in a focus group discussion of separate men and women comprising between 10 and 15 participants each. The group comprised participants from a wide range of ages to ensure recalling of events.

The researcher communicated to the group regarding the trends that were to be explored, and then as a group, a common understanding of the aspects was developed, especially in the local language. Then, the group agreed on the time period to recall the trends, and, both years (decades) and political regimes were used. In terms of years, a 30-year period (1990s, 2000s,

2010s, 2020) was chosen, and regarding political regimes, the following presidential eras after independence (Kamuzu's era, Muluzi's era, Bingu's era, Peter's era) were agreed upon. Then the group agreed on symbols to represent different aspects, for example, a maize cob to represent production levels, and a scale to show increase and decrease, good or bad. A scale ranging of 1 to 10, was agreed upon where 1 represented a bad situation and 10 a best situation. However, to make the process easier, 3 was chosen to represent a better situation and 6 was chosen to represent a good situation. Therefore, the scale used was as follows (1=very bad, 3=better, 6=good, and 10=best). The trends were then plotted on a flip chart, and after the exercise, participants discussed the trend, reasons for the trends and relationships between trends.

3.5.3. Household survey

The study collected quantitative data through a household survey using a structured questionnaire with predominantly closed-ended but also with some open-ended questions to solicit views and explanations from respondents especially on the why and how questions. A structured interview follows a specific questionnaire and is usually used as the basis for most quantitative surveys. Respondents' answers are recorded on a questionnaire form (usually with pre-specified response formats) during the interview process, and the completed questionnaires are most often analysed quantitatively. This study employed a household survey to collect information on socioeconomic characteristics, household agricultural activities (production and marketing), ownership of assets, commercialisation activities, extension activities, and livelihood outcomes. The data collected here was complemented with data collected from key informants and focus groups. Different studies have used household surveys related to this study (Bayisenge, 2018; Chamberlin and Ricker-Gilbert, 2016; Chirwa, 2006; Kirk et al., 2018; Muriithi and Matz, 2015; Woldeyohanes et al., 2017).

The study targeted a household as the unit of analysis since most agricultural activities are done as a household, but some questions were included to understand intra-household dynamics, especially pertaining to gender. This helped to analyse the involvement of women in commercial farming activities, the gender relations and outcomes of commercialisation for different groups of household members.

3.5.4. Key informant interviews

Key Informant Interviews (KIIs) are a qualitative method of data collection that involves a selected group of people who are likely to provide the needed information (Kumar, 1989). The purpose of key informant interviews is to collect information from a wide range of people, including community leaders, professionals or residents who have first-hand knowledge about the community. The KII is used when information from written records or published documents is limited or does not exist, when information from different perspectives is needed and when there are key informants who are accessible and have in-depth knowledge about a topic.

The interviews are carried out to the point when studies will find that additional interviews do not provide new insights and the discussions fall into similar patterns as those already done (saturation point). Key informant interviews are used to collect data from community or group leaders, agricultural extension professionals, and other management officials from extension providers. A checklist was used as a tool for collecting data during key informant interviews. A wide range of studies have been performed in which they have collected data from key informant interviews, for instance Masamha et al. (2018), Masangano et al. (2017), Musa et al. (2018), Oduol et al. (2017), and Ragasa et al. (2018).

3.5.5. Focus group discussions

A focus group discussion (FGD) is a way of collecting qualitative data that involves engaging a small group of people in an informal group discussion focused around a particular topic or

set of issues (Onwuegbuzie, 2009). Focus groups provide a less threatening environment for participants, which is helpful for participants to discuss their perceptions, ideas, opinions and thoughts. The focus group usually lasts between 1-2 hours and consists of approximately 6-12 people who are of similar social status or age, sex, marital status and education or of similar interests (Onwuegbuzie, 2009). The strength of the FGD relies on allowing participants to agree and disagree with each other so that it provides insight into how a group thinks about an issue, about the range of opinion and idea and the inconsistencies and variation that exists in a particular community in terms of beliefs and their experiences and practices.

The study used focus group discussions as a data collection method using a checklist as a data collection tool to collect data from a group of farmers for purposes of triangulating information that was collected using a household survey. The FGD method has been in use for decades, and most researchers have used the tool to collect data. Some of the studies that have used FGDs include Bayisenge (2018), Chapoto et al. (2013), Mudege et al. (2015), Turyahikayo and Kamagara (2016), and Yaro et al. (2017).

3.5.6. Life history

A life history is a qualitative method of collecting data where the lives of the people over time are documented. It is a personal account of their life, in their own words, and using their own personal timelines (Ssali et al., 2015). Life history methods were developed by anthropologists and taken up by sociologists around the 1920s, but they faced a decline during the modernisation period, and later in post-modernisation, they resurfaced (Goodson, 2001). The method helps to explore and identify dominant narratives of people's lives and help people document change. They are participatory and give respondents more voice. Despite the advantages, life histories can be lengthy and require developing good rapport and trust (Ssali et al., 2015).

The study used life histories as a data collection method to understand the stories of farmers in different livelihood trajectories. The information collected challenges the researcher to understand an individual's current attitudes and behaviours and how they may be influenced by their experiences. According to de Haan and Zoomers (2005), livelihood trajectories make use of life histories to obtain a deeper understanding of beliefs, needs, aspirations and limitations in addition to understanding the behaviour and lives of participants. A study by Masunungure and Shackleton (2018) used life histories to collect data on livelihood changes, local responses to changes, shocks and stresses faced, and the future of the households. Other studies that also used the Dorward et al. (2009) typology of categorising households' livelihood strategies include Jayne et al. (2014), Schuler and Nazneen (2018), Yaro et al. (2017).

3.6. Data

The study gathered different types of data using different methods in different phases of data collection to answer specific research questions. To answer the first research question on the extent to which agricultural extension is contributing to agricultural commercialisation, data were collected from secondary sources on governance and organisation of extension approaches, their underlying assumptions and theoretical underpinnings. The data was collected from published and grey literature including reports. Primary data were collected from farming households and key informants on extension messages, extension methods, frequency of contact, usefulness and effectiveness of extension messages and challenges in extension.

To answer the second research question on the impact of commercial farming on livelihoods, data was collected on share of production sold or marketed output, volume of production sold, value of product sold, share of land allocated to production of crops sold, quantity of inputs

purchased value of the inputs purchased. Data were also collected on factors driving commercial orientation such as access to market and agricultural information, access to credit, membership to farmer club, access to market, roads infrastructure, access to income from other sources, assets, market conditions, agricultural practices. Data were further collected on livelihood impacts of commercialisation such as food and nutrition security, women empowerment, income and expenditure, asset accumulation.

To answer the third research question, the study collected data on local description of wealth; criteria for class differentiation; classes emerging such as poor, middle class, rich; characteristics differentiating classes; and gender differences in decision making, division of labour, control and access to production resources and income, to answer the third research questions on the relationship between class and gender differentiation and commercialisation but also access to extension services.

To answer the fourth research question, the researcher collected data on livelihood trajectories existing, characteristics of households in different livelihood trajectories, and factors contributing to the development of these trajectories. The research design table explaining the data collected is attached in appendices.

3.7. Trustworthiness in qualitative research

Critiques have often questioned the rigour and trustworthiness of qualitative research (Shenton, 2004) but as argued by others, one of the ways to ensure trustworthiness of the qualitative data is to ensure that the researcher is an experienced qualitative research expert to be able to judge the trustworthiness of the data collected (Shenton, 2004). Therefore, this study used apart from the researcher herself, an experienced qualitative expert to help with data collection. Trustworthiness of the data was ensured through several ways: first credibility, thus measuring the congruency of the findings to the reality which in quantitative research is related to internal validity. This was done through several ways: the use of qualitative research methods which have also been employed by others doing similar studies, in this case the use of wealth ranking, social mapping trend analysis, FGDs, KII, and life histories; developing familiarity with the study setting which was done through a reconnaissance study and consultation with appropriate documents such as reports; random sampling of study participants for FGDs and life histories; triangulation by using different research methods; ensuring honesty in participants through giving respondents an opportunity to accept or refuse to be interviewed; 'iterative questioning' through the use of probes to get a better and deeper understanding; the study tools were scrutinized by academic supervisors and colleagues; and the use of 'member checks' where participants convened at the end of an FGD session to validate and verify the collected and recorded data (Shenton, 2004).

Second, transferability which is related to the concept of external validity in quantitative research. This is concerned with the extent to which the findings of one study can be applied to other situations (Guba, 1981). Others argue that one way to ensure this is when researchers themselves believe that their situation is similar to that of other studies so as to relate the findings of the study (Shenton, 2004). This was one way that transferability was measured in this study. In addition, the thesis provides a thick description of the context to allow the reader to relate the contexts by providing information about location of the study participants, inclusion and exclusion criteria for participants, data collection methods, number of participants, number and lengths of data collection sessions, and the time period over which data was gathered (Shenton, 2004). Third, dependability which is similar to reliability in quantitative research. Despite dependability being problematic in qualitative research due to

the changing nature of the phenomenon under study, there are ways that this can be done that were employed in this study. For example, the use of ‘overlapping methods’ such as FGDs and KIIs which ask similar questions which were also asked during a household survey. In addition, the thesis provided a clear description of the research design and implementation, a step-by-step process of data collection, and a reflection on the process of data collection (Shenton, 2004), but also ensuring that same people are involved in gathering data across the villages. Fourth, confirmability which is the same as objectivity employed in quantitative research. This was met through triangulation where data was gathered using different methods so as to reduce researcher bias. Furthermore, the study provides a clear justification of the choice of methods and approaches used, admitting their weaknesses (Shenton, 2004).

3.8 Validity and Reliability

To ensure validity and reliability, the study employed a number of methods. On the one hand, validity refers to the degree to which all the evidence points to the intended interpretation of test results for the proposed purpose. On the other hand, reliability means that the results from an instrument are stable and consistent; thus, when an instrument is administered multiple times, the results should be the same (Creswell, 2012). The two terms overlap sometimes, and at other times, they are mutually exclusive. On the one hand, validity is thought of as a larger and more encompassing term when assessing the choice of an instrument and reliability measures consistency. If the results are reliable, they are considered valid.

To ensure reliability, this study ensured that questions on instruments are clear and unambiguous; this was done by pre-testing the study instruments to ensure that participants understood the questions in the same way as was intended. In addition, training of research assistance was performed on the instruments prior to data collection to ensure that there was a common understanding of the questions. During the training of research participants, a mock exercise was performed whereby research assistants, in pairs, posed as an interviewer and an interviewee to see how the questions were flowing and how the questions were understood. To ensure that participants are not fatigued, not nervous, able to interpret the questions and not just guess the answers to the questions, pretesting of data collection tools was conducted and a mock exercise during the training of research assistants was held to observe reactions from participants and record the duration each tool took. There are other ways that are used to test reliability of the study which include the following: 1) Alternate forms reliability, which involves using two instruments both measuring the same variables and comparing results from the same group of individuals. This was done through triangulation by collecting data using a household survey simultaneously with focus group discussions and key informant interviews in which the same modules were covered. 2) The other method is through inter-rater reliability, where observations are made by two or more individuals or several individuals. This removes bias in observations. To ensure this, this study had several research assistants to collect data from different participants. This was done mainly in a household survey. These research assistants were well trained prior to data collection to ensure a common understanding of the questions so that outcomes were well negotiated and reconciled. In the data set, the study tested internal consistency using the Spearman-Brown formula and alpha coefficient.

To ensure validity, the researcher made sure to adopt research methods and instruments based on a thorough literature review identifying instruments used for similar studies, how the methods and tools were used, and how they interpreted results in light of intended use. First, to ensure content validity, a mock exercise and pre-testing of study instruments was performed. In addition, the instruments were sent to supervisors who are experts in the field, to check the content of the study instruments. This helped to establish whether participants would understand the questions and respond based on what was intended. Pre-testing and mock

exercises also helped to ensure validity based on responses. Furthermore, to ensure validity, random sampling was performed to select study participants. All instruments of the study were tested for their validity and the Coefficient of Validity (CV) was computed. Validity measures the connection between research questions and the research instruments and valid instruments are those that are highly positively related to the research questions (Madondo, 2021). The instruments were valid with the coefficient of validity of above 0.85 (85%). The following formula of coefficient of validity as advanced by Madondo (2021) was used to test the content validity:

$$CV = \frac{IDV}{TNI}$$

CV = Coefficient of Validity

IDV = Number of Items Declared Valid

TNI = Total Number of Items in an Instrument

According to Table 3-2, the coefficient of validity of the focus group discussion guide and household questionnaire were 96% and 87% respectively. The implication is that almost all the questions in the instruments are closely related the research questions. The coefficient of validity for the key informant interview guide and life history interview guide were 92% and 87% respectively. This means these instruments are strongly valid.

Table 3-2: Validity of study instruments

Instrument	IDV	TNI	CV
FGD Guide	44	46	0.96 (96%)
Household Questionnaire	41	47	0.87 (87%)
Interview Guide	35	38	0.92 (92%)
Life History Interview Guide	27	31	0.87 (87%)

Key IDV – Items Declared Valid, TNI – Total Number of Items, CV – Coefficient of Validity

Source: Research Data

3.9. Data Collection

This section describes the procedure followed during data collection and management. The process of developing data collection tools was an iterative one. Based on both the review of the literature and with continuous reference to the research objectives, tools were drafted. With the guidance from supervisors, the tools were refined and ready for pre-testing. All the three phases of data collection were pre-tested. Pre-testing of the participatory tools was done in Khomani village which is a separate village within the EPA. When administering participatory tools, data was collected in 6 days where 2 days were spent in one village, within which the afternoons of each day were left for writing notes and reflections. Two FGDs of separate men and women were done and the researcher involved one experienced qualitative researcher who handled either men or women FGD. In addition, 2 research assistants were involved to take extra notes and take pictures as well as videos. To ensure consistency, the same people were involved in conducting FGDs across the three villages. For a household survey, a 2-day training of research assistants was carried out.

The first phase occurred in March 2020. To enter the village, gatekeepers were contacted and assisted in locating, booking appointments and mobilising sampled participants. Gatekeepers were either leaders of farmer groups or chiefs in the villages. Prior booking of appointments was made to ensure that participants dedicated their time to the interview. The second phase (survey and FGD) occurred in April 2020. The third phase of data collection was performed in October 2020. For the first phase, participants were mobilised and organised to meet at one central point, such as a church, a school and a warehouse. The interview began with asking for participants' consent by first explaining the aim of the study, reading out the information sheet that explained the ethical issues and their actual consent by signing the form. The interview proceeded only after the respondent signed the consent form.

3.10. Data Analysis

This section provides a step-by-step procedure that was conducted in analysing the data. Qualitative data were transcribed and organised in Atlas Ti. version 8.3.1 for coding. Quantitative data were entered into Statistical Package for Social Scientists (SPSS) version 23, for cleaning and was also transferred into STATA. Below is a summary of the data analysis techniques.

3.10.1. Content analysis

Content analysis is a research tool used to determine the presence of certain words or concepts within texts or sets of texts. Researchers quantify and analyse the presence, meanings and relationships of such words and concepts and then make inferences about messages within the texts, the writer, the audience, and even the culture and time at which these are a part. The objective in qualitative content analysis is to systematically transform a large amount of text into a highly organised and concise summary of key results (Erlingsson and Brysiewicz, 2017). This researcher analysed qualitative data collected from focus group discussions, key informant interviews and life histories. The aim was to generate results that either describe the livelihood trajectories of farming households or triangulate quantitative results from the household survey. The method was used to identify themes related to research objectives and variables of interest using both deductive and inductive reasoning. The stages followed in this process include review of collected data, coding, identifying themes and collating codes related to the themes, and analysing the data. Content analysis is widely used in qualitative research, and a number of studies have employed the analysis method, including those by Adejo et al. (2012), Akter et al. (2017), Cipriano et al. (2017), Fredriksson et al. (2017), Msuya and Wambura (2016) and Thioune (2003).

3.10.2. Descriptive statistics

Descriptive data analysis was used with quantitative data to obtain frequencies and means to see general tendencies in the data. Descriptive statistics involved summarising and organising the data so that they could be easily understood. Descriptive statistics, unlike inferential statistics, seek to describe the data but do not attempt to make inferences from the sample to the whole population.

3.10.3. Inferential statistics

Inferential statistics are used to analyse quantitative data from a sample to draw conclusions about a population. Different types of data used different types of inferential statistics. The following inferential statistics are used: Analysis of Variance (ANOVA) is used for group comparison to compare means of different groups of farming households. A chi-square test is used to compare different livelihood indicators across different groups of farming households and to compare the groups of farming households across drivers of commercialisation and socioeconomic characteristics.

3.10.4. Household commercialisation index

A Household Commercialisation Index (HCI) is used to determine levels of household commercialisation, which is the percentage of crop production marketed. The study looked at the volume or value of production sold, which is the share of production sold. The measure was described by APRA (2018) and has also been widely used, as reported by Leavy and Poulton (2007) and Strasberg et al. (1999). The following formula was used to determine the HCI:

$$\text{HCI} = (\text{Gross value of crop sales} / \text{gross value of crop production}) * 100$$

Data were collected on crop production activities, including crops grown, harvests, volumes sold, prices at which the produce were sold. To compute the HCI, the volume of all crops produced was multiplied by the price produce sold at to obtain the gross value of crop production. Then volume of crops sold is multiplied by the price the produce was sold at to obtain the gross value of crop sales. Then the gross value of crop sales is divided by the gross value of crop production and the ratio was multiplied by 100 to obtain the level of commercialisation. Others have categorised those with more than 50% HCI as commercialised, those with less than 50% HCI as partly commercialised, and those with 0% HCI as subsistence farmers. Those with 25% and less HCI were considered less commercialised, those with HCI between 25% and 50% as semi-commercialised, those between 50% and 75% as commercialised, and those with HCI between 75% and 100% as highly commercialised. Other supporting indicators included the amount of expenditure on farm inputs, hiring labour, and renting in land.

After determining levels of commercialisation, cross tabulations were used to determine relationships between commercialisation and access to extension services and to establish a relationship between commercialisation and livelihood indicators. In addition, analysis of variance (ANOVA) was used to compare the means of different groups of farmers and their levels of commercialisation. The chi-square test was also used to compare different livelihood outcomes across different groups of farmers and to compare groups of farmers across drivers and socioeconomic characteristics.

3.10.5. Determining food and nutrition outcomes

According to the FAO (2003, p. 3), “food security exists when all people at all times have access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life”. Food and nutrition security are very good indicators of well-being, hence this study looked at food and nutrition security as one of the livelihood indicators in relation to market-based farming and access to extension services. Some studies have looked at the impacts of agricultural commercialisation on food and nutrition security including those by Radchenko and Corral (2018), who examined the household Food Consumption Scores (FCS) and household annual per capita food expenditures and found a weak relationship between agricultural commercialisation and food security in Malawi. Other studies include Yaro et al. (2017) and Andersson Djurfeldt (2017).

Others have argued that agricultural commercialisation could affect food and nutrition security in the following pathways: a) increased household income – this could be due to sales from commercial crops or wages earned by working on a commercial farm or services rendered to households commercialising; b) decreased area of land for food – switching from growing food crops to cash crops could have a negative effect on food and nutrition security; c) women with decreased time for child care and food preparation due to increased labour demands in commercial activities. This could have negative effects on food and nutrition security; d) decreased access to common property resources as most of these could be dedicated to commercial farming for example land, fuel, water, forestry; e) more integration of households

into markets which could be positive for those integrated in markets and negative for those not (APRA, 2018). This study measured food and nutrition security by measuring households' Food Consumption Score (FCS) and Household Dietary Diversity Score (HDDS). Furthermore, the study used qualitative data to understand food and nutrition security situation among households belonging to different class categories and livelihood trajectories.

a) Food Consumption Score

The Food Consumption Score (FCS) is an index that was developed by the World Food Programme (WFP) in 1996. The index looks at the diversity and frequency of food groups consumed over a period of the previous seven days, and then it is weighted according to the relative nutritional value of consumed food groups (WFP, 2018). Food groups containing nutritionally dense foods, such as animal products, are given greater weight than food with less nutritionally dense foods, such as tubers. The following weights are given to different food groups: main staples (2), pulses (3), vegetables (1), fruits (1), meat/fish (4), milk (4), sugar (0.5), and oil (0.5). Therefore, after collecting data from a household survey on the food groups that were consumed over a period of 7 days, the consumption frequencies for each food groups were summed, multiplied by each food group by its weight, and summed to obtain the FCS. Then, the final step was to determine households' food consumption status based on the following thresholds: 0=21 is poor; 21.5-35 is borderline; and >35 is acceptable (WFP, 2018).

b) Household Diet Diversity Score

An HDDS measures the number of food groups consumed by a household over a given reference period. It was developed in 2006 as part of the FANTA II Project as a population-level indicator of household food access. The more food groups consumed, the more diversified the diet is, which could indicate caloric and protein adequacy in people's diets. The indicator measures the ability of a household to access foods and their socioeconomic status (WFP, 2018). There are 12 food groups that are used to construct the HDDS: cereals, roots and tubers, vegetables, fruits, meat (poultry, offal), eggs, fish and seafood, pulses, legumes, nuts, oil/fats, sugar/honey, and miscellaneous. Each food group is given a score of 1 if consumed and 0 if not. The score therefore ranges from 0 to 12 and the higher the score the higher the diversity (WFP, 2018).

3.10.6. Women empowerment index

One of the commercialisation outcomes examined is women's empowerment. There are various definitions of empowerment depending on the discipline. Some have defined empowerment as the capacity to translate choices into desired actions that lead to desired outcomes given the opportunity structure within which one operates. In this case, capacity is determined by agency, thus one's ability to make purposeful choices and opportunity structure, mainly referring to the institutional environment looking at rules, laws, regulatory framework, culture, norms in society (Akter et al., 2017). In agriculture, empowerment can be defined as one's ability to make decisions on matters relating to agriculture, including access to resources needed to act on the decisions (Alkire et al., 2013).

Various indicators are used to measure the empowerment of women, including the Women Empowerment in Agriculture Index (WEAI) which uses the five domains of empowerment (5DE) and the Gender Parity Index (GPI). In measuring women's empowerment based on the 5DE, one assesses the degree to which women are empowered in the five domains, which include agricultural production decisions, access to and decision making over productive resources, control over use of income, leadership roles and time allocation (Jean et al., 2015). The GPI measures the empowerment of women relative to men in the household. This study only focused on measuring empowerment by looking at the 5DE where a Women

Empowerment Index was created using principal component analysis (PCA). The higher the WEI, the better the women empowerment situation in the household and vice versa.

3.10.7. Income and expenditure

The study looked at income from different sources to determine the household total annual income but also expenditure on a number of items, including food, education, health, inputs, productive assets, and remittances. Participants were asked their different sources of income and the annual income realised from each source. Then income from all the sources was summed to get a household level of income. ANOVA tests was used to compare mean annual income among different groups of people.

3.10.8. Asset and crop diversification indices

The study considered asset accumulation as one of the indicators of livelihoods where better asset accumulation was considered an indicator of better livelihoods. The study looked at ownership of assets, including their housing conditions, their household assets, productive assets, land and livestock ownership. Data on ownership of different assets were analysed using cross-tabulation to determine the relationships with other variables including commercialisation and extension participation. In addition, an asset index was created using principal component analysis (PCA), which included the type of assets owned and the number of these assets. The higher the index, the better the ownership of assets and vice versa. Furthermore, a crop diversification index was created using PCA, which considered the type and number of crops the household grew. The higher the index, the higher the diversification and vice versa.

3.11. Ethical Considerations

The research was conducted with the highest standards of honesty and integrity, respecting the rights and confidentiality of participants in accordance with the University of the Western Cape (UWC) policy on research ethics, specifically the Humanities and Social Science Research Ethics Committee (HSSREC). In the field, the researcher ensured that the aim of the research was adequately explained to participants in a language that they could understand. They were then asked to sign a consent form that explained that they were free to withdraw from the study at any time. In the event that they felt uncomfortable signing or were illiterate, they were asked to put a fingerprint instead of a signature, or oral consent was sought. Confidentiality and anonymity of responses were ensured. These principles were followed throughout the data collection exercise. Separate information sheets and consent forms were provided for each research instrument. In addition, consent was sought and obtained to record the GPS locations of the participants' households.

Regarding data storage, safeguarding and disposal and publication of results, participants were assured that data would be used only for purposes of research and consent would be sought for such. As stipulated in the ethics approval document, interview data and transcripts are stored in an electronic form in a computer, a hard drive and department archive at PLAAS. In addition, data was stored at the Institute of Development Studies (IDS) repository of the PhD co-supervisor under the APRA project.

3.12. Limitations and Delimitations

The methodology has a number of limitations, but these were mitigated to ensure that the results are not impacted. In terms of funding limitations, the study was limited to a few study sites and number of respondents but enough to ensure representativeness and to achieve the objectives of the study. The delimitations were that the study was limited to specific farming households because of the criteria used for selection in relation to the study objectives.

The response of respondents was positive such that in certain cases where a few participants were requested, more turned up because they were curious to hear what was happening and were eager to contribute to the discussion. They also indicated they have had visitors before so the researcher's arrival was not a new thing. Furthermore, the presence of the gatekeeper made entry and contact of the participants easy. Being able to speak their language, dressing in an acceptable way removed bias.

The second and third phase of data collection happened during the COVID-19 pandemic. Despite participants being reluctant to meet outsiders this time, being the second phase made it easier because the researcher had told them that she would be coming back. Again, the presence of a gatekeeper simplified the process. During this time, the researcher made sure that COVID-19 measures were adhered to. Participants were given face masks and hand sanitisers. The researcher and assistants also ensured that they were observing social distancing but also sitting at an open space.

3.13. Chapter Summary

This chapter describes the research approach, which adopted mixed methods design and used a case study approach. A mixed method research approach (MMRA) was employed because according to Creswell and Clark (2011), it collects, analyses, and mixes qualitative and quantitative data in a single study. The researcher used MMRA to answer research questions that could not have been answered with one method alone. A case study was used because according to Yin (1994), it is an ideal methodology to conduct a holistic investigation where questions about what, how and why are asked.

The chapter then describes the study sites, including selection of the study sites. The study was performed in Lilongwe district, Mitundu EPA, Kachono, Chimera, Chinkhowe villages. The chapter further describes the population and sample selection. The study populations comprised all farming households in the villages that grow specific value chains (maize, groundnuts, and tobacco). Systematic random sampling was used to select farming households for a household survey and stratified random sampling was used to select individual participants for focus group discussions. A purposive sampling technique was used to select participants for participatory methods and key informants.

Furthermore, the chapter describes the specific type of data collected to answer the research questions. The chapter then provides details of the data collection methods and specific tools used for data collection, including desk review and participatory research methods (wealth ranking, social mapping and trend analysis) in the first phase, where checklists were developed as instruments. For the second phase, a household survey using a household questionnaire was used. Simultaneously, focus group discussions and key informant interviews were conducted using checklists as tools. During the third phase, data were collected using life histories, and a life history guide was used. The chapter then describes how the study ensured validity and reliability of the data collected and these include pre-testing of data collections tools, training of research assistance, conducting a mock exercise among research assistants to ensure questions were clear and unambiguous, involving experts to review all the data collection tools, and using statistical analysis such as the Spearman-Brown formula and coefficient alpha.

The chapter also describes data collection and management procedure including development of data collection tools, pretesting of data collection tools, and the actual data collection exercise. The chapter further describes the data analysis techniques and procedure followed. Qualitative data were analysed using content analysis, while quantitative data were analysed using both descriptive and inferential statistics. The descriptive statistics involved the generation of means, frequencies and cross-tabulation, while inferential statistics techniques

included ANOVA, chi-square tests, principal component analysis (PCA) and regression analysis. The section on data analysis also describes the development of indices such as the asset index and crop diversification index using PCA, the Household Commercialisation Index (HCI), the women empowerment index using five domains of empowerment (5DE), the Food Consumption Score (FCS), the Household Dietary Diversity Score (HDDS). The chapter then describes the ethical considerations pertaining to the methodology, limitations and delimitations.



Chapter 4: Historical Perspectives on Agriculture, Extension and Commercialisation in Malawi

4.1. Introduction

Agriculture development remains an important global agenda in Sub-Saharan Africa (SSA), as the region has predominantly agriculture-based economies. The sector's role in the development and transformation of the economies for food security and poverty reduction cannot be overemphasised. The importance of agriculture in SSA is reflected in its high share of the GDP, its share of employment and its prioritisation in the development agenda. Despite some strides made in economic growth and transformation, the African continent still faces food insecurity as more than 40 per cent and about a fourth of its population are living in extreme poverty and are undernourished (Barrett et al., 2018).

This chapter builds on Chapter 2 (literature review) to describe historical perspectives of agriculture in Malawi. The chapter also describes the history of agricultural extension, including a paradigm shift in approaches, methods used, extension messages and extension policies and strategies. The chapter also discusses Malawi's agrarian history of land and labour to provide the context of the study and place the study within the wider agrarian change discourse. It also provides a brief discussion of the history of agricultural commercialisation in Malawi. The chapter builds on chapter 3 (methodology) to provide a context within which the study is conducted.

4.2. The Agrarian Question in Malawi

Malawi is a small country with an estimated land area of 11.8 million hectares, of which Lake Malawi occupies one-fifth. Of the remaining 9.4 million hectares, 5.3 million hectares, 56 per cent is cultivatable. The economy of Malawi is characterised by a high dependence on agriculture, where the sector contributes up to a third of the GDP and more than 80 per cent of export earnings (Chowa et al., 2013). Malawi's economy is still very much dependent on agriculture, rendering it susceptible to the precariousness of the agricultural sector due to climate change, reduced soil fertility, and market failures. The situation puts people's lives in danger, most of whom (about 84 per cent) are dependent on agriculture but the country is also unable to produce its inputs such as seeds, fertilisers, and chemicals.

4.2.1. Agriculture in the precolonial to colonial regime

Malawi, which was formally called Nyasaland, was under British colonial rule from 1891, and from 1953 to 1963, became part of the federation of Rhodesia and Nyasaland. In 1964, Nyasaland became an independent state under the rule of Hastings Kamuzu Banda⁵, and the name was changed to Malawi (Kettlewell, 1965). Even the colonial government recognised the importance of agriculture in Malawi due to the absence of minerals. Before colonialism, native Malawians used to grow crops such as maize, rice, tobacco, and cotton. However, these were intensified under the colonial regime because of the introduction of tax. Others were forced to

⁵ Hastings Kamuzu Banda was the first president of the Republic of Malawi. He first became the Prime minister after the colonial administration, then later the president. He ruled from 1964 (when Malawi gained independence) to 1994.

look for employment either in estates or as migrant workers abroad (mainly in South Africa) (Knorr, et al., 2007).

During the colonial period, there was a dual system of agriculture consisting of the smallholder sector dominated by indigenous farmers (owning on average 1-2 acres of land) and the estate sector dominated by a few white farmers but with significant outputs (Kettlewell, 1965). Even though farming was taking place before the colonial settlers, it was only until 1876 that a missionary (who was also a horticulturalist) named John Buchanan pioneered the growing of tobacco for sale and distributed coffee seeds among native people (Dequin, 1970). The dualistic agriculture system in Malawi presented a strong antagonistic relationship over production resources and markets, where the state would often intervene in favour of the estates (providing subsidies), most of which had political networks, disadvantaging the smallholders. To support commercial farming, efforts were made to improve the transport system (Shire highland railways). Over some time, tobacco and tea dominated as export crops. However, all these developments were achieved to benefit the white farmers, as indigenous farmers were only involved through sharecropping arrangements. Later on, other crops such as cotton came into the picture. Native people grew Egyptian cotton on small-scale, while white farmers used to grow American upland cotton in estates (Terry, 1962).

As in contemporary Malawi, periods of hunger were experienced during pre-colonial and colonial times. There were several periods of famine recorded in the history of Malawi that were attributed to several factors, including drought periods and flooding, which led to poor harvests; more land dedicated to cash crops (tobacco) under private estates (Vaughan, 1982) which continued after independence where the state implemented policies in favour of the large-scale estate farmers (Green, 2007). Farmers grew secondary crops such as millet or sweet potatoes in place of maize, or in certain instances, they used to gather wild fruits as coping mechanisms (Nurse, 1975). Another popular coping mechanism used during hunger periods was *ganyu*, which was referred to as the work one does on other persons' farms in exchange for food or beer (Whiteside, 2000). The term is still being used today, although currently, people do *ganyu* mainly in exchange for cash, food, inputs, or clothes.

During the postwar period, agricultural improvements were geared towards improving soil conservation, measures to curb famine, investment in agricultural research and extension, provision of credit and subsidies, control and regulation of marketing, developing land policy, and implementation of government policies (Kettlewell, 1965). Various control boards were established to regulate the production and marketing of crop produce, at first for each main crop, and later a combined control board known as the Agricultural Production and Marketing Board.

4.2.2. Agriculture after independence

The dual agricultural policy continued until after independence. In particular, Kamuzu Banda promoted the policy emphasising maize production under the smallholder sub-sector and cash crop production under the estate sub-sector (Heisey and Smale, 1995). He promised white farmers that they would keep their land and assets to maintain the state of affairs since white farmers were dominating production and exports (Knorr et al., 2007). After independence, many indigenous farmers, especially political elites, including Kamuzu Banda himself, joined the estate subsector to grow cash crops. They benefited from the state-owned banks' financial support and had other privileges such as selling their tobacco directly to auction floors while smallholder farmers used to sell through marketing boards (Knorr et al., 2007; van Donge, 2002).

During this time, agricultural policies emphasised projects that would assist farmers based on their agro-ecological zone and concentrated efforts on a few progressive farmers known as

achikumbe (progressive farmer) (see 4.4.1 below). Again, the emphasis was on producing crops under intensive farming systems under large-scale agricultural schemes. Political elites acquired land under a 99-year leasehold tenure (Harrigan, 2003; Peters, 2006). During the Muluzi era, the emphasis changed from the urban political elites to urban poor through encouraging smallholder tobacco production and promoting private sector involvement in input and output markets. Malawi benefited from the Sasakawa Global 2000, which advanced productivity-enhancing technologies to increase maize production. During the Bingu era, emphasis was on reducing the cost of production by continuing and expanding the subsidy program to more beneficiaries (Knorr et al., 2007).

Agriculture remains vital to the economy of the country, people's livelihoods, and foreign earnings (GoM, 2018). Tobacco is still the main export crop, although with growing calls to look for alternatives as the crop is becoming less popular. Again, maize remains the main food crop. However, soil is becoming increasingly infertile and land is becoming smaller due to the increase in human population. Despite agriculture being an important sector, others have argued that agricultural commercialisation in Malawi has not taken off owing to challenges faced in shrinking land sizes and soil infertility, low productivity of main crops that depend heavily on artificial fertilisers, seed and chemicals, as well as poor markets which are mainly local with very few prospects in international markets (Chinsinga et al., 2021).

4.3. The Land and Labour Question in Malawi

One of the most critical assets in Malawi is land. This is because most of Malawi's population lives in rural areas that depend on the land to derive their livelihood (Peters and Kambewa, 2007). Since recently, the land was easily accessible through chiefs or kinship relations who used to give land to those who needed it. However, the increase in land value has rendered it a very hot commodity resulting in land commodification. Qualitative findings of the study show that traditional leaders that are the custodians of customary land now opt to sell the land (primarily to outsiders) instead of giving it out to their subjects and parents also opt to sell the land instead of passing it on to their next-generation forcing youth to find other opportunities outside farming.

Tracing it back to the colonial era, the land question in Southern Africa is determined by differences in colonisation patterns looking at settler colonisation and the degree of colonial land expropriation (Ntsebeza and Hall, 2007). Others have argued that Malawi was not a settler colony such that not much land was expropriated by white settlers, compared to Zimbabwe, South Africa, and Mozambique (Ntsebeza and Hall, 2007; Kettlewell, 1965). The majority of land during the colonial period (87 per cent) was crown land, 3 per cent was on a freehold or government leasehold, most of which was cultivated by white farmers, and the remaining 10 per cent was public land. Despite this distinction, the land was still seen as a public resource, with anyone having access to use it. Traditional leaders could allocate usufruct rights to land.

The land was accessed through a tenancy system whereby white farmers were usually landlords, and indigenous farmers were tenants (Kettlewell, 1965). Sharecropping was another form of land use where a native farmer (tenant) was responsible for growing the crop and selling it to white farmers (landlord) responsible for providing inputs and supervision and buying the produce. The smallholder sector complained of reduced land sizes as the land was being given to a few estate farmers (Green, 2007). One of the issues that drove the Chilembwe Uprising was the issue of land. Several interventions were put in place, including enacting the Land Ordinance in 1951 to divide the land into private, public, and customary land and establishing a land act in 1961 (Mkandawire, 1983). In 2002, a National Land Policy was

approved, tackling administration issues of customary land and land titling (Peters and Kambewa, 2007).

The *thangata*⁶ system of labour was used in estates during the colonial time. The practice involved native farmers selling their labour power in exchange for a ground rent for a piece of land on which they grew food (Kandaŵire, 1977). However, during colonial times, the practice was referred to as agricultural work without pay by a tenant on a white farmer's farm. The system is reported to have been exploitative, as often the terms of the agreement were not kept but tenants also often spent more time in their landlords' fields with no time to work in their fields (Mandala, 2006). The system was later improved to a contract arrangement with crop buyers where farmers would grow crops and sell to the buyers, and landlords received rent in cash. With the challenges encountered in the agricultural sector, farming was less attractive; hence most of the work was done by women and children as men migrated to neighbouring countries as migrant workers. This resulted in a labour shortage in smallholder and estate subsectors (Green, 2007). During colonial times, efforts were made to supplement cheap labour to the estate sector through taxes, as those working in the estates were paying fewer taxes and thus the *thangata* system (Green, 2007).

4.4. History of Extension Services

Extension services started as early as 1740 due to famine in Ireland which was due to late blight – a disease that affected potatoes. Farmers received advice on crop husbandry practices to deal with the disease. However, after the crisis, the system was dissolved and was re-established in Ireland in the 1900s (Knorr et al., 2007). The term 'extension' derives from an educational development in England during the second half of the nineteenth century. Around 1850, the universities of Oxford and Cambridge initiated discussions about how they could serve the educational needs of communities around them (Jones and Garforth, 1998). In England, the term 'university extension' was used to describe teaching activities that extended the work of universities to communities beyond the campuses, most of which were not related to agriculture. The work in the UK initiated extension work in other parts of the world, such as the US. In the 20th century, colleges in the US started conducting demonstrations at agricultural shows and training farmer clubs. In the case of the US, the term 'extension service' was used. By the end of the 20th century, a well-established system of agricultural extension work was in place in large parts of North America (Jones and Garforth, 1998). In India, terms such as 'community development' and 'extension education' were used. Several community development projects were launched, and a national extension service was established with a central department and departments in each province.

Extension work was also established in Australia with several agricultural societies formed, state administration organised, and the department of agriculture established around the 1870s and 1880s (Jones and Garforth, 1998). In Australia, a law was passed requiring farmers to belong to a village agricultural society, and farmers were compelled to adopt technical advice, which was also known as 'forced extension' (Jones and Garforth, 1998). In Africa, extension work was minimal before 1914, although in some countries, the colonial missionaries often undertook agricultural extension work alongside their religious work. Notably, in Ghana,

⁶ The word *thangata* is a Chewa word in Malawi that refers to help or assistance given to neighbours in the form of labour, usually on a farm in exchange for a certain benefit.

agricultural instructions were provided in schools and agricultural stations; in Congo, the Jesuits established church farms (*fermes-chapelles*); in Ethiopia, extension work started in 1953 adopting a US model of land grant system (Swanson et al., 1998b).

4.4.1. Extension services in Malawi

Agricultural extension has a long history in Malawi dating back to 1903 when British colonialists wanted to promote cotton production among African growers so that production could improve and support cotton companies in Britain (Terry, 1962). In 1907 the British colonial government established the Department of Agriculture and introduced new cultural practices in a coercive way. Later, a few ‘travelling officers’ were employed to teach African farmers cultural practices mainly on cotton production (Dequin, 1970). Travelling officers also performed the role of instructing and controlling the traditional leaders to instruct and control their people, and extension messages were passed to the leaders to pass to the people (Knorr et al., 2007). The main objective of extension during this time was to ensure a certain level of productivity and quality of cotton produced (Knorr et al., 2007). The strategy for extension during the colonial period was top-down (Ponniah et al., 2008).

The Board of Agriculture was established in 1932 with the aim of looking closely at the methods of farming that were being used and later, resolving the need to discourage cultivation along steep slopes and shifting cultivation (Green, 2009). The Natural Resource Ordinance was instituted in 1946, which made it compulsory for farmers to follow prescribed farming patterns and control soil erosion (Ponniah et al., 2008). During this time, coercion was the strategy that was used to make farmers follow the practices. Regional boards were formed to enforce the law, and violators were either fined or given short-term prison stays (Dequin, 1970). Extension workers were more seen as enforcers other than advisors, such that their presence in the villages was not welcome. After the 1949 famine, the coercive approach was intensified, but the approach was weakened with the rising anger among native people (Dequin, 1970). The colonial administration was very keen and willing to invest in extension, especially after the famine, to promote domestic food production. However, it was observed that commitment alone was not enough as content for extension needed to be developed, and there was lack of modernisation of the agricultural content. In addition, the European experts did not know much about African agriculture, and messages were routinely repeated (Green, 2009).

In the 1950s, there was a slight shift in extension policy from coercion and compulsion towards an educative and more persuasion-oriented approach. The master farmer approach was then introduced (Ponniah et al., 2008). The idea of the master farmer was developed in Zimbabwe and was used by the British across East Africa. The thinking behind the master farmer approach was that extension advice was given to a few farmers with the hope that they would motivate other farmers to adopt technology. Farmers were considered ‘progressive’ with larger land-holding sizes, more capital and better education qualification to be master farmers. Master farmers received special treatment from extension workers, including permission to grow crops that were restricted to estates, attend trainings, and offered premiums and subsidies (Knorr et al., 2007). The approach was not very successful, however, because of its rigid conditions where only a few farmers could apply; the approach widened the gap between the master farmers and the average farmers as they were considered rural elites, which created a situation where average farmers were feeling frustrated and jealous of the master farmers; the trickle-down effects only occurred on rare occasions (Knorr et al., 2007).

In the late 1960s after independence, extension services continued the colonial legacy with hierarchical structures and state control. Although coercion was removed, extension work was still top-down in nature with farmers as passive participants (Knorr et al., 2007). Agricultural extension after independence was aimed at assisting all smallholder farmers as opposed to the

master farmer approach. Extension messages were mainly towards improving cash-crop production and the production of maize as a food crop through increased use of inputs. Meanwhile, poor subsistence farmers who only grew food crops were side-lined from extension, and the focus was only on relatively richer farmers. Individual extension methods were used during this time and were complemented by mass media such as radio, puppet shows and farmer magazines. Posters, teaching aids and pamphlets were produced by the Extension Aids Branch (now called the agricultural communications branch), and the Guide to Agricultural Production (GAP) manual, which was produced annually, was used and is still being produced to date. The manual contains agronomic information about all the crops grown in Malawi and is used as a basis for planning extension activities (Dequin, 1970).

In 1969, Malawi reoriented a new version of the master farmer scheme and it was called the *achikumbe*, meaning ‘progressive farmer’. Again, this time, only the progressive farmers were receiving the attention from extension workers, and again with the assumption that the rest of the farmers would learn and benefit from them (Ponniah et al., 2008). Just like master farmers, the *achikumbe* benefited from credits and inputs and could sell their produce (tobacco) directly to auction and not through Agricultural Development and Marketing Corporation (ADMARC) as other farmers were doing. The programme had a political implication, as the President (Dr. Hastings Kamuzu Banda) declared himself ‘*mchikumbe* No. 1’, and all other *achikumbe*s were ‘*achikumbe* No. 2’. Within a few years, more farmers were awarded the *mchikumbe* title, and by 1977, there were approximately 76,000 such farmers (Knorr et al., 2007).

After some years of implementing the individual approaches, it was clear that they did not achieve the intended results of widespread adoption of technologies; hence, group approaches were adopted. In the late 1960s, a few farmers got together, organised themselves in groups, pooled money together and were able to buy fertiliser in large quantities and also performed other activities as a group. The ministry then adopted the idea and encouraged farmers to form groups and clubs, and they became a vehicle for agricultural extension. In 1970, the group approach was just in addition to the individual approach, but later, it became the dominant approach (Knorr et al., 2007). Borrowing from the same idea of the group approach, the block extension system was implemented. It was a modification of the Training and Visit (T and V) approach. The T and V approach was developed in the mid-1970s by Daniel Benor and was implemented with financial support from the World Bank. The T and V was implemented within the same system of the government extension within the Ministry of Agriculture, with the aim of improving capacity among extension workers and increasing the number of visits to farmers (Knorr et al., 2007). The approach was criticised for being expensive for most African governments to sustain and that still benefited a few farmers (contact farmers).

Malawi adopted the approach in the 1980s but with a few modifications into the Block Extension System (BES). One thing that was improved in the BES was coverage, so instead of meeting contact farmers, all farmers were met, and there were fortnightly extension meetings where extension workers were trained. Each field assistant had to divide their section into 8 blocks, and extension workers could visit each block at least fortnightly. The blocks had a block garden used for demonstrations, and blocks were supposed to have committees that represented farmers in the block. A block was covering 2-3 villages with about 30-100 farm households (Knorr et al., 2007). After a few years of implementing the BES, there were still concerns that not all farmers were being reached and that extension services did not actually influence significant farm productivity. This prompted efforts to modify the BES. In the 1980s, the contact farmer concept was incorporated into the BES. A contact farmer was a farmer who had accepted that new technologies be demonstrated on his/her plot and allowed others – ‘follower farmers’ – to learn from him/her. This approach is now being referred to as the lead farmer approach which is explored in details later in the chapter. Another modification was for field

extension workers to draw route maps showing their schedule of field visits to allow easy supervision and monitoring. Furthermore, extension started targeting women farmers, which was not the case before. The introduction of adaptive research in the 1980s and 1990s was meant to improve the availability of disseminated messages. In the mid-1990s, there was an introduction of participatory methods into the extension system (Knorr et al., 2007).

The Ministry, through the Department of Agricultural Extension services (DAES), used to be and still is the most important provider of agricultural extension services. In the 1980s, there were other providers of extension services, including commercial banks, input suppliers, tobacco association of Malawi, the Tea Research Foundation, Tree Nut Association and the Tobacco Research Authority, who provided extension services mainly to estates. The 1990s saw an increase in organisations providing agricultural extension. The presence of nongovernmental organisations (NGOs) was advantageous in terms of resource mobilisation amidst dwindling expenditure towards extension services. However, NGOs had different approaches to working, some of which were contradictory and which brought challenges to extension work (Knorr et al., 2007).

There have been some considerable changes and developments in the agricultural extension system and the delivery of extension services over time. The state dominated the provision of agricultural extension services both during colonial rule and after independence. Governments, not only in Malawi, used to control and fund public extension systems, and public servants were the ones mainly doing advisory work. Agricultural extension services were free of charge in Malawi, of course, they mostly still are and hence extension service was seen as an investment to bring results for farmers and the economy. This view rapidly changed, and during the 1980s and 1990s, government and donor spending in extension services declined, as was also evident with the fall of the T and V approach (Kidd et al., 2000). The reduced government and donor spending in agricultural extension, opened up opportunities for other providers of extension to come in, such as NGOs. Extension became more client-centred and demand driven, hence the rise of participatory approaches and methods of extension work. These trends prompted the development of the current extension policy in Malawi, which was formulated by DAES entitled "*Agricultural extension in the new millennium: Towards pluralistic and demand driven extension services in Malawi*" (GoM, 2000). The policy is aimed at creating an environment in which a number of extension service providers can provide extension services to the farmers and that farmers at all levels are able to demand the particular type of services they need from whoever they want depending on their needs. In this system, DAES is supposed to perform the role of coordination and quality control of extension activities (GoM, 2000).

In 2006, the Ministry through the DAES, formulated the District Agricultural Extension Services System (DAESS), which is a guide to apply to the agricultural extension services provision at decentralised levels. The system is a mechanism to enable farmers to use participatory tools and identify and organise their agricultural felt needs for appropriate action to be taken (Knorr et al., 2007). In addition, DAESS is a coordinating framework for agricultural activities in the presence of several stakeholders working in agriculture (Chinsinga, 2009a). Studies have been conducted to evaluate the implementation and performance of DAESS, and most of them find that there are various problems hindering the effectiveness of the DAESS structure. For example, Masangano et al. (2017) found that despite the system having the potential to influence positive access to extension services, there is low patronage from both farmers and extension providers, which results in poor coordination of extension activities. Bitzer, et al. (2016) also reported that the system is often not working as most of the structures on the ground are either not working or are non-existent (Sigman et al., 2014).

A new agricultural extension policy is in the pipeline and is set to be launched soon. However, apart from the policy, there are a number of strategies that are guiding the implementation of agricultural extension work, such as the National Agriculture Investment Plan (NAIP) which, among other things, emphasises strengthening support for agricultural extension services with the aim of contributing to the objective of improving production and productivity growth in agriculture (GoM, 2018). Against the backdrop of the struggling commercialisation agenda, the Department of Agricultural Extension Services (DAES) developed the National Agribusiness Strategy (NAS), which is aimed at transforming the agricultural sector from a subsistence orientation to a market and commercial orientation through vibrant agribusiness systems (GoM, 2019). There is also a Farmer Organisation Development Strategy (FODS) which was formulated to provide a framework for sustainable farmer organisations to increase farmers' bargaining power, increase access to extension services and enhance access to input and output markets (GoM, 2020a).

The extension system also implements initiatives aimed at enhancing food and nutrition security, drawing from the Agriculture Sector Food and Nutrition Strategy (2020-2024). The strategy aims to develop a sustainable food and diverse food system to build a population that is well nourished to be able contribute to national development (GOM, 2020). Against the backdrop of realising that the agricultural sector is faced with low production and productivity, one of the reasons is a lack of information to guide production decisions and hence the need to improve agricultural extension services from both public and non-state providers to deal with the challenges. The National Agricultural Policy (NAP) recognises the role of agricultural extension services in enhancing production and productivity (GoM, 2016a). There is also the National Agricultural Extension and Advisory Services Strategy (NAEASS), which was formulated after review of the 2000 National Agricultural Extension Policy (NAEP). The strategy aims to strengthen the effectiveness of pluralistic and demand-driven and market-led extension services to contribute to the transformation of food, income and nutrition security (GoM, 2020b).

4.4.2. Extension approaches

An extension approach is the essence of an agricultural extension system; it is a style of action within the system and expresses the thinking of the system. It is similar to a guideline for the system informing, stimulating and guiding the structure, leadership, programme, resources and linkages in the system (Ponniah et al., 2008). Another term is 'extension method' which refers to techniques used by an extension system as it functions, for example, demonstration and visit by an extension worker to the farmer. An extension approach is analysed based on its dimensions and characteristics such as the dominant identified problems to which it is to be applied as a strategic solution; the purpose it is designed to achieve; the control of programme planning; the nature of field personnel; the resources needed; typical implementation methods; measure of success; its design; its target audience and advantages and disadvantages (Swanson et al., 1998). An approach to extension consists of a series of procedures for planning, organising and managing the extension institution as well as for implementing practical extension work. The agricultural extension system comprises several extension players who play different roles. All these have their own mandate; hence, different approaches are used. Described below are some of the extension approaches used by various extension service providers.

a) The general agricultural extension approach

This sometimes is also referred to as the ministry-based general extension approach. For many African and Asian nations, the organisation of agricultural extension work after independence was under the ministry of agriculture. The approach provided an opportunity for reaching large numbers of clients and serving their needs in terms of quality information and assistance. The

approach was organised in such a way that the ministerial hierarchy followed the country's territorial subdivision and allowed the systematic expansion of the system down to the village. The field extension personnel were general in their expertise. However, the approach lacks commercial service and support to farmers; hence, it is predominantly production in nature. The goals of extension were guided by the public interests, which also dictated programme formation and implementation (Swanson et al., 1998).

b) The commodity specialised approach

The commodity-based extension approach is run by government, parastatals, or private firms. Commodity-based extension is the predominant feature in many francophone countries in Africa, but it is also common in other countries with commercial and export crops. The main goals of the approach are production- and profit-oriented. All aspects of production and marketing a particular crop are vertically integrated, including the whole range from research, advice, and material support given to farmers to organising markets and exports. The advantages include working with well-tested technologies, objectives and targets are clearly defined and organisational structure is kept simple; the concentration on a single crop facilitates training of extension workers to become specialists; and it is easier to control agents and farmers as they are judged based on defined targets.

This approach assumes that organisational and clients' goals are identical, which may often not be the case for small farmers, as the rigidity of the system leaves little room for incorporation of other needs of farmers. In certain instances, and often, the border between control and coercion is crossed, for example, when farmers are forced to plant commercial crops at the expense of traditional subsistence crops (Swanson et al., 1998). The success of extension agents lies in their ability to convince farmers to produce what and how the organisation wants. The advantage of guaranteed markets may not always translate into security for farmers, and farmers are often vulnerable to market failures such as price fluctuations. Sometimes enforcement of quality standards is done to increase personal or organisational profits, and the approach has often been used to extract revenue from farmers by dictating low farm-gate prices. The approach is useful in technology transfer, but it leaves out certain issues of the public interest; hence, some parts of the world (East Africa) have practiced a combination of the general extension and commodity-based approach.

c) The Training and Visit approach

The Training and Visit (T and V) approach is not a separate one but one way to organise the ministry-based or general agricultural extension approach (Swanson et al., 1998). The approach was meant to solve some of the problems of the conventional extension services. This was after a paper by Benor et al. (1984) in their evaluation of the ministry-based extension, who found inadequate internal organisation structures, inefficiency of extension personnel, inappropriateness or irrelevance of extension content, and dilution of extension impact (Benor et al., 1984). The T and V came in to solve these problems by concentrating on contact farmers who were expected to pass information on to fellow farmers; ensure regular field contact; facilitate supervision and communication; set clear and attainable objectives; fixed field visits at regular intervals; regular sessions for extension to receive training and discuss administrative matters. The approach was successful in dealing with the perceived challenges such as weak accountability, weak political commitment and support, extension officers performing public duties and financial instability, but funding shortages and lack of evidence of major gains attributable to extension were the problems that led to the downfall of the approach (Bindlish and Evenson, 2013; Hassan and Poonyth, 2001; Uzunlu, 1990).

d) The lead farmer or farmer-to-farmer approach

The approach involves farmers disseminating information to their fellow farmers to help them improve agricultural productivity. The farmer-to-farmer approach is widely used in Malawi, not only by the government but also by other extension service providers. For example, Masangano and Mthinda (2012) found that 78 per cent of the 38 extension service providers use the approach. This wide use of the approach is due to certain including increased coverage of extension service delivery, increased adoption of technologies and practices, and reduction in costs and accessibility of extension services (Kundhlande et al., 2014a). Lead farmers are selected democratically by community members, identifying individuals who have leadership characteristics, who are active, who are approachable, who are knowledgeable about agricultural activities and who are usually early adopters of technologies. They work with fellow farmers in groups to provide training, conduct demonstrations, mobilise farmers and disseminate a wide range of other information, such as health and nutrition (Cai and Davis, 2017). Most of them do the work without being paid, although Khaila et al. (2015) found that there was a small proportion of lead farmers who received per diems or allowances. Lead farmers' motivation to work is derived from increased social status, increased individual knowledge, early access to technology, opportunities to help others, job benefits, social networking and income generation (Khaila et al., 2015).

e) The model village approach

The approach aims to create model villages that function as stable organised units for programme delivery (Cai and Davis, 2017). In Malawi, the approach operates under the DAES decentralised system and uses participatory extension methods to implement integrated interventions with actors from various sectors, including health, agriculture, water, community development, etc. The approach operates through four phases, namely, the first participatory rural appraisal (PRA), which is aimed at identifying resources and capacities of the communities as well as their needs. The results of the PRA identify prioritised activities that constitute the model village development plans and the community management structures needed to sustain them. The second phase is the livelihood phase, where farmers' basic needs are met through diversified and sustainable means. The third phase is called the empowerment phase, where communities are helped to maximise returns from their enterprises beyond subsistence needs. Finally, there is the specialisation phase, where communities form cooperatives to mobilise their produce and sell and earn incomes from their sellable products (Cai and Davis, 2017).

f) Farmer Field School (FFS) model

In this approach, farmers are organised into groups of approximately 20-25 who meet regularly at a local place, such as a demonstration field. It is sometimes called a school without walls, meaning that farmers learn in both a classroom but mostly a non-classroom environment. Farmers are given an opportunity to experiment, modify and discuss the results of new agricultural ideas and technologies (FAO, 2016). In Malawi, the approach is used within the government extension system, but also other NGOs have adopted it. For instance, Care Malawi modified the FFS approach into the Farmer Field and Business School (FFBS) model designed to go beyond demonstrating agricultural practices that can increase yields to build capacity and essential skills around market engagement, gender equity and empowerment issues and nutrition practices.

g) Farmer Business School approach

The Farmer Business School (FBS) is an approach developed by Germany Agency for International Cooperation (GIZ) with support from the Bill and Melinda Gates foundation and the World Cocoa Foundation with the aim of promoting entrepreneurship and business skills among smallholder farmers (GIZ, 2019). The approach builds on experiential learning and targets a mind-change of farmers to recognise themselves as entrepreneurs and investors. These

are crucial prerequisites for the adoption of improved techniques, the use of market opportunities and investments in agricultural production and consequently improved productivity and quality, diversified family income and nutrition (DA-CHARMP2 and CIP-FoodSTART, 2014). The FBS triggers individual and group demand for services and inputs. In Malawi, the approach is also implemented within the government extension system but also it has been adopted by other extension service providers.

4.5. History of Agricultural Commercialisation

Agricultural commercialisation in Malawi can be traced back to the colonial period where crops including tobacco, groundnuts, cotton, wheat, rice, potatoes, coffee, tea and tung oil were grown for sale. Before 1907, commercial agriculture was not very prevalent since during the precolonial period, trade was limited to ivory and forest products in exchange for cloth and metal. The first commercially grown crop was coffee, but problems of declining prices, diseases, and unfavourable conditions prohibited the development of the crop in favour of tobacco in shire highlands and cotton in shire valleys (Kettlewell, 1965).

The different marketing boards that were established were performing marketing controls, such as offering smallholders lower prices than world market prices and taxing smallholders, which increased revenues. Marketing regulations extended to food crops after World War 2, and by the 1950s, marketing boards controlled the trade of most African smallholders (Green, 2007). In the 1950s, the Produce Marketing Board (for maize, groundnuts, rice and pulses) and the Cotton Marketing Board were established in addition to the Tobacco Marketing Board. These boards were combined into one the Agricultural Production and Marketing Board in 1956, which was changed to the Farmers Marketing Board in 1962. Regulations for tobacco were introduced in 1926, and the Native Tobacco Board (later African Tobacco Board) was created. Regulations were introduced for fear that profitable smallholder farming could reduce the availability of cheap African labour in estates (Ng'ong'ola, 1986). Registered growers paid heavily despite an increase in the production of African tobacco. The formation of agricultural cooperatives and societies was enabled through legislation in 1948. The first cooperative to be formed was the coffee cooperative, and a few years later, the rice cooperative was also formed. By 1960, there were approximately 71 marketing societies with a total membership of 12,000 farmers. One of the advantages of the cooperatives was a guarantee of fixed prices of farmer produce (McCracken, 1987).

Malawi's agricultural policy in the 1980s and 1990s was mainly influenced by Structural Adjustment Programs (SAPs), which were adopted introduced by the IMF and the World Bank. SAPs were adopted partly to improve the marketing mechanisms of agricultural produce and inputs through the elimination of restrictions and decontrolling prices, parastatal reforms (especially the Agricultural Development and Marketing Corporation [ADMARC]) and fiscal and mandatory reforms (Knorr et al., 2007). Agricultural market liberalisation was thought to be one of the initiatives under SAPs that was meant to improve the efficiency of agricultural markets. The Malawi government adopted the SAPs in 1981, which involved improving producer prices of major crops, including maize, and partial removal of fertiliser subsidies (Chirwa and Matita, 2014). This also involved the restructuring of ADMARC (which used to be the main market for agricultural produce) by removing activities that were not related to agricultural marketing. This was based on the assumption that some private traders would take up the role of ADMARC (Chirwa et al., 2005). In the late 1980s, it was decided that ADMARC close part of their markets to allow private traders to enter the market but with licences.

The SAPs were blamed for the collapse of the smallholder commercial agricultural sector. Studies have shown the effects of the declining role of the state in agricultural marketing

activities, mainly referring to the dwindling role of the ADMARC. Some of the effects include lack of access to markets, long distances to markets, low produce prices, high prices of inputs, high food prices (maize), high transaction costs, low production, food insecurity and poverty. Furthermore, the main contributing factors to the declining role of the state, especially that of ADMARC, have been government policies and inadequate operational funds (Mvula et al., 2003). During the 1970s and 1980s, the dominant cash crops for smallholder farmers were cotton and groundnuts, but the collapse of the state marketing system reduced the role of these crops among smallholder farmers (Chirwa and Matita, 2014).

Before the 1990s, smallholder farmers were not allowed to grow burley tobacco, which was restricted to estates. The liberalisation of burley tobacco production in 1992 allowed the participation of smallholders in high-value crops, which were dominated by estates. The liberalisation also brought about different organisations that wanted to coordinate production and marketing among smallholder farmers, including the National Smallholder Farmers Association of Malawi (NASFAM) and Tobacco Association of Malawi (TAMA), among others (Chirwa and Matita, 2014). Government strategic document, the Malawi Growth and Development Strategy (MGDS 1), recognised the intensification and commercialisation of smallholder agriculture as being fundamental for increased productivity and profitability of smallholder agriculture. During implementation of the MGDS 1, one of the initiatives was the One Village One Product (OVOP), which aimed at developing products or services through value adding by communities using locally available resources in a designated area. The programme was initiated by a region in Japan called Oita Prefecture (Kambewa, 2014; Kumwenda, 2012). It was unique because it aimed to help farmers produce not only for domestic but also international markets.

4.6. Chapter Summary

The chapter provides the context within which the study is done by describing agriculture in Malawi and related dynamics of land, labour, crops, policies, agricultural extension and commercialisation in both historical and contemporary terms drawing on the writing of different authors, including Dequin (1970), Green (2007), Kettlewell (1965) and Vaughan (1987). The chapter breaks down the sections starting with the precolonial and colonial eras and then moving on to the postcolonial era, along the different political regimes (Hastings Kamuzu Banda, Bakili Muluzi, Bingu Wa Muthalika and the current era). The chapter then discusses the history of land and labour systems and policies influencing agriculture, drawing on the work of Kandaŵire (1977), Mandala (2006), McCracken (2012) and Peters (1997, 2001, 2010). The chapter also describes the history of specific crops (maize, tobacco and groundnuts) that are under focus, including their production and marketing trends, with reference to the scholarly work by Chilowa (1999), Green (2007), Kettlewell (1965), and Ng'ong'ola (1986). The chapter describes the history of agricultural extension in Malawi and beyond, referring to the work of Knorr, et al. (2007), Masangano and Mthinda (2012) and Ponniah et al. (2008), zeroing in on the extension policies, modes of delivery, and extension approaches in use. The chapter ends with a brief history of agricultural commercialisation, drawing on the work of Professor Blessings Chinsinga and the late Professor Ephraim Chirwa. The chapter helps to set out the historical perspective of the agricultural processes and policies that have led to the development of agriculture in Malawi but also commercial farming and agricultural extension. This helps to situate the study in the already existing debates and set out a clear point of departure from what has already been studied. The next chapter presents empirical findings of the study on the role of agricultural extension in commercialisation and linking the findings to history of extension policies developed to facilitate commercial agriculture.



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Chapter 5: The Role of Agricultural Extension in Commercialisation

5.1. Introduction

This chapter examines the extent to which agricultural extension is contributing to market-based agriculture, highlighting challenges, shortcomings and gaps. The chapter attempts to answer the first research question: *Is agricultural extension contributing to agricultural commercialisation?* The study finds that agricultural extension is not adequately contributing to commercialisation of agriculture. This study argues that despite agricultural extension being important in creating an enabling environment, for farmers to commercialise, there are other factors which have more direct effects, such as access to means of production and marketing factors beyond the control of agricultural extension. This is despite the evidence which suggests that agricultural extension is a crucial ingredient in commercialisation based on the assumption that when farmers are exposed to extension services, they are better equipped with knowledge, skills, attitudes, perceptions and mindset to make decisions to adopt commercial farming (Bandara, 2006; Daane et al., 2012; van den Ban and Samanta, 2006). Therefore, improvement in knowledge and skills enables farmers to make informed decisions about production, improves their efficiency and productivity for both consumption and selling. Consequently, access to information results in change in attitude, perceptions and mindset towards market orientation (Gebremedhin et al., 2006b, 2015, 2012; GFRAS, 2012; Lemma et al., 2014; van den Ban and Samanta, 2006).

The study established that despite having multiple extension service providers, government is still the main provider of services, which situation is ridden with challenges that affect farmers' access to knowledge, information and other support services. Extension messages are largely production-oriented, hence not adequately assisting farmers in shifting towards commercial oriented farming. All these shortcomings thwart extension services' contribution to enabling farmers engage in expanded reproduction and accumulation. The goal of extension services is to enable farmers make better informed decisions to improve their farming practices and livelihood (Mur et al., 2016). The role of extension services in market-based agriculture can be understood from the supply side (service providers) in terms of delivery of extension services, thus approaches used, messages disseminated, and targeted beneficiaries, to characterise the extension services and their potential impact on commercial orientation (Rogers, 1983); but also, from the demand side (farmers) in terms of their ability to access and utilise services which separate those with and without potential to effectively engage in commercialisation (Rogers, 1983). The characteristics that separate these groups are their access to means of production (capital, land and labour), but also access to lucrative markets, input and output prices, production costs and associated risks. Previous studies (Birkhaeuser et al., 1991; Cawley et al., 2018; Cerdán-Infantes et al., 2008; Dercon et al., 2018; Hamilton and Hudson, 2017; Jin and Huffman, 2016; Nakano et al., 2018; Olagunju and Adesiji, 2013; Press, 2013; Ragasa and Mazunda, 2018; Waddington et al., 2010; Wossen et al., 2017) have looked at the impact of extension services which include enabling adoption of technologies and innovations to improve farming; facilitating improved productivity; improving livelihoods and household welfare; improving income; reducing poverty levels; and improving food security.

This study analysed differences in access to extension services and consequent impacts among farmers of different gender and social class from a political economy perspective, with the assumption that gender and class differences result in differential access to extension services and consequently differences in market participation on the one hand, but also, differences in access to extension services and market participation perpetuate class and gender inequalities on the other. This study argues that gender and class determine access to extension services as

women and those in poor classes are less likely to participate in extension services as they have to divide their time among competing priorities but also the workload among women hinder their participation in extension services. It further argues that despite market-based farming resulting in class and gender inequalities, the market participation is not as a result of access to extension services. Previous studies have reported the differences in access to extension services among different gender and social groups (Gwandu et al., 2013; Loki et al., 2021; Mbo'o-Tchauawou and Colverson, 2014; Mudege et al., 2016; Umata et al., 2011).

This chapter has four sections. Section one provides the description of the demographic information of study households. Section two describes the extension approaches, messages received, extension methods used and their rationale and underlying assumptions. The section also provides details of extension service providers, their areas of concentration and the methods and approaches used. Section three examines access to extension services among gender and class categories. Section four analyses the impact of extension services. The contribution of extension services to commercialisation is limited due to other factors that have more impact such as access to means of production (inputs), labour which also impacts land availability, and marketing factors, consistent with Anderson and Feder's (2003) arguments. Furthermore, however, the poor relationship could also be attributed to the methodological limitations in measuring commercialisation which is based on proportion of produce sold – this could be problematic because it does not give a true reflection of the status of households involved in crop marketing and their access to extension services. It could also be the way in which extension services are viewed by different actors as there are limitations to what agricultural extension can achieve. This argument is based on the conclusion that access to extension services is a result of commercial orientation and not necessarily a driver.

5.2. Demographic Information

On average, most of the households have between 4-5 household members and are seconded by those that have 6 and more household members. The results are consistent with what was recorded in the Integrated Household Survey 2020, where the national average household size was 4.4, while that of the region (central) was 4.7 and that of Lilongwe was 4.3 (National Statistical Office, 2020). What this means is that most households have extra pairs of hands to provide labour in farming, especially among most of these who depend on family labour. The majority of the household heads are within the prime age range (25-54), suggesting that they are within the active age group, hence are heavily involved in farming activities and are able to provide labour. Most households are headed by men, representing approximately 85%, 90% and 83% for Kachono, Chimera and Chinkhowe, respectively, which is consistent with national, regional and district trends (National Statistical Office, 2020). The average age of the female heads was significantly higher (51 years) than that of male heads (43 years). The differences in age of household heads shows the old age among most of the female-headed households as argued elsewhere in the thesis, which also impacts on labour availability for production and reproduction activities. The majority had only finished primary education, and the trend was similar across the villages. More women (20%) compared to men (6%) had no education. These results are not surprising as other studies have also established the same (NSO and ICF, 2015; NSO, 2017, 2019). Despite education level not being the focus, others have argued that education level has an impact on understanding extension messages (Jamison and Moock, 1984). The average total annual household income among study participants was about \$540, but male-headed households had significantly higher (\$556) total household income than female-headed households (\$439). This difference in income levels suggests women are involved in less profitable enterprises and have low involvement in crop marketing. Households derive their income from different sources, as presented in Figure 5.1

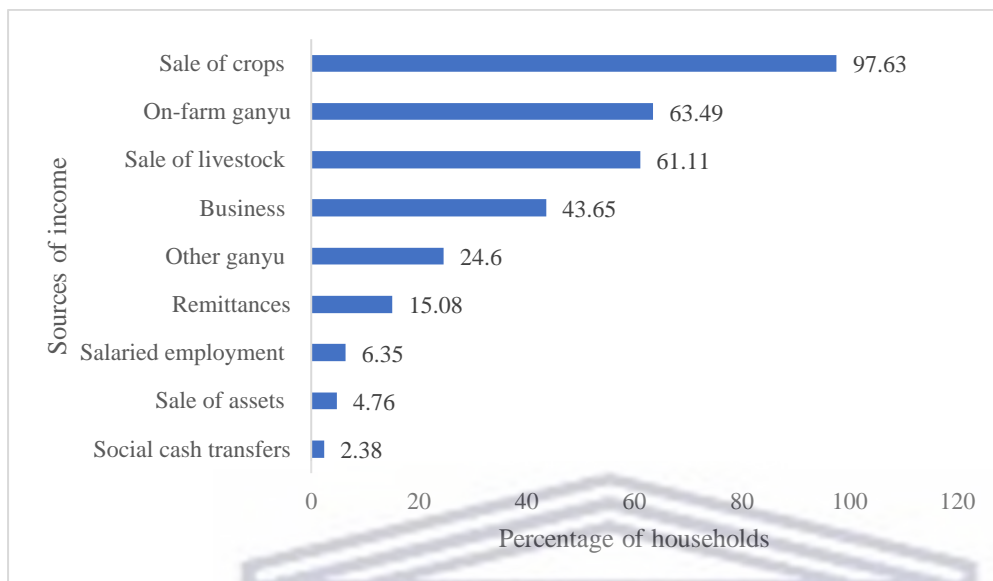


Figure 5-1: Sources of income

Source: Author's survey data (March 2020)

The majority of households are what Marxists refer to as 'fragmented classes of labour' as they reproduce themselves through various means including petty production and wage labour (Bernstein, 2010; Cousins et al., 2018). They are engaged in crop marketing as they derive their income from crop sales for their simple reproduction but also from *ganyu* (selling labour), livestock sales, and business. The results show not only high dependence on crop farming but also the degree of diversification into activities that mostly revolve around farming (livestock sales and on-farm *ganyu*) mainly because of lack of options outside farming (Michaelowa et al., 2010; Whiteside, 2000). A high percentage of households deriving their income from *ganyu* shows the presence of petty commodity producers who combine both classes of capital and labour within the household (Bernstein, 2010). More male-headed households derive their income from crop sales (99%) compared to female-headed households (88%). More female-headed households (65%) derive their income from *ganyu* than male-headed households (63%) although the differences are not statistically significant. Other studies (Mgalamadzi et al., 2021) have also established similar results.

Four categories of households were identified during a wealth ranking exercise (refer to Chapter 7 for details). The first category is the 'poor' who were in the majority (56%) and are characterised by poor living conditions. They engage in activities for simple reproduction. They have land, but they often rent out part of it because they are resource poor and they fail to command enough labour since they also engage in selling labour power. These are also petty commodity producers who possess both classes of capital and labour within the household (Bernstein, 2010). They also engage in small-scale businesses (e.g., selling fritters) to supplement their crop income. They do participate in output markets, although they sell little

and often engage in distress selling⁷. This is a group of households that engage in commercialisation not for accumulation, but for survival or simple reproduction. They actively participate in extension activities as they try to improve or maintain their farming and livelihoods

The second largest group are the ‘better-off’, (30%) or what others have referred to as ‘middle’ class who participate more in off-farm businesses (e.g., grocery shops); they trade farm produce which they aggregate from poorer farmers, and they often act as middle men between poorer households and the rich. They actively participate in extension activities, and their drive is to produce more and have surplus for sale. They are usually opinion leaders in the community. They rent in additional land as they can afford with off-farm income. They, sometimes, also rely on *ganyu*, especially during bad seasons, and they are more likely to fall towards the poor than the rich because of the poor marketing environment and failure to overcome the risks of market failures.

The third category are the ‘poorest’ (11%), who were characterised by very poor living conditions or what others have called the ‘too poor to farm’. They fail to command enough labour due to old age, widowhood, or terminal illness. They often rent out part of or in some cases all of their land, which means they produce little or nothing. They depend heavily on selling their labour power for their livelihoods but also rely on remittances. The little they produce; they sometimes sell to be able to take care of other pressing needs such as hospital bills. They end up buying food, which Chirwa et al. (2005); and Jayne et al. (2010) characterised as ‘distress selling’. They usually participate passively in extension services, as they do not see the benefits but are also unable to divide their time between participating in extension activities and working to bring food to the table.

The fourth group are the ‘rich’ (3%), who were very few in the villages. These were those that have had some breakthrough in production or marketing of their produce (accumulation from below) and some have benefited from government or other organisation initiatives through inputs or markets for their produce (accumulation from above). Some inherited their wealth from relatives. These are those that others have referred to as small-scale capitalists (Bernstein 2010) or rich peasants (Lenin, 2009). They are able to rent in more land, command enough labour, and own cattle. They buy produce from the poorer households but also employ the poorer households in exchange for food, cash, inputs and clothes. Some participate in extension services driven by the need to maintain their current status, while others do not as they see no need to participate in extension services because, as they were described, “*zawo zinayera*” (they are already doing well). Figure 5-2 presents the wealth categories.

⁷ Poole (2017) describes it as selling of produce to meet immediate financial needs, often when prices are low as selling occurs during harvesting time when most of the produce is in abundance.

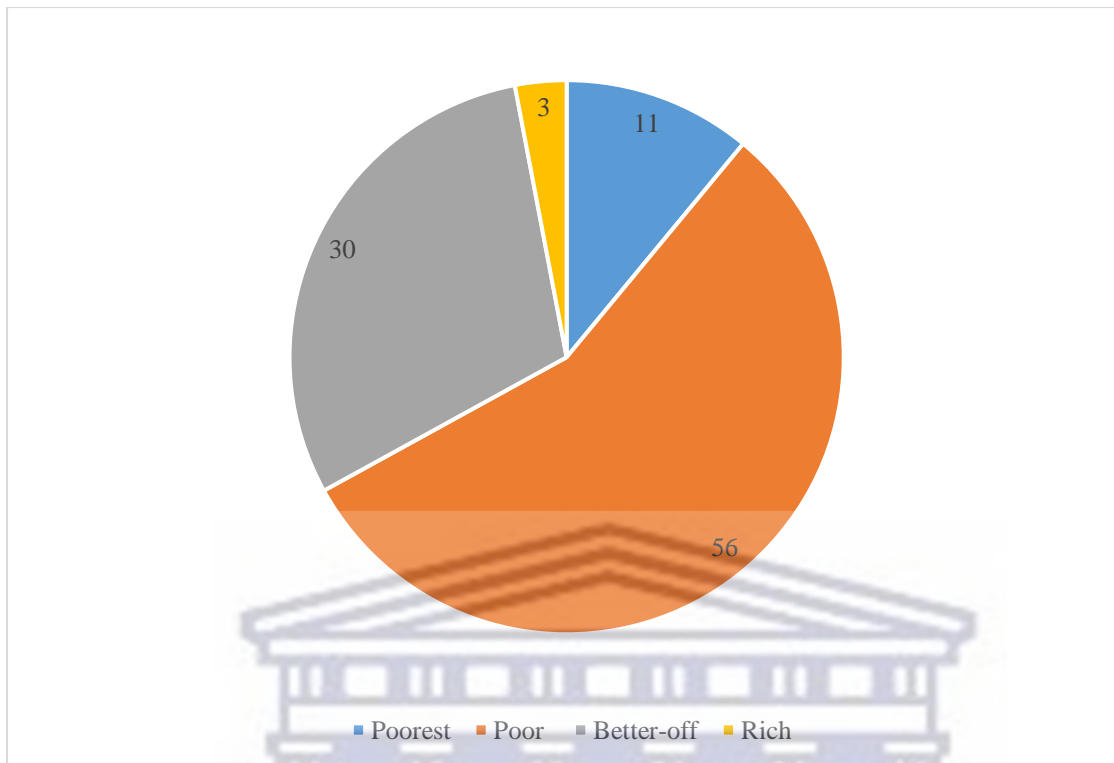


Figure 5-2: Proportions of wealth categories (%)

Source: Author's survey data

5.3. Extension Approaches Being Implemented

Different extension service providers were observed in the area implementing diverse extension activities using different extension approaches to achieve their objectives in response to challenges in the agricultural sector, national and organisational goals and the needs of farmers. The extension approaches employed range from those that are based on a single crop to those adopting a 'whole farm' approach and others only focusing on a specific practice. The choice of these is dependent on the objectives of the extension service providers but also the national goals driven by specific paradigms in line with international agenda. Furthermore, extension services are provided to achieve specific objectives of promoting certain kinds of farming practices, for instance, 'farming as a business'. Since 2000, the Ministry of Agriculture, through the department of extension services adopted pluralism in delivery of extension services, allowing multiple extension service providers with the aim of reducing the burden that was placed on state-led extension services in terms of financial resources, personnel and expertise (GoM, 2000; Klerkx et al., 2016; Masangano et al., 2017; Masangano and Mthinda, 2012; Kelly, 2013; Knierim et al., 2017; Ragasa and Kaima, 2017).

The first approach studied was the commodity specialised or single crop approach which was dominant in Chimera village, where extension workers target farming households engaged in tobacco farming to help them produce the crop and sell it. The approach is one of the hegemonic features of colonialism where colonialists promoted production of specific commercial crops for extraction of raw materials to be exported to Europe. The approach borrows from the historical dualistic nature of agrarian structure where large-scale commercial farming was viewed as a normal model for agricultural development in Africa with small-scale farming facing challenges, forcing them to remain a pool of labour force including migrant labour (Scott, 1998). Agricultural development was based on modernisation theory where modern and progressive farming was promoted including emphasis on commercial crops (Farrington,

2002). The narratives came to define agricultural development and extension services were central to drive the agenda. Scott argues that in southern Africa, a variety of institutions including government departments of research and extension, were given the task to drive modernisation of agriculture which was mostly founded on the needs of white farmers and technical knowledge was imported through colonial connections which helped to frame knowledge and practice in particular ways (Scott, 1998).

In contemporary times, the approach is still being implemented by private companies to drive similar objectives although with a shift to benefit political elites (especially during the Kamuzu era) and to support government initiatives. The approach used aims to promote capitalist accumulation among smallholder farmers, hence transforming petty commodity producers into small-scale capitalist farmers, with those failing to establish themselves as capitalist farmers becoming surplus populations. Nevertheless, the reality is that due to other structural bottlenecks, most of these are failing to produce and reproduce themselves as small-scale capitalists, so they remain petty commodity producers who sell their produce but also labour. The tobacco industry, for instance, has created a situation among smallholder farmers that only a few expand and accumulate while a majority remain in survival mode or simple reproduction, while others have completely been squeezed out and are in simple reproduction squeeze.

One of the private organisations implementing this approach is the Agriculture Research and Extension Trust (ARET). ARET is a private organisation that conducts research and provides extension services on tobacco to farmers. A group extension approach is used to organise farmers for easy contact. Their organisation starts from the village level where several villages form a farmer club that is supervised by a lead farmer. Lead farmers work on a volunteering basis but are often privileged to receive some training, sometimes even being called for meetings where incentives are provided, such as allowances or sleeping in a hotel. This was one of the problems that was experienced with the *achikumbe* programme during the Kamuzu era, when fellow farmers started becoming jealous of the so-called ‘progressive’ farmers as they were seen to be more privileged (Pryor, 1990).

Lead farmers are expected to be the first to adopt technologies implemented by extension workers so that other farmers can emulate. The practice of working through lead farmers is a well-recognised practice. It is also based on one of the principles of extension, which is ‘working through local leaders’ (Oakley and Garforth, 1985). It is believed that it is easier to work through local leaders who are often faster and ready to understand things and who, in turn, can convince other farmers to do the same. Farmers are eager to follow things that their fellow farmers are doing other than what an outsider is doing. In Malawi, it has been developed into a ‘lead farmer approach’, which is recognised and is followed by most extension service providers. Some studies have written about the role of lead farmers, for instance, Taylor and Bhasme (2018) in India and Holden et al. (2018) in Malawi. The FAO also emphasised the need for extension workers to work with formal or informal leaders, as these leaders are often respected by others and influence the attitudes and behaviours of others (Oakley and Garforth, 1997). The extension workers also meet other farmers through groups but often go through the lead farmer. They prepare messages on agronomic practices related to tobacco, including harvesting and postharvest handling, which are either passed on to them or are taken directly to the farmers in a group.

Extension workers from ARET usually pass information to lead farmers who pass it down to follower farmers. The extension worker oversees what they call Extension Areas (EAs); Lilongwe as a district has several EAs. Extension workers at the extension area level report to an extension coordinator who reports to the head of extension programs at the national level.

The second approach, the business-oriented approach, focuses on promoting a specific farming practice, thus, 'farming as a business' with the aim of establishing capitalist agriculture and promote capital accumulation. To some extent the approach follows the new institutional economics paradigm by promoting efficiency among small-scale farmers in both production and marketing of produce, and providing support services including efficient markets and credits. However, by promoting multiple diverse livelihoods among farmers, the approach also follows the livelihoods, specifically the developmentalist paradigm (Cousins and Scoones, 2010). Extension workers work with farmers to promote mindset change to consider farming as a business. The approach is implemented by the National Smallholder Farmers Association of Malawi (NASFAM) which is a farmer-based organisation whose aim is to support marketing access for participating smallholder farmers. Farmers are organised in groups at the lowest level of organisation (village) in clubs. These clubs are also organised in what is called an 'action group', which consists of 10 clubs. Several action groups form an association whose main aim is to promote the production and aggregation of produce for easy marketing. The field officer oversees an association. Again, all these organisations have leaders. At the club level, they have lead farmers, and at the action groups' level, they have a chairperson. The field officer reports to the field coordinator who oversees a zone made up of several associations.

Lead farmers are responsible for mobilising farmers, training them in recommended husbandry practices, following up and monitoring crop development and providing advice related to the status of the crops (pest and diseases) in the field. They are further involved in disseminating information from the action group chair to the club members, mobilising farmers to access credit, and ensuring that farmers pay back such loans. Lead farmers have a planned calendar of activities structured along the cropping season. The action group chairperson is the contact person between NASFAM and farmer clubs. They represent different clubs, are equipped with information to disseminate to farmers through lead farmers, acts as a middleperson with regard to disbursement of loans, ensures that farmers aggregate their produce at the action group level and looks for markets for the produce, apart from liaising with NASFAM to buy the produce. The field officers are professional extension workers (usually with a diploma) recruited by NASFAM and have skills in the production of specific crops; they package the information and disseminate it to farmers through the contact people. They sometimes also conduct trainings directly to farmers.

The third approach, the government extension approach which is being implemented by the government through the ministry, adopts a 'whole farm approach' to extension where apart from focusing on maize as a staple crop, also focusses on other crops and farming and economic activities. Different paradigms inform the government approaches to extension but mostly, it is in response to public needs and specific national agenda. These paradigms have changed over time from a top-down approach to a somewhat participatory approach. The whole farm approach is driven by the livelihoods approach, the developmentalist version to a large extent by promoting multiple livelihood options, but also to some extent the welfarist version by providing social safety nets through social protection programmes (Cousins and Scoones, 2010). To facilitate communication, information flow and the dissemination of technologies for adoption, farmers are also mobilised in groups. The focus is not on a specific group of farmers because their engagement in a number of farm and economic activities allows them to join a number of groups. Lead farmers facilitate information flow from extension workers to the farmers. In Chinkhowe, a lead farmer was also a village chief. The lead farmer is a contact person for the government extension workers who implement a number of activities to promote the production and marketing of different crops. A lead farmer reports to the extension worker whose jurisdiction is a section within an extension planning area (EPA). An EPA usually has different sections. Extension workers at the section level are called agricultural extension

development officers (AEDOs), who report to the Agricultural Extension Development Coordinator (AEDC) at the EPA level. The AEDC reports to what are called Subject Matter Specialists (SMSs) at the district level, who are also responsible for different activities depending on their specialisations. The SMSs report to the District Agriculture Development Officer (DADO).

Government extension workers focus on a number of crops and farming activities, and this study's focus in Chinkhowe was maize. For maize production, farmers are organised in what they call 'clusters' within which they promote green belts, which are locally known as *mindandanda*. This is basically a longest stretch of different fields planted with one single crop, in this case maize, usually along the main road so that passers-by can see and possibly emulate. The aim is to encourage those along the stretch to implement recommended agronomic practices in their field. Everyone along the stretch follows the practices to avoid being embarrassed if their field looks different. To better understand the characteristics of the different extension service providers and approaches used, Table 5-1 presents a summary.



Table 5-1: Characteristics of extension approaches

Approaches	Commodity specialised approach/single crop	Business oriented approach	Government/whole farm
Purpose	Disseminate information related to production, handling and marketing of tobacco	Promote production and marketing of groundnuts and soybeans	Disseminate information on production of a variety of crops and farming practices Improve productivity of maize as a staple crop
Underlying assumptions	Concentration on one single crop will improve production of that crop	Farmers need production and marketing skills for specific skills Farming should be considered as a business	Farmers need to be assisted with a number of farming activities they are engaged in There is need to increase production of maize as a staple crop
Resources required	Dedicated extension workers skilled in tobacco production Funds to frequently visit farmers to ensure adherence to recommendations	Personnel trained not only in production skills but also marketing Funds to give loans ⁸ to farmers (seed and inoculants)	Personnel to reach out to a wide range of beneficiaries
Implementation techniques/methods	Trainings, demonstrations, group meetings, individual meetings, print media, ICT (use of mobile phones)	Trainings, group meetings, provision of inputs, print media, ICT (messages through phones), songs	Trainings, group meetings, demonstrations, facilitate input access under FISP, distribution of inputs for demonstrations
Extension messages	Recommended husbandry practices, proper land preparation, tobacco sorting and grading, packaging, marketing (when to sell their produce)	Conservation farming, crop rotation, use of recommended seeds, timely planting,	Climate information, use of certified seeds, tree planting, livestock farming, use of manure, mixed cropping, farm

⁸ NASFAM gives loans to farmers in the form of seed (groundnuts or soya). Farmers are given 5 kgs of groundnuts seed and they give back 10 kgs. At the end of the season, the lead farmer goes around to collect the 10 kgs loan repayment.

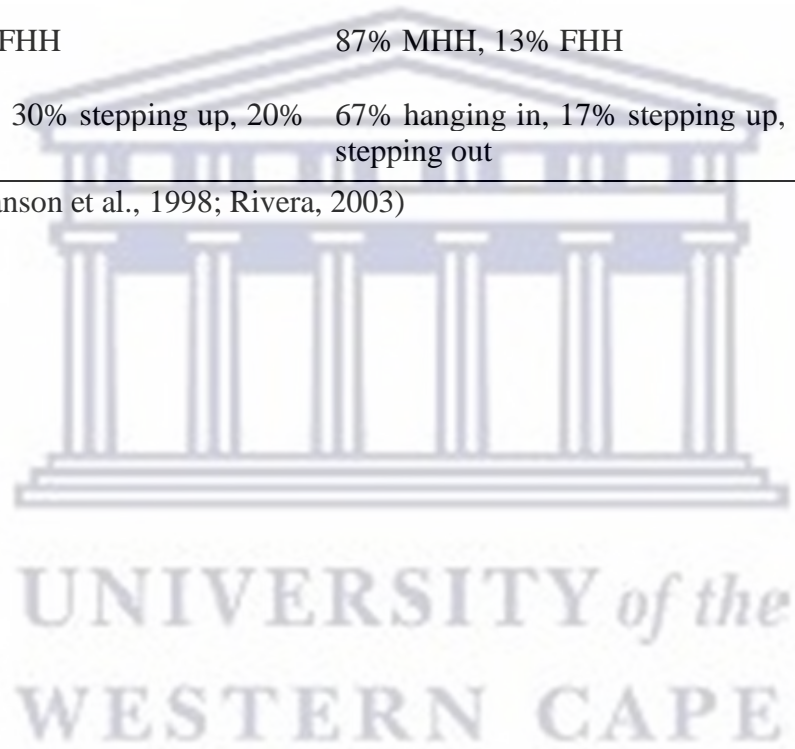
		harvesting techniques ⁹ , post-harvest handling and storage techniques, crop diversification through mixed cropping, commercial farming, use of farm records and work plans, collective marketing	business management, recommended husbandry practices
Control of programme planning	Top-down from ARET to farmers	Participatory based on farmer's needs	Top-down from the ministry to farmers
Measure of success	Production levels of that single crop Farmer's ability to follow strict recommended practices	Production levels of crops being promoted Marketing of the crops promoted Loan repayment	Production levels of national priority crops being promoted – maize Farmers' ability to improve their food situation and livelihoods in general
Other approaches aligned to	Lead farmer approach Farmer-to-farmer extension	Lead farmer approach Farmer-to-farmer approach Project approach	Lead farmer approach Farmer-to-farmer approach
Theoretical underpinnings	Market oriented Transfer of technologies (ToT) Modernisation theory Capitalist accumulation	Agricultural innovations systems (AIS) Participatory extension approaches Market oriented Livelihoods – developmentalist approach Capitalist accumulation	Transfer of technologies (ToT) Modernisation theory Livelihoods – developmentalist version Livelihoods – welfarist version
Commercialisation	60%	48%	34%
Extension participation	97% participate	87% participate Better extension contact index Access from government and NGOs	93% participate Worse extension contact index Access from government and NGOs

⁹ They promote what is called 'mandela cock' as a harvesting technique where the uprooted groundnuts are dried in the field by making heaps with the plants' leaves facing down.

Worst extension contact index¹⁰
 Access from government and NGOs

Class differentiation	53% poor, 37% better-off	47% poor, 30% better-off, 23% poorest	70% poor, 20% better-off
Gender differentiation	97% MHH, 3% FHH	87% MHH, 13% FHH	77% MHH, 23% FHH
Livelihood trajectories	50% hanging in, 30% stepping up, 20% stepping out	67% hanging in, 17% stepping up, 17% stepping out	56% hanging in, 10% dropping out, 17% stepping up, 17% stepping out

Source: Author's data and literature (Swanson et al., 1998; Rivera, 2003)



¹⁰ The extension contact index was computed using the Principal Component Analysis and variables that were included were source of extension services, frequency of extension participation, usefulness of extension services.

The choice of an extension approach is usually in line with the extension providers' theory of change, underlying assumptions and the theoretical underpinnings from which their work is based. ARET promotes the production and marketing of tobacco, with the assumption that if farmers invest their capital and extension workers provide expertise specifically for one crop, they will improve efficiency and management of that crop which will result in an increase in production and marketed surplus, and consequently return on investment. Following the Transfer of Technologies (ToT) model, the approach is based on the assumption that experts have knowledge and expertise that must be transferred to farmers for them to use and improve their farming and livelihoods. The approach borrows much from the modernisation theory through improving production efficiency including modern technologies to improve production of that single crop so as to increase productivity and marketed surplus. This approach promotes capitalist accumulation among farmers growing and selling that crop. The approach has been criticised for turning a blind eye to farmers' diverse needs which often may not be answered by growing one single crop and paying less attention in terms of advice and resources to other crops such as maize, which is a staple crop. Households participating in this extension approach have a higher Household Commercialisation Index (HCI) compared to the other approaches possibly because they grow tobacco, most of which is for sale. The majority participate in extension activities although they have the worst extension contact index which shows that they do not frequently participate in extension activities. Just like other approaches, their main sources of extension are NGOs and government. It is mostly male-headed households that are under this approach, possibly because they are involved in tobacco growing which is dominated by men. They have the highest number of those engaged in accumulation (better-off) and are those engaged in expanded reproduction ('stepping up' and 'stepping out').

NASFAM emphasises market orientation, hence promoting small-scale capitalist accumulation. Furthermore, the approach is driven by new institutional economics views which place emphasis on efficiency in production and marketing but also support provided in the form of credit. The approach is also driven by the livelihoods approach and specifically the developmentalist version, by promoting diverse sources of livelihoods. The approach is participatory as the trainings and enterprises promoted are based on farmers' needs and tailored to their capacities. Farmers are trained in business skills to empower them with knowledge and skills to make decisions and manage their farming as a business. This approach is based on participatory principles that encourage farmers' ownership of technologies and initiatives. Being participatory in nature, it allows for work with other stakeholders in provision of extension but also various skills required to farmers, including allowing farmers to sell their produce to buyers of their choice. With this, their approach embraces more of an AIS concept. Households under this approach have a considerable level of commercialisation because they grow groundnuts and soya beans which are also meant for sale and they have access to markets for their produce. A considerable number of them participate in extension activities and they have a better extension contact index, suggesting that they frequently interact with extension workers. The group has the highest number of those in simple reproduction ('hanging in').

The government extension approach is based on the ToT model by transferring technologies and information based on national priorities. The approach is based on the livelihoods approach both the developmentalist version among some farmers and welfarist version among others. Despite farmers being involved in a number of other farming activities, the activities of the extension system are dictated by the ministry following a top-down approach. Households participating in this approach have the lowest level of commercialisation, possibly because they are mainly growing maize, which is for food. They have a worse extension contact index even though a good number participate in extension activities possibly because of low frequency of contact. The majority in this group are in simple reproduction (poor and 'hanging in') but also

all those who are in simple reproduction squeeze (poorest and ‘dropping out’) belong to this group. Apart from farmers belonging to farmer groups under ARET, NASFAM, and government extension, they also interact with other service providers as noted in Figure 5-3.

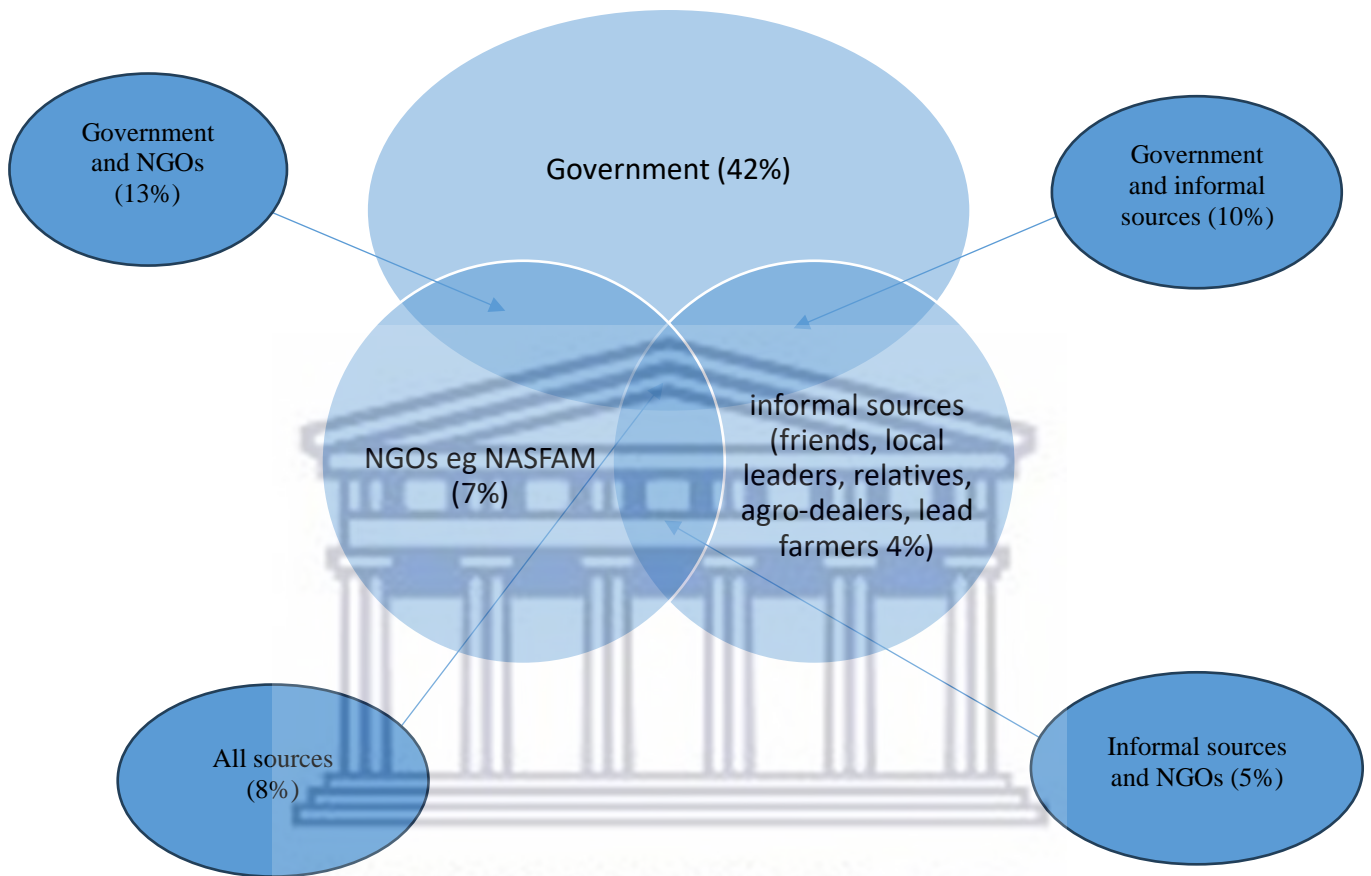


Figure 5-3: Extension service providers

Source: Author’s survey data

The study finds that despite pluralism in extension service delivery as it was also observed by others (Kelly, 2013), the government remains the dominant provider of extension which was also noted by others (Anderson and Feder, 2003; Gwandu et al., 2013; Jensen et al., 2019; Ragasa and Kaima, 2017; Ragasa and Mazunda, 2018). There are several possible reasons why the government is still the major provider of extension services. 1) Coverage – government extension workers are stationed countrywide and are positioned to reach out to households even in remote areas, unlike other providers who concentrate on a specific geographic area and their work is time-bound (Muyanga and Jayne, 2006). 2) Inclusivity – the government extension system provides services on a variety of enterprises, unlike other providers with limited focus in areas of concentration, leaving out those that are not involved in those activities or enterprises. 3) Resource requirements – unlike other providers, government extension activities demand less requirements for participants to access services, for example, to be a member of a farmer group, farmers have to pay group membership fees or contribute land and inputs for demonstrations. 4) Communication channels – government has a wide range of ways for communicating extension information to farmers, including extension workers, lead farmers, radio and print media, which makes it likely for farmers to have access to at least one of them. The informal sources include fellow farmers, lead farmers, relatives, and agro-dealers. The reliance on informal sources was also observed by Elahi et al. (2018), Hoang et al. (2006a) and

Olajide (2013). This shows the diversity of sources of information available to the farmers (Anderson and Feder, 2003), who found that there are multiple suppliers of extension information, including friends, neighbours, input suppliers, specialised consulting firms, media and government extension services, but they also noted the dominance of the government extension as a provider of extension services to farmers. The results are contradictory to what was reported by Elahi et al. (2018), that farmers in Pakistan rely more on informal sources of extension than on public and private sources. The implications of this for commercial farming is that there is growing demand for extension services to assist farmers as they are becoming increasingly engaged in expanded reproduction and accumulation or selling their commodities for survival. However, with the heavy burden largely borne by the government, farmers are less likely to benefit.

5.4. Extension Access

This section presents findings on access to extension services. The majority of this study's participants access extension services, compared to those that do not. Those participating in extension activities are relatively younger (43 years on average) than those who are not (51 years), which is contrary to what Loki et al. (2021) observed – that those with access to extension services were older. More male-headed households and men than female-headed households and women participate in extension activities consistent with Ragasa et al. (2012) who argue from a gender equity perspective, and Mudege et al. (2016, 2017) who argue from a gender relations perspective that women have poor access to agricultural training and information. More of the richer households than poorer households, and those who grow tobacco, participate in extension activities as the poor are likely to prioritise other activities concerned about satisfying their immediate needs as opposed to long-term solutions which extension can offer (Davidson, 2007). The majority accessed production-oriented messages, including those on recommended husbandry practices, crop diversification, certified seeds and group dynamics, compared to those who accessed market-oriented activities of the value chains, such as savings and investment, business planning, gross margin analysis and market research (Gebremedhin et al., 2015; van den Ban and Samanta, 2006). Most participants rated the messages useful, which was also noted by Ragasa and Niu (2017) that the majority of households in Malawi feel that extension services are important to enable them to improve production.

Group methods are common in the diffusion of innovations because they enable both contact and wider coverage compared to individual methods (low coverage) and mass-media methods (less contact), but also are cost effective and have less constraints compared to other methods in extension (Ali-olubandwa et al., 2011). The main challenges experienced with extension delivery include lack of support and commitment from top management, mainly due to reduced funding; lack of materials and equipment including poor living conditions for extension workers resulting in poor motivation (Feder et al., 2001); and reduced interest in extension activities among farmers due to lack of perceived benefits, as most farming households are struggling to maintain their simple reproduction. Extension services were better during the Kamuzu era because there was commitment from management, and enough funding to do the work; extension workers were motivated and used to live in the villages because the living conditions were better; there was high frequency of visits to farmers which was enforced and supported financially by the World bank during the Training and Visit system of extension, but also the extension worker to farmer ratio was lower this time (about 1:500) compared to present (1:2500).

5.4.1. Who has access to extension services?

The majority participate in extension services and they access services from different sources as shown in Figure 5-4. This could be because since the majority are farmers, they rely on extension services to improve their farming activities and to maximise benefits from agriculture. Others have argued that access to agricultural extension services is regarded as crucial in helping farmers make informed decisions to improve their farming and their livelihoods (Tefera, 2015). Although, farmers, as adult learners, are autonomous, self-directed; and goal-oriented and as such, they partake in activities that will help them achieve their immediate goals (Knowles, 1980). Participation is voluntary and depends on the availability of extension service providers but also the interests and needs of farmers. Figure 5.4 presents extension participation among study participants.

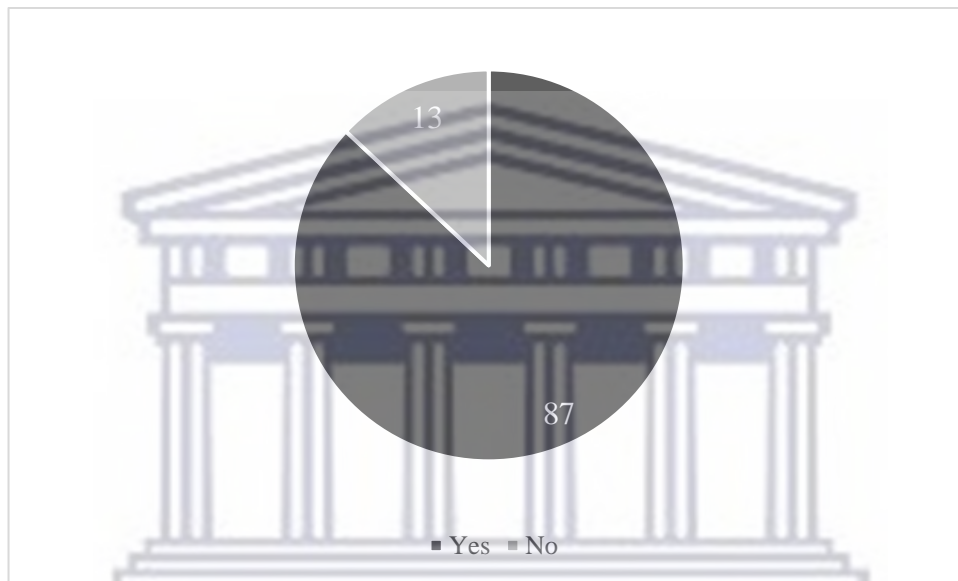


Figure 5-4: Extension participation

Source: Author's survey data

Differences exist in access to extension services among classes and households engaged in various social reproduction activities as observed in Table 5-2. Participation is determined by a number of factors. For example, Suvedi et al. (2017) argue that socioeconomic factors such as education, household size and group membership facilitate participation in extension services. Similarly, Tefera (2015) reported age and education of the household head but also household size and wealth status of the household as factors determining participation.

Table 5-2: Extension participation by sex of respondent

Extension participation	Men (70)	Women (56)	MHH	FHH
Yes	94	79	91	64
No	6	21	9	35

Number of observations (126), Note: Chi-square results show significance at 99%, p value 0.008 between men and women and a p-value of 0.003 between MHH and FHH.

Source: survey data

The study established that male-headed households and men are more likely to participate in extension activities compared to female-headed households and women. Although qualitative findings show that there are no differences in access to extension services between men and women as noted from this quote, “*All of us participate in extension activities, and extension workers do not choose to only target either men or women, as long as one is willing, they take part,*” FGD with men in Chimera village. The less participation in extension activities among women was also reported by others (Lahai et al., 2013). This could be the case because most of them are not engaged in expanded reproduction compared to men hence do not see the need for extension services. However, there are other factors. First, women juggle several responsibilities making it difficult for them to make time for extension activities which was also observed by others (GIZ, 2013; Odebode, 2009; Mudege et al., 2017). Second, cultural barriers restricting movements and certain cultural expectations hinder women from participating in extension activities which was also reported by others (Mudege et al., 2016). Third, in male-headed households, men are the designated heads and are targeted with the assumption that information will trickle down to other household members which has also been observed by (GIZ, 2013; Mudege et al., 2017). Even if women have time to participate, they often have to seek approval from men. Fourth, women are already constrained in their access to productive resources which men control, so their level of farming is less likely to push them to demand extension services which was also reported by (Umeta et al., 2011). With the reduced frequency of extension visits, it means that opportunities for women are getting fewer because of mobility challenges that are determined by cultural and social norms (GIZ, 2013). Low participation among female-headed households can further be explained by class differences (as most of them belong to the poorer categories) and low involvement in expanded reproduction as a result of social relations with men and richer categories in access to means of production including capital, land and labour. The women’s priority is to maintain simple reproduction and not expanded reproduction which can spread their resources even thinner.

Those who grow tobacco are more likely to participate in extension services than those who grow maize and groundnuts. This is attributed to factors from both the extension services providers’ side and the farmers’ side. Extension service providers frequently visit farmers given the nature of the crop (tobacco) which requires more technical instruction and concentrated efforts; but also, the tobacco sector has had an organised extension services system from the colonial era and has enjoyed the support from the government and private companies providing services as a commercial export crop (Dequin, 1970; FAO, 2014; Farrington, 2002; Green, 2007; Ng’ong’ola, 1986; Prowse, 2013; Takane, 2005). From the farmer’s perspective, they are pushed to participate in extension activities due to the nature of the crop, what is required in terms of technical know-how and what investments are made in it, so as to ensure they can improve management of the crop and rate of return on investment.

Those involved in expanded reproduction and accumulation are more likely to participate in extension services than those in simple reproduction. This is because most of the rich households are accumulating from farming so they see the importance of participating in extension activities to maintain or improve their farming. Richer households are likely to be targeted by extension service providers so that they act as models to other farmers. This was also common during the colonial era in what was called the ‘master farmer’ approach but also during the Kamuzu Banda era in which the emphasis was on ‘progressive farmers’ known as *achikumbe* (Knorr et al., 2007). This is in agreement with what was reported by Jensen et al. (2019) that wealthier households were more likely to access services from a number of extension service providers. Jensen et al. (2019) also reported that wealthier farmers have access to private extension services in Tanzania. Insights from qualitative data reveal that poorer households do not find extension activities beneficial because they remain in poverty,

whereas richer households see extension services being very beneficial for them to maintain their position. A higher percentage of those ‘stepping up’ (97%) and ‘hanging in’ (86%) participate in extension activities compared to 84% of those ‘stepping out’ and 75% of those ‘dropping out’. These results are not surprising as those stepping out and those dropping out are relying more on off-farm economic activities such as businesses and remittances or social cash transfers.

Extension participation is determined by factors and preconditions from both demand side (farmers) and supply side (extension service providers). From the demand side, factors such as gender, class, access to means of production, crops grown, time availability, and commercial orientation determine farmers’ participation in extension services. From the supply side, factors such as objectives of extension services, messages disseminated, inclusivity, requirements for participation, and availability of service providers determine extension participation.

5.4.2. What extension services?

This study looked at extension messages along the value chains ranging from production to marketing of produce as shown in Table 5-3.

Table 5-3: Households with access to different types of extension messages

Extension messages	Yes	No
Certified seeds	71	29
Recommended husbandry practices	78	22
Crop diversification	81	19
Farm business management	68	32
Savings and investment	57	43
Group dynamics	76	24
Post-harvest handling	59	41
Value addition	79	21
Business planning	56	44
Gross margin analysis	56	44
Market research	56	44

Source: Author’s survey data (2020)

The majority access extension messages on crop diversification, recommended husbandry practices and post-harvest handling. A good number access messages on farm business management, group dynamics, and value addition. Few access messages on business planning, gross margin analysis and market research. The findings agree with what others (Berhanu and Tegene, 2006; Gebremedhin et al., 2012) have argued that extension messages continue to be mostly oriented towards increasing production and less on promoting marketing. In Malawi, this is likely to be the case because first, production levels are low to meet both domestic and international demand (GoM, 2018; Chinsinga et al., 2021). The second reason is that the extension system itself has not fully adapted to the changing needs of farmers and responded to the growing demands to commercialise agriculture (Chipeta et al., 2008; FAO, 2007; Gebremedhin et al., 2015; Gebremedhin et al., 2012; Khan, 2011; Lemma et al., 2014). The third reason is that extension activities respond to the national priorities which are, at the moment, mostly geared towards increasing production especially of food crops, to ensure food self-sufficiency (GoM, 2016b).

5.4.3. How useful are the services?

Study participants were asked to rate the usefulness of extension services they receive as shown in Table 5-4.

Table 5-4: Usefulness of extension messages

Messages	Very useful	Useful	Neutral	Useless	Very useless
Certified seeds	56	14	0	0	0
Recommended husbandry practices	58	19	0	0	0
Crop diversification	58	21	1	0	0
Farm business management	54	19	1	1	0
Savings and investment	42	12	1	1	0
Group dynamics	54	18	3	1	0
Post-harvest handling	47	10	0	1	0
Value addition	56	19	1	1	0
Business planning	43	12	2	0	0
Gross margin analysis	42	14	1	0	0
Market research	44	12	0	0	0

Source: Author's survey data

The majority (on average 60%) rated the different extension messages useful which is consistent with, Ragasa and Niu (2017) because most farmers still view extension services as being key to their farming activities and for most farmers, especially those in rural areas, agricultural extension is their main source of information, be it agricultural or other general information. Qualitative findings show farmers' dissatisfaction with the current state of services arguing that transferring information is not enough if farmers do not have access to affordable agricultural inputs and if they do not have access to lucrative markets for their produce.

“In the past the government would ensure availability of cheaper inputs. So, with the availability of inputs and extension workers advice, the farmer was able to see the effectiveness of extension services. But now things are different, even if we get the messages, with no inputs it is useless and invalid.” FGD with males in Chinkhowe.

“The advice that extension workers are giving us is helpful. We are able to see changes in our farms and our homes, especially advice on winter cropping.” FGD with males in Chimera village.

This study looked at usefulness of extension services in helping farmers engage in expanded reproduction and accumulation and found that agricultural extension is ineffective in fulfilling these roles. Other studies have looked at effectiveness in matching farmers' needs (Glendinning et al., 2013) but also in enabling adoption of improved technologies or farming practices (Hassan and Poonyth, 2001).

5.4.4. Method and frequency of contact

The majority are contacted through group methods using group meetings, demonstrations, field days, radio listening clubs and farm business schools. Some are contacted through individual methods, such as farm and home visits and through individual contact farmers (lead farmers) who are then expected to disseminate information to other farmers in a group. Others access services through mass media methods (radio programmes). All the providers use farmer-to-farmer extension approaches where extension workers work through lead farmers or contact farmers, who are expected to disseminate the information to other farmers. Farmer-to-farmer approaches have become common and a number of studies have reported the use of farmer-to-farmer approaches, such as Kundhlande et al. (2014b), Khaila et al. (2015) in Malawi; Shrestha

(n.d.) in Nepal; Hellin and Dixon (2008) in Peru; Nakano et al. (2018) and Dhehibi et al. (2020). This study noted that the farmer-to-farmer approach was employed by all providers, although Tsafack et al. (2014) reported that in Cameroon, the approach was only used by farmer-based organisations and not by public and private providers.

It is not surprising that most farmers accessed extension services through the group approach because group methods have recently become popular to ensure both wider coverage and face-to-face contact. This cannot be achieved by individual methods due to an increase in the farmer-to-extension worker ratio but also by mass media, as there is no face-to-face contact. This was also reported by Ali-olubandwa et al. (2011) in Kenya, who found that group extension methods were the most cost-effective and had fewer constraints in a situation where the ratio between extension workers and farmers is high and financial resources are inadequate. In another study by Moussa et al. (2011) in Burkina Faso, group methods (demonstration) were most effective, although they recommended reinforcing demonstrations with radio programmes (mass method) to support the group methods. Another study in Tunisia by Dhehibi et al. (2020) found that farmer training, demonstrations and farmer-to-farmer interactions were perceived to be effective methods for the dissemination of agricultural and livestock technologies.

Consistent with other studies, such as Ragasa and Niu (2017), the frequency of contact with extension service providers among farmers has decreased over time due to a number of reasons. Some of the reasons include: first, extension workers are no longer staying in the villages where farmers can contact them easily. Extension workers have moved out of the villages because of reduced standards of living due to poor housing conditions in the poorly maintained institutional houses and absence of electricity which has become a necessity due to increased use of ICT tools such as mobile phones and computers. Second, staff capacity has reduced due to public sector reforms such as downsizing, which has created the problem of high farmer-to-extension worker ratio (Ponniah et al., 2008; Knorr et al., 2007; Masangano and Mthinda, 2012). Third, there is reduced funding for extension activities resulting in reduced visits to farmers by extension workers. The reduced contact with farmers has resulted in extension workers working with only a few farmers (contact farmers), which result in inequalities between the contact farmers and the rest of the farmers. The focus on contact farmers is based on the assumption that contact farmers will trickle down the information to other farmers, but studies have demonstrated that there is information loss in the communication process, which may result in different outcomes for contact and follower farmers (Nakano et al., 2018).

5.4.5. Experiences and challenges in extension

The agricultural extension system is rocked with challenges that derail the process of service provision. This, in turn, affects the impacts that extension services have. A number of challenges have been highlighted in Chapter 2 and Chapter 4. This section presents experiences and challenges affecting extension service provision and farmer access to extension services from the perspectives of extension workers, lead farmers and farmers. Drawing from qualitative data, the challenges include lack of commitment from farmers due to increase in poverty levels and poor household welfare; lack of motivation among extension workers due to poor conditions of work; lack of commitment by extension management including low financial support; and persistence of sector wide challenges such as high input prices, low produce prices, poor produce markets and low productivity which affects extension work. Some of the challenges are presented below.

a) Reduced interest among farmers in extension work

This results in poor participation in extension activities. Sometimes farmers participate, but there is low adoption and implementation of the technologies and activities. This was also

pointed out by Chimombo (2019) who labelled extension services as an ‘unattractive bride’, citing reasons such as farmers perceiving extension activities as not beneficial as they see their lives not changing for the better. Some reasons are more systemic concerning the extension system as a whole, including reduced funding which affect delivery of services, reducing farmer-extension contact but also unfulfilled promises. This challenge has been mentioned by different authors both generally (Feder et al., 2001; Anderson and Feder, 2003; Ponniah et al., 2008) and in the context of Malawi (Knorr et al., 2007; Masangano and Mthinda, 2012b).

b) Mobility problems among extension workers

Extension workers experience mobility problems that affect effective delivery of extension services, coupled with poor living conditions for extension workers. This challenge was also reported by others (Duffy et al., 2021; Yaseen et al., 2015) who reported unavailability of proper transportation coupled with large operation areas among extension workers. This leads to demotivation, resulting in extension workers spending more time on other activities to sustain their lives as opposed to doing extension work.

“My name is Mr Banda; I am one of the lead farmers here in Kachono under NASFAM. I am responsible for organising farmers in clubs. I am also in charge of ensuring that all members of clubs receive inputs from NASFAM and they pay back the loan. I also offer technical advice on recommended husbandry practices. I also follow up with farmers to find out problems they are facing and help them resolve or I refer them to extension workers. In my work I meet a number of challenges, poor farmer attendance to meetings, lack of transportation to visit all the farmers in the village, lack of equipment such as writing materials, so I end up buying with my own money. I also lack technical expertise due to lack of training yet farmers expect more from me. I remember 3 years ago NASFAM used to send lead farmers for training but they do not do that anymore. This reduces trust among farmers as they look at lead farmers as lacking technical competence. Furthermore, my relationship with farmers sometimes is not good especially when NASFAM fails to fulfil their promise of buying produce from farmers, but also because I am the one involved in enforcing repayment of loans, I am looked at as an enemy,” a lead farmer in Kachono village, 2020.

c) Lack of materials and equipment to perform extension work

Extension workers, especially at lower levels, lack materials such as training materials, protective wear, and equipment such as measuring tools. This not only affects their work but also their reputation among farmers. The challenge is also coupled with inadequate capacity and expertise among extension workers due to lack of training in new and modern techniques. Farming is changing, and ways of farming and techniques are also changing. This entails the need for extension services to adapt to the changing demand in new skills, but extension workers are seldom given training to update their knowledge. This affects their credibility, as some farmers are more advanced than the extension workers (GFRAS, 2012; van den Ban and Samanta, 2006).

d) Lack of support and commitment from supervisors

Often, extension workers receive instructions and in some cases resources such as inputs on programmes, projects, and activities being implemented. When there is lack of support and commitment from supervisors, extension workers fail to meet farmers’ expectations and fulfil promises. This affects the relationship between frontline extension workers and farmers and, in most cases, it leads to mistrust and low participation among farmers. This challenge has also

been recognised in literature, and has been attributed to the lack of visible impacts of extension work on the ground, making it difficult for donors and other development agencies to commit resources (Anderson and Feder, 2003; Feder et al., 2001).

e) Extension work is affected by the challenges in the agricultural sector.

Majority of farmers indicated their lack of utilisation and implementation of extension activities is because of other constraints such as lack of lucrative markets for produce and high prices of agricultural inputs demotivate farmers. This is consistent with Anderson and Feder (2003) arguments that the effectiveness of agricultural extension is largely dependent on complementary policy and institutional actions, which the extension system has little influence on. Other factors, such as access to credit, inputs, seed supplies, price incentives and marketing channels determine the impact of extension work. Often, farmers consider failure on the part of extension if they are unable to help them access good markets and negotiate access agricultural inputs. A trend analysis explored the perceptions of participants regarding the status of agricultural extension services over three decades following different political regimes. The results show that generally, extension services are becoming unsatisfactory. The poor rating was attributed to reduced frequency of visits to farmers by extension workers, but also lack of benefits from farming. Other studies have also reported the reduced contact between extension workers and farmers and argued that most farmers are conducting farming activities without advice from extension workers (Ragasa and Niu, 2017; Mutabazi et al., 2013).

5.5. Impact of Agricultural Extension

This section explores the impact of agricultural extension on production levels, crop diversification, participation in markets, income levels, livelihood outcomes, and especially on market orientation and participation. Extension services play an important role in helping farmers achieve their objectives since they provide the much-needed human capital, which is one of the determinants of farmers' performance (Anderson and Feder, 2003). The impact of agricultural extension has been evaluated differently, and Anderson and Feder argue that it is affected by the format by which services are delivered and the circumstances in which recipients of the services operate (Anderson and Feder, 2003). For instance, when looking at the impact of extension services through production/productivity, it is important to bear in mind that productivity can improve if farmers are equipped with technical knowledge, but it is also subject to farmers' interests and resource availability. It is important to recognise that extension services alone are not enough to improve productivity. Apart from productivity and economic benefits to producers (income) (Deutschmann et al., 2019), the impact of extension is also evaluated based on the adoption of technologies (Birkhaeuser et al., 1991; Makate and Makate, 2019) although this study does not consider the adoption of technologies. Despite the important role of agricultural extension, there is a recognition that there are other structural factors that affect the work of extension, such as market distortions and infrastructural bottlenecks (Anderson and Feder, 2003), which jeopardise the effectiveness of extension services.

5.5.1. Crop production

This sub-section explores the relationship between production levels of different crops and household participation in extension activities, as presented in Table 5-5. The findings suggest that extension participants are more likely to have higher production levels than non-participants, and the significant differences can be observed for maize. Improved crop production or productivity has been attributed to extension services in a number of studies; for instance, Cerdán-Infantes et al. (2008) looked at the impact of extension services on grape yield and quality in Argentina and found positive benefits of extension participation. Other studies

include Dinar et al. (2007), Jin and Huffman (2016), Makate and Makate (2019), Olagunju and Adesiji (2013), Ragasa (2016) and Takahashi et al. (2020).

Table 5-5: Mean production levels by extension participation (kgs)

Mean crop production (kgs)	Extension participation		p values
	Yes	No	
Maize	532	227	0.038**
Groundnuts	231	170	0.422
Tobacco	390	250	0.204

Number of observations (126), T test results show significance at 0.05 for maize

Note: *** p value<0.01, ** p value<0.05, and * p value<0.1

Source: Author's survey data

Other studies have attributed higher productivity among extension participants to increased technical efficiency on the farm as a result of participating in extension. This was also established in Greece by Dinar et al. (2007), who found that farms that had access to both public and private extension services had higher technical efficiency than those with access to only public or private extension services and then those with no access to extension services at all. Ragasa and Mazunda (2018) found in Malawi that those farmers who received extension services that they rated very useful had higher productivity than those who received services that they rated less useful and those who did not receive any extension services at all. In another study, Ragasa et al. (2012) found that extension contact did not result in any productivity differences among farmers. A study by Olagunju and Adesiji (2013) in Nigeria found that non-participants also had better production levels owing to the 'trickle down' effect of extension information.

5.5.2. Crop diversification

A higher crop diversification index was observed among extension participants than non-participants. The high diversification among the extension participants could be that those accessing services gain expertise in diversification and have improved their technical efficiency to diversify. Or, it could be that it is the crop diversification behaviour that pushes households to seek additional technical advice to improve their output and benefits. Crop diversification which refers to an expansion in the number of crops cultivated in a household (Kankwamba, 2018) is beneficial for households in terms of increasing farm household income, improving the conservation of natural resources and food security, and reducing output production shortages (Saenz and Thompson, 2017). Diversification was found to vary across different groups, for example male-headed households have a better crop diversification index than female-headed households. Rich households have a better diversification index compared to the better-off, poor and poorest. 'Stepping up' households have a better crop diversification index compared to those 'hanging in', those 'stepping out' and those 'dropping out'. These differences can be because of the ability among rich, male-headed and 'stepping up' households to afford the necessary means of production to spread their resources across a number of crops unlike among the poorest and those dropping out. These findings are consistent with what Hitayezu et al. (2016) found, being that crop diversification is a problem among those who are constrained in terms of land and labour which is true among the poorer, female-headed households and 'dropping out' households. However, it also consistent with

Pellegrini and Tasciotti (2014) who argue that those involved in crop diversification have access to land which is the case among the rich households. ‘Stepping out’ households have a low crop diversification index because they are diversifying their livelihood activities, spreading their efforts to off-farm activities other than farming.

“The rich grow any crops they want, including tobacco in large quantities. This is possible because they hire labour, they can have 3-5 permanent workers because they can afford to pay them and give them food. The poor grow maize and groundnuts usually intercropped with maize. They use family labour and sometimes themselves sell their labour. The poorest usually only grow maize. They do not use fertiliser and they use their own labour which they also sell hence dividing their time between their farm and other people’s farms,” FGD with males in Kachono, 2020.

5.5.3. Household income and expenditure

Income level is one of the indicators of well-being (APRA, 2018). The study analysed the impact of agricultural extension on people’s incomes. The average income from crop sales among extension participants is significantly higher than that of non-participants. This study argues that those who participate in extension activities are likely to have high incomes. The findings are in agreement with Loki et al. (2021), who assessed the implication of access to extension on production and income in Eastern Cape in South Africa, found that those who had access to extension services had more income than those who did not. Relatedly, Nordin and Höjgård (2017) in Sweden found that there were positive net benefits from extension services on farm finances. The total average income is not very different between participants and non-participants, suggesting that it is not necessarily participation in extension activities that results in increased income levels but also the contribution of non-farm income to household income. Participants derive more income from crop sales than non-participants, but non-participants have significantly higher incomes from business than participants, which could suggest that they invest their time and resources in more off-farm activities than farming activities. Extension participants have a relatively higher annual expenditure (MK389,959 or \$476) compared to non-participants (MK271,529 or \$331) because of the high level of income which is not necessarily because of participation in extension activities.

A number of studies have looked at the impact of extension from the point of economic benefits to producers or by estimating the rate of return to investment (Anderson and Feder, 2003); or on household income (Cawley et al., 2018; Wossen et al., 2017). Dercon et al. (2018) looked at the impact of agricultural extension services on consumption growth and poverty in Ethiopia and found that receiving at least one extension visit reduced head count poverty by 9.8% and increased consumption growth by 7.1%, although the study does not spell out how it controlled for other factors that could have had an impact on poverty and consumption growth. In another study, Cawley et al., 2018) found that participation in extension services significantly increased farm income among farmers. Other studies that have looked at the relationship between access to extension services and income include (Hamilton and Hudson, 2017; Machila et al., 2015b; Nkonya et al., 2007). This study focused on the impact of agricultural extension on household income levels and expenditure.

Table 5-6: Mean household income by extension participation MK (\$)

Extension participation	Income from crop sales	Total annual household income	Income from livestock	Income from business	Income from <i>ganyu</i>
Yes	194,163 (237)	443,221 (541)	45,288 (55)	331,860(405)	49,544(60)
No	63,014 (77)	443,033 (540)	43,182 (52)	581,143(709)	41,039(50)
p values	0.084*	0.862	0.919	0.088*	0,686

Source: Author's survey data (2020)

5.5.4. Food and nutrition security

This study explored the relationship between access to extension services and food security situation based on the assumption that access to extension services results in improvement in productivity and incomes consequently improving both physical and economic access to food. Extension participants are more likely to keep more food from their own production and significant differences exist in food consumption scores and household dietary diversity scores between participants and non-participants. The results suggest a positive relationship between extension participation and food security which is in agreement with what was reported by Ragasa and Mazunda (2018). However, this study argues that it is likely that those with better food security are the ones who participate in extension activities because of the limited impact that extension has, but also those with poor food security spend much of their time working to bring food to the table, therefore being unable to split their time to extension activities instead of activities for their own simple reproduction. Besides, participation in extension requires resources apart from time, such as membership fees which they cannot afford as it would spread their already thin resources. Other studies have also looked at the impact of extension access on food security, such as Ragasa and Mazunda (2018) in Malawi and Wesley and Faminow (2014) and Pan et al. (2018) in Uganda.

Table 5-7: Food security situation and extension participation

Variable	Yes	No	p values
Mean produce kept for food (kgs)	451.68	290	0.012***
Mean number of months food lasts	6.7	6.2	0.521
Mean food consumption score	39.95	32.97	0.039**
Mean dietary diversity score	5.7	4.5	0.007***

Source: Author's survey data

5.5.5. Market participation

One of the roles of agricultural extension is to link farmers to markets (Gebremedhin et al., 2012). As farmers are becoming more business-minded, extension service providers need to adapt to match the needs and demand of farmers (van den Ban and Samanta, 2006). This study analysed market participation from both input and output sides and interrogated its correlation

with extension participation. the findings show that both extension participants and non-participants are actively involved in output markets, although a relatively higher percentage was observed among participants. This study argues that market participation is triggered by both accumulation and distress selling and not necessarily because of access to extension services, although output market participation among extension participants could be as a result of linkages to markets created by participating in extension services (Kaaria et al., 2004). On average, participants spent significantly higher MK69,263.18 (\$85) on inputs, compared to non-participants MK39,000.00 (\$48). Machila et al. (2015b) found that in Zimbabwe access to extension services increases expenditure on inputs, although higher expenditure on inputs among extension participants could be because of high income but also the need for inputs to invest in farming and not necessarily access to extension services.

Table 5-8: Input and output market participation by extension participation (%)

Extension participation	Output market participation		Input market participation	
	Yes	No	Yes	No
Yes	95	5	85	15
No	93	7	93	7

Source: Survey data (2020)

5.5.6. Commercial farming

Differing views are observed on the impact of agricultural extension. Majority indicating that extension services are not enough if they are unable to access means of production and better markets. There is no relationship between extension access and degree of commercialisation because even extension non-participants have a higher HCI and vice versa. There is a group comprising those with a higher HCI but doing so profitably, leading to expanded reproduction and accumulation. The other group comprises those engaged in market-based farming for simple reproduction. This also points to the problem with the HCI index as others have argued that it does not give a true picture because it does not show these differences (Poulton, 2017). These two case studies illustrate the lack of relationship between agricultural extension and degree of commercialisation.

Mr. Phiri is from Chimera village and is married to Rhoda. He is 40 years old and his wife is 32 years old. They both do not have any formal education. They have a household size of 6 members. He and his wife are not participating in any extension activities but are involved in farming. They grow maize, soybean and tobacco. They own 2 acres of land. During the 2019-2020 growing season they harvested 20 kgs of maize which they kept for food, they produced 100 kgs soyabean of which they sold all, and 100 kgs of tobacco of which they also sold all. They realised a total of MK72,000 (\$88) out of a potential MK108,000 (\$132), with an HCI of 67%. They participate in input markets as they buy seeds and fertiliser. They use hired labour in maize, family labour in soyabean and a combination of family and hired labour in tobacco. They sell their soybean to vendors but sell their tobacco to private companies. They sold soybeans in April which is immediately after harvesting so as to provide for household needs. Tobacco on the other hand, was sold in August because it is the designated time for selling tobacco at auction floors. Apart from income from crops, they derive their income from business and also *ganyu*. They realised MK540,000 or \$659 from businesses, but also MK30,000 or \$37 from *ganyu*. Their total household income is MK670,000 or \$817 and their total annual expenditure is MK415,400 or

\$597. They own hoes and simple irrigation equipment. Their produced food last up to 5 months and they supplement that by buying food. They have an FCS of 25 which is on the borderline, and a dietary diversity of 3 out of maximum of 10. Their household was categorised as poor and they are ‘stepping out’.

Mr. Chirwa is also from Chimera village. He is married. They have a household size of 4 members. He is 43 years old. He and his wife both attained primary education. They have 2 acres of land and they rent in additional 2 acres of land. They only grow maize and keep livestock (pigs). During the 2019-2020 growing season they harvested 350kgs of maize and they kept all of it for food, hence their 0% HCI. They do participate in input market although they used recycled maize seed but they bought fertiliser. They use family labour. Their other source of income is *ganyu* where they realised MK64,000 or \$78. They own hoes, an axe, simple irrigation equipment and a bicycle. They participate in extension services mostly from government extension workers and they have access to all the extension messages along the value chains and they rated these messages very useful. Their food lasted for 8 months; their FCS was 39.5 which is good. They had access to credit from friends and it was meant to buy food. Their household was categorised as poor and they are ‘hanging in’.

The above case studies illustrate the argument that despite agricultural extension being important its contribution to commercialisation is limited because there are other factors determining commercialisation. Despite Mr. Phiri not accessing extension services, they sold their produce, used hired labour, and purchased inputs, although they derive most of their income from off-farm income sources which is why their household is seen to be stepping out, as they are able to use income from off-farm sources to invest in their farming and supplement their food production to maintain their simple reproduction. The case of Mr. Chirwa shows that despite highly participating in extension activities, they did not sell any crops, used family labour and also sold their labour to supplement their household income. However, they were seen to be renting in additional land and bought some inputs which shows some level of commercial orientation. Box 5-1 presents some of the sentiments from study participants on the role of agricultural extension in commercial farming.

Box 5-1: The role of agricultural extension services

“Things could have been different if extension workers were helping us more, things can change for the better.” FGD with men in Kachono, March 2020

“Extension services help farmers to find market for their produce by linking them to potential buyers, although this is not really happening and most of the times buyers do not come, or they come very late.” FGD with women in Kachono, March 2020.

“Those that do not join groups they do not access extension services, so they usually follow traditional ways of farming, which is why their farming does not improve.” FGD with women in Kachono, March 2020.

“My only wish is that extension workers should resume their work because their presence means that we will get helpful agricultural advice such as on making manure since fertiliser is becoming expensive. We also wish that extension workers should visit us frequently, help us find good markets for our produce, and help us access cheap inputs. In fact, the little advice that we get from extension workers is not helping us commercialise” FGD with women in Chimera, March 2020.

“These extension workers do not help us at all in finding agricultural inputs because farmers buy on their own, and they look for the input markets themselves hence they end up buying expensive fertiliser and fake seed. In addition, after getting the money from

sales, they do not know how to spend wisely to invest it back into farming because they lack advice.” FGD with women in Chimera, March 2020.

“Extension workers should be helping us to find markets for our produce apart from just advising us on what to grow and what methods to use.” FGD with men in Chimera, March 2020.

“Farmers are failing to advance in their farming because of lack of farm input which renders extension advice useless.” FGD with men and women in Chinkhowe, March 2020.

Despite the envisioned role of agricultural extension, the sentiments above indicate that agricultural extension is adequately assisting farmers to engage in market-based farming. The lack of relationship between extension access and levels of commercialisation can be attributed to a number of factors, first, extension impact depends on complementary policy and institutional environment; difficulty in tracing the impact of extension is partly due to other factors affecting the agricultural sector, which have a much larger impact; challenges affecting extension and agricultural sector; low funding due to weak political commitment and support compounded by the difficulty in tracing the impact of extension; and low interaction between extension workers and farmers due to poor motivation as a result of poor working conditions and remuneration, low funding and high staff-to-farmer ratio (Anderson and Feder, 2003). The HCI index itself only measures the proportion of produce sold, which could be misleading in a situation where households have a high HCI just because they sold all their produce and remain food insecure, as was also observed by others (Gebreselassie and Sharp, 2008; Jaleta et al., 2009; Poulton, 2017).

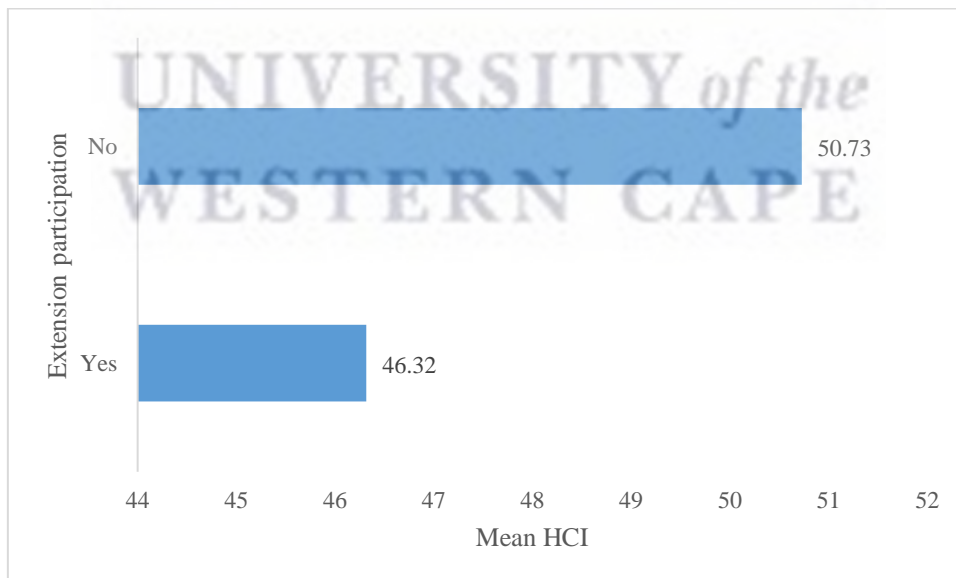


Figure 5-5: Commercialisation and extension participation

Source: Author’s survey data

Other studies have found extension contact positively impacting market participation decisions among smallholders (Andaregie et al., 2021; Ayele et al., 2021; Muricho, 2015). This study makes several arguments regarding the role of agricultural extension in commercial farming.

First, it depends on how extension is perceived because there are other factors that are also elements of extension services, such as access to credits, access to market information, and farmer group membership, which have been found to be positively correlated with agricultural commercialisation. Most of these are not the initiatives of extension workers, for instance, the majority access market information from friends other than from extension workers, and most farmers access credits from relatives. Second, agricultural extension is not enough to enable market-based agriculture because there are other structural and institutional challenges that affect commercialisation, such as poor access to inputs and markets for produce. There is a limit to what agricultural extension can do, and most of its work is to help the process but cannot determine or guarantee the outcome, for example, to provide knowledge and skills, but it depends on farmers' resources to adopt and implement technologies for improvements to be made. Another example is that agricultural extension can assist in recommending the right inputs and where to find them but cannot guarantee access and availability. Extension workers can link farmers to markets but cannot guarantee prices or the produce being bought. Most of these other tasks are not within the mandate of extension services, which was also the argument by Anderson and Feder (2003). The third argument concerns methodological limitations in measuring the role of extension services since participation is on different levels, but also looking at extension as just participation in extension activities is limiting since there are a number of aspects of extension services which have been found to be positively promoting agricultural commercialisation. Lastly, the methodological limitation of measuring HCI itself may be misleading as it does not separate those involved in expanded reproduction or simple reproduction.

5.6. Chapter Summary

The chapter examines the contribution of agricultural extension in market-based agriculture. The chapter addresses the research question: *Is agricultural extension contributing to agricultural commercialisation?* Agricultural extension's contribution to commercial farming is minimal as low commercialisation levels are observed among extension participants and high commercialisation levels are also observed among non-participants. This is because of a number of reasons, firstly, the decision and the capacity to commercialise is affected by other factors which agricultural extension has no control over (Anderson and Feder, 2003). Secondly, there is a limit to what extension services can do such that provision of knowledge and skills may not be enough to enable commercialisation (Anderson and Feder, 2003). Thirdly, the measure used to determine commercialisation levels does not take into account the scale of operation in terms of volumes of produce. It accords high levels of commercialisation even among those who produce little and sell all of it due to distress (Poulton, 2017; Gebreselassie and Sharp, 2008). Fourthly, there are limitations in measuring extension participation.

The decision to participate in extension activities comes as a result of engagement in commercialisation which explains high levels of extension participation among those with high production output, the food secure, richer households and those who are 'stepping up'. This could be because those who are engaged in expanded reproduction, see the reason to participate in extension activities so that they can improve their efficiency to maintain and improve their farming activities. Those who are only engaged in output markets for simple reproduction, either do not see the benefits of participating in extension activities or they prefer to use their time towards other livelihood activities, which is in line with adult learning principles of farmers being goal-oriented and being able to participate only when they see the need for it (Knowles, 1980).

Different extension service providers were identified in the study sites with different focuses and approaches, from a single crop approach to a whole farm approach and to the one

promoting a specific practice, which is ‘farming as a business’, because of the pluralistic nature of extension services (Chowa et al., 2013; Davidson, 2007; Faure et al., 2016; Gemo et al., 2013; Kelly, 2013; Klerkx, 2020; Knierim et al., 2017; Masangano et al., 2017; Nettle et al., 2017). Despite those under the single crop approach having an average higher HCI, the commercialisation level is because of the crop grown (tobacco) and not necessarily because of access to extension services. This shows the minimal impact that agricultural extension has on market participation. Majority access production-oriented services such as recommended husbandry practices than activities on marketing or other activities of the value chain, which is in agreement with what others observed such as Gebremedhin et al. (2015) and Gebremedhin et al. (2012). What this means for market-based farming is that these services are not helping farmers to improve marketing skills.

Despite pluralism (availability of a number of service providers), the government is still the main provider of extension services (Jensen, et al., 2018; Ragasa and Mazunda, 2018; Anderson and Feder, 2003). One of the main reasons for this is that most of other providers of extension services implement approaches that are limited in coverage and time, often taking a project approach, unlike the government. What this means for commercialisation is that farming households still have to depend on extension services from the government which as argued by others are faced with countless challenges (Masangano and Mthinda, 2012; Phiri et al., 2012)

Differences exist in access to extension services among the different class and gender categories (Mudege et al., 2016, 2017; Witinok-Huber et al., 2021; Ragasa et al., 2012, 2019; Umeta et al., 2011). Rich households tend to be more involved in extension activities, and their active involvement is driven by the need to continue expanding and accumulating, consistent with what Jensen et al. (2019) observed in Tanzania. The poorest households are less involved because they do not see the benefits of participating in extension services and also because of time constraints. What this means for commercial farming is that it is the richer households that are more likely to take advantage of extension services and improve. Also, however, because they are progressive, they are likely to be targeted by extension service providers which puts them at even more advantaged position than poorer households.

Arguing from a feminist political economy perspective, male-headed households and men are more likely to participate in extension activities than women because mostly men are designated heads of households and hence, they are targeted while women are confined to their triple roles limiting their time for extension activities as also observed by Mudege et al. (2017). Men are the ones who make decisions including granting permission to women to participate in different activities including extension activities (Ragasa et al., 2019). In female-headed households, women who are the heads are less involved in extension activities because most of them are less actively involved in farming due to the inability to access inputs and command enough labour, but also due to time constraints. Again, the implications for commercial farming are that men and male-headed households are more likely to take advantage of their participation in extension services to improve their farming and commercialise more.

The chapter set out to examine the contribution of extension services to commercialisation in Malawi using the case of three villages in Lilongwe Districts. In particular, the chapter explores the providers of extension services, approaches used and messages, who has access to the extension services and the impact on market participation. The next chapter analyses impact of agricultural commercialisation on livelihoods by analysing the levels and drivers of agricultural commercialisation, but also the impact on specific livelihood outcomes such as food and nutrition security, income and expenditure, asset accumulation and women empowerment.



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Chapter 6: The Impact of Commercialisation on Livelihoods

6.1. Introduction

This chapter examines the impact of market-based agriculture on livelihoods, focusing on selected livelihood indicators namely, income and expenditure, asset accumulation, food security, women's empowerment, and livelihood trajectories. These are interrogated across class and gender categories. The chapter answers the second research question: *How is agricultural commercialisation impacting on livelihoods and households' welfare?* Commercialisation has both positive and negative impacts on livelihoods of different households. For those accumulating, it is positively impacting on their incomes, crop and livelihood diversification, and dietary diversity. For those who are involved in distress selling, it has negative impacts on food availability, resulting in the sale of not only produce but also their land and labour. The push towards commercialisation is based on the agricultural development model, in line with modernisation paradigms but also agricultural growth for poverty reduction in line with developmentalist paradigms. The commercialisation agenda is driven from a capitalism stance involving commodification of land and labour, expropriation of land and other common resources, land dispossession, increased mechanisation and specialisation, which others (Leavy and Poulton, 2007; Kem, 2017) argue is mostly to the benefit of some (large-scale farmers) at the expense of other (small-scale peasantry). This study also argues that market-based farming has less benefits and more challenges for the poorest farmers but benefits richer farmers, and deepens inequalities between richer and poorer, and men and women. The negative impacts of commercialisation were also reported by others that commercial farming increases land commodification and accumulation among a few, shifting labour relations, destruction of common resources such as forests, and increased inequalities in access to means of production (Cazzuffi et al., 2020; Kem, 2017; Kilimani et al., 2020; Matenga and Hichaambwa, 2017).

The average Household Commercialisation Index (HCI) of 47% was observed which means the majority keep more than half of the produce for home consumption. This is attributed to two main factors, first, on the production side, there is poor access to means of production as prices of inputs are always skyrocketing, with low land-holding sizes affecting production mainly because of low technology use among farmers (Chinsinga et al., 2021; Nankhumwa, 2019). Second, on the marketing side, there are problems of poor markets for produce, including unstructured markets and poorly regulated prices which demotivate farmers, and other marketing failures (Chinsinga et al., 2021).

Positive impacts are observed on household income and consumption expenditures because households that engage in output markets manage to improve their economic access to food. Positive impacts are observed on dietary diversity among those engaged in distress commercialisation but also those engaged in expanded reproduction (Carletto et al., 2017; Hendriks and Msaki, 2010). Negative effects are observed on food availability, evidenced through food consumption scores and number of months households have food from their own production. The majority of the households are engaged in distress selling; hence they sell most of their produced food and end up buying food (Anderman et al., 2014; Jayne et al., 2008). There is no correlation between the degree of commercialisation and asset accumulation because the majority of the households are only engaged in markets for survival and not for expanded reproduction and accumulation, which suggest that asset accumulation is actually a driver and not an outcome of market-based farming (Hagos et al., 2019).

A negative relationship between agricultural commercialisation and women empowerment is observed among the highly commercialised, suggesting that gender inequalities disadvantaging

women become more prominent as households engage more in output markets consistent with what others (Mgalamadzi et al., 2021) have reported. Male-headed households are more likely to commercialise than female-headed households due to poor access to means of production among female-headed households, including labour, land and capital which is in agreement with other authors (Andersson Djurfeldt, 2017; Andersson Djurfeldt et al., 2018; Meinzen-dick et al., 2014).

Rich and better-off households are more likely to engage in expanded reproduction because of better access to means of production including land (rent in additional land), labour (employ hired labour in combination with family labour), and capital through accumulation or off-farm sources (businesses) (Lenin, 2009). Those who rent in land have significantly higher commercialisation levels suggesting that commercial orientation, drives them to consolidate land (Hakizimana et al., 2017; Hall et al., 2017; Kem, 2017; Matenga and Hichaambwa, 2017). Higher commercialisation levels are observed among those who use a combination of family and hired labour. This points to the fact that most households are commercialising for survival and only a few are doing so for expanded reproduction.

The main barriers to commercialisation include: lack of capitalisation of land as land sizes are relatively small (on average 0.8 ha) (Chirwa, 2006); lack of means of production; food insecurity (Chirwa and Matita, 2014); precarity of labour; and poor markets (Boka, 2017; Kilimani et al., 2020; von Loeper et al., 2016; Wiggins et al., 2011b). With the growing emphasis on the need to shift from subsistence farming to commercial farming, the expectation is that more households would be highly commercialised not just for survival, but also for expanded reproduction, which is not the case. As argued by Chinsinga et al. (2021), commercialisation has not really taken off in Malawi and as the process is taking place, the poor (who are in the majority) are losing because of land commodification, capital accumulation, and labour exploitation by the rich (who are in the minority).

Market participation is driven by access to means of production, thus it is those who have access to capital, land and labour that are able to expand their production and accumulate; access to off-farm income especially among better-off farmers that derive most of their income from off-farm sources which is used to finance their farming (Anseeuw et al., 2016). Other drivers include collective action which facilitates access to means of production (inputs) and markets (through aggregation) but also other support services such as credit and warehousing. Despite extension services not impacting on commercial orientation, farmers expressed its inevitability if one is to commercialise. This is why it is mainly those who are already commercialising who are compelled to participate in agricultural extension.

The chapter has five sections. The first section presents the levels of commercialisation through a Household Commercialisation Index (HCI) and examines the use of hired labour, land renting behaviour, and input purchasing among farmers. The second section examines drivers of agricultural commercialisation by exploring relationships between level of commercialisation and a number of factors including extension access. The third section presents the livelihood outcomes of market participation across class typologies, and gender. The fourth section concludes the chapter by bringing out the relationships that exist between agricultural extension, commercialisation and livelihoods in conversation with literature and highlighting the main arguments in the chapter.

6.2. Degree of Crop Commercialisation

The overall mean HCI is 47%, which is below 50%, suggesting semi-commercialisation among smallholder farmers in the area. Although we observe that majority of households that are engaged in output markets do so under distress to provide for other households needs and not

for accumulation. A number of factors could cause these levels of agricultural commercialisation including: low production levels as Nankhumwa (2019) and Chinsinga et al. (2021) have argued. Low and distress driven commercialisation is exacerbated by poor access to agricultural inputs among the majority of smallholder farmers but also small land sizes which makes production less economically profitable. There are also bottlenecks with markets as farmers sell their produce at poor prices and poor contract arrangements which demotivate smallholder farmers. The mean HCI across villages are below 50%, with the exception of Chimera village, where the mean HCI was slightly above 50%. This is not surprising, as most sampled households in Chimera grow tobacco, which almost all of it is sold. Again, most households in Kachono grow groundnuts and soya, most of which are sold; and most households in Chinkhowe grow and sell maize, most of which is kept for food. It is not surprising to see that farmers are even engaging in commercialisation of traditional food crops such as maize which was also observed by Sharma and Singh (2008) that it is not the crop itself but the objective of growing it that places it in the group of commercial crops, in other ways market orientation (Gebremedhin and Jaleta, 2010).

Market-based agriculture is considered a common way for a farmer to diversify their livelihood strategies. As Cazzuffi et al. (2020) note, market participation is expected to improve household welfare and improvements in health and nutrition, this depends on market systems and resource endowments at the household level. Despite this romanticised perspective about commercial farming which is driven by modernisation paradigm, developmentalist and capitalist views, some studies have found that increased participation in the market among smallholder farmers renders some of them vulnerable to other factors, such as market failures or price fluctuations. For example, Gouret et al. (2009) found in Cambodia that as households engage in commercial crops, they shift their labour away from subsistence crops, and there is less diversification of agricultural strategies. The dependence on cash cropping also lead to intensification of debt and landlessness, which negatively impact on people's welfare. Contradicting results were reported by Gibreel (2002) in Sudan, where cash crop production had a positive impact on food crop production owing to households allocating more resources to food crops after earning income from cash crops. Others have noted that commercialisation leads to the dispossession of land from food crops to cash crops but also the accumulation of the few elites who are able to rent in more land to expand production, leading to land commodification (Hall et al., 2017; Matenga and Hichaambwa, 2017).

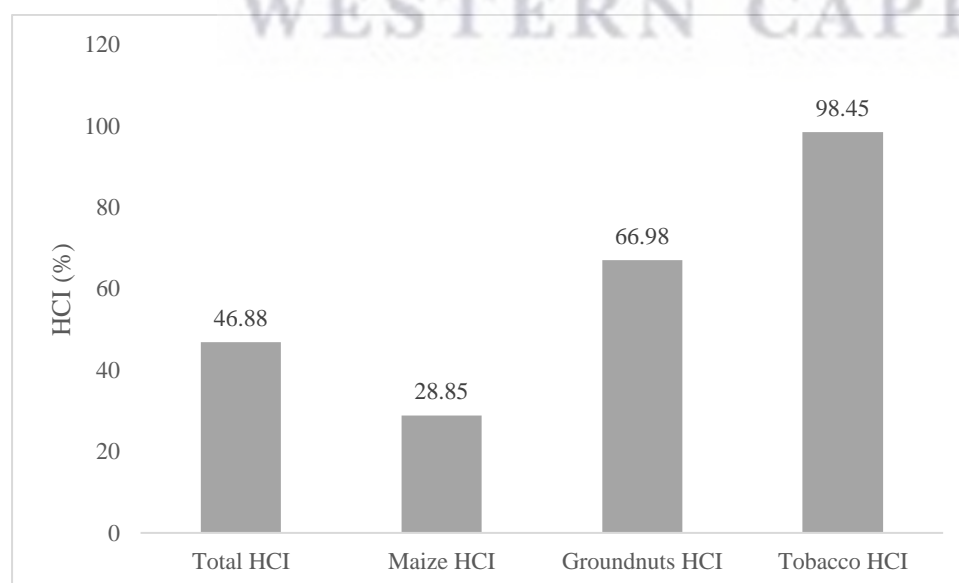


Figure 6-1: Mean household commercialisation index

Number of observations (126)

Source: Author's survey data

6.2.1. Who is commercialising and why?

HCI levels are high among male-headed households, rich households, those 'stepping up', those renting in land, those who grow tobacco, those highly diversified and those employing a combination of family and hired labour.

Table 6-1: Mean HCIs by gender category %

Mean	MHH	FHH	p-values
Total	50	28	0.001***
Maize	27	57	0.112*
Groundnuts	67	60	0.495
Tobacco	98	100	0.880

Number of observations (126), Note: T-test results show significance for total HCI at 0.01 and for maize HCI at 0.1

Source: Author's survey data (2020)

Significantly higher HCI levels are observed among male-headed households (MHH) than female-headed households (FHH). The difference can be attributed to differences in access to means of production as male-headed households have the ability to access more land through ownership and rental markets (Wiggins et al., 2011a). Land access is even more problematic among female-headed households who despite being the heads, have their land controlled by males in their family clan and are also likely to lose land after the death of their husbands through property grabbing (Doss et al., 2014). There is also availability of male labour in male-headed households. Female heads also struggle to access agricultural inputs due to high prices but also lack of diverse and profitable economic activities among women. Mobility challenges that are also dictated by cultural norms affects women's participation in output markets. These problems in access to means of production result in low levels of production and low surplus for sale (Kilimani et al., 2020; Kirui and Njiraini, 2013). The disadvantaged position that female-headed households have has been reported by others, for instance poor access to productive resources (Andersson Djurfeldt et al., 2018; Meinzen-dick et al., 2014); the low capacity to command labour to produce enough for sale (Mgalamadzi et al., 2021). Poulton (2017) also agrees that men are more likely to commercialise than women, and acknowledges the role of social and cultural norms. Within male-headed households, it is mainly men who interact with both input and output markets. There could be other reasons explaining low commercialisation levels among female-headed households; for instance, a recent study by Chawala et al. (2022) established that attitudes, subjective norms and perceived behavioural control positively affect the intent to commercialise and are gender differentiated such that they impact women more than men. The findings here contradict what Dube and Guveya (2016) found in Zimbabwe that the household commercialisation indices were similar among male- and female-heads of households.

Richer households have significantly higher mean HCI than poorer households. This is also attributed to their ability to harvest enough as they have better access to inputs including land and labour but also better management of their crops and are likely to grow crops such as tobacco, which is mainly for sale. Poorer households face the challenge of low capital to invest in farming but also inability to command enough labour, which is also compounded by their inability to access agricultural inputs. Poorer households are often found in a dilemma and are forced to sell their labour power in exchange for food and agricultural inputs or other household necessities. By the time they return to their farms, it is either late, making them unable to catch up with the timing of crucial activities within the cropping calendar, or they are tired from working on other people's farms. All this affects production and consequently sales, and unfortunately this situation repeats itself, leaving them trapped in this vicious cycle. Poole (2017) argues that it is difficult to find pure subsistence, as households require cash for various household expenditures. If commercialisation is looked at from the input side, even the poorest households engage in markets to access inputs. Poor households that engage in selling their produce often do so under distress because they buy food again when they run out (Jayne et al., 2008). This group participates in markets for simple reproduction. This is also one of the critiques of the HCI that the index does not give a true picture of well-being. To supplement the arguments the study looked at land renting behaviour and labour usage.

Households that are 'stepping up' have a higher average HCI (65%), and those 'dropping out' have the worst HCI (16%) which was expected. 'Stepping up' households engage in accumulation and expanded reproduction, while the 'dropping out' households are those being squeezed out of farming because of lack of means of production hence they rely on other sources of income mainly selling labour and remittances (Dorward, 2009; Dorward et al., 2009; Mushongah, 2009). However, it was striking to find that those 'hanging in' had a slightly better HCI compared to those 'stepping out' because those 'stepping out' rely more on income from off-farm sources (Dorward et al., 2009; Matita et al., 2021).

Higher crop diversification is associated with higher levels of commercialisation. Wiggins et al. (2014) reported a trend in which households that were commercialising were likely to diversify than to specialise, as they only added cash crops to their farming systems other than displacing food crops for commercial crops. Although Leavy and Poulton (2007) argue that diversification is possible at early stages of commercialisation, which is the case among study participants, as at this stage, diversification may help to spread risks of market imperfections but also it means that those who are growing cash crops are moving away from food crops. Similar trends are observed as most households grow commercial crops alongside food crops either on the same land (dividing or intercropping) or rent in additional land. On the one hand, market participation helps them diversify, as they are able to purchase inputs with income from crop sales, on the other hand, diversification is a way of managing risks such as crop failure or price variability (Poole 2017). The relationship between crop diversification and commercialisation works both ways. Market-based farming is one of the factors that drive crop diversification, as farmers diversify into a crop that is becoming more marketable and as households grow a diversity of crops, some are mainly for sale (Alobo Loison (2015).

The relationship between land renting and levels of commercialisation is analysed and results are presented in Figure 6-2.

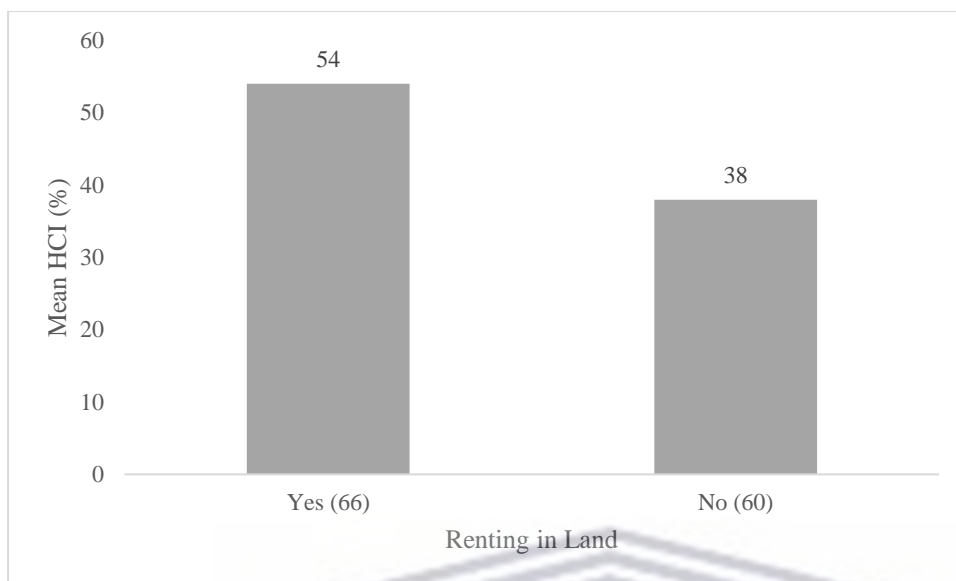


Figure 6-2: Land renting in and commercialisation

Number of observations (126), Note: T test results are significant at 0.01 with p value of 0.001

Source: Author's survey data

Those who are renting in additional land have significantly higher levels of commercialisation than those who are not renting in land. Land renting has increasingly become one of the options to access land due to small land-holding sizes. Those who are commercial-oriented are renting in additional land to expand their production activities and are using income from both farm and off-farm sources. In this case expanded reproduction leads to land consolidation by a few and land dispossession from land owners (Hall et al., 2017). It also leads to land commodification as the value increases due to an increase in demand. Hakizimana et al. (2017) also reported an increase in the incidence of land consolidation arising from the increase in the number of commercial coffee farmers in Kenya, and in Zambia, Matenga and Hichaambwa (2017) reported that commercialisation resulted in accumulation by a few households, leading to land scarcity and affecting the livelihoods of others in the process. Similar results were reported by Kem (2017) in Cambodia.

The majority of households are using a combination of family and hired labour, a few are using family labour only and very few are using hired labour only. This is contrary to what Hall et al. (2017) noted, that commercialisation leads to the monetisation of family labour where family members are paid to work. What was observed was exploitation – both self-exploitation and exploitation by household heads and by richer households. Household members, both men and women are involved in selling their labour power for survival and not necessarily because of division of labour (Prasad, 2016). And contrary to what Chambati (2017) argues, that landlessness is a key characteristic of farm wage labourers, in Malawi a key factor is lack of capital which forces farmers to engage in selling labour. Those using a combination of hired and family labour have a slightly higher HCI, although differences are not statistically significant. Surprisingly, none of the households that grow tobacco are exclusively using hired labour despite tobacco being a highly commercialised crop. This therefore makes it difficult to conclude that higher levels of commercialisation are associated with more usage of hired labour than family labour but also the findings signal the overall levels of commercialisation among study participants which are low and merely for simple reproduction, as most of these are also involved in selling their labour power. A combination of hired and family labour is used in

specific activities for specific crops. Hired labour is used in maize for weeding, fertiliser application and harvesting because these activities need to be done within a specific period of time, failing which, it may have negative impacts on the yields. In groundnuts, hired labour is used in almost all the activities because a few people grow it as such, labour is available, as others have labour time to spare after expending some in their maize fields. In tobacco, hired labour is mainly used during grading and baling because these activities do not coincide with activities in maize farming, unlike the other activities. But also, these activities require some technical expertise which may not be available within the households. Some household members (women and children) are prohibited from doing these activities because of health and child labour concerns.

Levels of commercialisation are higher among those growing tobacco (average 65%) compared to those growing maize (average 45%) and groundnuts (average 45%). Levels of commercialisation are higher among those participating in commodity specialised extension approach (60%) than those participating in business-oriented approach (48%) and government extension approach (34%). High commercialisation levels among those growing tobacco and under commodity specialised approach can be attributed to the nature of the crop in question because it is grown primarily for sale unlike maize and groundnuts.

6.2.2. Obstacles to commercialisation

Commercialisation in Malawi, especially among smallholder farmers, has not really taken off and Chinsinga et al. (2021) explain that this is due to the ‘triple crises’ regarding productivity levels which are low because of problems of access to means of production; small land-holding sizes due to land fragmentation with increase in population, as well as commodification of land; and marketing challenges due to lack of structured markets and regulation of produce prices. Others have identified a number of obstacles to commercialisation including demands for economies of scale to produce for both domestic and international markets; high transaction costs; low prices of produce perpetuated by the imperfect competition by traders which affects producers (Wiggins et al., 2011a). The following obstacles are identified:

Lack of capitalisation of land – Smaller land-holding sizes and lack of enough capital to invest on the land to maximise production is a barrier to engaging in expanded reproduction. Small land sizes in Malawi were also reported by Chirwa and Matita (2015) and Holden and Ghebru (2016). Households engage in land rental markets, but this becomes a problem when they do not have money to rent in land coupled with struggles in accessing agricultural inputs for the small pieces of land they own.

Poor access to means of production – Farmers’ inability to access agricultural inputs is a major challenge which is coupled with the rising prices of agricultural inputs, especially fertiliser, lack of access to subsidised fertilisers, and low soil fertility, which makes it challenging to farm without using artificial fertilisers (Krah et al., 2019; Sakala et al., 2012; Smith et al., 2016). For crops that do not require fertilisers such as groundnuts and soybean, the challenge is to access seeds such that most farmers use recycled seeds, as they prioritise spending money on fertilisers for maize, which is a staple food crop. Janet’s life history (below) illustrates changing livelihood trajectories and challenges in market participation in the face of changing access to means of production.

Ms. Janet was born in Malenga village which was her father’s village. She has 4 siblings – 3 girls including her and 2 boys. Her childhood was good as her parents managed to provide for them. They were also farmers but they grew a wide range of crops because they had enough land and they could afford inputs through government loans and also because inputs were cheap. They could also manage to grow crops without fertiliser because the soils were still fertile, (*nthaka inali isanaguge*: the soil was still fertile).

She did not go to school because her father only allowed boys to go to school and not girls. She got married and moved to stay in Kachono village. They also started farming as a couple and they also grew a number of crops including tobacco. They used to sell most of the crops except for maize which was kept for food. They had 1 ½ acres of land, 1 acre of which her husband inherited from her parents and she was given a ½ acre by her father. They had 5 children, 4 boys and 1 girl and now she has 2 grandchildren. Again, during her early years of marriage, they managed to grow crops without fertilisers and managed to have good harvest but sometimes they managed to purchase inputs as the prices were manageable. Later her husband divorced her and she started experiencing problems as she couldn't manage to grow crops without fertiliser and input prices started becoming difficult to manage. She ended up dropping tobacco and only concentrated on maize for home consumption. In her old age things have got worse and she also has a terminal illness (back pain) which makes it difficult for her to walk let alone work on the farm. She has now given out her land to her children and she depends on her children to give her food.

Janet's story illustrates how a household, over a period of time, moves from being more commercial-oriented and adopting commercial crops due to availability of the land, capital (as inputs were cheap and they could do without sometimes), and labour because of young age and good health, to the point of abandoning commercial farming and also subsistence farming to rely on social networks (children) for survival.

Food insecurity – Malawi has been characterised as a chronic food insecure and one of the poorest countries (Harrigan, 2008). Households struggle to produce enough for food and keep surplus for sale. A number of factors have been identified to contribute to the current food insecurity situation including increase in prices of staple food crop (maize); increase in prices of inputs especially fertiliser; increasing population; poverty levels and lack of disposable income; and reduced land sizes (Kakota et al., 2015). With the food insecurity problem, farmers sell their labour for survival hence they do not have enough labour to expend in their own farms. Food insecurity was reported by Chirwa and Matita (2012) as one of the factors that determine household market participation. There are high levels of distress selling such that even those who harvest little which was meant for food, they sell and end up buying food in the same season (Jayne et al., 2008).

“People do not have enough food in their homes so they struggle that they should find food first through their farming before they sell their produce.” FGD with women in Chimera, March 2020.

“During the Kamuzu era, commercial farming was doing very well because we had food in our homes which was good for our health to enable us work in our farms,” FGD with women in Chimera village, March 2020.

Precarity of labour – Malawi has a long history of supplying labour through migrants to work in other countries, which was either voluntarily, by force or by being compelled to, during pre-colonial and colonial times; but also, within the country to work in estates during colonial times and after independence (Green, 2011; Kandawire, 1977; McCracken, 1982, 1987 2012; Newbury, 2014; Page, 1978; Shepperson, 1970; Vaughan, 1987). *Ganyu* labour is one of the strategies households use to supplement their simple reproduction activities (Canning, n.d.; Michaelowa et al., 2010; Sitienei et al., 2016; Whiteside, 2000). Most households are a labouring class themselves, such that labour power becomes one of the key assets which they use in their own farms but they also sell. Engagement in selling labour for survival affects their own farming activities which consequently affects their production and reproduction.

“People are not doing commercial farming because they are busy working on other people’s fields for income instead of paying attention to their own fields.”
FGD with women in Chinkhowe, March 2020.

Poor markets – access to better markets that offer good prices for both inputs and produce is very important for farming households to commercialise (Kilimani et al., 2020). Studies have reported that most smallholder farmers lack access to markets for them to effectively commercialise (Boka, 2017; von Loeper et al., 2016). Small farms are in a disadvantaged position which arises from market failure and are more likely to be affected by market failure than large farms (Wiggins et al., 2011b). Despite the market environment being harsh for everyone, the majority of farmers who are poor struggle to sell their produce and often sell to undesirable markets at poor prices. The same happens in input markets where the richer (who are few) tend to dominate and are better placed to access inputs than the poor (majority). Lack of structured markets affects smallholder farmers’ access to markets in Malawi.

“We now have nowhere to sell our produce since ADMARC stopped buying produce from us, we now only sell to vendors who offer very low prices,” FGD with women in Chimera village.

6.3. What Drives the Process of Agricultural Commercialisation?

This section explores factors that contribute to or impede the process of agricultural commercialisation drawing from both qualitative and quantitative data. The study identified the following factors that drive processes of commercial agriculture: access to means of production (inputs, land and labour); access to labour; access to extension and advisory services; access to non-farm income; access to support services; infrastructure and collective action. Although it was noted that in most cases, some these factors influence each other, for example lack of access to means of production renders extension services useless. Other studies also identified factors such as physical connection to the market through good road networks; crop yields, distance to market, price information and land. This study identifies access to means of production including land and labour; access to extension services; access to non-farm income; collective action; infrastructure (roads, mobile phones, and warehouses); and access to support services (credit and market information) as important ingredients for farmers to engage in expanded reproduction (Abdullah et al., 2019; Agwu et al., 2013; Andaregie et al., 2021; Asuming-brempong et al., 2013; Ayele et al., 2021; Dube and Guveya, 2016; Hagos et al., 2019; Ingabire et al., 2017; Kabiti et al., 2017; Kgosikoma and Malope, 2016; Kirui and Njiraini, 2013; Muricho, 2015; Tafesse et al., 2020; Tufa et al., 2014; and Zakaria, 2017)

6.3.1. Access to means of production

Access to means of production, in particular agricultural inputs, labour and land is important to improve production and reproduction. However, the majority of the households struggle to access inputs so they engage in selling their labour power in exchange for inputs or money to buy inputs. The land sizes are small due to land fragmentation but also land commodification, which puts those who sell land at a disadvantage but benefits those who consolidate this land. Despite government implementing the Farm Input Subsidy Programme (FISP), the initiative does not benefit most of the poor households who depend on input subsidies due to the increasing prices of inputs (Andersson Djurfeldt et al., 2018). Some poorest farmers opt to sell their fertilizer coupons for survival and fail to access the subsidised inputs. This study argues that the inability to access inputs among majority of smallholder farmers, forces them to sell or rent out their land and sell their labour power which puts them at a disadvantage position to engage in expanded reproduction. A few who manage to access inputs also consolidate land

and hire labour from the poor enabling them engage in expanded reproduction. Farmers had to say the following about access to means of production.

Box 6-1: Access to means of production

“At the end of the day, those who are able to commercialise are those who have access to agricultural inputs and good markets for their produce.” FGD with men in Chimera, March 2020.

“Smallholder farmers are not doing well in commercialising because the inputs are expensive and the sales of their produce are not in their favour.” FGD with men in Chimera, March 2020.

“When you do not have enough inputs, you even wish that the rains delay until you get the inputs because you know that without inputs you cannot benefit anything.” FGD with men and women in Chinkhowe, March 2020.

“The village does not have an agro-dealer making it even more difficult for us to access certified inputs as we have to travel a long distance to get inputs of which some with limited mobility cannot manage.” FGD with men in Kachono, March 2020.

“It is only a few people who are able to get enough harvest, those who can afford to buy fertiliser, many people want to grow tobacco which is the main cash crop but because of the high prices of fertiliser they cannot manage.” FGD with women in Chimera, March 2020

“Currently things are very bad because despite everybody changing their mindsets towards producing for the market, produce prices are very low, people are harvesting little because input prices are very high, they use recycled seeds and they cannot even apply manure as they are sourced from very far and transportation is a problem, moreover, extension workers are not available to advise farmers on commercial farming.” FGD with women in Chimera, March 2020.

“The situation is very bad, we cannot commercialise because we are not harvesting enough due to lack of inputs which are very expensive to afford, the soils are infertile, you can hardly produce anything without fertilisers, and because of unavailability of extension workers.” FGD with women in Chimera, 2020.

“The things that can help us improve our farming and produce for the market include, reduced input prices, fair produce prices and availability of markets for our produce.” FGD with men in Chimera, March 2020.

“It could be helpful if clubs were helping farmers to access fertiliser as it is the most expensive and the most important input for one’s farming.” FGD with men and women in Chinkhowe, March 2020.

“Government policies such as the provision of inputs through FISP helps farmers with their farming, but as of now, they do not help at all because very few people benefit from it and those who benefit are forced to share the fertiliser with others in the village.” KII with lead farmer in Chinkhowe, March 2020.

Using a bivariate regression analysis, the relationship between commercialisation and the amount spent on agricultural inputs was modelled, and it was found that the relationship is significant at the 99% confidence level, suggesting that the more money farmers spend on agricultural inputs, the more they commercialise.

6.3.2. Access to labour

Labour availability at household level is precarious due to a number of factors. Firstly, the majority of households’ members are engaged in selling their labour power, limiting the labour available for their own farming activities. Secondly, most households do not have enough capital to hire additional labour especially during the pick periods. Thirdly, some households,

especially female-headed households or those in old age are unable to command enough labour for their farming activities. The majority of study households struggle to command enough labour which affects their engagement in expanded reproduction, although a few are able to exploit their own labour, their family's labour and poor people's labour. Those who hire labour have significantly higher levels of commercialisation with a mean HCI of (53%) than those who use exclusively family labour (38%).

“The situation for the poor in this village is very pathetic, they spend much of the time and energy in other people's farms. This is the only way they can survive. The better-off depend on family labour but they also hire the poorer to work for them. The rich are the ones who often hire the poorer households and sometimes they employ them as labourers in their farms. It is common these days to find people working in other people's farms which was not the case some three decades ago during Kamuzu era. This is so because of recurring food insecurity situation among many so they depend on selling labour to supplement their farming activities. In fact, some, especially the poorest, sometimes do not farm at all because they lack inputs so their main activity is *ganyu*.” Focus group discussions with women in Kachono village.

“It is those who have enough labour both family and hired that can ably commercialise. For the poorer to access agricultural inputs, they offer their labour power in exchange for inputs (often recycled seeds and sometimes fertiliser). Their labour power is often used to work for the rich in their quest to access inputs and other households' needs. By the time they get back to work in their farms, they find themselves missing crucial times of the season jeopardising their own farming, or they are too tired to work. Whereas for the richer households they have access to abundant labour as the majority of the poorer households lack means of production on top of few opportunities outside farming, hence they are caught up in the vicious cycle.” Focus group discussion with women in Chimera village.

“I was born in Chimera village and my parents were from the same village. Our main livelihood activity was farming and my parents used to grow a variety of crops including maize, groundnuts and tobacco. My parents used to move around in other districts to work in people's farms. I stayed with my uncle and I also helped him with his farming. Later I also started working at Mlare seminary in a banana farm and vegetable garden. I got married in 1979 and I moved out of my uncle's house to start my own household. I travelled to Mozambique to work in tobacco farms there but I got discouraged because I did not make as much money as I expected. In my household we also depended on farming and we produce crops for both food and sale. But the money was not enough so we also relied on *ganyu*. Later with old age, labour availability started becoming a problem so I dropped tobacco farming and now I am only concentrating on growing crops for consumption.” Life history with Mr. Mpanje, in Chimera village.

The quotes illustrate how labour availability enables market participation, although, the social relations in access labour favours the rich who afford to hire labour and exploit their own family labour.

6.3.3. Access to extension services

Figure 6-3 shows the relationship between agricultural commercialisation and access to extension services.

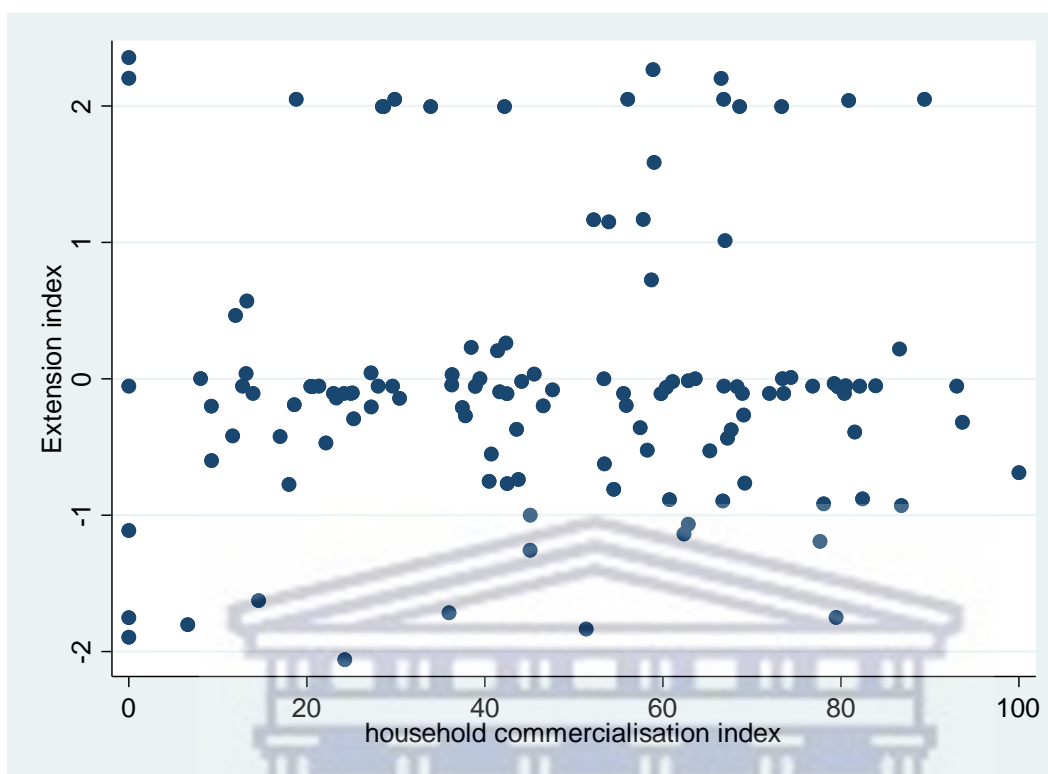


Figure 6-3: Commercialisation and extension access

Source: Author’s survey data

The scatter plot shows that there is no relationship between access to extension services and agricultural commercialisation. High levels of HCI are observed among those with low levels of extension contact and low levels of HCI can be observed among those with low levels of extension contact. This confirms the limited influence that agricultural extension has in enabling market-based agriculture as most of the driving factors are not to do with extension services, which include access to means of production, collective action, access to credit facilities, access to markets and market information, and access to infrastructure. Extension services can help households acquire skills or access certain services but these are not enough for farmers to produce enough for sell. There are other factors that have more influence which extension services do not have control (Anderson and Feder, 2003). However, this study acknowledges the methodological limitations in measuring extension contact but also the HCI index itself, which may not give a true picture of levels of commercialisation and extension contact.

6.3.4. Access to non-farm income

The study learnt that access to non-farm income facilitates market participation as farmers are able to use income from businesses, wage employment, and *ganyu* for their production activities, including renting in additional land, buying inputs, and hiring labour. Although, the majority also depend on *ganyu* as a livelihood strategy for survival. This was also observed by Whiteside (2000) who noted that *ganyu* is an important source of livelihoods for poor Malawians, and Sitienei et al. (2016) who reported that *ganyu* is important for households’ food and nutrition security. Aloba Loison (2015) describes off-farm activities as those income activities that take place away from the farm. Studies have demonstrated the role of off-farm income in supporting market-based farming; for example, Obisesan (2018) noted in Nigeria that having access to off-farm income significantly influenced cassava farmers to participate in markets. In Zambia, Matenga and Hichaambwa (2017) reported a ‘chicken-egg’ relationship

between commercialisation and off-farm income where commercialisation was seen to have opened up opportunities for off-farm income and spurred the growth of the non-farm rural economy on the one hand, and on the other hand, some small- to medium-scale farmers were able to acquire land for commercial purposes using off-farm income. This was also observed by Hall et al. (2017), that farmers expand production and commercialise through off-farm income. Other studies, such as those by Woldeyohanes et al. (2017) and Andaregie et al. (2021), reported the role of non-farm income in influencing market participation decisions among farmers.

“The money we get from other sources such as *ganyu* can be invested in farm work, especially in buying inputs, apart from other uses such as food and clothing.” Males during FGD in Chimera, March 2020.

The rise of middle-class farmers is because of the income from off-farm sources which is invested back in farming for expanded reproduction. Consistent with what was observed by Anseeuw et al. (2016) that middle-class farmers are of two types, those who are accumulating within farming and those who are accumulating with income from outside farming. There is another group that become farmers after retiring or are still working in civil service or what they call ‘urban-based professionals’ who finance their farming with income from these sources (Anseeuw et al., 2016). These were described as those ‘stepping in’ by Matita et al. (2022).

6.3.5. Access to support services

Access to support services such as credit facilities, and market information enable market participation which was also reported by others (Abdullah et al., 2019; Muricho, 2015; Muriithi and Matz, 2015). Access to credit in the form of inputs or money to purchase inputs is very important because one of the challenges that farmers are facing is access to inputs. A small percentage (32%) of study participants accessed agricultural credit during the 2019-2020 growing season, with 43% of these accessing credits from friends and relatives, suggesting lack of options where farmers can access credit as most of the time friends and relatives may not offer enough to enable expanded reproduction.

Higher commercialisation levels (46%) were observed among those who had access to market information compared to those who did not have access to market information (4%). Households’ access market information on produce buyers, produce prices, time and location of the markets, quality and quantity demanded. Main sources of market information are friends, produce buyers, extension workers and the radio. Only 12% of participants accessed market information from extension workers which shows the limited role extension workers play in enabling market participation. Access to market information has been reported to be one of the factors driving market participation among smallholder farmers (Kgosikoma and Malope, 2016; Obisesan, 2018; Randela et al., 2008; Tafesse et al., 2020).

6.3.6. Collective action

Group members are more likely to participate in output markets than non-members. The findings agree with what was observed by Ingabire et al., (2017) in Rwanda. In Nigeria, Obisesan (2018) identified membership in an association as one of the factors influencing the extent of market participation. In Kenya, Muricho (2015) also reported the role of membership in a group in determining agricultural commercialisation. The difference between members and non-members is not significant, suggesting that both members and non-members are confronted with similar challenges to commercialisation of which being a member of a farmer club is not enough to overcome (Chimombo et al., 2022). The findings also point to the role of ‘spill-over’ effects of the benefits farmers receive from groups.

Being a member of a farmer club is very important because members are able to bulk their produce together and wait for better time (when produce prices are high) and markets (offering high produce prices) to sell their produce. Club membership helps farmers get encouragement and motivation from group members and are challenged to work hard to produce more and bulk more. As a group, members are able to put resources together to access inputs, and are able to have a voice to negotiate for low input prices and high produce prices which was also reported by Walton et al. (2012) in Kenya and Barham and Chitemi (2009) in Tanzania. Access to better markets in a group is achieved through ensuring quality of the produce, negotiating prices, waiting to sell when the demand is high and the supply is low but also meeting the volumes that are often demanded by buyers and engaging in collective marketing. Studies by Kirui and Njiraini (2013) and Fischer and Qaim (2012b) in Kenya and Fikadu et al. (2019) in Ethiopia reported the benefits of collective action among smallholder farmers in accessing markets for their produce. When farmers are organised in groups, they can easily access extension and other support services such as credit. This is what participants had to say about how membership in farmer clubs is helping them to commercialise:

Box 6-2: Importance of membership to a club

“In a group it is easier to access farm inputs which are given on loan but also as a group we save money for use in future (mainly on inputs). Also, groups aid access to extension services from different extension service providers, when extension service provider come in the village, they usually look for already organised groups, extension workers these days do not meet individual farmers but in groups.” Women participants during FGD in Kachono, March 2020.

“Currently, not only members benefit from the groups, non-members too. They are also allowed to aggregate their produce together with the group members, although, they are charged a small commission, but selling through a group is better than selling as individuals, for example last year, individual farmers were selling their groundnuts to vendors at MK500/kg (60 cents) while group members were selling at MK700/kg (85 cents).” Women participants during FGD in Kachono, March 2020.

“Women who join groups are more empowered and are likely to commercialise than those who are not in groups, it is mostly the female-headed households that depend on these groups for them to commercialise.” women participants during FGD in Kachono, March 2020.

“Extension workers facilitated the formation of our group. The group did not require much time from members in terms of meetings but only registration and membership contributions. Farmers managed to find markets of their produce through club leaders and the help of extension workers.” Men participants during an FGD in Chimera, March 2020.

6.3.7. Infrastructure

A higher average HCI was observed among those who own a mobile phone compared to those who do not, which was also observed by others (Mutabazi et al., 2013). Availability of infrastructure both physical (good road networks and warehouses) and others, such as Information and Communication Technology (ICT), to aid communication, in particular mobile phones is crucial in helping farmers participate in markets. Mobile phones have become a helpful means of communication between producers and buyers of produce but also a means to advertise farmers produce. Participants are able to communicate with buyers on the quantity demanded, the quality, days of sales and negotiate the prices in advance. Kirui and Njiraini (2013) in their study in Kenya found that ICT tools (mobile phones) positively influence smallholder farmers to commercialise. Dorward et al. (2008) also pointed out the role of mobile phones as crucial for smallholder farmers to access financial and output markets. Good road

networks are essential for farmers to access markets for both inputs and outputs. Good road networks minimise transportation costs because there are many transport options, but with poor road networks, there are few transport options, and they become expensive. This was also observed by Quan (2009) in Vietnam. Other infrastructure, such as warehousing, help farmers store their produce, which helps them aggregate the produce and sell at a good time, thus, when prices are better due to reduced supply and increased demand. The role of warehouse receipt systems was also highlighted by Dorward et al. (2008). Participants' expressions on the role of infrastructure are presented in Box 6-3.

Box 6-3: The role of mobile phones, road networks and warehousing

“Good roads help with the transportation of harvests from farm to home and to the market, we use bicycles, carts and vehicles to transport produce.” Key informant Interview with lead farmer in Chinkhowe, March, 2020.

“Phones are very helpful, they save energy with short message communication as people just call and communicate instantly, so instead of walking long distances to communicate something, the energy and time are saved, and can be channelled to good use.” Key Informant Interview with lead farmer in Chinkhowe, March, 2020

“The village has a warehouse which is owned by the group. Members are able to store their soybean and groundnuts produce waiting for the right time to sell. Members also store seed at the warehouse, so when it is time for planting farmers get the stored seed which was kept safely. Those who are not group members do not have access to the warehouse.” Key Informant Interview with lead farmer in Chinkhowe, March, 2020

“Members store their produce in the warehouse, it is a security measure to keep the produce long enough until they find better markets for their produce. We also use the warehouse as a meeting place to discuss farming activities and more.” Key Informant interview with group leader in Kachono, March 2020.

6.4. Livelihood Impacts of Commercialisation

This section analyses the impacts of commercialisation on livelihoods across gender and class categories, employing a political economy lens. The analysis draws on Ian Scoones' perspective of the sustainable livelihood framework presented in his book, *Sustainable livelihoods and rural development*, as a response to the critiques of the 'Sustainable livelihood approach' initially developed by Robert Chambers and Gordon Conway (Chambers and Conway, 1992). One of the critiques of the approach, and indeed one that has prompted the analysis to focus on the political economy of livelihoods, is the argument that livelihoods are influenced by the dynamics of power and politics in different contexts, hence the need to situate livelihood analysis within that broader context, dealing with power relations between social groups, processes of economic and political control by different actors, and differential patterns of production, reproduction, accumulation and investment (Scoones, 2015). In response to the critiques, Scoones revised and extended the livelihood approach to include the four political economy questions posed by Henry Bernstein: 1) Who owns what or who has access to what? 2) Who does what? 3) Who gets what? 4) What do they do with it (Bernstein, 2010). This study employs these questions to understand the relationship between market-based farming and livelihoods. The question 'who owns what or who has access to what' looks at household resources including access to extension services, and how these enable commercial farming. The 'who does what' question looks at the engagement in different livelihood strategies including commercialisation, subsistence, diversification, expanded reproduction or simple reproduction. The question of 'who gets what' looks at livelihood outcomes from engagement in commercial farming but also accessing extension services, particularly analysing differences in terms of gender and class. The final question on 'what do they do with it' looks at livelihood outcomes and livelihood trajectories as a result of

access to extension services and market participation. The following livelihood indicators were analysed: income and expenditure, asset accumulation, food security, class and gendered differentiation, and women empowerment.

6.4.1. Income and expenditure

The study looks at sources of income, the amount of income from the different sources and the relationship between the levels of income and commercialisation. It looks at expenditure based on items households spend money on, the amount spent on these items and the relationship between expenditure and commercialisation levels. The analysis uses both qualitative and quantitative data. Table 6-2 presents levels of income and commercialisation.

Table 6-2: Relationship between income and level of commercialisation

HCI %	Income from crop sales	Mean total annual household income MK (\$)
0-25	80,272.41 (98)	367,809.30 (449)
25-50	92,919.69 (113)	356,883.20 (435)
50-75	171,641.30 (209)	414,633.50 (506)
75-100	422,175.00 (514)	708,387.50 (864)
Number of observations	119	126
p values	0.000***	0.003***

Source: Author's survey data

Significant differences in income levels across different levels of commercialisation are clear, suggesting that an increase in level of commercialisation results in an increase in income from crop sales and total household income. The findings agree with what was argued by Poulton (2017) that commercialisation leads to an increase in income from crops. Other studies also found a positive relationship between commercialisation and income levels (Kilimani et al., 2020; Qaim and Ogutu, 2018; von Braun, 1995; von Braun and Kennedy, 1994). In turn, those with high income levels are likely to engage in market-based farming as they can afford to rent in more land, buy inputs and hire labour. Total household income among female-headed households is significantly lower than male-headed households, and women reported on average lower household income than men, and it was not surprising to notice higher incomes among richer households. Table 6-3 shows income and expenditure across gender and class categories.

The majority of households spend more on food than on farm inputs suggesting that the majority are struggling to maintain simple reproduction, and are involved in distress selling. Rich households spend less on food but more on productive resources for expanded reproduction (Lenin, 2009). The findings are consistent with what Cazzuffi et al. (2020) found in Vietnam, that there is a negative relationship between commercialisation and consumption expenditure. Overall, those with higher HCI have higher total expenditure than those with low HCI and the relationship is statistically significant suggesting that any increase in commercialisation level will result in an increase in expenditure.

Table 6-3: Total household income

Variables	Description	Mean total household income MK (\$)	p values
Sex of household head	Men	456,058.10 (556)	0.033**
	Women	360,094.10 (439)	
Sex of respondent	Men	452,073.20 (551)	0.004***
	Women	431,907.30 (526)	
Class category	Poorest	190,192.90 (231)	0.000***
	Poor	350,637.60 (427)	
	Medium scale	634,915.20 (774)	
	Rich	1,124,475.00 (1,371)	

Number of observations (126), Source: Author's survey data

6.4.2. Asset accumulation

The study looks at asset accumulation through assets that households own, including household assets, productive assets such as livestock and land, and an asset index was constructed using Principal Component Analysis (PCA), which included household assets and productive assets. The relationship between asset ownership and commercialisation is presented in Figure 6-4.

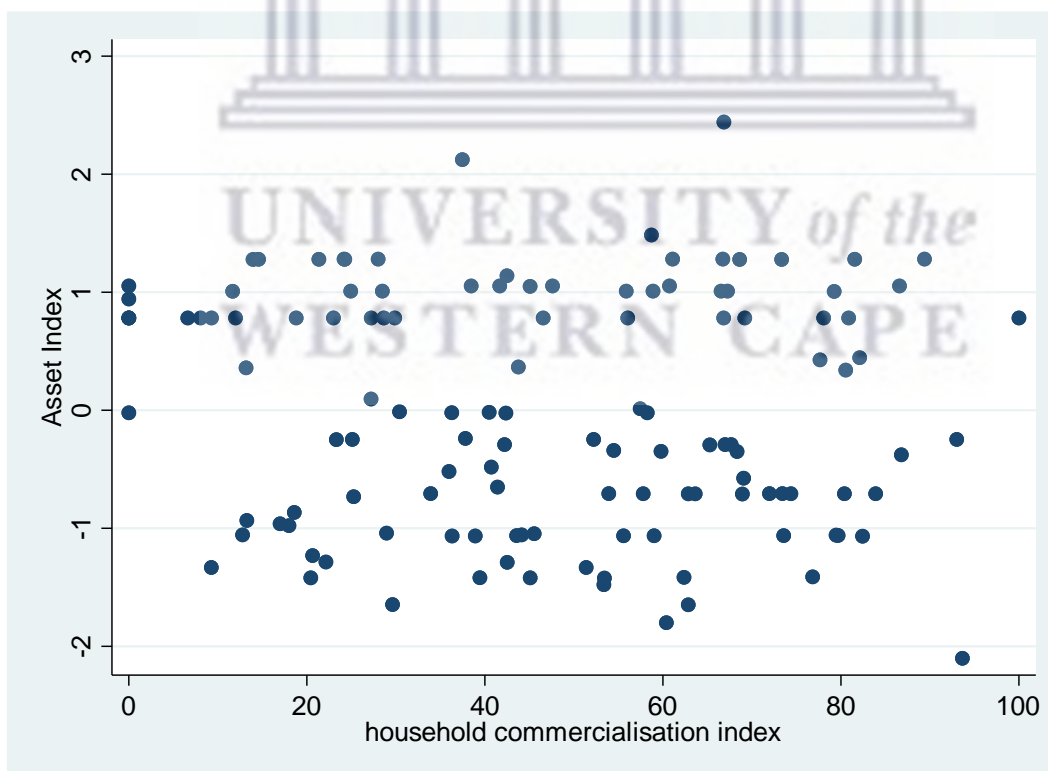


Figure 6-4: Asset index and commercialisation

Source: Author's survey data

The findings show that there is no relationship between asset ownership and commercialisation level because those with high HCI have a poor asset index and a higher asset index is observed among those with low HCI. This can be explained by the tendency among the majority of households who are highly commercialised but doing so under distress and a few who are commercialising for accumulation. High levels of commercialisation among poor households were also reported by Carletto et al. (2017). The findings are in contradiction with what others (Cazzuffi et al., 2020), found that high levels of asset accumulation are associated with high levels of commercialisation. However, other studies, (Hagos et al., 2019), found asset ownership to be a determinant of agricultural commercialisation and not an outcome, which could also be the case here that those who own more productive assets (land and livestock) do commercialise more than those who do not. Qualitative findings also revealed that asset ownership is one of the factors that differentiates poor and rich households but also puts those with assets in a better position to commercialise than those without.

Richer households accumulate more assets, both productive and household assets. Differences in land ownership across wealth categories are minor but notable differences can be observed on land cultivated because of land renting. More male-headed households accumulate assets, including renting in additional land. But the size of land does not guarantee or stop people from engaging in market-based farming because of the ability to rent in additional land. The relationship between land ownership and market participation is negative because people who own more land often see an opportunity to rent the land out, suggesting that there are other factors that are stronger in determining commercial orientation other than ownership of land. The total land cultivated taking into account additional rented land is positively correlated with levels of agricultural commercialisation, suggesting that commercialisation result in land accumulation. This is because the income realised from selling produce is used to rent in additional land, but also it could mean that households accumulate land for them to expand their commercial farming.

Households with higher HCI are likely to own cattle and pigs. Rich farmers, inasmuch as they scale up their crop production activities, also either equally or even more invest in livestock farming or even other off-farm activities, which also help to finance their cropping activities (Lenin, 2009). Nevertheless, there is a possibility that commercialisation could be an outcome of cattle ownership consistent with what Dube and Guveya (2016) found.

6.4.3. Food and nutrition security

This study looked at food security by analysing the number of months produced food lasts, the Food Consumption Score (FCS) and the Household Dietary Diversity Scale (HDDS). The study found that commercialisation is negatively affecting food availability but positively impacting on nutrition outcome, although there could be other factors contributing to these dynamics such as increases in human population over the years. Those whose food lasted only 3 months had a higher HCI compared to other categories. There are two explanations for these findings. On the one hand, for those whose food lasts only 3 months, it could be that they are selling the food and their selling is distress sales. On the other hand, those whose food lasts up to 12 months but also have a high HCI, they sell less of the food crop, which is maize, but their HCI is from other non-food crops, or they produce more to keep enough for food and still sell a substantial amount. Studies have found a positive relationship between market participation and food security. Oluwatayo and Rachoene (2017) in Limpopo, South Africa, found that engagement in commercial farming is one of the determinants of food security. Others have gone further to look at the impact of commercialisation on nutrition status (Kilimani et al., 2020; Ogutu et al., 2020; von Braun and Kennedy, 1994).

Poorer households are likely to run out of food faster than richer households. A number of coping mechanisms are used when food runs out. A majority buy, some exchange with their labour, others rely on hand-outs, safety nets, and harvest from irrigation farming. More male-headed households have food up to 12 months while the majority of female-headed households have food only up to 9 months. Poor food security situation among female-headed households has also been observed by others in Malawi (Mgalamadzi et al., 2021). Female-headed households are likely to produce less because they have poor access to means of production.

Table 6-4: Food security and agricultural commercialisation

HCI (%)	Mean FCS	Mean HDDS
0-25	38	5.4
25-50	41	5.6
50-75	37	5.6
75-100	39	5.6
p values	0.611	0.969

Number of observations (126), Source: Author's survey data

There is a very weak relationship between food consumption and levels of commercialisation, but also dietary diversity and levels of HCI. This is because most households are involved in distress selling and doing so to maintain simple reproduction. Studies that looked at the relationship between agricultural commercialisation and food and nutrition security find different results. Some have found a positive relationship, such as Hendriks and Msaki (2010) on dietary diversity and nutrient intake in South Africa, whereas Carletto et al. (2017) did not find enough evidence of the impact of commercialisation on nutrition status. Again, Kilimani et al. (2020) found that high commercialisation levels were associated with low nutrient intake in Uganda. Another study by Ogutu et al. (2020) found that commercialisation improved food security and dietary quality, while Anderman et al. (2014) found a negative relationship between food security and intensifying cash crop production in Ghana.

Rich households have higher food consumption scores and dietary diversity scores. They eat more meals per day, a wide range of foods and their diets are diversified, including meat, rice, potatoes, tea, milk and other foods. This is unlike the poorest, whose diets comprise of mainly *nsima* (staple carbohydrate dish made from maize flour) and vegetables. The better food and nutrition situation among the richer households can be due to availability of incomes to access a variety of foods. Male-headed households have a slightly higher mean FCS and HDDS than female-headed households. This was also noted by Mgalamadzi et al. (2021), that female-headed households are likely to be more food insecure than male-headed households because of the challenges they face in access to inputs, which is exacerbated by the absence of male labour. In contrast, Kilimani et al. (2020) found that female-headed households have better nutrient intake despite their commercialisation level being lower than that of male-headed households.

6.4.4. Women empowerment

The women empowerment index was constructed using PCA by inputting variables on gender division of labour in various cropping activities, women participation in decision making, women's access to productive resources, women's access to income, women's control of resources and income and women's ownership of land. The analysis looked at women from both the male-headed households and female-headed households. For female-headed households, the gender relations between the female and male members such as breadwinners

or uncles, were explored. The aim was to understand whether household engagement in commercial farming has any impact on the empowerment of women.

Households with low HCI have a significantly better women empowerment index than those with high HCI. This could suggest that market-based farming deepens inequalities between men and women in farm-level decision making, control and access to productive resources and income, and division of labour. Qualitative findings reveal that despite decisions being made jointly in most households, men still have a final say as women have to get approval about use of resources, income and their mobility. Findings agree with what was observed by Mgalamadzi et al. (2021), that greater gender inequalities were associated with an increase in agricultural commercialisation. The poorest have a better women empowerment index, which could be because most of them are female-headed households but also it could signal less inequalities among poorest households. High levels of inequalities among the highly commercialised and the richer households can be explained by the tendency among men to take control of the crops that become commercialised hence they control production resources, land use, labour use, and income. Women may have access to the income but their access is subject to approval by the men. A gender division of labour analysis show that despite women being heavily involved in the early activities of the value chain, they tend to be missing when it comes to selling. Men’s heavy involvement in selling produce gives them an opportunity to utilise the money before taking it home.

Table 6-5: Gender relations at the household level

Aspect	Husband	Wife	Joint	Other household member	Not applicable
Decisions on food crops	50	10	30	10	0
Decisions on cash crops	52	8	28	8	4
Decisions on livestock	38	10	20	8	24
Control of income from crops sales	48	7	25	8	12
Control of income from other sources	46	8	26	10	10
Control of productive resources	63	7	19	10	0
Access to productive resources	10	6	75	9	0
Access to income from crop sales	27	6	59	6	2
Access to income from other sources	25	8	56	10	2
Owning land	44	21	10	8	17

Source: Author’s survey data

The majority of the household’s decisions are made by the husband (Andersson Djurfeldt et al., 2018). The control of resources and income is also largely held by the husband. Access to resources and income is mostly joint, and land ownership is mostly by the husband. Despite the study area being a matrilineal society, the findings show dominance of patriarchy. These findings are consistent with what others have established (Mgalamadzi et al., 2021). These results have several implications, first, men dominating decision making means that the interests and views of women are not taken on board, leaving women in a disadvantaged position to participate in markets and realise its benefits. Second, men dominating control means that women are left in subordinate positions and do not fully take advantage of the resources and benefits from crop sales. Third, much as access to resources and income is largely joint, some studies have questioned the joint access arguing that ultimately it is the husband

that has the final say. Finally, the implication of men dominating ownership of land simply shows that less women own one of the most important assets to commercialise, and as Doss et al. (2014) argue, ownership of land helps women participate in decision making. Despite that in matrilineal community women inherit land from their relatives, their husbands control the use of the land.

Table 6-6: Gender division of labour

Crop type	Activity	Husband	Wife	Joint	Other/NA
Food	Land preparation	8	10	76	6
	Planting	8	10	77	6
	Weeding	8	10	76	6
	Fertiliser application	7	10	76	7
	Harvesting	9	10	76	6
Cash	Land preparation	11	8	71	9
	Planting	13	8	71	9
	Weeding	10	9	72	9
	Fertiliser application	8	4	59	28
	Harvesting	11	9	71	9
	Drying	11	4	27	58
	Grading	21	4	16	60
	Baling	24	2	13	62
Selling	42	6	40	13	

Source: Author's survey data

Most of the activities are done jointly except marketing activities of the cash crops which are dominated by men. What this means is that despite these activities being done jointly, women are still left with a burden of other activities regarding household responsibilities (Doss, 2010). Men dominating in marketing activities means that women are losing control of the opportunity to control and access income from cash crops despite significantly contributing to the production of these crops (Mgalamadzi et al., 2021).

6.5. Chapter Summary

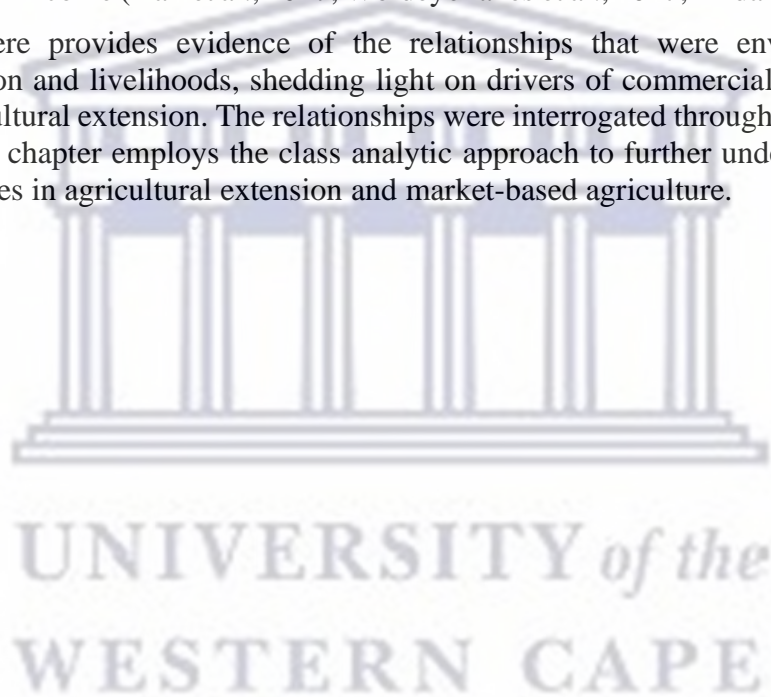
This chapter addressed the second research question: *How is agricultural commercialisation impacting on livelihoods and households' welfare?* Agricultural commercialisation contributes both positively and negatively to livelihoods and household welfare, although high levels of distress selling means that the benefits are minimal. The majority are largely semi-commercialised, with most of them doing so to maintain simple reproduction. This is attributed to the challenges that farmers face in access to means of production to enable expanded reproduction and accumulation (Kilimani et al., 2020; Kirui and Njiraini, 2013). Positive impacts are observed on household income (Poulton, 2017; Kilimani et al. 2020; Qaim and Ogutu, 2018) and expenditure (Cazzuffi, et al 2020); livestock ownership (Dube and Guveya, 2016), although the authors found that livestock ownership also enables households to commercialise which is also the case, as those who own livestock are able to sell their animals and use the money to buy inputs, and some rent out their oxen and use the money to purchase inputs; asset accumulation (Cazzuffi et al 2020); and household food and nutrition security (Ogutu et al. 2020; Hendricks and Msaki, 2010). Negative impacts were observed in food security (Carletto, et al. 2017; Kilimani et al. 2020; and Anderman et al. 2014) and reduced

women empowerment associated with high levels of agricultural commercialisation (Mgalamadzi et al. 2021).

Male-headed households are more likely to commercialise than female-headed households because they have better access to means of production, command enough labour, are able to rent in additional land and have better access to markets. The disadvantage position among female-headed households and women limits their potential to engage in expanded reproduction (Andersson Djurfeldt et al., 2018; Meinzen-dick et al., 2014). In male-headed households, women empowerment is better among those with low HCI which suggest that market participation deepens gender inequalities in decision making, access and control of resources and income, ownership of land and division of labour.

Market participation is driven by a number of factors including collective action (Ingabire et al., 2017; Obisesan, 2018; Muricho, 2015), access to infrastructure such as mobile phones, good roads and warehouses (Kirui and Njiraini, 2013; Dorward et al., 2008; Quan, 2009), access to off-farm income (Hall et al., 2017; Woldeyohanes et al., 2017; Andaregie et al., 2021).

The analysis here provides evidence of the relationships that were envisaged between commercialisation and livelihoods, shedding light on drivers of commercialisation including the role of agricultural extension. The relationships were interrogated through gender and class lenses. The next chapter employs the class analytic approach to further understand class and gender differences in agricultural extension and market-based agriculture.



Chapter 7: Class and Gender Differentiation in Agricultural Extension and Commercialisation

7.1. Introduction

Scholarship on class formation within processes of agrarian change and rural transformation is based on the Marxist views, arguing that agrarian societies are differentiated and this differentiation is because of the capitalist relations which determine access to resources making others winners and others losers (Bernstein, 2010). The Marxist agrarian political economy framework becomes central to the analysis of these dynamics of class formation in the countryside (Muianga, 2019). In Malawi, not much has been written on class differentiation from a Marxist agrarian political economy lens. There have been studies on class formation such as those by Kandaŵire (1980) who looked at historical processes that led the formation of two classes, one single class of what he refers to as ‘dependent Africans’ and another one of European colonisers. Another study by Peters (2001) looked at class formation in the context of land disputes in southern Malawi where a matrilineal system of marriage is dominant. These studies are outdated considering changes that have occurred which are shaping or being shaped by the dynamics of class differentiation. However, in both of these studies, it is difficult to determine whether the agrarian political economy approach was employed.

Studies on social differentiation within the capitalist agrarian societies have looked at class and gender to understand the implications of these for agrarian and rural transformation. Bernstein argues that class relations are not the only determinants of social practices in capitalism as there is a tendency to combine or intersect with other social differences such as gender, race, ethnicity, religion and caste (Bernstein, 2010). This chapter aims to understand dynamics of social differentiation from a class-analytic approach and the intersections with gender. This is important to understand social relations, in Malawi especially, where class differences among the majority of smallholder farmers are blurred (Jong, 2014). Another recent study by Mgalamadzi et al. (2021) looked at social differentiation from both class and gender perspectives in the context of agricultural commercialisation, however, the intersections of class and gender were not adequately explored and the study did not employ a Marxist agrarian political economy framework as this study has done.

This chapter analyses class and gender differentiation among households in relation to agricultural commercialisation and extension access. The main argument is that farmers and indeed households are differentiated, and using a class-analytical approach, smallholder farmers are categorised into different classes. The intersections of class and gender in market participation and extension access are also explored. The chapter also argues that extension access and commercialisation impact and are impacted by the dynamics of class and gender differentiation. The chapter answers the research question: *How are class and gender differences being shaped and are shaping commercialisation and extension access?* This study argues that class position and gender differences affect the extent to which households commercialise, as richer and male-headed households are more likely to commercialise because of access to means of production than poorer and female-headed households. Market-based farming deepens inequalities between richer and poorer because of the social relations in access to means of production, and between men and women as men dominate in making decisions, controlling resources and income more than/or at the expense of women. Richer, male-headed households and men are more likely to access extension services than poorer, female-headed households and women. The differences are attributed to the former being actively involved in farming hence they consider extension services beneficial; the latter are often in a dilemma of time allocation between competing activities involving social

reproduction and extension activities. Extension service providers are more likely to target the richer to act as role models to others and men as heads of households with the assumption that information trickles down to others. The causal-effect relationships described here are not neat and clear because of the complexity of these social phenomena in reality especially of class positions which are fluid but also gender differences which are determined by different factors, including cultural norms. The relationships could also be affected by the methodological limitations in determining levels of commercialisation and extension contact.

Four classes of agrarian households are identified: first, the 'poorest' who are characterised by no or very little access to means of production, especially capital and labour, which then dictates or determines access to land. These are also described as 'too poor to farm' (Hill, 1963), those in simple reproduction squeeze (Bernstein, 2010), the supplementary food producers (Cousins, 2010) and those dropping out (Dorward et al., 2009; Mushongah, 2009), as they often find themselves either renting out all of their land and just rely on selling their labour, or they farm using recycled seeds and without artificial fertilisers, or sometimes they leave their land fallow. Second, the 'poor' who farm for simple reproduction; they have access to means of production but not enough. They also sell their labour power to supplement their simple reproduction. They are also described as resource poor farmers (Berry, 1993), those in simple reproduction (Bernstein, 2010), petty commodity producers (Cousins, 2010), poor peasants (Lenin, 2009), and those 'hanging in' (Dorward et al., 2009). Thirdly, there are the 'better-off' who rent in additional land with income from both farm and off-farm sources to expand their production and accumulate. They aggregate crops from the poorer and sell them to the rich or other buyers. They are also described as those in expanded reproduction (Bernstein, 2010), middle peasants (Lenin, 2009), petty-bourgeois class of commercial farmers (Zhang, 2015), and those who are 'stepping up' and 'stepping out' (Dorward et al., 2009). Fourthly, the 'rich' who have better access to means of production including inputs, land, labour; they own large (cattle) and high value (pigs) animals and grow a variety of crops including tobacco. These are also described as those involved in expanded reproduction (Bernstein, 2010), rich peasants (Lenin, 2009), small-scale capitalists (Cousins, 2010), and 'stepping up' (Dorward et al., 2009).

Characteristics differentiating the identified classes were explored and in terms of demographic characteristics, rich households have a significantly higher household size which could be crucial for labour availability as the majority of households in the sample use family labour. This signals self-exploitation or labour exploitation by heads of households (Bikketi et al., 2016; Martínez Valle, 2017). Female-headed households make up 88% of the poorer and only 12% of the richer classes, compared to male-headed households who make up 63% of the poorer and 37% of the richer classes. The findings agree with what was observed by Doctor et al. (2013) that female-headed households are more likely to belong to lower categories of wealth status. This signals the intersectionality of class and gender (White, 2020). The phrase 'poverty has a woman's face' was common, driven by the human development paradigm arguing that there is feminisation of poverty. Some studies support the narrative (Millar and Glendinning, 1989; Nichols-Casebolt et al., 1994; Quisumbing et al., 1995; Wright, 1992). In the analysis of human poverty and capabilities Cagatay proved that indeed women are poorer than men owing to gender inequalities in income distribution, access to productive inputs, command over property and gender biases in labour market (Cagatay, 1998, 2001). The research contributes to this thesis by analysing the situation of women from a feminist political economy perspective, and providing evidence of the intersection of class and gender as women are poorer than men because of the social relations in access to means of production, economic opportunities, markets, extension services and engagement in expanded reproduction.

Almost every household grows maize but a higher percentage of the poor grow groundnuts and soya bean because these do not require huge investment in inputs, but a significantly higher percentage of the rich and male-headed households grow tobacco. This is because rich households have the ability to access means of production and are capable of investing in inputs required for growing tobacco. Similarly, male-headed households are better positioned to access means of production to grow tobacco compared to female-headed households. Others have argued that poorer households are likely to grow crops with lower risk levels (Vargas Hill, 2009). Crop diversification is significantly higher among the rich and male-headed households because they can afford to grow a variety of crops and can access inputs, additional land and labour. Diversification is possible at lower levels of commercialisation as households are willing to spread the risks to benefit from a variety of enterprises and because they are just moving away from food crops, hence specialisation may be risky (Leavy and Poulton, 2007).

A significantly higher percentage of richer households own cattle, which was also observed by Dercon (1998), and they own more other animals in large numbers than poorer households (Hall et al., 2001; Lenin, 2009). Female-headed households are more likely to own goats (Oluwatayo and Oluwatayo, 2018). The rich do not struggle much to access inputs because they can even buy FISP vouchers from the poorer, and they spend significantly higher on inputs and lowest on food compared to the poor (Lenin, 2009). Similarly, male-headed households spend significantly higher on inputs and food compared to the female-headed households.

The land-holding sizes across the classes are not significantly different but taking into account rented land, rich households cultivate significantly higher land sizes compared to poor households (Hall et al., 2017). Male-headed households cultivate relatively higher land sizes than female-headed households which was also observed by Holden and Tilahun (2020) in Ethiopia. A higher percentage of the rich use a combination of family and hired labour while a high percentage of the poorest households use family labour. Among richer households that are using a combination of family and hired labour, there are more male-headed households than female-headed households and among the poorest using family labour, there are more female-headed households than male-headed households.

Production levels are high among the rich and male-headed households. The rich and male-headed households have a significantly higher total household income compared to the poorest and female-headed households. Rich households derive more income from crops sales, the better-off households derive more income from businesses. The poorest who are predominantly female-headed households, derive more of the income from small-scale businesses, *ganyu*, and remittances. The rich have better food and nutrition security dynamics. Participation in extension services is higher among the rich and male-headed households than the poor, female-headed households and women. Commercialisation levels are significantly higher among the rich households and among male-headed households.

The chapter is divided into three sections. The first section describes local understanding of wealth based on different characteristics to establish a criterion. The second section describes class differentiation based on local criteria (qualitative) but also quantitative description, and linking back to different literature on class differentiation, noting any similarities and differences. The third section describes various characteristics differentiating these classes including extension access and commercialisation and the intersections with gender. The chapter concludes by highlighting main findings showing the presence of four agrarian classes, richer households are more likely to be male-headed, and access to extension services and commercialisation is likely among richer households and male-headed households.

7.2. Local Understanding of Wealth

With the understanding that wealth means different things to different people, indicators of wealth vary across villages. Villagers described their understanding of wealth and indicators or criteria used to differentiate one wealth group from the other, and a wealth ranking was used. Scoones (1995) argues that wealth ranking provides a true picture of relative wealth and that results can be used to complement surveys. A wealth ranking is attached in Appendix A. There was a general consensus that wealth is described based on possessions and livelihoods. The following were some of the descriptions given:

Box 7-1: Local description of wealth

“Wealth depends on how many possessions people have, those who have more things or have certain types of things are wealthier than those who have less things.” Women FGD participant in Kachono (2020).

“Wealth is when one has food all year round, they do not run out of food and they do not beg for food. In fact, their harvest overlaps.” Women FGD participant in Chinkhowe (2020).

“*Khomo la mwana alilenji* (a household that does not lack anything) wealth is when one’s household does not lack anything from food, to clothes, means of transportation, inputs, bumper harvests,” women participants in Chimera (2020).

“Wealth is being able to own a car, or motorcycle, huge land, hire labourers or have workers on your farm, have businesses such as grocery shops, a big house and have all types of livestock including cattle.” Men FGD participant in Kachono (2020).

Source: Focus group discussion notes (2020)

Across villages, similar indicators of wealth or criteria were used to differentiate one wealth group from the other. These included agricultural inputs, transportation, housing condition, type and quality of clothing, harvests, food and nutrition situation, income, livestock, health, land, crops grown, relationships, membership in groups, education, access to extension services, assets, and market access. Of these, the most important ones in order of importance were 1) food and nutrition situation; 2) land; 3) assets; and 4) income. With regard to agricultural commercialisation, the most important ones were access to extension services, access to markets, land, access to agricultural inputs, livestock, social networks and membership in groups.

Qualitative descriptions of wealth were used to categorise all households in the village into specific wealth classes through social mapping, and a sample was drawn for a household survey. After quantitative data was collected, the class categories among the sample were revised to incorporate both qualitative and quantitative descriptions also drawing on literature. Others such as Hargreaves et al. (2007) also used a similar approach to create a wealth index. Different studies have used different criteria to categorise households into different wealth groups. Scoones (1995) used qualitative wealth ranking data and triangulated it with survey data to analyse differences among farming households in Zimbabwe. In Zambia, Langyintuo and Mungoma (2008) used access to productive assets to categorise households into those who are poorly and well-endowed. Others (Simanowitz, 1988), have noted that wealth ranking data is subjective and that is why the data was triangulated with survey data. Contrary to what Adams et al. (1997) observed, that the data on wealth ranking by key informants is different from that of the survey, the wealth ranking data obtained was a lot closer to the survey data collected.

7.3. Class Differentiation Among Farming Households

This section attempts to answer the question whether class differentiation among farming households in rural Malawi exists and what it looks like. It presents the findings of the study to describe class formation in the Malawian countryside. Class differentiation in agrarian change is considered a result of the spread of capitalism into the countryside, which creates new social relations of production and reproduction (Bernstein, 2010; Zhang, 2015). In Malawi, studies on class analysis in relation to capitalism in agriculture are rare. The research therefore makes an important contribution to knowledge and debates on class formation in the Malawian countryside. It is important to note that despite this dearth in information, capitalism in agriculture in rural Malawi exists through the development of *ganyu* labour, the transformation of family farms, the commodification of land, and the commodification of subsistence (Zhang, 2015).

Local political-economic conditions and social-historical background determine how commodity relations are shaped and what class positions and relations emerge (Zhang, 2015). This calls for an understanding of the local context to understand the criteria for determining these class positions. Researchers have used different combinations of criteria to identify class positions. Zhang used land leasing and purchasing, labour hiring and selling, marketing of outputs, and capital investment in the means of production (Zhang, 2015). This is similar to those used in this study, since capitalism in rural Malawi has taken both the form of intensification of commodity relations through property (land and labour) relations and the penetration of market imperatives through input and output market participation (commercialisation). This study uses other criteria, such as cropping activities, livestock ownership, asset ownership, income and expenditure, food security situation and extension participation, to identify the four classes described in Table 7-1.

The determination of class categories was largely based on qualitative data which was triangulated with quantitative data. Methodologically, qualitative and quantitative methods of data collection were deliberately sequenced so that the qualitative data collected informs specific indicators (for quantitative survey) to adequately understand these classes. Furthermore, unlike the case of China described by Zhang, where classes are more stable, the Malawian case is different in that class positions are unstable and fluid. Therefore, this signals that classes identified are more those of ‘tendencies’ (Oya, 2004).

Table 7-1: Class categorisation in the study areas

Wealth category	Description	Class typology	n	%
Poorest (too poor to farm)	Some are farming but on very small basis while others do not mainly because they do not have capital to invest and they sell their labour to get by. They may have land but use little or none at all.	Simple reproduction Hanging in or dropping out Supplementary food producers	14	11
Poor (resource poor)	These households are farming but also on a small basis. They own capital and land but are also engaged in selling labour. They rent out part of their land because they cannot manage to	Simple reproduction Petty commodity producers Poor peasants	70	56

	farm all of it because they lack capital and labour. They produce just enough to survive although food runs out quickly and they supplement their reproduction through <i>ganyu</i> or small-scale businesses.	Hanging in		
Better-off (middle-class farmers)	These farm on slightly larger basis. They own land but also rent in additional land to expand production. They rely on family labour and some hire additional labour. They also have other sources of income from non-farm to supplement farming. They aggregate produce from poorer classes and sell to rich households or other buyers.	Expanded reproduction Petty commodity producers Middle peasants Stepping up and out Petty-bourgeois class of commercial farmers	38	30
Rich (rich farmers)	These farm on a large basis. They own land and rent in or buy additional land. They use hired labour but also exploit family labour, and they sometimes have permanent workers for the season. They also engage in off-farm businesses. They own a variety of livestock, including cattle.	Expanded reproduction Rich peasants Small-scale capitalists Stepping up	4	3

Source: Qualitative data and literature (Bernstein, 2010; Cousins, 2010; Dorward, 2009; Dorward et al., 2009; Lenin, 2009; Matita et al., 2021; Mushongah, 2009; Scoones et al., 2012; Zhang, 2015)

The findings in Table 7-1 are in agreement with what was reported by the National Statistical Office during the Integrated Household Survey 5. At the national level, 37% are very poor/poorest, 40% are poor, 18% are average, and 6% are rich. At the district level (Lilongwe), very poor (47%), poor (39%), average (12%) and rich (3%) (National Statistical Office, 2020). At the district level, the NSO recorded a higher percentage of the poorest compared to the poor households, contrary to what this study finds.

Box 7-2: The 'poorest', *osaukisitsa*

The poorest are those with very little or no access to agricultural inputs, especially fertiliser, which they access through exchanging it for labour with the rich and use recycled seeds which they often exchange for their labour. They usually go on foot as they do not own any means of transportation and they do not have money to pay for transport. This limits their mobility and they are unable to access certain places such as markets. They have very poor housing conditions, their houses are grass-thatched, where even the grass is not enough such that the houses usually leak. The walls of the houses are made of unburnt bricks, the floor is mud, and they sleep on sacks covering themselves with mosquito nets or a wrap. They struggle to get clothes and they dress in rags; they usually get clothes from the rich by

exchanging them for their labour. They do not have a change of clothes and they stay longer without washing the clothes as they do not have options to change. Most of them do not harvest anything due to crop failure as a result of lack of agricultural inputs. For those who harvest a little, the harvests only last one month while still in the field; and their main crop is maize. They struggle to find food such that they often sleep on an empty stomach. They usually scavenge for maize at the maize mill and in rich people's fields after they have harvested. Their main food is *nsima*¹¹ with vegetables. They only eat meat during ceremonies such as funerals and weddings and they usually eat once per day.

The poorest have very little money or no money at all. Those who have some money may have only up to MK5000 (\$6) per month and they struggle to find it. They do not own any livestock as they do not have money to buy livestock. Their health is usually bad. They often get sick because of their poor diets and poor hygiene. They go to government hospitals which are usually free. They may have land which they access through inheritance but are unable to utilise it all and end up renting it out. Those who have more land usually rent it out to the rich. They often struggle to utilise their land because they lack access to agricultural inputs and labour. They usually grow maize and sometimes groundnuts but in very small quantities because of the constraints with land (which they cannot rent in), labour (which they sell) and lack of agricultural inputs. They often depend on *ganyu*¹² (piece works) to provide for their daily needs. The poorest are unable to engage in any businesses as they are unable to raise capital to start a business.

The poorest are usually uneducated and unable to educate their children because they lack basic necessities including school fees and clothes. They are targeted by extension service providers but they often do not participate in or utilise the extension services because they do not see the benefits but also are in a dilemma of dividing their time among competing priorities. They have very limited assets, mainly kitchen utensils and a hoe. They use fire for cooking and lighting their houses. They do not have a toilet, they use their neighbours', and they do not have a bathroom. The poorest do not sell any produce as they barely harvest enough for food.

"The poorest usually have one plate, one cup, one pot, a bucket and basin. Some do not have cups so they drink from a plate, they make fire for cooking inside the house. Hence, they use the same for lighting; they do not have a toilet such that some use the bush. They bath outside because they do not have a bathroom, and if they want to go out during the day, they just wipe themselves." FGD with male participants in Kachono (2020).

The poorest usually do not relate much with many people, they are isolated, but the important relationship that exists between them and other wealth groups happens in labour exchange, which could be in monetary terms (cash for work) or in material terms (food, inputs, clothes) and land rentals. The poorest do not usually join groups because they do not see the benefit. They often use the time to look for food as they mostly operate on a 'hand-to-mouth' basis. Sometimes they do not join groups because they are unable to pay membership fees and other costs associated with being members of farmer groups.

¹¹ *Nsima* is a thick porridge made from meal (flour) and water. It is a staple food in parts of Southern and Eastern Africa (Fitzgerald, 2015; Mkandawire, 2018).

¹² *Ganyu* is the term used to describe short-term rural labour relationships with the most common being weeding or ridging on the fields of other smallholders or estates (Whiteside, 2000; Sitienei et al., 2016).

Source: FGD transcripts

The 'poorest' are a class who are emerging to be the most destitute group of people who often do not see farming as beneficial to them, but they still do so because it is the only option available. They do not have any or very little capital to invest in farming (too poor to farm). They rely on selling their labour power for survival (Cousins, 2013). Bernstein described these as those being in 'simple reproduction squeeze' who struggle to reproduce themselves as capital and labour from their own production, they are 'marginal farmers' or what others refer to as 'too poor to farm' (Hill, 1963). Lenin described these as 'poor peasants' who engage in the sale of their labour power since they are unable to rely on their own production (Lenin, 2009). Bakker writes that these often have very little or no source of income, such that they engage in what is 'exchange entitlement' where they have to work for the rich or better-off households to survive. They sometimes move to the city with the hope of finding any sources of income (Bakker, 2011). These are also described as 'allotment holding wage workers' but also 'supplementary food producers' because some are not even able to access wage income as they are too old to work so they rely on remittances or social cash transfers (Cousins, 2010). They can also be described as 'hanging in' as they still farm on a very small basis, nevertheless, their greatest asset is their labour power and sometimes their land that they rent out, but also 'dropping out' as they go some seasons without farming and just relying on other sources of income, including remittances, social cash transfers and sale of their labour power. Zhang described these as 'semi-proletarianised' wage workers except that in Malawi, they also sell output mainly through distress selling and they rarely buy inputs such that if given FISP coupons they sell them to richer households.

Box 7-3: The 'poor', *osauka*

This group have access to a little fertiliser through exchanging for it with their labour and they also use recycled seeds which they also exchange for using their labour. What differentiate these from the poorest is the ability to farm for survival. The poor also struggle to move from one place to the other but at least they can access a bicycle through borrowing, which takes them to places (Filmer and Fox, 2014) because in rural areas, distance becomes a problem, especially if one does not own a bicycle, and especially for women. These may have some money to pay for transport. Owning at least a bicycle is advantageous with regard to commercialisation as noted by Fitzgerald (2015), that farmers who own a bicycle are able to transport their produce to the markets that can offer them good prices for their produce. The poor also have grass-thatched houses but at least theirs is reinforced with plastic sheets to prevent leakage. The walls of their houses are also made of unburnt bricks, their floors are mud, they sleep on a mat and cover themselves with a wrap. Their clothes are better than the poorest, such that they have a few change of clothes, and women have cotton wraps. The poor at least harvest something but not enough; they could harvest up to 6 bags of maize weighing 50 kgs, 3 bags of unshelled groundnuts, and 1 winnowing basket (10 kgs) of soybean. They also struggle to get food but their situation is better than the poorest. Their produced food lasts up to 3 months. They mainly eat *nsima* and vegetables but they could also eat meat at least twice per year; and they usually eat two meals per day.

The poor have between MK10,000 to MK15,000 (\$12 to \$18) per month even though they also struggle to find it. They can have up to 10 chickens (usually local breeds) and at least 1 goat. Their health is better than the poorest and they also often go to government hospitals. They also access land through inheritance and they also rent out their land. They grow maize, groundnuts and soya, although in small quantities but better than the poorest. They also depend on *ganyu* for survival. They engage in small-scale off-farm businesses such as selling vegetables, selling fritters and potato chips. They mostly have up to primary level of

education because it is free, however, they are unable to send their children beyond primary school level as they cannot afford to pay for their school fees. The poor do participate in extension activities and sometimes they are chosen for leadership positions in farmer groups.

“The poor are chosen into positions because people know that because they are poor, they will not misuse the resources (money) as they will be afraid, unlike the rich who would think they can misuse the resources because they have the ability to pay back.” Men FGD participants in Kachono (2020).

“The poor cannot be chosen into leadership positions that require managing finances because they will misuse the money and they cannot manage to replace it.” Women FGD participants in Chimera (2020).

The poor own few assets but they use a torch for lighting at least. They have a toilet and a bathroom which does not have a roof. They sell little from their harvest, mainly to vendors who visit the villages or to a nearby trading centre (Mitundu). The poor are able to associate with other wealth groups and their association also borders around exchanging labour and land rentals. They are able to join groups although some avoid them.

Source: FGD transcripts

The ‘poor’ are the majority among the sample. These have less capital investment in their farming, and their capacity to command labour is very low, as they mostly use family labour through self-exploitation or exploitation by the household heads. They sell their labour power to supplement their simple reproduction. Lenin called this group ‘poor peasants’ because they own less land, they sell their labour power and they spend more on food than they do on inputs (Lenin, 2009). Bernstein referred to this group as those engaged in ‘simple reproduction’ as they are able to reproduce themselves as capital on the same level of production and as labour on the same scale as consumption and they fail to accumulate. Some are in ‘simple reproduction squeeze’ as they fail to farm in some seasons due to lack of inputs. Some of these are also petty commodity producers since they combine both classes of capital and labour within the household or even an individual (Bernstein, 2010). Cousins categorised these as ‘allotment holding wage workers’ but also ‘worker-peasants’ because the majority do farm and they are able to produce something for their simple reproduction, although they also largely depend on wage labour to supplement their production. There is also a small group that can be categorised as worker-peasants who farm substantially, but they supplement their simple reproduction with wage income (Cousins, 2010). These are mainly ‘hanging in’ as they farm and engage in other activities to maintain their livelihood levels without engaging in accumulation (Dorward et al., 2009). Zhang (2015) described these as ‘dual employment households’ who hire seasonal labour and sell labour, rent in or out land, sell outputs and buy means of production.

Box 7-4: The ‘better-off’, *ochitako bwino*

These are able to access agricultural inputs, at least 2 bags of fertiliser and they use certified seeds. They buy coupons¹³ from the poor and the poorest, and they apply manure. The

¹³ The government Farm Input Subsidy Programme (FISP) targets vulnerable groups of farmers to receive coupon which are used to purchase fertiliser and seed at a subsidised price (Chirwa and Dorward, 2014). The

better-off have a bicycle for transportation and they have money to board other means of transportation. This enables them to reach places to access inputs, connections and sell their produce. Their houses are iron-sheet roofed with walls made of burnt bricks, well-made mud floors, and they have a kitchen, bathroom and toilet outside their house. Women wear *chitenje* and they have enough clothes and they buy new clothes every year. Sometimes they use their clothes to exchange for labour from the poor and poorest. They harvest up to 30 bags of maize per season which lasts up to 7 months. They use pesticides to protect their grain in storage. They also grow tobacco, groundnuts and soybean. They do not struggle to get food and they eat three times per day. They eat a variety of foods including tea, meat (3 times per week), *nsima*, rice and potatoes.

They can have more than MK20,000 (\$25) per month. They can own up to 20 chickens (local breeds), 3 goats, 2 pigs, and they have dogs. They rarely get sick because they eat well and dress well, live in good housing conditions and sleep well. When they get sick, they are able to go to private hospitals where they are easily assisted, compared to a government hospital. They are able to access approximately 4-5 acres of land as they have the ability to buy or rent in additional land. They are able to utilise their land because of their ability to access inputs and labour. They grow a wide range of crops including maize, groundnuts, soybean, sweet potatoes, and sometimes tobacco. They relate very well with other people in the village, they are usually opinion leaders and they hold leadership positions. They also provide *ganyu*, rent in land, and buy coupons from the poor and the poorest. They are the ones who mostly join groups such as cooperatives, clusters and village banks because they see the benefits of joining groups and they can afford to pay costs associated with membership.

They are mostly educated while some are not, but they are able to send their children to school and support their education. They actively participate in extension activities and are usually the contact farmers¹⁴ to whom most of the extension messages go and they are supposed to share with others. During farm demonstration of different technologies, they are usually the ones who mount demonstrations for others to emulate. Extension workers often visit their fields. They have more assets compared to the poor and the poorest, they even own a radio. They sell more produce, usually in groups and they can access distant markets. Sometimes they also sell to vendors and to organisations such as NASFAM.

Source: FGD transcripts

The 'better-off' are the second largest group of the sample. These have better access to capital and can command enough labour both from within the households as petty commodity producers through exploitation and with hired labour. According to Lenin, this group is likely to slide back into the poor category when conditions become bad, for example, during adverse weather conditions, crop failures, market failures, or even the absence of key household members due to sickness or death. But comparing them to the rich, they do not reach those

poor and the poorest fit into the description of the vulnerable households, however, due to other problems such as immediate food needs or inadequate labour, they choose to sell their coupons to the better-off and the rich.

¹⁴ These are farmers who lead the way and others follow. During colonial times they used to be called progressive farmers and during the Kamuzu Banda era they were referred to as '*achikumbe*', and Kamuzu called himself '*mchikumbe*' number 1

levels in terms of capital investment in farming but also in commanding labour, although in seasons where things are very good, they can rise up to the rich category. This group is the most unstable one (Lenin, 2009). Lenin described these as ‘middle peasants’ who produce for subsistence but also some for sale; they are semi-commercially oriented. They use family labour and employ additional workers, but they use family labour more than they hire. They own less land than the rich, but a few manage to purchase or rent in land. Their income from agriculture is lower than their annual expenditure. This group, unlike the poor, spend less on food, but they consume more, mainly from their own production (Lenin, 2009). Bernstein describe these as those involved in expanded reproduction but on a small scale. However, in the case of Malawi, this group exhibits some degree of expanded reproduction and accumulation. They use family labour and hire additional labour and they rent in additional land to supplement their allotment land. They engage with markets both at the input side and output side. They can be categorised as petty commodity producers (Bernstein, 2010). According to Cousins, this group can be categorised as small-scale capitalist farmers who engage in expanded reproduction and accumulation (Cousins, 2010). This group could be those who are ‘stepping up’ as they expand their agricultural production activities through renting in more land and hiring in additional labour. They also invest more capital in farming to increase their income and improve their livelihoods but are also ‘stepping out’ as they are also relying a lot on income from off-farm sources, mainly business. Scoones et al., (2012) also characterise this group as ‘middle farmers’ who are ‘accumulating from below’ through petty commodity production, and Zhang (2015) describes them as ‘petty bourgeoisie’ commercial farmers who hire seasonal labour, rent in land, sell most outputs and buy means of production.

Box 7-5: The ‘rich’, *ochita bwino*

These apply both fertiliser and manure in large amounts and they use certified seeds. They also buy coupons from the poor and the poorest. They have a bicycle and a motorcycle which they use to reach different places. They even travel outside the country; besides, they have money to access most means of transportation. Their houses are made of iron-sheet roofs, the walls are of burnt bricks and others plaster their walls, the floor is made of cement, they have a good kitchen, bathroom, toilet and sometimes a fence. Women dress in high quality wraps, they have more than enough clothes, and men dress in good tight-fitting clothes, sometimes suits and ties. They harvest up to 100 bags of maize, they harvest enough to last them all year round. They use pesticides and other modern technologies to preserve their grain in storage. They do not struggle to get food as they have maize throughout the year. They can eat more than 3 times per day and they eat three food groups including *nsima*, rice, potatoes, meat, and tea.

“The rich eat more than three times per day, in fact at any time they want, they can have tea more than once per day. They eat meat almost every day, to them meat is just like a snack.” FGD with men in Chinkhowe (2020).

The rich have more than MK50000 (\$60) per month and they keep their money at the bank. They keep a wide range of livestock including cattle (both local and exotic breeds), 20 goats, 10 pigs and up to 50 chickens (local breeds), and dogs. They rarely get sick but when sick they are able to access medical services at any hospital because they have money. They can have between 8-10 acres of land because of their ability to rent additional land. They grow a variety of crops including maize, groundnuts, soybean, sweet potatoes and tobacco. They hire labour and they can even have permanent farm workers. They are able to relate with other people from other wealth groups but mostly it is among themselves. They hire the poor and poorest for *ganyu* in exchange for money, food, clothes or inputs. They also participate in groups and are chosen to hold leadership positions (sometimes deliberately to

benefit from them). Some are educated, others are not but they are able to send their children even up to university level. They participate in extension activities in groups but also individually in their farms. They own more assets including television, oxcart, and some have maize mills. They choose which markets to sell their produce at because they have the ability to meet the demand as they aggregate from the poor and the poorest. They also have the ability to transport their produce to distant markets as they can cope with the transaction and transportation costs.

Source: FGD transcripts

The 'rich' are the smallest group in the sample. They invest more capital in farming than any other group; they command more labour such that they can have even permanently employed workers, although they still utilise family labour. They often produce more and aggregate from other groups of farmers to sell to lucrative markets since they are able to meet volumes demanded but also the quality. They tend to be involved in other off-farm economic activities that support their farming, such as businesses. According to Lenin, these are 'rich peasants'. He described them as being commercial-oriented, they are involved in non-farm activities to a larger scale such that they earn more income from outside farming than from farming. They have more allotment land but also purchase or rent more land. They use better and improved implements. They own more livestock such that they are involved in capitalist livestock farming inasmuch as they are involved in large-scale capitalist cropping. They spend more on inputs than they do on food and they consume good food (Lenin, 2009). According to Bernstein, these are 'emergent capitalist farmers' who accumulate productive assets and reproduce themselves as capital on a large scale (Bernstein, 2010). These fall within both 'stepping out' and 'stepping up' categories, as they accumulate from farming activities and are moving out to start non-farm enterprises on a large scale but there are also those who are expanding more and more within farming and are using income from off-farm sources to expand the scale of production in farming. Zhang (2015) described these as 'entrepreneurial farmers' except that in Malawi they do not sell all produce but in huge amounts.

7.4. Characteristics of Different Classes

This section presents the characteristics of the class categories and identifies patterns of differentiation based on the analysis of both quantitative survey data and qualitative data. The characteristics, including socioeconomic characteristics (gender, age, household size, education), productive activities (crops grown, crop diversification, livestock ownership, access to means of production, production levels), economic activities (income sources and income levels, market participation) and access to extension services are explored. The class and gender intersect is revisited through analysis of women empowerment across classes, gender division of labour, decision making, access and control over resources and income.

7.4.1. Socioeconomic characteristics

The rich have a higher average household size (9) compared to other classes and average for the whole sample (5). There are debates about the relationship between poverty and household size and some have found a positive correlation, for example, Anyanwu (2014) found that households with a high number of household members are more likely to be poor than those with a low number of household members. Similar results were reported by Meyer and Nishimwe-Niyimbanira (2016) in South Africa. This is within the common narrative that having bigger household size contributes to poverty (Libois and Somville, 2018). The possible explanation for the case here is that the rich are able to provide for them considering that culturally, Malawians take care of extended family members. Male-headed households have a

slightly higher average household size (5) than female-headed households (4), although differences are not significant, also suggesting the ability of male-headed households to provide for the large household size but also because the extended family members come from both the husband and wife's side.

Across all classes, the majority are in the prime age group (25-54) with an average age of 44 years. However, the average age among female heads (51) is significantly higher than that of male heads (43). This has an implication for labour availability in female-headed households. There are more female-headed households that are poorer (88%) than male-headed households (63%) and there are more male-headed households in richer categories (37%) than female-headed households (16%), agreeing with what others have argued about the situation of women (Cagatay, 1998, 2001), and others (Quisumbing et al., 1995, 2014) who argue that the situation among women is because of poor participation in decision making, poor access to production resources, and lack of access and control of resources and income result in these inequalities. Female-headed households are likely to belong to the poorest group because of the absence of male labour in the households, which affects production, and lack of access to productive resources including land. The findings contradict what was reported by Altamirano Montoya and Teixeira (2017) in Nicaragua who employed the Multidimensional Poverty Index (MPI) to measure poverty, and Oginni et al. (2013) in Nigeria, who used a wealth index to measure poverty and compare male- and female-headed households.

7.4.2. Crops grown and crop diversification

The choice of which crops to grow and how many crops to grow is dependent upon a number of factors, including resource availability, crop requirements, its use and comparative advantage over other crops, just to mention a few. One of the criteria used to categorise households into classes is their choice of crops among other production and economic activities they are engaged in. This is also due to the risk involved, which may be high in some crops and low in other crops. Poor households often go for lower-risk enterprises compared to those with high risks (Vargas Hill, 2009).

Almost all households grow maize, which is not surprising because maize is the staple food crop, but a high percentage of households grow groundnuts, including the poorest, because groundnut farming does not require huge investments in terms of inputs such as seeds (mostly recycled) and fertiliser as other crops do. The majority among the poorest grow soybeans, possibly because soybeans also do not require much investment in terms of fertiliser, except inoculants, which most of the farmers can do without; land (usually intercropped with maize) and seeds (use recycled). It is not surprising that richer households grow tobacco as the crop is a high value and main export crop in Malawi, but it also requires high investment in seeds and fertilisers which they can afford, and the crop is prone to risks of both production and market failures (Vargas Hill, 2009).

“The richer can grow all crops and any crops they want including tobacco in large quantities; they hire labour, they can have 3-5 permanent labourers, they hire more labourers because they have the ability to give them food.” FGD with males in Kachono.

“The poor mainly grow maize, some can grow groundnuts (a little) and soya, often intercropped with maize; they use family labour, and they also do *ganyu* in exchange for materials such as food and clothes. They are the ones who work in rich people's fields.” FGD with women in Kachono.

Male-headed households are likely to grow tobacco and more female-headed households are likely to grow groundnuts and soybean. Others have also documented that groundnut is

considered a women's crop (Orr et al., 2016), although recently men are taking over the crop because of problems experienced in growing tobacco but also because groundnut is becoming highly marketable (Mgalamadzi et al., 2021). It is not surprising to find that female-headed households are concentrating more on growing groundnuts and soya beans than tobacco because they are already resource constrained.

High crop diversification is observed among richer households than poorer households. This is probably because poorer households already struggle to find inputs, including labour, to invest in farming, so, they opt not to spread their resources too thin across a number of crops and concentrate on specific crops, such as maize, and those who require less capital investment. In their study, Kumari et al. (2010) found that crop diversification is determined by, among other factors, family labour, which richer households are more likely to have access to and are capable of commanding more labour through hiring. Another study by Hitayezu et al. (2016) reported that crop diversification is a factor of the availability of land and labour that are within reach of richer households but also agrees with others that poor households are reluctant to take risks and diversify (Vargas Hill, 2009). Male-headed households are more likely to diversify their crops than female-headed households. This could be because most female-headed households struggle to access means of production and diversifying would mean that they are spreading their resources thin. With the level of farming that female-headed households engage in, they concentrate on growing maize which is a staple food crop and are less willing to take risks and engage in other crop enterprises.

7.4.3. Livestock ownership

Livestock ownership is one of the important indicators of accumulation and a factor used to differentiate class categories. For instance, (Lenin, 2009) used the number of draught animals owned to differentiate the poor, middle and rich peasants. Poorer households own small animals including chickens and goats, and some pigs in small numbers, while richer households own almost all of the livestock types in large numbers including large animals (cattle). This also points to livestock diversification among richer households and less diversity observed among poorer households. Poorest households are likely to own very few (less than 3 chickens and 1 goat), poor households own between 3 to 5 chickens and could have up to 2 goats and 1 pig, better-off households keep between 5-10 chickens and could have up to 5 goats 3 pigs and some could have even 1 cow, rich households own more than 10 chickens, could have up to 10 goats, 5 pigs and more than 1 cow. This was also noted by Hall et al. (2001) that poor households often own few small animals.

More female-headed households own goats as goats are easier to manage in terms of feeding (feed kitchen waste residues, graze in surrounding shrubs), housing (usually housed inside the house) (Oluwatayo and Oluwatayo, 2018). This also shows differentiation not only regarding the ability to own and manage livestock but also the benefits derived from these animals, which include food, sale, manure, and draught purposes. Richer households use the cattle as oxen for an oxcart to transport their produce from the farm to their homes and to markets. Sometimes they rent out their animals to be used as oxen, which also helps them generate income. The results agree with Dercon (1998) who reported that richer households are more likely to own cattle because of the higher resource required to raise cattle.

7.4.4. Access to capital

Access to capital is the major driver of change among farming households as it affects the dynamics of labour and land availability. Access to capital, even from non-farm activities, is associated with processes of accumulation in agriculture and is central to class differentiation in rural areas (Zhang, 2015). Access to capital in the form of agricultural inputs is deemed one of the most important drivers for households to engage in farming activities and to

commercialise. A number of variables are used to determine access to capital, but the most important variable is expenditure on agricultural inputs such as fertiliser and seeds. Figure 7-1 presents differences in expenditure on agricultural inputs across classes.

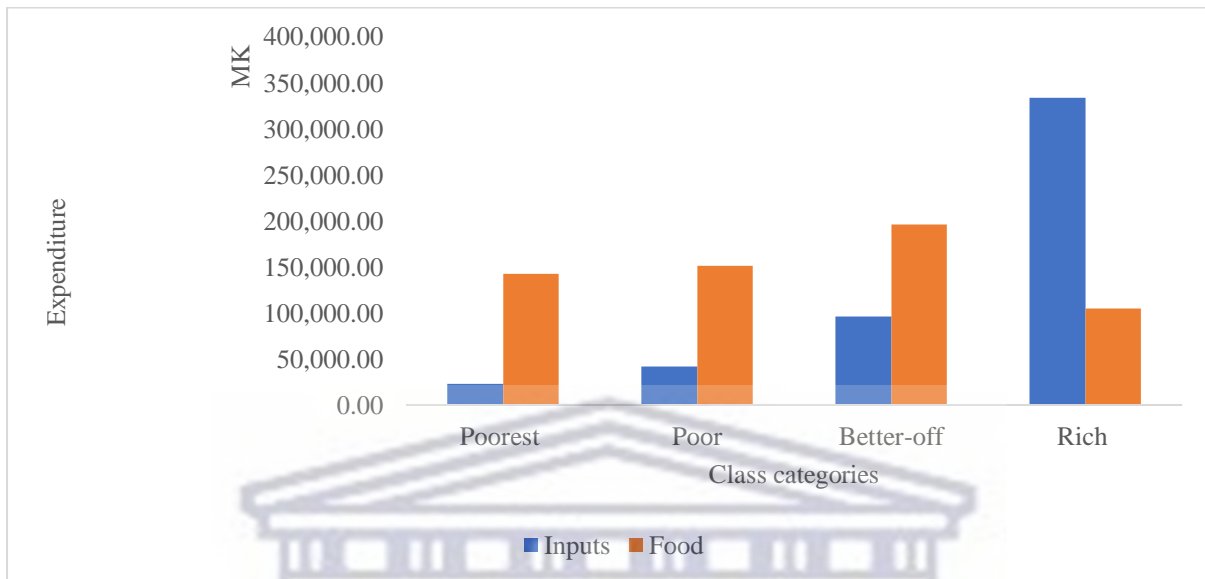


Figure 7-1: Expenditure

Number of observations (126), Note: T test results are significant at 0.01 for inputs with p value of 0.000.

Source: Author's survey data

Richer households spend more on agricultural inputs than poorer households, and expenditure on both food and inputs is significantly higher among male-headed households than female-headed households. Consistent with Lenin's argument, the results show that poorer households spend more on food than on inputs, while rich households spend more on inputs than on food (Lenin, 2009). This is because often, the rich produce food lasting all year round, compared to poorer households who often buy food (maize), while the expenditure on food for the rich is mainly on diversified food items. Poor households spend more even on maize whose prices are inelastic, such that an increase in the price of maize will not reduce the demand because maize is a staple food (Jayne et al., 2008). The reason why better-off households spend more on food than on inputs is because their main income source is non-farm (businesses) which means they use the money realised from businesses to buy food, and they spend less on inputs because much of their income is used to invest in their off-farm businesses.

“The rich are able to apply manure in large amounts, fertiliser in large amounts, they use certified seeds and they also buy coupons from the poorest.” FGD with males in Chinkhowe.

“The poorer use recycled seeds (*zoyoyola*) some use little fertiliser while some do not; when they get fertiliser coupons, they sell¹⁵, they do not use manure.

¹⁵ These are identified as beneficiaries based on their prevailing characteristics but they often do not have the capacity to access the fertiliser and farm, hence they resort to selling the coupon so that they can fulfil their

Some are able to buy fertiliser after receiving coupons, but they share a bag of fertiliser with others¹⁶. FGD with women in Chimera.

7.4.5. Access to land

Land ownership is an important factor in differentiating households into classes, contrary to what Lenin (2009) and Cousins (2010) found, but the social relations related to capital ownership and labour availability affect the dynamics of land, leading to an increase in land commodification. Lenin also reported that rich households buy more land for their accumulation and expanded reproduction (Lenin, 2009). Figure 7-2 presents differences in land owned and cultivated across classes.

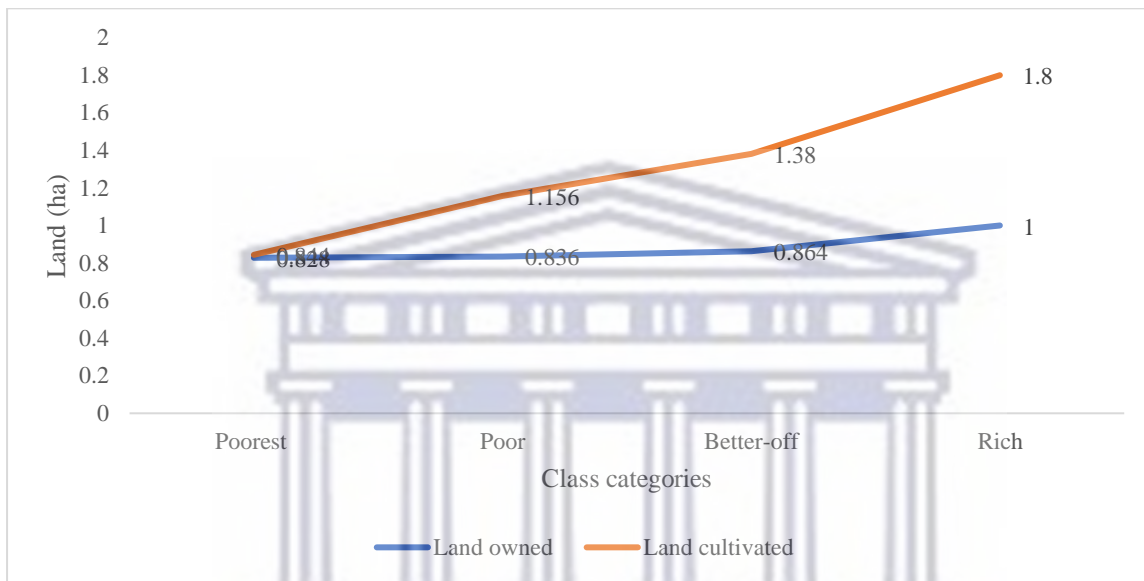


Figure 7-2: Land owned and cultivated

Number of observations (126), Note: T test results were significant at 0.01 with p value of 0.000. Source: Author's survey data

Despite very small differences being observed in land owned across class categories, significant differences are observed in land cultivated, as the average size of land being cultivated among richer households is higher than poorer households. No significant differences can be observed between male- and female-headed households but male-headed households own (0.9 ha) and cultivate (1.2 ha), relatively larger land sizes than female-headed households (who own 0.8 ha, and cultivate 1 ha). This is because richer and male-headed households are able to rent in additional land. Findings agree with what others have noted, for example, Hall et al. (2017), who noted that medium-scale farmers accumulate land as a result

immediate needs (food and other necessities). This is one of the reasons FISP has been criticised on the basis of its targeting.

¹⁶ The tendency of sharing fertiliser with others in the villages has come about as an adaptation mechanism to the inadequate number of fertiliser coupons provided to poor households under the FISP program. So, at village level, the local leaders order the villagers to share the fertiliser one gets from the coupon so that more people benefit. Some people have argued this is done as a political move for the local leaders to gain popularity because the practice does not benefit the villagers since they apply very little fertiliser which is not enough to produce enough benefit.

of agricultural commercialisation because they have the ability to access more land since they have the means to do so, while the poorer either maintain their current land area or, in some cases, sell or rent out their land to rich households. In Malawi and Zambia, Chamberlin and Ricker-Gilbert (2016) found that land rental markets promote efficiency by transferring land from those who are not able to use it to those who are able to use, and in Malawi in particular these are those who have access to labour and inputs. They also found evidence that the practice has a positive impact on household income and welfare. The new systems of land renting which is locally called *pinyolo*¹⁷ (pawning land) is actually perpetuating deeper poverty and dependency among those who rent out their land.

7.4.6. Labour usage

Labour availability is also one of the important factors used to differentiate households into class categories, in particular, the type of labour used and division of labour within the household activities and their implications for household farming activities and class differences. Consistent with the notion of petty commodity production (Bernstein, 2010), where capital (means of production) and labour are often combined within the household or individual, the majority of the study participants are petty commodity producers who, besides owning capital for production activities, are often involved in selling their labour to supplement their simple reproduction.

Richer households are more likely to combine family and hired labour than poorer households, and female-headed households are more likely to use family labour than hired labour. It also depends on the type of crop, as more households use family labour for maize, but they combine family and hired labour for tobacco, which is a commercial crop but also requires more activities and more care compared to other crops. For most of the poorer and female-headed households that also hire labour the reason is that they are in their old age so they use money from either remittance, crops sales or small-scale businesses (such as selling fritters) to hire labour. This category is also likely to rent out part of their land and use the money to buy inputs and hire labour.

It is often poorer and female-headed households that are hired to work on the farms of the richer households. This was mentioned as one of the most important relationships between classes, which, on the one hand, is beneficial, as poor households are able to access income and inputs and sometimes exchange their labour for food and clothes, but on the other hand, is exploitative, as poorer households fail to work on their own farms; hence, they do not produce enough for food and sale. This exhibits the very nature of capitalist relations, as on the one hand, workers, in this case poorer and female-headed households, perpetually depend on capitalists (richer households) for their means of subsistence. On the other hand, capitalists (richer households) depend on workers (poorer households) for their labour power, and the dependence situation created is beneficial for capitalism (Marx, 1963).

7.4.7. Crop production

Crop production levels of common crops are analysed across class and gender categories as presented in Figure 7-3. The expectation is that due to the advantageous position that richer and male-headed households have in access to means of production, extension and other

¹⁷ under a practice where the owner of the land gets a certain amount of money from someone who needs a piece of land to farm with an arrangement to pay back the money and get the land back; however, if he fails to pay back, then the other person continues to farm the land until his money is paid back.

support services, they are likely to have better production levels compared to poor and female-headed households.

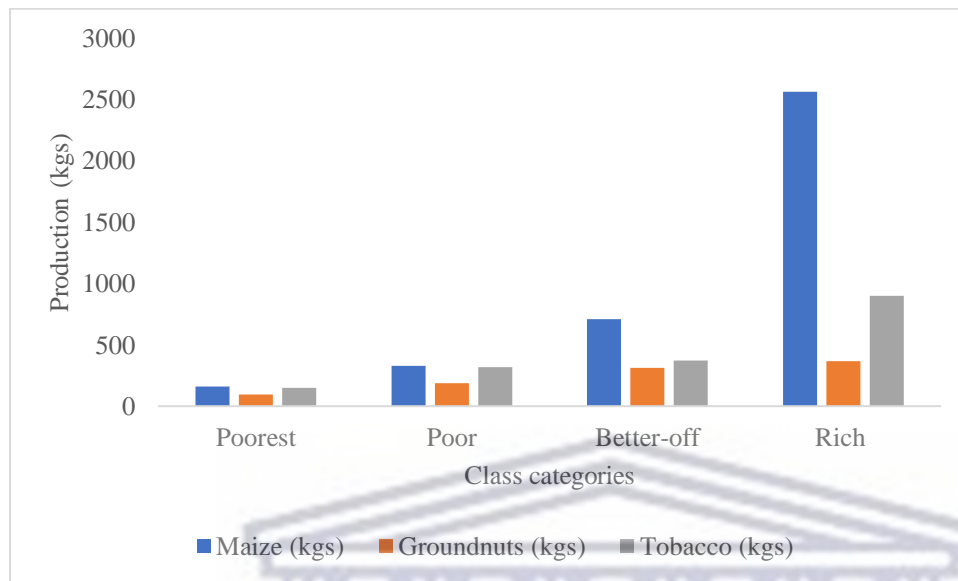


Figure 7-3: Production levels across classes

Note: T test results are significant at 0.01 with p values of 0.000 for maize, 0.005 for groundnuts and 0.006 for tobacco.

Source: Author’s survey data

Production levels of all crops across classes are significantly higher among the rich than the poorest. This signals the better position that richer households have in terms of access to production resources, compared to poor households. The implications of lack of male labour in the female-headed households on productivity were also reported by Kilic et al. (2015). Nevertheless, differences are not significant, but differences exist among male-and female-headed households as male-headed households are more likely to produce more of each crop than female-headed households.

“The rich harvest more, in fact they could harvest between 7-18 oxcarts of maize, their food last to the next harvest, *chakudya chimapezana* (food from previous season reaches the next season), they use pesticides and they also use modern storage bags that do not require use of pesticides.” FGD with males in Kachono.

“The poorest if they are lucky, they can harvest up to 3 baskets but not more than that. Most of the times their harvest ends whilst still in the field.” FGD with males in Kachono.

The differences across both class and gender have to do with social and gender relations in access to means of production which favour the rich and men. Poorer households and women struggle to access agricultural inputs because of their disadvantaged position in access to income but also mobility challenges. Within male-headed households, women play a subordinate role in decision making, control and access to productive resources. Poorer and female-headed households are more likely to rent out their land because of inability to farm due to poor access to inputs and labour. Poorer households and female-headed households are

more likely to sell their labour power hence less labour to be used in their own farms which affects their production levels.

7.4.8. Income and income sources

Income level is one of the factors that differentiates households, and others have used income level to measure poverty levels. Although income has been used as a measure of poverty (Ruggles and Williams, 1989), others (Alkire and Foster, 2008) have criticised the use of a single dimension to look at poverty and argue that it is not a sufficient measure of welfare so they advocate for a multidimensional measure that focusses on a number of factors (Altamirano Montoya and Teixeira, 2017). Figure 7-4 presents the average income level among the different classes.

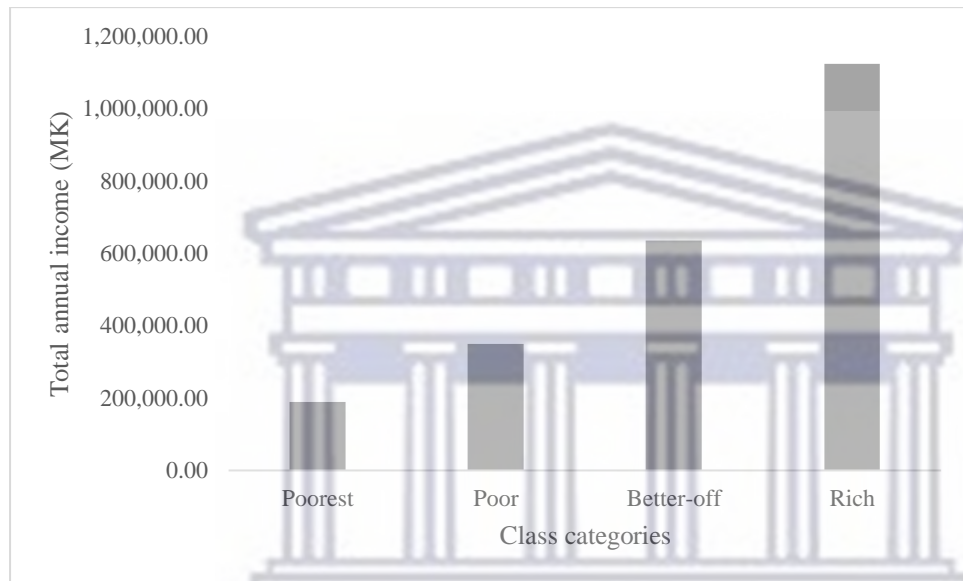


Figure 7-4: Total annual household income (MK)

Note: T-test results are significant at 0.01 with p value of 0.000.

Source: Author's survey data

Rich households have the highest income level compared to the poorest households because of the ability to derive substantial amount of income from a variety of sources. They derive income from crop sales since they are able to harvest more of the cash crops and sell more. They are also involved in medium-scale businesses such as grocery shops. They also derive income from the sale of livestock. Poor households derive their income from some of these sources including *ganyu* and remittances but in small amounts as observed in Table 7-2.

Table 7-2: Percentage of households deriving income from different sources (%)

Source of income	Poorest	Poor	Better-off	Rich
Sale of crops	79	100	100	100
Sale of livestock	29	54	84	75
Business	43	39	55	25
Remittances	21	14	16	0
Social cash transfers	8	3	0	0
<i>Ganyu</i>	86	73	45	0
Farm	0	6	13	50
Nonfarm	21	0	0	0
Farm and nonfarm	79	94	87	50

Source: Survey data

The results show that rich households are more likely to derive their income from crop sales and livestock sales; better-off households are more likely to derive their income from crop sales, livestock sales and business, as better-off households are more involved in businesses, most of which are off-farm or involve aggregations of produce from poor farmers and selling either to rich households or other buyers. It was not surprising to find that poorer households are more likely to derive income from *ganyu* and the poorest from social cash transfers as well as remittances as observed in Figure 7-5.

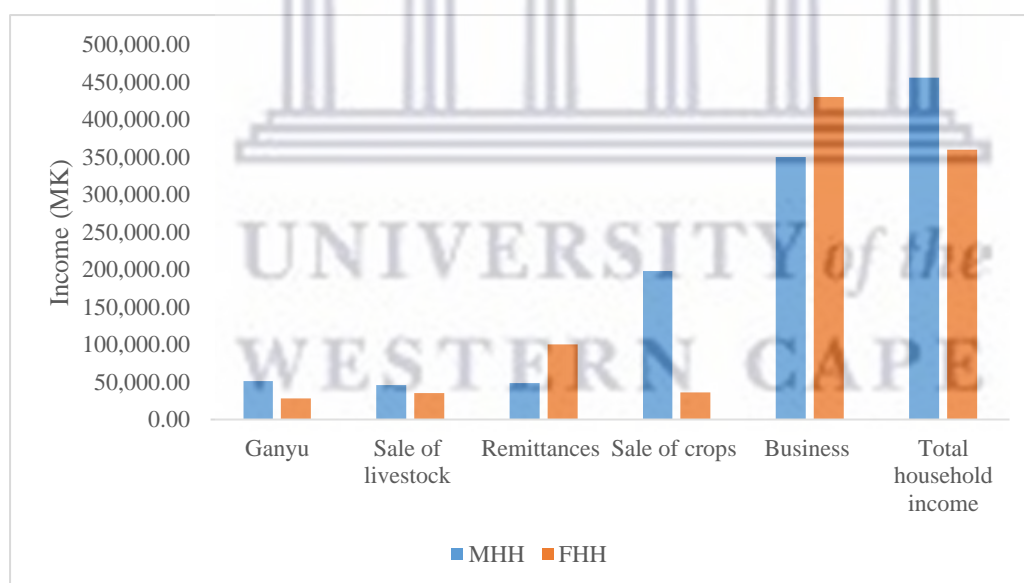


Figure 7-5: Income by sex of household head

T-test results show significant differences for income from sale of crops at 95% confidence level with p-value of 0.03. Source: Survey data

Female-headed households have less income on average, compared to male-headed households, although differences are not statistically significant. Consistent with the findings, Mgalamadzi et al. (2021) also found that female-headed households are more likely than male-headed households to derive their income from *ganyu* which puts them in a disadvantaged position as income from *ganyu* is less and is at the expense of their labour power.

7.4.9. Food and nutrition security

Food and nutrition security (*chakudya ndi madyedwe*) is one of the most important factors in differentiating households into different wealth groups. Food availability is different across classes both in terms of food self-sufficiency, ability to purchase food and a variety of food. One of the social relationships between the poorer and the richer is the exchange of labour for food, especially during periods of hunger.

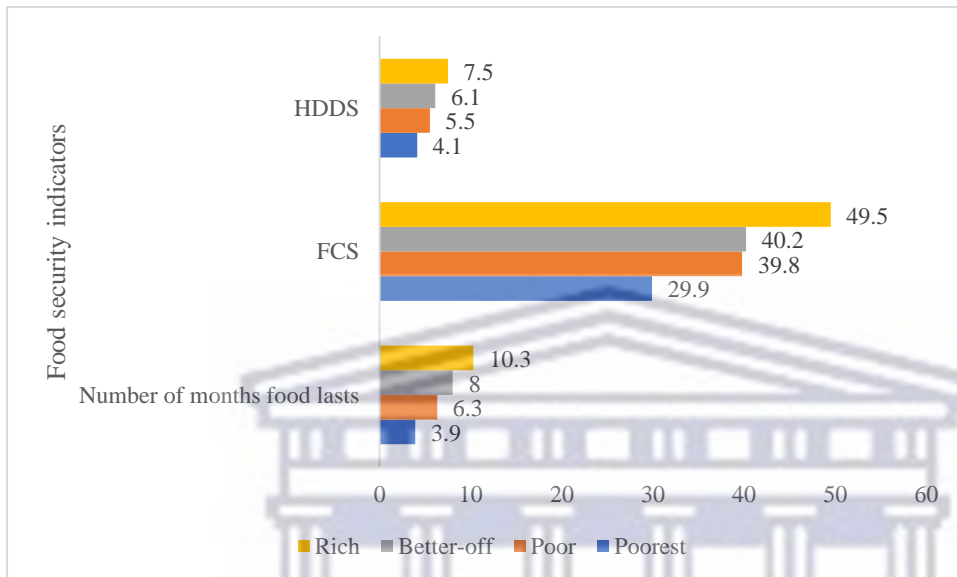


Figure 7-6: Food and nutrition security

Note: T test results were significant at 0.01 for number of months the food last with p value of 0.000; for household dietary diversity score with p value of 0.000; and for food consumption score with p value of 0.013.

FCS: Food Consumption Score; HDDS: Household Dietary Diversity Score.

Source: Author's survey data

Rich households have a better food and nutrition security situation than the other groups, and the poorest have the worst. This is evident in their highest number of months their food lasts, a better food consumption score (FCS) which, based on World Food Programme (WFP)'s cut off points is acceptable, and a better dietary diversity score signalling that they eat much more diversified diets than others. Better-off households are also in a better position, as their FCS is also acceptable and they also have a more diversified diet than the poor and the poorest. The poorest have an FCS that is borderline and they have the worst dietary diversity score.

“The rich do not struggle to get food; they can eat more than 3 times per day. They eat three food groups almost every day, including *nsima* from processed maize flour, rice, potatoes, meat almost every day, tea every day and more than once.” FGD with males in Chinkhowe.

“The poorest struggle to get food, sometimes they do not eat, sometimes they eat once a day, they eat mainly *nsima* with vegetables (usually okra), they do not eat meat but they do sometimes on Christmas, funerals, weddings or other functions, they can eat mice occasionally.” FGD with females in Kachono.

It was striking to note that the food and nutrition security situations of male- and female-headed households was not significantly different which could be because the majority are merely

farming for subsistence, thus the number of those involved in simple reproduction among the sample is greater than those involved in expanded reproduction and accumulation.

7.4.10. Extension access

The aim here is to understand how extension access contributes to class formation and how different class positions determine access to extension services from a political economy perspective. Richer households are more likely to participate in extension activities compared to poorer households. This could be because they see extension services being beneficial for them to maintain their current levels of wealth, which is mostly derived from market-based farming, other than the poor whose income is from other non-farm income sources hence they spend more time and resources in those activities than extension activities. It could also be that because of their status, richer households are targeted by extension service providers, which has been often the case based on the ‘master farmer’ or ‘progressive farmer’ approach implemented during colonial and the Kamuzu Banda era and more recently the ‘lead farmer’ concept (Khaila et al., 2015). The poorest households are often isolated and do not participate in farmer groups, which are the common platforms where extension workers meet with farmers. This study argues that class positions determine access to extension services although it is difficult to ascertain that access to extension services determines class positions.

“The ‘rich’ do participate in groups, and they are the ones who also assume leadership positions, in fact more than the ‘better off’. Sometimes members deliberately choose them in positions to do with money because they are confident that if they can misuse the money, they have the capacity to pay back.” FGD with men in Kachono.

“The ‘poorest’ do not join groups because they see them as not useful to them. They use the time to look for food for that day (usually they are ‘hand-to-mouth’ people), sometimes the reason is that they think they cannot manage to pay membership fees and other costs associated with being members of groups; they do not assume leadership positions.” FGD with women in Chinkhowe.

“The ‘rich’ and ‘better-off’ also participate in extension activities; they meet them in groups but also individually in their demonstration fields. They are usually contact farmers and lead farmers who other farmers learn from.” FGD with men in Chimera.

“The ‘poorest’ usually do not participate in extension activities; they feel like they are wasting time. Extension workers usually do not go to them because they are not willing and lack commitment but also extension workers mostly use a group approach because with inadequate resources, they cannot manage to do individual visits so they would go for those already organised in groups and since these avoid being in groups, they are left out.” KII with lead farmer in Kachono.

Male-headed households and men are more likely to participate in extension activities than women and female-headed households, most of whom are in poorer classes. This is because the majority struggle to access means of production to engage in farming for commercial purposes and accumulate. Female-headed households also see extension services not benefiting their situation and they opt to use their time to work for their simple reproduction. Men are likely to be targeted by extension workers because they are assumed to be heads of households and expected to trickle down the information to other members of their households (Mudege et al., 2017).

7.4.11. Agricultural commercialisation

Richer households, compared to poorer households, are more likely to commercialise (Mgalamadzi et al., 2021), spend more on inputs, rent in additional land and tend to utilise hired labour in combination with family labour.

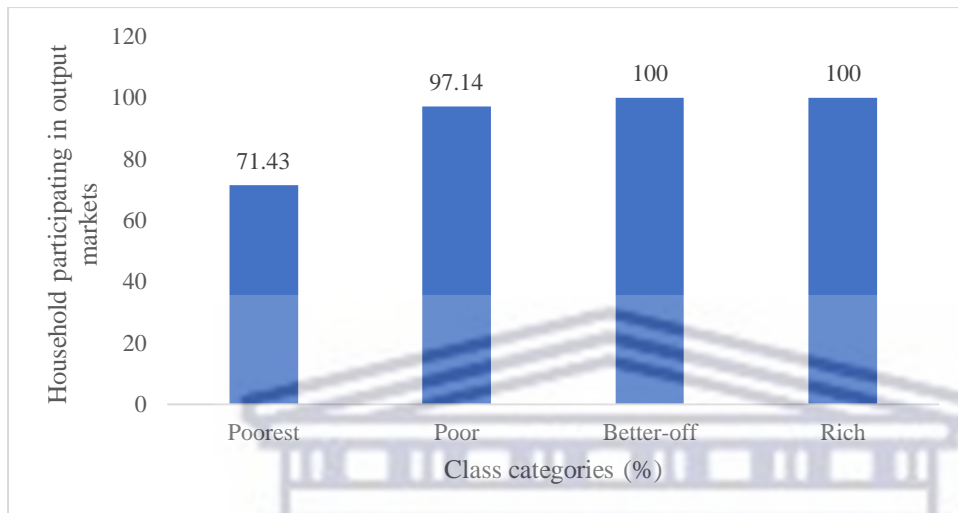


Figure 7-7: Output market participation

Source: Author's survey data

All richer households are engaged in output markets, but among poorer households, there are some households that are not engaged in output markets. This is mainly a factor of the amount and type of crops produced, which in terms of amount, poorer households produce less than richer households, and they mainly produce maize, which is mostly for food. There is a positive relationship between class category and commercialisation, as the 'poorest' households have a mean HCI of 34%, 'poor' households 45%, 'better-off' households 53% and 'rich' households 73%, suggesting that richer households are more likely to commercialise than poorer households because of their ability to access inputs, command enough labour, rent in more land and be able to cope with risks of crop failure and market failures, unlike poorer households.

7.4.12. Women empowerment

The poorest have a better women empowerment index than richer households as shown in Figure 7-8. This suggests that as households earn more income, gender inequalities in decision making, access and control over resources and income, land ownership and division of labour deepens. Consistent with what others have found that as crops become more commercialised, men tend to take over and dominate in decision making and control (Mgalamadzi et al., 2021; Orr et al., 2016). The better-off have the worst women empowerment index, and they earn more income from off-farm sources suggesting that in these households, women tend to lose control of the benefits from both farm but more from off-farm income sources.

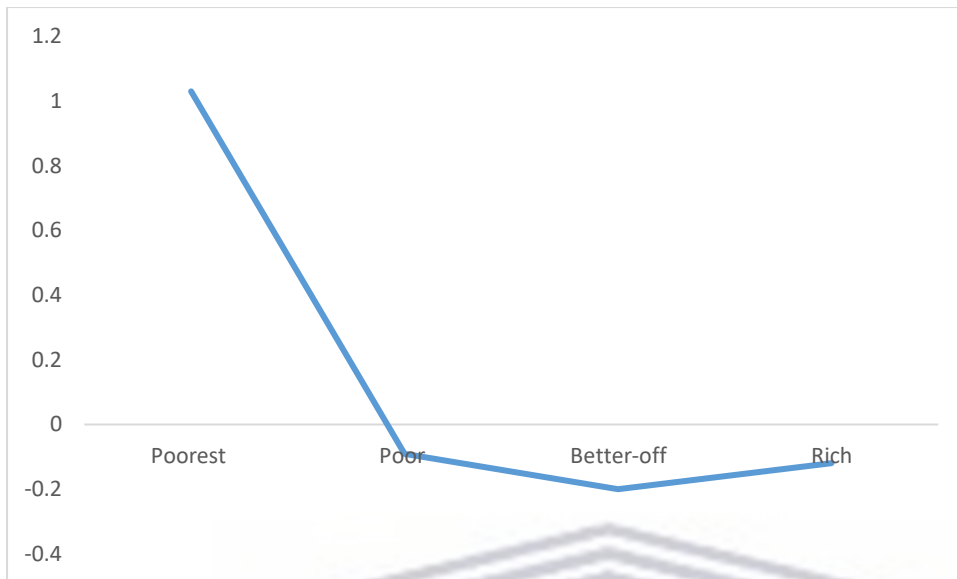


Figure 7-8: Women empowerment index among class categories

Source: Author's survey data

7.5. Chapter Summary

This chapter responded to the third research question: *How are class and gender differences being shaped and are shaping commercialisation and extension access?* Agricultural commercialisation deepens class and gender inequalities but there is not much evidence of extension access resulting in class and gender differentiation. Both class and gender inequalities exist as a result of engagement in market-based farming. The class differences in market participation are as a result of the social relations in access to means of production but also benefits which favour the rich at the expense of the poor. The gender differences are as a result of the gender relations in decision making, access and control of production resources and income, division of labour and ownership of land, which also benefit men and disadvantage women. Lack of evidence in extension access contributing to class and gender differences is because of the minimal influence that agricultural extension has as these dynamics are being influenced by other factors other than agricultural extension. Class and gender are influencing access to extension services and engagement in commercial farming because some class and gender categories (richer and male-headed households) are more likely to participate in extension activities and engage in market-based farming than others (poorer and female-headed households). Richer and male-headed households access extension services as a result of engaging in commercial farming to improve and maintain their positions.

Gender differences impact access to extension services as men and male-headed households are more likely to access extension services than women and female-headed households (Mudege et al. 2017). Male-headed households are more likely to commercialise than female-headed households as they are better able to access means of production, command labour, access more land, and access better markets for their produce (Mgalamadzi et al. 2021). Market participation deepens gender inequalities as those who are highly commercialised have a worse women empowerment index. This is because men control resources including land, income from crops sales and dictate access to resources and income as households start producing for the market (Orr et al., 2016; Mgalamadzi et al., 2021).

Drawing from the class differentiation literature (Lenin, 2009; Bernstein, 2010; Cousins, 2010; Zhang, 2015; Vicol, 2019), four classes are identified including the poorest, also referred to as

‘too poor to farm’; the poor, who are also described as ‘resource poor’; the ‘better-off’ and the ‘rich’ with the majority belonging to the poor and better-off classes. These class positions are fluid because of the changing circumstances but more importantly because of the changing social relations in access to land, labour and capital, which often favour the rich at the expense of the poor.

The main argument in this chapter is that classes exist with the majority belonging to the poorer categories. The main driver of differentiation among the classes is access to means of production and thus inputs, labour and land. These are mediated by the social relations among classes but also genders. On the one hand, class positions determine access to extension services, but extension access does not determine class positions. On the other hand, agricultural commercialisation shapes and is also shaped by class positions. Gender differences shape access to extension services and market participation, and market-based farming deepens class and gender inequalities. Building on class analysis in this chapter, the next chapter analyses the livelihood trajectories among farming households in relation to agricultural extension and commercialisation.



Chapter 8: Stepping Up, Hanging In, Stepping Out and Dropping Out: Livelihood Trajectories in the Context of Market-based Farming

8.1. Introduction

This chapter analyses farmers' livelihood trajectories drawing from Dorward et al.'s (2009) framework, which was expanded by Mushongah (2009) to bring further nuance to the framework in the context of market-based agriculture and the role of agricultural extension. The Dorward framework categorises households based on their activities not only from the farm but also off-farm as opposed to the dominant paradigms of analysing class formation based on activities on the land (Pritchard et al., 2017), and as Bernstein (2009) puts it, this takes the discussion away from the politics of land to the politics of labour, as labour becomes the most important asset. The narrative on the increasing reliance on non-farm income which is illuminated in the Dorward framework, rests on the theory of deagrarianisation advanced by Bryceson (1996) and others, who describe how most livelihoods move away from agriculture and from their land, and rely more on non-farm income (Babin, 2020). However, the case for Malawi is slightly different because even though the 'stepping out' and 'dropping out' households diversify their livelihoods to rely more on off-farm activities, they still cling to the land which, as Pritchard et al. (2017) argues, remains important for their social status, family welfare, insurance against economic adversity and it is their main productive asset. The class or social position of people in the community is based on ownership of land and diversifying away from it through renting out is seen as a distress. Therefore, the Dorward framework helps to understand these processes of deagrarianisation (Pritchard et al., 2017).

This chapter provides further analysis of the livelihood outcomes described in Chapter 6 by digging deeper into participants' life histories, and locating the role of commercialisation and extension access, but also analysing the dynamics of class and gender differentiation by answering the research question: *What factors are contributing to the development of livelihood trajectories?* The study identifies four livelihood trajectories among households, two ('stepping up' and 'hanging in') are typically based on the farm, while the other two ('stepping out' and 'dropping out') are moving away from farming, with some degree of further differentiation within the trajectories. Further differentiation is observed among the 'dropping out' trajectory, where some are dropping out and coming back into farming, others are dropping out of growing certain crops, while others are dropping out completely. Within the 'stepping up' trajectory, there are some who are stepping up by accumulating from within farming while others accumulate with the help of income from off-farm sources (Musumba et al., 2022). One of the important characteristics of the stepping out households is that they step out to other off-farm income sources such as businesses using income from farming (Dorward et al., 2009).

Main factors contributing to the development of these livelihood trajectories include land availability, labour availability, access to capital, access to non-farm income, government initiatives and policies affecting access to inputs, local politics in access to productive resources such as land and labour, and social networks. Changes in availability of extension services and type of services provided have less impact on these changes because other factors are more impactful. The ability to engage in expanded reproduction and accumulate has more impact on households' movements into different livelihood trajectories. There are intersections between class, gender and livelihood trajectories, as the rich are likely to be stepping up, the better-off are likely to be stepping out, the poor are hanging in and the poorest are dropping out. Male-headed households are more likely to be stepping up and stepping out, while female-headed households are more likely to be hanging in and dropping out. Just like class categories,

livelihood trajectories are also fluid such that households tend to move from one livelihood trajectory to the other over a period of time.

The four livelihood trajectories identified include, first, the ‘dropping out’ who did not grow any crops during the 2019-2020 growing season or they grew but harvested very little or nothing. They had no income from crop farming and their income came from other off-farm sources, mainly *ganyu*, remittances, social cash transfers or small-scale businesses. These are those who are basically being squeezed out of farming because, despite having land, they cannot farm it hence they rent it out to survive. The second trajectory is ‘hanging in’ who did farm during the 2019-2020 cropping season but they did not harvest enough. They had income from crop sales but it was not enough to sustain their survival hence they also relied on other sources of income such as *ganyu*, remittances and small-scale businesses. The third trajectory is ‘stepping up’ whose income from crop sales is greater than any other source. They use the income from crops sales to accumulate and expand their production. They rent in additional land but they also have other income sources such as businesses and livestock sales. The fourth trajectory is ‘stepping out’, who farm but they get more income from other sources such as businesses and they use the income from off-farm sources to rent in land and buy inputs for farming.

The chapter has three sections. The first section describes the process of determining these livelihood trajectories, borrowing from other theoretical and empirical work. The second section presents the trajectories across villages and across class and gender categories. The third section describes factors that have contributed to the development of these trajectories by presenting case studies of the different livelihood trajectories. The analysis draws heavily from qualitative analysis and, to a lesser extent, on quantitative analysis.

8.2. Determining Livelihood Trajectories

People’s livelihood aspiration can lead them to pursue different livelihood strategies that are described as ‘hanging in’, where they maintain and protect their current wealth and welfare; ‘stepping up’, where they expand their existing activities and/or by moving into new activities; and ‘stepping out’, where they accumulate assets to allow investment or switch to new activities and assets (Dorward, 2009). Mushongah (2009), added a ‘dropping out’ trajectory where households move away from agriculture and slip into destitution due to shocks and stresses. The framework is applied in the study to categorise households into different livelihood trajectories based on their income derived from farming and other sources, their asset accumulation, their farming activities and their general well-being using quantitative data collected. With this analysis, households are categorised into four trajectories illustrated in Figure 8-1, and Figure 8-2 presents the proportions of sampled households in different livelihood trajectories.

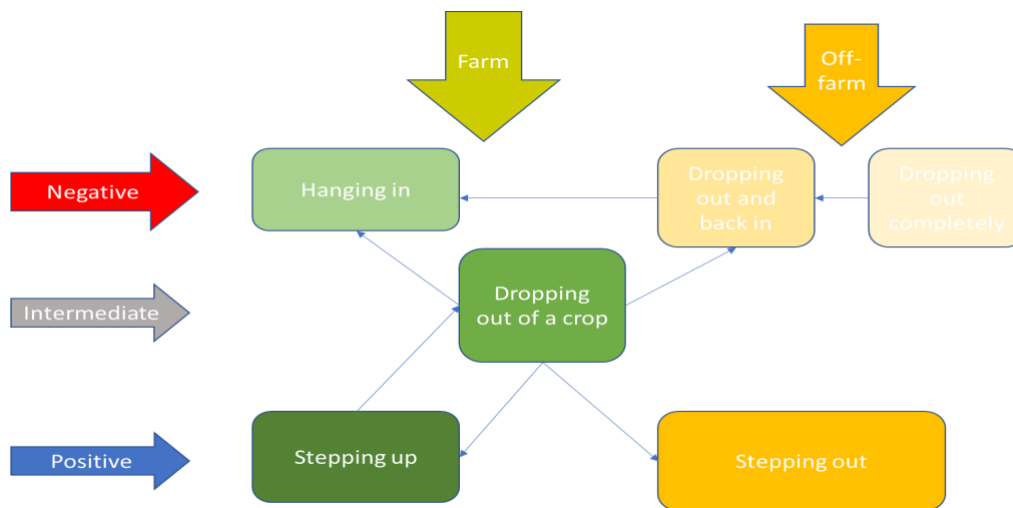


Figure 8-1: Livelihood trajectories among farming households

Source: Author’s own construction based on data analysis

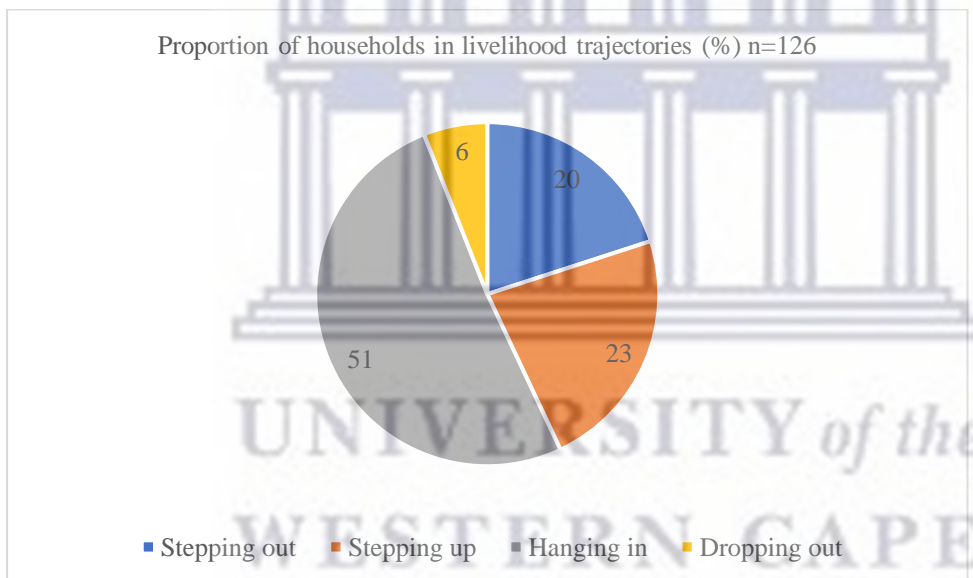


Figure 8-2: Proportion of households in different livelihood trajectories

Source: Author’s survey data

The majority are ‘hanging in’ and a few are ‘dropping out’. This is because most of the households are barely surviving (Dabalen et al., 2017; Diagne and Zeller, 2001; Harrigan, 2008). Very few are ‘dropping out’ which shows that farming is the most common livelihood activity among the majority of Malawians who are rural but also signals lack of opportunities outside farming (Mangulama, 2016). These findings are consistent with what was reported by others (Matita et al., 2022) that the majority of households are in simple reproduction mode with few prospects of improvement because of the ongoing challenges in agriculture (Chinsinga et al., 2021). Female-headed households are more likely to be ‘hanging in’ and ‘dropping out’ than male-headed households. Of the female-headed households, 90% are ‘hanging in’ and ‘dropping out’ compared to 52% of male-headed households, and only 10% are ‘stepping out’ and ‘stepping up’ compared to 48% of male-headed households. This is also

attributed to the disadvantaged position that women occupy regarding access to means of production, especially inputs and labour (Kilic et al., 2015; Ragasa et al., 2012).

The study contributes to the framework of livelihood trajectories by further analysing differentiations that exist within the trajectories but also to expand the criteria with which the trajectories are categorised based on the context. One of the limitations of the study is that data were collected cross-sectionally, which others have argued makes it difficult to determine their real trajectory because livelihoods change over time, but this was overcome by the use of life histories to understand the changes over time.

8.2.1. 'Dropping out' households

These are households that did not grow any crop during the 2019-2020 season, or they did not harvest anything during the season but also, they did not have any income from crop sales. Their income is derived from other sources such as *ganyu* (selling labour-power), remittances, small-scale businesses, and social cash transfers. They have very few assets, their housing conditions are poor, and their general well-being is poor. Some rent out their land because they do not have capital (inputs and labour) to invest on the land. These fall under the categories 'poorest', 'too poor to farm', and those in simple reproduction squeeze (Hill, 1963; Bernstein, 2010). The study observed a few sub-categories within this category:

- a) Dropping out and back in – these are those who drop out of farming in some years because they cannot afford to farm due to lack of inputs and in some cases, labour due to illness, and in the next year they come back to farming. During the years they do not farm, they either rent out their land, give it to their children or just leave the land fallow.
- b) Drop out of a crop – these are those who decide to drop out of growing a certain crop due to production and market challenges, expensive investment into that crop, or labour intensity. For example, some households have dropped out of growing tobacco because they are struggling with the low prices they get when selling tobacco, which keeps them in debt, yet it requires heavy input and management investment. Some have slipped into destitution because of the accumulated debts while others just adopt other new crops and continue farming but there is a change in income since income from tobacco is greater, compared to other crops. Among this group, some can slip into the 'hanging in' category while others drop out completely.
- c) Dropping out completely – these are related to those described by Mushongah (2009) as 'dropping out'. They are those who completely stop farming, they can either rely on selling labour or small-scale non-farm businesses, while some just rely on remittances and/or social cash transfers. Most of these are in old age while some have terminal illnesses which rob them of their labour power.

The 'dropping out' trajectory are those moving away from agriculture, although, a small number signals that most households are clinging to farming because of lack of options outside farming, with few employment opportunities and an environment unconducive for businesses because people lack start-up capital, as well as market failures. These are those who have much of their income coming from non-farm activities but mainly *ganyu*, remittances and social cash transfers. They are also those who have decided not to farm anymore and have rented out their land or given it away. Various views regarding the existence of the dropping out households in the villages were recorded, while others argued that the villages have these kinds of people and acknowledged that the situation develops slowly due to lack of inputs and other resources to farm; others argued that these people do not exist because life without farming would be impossible, as they would not have any food. In Malawi's rural areas, farming is usually the first livelihood activity one does (for a newly established household) and, in most cases, the

last (after retirement). It is because of this reason that land is an important asset for people's livelihoods. The situation supports the argument against the assumption that with capitalism, the peasantry will be differentiated into two classes, one being a class of capitalist farmers while another class will be absorbed in a class of wage labour within the capitalist agricultural sector (Akram-Lodhi et al., n.d.; Pritchard et al., 2017)

“No one drops out of farming, yes there are a lot of people hanging in but not dropping out completely. What people do is that they only stop growing a certain crop but continue with the rest or adopt a new one.” KII with lead farmer in Kachono, March 2020.

Some households just drop out in a single year and they get back to farming in another year. For instance, some households decide to rent their land out that particular year and use the money to buy food or inputs for the next season. However, the problem is that the money is usually not enough for them to survive, so they depend on other income sources, mainly *ganyu*. Others just drop out of growing a certain crop and concentrate on other crops. For instance, some drop out of growing tobacco because of poor sales and perpetual debt, so they decide to start growing groundnuts and maize. Others have documented the problems that tobacco farmers are facing, for example Makoka et al., (2017) observed that most of the tobacco farmers are living below the poverty thresholds, thwarting the narrative that tobacco farming is a lucrative enterprise. This shift means that they have stopped growing a high value and highly commercialised crop, leading to loss of income. In some cases, the debts incurred also force them to start depending on other income sources to pay back the loans or to maintain their livelihoods.

“Some have stopped growing tobacco because of poor sales. They do not want to lose weight because of growing this crop. They decide to concentrate on growing soybean or groundnuts and maize.” FGD with women in Chimera, March 2020.

8.2.2. ‘Hanging in’ households

These are households that are farming to maintain their current state of livelihoods without accumulating assets or expanding production activities. They have income from farming but not enough to enable them to expand their farming activities. They also rely on other sources of income, such as *ganyu*, remittances, and small-scale businesses. Their housing conditions are poor, and their general well-being is poor. Others have described these as those in simple reproduction, poor peasants, or resource poor farmers (Bernstein, 2010; Lenin 2009; Berry, 1993). These are households that were described as those farming just to maintain their simple reproduction, without accumulation or expanding production (Diagne and Zeller, 2001). They also depend on other income sources, such as small-scale businesses and hugely on *ganyu* (Haggblade et al., 2010; Mangulama, 2016). To some extent, they earn income from social cash transfers and remittances. The majority belongs to this trajectory.

“This group has a lot of people; they are the people with no future in farming. Usually, we just wear off on the farms, we work hard, but we do not benefit anything. This is mainly because we grow crops without enough inputs. However, some may harvest well one season, but they sell everything, and the money is not invested back in farming. As a result, they get back to where they started.” KII with lead farmer in Chinkhowe, March 2020.

There are several factors forcing people to hang in: inadequate access to agricultural inputs, mainly due to high prices of inputs and subsidy programmes that benefit a few. This could be understood in the context of ‘politics of capital’ in the same way Bernstein argues about

‘politics of labour’ (Pritchard et al., 2017). This is because the politics in access to capital, in particular access to agricultural inputs, is a major determinant of livelihood trajectories which more often than not affect the access to labour, as households with no or little access to capital sell their labour (politics of labour) to access inputs and when this fails, they end up renting out their land (politics of land). Other factors include poor prices of produce, which result in low profits considering the transaction and transportation costs incurred; and in the case of tobacco farmers, the debts incurred from contract farming.

“More people are ‘hanging in’ in this village. The only reason they continue to farm is for food and to avoid begging for food from people all year long.” KII with Village head in Chinkhowe, March 2020.

More female-headed households are hanging in (72%), than male-headed households (48%). Female heads struggle with their farming because of a lack of access to inputs but also lack of labour to work due to absence of male members, and also due to old age.

8.2.3. ‘Stepping up’ households

These are households whose income from farming is more than any other source, but they also rely on income from other sources, such as businesses. They are accumulating assets and expanding their production by renting in land, buying livestock and other productive assets. Their housing condition is good and their general well-being is good. Differentiation also exists among this group, as some step up primarily with income from farming, while others step up with income from off-farm sources, especially businesses. These could also be described as the better-off or rich farmers, rich peasants, small-scale capitalists, or those involved in expanded reproduction (Bernstein, 2010; Cousins, 2010; Lenin, 2009). They hire more labour apart from using family labour. More male-headed households (25%) are ‘stepping up’ compared to female-headed households (5%).

“These are the people who do farming with a vision. When they get money, they use it rationally and effectively. This helps them to advance in farming. They reinvest the money in farming by buying farm inputs and rent in more land.” FGD with women in Chimera, March 2020.

“These are those who continue to farm to reach their set target. However, their stepping up is not even good enough because it is very minimal.” KII with Village head in Chinkhowe, March 2020.

“Those people ‘stepping up’ are those better-off and rich households. They have up to 4 to 5 acres of land.” KII with Chairperson in Kachono, March 2020.

8.2.4. ‘Stepping out’ households

These derive more income from other non-farm sources such as businesses other than crop sales. They are also accumulating assets and diversifying income sources. Their housing condition is good and their general well-being is good. These can also be described as the better-off or rich, middle peasants or rich peasants, and small-scale capitalists (Bernstein, 2010; Lenin, 2009). These accumulate enough from farming and venture into non-farm businesses such that most of their income is derived from non-farm sources (Dorward et al., 2009). They are farmers, but their income is derived from employment or other sources, but they are accumulating assets. They may invest their income from other sources in farming to hire labour and buy inputs as observed by Amare and Shiferaw (2017), but their income from other sources is still greater than that from crop sales. They are benefiting from both farm and non-farm economic activities, as Mat et al. (2012) notes, that non-farm income improves a poverty situation among agricultural households. There are more male-headed households (22%) in this category than female-headed households (5%).

8.3. Characteristics of the Livelihood Trajectories

This section explores various characteristics of households in different livelihood trajectories. These include demographic information, production activities, commercialisation activities, extension activities, and livelihood outcomes including women empowerment.

8.3.1. Socioeconomic characteristics

This section presents the socioeconomic characteristics of households among different livelihood trajectories including age, gender of household head, and education. The majority of the household heads across the trajectories are within the prime age category (25-54) but the ‘dropping out’ households have a significantly higher average age (52 years) compared to other trajectories, ‘stepping out’ (41 years), ‘stepping up’ (43 years) and ‘hanging in’ (45 years). This shows that most of the people that drop out of farming are those who are of old age as they struggle to provide labour for their farming activities. Despite having the land, farmers fail to utilise it because they lack labour due to old age, hence they diversify into other non-farm sources which they can manage to do (Pritchard et al., 2017).

The majority have primary level education and within the livelihood trajectories the following was recorded: 72% of those ‘stepping out’, 66% of those ‘stepping up’, 80% of those ‘hanging in’ and 88% of those ‘dropping out’ have primary education. Among those stepping up, 28% have secondary level of education. Studies, mostly from mainstream economics on factors affecting farm productivity have linked farmer education to farm efficiency (Jamison and Moock, 1984; Lockheed et al., 2015). The argument is that those with better education are better positioned to understand technologies and make better decisions regarding their crop choices. This study did not do productivity analysis to underscore this claim but the results suggest that the better level of education among those stepping up could be helping them make better decisions in their farming.

8.3.2. Production activities

This sub-section explores the characteristics of households in different livelihood trajectories in their production activities including crops grown, crop diversification, land use patterns, inputs use including labour. All households grow maize which is not surprising because it is a staple food crop, and a considerable number of households across livelihood trajectories grow groundnuts because groundnuts are grown usually without using artificial fertilisers and seed is usually recycled, hence it is manageable even among the struggling households as long as they have land. Significant differences are observed in tobacco as the majority of those ‘stepping up’ grow tobacco compared to none among those ‘dropping out’. This was expected as tobacco is the major income earner in Malawi, but it shows that some households are dropping out of growing tobacco, consistent with the observations that households growing tobacco are also struggling with poverty (Makoka et al., 2017). Figure 8-3 presents crop diversification levels across the livelihood trajectories.

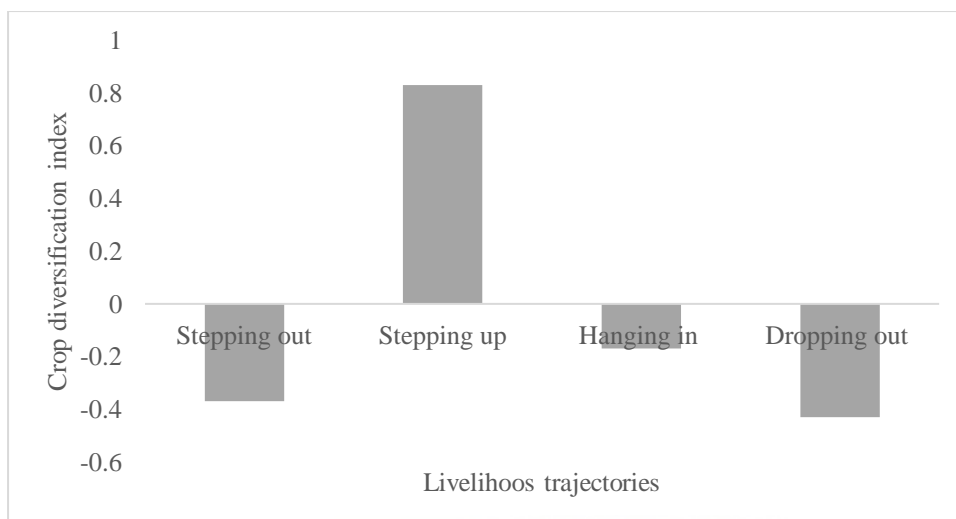


Figure 8-3: Crop diversification and livelihood trajectories

Source: Author's survey data

'Stepping up' households have a significantly higher crop diversification index. This shows that stepping up households are more likely to grow a variety of crops because they have the ability to do so as they have access to inputs, can rent in additional land and can command enough labour which are necessary in crop diversification (Pritchard et al., 2017). 'Stepping out' and 'dropping out' households have the worst crop diversification index which is not surprising because they are diversifying their sources of income away from agriculture (Pritchard et al., 2017; Dorward et al., 2009; Matita et al., 2022).

Land-holding sizes across the sample are small with an average of 0.8 hectares and there are no differences across the livelihood trajectories. However, when cultivated land is considered, significant differences are observed, with average land size among those 'stepping up' being significantly higher (1.6 ha), than those 'hanging in' (1.2 ha), those 'stepping out' (1 ha) and those dropping out (0.8 ha). Two things can be observed, firstly, that those 'stepping up' and 'hanging in' have a higher land size because their livelihoods still depend on farming (Dorward, 2009; Dorward et al., 2009), while those 'stepping out' and 'dropping out' are relying more on off-farm livelihood activities (Pritchard et al., 2017). Secondly, those 'stepping up' are renting in additional land for expansion and accumulation compared to other trajectories.

On average, all households in the sample spent about \$80 on agricultural inputs in the 2019-2020 growing season. But 'stepping up' households spent a significantly higher amount (\$180) than those 'stepping out' (\$70), 'hanging in' households (\$50), and those 'dropping out' (\$12) on agricultural inputs. The results show not only the ability among those 'stepping up' but their commercial orientation as they invest more on agricultural inputs for expanded reproduction and accumulation. The findings further show that 'stepping out' households are able to use their income from off-farm sources to invest in their farming but those 'dropping out' spend significantly less because they are moving away from farming. This means that what households are willing to invest in farming depends on the importance they attach to farming activities in relation to other livelihood activities, as well as the ability to invest in farming.

As the majority are a working class themselves, this means that most of them are engaged in selling their own labour. This shows that the majority are petty commodity producers commanding both classes of capital and labour (Bernstein, 2010). Labour hiring is one of the indicators of commercial orientation (APRA, 2018; Leavy and Poulton, 2007; Poulton, 2017; Wiggins et al., 2011). The majority of the households use a combination of family and hired

labour with more using family labour in maize and a combination of family and hired labour in tobacco. ‘Stepping up’ households are more likely to use a combination of family and hired labour for both maize (44%) and tobacco (62%) while ‘dropping out’ households are exclusively using family labour in maize (100%). What the results mean is that ‘stepping up’ households are more commercial-oriented with a high tendency to use hired labour apart from family labour and that dropping out households are strongly oriented towards subsistence farming.

8.3.3. Agricultural commercialisation activities

Smallholder participation in markets can be considered a driver of well-being and development (Poole, 2017). Poole reported that there are two groups of households involved in market participation. There are those who do so with the aim of making profits to continue investing back in their farming and accumulating, and there are those who do so under distress for their simple reproduction. Poole further argues that pure subsistence is rare as households need money to cater for their diverse needs (Poole, 2017). This is why the majority of the households participate in both input and output markets. However, among the livelihood trajectories, those ‘stepping up’ (100%) and ‘stepping out’ (100%) are more likely to participate in markets than those ‘dropping out’ (63%). This is because on the one hand, those ‘stepping up’ and ‘stepping out’ are able to produce more and have surplus for sale or they grow crops that are specifically meant for sale such as tobacco, but also, they are more likely to use purchased inputs. On the other hand, those ‘dropping out’ do not have much or do not have anything to sell because they are relying more on off-farm income sources but also, they are less likely to purchase their inputs as they use recycled seeds and they exchange other inputs with their labour-power. Figure 8-4 shows commercialisation levels among livelihood trajectories.

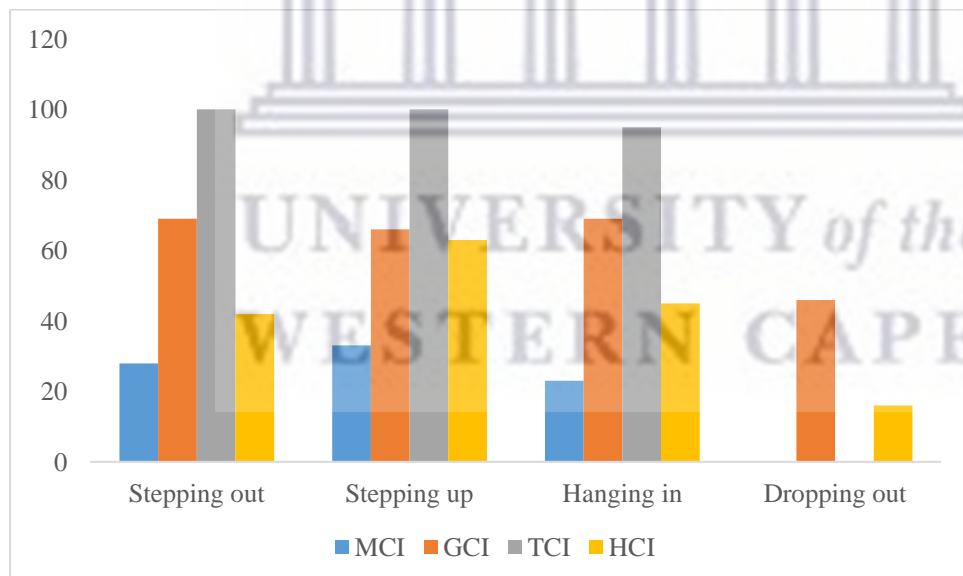


Figure 8-4: Commercialisation level and livelihood trajectories

Note: MCI = maize commercialisation index, GCI = groundnuts commercialisation index, TCI = tobacco commercialisation index, and HCI = household commercialisation index

Source: Author’s survey data

‘Stepping up’ households have a higher HCI compared to those ‘stepping out’ because of their reliance on off-farm income sources, or those who are the ‘hanging in’ and ‘dropping out’ because of their problems in producing enough for subsistence and for sale due to poor access to means of production. The findings agree with what Poole observed, that smallholder

participation in the markets is challenging because of factors internal to the households, such as availability of productive resources but also external factors such as market failures (Poole, 2017). This was also observed by Barrett (2008), that poor households have barriers to accessing improved technologies and productive assets to encourage their market participation.

8.3.4. Agricultural extension services

This section explores extension participation among livelihood trajectories and the role of agricultural extension in development of these trajectories. The majority of households participate in extension activities but those ‘stepping up’ (97%) are more likely to participate than those ‘hanging in’ (86%), those ‘stepping out’ (84%), and those ‘dropping out’ (75%). It is not surprising that those ‘stepping up’ are more likely to participate in extension activities because they are involved in expanded reproduction and consider agricultural extension useful. The differences in extension participation are not significant, which also shows that extension participation is not influencing households’ movement into different livelihood trajectories.

Access to market information enables households to make informed decisions about their commercial farming and others have found that it is a determinant of commercialisation (Lifeyo, 2017). Access to market information is high among study participants, although those ‘stepping up’ (100%) were more highly likely to access market information than others but differences were not significant. This signals market information-seeking behaviour among those ‘stepping up’. Access to credit facilities assist smallholder farmers in having access to productive resources for their farming (Barrett, 2008; Diagne and Zeller, 2001; Poole, 2017). This study established a positive relationship between access to credit and level of commercialisation. Those ‘stepping up’ are more likely to access agricultural credit which shows their ability to pay back but also the important role that access to credit plays in their farming activities. This was also observed by Diagne and Zeller (2001), that most of the poor households do not access credit and other services because they are too poor to even utilise the credit because of their problems in accessing means of production.

Collective action and membership to farmer groups is one of the initiatives that most smallholder farmers are benefiting from through collective marketing, access to inputs, credit and information (Diagne and Zeller, 2001; Poole, 2017). Others (Chimombo et al., 2022) have found that despite group members benefitting from accessing extension services and inputs, they are equally facing challenges in marketing their produce. Group membership helps farmers access inputs, bulk produce together and sell together to avoid problems of distress selling. Those ‘stepping up’ are likely to be members of farmer groups, but this does not always mean that they benefit from the group as noted by Chimombo et al. (2022), that in some cases, group members were even struggling more as they sold their produce late hence realising low incomes from their crop sales.

8.3.5. Livelihoods

The classification of households into livelihood trajectories is based on their engagement in farming and their main sources of income. According to Pritchard et al. (2017), the Dorward framework shows households’ diversification of their sources of income from on-farm to off-farm evident in the stepping out trajectory signalling deagrarianisation. Table 8-1 shows the various sources of income across the livelihood trajectories and the average income those households derive from the sources.

Table 8-1: Livelihood trajectory and mean income from different sources MK (\$)

Livelihood trajectories	Crop sales	Business	<i>Ganyu</i>	Remittances	Social cash transfers	Total income
Stepping out	85,493 (104)	570,000 (695)	21,636 (26)	94,400 (115)	0	645,261 (787)
Stepping up	468,990 (572)	173,250(214)	64,000 (78)	34,400 (41)	0	605,319 (738)
Hanging in	103,422 (126)	299,217 (365)	51,294 (62)	64,100 (78)	39,666 (48)	328,004 (400)
Dropping out	26,750 (33)	150,000 (183)	41,250 (50)	86,400 (105)	0	144,237 (176)
p values	0.000***	0.007***	0.491	0.889	0.374	0.000***

Note: T test results are significant at 0.01 for income from crop sales, business and total income.

Source: Author's survey data

'Stepping out' households have more of their income derived from businesses (Dorward, 2009; Dorward et al., 2009), and they have the highest total income compared to the other strategies. This also shows how lucrative other sources of income are compared to farming. 'Stepping up' households derive much of their income more from crop sales than other sources (Matita et al., 2021) and their total annual income is also better. It is important to note that 'stepping out' households and 'stepping up' households also derive their income from *ganyu*, which shows that despite being a class of capital, they are also a class of labour within the households, consistent with the concept of petty commodity production (Bernstein, 2010). This was also observed by Matita et al. (2021), that even 'stepping up' households sometimes engage in *ganyu* to supplement their income.

'Stepping up' households are more likely to own a variety of assets including livestock (cattle, goats, chickens, and pigs), household assets (radio, solar, cell phone) and productive assets (oxcart, bicycle, hoes, axe, watering cans, and sprayer) compared to other trajectories. 'Stepping out' households also have better asset ownership compared to those 'hanging in' and 'dropping out'. Since asset ownership is one of the indicators of well-being, it means that 'stepping up' households have better well-being compared to other categories and 'dropping out' households have the worst well-being. Livestock could be sold and the income can be used to supplement subsistence or to purchase inputs. Therefore, asset ownership here can be both a determinant (Matita et al., 2021) of livelihood trajectory but also an outcome.

Food and nutrition security is possibly one of the most important measures of well-being especially among the rural poor. The FAO defines food security as all people at all times having economic and physical access to enough, safe and nutritious food that will meet their daily needs and preferences to enable them to live an active and health life (Vhurumuku, 2014). Nutrition security is defined as having a nutritionally adequate diet that is biologically utilised to maintain active growth and enable resistance to and recovery from diseases, pregnancy and lactation (Vhurumuku, 2014). The study used a few indicators to measure food security including number of months people have own produced food, the Food Consumption Score (FCS) and Household Dietary Diversity Score (HDDS) which shows the quality and diversity

of food consumed. On average, most households have food for up to 6 months after harvesting, which means that they have to supplement their food supplies using other means such as buying. On average ‘stepping up’ households have a greater number of months with produced food compared to other trajectories. Those ‘stepping up’ and ‘stepping out’ have a better FCS and HDDS because of their ability to have both physical and economic access to food.

‘Dropping out’ households have a significantly better Women Empowerment Index (WEI) compared to the other categories, and WEI was the worst among those ‘stepping up’ and ‘stepping out’. High income levels are associated with increasing gender inequalities as women become side-lined in decision making, control and access to productive resources and income, and are generally less involved in the selling of produce, hence men have an advantage in the use of the money despite women being actively involved in production activities. Poor women empowerment among those stepping out shows that there are even deeper inequalities in off-farm income sources; the ‘stepping out’ are involved more as men take control of these activities. The intersections between class and livelihood trajectories were examined and presented in Table 8-2.

Table 8-2: Livelihood trajectory by class categories

Trajectory	Poorest	Poor	Better-off	Rich
Stepping out	0	15	36	0
Stepping up	0	5	55	100
Hanging in	64	74	7	0
Dropping out	35	4	0	0

Source: Author’s survey data

The poorest are those who are ‘hanging in’ and ‘dropping out’, and the majority of those who are poor are ‘hanging in’. The better-off are mostly those who are ‘stepping out’ and ‘stepping up’ but those who are rich are all ‘stepping up’. This shows that most of the households that are rich are such within farming through expansion of production activities and accumulating capital, land and commanding more labour.

8.4. Factors Influencing Livelihood Trajectories: People’s Stories

This section reflects on people’s stories from life histories to understand factors shaping livelihood trajectories tracking movements from one trajectory to the other throughout their life, and what contributed to these changes. The section presents six case studies of life histories to better understand how and why different households belong to the specific livelihood trajectories and to identify the role of market-based farming and agricultural extension. Two cases represent the ‘dropping out’ livelihood trajectory, those of Ms. Janet and Ms. Florence. Two cases illustrate the ‘hanging in’ trajectory, those of Mr. Kamanga and Ms. Chikondi. One case represents the ‘stepping up’ trajectory, that of Mr. Gideon and the last case represents a ‘stepping out’ trajectory, that of Mr. Thumbwe.

Box 8-1: Life history of Ms. Janet’s household

Location: Kachono Village Sex of household head: Female Age: 70	Livelihood trajectory: Dropping out Class category: poor
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Janet's father was from a Malenga village, which is close to where she is staying now; her mother was also from a village close by, called Chapata. Her mother died but her father is still alive although his health is not very good. Janet was born to a family of 5 children, comprising 2 boys and 3 girls, including her. The girls are in her mother's village and the boys are in her father's village. The village she is now in is her husband's village; he is also dead. Her childhood was not bad because her parents were managing to provide for her and her siblings. Her parents were primarily farmers who used to grow maize, groundnuts, sweet potatoes, and cassava. Another source of livelihoods during this time was small-scale business (selling dry fish). Janet did not go to school because her father only encouraged boys to go to school. Her parents had 4 acres of land which they inherited from their parents. During her youth, she also started a small-scale business similar to the one her parents were running but she also used to sell milled maize at Mitundu market. She could not recall the year she got married but she was able to explain how she met her husband and got married. *"One just knows when they come of age that it is time to get married, so when I met him, he had to send his brother to my parents to ask for my hand in marriage, which they accepted and we got married."*

Her married life was much better because she and her husband were doing well, they used to grow different crops including tobacco, groundnuts, maize and sweet potatoes. They used to sell most of these crops and their main source of income was crops' sales. They had 1 ½ acres of land, where 1 acre belonged to her husband which was given to him by his parents and ½ acre was hers also given to her by her parents. They had 5 children, 4 boys and 1 girl. One of the notable events in her life was when her daughter got married which she said was a very respectable thing in the village, seeing her daughter get married. *"This is one of the events that mothers enjoy in their lives in this village, we call it kutula mbeta (delivering the bride), it is a special event because the mother is praised for her role in raising the girl, I received much respect and appreciation, and it is celebrated with food and other gifts."*

In 2017, her husband divorced her and in 2019, the husband died. Currently, her life is problematic because she is not able to farm because she is ill. She suffers from back pain which started during her late adulthood. She has a small land-holding size because she has distributed her land among her children. The divorce and death of her husband has reduced labour availability in the household. She now depends on her son who does piece works both on farm and off-farm which she said is not very reliable. She foresees her future becoming even worse as she may not be able to farm again, but the only hope is if her children are able to find a job.

Janet's case is a good illustration of the 'dropping out' livelihood trajectory, where over time, different factors lead to destitution, resulting in the household eventually being squeezed out of farming. Several factors have contributed to her current situation. First, *labour availability*, which used to be enough during her married life because of the presence of her husband who was doing much of the work and later on her children provided labour for their farming activities, has diminished. After divorce, then the death of her husband, her children moving out of the house starting their own households, her ill-health in late adulthood and now with old age, labour availability has become a problem. Second, *access to capital* in particular, *agricultural inputs*, has diminished. Her household moved from being resource-rich during her early adult life to becoming resource-poor in late adulthood and old age. This was the case because of inability to realise enough income from farming to invest back in farming, and this has also been made worse by the increasing prices of inputs and failures in the FISP programme

which according to many, is no longer beneficial. Others (Chinsinga and Poulton, 2014; Jacoby, 2016; Lunduka et al., 2013) argue that the programme is having more problems in achieving its intended and desirable outcomes, some of which are political. Other studies found different results and noted that the programme has positive outcomes especially on the yield (Arndt et al., 2016; Kawaye and Hutchinson, 2018; Ricker-Gilbert, 2014) while others (Karamba and Winters, 2015) reported that despite positive results of the programme on productivity, women farmers were not being advantaged to overcome the existing gender disparities in access to productive resources. The third factor is *land availability* which has become a growing problem due to the increasing population and land miniaturisation, as well as land commodification. Janet was forced to share her land among her children because inheritance is one of the common ways in which land is accessed (Berge et al., 2014; Ferree et al., 2022; Peters, 1997, 2010), apart from buying or renting. This was also necessitated by her inability to work the land as a result of her ill health.

Box 8-2: Life history of Ms. Florence’s household

<p>Location: Chinkhowe Village Sex of household head: Female Age: 70</p>	<p>Livelihood trajectory: Dropping out Class category: Poorest</p>
<p>Florence was born to a family of 4. All her siblings passed away and she is the only one left. She was born in Chinkhowe village. At the age of 10 she started helping her parents with farming activities. Her parents were growing maize and groundnuts both for food and for sale. Her parents had 3 acres of land which they also inherited from their parents. The mainly sold groundnuts and tobacco but sometimes they could sell maize when there was a pressing need. It was her father who was growing and selling tobacco which he used to sell to ADMARC. They used to have pigeons and chickens which were for sale but they could eat on occasions. Her parents’ home was poor and they just maintained a standard living. <i>“It was just a standard home and not a rich one but we were comfortable and happy.”</i></p> <p>Florence basically spent her youth in marriage as she got married as an adolescent because her parents preferred to marry them off to avoid girls becoming pregnant whilst still at their parents’ home. Florence got married to her husband whom she met in her village. The husband was from Dedza but he travelled to this area because of his job. The husband used to work at Bunda college as a chef. They settled in Chinkhowe village and her parents gave them 1 ½ acres of land. Because of the nature of her husband’s job, he used to go to work daily so she was the one conducting farming activities, sometimes with the help of hired labour. Their main source of income was her husband’s job, and they only grew maize (1 acre) and groundnuts (1/2 acre) for food. The income from her husband’s work was used for household expenses, including hiring labour and inputs for farming. They owned chickens which they could also sell to supplement household income. She was also involved in small-scale businesses (baking traditional cakes – <i>zigumu</i>¹⁸) which income was used to cater for their household’s immediate needs such as soap and salt. After the death of her husband, the major source of income was disrupted which was a major shock to her. She</p>	

¹⁸ These are made from maize flour mixed with salt and baking soda.

continued to farm and intensified her small-scale business. She had 10 children of whom 5 died and only five are alive. One is a farmer focusing on horticultural crops, another one is bricklayer, and the other three are girls who are just housewives. *“They do not help me much, the only help they give me is cooking nsima for me. They have stopped me from farming because I am old, and one of them has actually taken over my land from me such that I did not farm this year, although I am left with ½ an acre just behind my house which I intend to use to grow some maize next year.”*

She now depends on handouts from her relations who normally give her money but she keeps it to buy seed, others offer her seed. Her farming activities have dwindled over time because of the death of her husband, her old age but also, sickness. The children have grown so she does not need to farm extensively anymore. Her future is looking grim because she may not be able to do her own farming. Despite her children assuring her to provide for her, she is uncertain. *“Although my children have assured me that they will provide food, I have fears of what will happen to me or how I will manage my life without doing my own farming. Doing my own farming gives me relief and independence to buy my own things other than constantly waiting for someone’s help or asking for help.”*

Ms. Florence’s story is similar to that of Ms. Janet described earlier in that it also illustrates how a household has moved from a ‘hanging-in’ situation during her childhood to a ‘stepping-out’ trajectory after getting married as most of the income they had was from her husband’s job. Later, she moved back to a ‘hanging-in’ situation due to the death of her husband, the breadwinner, forcing her to engage in small-scale off-farm business alongside farming to maintain her household welfare. She is now ‘dropping-out’ due to old age and ill health that is forcing her to abandon farming and depend on handouts and remittances from relatives and children. The main factors that have contributed to her current situation include: lack of *access to off-farm income*; inability to *access farm inputs* especially after her husband’s death; *land access* as the land was taken over by her children; and *labour availability* which was affected after the death of her husband, and her sickness.

Box 8-3: Life history of Ms. Chikondi’s household

<p>Location: Kachono Village Sex of household head: Female Age: 50</p>	<p>Livelihood trajectory: Hanging in Class category: Poor</p>
<p>Ms. Chikondi was born in 1970 and grew up in Chiluwe village which is a few kilometres away from Kachono village. She described her childhood as being full of struggles because her mother used to move around a lot, following her father who used to work on tobacco farms, so they used to move from one farm to another. Her father was from Gumbi village but he died in 2016. Her mother was from Chiluwe village where she still lives. The source of livelihood for her parents was farming, apart from the seasonal jobs they had on tobacco farms. Apart from growing groundnuts, maize and sweet potatoes, her parents used to do small-scale business (local beer brewing). They had 1 acre of land which was given to them by her mother’s parents. They also had a wetland. She had 9 siblings but she could not give details of the other siblings who died before she was born so she could only talk about her 2 brothers whom she knows. She went to school but she could not go further with her education because of lack of basic necessities at home, which she attributed to the constant</p>	

absence of her mother. She was involved in small businesses including doing *ganyu* in tobacco farms. Most of the times her mother left, they were left in the care of her grandmother who practically raised her. She also started her own business, which had to do with selling dry fish but also brewing beer.

She met her husband who visited her village from Kachono village. He proposed to her and went to her parents to ask for her hand in marriage. They got married and settled in Kachono village. She has 10 children of whom 4 died, the remaining six comprise 2 boys and 4 girls. All the girls are married within the village or surrounding villages, 1 boy is also married while the other boy went to the city to work and she rarely communicates with him and he does not send any help. She and her husband established themselves in the village and they built a house, which they still live in, and they were growing tobacco, maize, groundnuts, soya and cassava. Most of these crops were for sale except for maize. They had 1 acre of land but each year, they rented in an additional 2 ½ acres of land. They also had a wetland. During her late adulthood, one of the things that was a turning point in her life was the separation from her husband. However, she mentioned that she still considers herself married even though he left. *“In 2010, I was surprised when my husband told me that he was leaving, that he was moving in with another woman from another village, however, I consider myself still married because he comes sometimes, although the first 3 years after he left he used to come frequently even to help me with farming activities but for the past seven years he has not been doing that, I do everything alone, sometimes he just comes, eats food and to check on me when I am not feeling well, it is just the help with farming that he stopped.”*

Apart from her husband leaving, she also developed an illness which also affects her farming activities. Nevertheless, she still farms; she grows groundnuts, soybeans and maize but also vegetables on her wetland. She is still maintaining her 1 acre of land which she has given to her children but for her farming, she has to rent in additional 1 acre but not more than that. She sells the groundnuts and soybeans but also the vegetables to supplement food and buy inputs.

The case of Ms. Chikondi illustrates a situation of changing livelihoods from a better situation (stepping up) when she was with her husband due to availability of enough *labour*, ability to rent in more *land* and produce enough for food and have surplus for sell, to a hanging in situation where she farms and sells on a small basis to maintain her social reproduction. The contributing factors include changes in labour availability due to the absence of male labour after her separation from her husband but also due to her illness. With all her children in their own households, they cannot provide the labour that they used to provide before. Diminishing land availability also contributed to her current situation. During the time they were doing well with crop production and marketing, they managed to have income to rent in more land. However, recently, with the rising prices of land rentals, it has become a problem for her to continue renting in land. She has also distributed the land to her children. Increasing prices of *agricultural inputs* has further contributed to her current situation.

Box 8-4: Life history of Mr. Thumbwe’s household

Location: Kachono Village Sex of household head: Male Age: 32	Livelihood trajectory: Stepping out Class category: Better-off
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Mr. Thumbwe is from Kachono village. He was born in Mkwera village in Mitundu. His father was from Mkwera village while his mother is from Sela village. He was born to a family of 6 children of whom all of them were males but one of his brothers died in 2003 and now they are 5. His parents were farmers and that was their only source of livelihood. He only attained primary education since he could not continue due to lack of money to pay school fees and other necessities. At the age of 14 he decided to go to Zambia with prospects of getting a job. While there, he managed to find a job, working in a livestock farm taking care of cattle. It did not truly work for him so he decided to come back to Malawi after working for a year. The same year he came back he decided to travel to Mozambique, again in search of a job. In Mozambique he found a job working at a tobacco estate where he spent 2 years and later, he decided to come back to Malawi. When he arrived in Malawi from Mozambique, he decided to start a clothing business where he would buy clothes in Malawi and go to sell them in Mozambique. These were second-hand clothes. While in Mozambique, he met a girl whom he dated for a while and they got married in 2007. He moved to stay with her in Mozambique. After settling down, he started his own tobacco farming on the land belonging to his wife. The tobacco farming went on so well such that his livelihood improved tremendously to the extent that he bought a brand-new motorcycle, and managed to employ 2 workers to help him with his tobacco farming. He also managed to start a grocery shop business in Mozambique where he used to buy groceries in Malawi and sell them in Mozambique. He kept the motorcycle for 4 years and later decided to sell it to invest the money in his tobacco farming. He has two children, the first is a boy born in 2010 and named Gift, the second one a girl born in 2012 and named Angela. His marriage was affected when one day he caught his wife cheating with another man. *“I reported the issue to the village chief but the matter was not well resolved. I felt the chief’s judgment was in favour of my wife because I was a foreigner, and there was nothing I could have done.”*

In 2018, he divorced his wife and decided to move back to Malawi to start a new life in Kachono village. He left his children back in Mozambique. He brought some money he made from tobacco farming which he used to start another grocery business in the village. While in Malawi, he travelled to Dedza in search of a wife and he was successful. He made arrangements together with his family members and they got married in 2018. They now have one baby girl born in 2020 whom they named Rhoda. His parents gave him two pieces of land, one on which they live (1 acre) and the other (1 acre) he uses for farming. *“After coming back, I decided that for my life to be stable I need to get married, hence I did and that is why now I am able to do much better.”*

He has multiple sources of livelihoods including the grocery business, selling farm produce which he buys from other people, selling inputs including fertiliser, and farming (maize, groundnuts and soybeans). He sells the soybeans and groundnuts although more of his income comes from the grocery business. He uses money from the grocery business to buy inputs for his farming. He is now stepping out because most of his income is not from farming. The money he used to establish the grocery business was obtained from his previous tobacco farming in Mozambique. In addition, he is stepping out because he is improving his livelihood; he is now building a new iron-sheet roofed house.

Mr. Thumbwe’s case illustrates a good example of a ‘stepping out’ scenario where income that was realised from farming was invested in off-farm business, which generates even more income to supply the household’s needs but also invests back in farming for expanded reproduction and accumulation. He started with off-farm small-scale business (selling clothes), then he stepped into farming, and currently he is stepping out again. He now earns more income from the business that he does from farming. A number of factors have contributed to the

current situation. The first is the role of *off-farm income* that he earned from his clothes and grocery business he established in Mozambique that he invested in tobacco farming. Second, we see the role of *social relationships* through marriage, which enabled him to access land that he used to grow tobacco, from which he accumulated, and when he returned to Malawi, he decided to invest the money back in his off-farm business. It is the off-farm business that is also helping him to continue farming.

Box 8-5: Life history of Mr. Gideon’s household

<p>Location: Chinkhowe Village Sex of household head: Male Age: 42</p>	<p>Livelihood trajectory: Stepping up Class category: Rich</p>
<p>Mr. Gideon was born in 1975 in Chinkhowe village to a family with 9 children, 3 boys and 5 girls, and he was the 4th born. During the year he was born, his family moved to Kagugu village where they wanted to take care of his ill grandmother who was staying there. In the process, they decided to permanently live there but they just used to go back to Jestala village to farm. His parents were farmers growing tobacco, maize and groundnuts. Tobacco was the main cash crop but they could also sell maize and groundnuts to supplement their income. His parents also owned cattle, goats and chickens. During childhood, he attended Mlare primary school. He managed to finish primary education and obtained a Primary School Leaving Certificate (PSLC). During his primary education, he also used to help his parents with farming but he also used to do his own piece works (<i>ganyu</i>) to supplement his basic needs. He moved to Kasungu where he started his secondary education but he dropped out in the first year due to lack of school fees; he then came back to Lilongwe. In his early adulthood, he found a job in Salima at a tobacco estate where he worked as a supervisor, he only worked for 3 months and he resigned citing poor salary as a reason. He then decided to get married; he moved to his birth village Chinkhowe where he found a girl whom he proposed to and who accepted. He then settled in Chinkhowe; they started building a house together before they got married. They got married in 2003 and they stayed together in the house they built. He was given a bicycle and 1 acre of land by his parents. After marriage, he and his wife were farming together with his parents, and they used to share the produce after harvesting, although he did not like the arrangement. <i>“I did not like the collaboration, my parents used to keep all the produce and they would only give us if we ask for food, I did not benefit from any sales made from the produce, I could only rely on income made from piece works to be able to buy other basic needs for the households.”</i></p> <p>He and his wife then decided to start farming on their own; they were growing tobacco, maize, soya and groundnuts. Income from tobacco and soybeans was what they depended upon for the needs of the household. In 2005, the farmer’s group that he joined managed to secure a tobacco selling certificate which meant that they would be able to sell directly to Kanengo Auction Floors. In 2007, they benefited from a government subsidy program where they were given 7 bags of fertiliser which tremendously improved their production. They made huge profits from crop sales that year such that they built another house, a better one this time, and they managed to buy a bicycle. They decided to switch from growing soya, to growing sweet potatoes because they were making losses from soya and market was a problem. They have 3 children, the first one is a girl born in 2002, the second, also a girl, born in 2005, and the third one is a boy born in 2007. They also care for 2 other boys (nephews). Their household is fully dependent on farming and they now grow tobacco, maize, groundnuts and sweet potatoes. They have managed to buy livestock including cattle,</p>	

goats, pigs and chickens. They have bought an additional 3 acres of land, and they also own a *dimba* (wetland) where they cultivate sweet potatoes, tomatoes and other vegetables. He also rents in additional land (4 acres each year) on top of the land that he has, and to them it is not their income that limits the amount of land to rent in, but the availability of land. The availability of land is affected by the rise in land seekers from outside the village (town) who offer villagers more than the villagers¹⁹. They usually sell sweet potatoes and tomato in large quantities mainly to middlemen who buy at wholesale prices. Most of the production activities are done by hired workers, but marketing is the husband's responsibility for all the rain-fed crops, thus tobacco, groundnuts and maize, while the wife is responsible for irrigated crops, thus sweet potatoes, tomato and vegetables. Some of the shocks the household has experienced include the death of relatives (parents and child) and failure to sell huge soybean produce. One notable positive event that was a turning point in their lives was in 2007 when they made huge profits from crop sales which changed their lives.

Mr. Gideon's case illustrates how development interventions can impact people's lives and change their trajectory, in this case, the *role of government subsidies*. After benefiting from the government subsidy in 2007, which helped him produce a bumper harvest of tobacco, he secured a future in farming, which he has been growing and maintaining until now. His parents gave him important productive assets such as land and a bicycle, hence *social networks* also played another important role. He also illustrates a good example of commercialisation resulting in accumulation, observed through buying and renting land, buying livestock, and using hired labour. His stepping up situation is from within farming.

Box 8-6: Life history of Mr. Kamanga's household

<p>Location: Chinkhowe Village Sex of household head: Male Age: 45</p>	<p>Livelihood trajectory: Hanging in Class category: Poor</p>
<p>At the time of interview, the wife was not around and when the researcher asked where his wife was, this is what he had to say: "I have sent her back to her own village for some time," he said, "she is gone because we had a disagreement, she is the one disturbing my progress, can you imagine, what kind of a wife goes behind my back to sell the maize we have in the house?"</p> <p>Mr. Kamanga was born in 1975 in Chinkhowe village. His mother is from Chinkhowe village while his father, who died in 2014, was from another village called Mderekuyenda. He has 6 siblings, 4 boys and 3 girls but one of the girls died. All his siblings are married, some are in the village while others are married in other villages. His parents were primarily</p>	

¹⁹ Based on the focus group discussions, the practice is that the price of renting out land to a member of the same village is lower than the price offered to people from outside the village. This arrangement is agreed upon by the village chief with the aim of encouraging villagers to rent in land and expand their production but also to discourage outsiders from using the land. However, land owners prefer outsiders as they offer high prices.

farmers. He described his childhood as being a good one, because his parents were successful in farming but also, he had an uncle who used to travel to South Africa and brought them clothes. His parents used to access fertiliser on loan from the government programme which benefited their farming. They had 5 acres of land which were inherited from their parents. He went to Mlare primary school where he studied until standard 8 but he decided to drop out on his own free will and opted for marriage. During his youth, he started a business where he used to buy maize from Mozambique by exchanging the maize for groundnuts and he sold the maize in Malawi. He also used to sell mangoes when in season. He got married in 1996 to his first wife whom he divorced in 2016 after 20 years of marriage. Together they had 4 children, 2 girls and 2 boys. The girls were older and according to him, they got impregnated at a very early age and got married. The boys are currently staying with their mother. They used to grow a variety of crops including tobacco, groundnuts, and maize. They had 3 acres of land, 1 acre belonged to his wife which she inherited from her parents and 2 acres were his from his parents. They used to harvest more and sell more during this time. Their farming was established with the money they realised from their wedding but also a fertiliser loan they got from a Non-Governmental Organisation (NGO). His marriage to his first wife ended because he caught the wife cheating. *“After my divorce, my life drastically changed because with her, we used to farm together, and even grow tobacco, but now I cannot do that because when she was leaving, she took everything in the house and left me with nothing.”*

After the divorce he married a second wife whom he met at a funeral in his village. Currently he says his life is not good because despite maintaining farming, he lacks access to agricultural inputs, and consistent crop failure. He now has a ½ acre of land, and a ¼ acre of wetland. Of the 2 acres he owned, he has rented out 1 ½ acres on *pinyolo* (pawning land). The arrangement has been going on for 2 years and it is also one of the reasons he is struggling. Currently, his main sources of income are sale of crops from the wetland but also more from *ganyu* which is both on farm but also off-farm (builder).

Mr. Kamanga’s case illustrates the role of *social networks* in determining livelihood trajectories, in this case marital relationships, which can be both helpful or not depending on the turn these relationships take. For him, being married to his first wife played an important role in his commercial farming activities, but in another twist, his divorce negatively affected him. His marriage to his second wife affected him negatively as the two are not working together to advance in farming. In addition, *non-farm income* also played an important role as the money they realised from their wedding helped them establish their farming. He also accessed inputs on loan from an NGO which gave him a push in the early years of establishing his farming. Currently, *land renting through the pinyolo*, system has contributed to him moving to ‘hanging in’ trajectory as he is relying more on income from *ganyu* than from farming. He has moved from ‘stepping up’ to ‘hanging in’, and he is slowly moving into ‘dropping out’ as more income comes from *ganyu* but also because of his land situation.

Based on people’s stories described above, there are several factors that contribute to the development of livelihood trajectories among households and these are summarised as follows:

Access to off-farm income contributes to households’ movement into different livelihood trajectories. This is both for accumulation such as the case of Mr. Thumbwe who used income from off-farm to step into farming business, and for survival such as the case for Ms Florence who used income from off-farm small business to supplement her social reproduction. Income from off-farm is used to buy inputs and rent in additional land, for instance the case for Ms Florence who used the money from her husband employment to invest in their farming. The

role of off-farm income has been reported as playing an important role in reducing levels of poverty among agricultural households (Mat et al., 2012). Other studies have also looked at the role of off-farm income on agricultural production but also the welfare of agricultural households (Babatunde and Qaim, 2010; Khanal and Mishra, 2014; Kilic et al., 2009; Oseni and Winters, 2009; Pfeiffer et al., 2009; Woldeyohanes et al., 2017a).

Labour availability was one of the most important factors that determined livelihoods movement into different livelihood trajectories at different points in time during their lives. The availability of labour is affected by a number of factors including marriage which results in more labour being available from both the husband and the wife on the one hand. On the other hand, divorce, separation or death of a spouse results in reduced labour availability as it was observed in the case of Ms Janet, Ms Florence, and Ms Chikondi. Labour availability is also affected by the household size in the sense that with children available in the household, labour is boosted but later when children moved out to start their own households, it reduces the amount of labour available. This was observed in Ms Florence situation. The available labour is also impacted by ill-health and old age which results in households moving to poor livelihood trajectories, as in the case of Ms Janet, Ms. Florence and Ms Chikondi.

Land availability – land is one of the most important assets in as far as rural people's livelihoods are concerned. In Malawi, land has been a contentious issue for a long time and one of the challenges for the agricultural development has to do with land, in terms of sizes, tenure, and declining soil fertility. As Chinsinga et al. (2021) point out, one of the reasons why agricultural commercialisation has not really taken off in Malawi is because of a crisis in land sizes. Access to land at different points in time results in households moving to different livelihood trajectories. On the one hand, the ability to access land through land rentals enables certain households such as those by Ms. Chikondi, Mr. Thumbwe and Mr. Gideon to engage in expanded reproduction. On the other hand, land fragmentation as parents distribute their land among their children or as poor households rent out their land results in households having less land to farm or no land at all. This was observed in the case of Ms. Janet and Ms. Florence. The case of Mr. Kamanga shows how a household is forced in distress selling of land to take care of immediate household needs but with lasting implications for their own farming and livelihoods.

Smallholder farmers in Malawi depend on artificial fertilisers because the soils have become increasingly infertile. The dependence on artificial fertilisers has also been highlighted by others also evidenced in the low levels of graduation from the FISP programme among the poor (Chirwa et al., 2011). A household's ability to *access agricultural inputs* contributes to capitalisation of the land resulting in movements into better livelihood trajectories, and the opposite is true when households fail to access agricultural inputs. The majority of rural households are struggling to access agricultural inputs which impacts on their farm productivity (Farrow et al., 2011). Some households benefit from subsidies both from the government and from other NGOs which positively impacts their farming, for example the case of Mr. Gideon. On the other hand, failure of these initiatives negatively affected households' access to inputs resulting in them moving into poor livelihood trajectories as in the case of Ms. Janet.

Local politics impact on access to common resources such as land. This can have both positive and negative impacts. Positive impacts are observed in land rental markets as local leaders play a role in mediating the process of land renting which benefits villagers, for example, Ms. Chikondi was able to rent in land because the price for villagers was lower than what outsiders would pay. However, an increase in land commodification results in households renting out their land and moving into 'dropping out' trajectories, and only relying on rentals which are not enough for survival let alone accumulation. Local leaders are responsible for mediating the

pinyolo system of land renting which is negatively impacting households as they fail to pay back the money to get back their land, as in the case of Mr. Kamanga who is slowly moving into the ‘dropping out’ trajectory.

Government policies and initiatives have positively contributed to households moving into better livelihood trajectories. For example, Mr. Gideon benefited from input subsidies that helped him produce more tobacco which he sold and realised huge profits. He kept on accumulating and expanding such that he was the richest person among the whole sample. Positive impacts of subsidies have also been reported by others (Holden, 2013; Poulton and Dorward, 2008).

Social networks have also contributed to households moving from one livelihood trajectory to another. Several cases have illustrated this for example, Mr. Thumbwe accessed land through marital relations to grow tobacco, accumulate and use the money to step out. Mr. Gideon accessed land and a bicycle from his parents which helped him expand his production activities and step up. Mr. Kamanga cites marital relationships contributing both positively and negatively to his farming. On the one hand, the money they realised on their wedding helped them establish their farming, on the other hand, divorce and marital problems made him lose all assets which contributed to his ‘hanging in’ situation.

8.5. Chapter Summary

This chapter employs the Dorward framework for categorising households into different livelihood trajectories based on their engagement in farming as well as diversification into other non-farm economic activities (Dorward, 2009; Dorward et al., 2009). The chapter contributes to literature on the concept of deagrarianisation by categorising households into trajectories that are moving out of farming to rely on non-farm livelihood strategies (Pritchard et al., 2017). All this is interrogated in the context of agricultural commercialisation and access to extension services but also applying a class-analytic lens. The chapter addressed the research question: ***What factors are contributing to the development of livelihood trajectories?*** Most households are ‘hanging in’, others are ‘stepping up’, ‘stepping out’, and very few ‘dropping out’ (Dorward, et al., 2009; Mushongah, 2009) owing to factors such as access to off-farm income, labour availability, land availability, access to agricultural inputs, social networks, local politics and the role of government policies and initiatives such as subsidies.

The ‘stepping up’ households are characterised by high levels of agricultural production and diversification, high levels of commercialisation, ability to accumulate productive assets including land, livestock, and have access to both family and hired labour. They also have better food security levels. ‘Stepping out’ households are more likely to earn much of their income from off-farm sources, they also use the income from off-farm sources to invest in farming by accumulating land and hiring labour but are also accessing agricultural inputs. They also have high production levels, and crop diversification, they also own livestock and they have better levels of commercialisation. The ‘hanging in’ households are in the majority and they are engaged in farming for survival but they also depend on other sources of income such as small-scale businesses and *ganyu* to maintain their social reproduction. Their participation in commercialisation is mainly for survival as they do this mostly under distress. ‘Dropping out’ households are moving out of farming, others completely leave farming, some come back after a season or two, while others just stop growing a certain crop. They may move into destitution as they often give out or sell out their land to just depend on *ganyu*, remittances, small-scale businesses and sometimes social cash transfers. Those do produce a little but they end up selling everything under distress.

‘Stepping up’ households are more likely to belong to rich and better-off classes, while ‘hanging in’ households are more likely to belong to poor category. The ‘stepping out’ households are more likely to belong to better-off households, and the ‘dropping out’ households are more likely to be the poorest and the poor. ‘Stepping up’ and ‘stepping out’ households are more likely to be male-headed while female-headed households are more likely to be hanging in and dropping out (Mgalamadzi et al., 2021). What this means is that women remain in poor livelihood trajectories because of their position in decision making, lack of access to productive resources, lack of control and access to both land, productive resources and income (Quisumbing, et al., 1995; 2014). Within the male-headed households, those ‘stepping out’ and ‘stepping up’ have the worst women empowerment index while the ‘dropping out’ households had the best women empowerment index. This shows that movement into better livelihood trajectories deepens gender inequalities, advantaging men at the expense of women (Mgalamadzi et al., 2021). Those who are ‘stepping up’ are likely to participate in extension services because they see the need to do so to improve and maintain their levels of farming. This shows that access to extension services is an outcome and not a driver of livelihood trajectories.

The findings bring nuance and new perspectives to the livelihood trajectory framework with the differentiation that exists within the livelihood trajectories. However, more research needs to be done to thoroughly understand the differentiations and why they occur. Differentiation was observed among the ‘dropping out’ households, that others just drop out for one or two seasons and they come back, others drop out completely, but there are also others that drop out of a certain crop but depending on the reasons and the conditions, they could slip into other different categories, or others become destitute and drop out completely. Within the ‘stepping up’ category, there are some who are expanding with income from farming, while others are expanding with income from other non-farm sources. The findings further bring nuance to the intersection of the class-analytic approach and the Dorward framework, but are also contributing to the deagrarianisation debates which this study has shown to be difficult for people to move away from farming due to lack of alternatives and opportunities outside farming. The findings also bring new perspective on analysis of gender differentiation in the livelihood trajectory framework in line with debates on the disadvantaged position that women have in moving to better livelihood trajectories and gender inequalities that exist as households move to better livelihood trajectories.

Chapter 9: Conclusions

This chapter synthesises the research findings to respond to the overarching research question: *What are the interactions between agricultural extension, commercialisation and social differentiation processes in Malawi and what are the implications for rural livelihood security?* Despite the envisioned role of agricultural extension in the provision of knowledge and skills to enable increases in production and promote marketing of produce, it is not adequately contributing to these aims due to the challenges the sector is facing but also the challenges the agricultural sector as a whole is facing. The main argument is that the predicted relationship between agricultural extension and commercialisation is not straightforward because of the complexity of the environment in which farmers are operating, where some are in a better position to benefit than others. It is also because of the wider structural challenges impacting on both farming activities and extension activities, again creating winners and losers. This study further argues that there are limitations to what agricultural extension can do, contrary to the expectations farmers have. Market-based agriculture has both positive (improved incomes, asset accumulation and dietary diversity) and negative (poor food availability, land commodification, class and gender inequalities) impacts on livelihoods. Market-based farming is resulting in negative impacts among the majority involved in simple reproduction as they are often engaged in the sale of their key assets, including produce (food), land and labour. Despite a few who are engaged in expanded reproduction benefiting in terms of increased income and asset accumulation, they do so at the expense of the poor and women.

The study contributions are based on empirically grounded research findings centred on the following themes: 1) commercialisation and the role of agricultural extension; 2) the impact of market-based farming on livelihood outcomes and livelihood trajectories; and 3) social differentiation in the context of agricultural commercialisation and extension access.

9.1. Agricultural Extension and Commercialisation

The study applied an agrarian political economy lens to analyse differences in access to extension services leading to differences in levels of agricultural commercialisation and outcomes. Agricultural commercialisation is defined in this thesis as a shift from subsistence farming to commercial farming and measured by the proportion of produce sold but also the extent of input purchasing, land renting behaviours, and labour hiring. Evidence suggest that the majority of households are engaged in distress-driven commercialisation (Dzanku et al., 2021). They sell their labour power and land (mostly rented out) to maintain simple reproduction.

Agricultural extension has a limited contribution to the process of agricultural commercialisation because of other structural challenges, such as increasing prices of inputs and market failures that are impacting market participation (Knorr et al., 2007; Masangano and Mthinda, 2012; Phiri et al., 2012; Ponniah et al., 2008). This study argues that despite these structural challenges, there are some who are better positioned to benefit from extension services than others and because of their social relations in access to means of production and subsistence, a few win while the majority loses. Those engaged in expanded reproduction seek extension advice to improve and maintain their level of farming suggesting a reverse relationship between agricultural extension and commercialisation, but there are also other factors determining commercial orientation, such as access to means of production and marketing conditions which extension has no control over. Despite those under the commodity specialised extension approach being more commercialised than those under the business-oriented and government extension approaches, the differences are attributed to the nature of the crop they grow (tobacco), which is primarily for sale. The different extension approaches

did not have significant differentiated impacts on commercialisation processes, confirming the minimal impact that extension participation has, also because of difficulties in pinpointing the impact of extension and problems with attribution, but also challenges in the agricultural sector which extension cannot resolve (Anderson and Feder, 2003).

Farmers perceive extension services to be ineffective because they are unable to achieve their farming objectives, due to the challenges the agricultural sector and extension system is facing but also the limitations in what extension can achieve (Anderson and Feder, 2003; Ragasa and Niu, 2017). Farmers access different extension services from multiple providers depending on their goals and interests (Masangano and Mthinda, 2012; Anderson and Feder, 2003) which is characteristic among adult learners, but also in line with pluralism in agricultural extension. However, despite pluralism, the government remains the main extension service provider because of the limits in coverage and time among other providers (Jensen et al., 2019; Ragasa and Mazunda, 2018; Anderson and Feder, 2003). The argument is that the heavy reliance on the government means that the challenges the government extension system face such as high staff-to-farmer ratio, low funding, poorly trained and low motivated extension staff, affects the smooth delivery of services. The implication is that a few benefit from these services, mostly the progressive who are targeted. Extension messages are predominantly production-oriented with a focus on activities to enhance production and less emphasis on activities to promote marketing skills (Gebremedhin, et al., 2015; Gebremedhin et al., 2012). Extension service providers are more likely to target richer (progressive) farmers and men, assuming that they will trickle down the information to the poorer and women.

In conclusion, participation in extension activities is not enough to enhance market participation among farmers as there are other factors that have more influence. Those who are engaged in expanded reproduction are more likely to participate in extension activities with the hope of improving their farming activities. The expectation on the role of agricultural extension should be limited to what extension can achieve considering that its impact is dependent upon other factors, a conducive policy environment and availability of support services.

9.2. Commercialisation and Livelihoods

The study analysed the differentiated impacts of market-based agriculture on livelihoods. Findings suggest that households are largely semi-commercialised, with the majority of those who are highly commercialised doing so under distress (Kilimani et al., 2020; Poulton, 2017; Poole, 2017). Market participation has both positive and negative impacts as some households, especially those in expanded reproduction, have better incomes, accumulate assets including land and livestock, and have better dietary diversity. Among those in simple reproduction, commercialisation results in low food availability as they sell their food, and loss of key assets as they rent out their land, and sell their labour such that others end up in simple reproduction squeeze.

High income levels are associated with high levels of commercialisation (Kilimani et al., 2020; Qaim and Ogutu, 2018), especially income from crop sales, and high levels of expenditure, which means that the more households are selling their produce, the higher the level of total expenditure (Cazzuffi et al., 2020). A weak relationship between asset index and commercialisation suggests that not all households engaged in produce marketing do so for asset accumulation, pointing to the dominance of distress selling. This study argues that the majority who are participating in output markets are doing so under distress and are losers in the process. The shift from subsistence farming to commercial farming results in a class of few middle-class farmers and a large class of labouring farmers who depend on small-scale farming for survival but also on selling their labour power and land.

The presence of few households ‘dropping out’ suggests low levels of deagrarianisation, despite relying heavily on off-farm income which is mainly *ganyu* and small-scale businesses, but also a lack of lucrative opportunities outside farming. The majority of households are ‘hanging in’, with a considerable number ‘stepping up’ and ‘stepping out.’ Main factors contributing to these trajectories include access to off-farm income, labour availability, land availability, access to agricultural inputs, local politics governing land rentals, and social relationships enabling access to productive assets. The argument is that, over a period of time, households move from one trajectory to the other driven by different circumstances and factors. Even within livelihood trajectories, there is differentiation, and deagrarianisation is not happening in Malawi because of the lack of options and opportunities outside farming.

9.3. Social Differentiation

Market-based farming results in differentiated outcomes for class and gender categories. Four class typologies are identified including the poorest, those in simple reproduction squeeze; the poor, who are merely involved in simple reproduction; the better-off, who are involved in accumulation both from within farming and with off-farm economic activities; and the rich, who are involved in expanded reproduction but also involved in off-farm economic activities. This study argues that the social relations among these classes in access to means of production result in more inequalities benefiting the rich at the expense of the poor. Gender relations among male-headed and female-headed households as well as men and women in male-headed households for households engaged in market participation, results in increased inequalities among men and women, disadvantaging women. The gender relations in decision making, division of labour, access and control over resources and income and ownership of land favour men at the expense of women. The dynamic social relations in access to land, labour and capital are in favour of male-headed households and richer households because of the ability to rent in additional land, command enough labour and access capital (inputs).

Differences in access to extension services among class and gender categories results in more of the richer and male-headed households accessing extension services than the poorer and female-headed households (Jensen et al., 2019; Mudege et al., 2017). The reverse relationship between commercialisation and extension access suggests that male-headed households and those in expanded reproduction access extension services as they are driven by the need to improve their farming activities. There are also differentiated outcomes of market-based farming among gender and class categories in terms of income and expenditure, asset ownership, food and nutrition security which favours richer, and male-headed households.

Commercialisation results in formation of classes of capital (few) and labour (majority) and the social relations in access to means of production among these classes result in winners and losers. Class positions determine participation in agricultural extension as those involved in expanded reproduction and accumulation participate more in extension activities to improve efficiency than those who are in simple reproduction squeeze. Gender differences exist in both market participation and extension access as men and male-headed households are more likely to commercialise and participate in extension activities than women and female-headed households. Processes of capital accumulation perpetuate gender inequalities benefiting men at the expense of women, and the design and implementation of agricultural extension services is less gender sensitive. Class and gender intersect as women are more likely to occupy the poor classes than their male counterparts. The social relations between these two dominant classes have resulted in one class (rich farmers) benefiting at the expense of the other class (poor class). Again, the social relations in access to resources and income has resulted in deepening gender inequalities between men and women mostly to the advantage of men at the expense of women. Figure 9.1 and Table 9.1 summarise the study.

Table 9-1: Summary of findings

Aspect	Government approach	extension	Commodity approach	specialised	Business approach	oriented	Tobacco	Maize	Groundnuts
Extension participation	Higher		Highest		High		Highest	Higher	High
Commercialisation	Lowest		Highest		Low		Highest	High	High
Livelihood trajectory	The majority 'hanging in' and 'dropping out'		Half doing better, half 'hanging in'		The majority hanging in		Over half 'stepping up'	Over half 'hanging in' and 'dropping out'	Over half 'hanging in' and 'dropping out'
Social differentiation	The majority poor		A third better-off		A third better-off and a quarter poorest		The majority better-off	A third better-off, more than half poor	A third better-off, more than half poor

Source: Author's construction

Extension participation is highest among those under the commodity specialised approach and those who grow tobacco because they are the ones who seek the services to improve their farming, and the service providers target them since they are engaged in growing a crop that requires high investment and expertise. Commercialisation levels are high among those under the commodity specialised approach and grow tobacco because of the nature of the crop which is grown primarily for sale unlike maize and groundnuts. Despite the majority of the sample being 'hanging in', those under the commodity specialised approach and those who grow tobacco are in better livelihood trajectories ('stepping up' and 'stepping out') because of the nature of the crop they are growing. Again, despite the majority being poor, a good number under the commodity specialised approach and growing tobacco are doing better (better-off). What is striking here is that the level of extension participation is determined by the crop the household grows. Second, the level of commercialisation is dependent on the crop being grown and not necessarily the extension approach. Livelihood status and class positions are also influenced by the crop the household grows and not necessarily the extension approach.



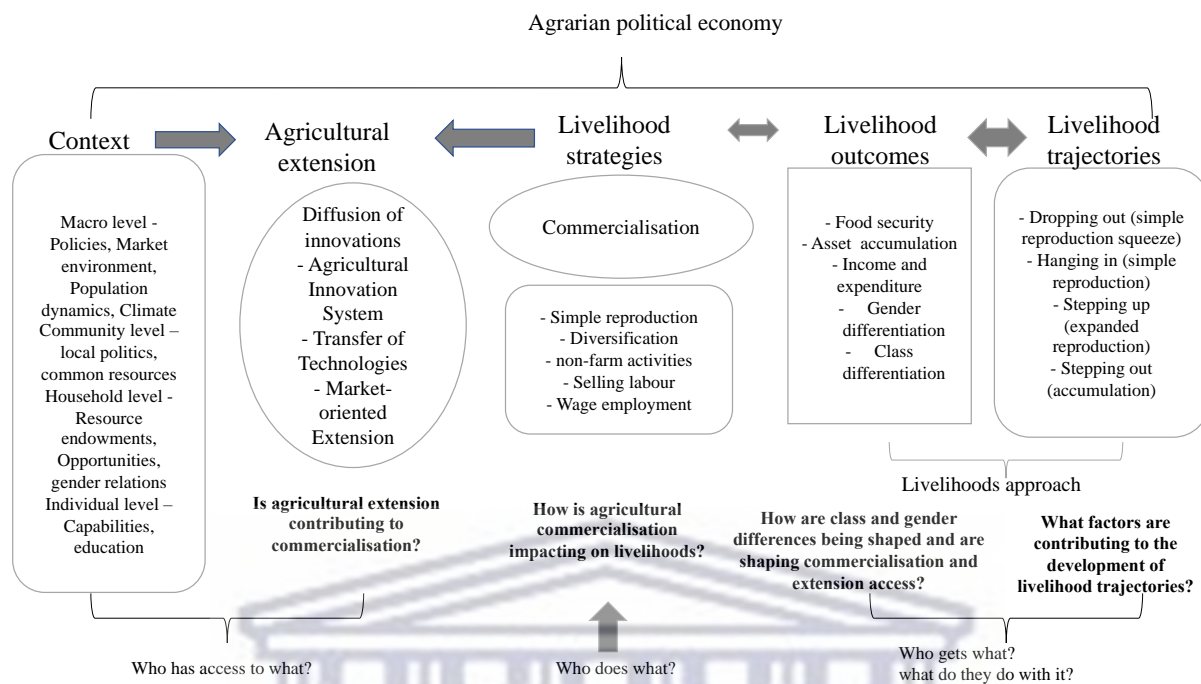


Figure 9-1: Summary of study findings

Source: Author's construction

Figure 9.1 summarises study findings with regard to the research questions and the conclusions that can be made. With the understanding that farming households operate in different contexts, the study predicted several relationships, first, that access to agricultural extension services promotes market participation. Second, engagement in commercial farming results in different livelihood outcomes and livelihood trajectories. Third, access to agricultural extension is determined by the class and gender positions, but also engagement in commercial farming is depended on class and gender positions. Fourth, the study predicted that commercial orientation and participation in agricultural extension activities will result in differentiated outcomes for different class and gender categories. These relationships were predicted within the broader agrarian political economy with the argument that the dynamics of social relationships, produces winners and losers. Because of the differences in social positions and social relations in access to resources and means of production, households pursue different livelihood activities. Agricultural extension, regardless of the approach, is not contributing towards commercialisation of agriculture, rather it is engagement in commercial farming that prompts household to access extension services. Different livelihood strategies results in differentiated livelihood outcomes and trajectories benefiting a few of those involved in expanded reproduction and men, at the expense of the majority involved in simple reproduction and women.

9.4. Thesis Contributions

The thesis makes a number of unique contributions to the academic work on extension services, agricultural commercialisation, social differentiation and livelihoods as described.

9.4.1. Theoretical contribution

This thesis makes several theoretical contributions. First, the application of the Marxist classical agrarian political economy to understand social differentiation based on class and gender and their intersectionality, in agricultural extension, which is rare. The framework has enabled the determination of how households and farmers of different class and gender

categories access extension services, and how extension service delivery works to the advantage of some social groups than others (Jensen et al., 2019; Mudege et al., 2016, 2017; Ragasa, 2014; Ragasa et al., 2012; Ragasa and Niu, 2017). The agrarian political economy framework has enabled the understanding of the impact of processes of capital accumulation on deepening inequalities among different social groups, creating winners (rich, male-headed households, and men) and losers (poor, female-headed households and women). The class analytical approach is applied in a geographical area (Malawi) that is rarely used.

The findings contribute to literature in agricultural extension, especially on its role and impacts which has been limited to technical improvement in agriculture, other than the social, power and gender relations (Cook et al., 2021), but also more nuance on the perceptions and expectations of different actors about what extension can and cannot achieve and the implications this has on the effectiveness of extension services (Anderson and Feder, 2003). The study contributes to the diffusion of innovations theory which mainly focuses on delivery of technical skills among farmers, to also take into account the social relations among different classes, the power and gender dynamics in delivery and access to extension services.

The findings further contribute to theory by applying the livelihoods approach within the agrarian political economy to not only understand differences in livelihood outcomes as a result of market participation and access to extension services but also how these are differentiated by class and gender. Livelihoods of different social groups are as a result of the social, power and gender dynamics in access to resources, opportunities and means of production that enables them to pursue certain livelihood activities and access certain spaces. The study also contributes to the concept of intersectionality to understand the relationship between class and gender differentiation (Dancer and Hussain, 2018). Class and gender are strongly connected as female-headed households are more likely to be 'dropping out' and in simple reproduction squeeze. Within the agrarian political economy, the study employed the feminist perspective to understand how the processes of capital accumulation are bringing about gender inequalities, disadvantaging women not only in gender relations but also the burden of social reproduction exerted on women (Roberts, 2017).

Again, the study combines the class analytical approach and the livelihood trajectory framework to bring more nuance to class categorisation and the relationship between classes and livelihood trajectories. The study relates those 'dropping out' to those in simple reproduction squeeze; those 'hanging in' to those in simple reproduction; those 'stepping up' and 'stepping out' to those involved in expanded reproduction and accumulation (Dorward et al, 2009; Mushonga, 2009; Bernstein, 2010). These categories were also linked to the local description of the wealth groups which corresponds to those described as 'poorest', 'poor', 'better-off', and 'rich', respectively.

The findings also contribute to the literature on agricultural commercialisation, especially on levels and drivers, including the role of extension services and outcomes of commercialisation (Dube and Guveya, 2016; Fischer and Qaim, 2012; Ingabire et al., 2017; Kirui and Njiraini, 2013; Muricho, 2015; Rabbi et al., 2017; Tafesse et al., 2020). Despite efforts to promote agricultural commercialisation in Malawi, including investments in agricultural extension, there is no information about how agricultural extension, in particular how the different extension approaches are contributing to commercial farming. The study has brought together studies in extension and critical agrarian studies where there is often a disconnect. This study has demonstrated that there is more nuanced understanding of the dynamics of agricultural extension in agrarian change, which is that the provision of knowledge and skills is not enough as utilisation of these depends on the context, social relations in access to means of production and the wider policy and structural environment of which extension is not in control.

9.4.2. Methodological contribution

The study makes important contributions to the literature on mixed methods research by bringing together qualitative and quantitative research designs in a way that the data were built on each other but also complemented each other. The study is predominantly qualitative but qualitative and quantitative data were connected and integrated to respond to specific research questions in a sequential manner (Guetterman, 2017). The use of both exploratory and explanatory sequential designs in which qualitative was the dominant one, is another methodological contribution. In this way, the study was able to build on the strengths of both and offset the weaknesses of both. This study was able to use qualitative data to explore the situation and inform the design of the quantitative data but also achieved specific objective. Quantitative data were used to understand the complex and diverse situation households were in. One of the limitations that the study acknowledged is the use of cross-sectional data to explain certain phenomena, such as livelihood trajectories, which often require data collected over a period of time; however, the use of life histories to understand the development of livelihood trajectories was able to counteract the limitations.

9.4.3. Empirical contribution

The study contributes to a number of research gaps. First, the contribution to literature on the role, status and impact of extension services, especially in the Malawian context, whose literature is scant. Literature on extension has focused on delivery of extension services (Rivera and Alex, 2004; Rosa et al., 2014; Zwane et al., 2015; Mapila et al., 2016), impact and effectiveness of agricultural extension (Daane et al., 2012; Davis, 2015; Ramjattan et al., 2017; Rivera, 2003; Sigman et al., 2014; Suvedi and Ghimire, 2015), and management and governance of agricultural extension (Bitzer et al., 2016; Faure et al., 2012; Masangano et al., 2017). The findings build on literature on extension methods and approaches (Kassem, 2014; Lukuyu et al., 2012; Mur et al., 2016; Weyori et al., 2018) most of which is not on Malawi. Most literature on extension is linked to other hard science fields, such as agronomy, forestry, and animal science, to look at the adoption of technologies in these fields but rarely to other social science fields, such as critical agrarian studies, which this study has done. The findings also build on literature on gender differences in agricultural extension services of which a few are from Malawi (Duffy et al., 2021; GIZ, 2013; Mudege et al., 2016; Ragasa, 2014; Ragasa et al., 2012; Umeta et al., 2011b).

The role of agricultural extension in the process of market-based farming, is another empirical contribution which is rare among studies on drivers of commercialisation. The research links engagement in market-based agriculture to livelihoods, which is also very rare in the Malawian context (Radchenko and Corral, 2018). The study brings in new perspectives from a less researched geographical area (Malawi) on class analysis and social differentiation but also on livelihood trajectories (Matita et al., 2021; Mgalamadzi et al., 2021; Peters, 2010). The class typologies and livelihood trajectories identified are linked to processes of capital accumulation and agricultural extension dynamics which is also another empirical contribution the study makes.

9.4.4. Policy implications

Agricultural extension can contribute to enhanced market-based farming but its contributions are limited because of a number of factors. First, challenges the extension services sector is facing, one of which is reduced budgetary support, affects delivery and the impacts the services can make. Second, effectiveness of extension highly depends on other policy and institutional factors that promote access to inputs and better markets, which extension does not have control over. Third, it is difficult to trace the impacts of agricultural extension because often stakeholders expect tangible impacts which, most of the time, do not only depend on extension access to be achieved, for instance, extension can provide knowledge and skills to farmers but

for them to utilise these and show impact on the ground they need resources such as capital, land and labour. Agricultural extension is not enough to enable expanded reproduction and accumulation as the processes are influenced by the wider structural factors including access to means of production and reproduction, which in capitalist society are controlled by a few at the expense of a majority.

The majority of households that are commercialising are doing so under distress, which affects the benefits households can get from market-based agriculture. Class differentiation is determined by social relations in access to capital, which dictates labour and land availability, often in favour of richer classes at the expense of the poor. The rise of middle-class farmers is mainly driven by access to off-farm income which not only is invested back in these off-farm income sources but also in farming to expand their production and reproduction activities. Market-based farming results in deeper inequalities among class and gender categories, mostly benefiting richer classes and men. Women in female-headed households suffer reduced labour availability and poor access to means of production which relegates them to poorer classes and are often squeezed out of farming and rely on selling their labour for survival. Women in male-headed households, especially among those in richer households suffer unequal participation in decision making, are burdened with more work including social reproduction, and poor access to means of production and income. Farming households move into different livelihood trajectories due to different positions in access to off-farm income, labour availability, land availability, access to inputs, local politics in access to land, and social relationships at different times.

9.5. Limitations and Future Research

One of the main limitations of the study was the small sample size, which limited the extent to which some analyses were performed to analyse the drivers of agricultural commercialisation through regression analysis. Because of this, the analysis of these factors relied heavily on qualitative data collected through a number of methods and analysis of quantitative data relied on correlations. Hence, in the future, a much larger sample can be used.

Another limitation was that data were collected cross-sectionally to analyse livelihood trajectories among households. It could have been more robust if households were tracked over a period of time, such that future studies should consider longitudinal tracker studies of which the data collected here could form the baseline data. However, to understand the dynamics of agrarian change and livelihood trajectories, life histories were used to dig deep into households' histories.

Despite the unit analysis of the study being the household and ideally, all household members were supposed to be present; in most cases, it was only the head who was present, and it was difficult to follow up with other members due to both time and financial limitations. Moreover, the study was being conducted during the early stages of COVID-19; hence, some community members were reluctant to meet outsiders. Future studies should consider following up with other household members, such as women and children, to obtain a holistic understanding of the dynamics of extension participation, commercialisation and livelihoods.

Three areas can be identified for future research. First, the new land tenure system described elsewhere in this thesis, locally called *pinyolo*, where the owner rents out land for a certain amount of money and gets back the land upon completing paying back the money. The system has been found to leave farming households in long-term debts and potentially cause conflicts in the community between the parties. More research needs to be done to understand the influencing factors, the arrangements involved, the characteristics of the parties involved, and the long-term implications for agrarian activities. The second area that requires more research

is to do with differentiation that is happening within livelihood trajectories. More needs to be uncovered on determinants of this differentiation and implications for livelihoods, social relations and the framework itself. Third, more research needs to be done to understand the majority who are poor, are hanging in and engaged in distress selling. There is need to understand differentiation within this group and what factors differentiate the sub-groups. There is also the need to explore their resilience capacity in terms of coping strategies to avoid distress selling of produce, land and labour. It will also be important to follow their livelihood trajectories over-time through a longitudinal tracker study to find out their movements towards 'dropping out', 'stepping up' and 'stepping out'.

My analysis concludes that the interactions between agricultural extension and commercialisation are complex and depend on the wider structural factors which are determined by the social relations in access to means of production and reproduction. These social relations produce differences and inequalities between social groups which determine the livelihood strategies and livelihood trajectories, with *winners* and *losers* in the process.



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WESTERN CAPE

Appendices
Appendix A: Wealth ranking

Criteria	Rich	Better off	Poor	Poorest
Agricultural inputs	They can have up to 20-30 bags of fertiliser which they buy and they also buy certified seeds.	These can have up to 3 bags of fertilisers which they buy after selling their certified produce. These at least use certified seeds.	These could also access a little fertiliser through exchange for labour; they also use recycled seeds which they exchange for their labour.	They access very little fertiliser and sometimes they do not access fertiliser, they exchange labour for inputs from the rich and sometimes they beg from relations. They use recycled seed which they also exchange for labour.
Transport	These have a bicycle, motorcycle and some can even have a car. Their mobility is much better than all the other groups.	These have a bicycle and some have a motorcycle which they use for their own transportation or even for a transport business (<i>kabaza</i>). This means that their mobility is better than the poor and the poorest	These have at least a bicycle hence they can come and go to places.	They usually go on foot as they do not have any means of transport and they do not have money to pay for transportation. This means they cannot go to many places as they have limitations.

Housing condition	<p>The house has an iron-sheet roof, and they use timber, the wall has burnt bricks, they even put plaster and lime on top, the floor has cement and a few have tiles; they sleep on a bed, mattress, and they have heavy blankets (from SA).</p>	<p>The house has an iron-sheet roof, but they use poles instead of timber, the walls are made of unburnt bricks, the floor is mud; sleep on a mat but they sleep on a bed, mattress, and they have a blanket.</p>	<p>Their house is grass-thatched but they are able to put a plastic lining under the grass, the walls are made of unburnt bricks, the floor is mud and they sleep on a cover themselves with a wrap.</p>	<p>Their houses are grass-thatched but even the grass is not enough such that the houses usually leak as they do not even put a paper lining under the grass. The walls are made of unburnt bricks, the floor is mud and they sleep on sacks, they cover themselves with mosquito nets or a wrap.</p>
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Clothing	<p>They wear java wraps and they change every day, sometimes several times per day after having a shower; they can have at least 10 pairs of shoes.</p>	<p>They have at least 3 wraps for changing at least 3 times per month.</p>	<p>They can at least have one wrap (cotton), they can change at least twice per month; they have one pair of slippers.</p>	<p>They struggle to get clothes, they are usually given some by the rich and they do not usually change; they stay a long time without washing their clothes.</p>
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Harvests	<p>These can harvest up to 30-40 oxcarts of maize because they do not struggle to access agricultural inputs; they can also harvest up to 30-60 bags of</p>	<p>The better off can harvest up to 3 oxcarts of maize and their food lasts for a couple of months, up to January. In addition, they can also harvest up to 5 bags of</p>	<p>These harvest something but very little. They could maybe 1 harvest something, the food may last up to 3 months²¹. They also grow a little groundnuts, harvesting up to 3 bags of 50 kgs they can also harvest up</p>	<p>These do not even harvest anything and for those who harvest 1 harvest something, the harvest only lasts 1 month while still in the field; they do not grow any other crops apart</p>
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²⁰ An oxcart of maize is the equivalent of about 6 bags of maize weighing 50 kg each.

²¹ Usually in this village they harvest in May so for those it lasts 3 months, the food will take them up to August.

unshelled unshelled to 1 winnowing basket from a few who
groundnuts, 10- groundnuts, 3 of soya bean but they grow maize.
20 bags of soya bags of soya don't grow tobacco.
beans, and up to bean, and they
40 bales of also grow
tobacco. For tobacco and can
them food lasts harvest up to 2
all year round. bales.

Food and nutrition situation	<p>They do not Their struggle is These also struggle but They struggle to struggle to get better than the are better off than the find food and food, they eat all poor and poorest poorest. They also sometimes they the food groups such that they mainly eat <i>nsima</i> and sleep on an empty including <i>nsima</i>, are able to eat vegetables but they can stomach. They tea, rice, meat²², apart from eat meat at least twice even go fresh fish. They <i>nsima</i>, dry fish, per year. They usually scavenging for can eat 4 to 6 chicken, meat, eat two meals per day maize at the maize times per day. In porridge, tea at mill. addition, they least once per also eat fruits, month. They eat Their main food is and drink soft 3 times per day. <i>nsima</i> with drinks (sobo, frozy) vegetables, they eat meat at ceremonies such as funerals, weddings but they never eat meat on their own. They usually eat once per day.</p>
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Income	<p>These do not These are better These could have up to They have very have problems off as they can MK10000 to little or no money to find money, have between MK15000 per month, at all. Those who they can have MK20000 to they are better off than have may have up between MK25000 per the poorest although to MK5000 only MK30,000 to month and they also struggle to per month and MK50000 per though everyone find it. they struggle to month. struggles to get money, they are find it. better off than</p>
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²² *Iwowo nyama ndi mfutso* (it is so easy for them to afford meat such that to them meat is like any cheap vegetable around that can easily be preserved.)

the poor and poorest.

Livestock	They can have up to 25 chickens, 15 ducks, 20 pigs, 50 pigeons, 4 sheep and up to 12 cattle.	They can have up to 15 chickens, 7 ducks, 10 pigs. They have some money to buy these.	They can have up to 10 chickens and 1 goat because they also lack money to buy livestock.	They do not have any livestock as they do not have money to buy livestock.
Health	These usually do not get sick because they eat good food and they live in hygienic conditions, they also have good clothes and bedding. They go to private hospitals (Mlare)	Their health is usually good because they eat good food and they live in hygienic conditions; they also go to government hospitals and sometimes private hospitals.	They also get sick but are better off than the poorest, this is due to lack of good food and lack of hygienic conditions, they go to government hospitals	These usually get sick because of eating less nutritious food and also lack of hygiene. They go to government hospitals which are usually free.
Land	These can farm up to 13 acres of land with about 3 acres of their own and they can rent additional 10 acres in a season ²³ . These can permanently buy the land ²⁴	These also have access through inheritance in a year, they rent in additional 1 acre of their own and rent in an additional acre	They also access land through inheritance and these can have up to a ½ to 1 acre of land but they also rent out part of their land especially if they have more than this.	They access land through inheritance. They can have up to a ¼ acre. Some of them can have more land but they usually rent it out to obtain needs of the day.

²³ The value of renting in land is at MK10000 per acre for villagers and up to MK20000 for outsiders.

²⁴ Nowadays unlike before, local leaders are not giving out land to villagers because there is no land to distribute, but it is not difficult to find land rent in or buy.

to make it 2
acres of land.

Crops grown	<p>These grow a wide variety of crops, they choose crops to grow which ones not to grow, including maize, tobacco and groundnuts, soyabean, sweet potatoes. They have access to enough inputs and other production resources including land which they can easily buy or rent in. they also have access to abundant labour as they can hire additional labour.</p>	<p>These grow maize, groundnuts and soya maize and although still in small amounts but better than the poorest. The reasons are similar to those of the poorest. access inputs, those of the poorest. and more land to grow more crops since they can afford to rent in land.</p>	<p>These grow maize, groundnuts (in very small amounts). The reasons are that they do not have access to inputs and if they do not have land, they cannot manage to rent in land, most of the time they are the ones renting out land because of lack of labour and inputs.</p>
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Livelihoods	<p>These largely depend on sales from agricultural produce since they harvest a lot and they have a lot of surplus. They also depend on livestock sales</p>	<p>These depend on agricultural produce and some are also involved in wage employment which includes farming.</p>	<p>These also depend on piece works and small-scale businesses just like the poorest. They depend on piece works for their dairy needs. They usually ask for piece works from the rich and usually the type of work is farming²⁵. These also rely on</p>
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²⁵ This is one of the reasons why the poorest do not have enough time and labour to do their own farming as they spend the crucial time doing work in other people's fields.

since they have enough livestock. They are also involved in non-farm businesses such as grocery stores.

small-scale businesses.

Businesses	<p>These are heavily involved in non-farm businesses since they have capital to do so. They can sell own grocery stores, tea rooms, livestock and clothes.</p>	<p>These are also involved in farm businesses such as selling fresh tomatoes, (zigege/mbonekera)²⁶ dry fish and <i>mandazi</i> maize.</p>	<p>They conduct any business because they do not have capital to start any business.</p>
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Education	<p>These ones have gone to secondary level education and their children also go to school far with education because they through afford to pay for secondary their school fees.</p>	<p>They also did not go very far with primary level education but children go to school although they do not go far because after primary education which is free, they cannot afford to send them to paying schools.</p>	<p>They can only go up to primary level, their children go to school although they do not go far because after primary education which is free, they not have necessities to attend school, including clothes.</p>
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Access to extension services	<p>These are the owners of the groups, they are the ones that actively participate in these extension</p>	<p>They also participate in extension activities and they are chosen as</p>	<p>These participate in extension activities and they are also chosen to be in leadership as</p>	<p>Extension service providers target them but they do not participate because they do not see the benefit of participating.</p>
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²⁶ These are made by slicing Irish potatoes in small pieces and dipping it in liquid wheat flour mixed with food colour and frying them.

activities, it is leaders of these positions in farmer They also would
 one of the groups. clubs²⁷. want to satisfy
 reasons they do their daily needs
 well. They can so they think
 also have participating in
 leadership extension
 positions in activities whose
 these groups. benefits will be
 after some time is
 a waste of time.

Assets	<p>They use solar These have Their situation is They usually have electricity for chairs, table, similar to that of the one plate, one cup, lighting, they more kitchen poorest, they do not one pot, a bucket have a sofa set, utensils, a radio, have chairs, have a few and basin, some they have even phone, nice pots, a few plates, a few do not have cups more kitchen bathroom made cups, a bucket, two they drink from a utensils, they of bricks, and a bigger hoes, they use plate, they can have plate toilet, they have bulbs to light the house, have 2 small hoes, cupboards, a a torch for they do not have a they use the fire television, big lighting, their trough, they have a for cooking and to buckets for house is fenced toilet and bathroom light the house processing with grass. without a roof. since they cook maize flour, they inside the house, have a rubbish they do not have a bin, toilet and toilet they use bathroom made their neighbour's of burnt bricks UNIVERSITY of the or they go to the and with an iron- bUSH, they do not sheet roof have a bathroom outside the they bath at night, house, the house outside the house, is fenced with if they want to go grass. out during the day, they just wipe themselves.</p>
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Market access	<p>These sell more They sell a little They sell little, mainly These do not sell produce, more produce to to vendors who come to produce because tobacco to vendors; they the village or they go to they do not auction floors, can go to the the nearby trading harvest enough.</p>
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²⁷ The poor are chosen into leadership positions because the group knows that because they are poor, they will be afraid to mess up things but the rich may mess up finances just because they think they can pay back.

groundnuts to nearby trading centre (Mitundu) to sell ADMARC²⁸. centre and they their little produce They also sell to also sell tobacco Mitundu market to auction floors and also to (Kanengo). vendors who come in the village.²⁹



²⁸ ADMARC usually buys large quantities hence only producers with bulk harvest get to sell to ADMARC.

²⁹ In this village, people do not do collective marketing.

Appendix B: Household questionnaire

INSTITUTE FOR POVERTY, LAND AND AGRARIAN STUDIES

UNIVERSITY OF THE WESTERN CAPE

Drivers, enablers and constrainers of smallholder agricultural commercialisation in Malawi: A critical analysis of the agricultural extension system and implications for livelihoods

Household questionnaire: to be answered by farmers

INTRODUCTION

My name is Loveness Msofi, and I am a PhD student in Land and Agrarian Studies at the Institute for Poverty, Land and Agrarian Studies (PLAAS) at the University of the Western Cape (UWC) in South Africa. I am also a lecturer at the Lilongwe University of Agriculture and Natural Resources (LUANAR), Extension department. I am doing a research study for my PhD studies and I would like to talk to you about agricultural commercialisation and extension services. The purpose of the study is to understand how agricultural extension services in Malawi are shaping and adapting to be able to contribute to the process of agricultural commercialisation. Your participation in this study is voluntary and information provided will be handled with strict confidentiality. Any information obtained will be used for research purposes only and to improve the extension system to promote agricultural commercialisation.

Is there anything which I have said that you would like further clarification? May I proceed? Yes _____ No _____

SECTION A-1: HOUSEHOLD IDENTIFICATION

A1 District _____

A2 TA _____

A3 EPA _____

A4 Village _____

A5 Household head _____

A6 Name of the respondent _____

A7 Sex of respondent _____

SECTION A-2 SURVEY STAFF DETAILS

A7 Name of the interviewer _____

A8: Date of the interview _____

Universal codes

Not applicable: 77

GPS coordinates

Latitude:

Longitude:

SECTION B: HOUSEHOLD INFORMATION

B1a household size (anthu okhala pakhomo)	B2a. Age of respondent/ zaka	B2b. Age of the household head/zaka	B3 sex of household head/mamuna kapena nkazi	B4 Marital status/ ali pa banja 1= married 2=single 3 =divorced 4=separated 5=widowed	B6 Education level/maphunziro 1=none 2=primary 3=secondary 4=tertiary	B7 Highest qualification/ndiophunzira motani? 1= none 2=nursery 3= PLSCE 4= JCE 5=MSCE 6=diploma 7=BSc degree 8=MSc degree 9=PhD
B8. List all household members/anthu a pakhomo	B9. Their ages/zaka zawo	B10. Their sex/mamuna kapena nkazi	B11. Their Education level/maphunziro awo	B12. Their highest qualification/kuphunzira kwawo		

SECTION C: HOUSING, ENERGY, WATER AND WASTE DISPOSAL

C1 what are the main materials of the main house?/makomaa a nyumba yanu anamangidwandi chani? 1=grass (maudzu)	C2 what is the main material of the roof of the main house/dengala nyumba yanu inamangidwandi chani? 1=grass/udzu 2=iron sheets/malata	C3 what are the main materials of the floor of your main house/Nyumba yanu pansimunamangandi chani? 1=mud/dothi	C4 what is the main source of energy for lighting/mumagwiritsa ntchito chani pounikilamunyumba mwanu? 1=Electricity/magetsi	C5 what is the main source of energy for cooking/mumagwiritsa ntchito moto wanji pophikamunyumba mwanu?	C6. What is the main source of water for drinking/madzi akumwa mumapeza kuti? 1=Piped into dwelling/mipope yamnyumba 2=piped outside dwelling	C7 how do you mainly dispose of your waste matter/zinyalala mukakataya kuti?	C8 what kind of toilet facility does your household use?/mumagwiritsa ntchito chimbuzi chanji	C9 is the toilet shared with other households?/makomaa ena amatha kugwiritsa nawo ntchito chimbuzichi? 1=yes
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2=mud/yomata 3=compacted earth/landindo 4=mud bricks/unfired/njerwa zosaotcha 5=burnt bricks/lanjerwa zootcha 6=plaster/pulas titala	3=clay tiles/matailo 4=udzu/plastic/lachi pepala 5=other specify	2=smoothed mud/lozira 3=smoothed cement/siment 4=wood/mat abwa 5=tile/matailo 6=other specify	2=paraffin/mafuta a nyale 3=bulb 4=firewood, grass/nkhuni 5=candles/kandulo 6=touch/tochi 7=battery/dry cell/mabatilo 8=solar/mphamvu ya dzuwa 9=other specify	1=Electricity/magetsi 2=paraffin/mafuta a nyale 3=charcoal/Makala 4=firewood, grass/nkhuni 5=gas/mpweya 6=battery/dry cell/mabatilo 7=solar/mphamvu ya dzuwa 8=other specify	personal/mpope wa panja pa nyumba panga 3=communal stand pipe/mpope wa mmudzi 4=communal hand pump/mjigo 5=protected well/chitsime chotetezedwa 6=unprotected well/chitsime chosatetezedwa 7=river/lake/mtsinje/nyanja	1= burning/kuotcha 2=rubbish pit/padzala yanga 3= public heap/ kudzala la mmudzi 4=throw anywhere/timataya 5=other specify	pakhomo panu? 1= flush toilet/chamadzi 2=VIP latrine/zimbuzi zamakono 3=traditional latrine with roof /chimbuzi cha denga 4=traditional latrine without roof/chimbuzi chopanda denga 5= other specify 6=none	2=no

SECTION D: AGRICULTURAL CROPS AND LIVESTOCK

D1 In the 2018/2019 growing season list three major crops you grew in this household/mumadzala mbewu zanzi mchka chapitachi? 1=maize/chimanga 2=tobacco/fodya 3=groundnuts/mtedza 4=soya bean/soya 5=common bean/nyemba 6=cassava/chinangwa 7=sweet potato/mbatata	D2 List 2 major livestock you keep/mumaweta ziweto zanzi? 1=cattle/ng'ombe 2=goats/mbuzi 3=chicken/nkhuku 4=pigs/nkhumba 5=other specify	D3 How much land do you own/muli ndi malo olima ochulukana bwani?	D4 Did you rent in additional land in the just ended growing season? Munabwerekako munda mu chaka chapitachi? 1=yes 2=no	D5 If yes, how much? Munabwerekako ochulukana bwani	D6 What was the value of the land/mtengo obwerekako munda unali chani?	D7 Did you rent out land in the just ended growing season? Munabwerekotako munda mu chaka chapitachi? 1=yes 2=no	D8 If yes how much land/malo ochulukana bwani?	D9 What was the value of the land? Mtengo wobwerekotako munda unali chani?	D10 What was the reason for renting out land? chifukwa chani munabwerekotako munda? 1=lack of inputs/ndinalibe zipangizo 2=lack of labour/ndinalibe ogwira nchito kumundako
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8=Irish potato/mbatatesi 9=vegetables/zamasamba 10= other specify										3=have enough/ndilina nawo ondikwanila 4=other specify

D11 Of the crops you grew which ones were for food? Ndi mbewu ziti mumalima za chakudya pakhomo? (use codes from D1)	D12 Of the crops you grew which ones were for sale? Ndi mbewu ziti munalima zogulitsa (use codes above from D1)	D13 How much of the food crops did you harvest? Mbewu ya chakudya munakolola zochuluka bwanji? (KGS)	D14 How much of the cash crops did you harvest during the 2018/2019 season? Mbewu yogulisa munakolola yochukuka bwanji KGS	D14 How do you use the livestock you keep/ ziweto zanu mumazigwiritsa ntchito yanji? 1= food/kudya 2=sell/ kugulitsa 3= coping mechanism during shocks/ zozitetezera ku ngozi zogwa mwadzidzidzi 4= food for visitors/ zakudya alendo 4=dowry/ lobola	D15 Of the livestock you keep which ones are for sale/ ndi ziweto ziti mumasunga zogulitsa (use codes in D2)

SECTION E: AGRICULTURAL LABOUR AND INPUT USE

E1 List most important inputs you used to grow food crops mentioned / ndi zipangizo ziti zomwe zinalowa pa mbewu zanu za chakudya 1=seeds mbewu 2=fertilizer/feteleza 3=pesticides/mankhwala 4=others specify	E3 How much of the inputs and the value mentioned in E1 did you use in the last growing season/ munagwiritsa ntchito zipangizo zochuluka bwanji	E2 List most important inputs you used to grow cash crops mentioned / ndi zipangizo ziti zomwe zinalowa pa mbewu zanu za chakudya 1=seeds mbewu 2=fertilizer/feteleza 3=pesticides/mankhwala 4= others specify	E4 How much of the inputs and its value mentioned in E2 did you use in the last growing season munagwiritsa ntchito zipangizo zochuluka bwanji	E5 What was the source of the inputs used/ zipangizoti munazipeza bwanji/motani	E6 How far is the source of inputs/ kokagula zipangizo zaulimi ndi kotalika mtunda wotani?
	Quantity (kgs)= Value=		Quantity (kgs)= Value (MK)	Food crops/mbewu za chakudya=	MK
	Quantity = Value (MK)=		Quantity (kgs) Value (MK)=	Cash crops/mbewu zogulitsa=	kms

	Quantity (kgs) Value (MK)		Quantity (kgs) Value (MK)		
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E7 source of labour for the following in food crops/ anthu ogwira ntchito mu mbewu za chakudya amachokera kuti? 1=hired 2=family				E8 if hired/if you can hire how much did you pay? Ngati munalemba aganyu, munawalipira zingati? Malawi kwacha			
Land preparation =				Land preparation =			
Planting/kudzala=				Planting =			
Weeding/kupalira =				Weeding =			
Fertiliser application				Fertiliser application=			
Harvesting=				Harvesting=			

E9 source of labour for the following in cash crops? anthu ogwira ntchito mu mbewu zogulisa amachokera kuti? 1=hired 2=family				E10 if hired/if you can hire how much did you pay? Ngati munalemba aganyu, munawalipira zingati? Malawi kwacha			
Land preparation=				Land preparation =			
Planting=				Planting =			
Weeding=				Weeding =			
Fertiliser application=				Fertiliser application=			
Harvesting/kukolora=				Harvesting=			
Drying/kusoka				Drying/kusoka			
Grading/kusankha				Grading/kusoka			
Bailing/				Bailing/			
Selling/kugulisa=				Selling			

SECTION F: CROP SALES

F1 Which of the crops you harvested did you sell?/ndi mbewu ziti zimene munakolora munagulisa? Use codes (D1)	F2 How much of the total produced crops (cash and food) did you sell? Pa mbewu zones munakolora (za chakudya ndi zogulisa) ndi zochulukana bwanji	F3 What was the total value earned from the sales? Munagulisa ndalama zochulukana bwanji mbewu zonse?	F4. What was the price of the crops you sold per unit/mtengo wa mbewu	F5 To who did you sell the produce/main buyer? Mbewu zinemezi munagulisa kwandani/kuti? 1=NASFAM 2=vendors 3= neighbor 4= relative 5=private company	F6 Why did you choose to sell to this buyer? Nchifukwa chani munagulisa kumeneko? 1= closer 2=always sell to this buyer 3= good price 4=contracted to sell to this buyer 5=other specify
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				6=ADMARC 7 Other specify	
	kgs	MK	MK/unit		
	kgs	MK	MK/unit		
	kgs	MK	MK/unit		

F7 In which month did/do you sell your produce and why Mbewu zanu munagulisa/mumagulisa mu mwezi wanji? Chifukwa chani		
Crop	Month	Reason

SECTION G: INCOME AND EXPENDITURE

G1 What are the main sources of income? Ndi ziti mwa izi zimakubwereserani ndalama?	G2 How much income did you receive from the sources in G1 per month/day/season/zinali ndalama zingati (MK)	G3 On which of these did you spend money? Munagwirisako ntchito ndalama pa zinthu izi	G4 how much did you spend on the following per day/month/season/term/year/once in a while? Munagwiritsa ntchito ndalama zingati pa zinthu zimenezi? Malawi kwacha
Sales of crops/kugulisa mbewu		Food /chakudya	
Sales of livestock/kugulisa ziweto		Household assets/katundu wa pakhomo	
Sales of assets/kugulisa katundu		Productive assets/ katuntu ogwiritsa ntchito	
Business /malonda		Education/maphunziro	
Remittances /zapasidwa		Health/kuchipatala	
Social cash transfers/zolandila		Clothing/zovala	
Salaried farm employment/ntchito ya kumunda		Transport /kuyenda	
Salary from non-farm employment/ntchito zina		Farm inputs and labour/ zipangizo za ulimi komanso aganyu	
Ganyu on farm/ganyu wakumunda		Energy	
Other ganyu/ ganyu wina		Remittances/ zopereka	
Other safety nets/zolandila zina		Communication/ polumikizana	

Other (specify)		Other specify	
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SECTION H: ASSETS

Assets	H1 does the household own any of the following assets? Pakhomo pano pali katundu uyu? 1=yes 2=no	H2 How many does the household own? Katunduyu alipo ochuluka bwanji? Number	H4 which of these assets are most useful for commercial farming? Ndi katundu uti yemwe ali ofunikira kwambiri pa ulimi wa bizinesi?
Oxcart / ngolo			
Plough/ridger/ makina olimira			
Hoe/ khasu			
Axe or bush knife/nkhwangwa or panga			
Wheelbarrow/ wilibala			
Radio/ wailesi			
Television/ television			
Regridgerator/ filigi			
Bicycle/ njinga			
Motorcycle/ njinga yamoto			
Car/track/ galimoto			
Cellphone /lamya za mmanja			
Table and chair/ tebulo ndi mipando			
Matress /matilesi			
Bed/bedi			
Solar panel/ sola			
Watering can or treadle pump/ kheni or thiredo pampu			
Sewing machine/ makina osokera			
Weighing scale/ sikelo yoyezera			
Sprayer/ sipuleyala			

SECTION I: SOURCE, TYPE AND ACCESS TO EXTENSION SERVICES

I1 Do you have a govt extension worker in this community? Kodi mmudzi mwanu muno	I2 who are the other extension service providers you interact with?	I3 Have you received extension advice on the following? Munalandilako/mumalandila ulangizi umenewu? 1=yes 2=no	I4 what was the source of the information? Uphungu umenewu munalandira kuchokera kwandani/kuti? 1= fellow farmer 2= lead farmer	I5 in what main way did you interact with the information provider? Munakumana nawo bwanji okupasani uthengawu? 1=farm and home visit 2=group meetings 3=demonstration plots	I6 how useful was the information for commercial farming? Ulangizi umenewu unakupindulirani motani? 1=useless 2=not very useful

mulu alangizi a zaulimi? 1=yes 2=no	Ndindani amene amaperekanso ulangizi wa zaulimi		3=government extension worker 4=NGO extension worker 5= agro-dealer 6=radio programme 7= relative 8= other specify	4= radio listening club 5=print media 6=community leaders 7=agricultural resource centers 8=farmer field school 9=farmer business school 10=field days 11=other specify	3=useful 4=very useful
		Use of good quality or certified seeds mbeu zobvomezeka			
		Recommended agricultural practices (ulimi wovomezeka wamakono)			
		Crop diversification kulima mbeu zosiyanasiyana			
		Farm business management practices kuchita ulimi ngati bizinesi			
		Savings and investments kusunga ndi kugwiritsa ntchito ndalama kuti mupindulepo			
		Group / Club formation magulu/kakhaliwe ka pa gulu			
		Market research / kufufuza misika musanalime			
		Post-harvest handling/ kusamala zokolola			
		Value addition/ kukonza zokolola zomwe tikukagulisa			
		Business planning – kukonzekera ulimi wa business			
		Gross margin analysis – kuika ulimi pa mulingo malingana ndi phindu			

SECTION J: FOOD AND NUTRITION SECURITY

J1 how much of the produce did you keep for food? Munasunga chakudya chochuluka bwanji?	J2 how many months does the food last Chakudya chimatha miyezi ingati? (Months)	J3 when the food runs out how does your household survive? Chakudya chikatha banja lanu limatani? 1=buy from market 2= buy from admarc 3=obtain from relatives 4=handouts from govt/NGO 5=exchange/barter 6=safety nets programmes 7=irrigation farming/chakudimba 8=start eating before harvest	J4 if purchased any food, how much did you purchase for own consumption last season per week? Mumagula chakudya chochuluka bwanji chaka chatha	J5 on average, how many meals per day did your household have over the past week? Masiku 7 apitawa, pakhomo pano mumadya kangati patsiku? 1= once 2=twice 3= thrice 4=none 5=other specify
Kgs			Quantity =	
			Value =	

J6 over the past 7 days, how many days did you consume any of these food group Pamatsiku 7 apitawa pakhomo pano munadya zakudya izi? Number of days	J7 in the past 7 days how many days did you have to do the following? Pamatsiku 7 apitawa, ndi ochuloka bwanji omwe munapanga izi? Number of days
Cereals/ za mtundu wa chimanga/mpunga	Rely on less than preferred and/or less expensive foods Kudya zakudya zoti simuzikonda
Roots and tubers/ zamtundu wa mbatata	Limit portion size at meals/ kuchepesa mulingo wa zakudya
Nuts/pulses/ za mtundu wa nyemba	Reduce number of meals/ kuchepesa nthawi zokudya
Vegetables / zamasamba	Restrict adult consumption to allow children to eat/ akuluakulu kusiyila ana zakudya
Meat and fish/ zamtundu wa nyama ndi nsomba	Borrow food or rely on help from a friend or relative/ kudalira achibale kapena anzathu kuti atipase chakudya
Fats and oils Za mtundu wa mafuta	
Sugar/ zashuga	
Spices/ zasabola	

SECTION K: ACCESS TO CREDIT AND GROUP MEMBERSHIP

K1 Did you access any agricultural credit in the just ended agricultural season? Munatengako ngongole mu	K2 if yes what was the main purpose of the loan? Ngati numatenga munagwiritsa ntchito yanji? 1=agricultural inputs 2=purchase of capital	K3 was the loan in cash or materials Ngongoleyi inali ndalama kapena zipangizo? 1= cash	K4 How much was the loan plus interest? Ngongoleyi inali ya ndalama zingati kuphatikizapo chiongola dzanja?	K5 what was the source of the loan? Ngongoleyi munaipeza kuti? 1= friend /relative 2=village savings and loans group 3=microcredit lender	K6 have you repaid the loan in full? Mwabwenza yonse ngongole? 1=yes 2=no	K7Are you or any other member of the household a member of any farmer club? Inu kapena wina aliyense pakhomo pano ali membela wa gulu la zaulimi?	K8 What type of the club is this? Limeneli ndi gulu lanji?	K9 is this group useful for agricultural commercialisation? Kukhala membala wag ulu mumathandizira ulimi wa bizinesi? 1=yes 2=no
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chaka chapitachi? 1=yes 2=no	3=purchase of livestock 4= other specify	2=materials 3=both	Malawi kwacha	4= bank 5= farmers club 6=other specify		1=yes 2=no		

SECTION L: GENDER AND WOMEN EMPOWERMENT

L1 Who makes decisions about food crops/ amapanga ziganizo pa mbewu za chakudya cdi ndani? 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=bread winner/mutu wa banja	L2 Who makes decisions about cash crops/ amapanga chiganizo pa mbewu zogulitsa ndani? 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=bread winner/mutu wa banja	L3 who makes decisions about livestock amapanga chiganizo pa ziweto ndani? 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=bread winner/mutu wa banja	L4 who controls income from the crop sales and other sources/ amalamulira ndalama zimenezi ndindani? 1= husband/ bambo 2=wife/ mayi 3= joint/pamodzi 4= bread winner/mutu wa banja 5=other specify	L5 who does the following activities for food crops? Amagwira ntchito zimenezi mu mbewu za chakudya ndani? 1= husband/ bambo 2=wife/ mayi 3= joint/pamodzi 4= bread winner/mutu wa banja	L6 who does/oversees the following activities for cash crops? Amagwira ntchito zimenezi mu mbewu za zogulisa ndani? 1= husband/ bambo 2=wife/ mayi 3= joint/pamodzi 4= bread winner/mutu wa banja	L7 Who controls productive resources/ amalamulira zipangizo ndi katundu wa ulimi ndani? 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=bread winner/mutu wa banja	L8 who has access to productive resources amagwiritsa ntchito zipangizo ndi katundu wa ulimi ndani? 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=bread winner/mutu wa banja	L9 who has access to income from crop sales and other sources 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=household head/mutu wa banja	L10 who owns land 1=husband/ bambo 2=wife/ mayi 3=joint/pamodzi 4=bread winner/mutu wa banja 5=separate ownership
			Crop sales	Land preparation =	Land preparation =			Crop sales	
			Other sources	Planting =	Planting =			Other sales	
				Weeding =	Weeding =				
				Fertiliser application=	Fertiliser application=				
				Harvesting=	Harvesting=				
					Drying				
					Grading				

					Bailing				
					Selling				

SECTION M: ACCESS TO INFRASTRUCTURE AND MARKET INFORMATION

M1 which markets do you sell your crops? 1=local 2=distant 3=vendors 4=companies	M2 how far is the market? Ndiyot alikira bwanji misika (kms)	M3 how is the road network to market? Misewu ndiyotani 1=bad 2=better 3= good	M4 how do you access market information (prices, market opening)/ za misika mumaziziwa bwanji 1= friends 2=extension workers 3=lead farmers 4=radio 5=print media 6=buyers 7=other	M5 how is the reliability of the information/kudalilika kwake 1=not reliable 2=reliable 3=very reliable	M6 how are the prices at the market for inputs and produce /mitengo ili bwanji 1=good 2=better 3=bad	M7 who determines the prices?/amapanga mitengo imeneyi ndani? 1=buyer 2=seller 3=other	M8 do you have a chance to negotiate the prices? /mumatha kunenerera mitengo 1=yes 2=no	M9 are other infrastructure available to you/ zinthu zina 1=yes 2=no
					Input – Produce -	Input – Produce -	Input – Produce -	Warehousing- malo osungira katundu Insurance- ndondomeko yotetezera katundu

Appendix C: Focus Group Discussion guide

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Focus Group Discussion guide: to be answered by groups of farmers

1. CROP PRODUCTION

- Which crops are grown in this area? For what purpose? (food, cash, both?) any gender differences? (both MHH and FHH, and men and women in MHH) mbewu zolimidwa mu dela muno? Mbewuzi zilimalimidwa chifukwa chani?
- Are there households specialising (cash cropping only, or food cropping only)? Probe for differences among male and female-headed households. kodi alipo makhomo omwe amalima kuti apeze malonda okha kapena ena amene alima kuti apeze chakudya?
- What has been the trend over time? (izi zasintha bwanji)

2. ACCESS TO AGRICULTURAL INPUTS

- What inputs are mainly used? What is the source of these inputs? any changes over time in inputs used and sources of inputs? What is the role of agricultural extension in farmers access to inputs? How is this assisting farmers to commercialise? Ndi zipangizo zANJI zimene makhomo amagwiritsa ntchito polima? Zipangizochi amazipeza bwanji? Izi zasintha bwanji ndi nthawi? Alangizi amapangapo chani kuti anthu apeze zipangizo za ulimi, ndipo zikuthandizira bwanji kupitisa patsogolo ulimi wa bizinesi?
- What about issues of land, what is the average size of land in the area? Do people rent in or rent out land? What is the role of agricultural extension in people's access to land? How do land access affect agricultural commercialisation? Longosolani za kapezedwe ka malo olima mmudzi muno. Anthu ambiri ali ndi malo ochuluka bwanji? Anthu mmudzi mono amatha kubwereka ndikubwerekesa malo? Ulangizi ukuthandizira bwanji kuti anthu apeze malo olima, ndipo zimenezi zikuthandizira bwanji ulimi wa bizinesi?
- What have been the changes in distances to nearest input supplier over past years? Kulipo kusitha kwina kuli konse ndi ntunda kuchokela dela lino kukafika kwa wogulitsa zipangizo za ulimi wapafupi?
- Sources of labour (family and hired)? Kagwiridwe ka ntchito mmunda
- Are farming households adopting new farming technologies/innovations e.g. improved varieties, fertiliser usage, chemical usage (herbicides, pesticides), inoculants, sprayers, planters, treadle pumps and shellers etc (probe for technologies in growing maize, tobacco or groundnuts) kutsitha kuli konse pa upangili wa ulimi? Mbewu zamakono, kugwiritsa ntchito feteleza, makhwala opopela zitsotso ndi tizilombo,

3. ACCESS TO AGRICULTURAL EXTENSION & INNOVATIONS

- In this area, when did you start receiving agricultural extension services? Are the agricultural extension services still available in this area? Who are the providers of the agricultural extension services?
- What are the main sources of extension advice (Govt extension worker, resource centre, NGOs, private providers, demand by community), what are the methods of reaching out

to farmers (group, individual and mass media) kupeza kwa ulangizi (alangizi, mambugwe, thambi zoti sizaboma, kufuna kwa dela.

- Are there any changes over time? Kodi pali kusitha kulikonse pa zimenezi kwa zako zadutsazi?
- What are the types of extension advice being given by the providers? Any changes over time? (production vs, market oriented). Amapereka ulangizi wotani? Izi zasintha ngati?
- What are the experiences with access to agricultural extension advice/ services? Are you satisfied with the quality and usefulness of the agricultural extension services you are receiving now? Are there any gender differences in access to agricultural extension advice/service? what has been the quality of agricultural extension services over time? Longosolani kakhutisidwe kanu ndi ulangizi umene ukuperekedwa. Mukuona ngati ulangizi umenewu ukuthandiza kupitisa patsogolo ulimi wa bizinesi? Chifukwa chiyani?
- Is the advice helping to promote commercial farming? what type of advice would you prefer to promote commercial farming? Mukanakonda ukanakhala ulangizi otani kuti upitise patsogolo ulimi wa bizinesi?
- In what ways is the extension service you are receiving affecting (positive or negative) agricultural commercialisation? Kupezeka kapena kutsapezeka kwa ulangizi, kumakhuza motani ntchito za ulimi wa bizinesi?

4. AGRICULTURE MARKETING & COMMERCIALISATION

- What crops bring cash income? Any changes over time? Mbweu zimene zimabweretsa ndalama
- What are the changes over time in crop marketing? (buyers, period of marketing)? Kagullitsidwe ka mbweu kasitha bwanji ndi nthawi? (wogula, nyengo yo gulitsa)
- What crops are highly demanded by which buyers? What is the effect on agricultural commercialisation? Ndi Mbweu zANJI zimene zimagulidwa kwambiri? Amene amakonda kugula mbwewuzi ndi ndani? Nanga zimenezi zikukhuza bwanji ulimi wa bizinesi?
- Explain how you access marketing information? (prices, grades & standards, buyers) are there any gender differences in access to marketing information? uphungu wa mitsika mumayipeza bwanji? (mintengo, miyezo ndi malamulo, mphonto, mintengo ya uphungu)
- What are the major indicators of agricultural commercialisation in the area? Kodi ndizinthu ziti zikutionesa kuti anthu akupanga za ulimi ndi business? Komanso kodi ndi kusintha kwanji komwe tikukuona mumakomo mwaanthu chifukwa choti akupanga za ulimi ndi business?
- Any changes in crop marketing patterns over the past over years – volumes transacted, cash amounts generated, buyers, sellers, price offered (pali kutsitha kulikonse pa kayendedwe ka mitsika kwa dzaka za mbuyomu- mulingo wagulitsidwa, ndalama zomwe zapezedwa, wongula, wongulitsa, mintengo.
- Are there farmers engaged in groups/cooperative marketing? Which organisations are facilitating the establishment and running of cooperatives? What is the membership like? What is driving their membership? What type of farmers participate in such markets (probe for gender disaggregation)? What is their organisation and management capacity like? What are the linkages among actors? Is membership in the cooperatives increasing or decreasing and why? Alipo alimi omwe amagulitsa mumagulu? Mumakhala anthu angati? Chimawapangitsa ndi chani kuti alowe mu gulu? Ndi anthu ake ati omwe amayendetsa za mitsika? gulu amaliyendetsa bwanji? Anthu amugulu amalumikizana bwanji?

- From your experience and observations, are smallholder farmers increasingly commercialising their agriculture? What are the gender differences among those becoming increasingly commercialised or not? What is leading to the current agri-commercialisation trend? How different is it from previous decades? Momwe mukuonera, alimi mdera lino akupanga zaulimi ndi business?
- How are gender dynamics, and local power dynamics and local politics affecting agricultural commercialisation? Kodi pali kusiyana pakati pa amuna ndi akazi popanga za ulimi ndi business? Komanso maudindo a mmuzi akuthandizira kapena kusathandizira motani?
- How have government policies affected agricultural commercialisation? Ndi ndodomeko ziti za boma zikuthandizira ulimi ndi business ndipo sikuthandizira bwanji
- What is the role of agricultural extension services in agricultural marketing and commercialisation? Is the service system performing their role? Explain? What can be done? ulangizi ukuthandizira motani alimi kugulisa mbewu? Ndinu okhutisidwa bwanji ndi ulangizi pa gawo limeneli? Angapangepo chani?

5. NON-FARM INCOME

- What are other sources of income (non-farm)? employment outside agriculture, small businesses, remittances Probe for gender differences in the sources of income. Njira zina zopedzela ndalama kupatulapo ya ulimi (kulembedwa ntchito yoti siya ulimi, geni, kutumiza kantundu wa anthu pa ganyu?
- What is the relative importance of non-farm income over farm income here? Many farmers depend on which type of income? Probe for gender differences (chuma chochokela ku ntchito zoti sizawulimi ndi chabwino bwanji kuposa chuma chochokela ku ulimi)
- How does non-farm income help or impede in agricultural commercialisation? Njira zina zopezera ndalama zikuthandiza kapena kusokoneza bwanji ulimi wa bizinesi?

6. INFRASTRUCTURE CHANGES

- What infrastructure are important in facilitating agricultural commercialisation? Describe their status/availability in the area. Infrastructure e.g. facilities for storage, warehousing, processing, road network, telephone connectivity, electricity relationships. Zimango machitsanzo: mosugila katundu, ma warehouse, minsewu, mafoni a mmanja, magetsi, ndi zina zotelo, zomwe zimathandiza kupitisa patsogolo malonda

7. OUTCOMES OF COMMERCIALISATION

- What are the welfare effects of commercialisation? (positive & negative on incomes, asset accumulation, health, education, food and nutrition security, empowerment (household decision making, women taking up leadership positions, control and access to resources, control and access to benefits etc) zotsatila za kupanga malonda pa kapezedwe ka pakhomo ndi ziti? (ubwino kapena kuyipa kwake pa chuma, kupeza katundu, kugula, nthanzi, kukhala ndi chakudya, ntchito (yolembedwa kapena yozilemba wekha, ya ulimi ndi yoti siyaulimi), kupeleka mwayi, (kapangidwe ka chitsakho, udindo kwa amayi)
- How are gender relations (decision making, control and access of productive resources, control and access to income, gender division of labour) affected by agricultural

commercialisation? How about local power dynamics and politics, how are they affected by commercialisation? Nkhani za gender zikukhuzidwa bwanji ndi ulimi wa bizinesi? Nanga nkhani za ma ufumu mmudzi zikukhuzidwa bwanji ndi ulimi wa bizinesi?

- What proportion/kind of people are ‘stepping up’ of agriculture? Why? (probe for gender differences) What is contributing to their stepping up? What are they doing that other farmers are not doing? (ndi anthu ati amene akutukuka ndi ulimi? Chifukwa chake ndi chani?)
- What proportion/kind of people are ‘stepping out’ of agriculture? why? (probe for gender differences) What is contributing to their stepping out? What are they different that other farmers are not doing? (ndi anthu ati amene akutuluka mu ulimi chifukwa chopindula kwambiri mu ulimiwo? Chifukwa chake ndi chani?)
- What proportion/kind of people are ‘hanging in’ agriculture? why? (probe for gender differences) (ndi anthu ati amene sakukuwona kutsitha kulikonse ndi ulimi? Chifukwa chake ndi chani?)
- What proportion/kind of people have discontinued agriculture – ‘dropping out’? Why? (probe for gender differences) (ndi anthu ati asiya ntchito ya ulimi chifukwa chokanika kutukuka ndi ulimi wawo? Chifukwa chake ndi chani?)
- What proportion/kind of people have started agriculture – ‘stepping in’? Why? (probe for gender differences) What is attracting them to agriculture? (Ndi anthu ati amene ayamba kumene ulimi? Chawakoka kapena kuwakopa ndi chani kuti ayambe ulimi?)

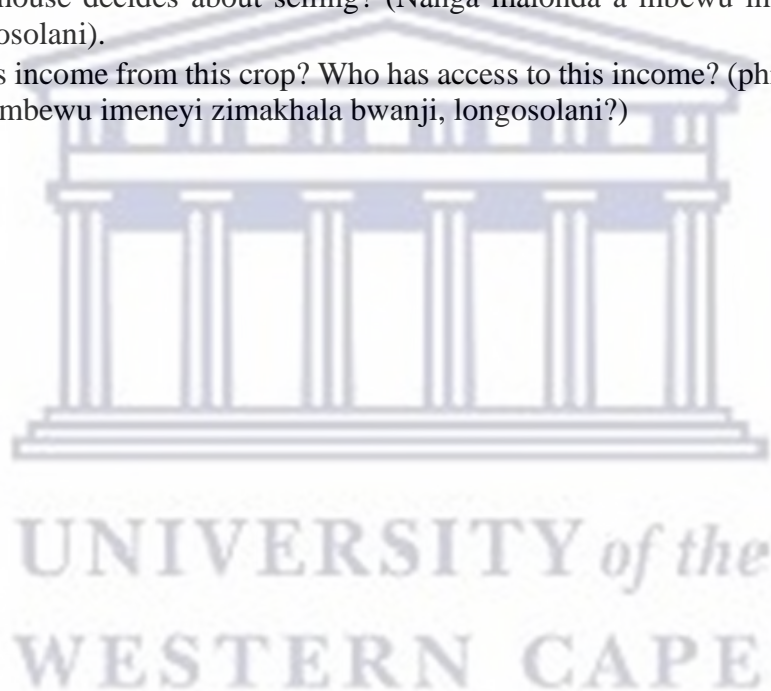
8. DRIVERS AND CHALLENGES OF COMMERCIALISATION

- What are the drivers of agricultural commercialisation in your area? What things provide a conducive environment for smallholder agricultural commercialisation to happen? What role do you think agricultural extension and advisory service can play to promote agricultural commercialisation? (Probe for internal and external drivers and enablers) Ndi zinthu ziti zimene zikuthandizira kuti alimi ambiri azitenga ulimi ngati business? Mukuona ngati ulangizi utha kutengapo mbali yanji pamemepa?
- What are the challenges to smallholder agricultural commercialisation in the area? What can be done to overcome these challenges? (probe for internal and external challenges) Mavuto ndi zophyinja zomwe alimi ofuna kutenga ulimi ngati business ndi ati? Mukuona ngati chingachitike ndi chani kuti tithane ndi mavuto amenewa?

9. MAJOR CASH CROP (TOBACCO, MAIZE, GROUNDNUTS) (mbewu yobweretsa ndalama)

- Explain the trends in production and importance of this crop (tobacco, groundnuts, maize), (longosolani za mbewu imeneyi, malimidwe ake komanso kufunika kwake mmudzi muno, ndi kusintha kwake)
- What has been the change in harvest of the crop over time? (nanga zokolora za mbewu imeneyi zikuyenda bwanji?)
- How much land do people dedicate to this crop compared to other crops? Has this changed over time? If so why? Do you think people will dedicate more land to in future? If yes why? If no why? What will be the source of the land? (longosolani za malo olima mbewu imeneyi?)
- What is the source of labour for this crop? How much labour? Hired or not? What is the division of labour in the household? (longosolani za ogwira ntchito ku munda wa mbewu imeneyi?)

- What inputs and implements are needed for this crop? Has this changed over time? What is the source of these inputs and implements? What is the cost of buying or borrowing these inputs or implements? Do you use any improved inputs or technologies? If yes, which are these? What is the cost? What are the advantages and disadvantages of using improved inputs and technologies? (longosolani za zipangizo ndi upangili ofunikira pa mbewu imeneyi?)
- Let us now talk about extension and other services regarding this crop? Do you receive any extension services regarding this crop? if yes, what services? How often? How important is the service? Who provides these services? If multiple which source is more important? Why? Which services are provided by each source? Apart from extension advice? What other support services do you receive? From where? How often? how important are these services? (longosolani zokhuza ulangizi pa mbewu imeneyi)
- Explain about marketing of this crop. Where do you sell the crop? Why this buyer/market? Which months do you normally sell? At what price do you sell? Who decides the price? Who in the house decides about selling? (Nanga malonda a mbewu imeneyi amayenda bwanji, longosolani).
- Who controls income from this crop? Who has access to this income? (phindu ndi ndalama zochoka mu mbewu imeneyi zimakhala bwanji, longosolani?)



Appendix D: Key Informant Interview guide

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Key Informant Interview guide:

To be answered by extension providers, policy makers and other extension players

1. Farming production

- What have been the important crops in this area over time? What are their production trends over time? What is their importance relative to other crops? Mbewu zimalimidwa mmudzi/boma lino makamaka ndi chani? Izi zasintha motani mu zaka zapitazi? Mbewu zolimidwa za chakudya komanso zogulisa kapena zonse?
- Are there households specialising (cash cropping only, or food cropping only), what are the trends? Probe for differences among male- and female-headed households. Pali makomo omwe amangolima mbewu zachakudya zokha? Zogulisa zokha? Izi azsintha bwanji mu zaka zapitazi?

2. Access to agricultural inputs

- What is the current status inputs regarding use, access, source, conditions of access, land allocation, distances to input markets, labour usage, credit access across welfare groups and gender categories? What are the changes over time? Longosolani zokhuzana ndi kapazedwe ka zipangizo za ulimi?

3. Access to agricultural extension & innovations

- What is the current status regarding access, source, providers, type of extension advice, usefulness/effectiveness of agricultural extension and innovations? What have the changes over time? Longosolani za momwe ulangizi ukuyendera mudera lino/boma lino
- What is the agricultural extension system in your organisation doing to promote agricultural commercialisation among farmers? explain in terms of plans available, strategies, policies, change in mandate, target farmers, activities being implemented. Kodi bungwe lanu likupangapo chani kuti lipitise patsogolo ulimi wa buzinesi?
- What are the future plans for agricultural extension to promote agricultural commercialisation? Mapulani anu ndiotani kuti mupitise patsogolo ulimi wa buzinesi?
- What challenges are you facing to promote agricultural commercialisation and what are you doing/can you do to overcome these challenges? Mavuto mukukumana nawo ndiotani polimbikitsa ulimi wa bizinesi, ndipo mukuchitapo chani kuthana ndi mavutowo?
- What are your suggestions on how best the agricultural extension system in Malawi can promote agricultural commercialisation? Mukuona ngati chingachitike ndi chani kuti ulangizi upitise patsogolo ulimi wa bizinesi?

4. Agricultural extension approach

- Describe the agricultural extension approach you are implementing in your organisation/ how are you implementing extension activities? Longosolani za mmene mumayendesera ulangizi mmbungwe lanu.
- What principles are you following? Mumatsatira ndondomeko ziti popereka uthenga kwa alimi?
- What is the aim/mandate of the approach you are implementing? Cholinga cha ulangizi wanu ndichotani?
- What is the purpose of the approach? Mumafuna mukwanilitse zinthu ziti ndi ulangizi wanu?
- What are the underlying assumptions for you to implement the approach? Ndichifukwa chani mumatsatira ndondomeko ya ulangizi umenewu?
- How is the programme of the extension activities controlled? Amalamulira kapena kutengapo gawo pa kakonzedwe ka ulangizi ndindani?
- What resources are required for you to implement the approach? Zinthu zofunikira kuti ntchito yanu ya ulangizi itheke ndi ziti?
- Describe how you implement the approach? Mumawafikira bwanji alimi?
- Explain how you measure the success in your approach? Mumaonera zinthu ziti kuti muziwe kuti mwakwaniritsa zomwe munakonza pa ulangizi wanu?
- What specific activities do you implement? Mumagwira ntchito ziti pa ulangizi wanu?
- What are the projects or programmes you are implementing in line with agricultural commercialisation? Pali ma pologamalu kapena polojekiti amene mukupanga okhuzana ndi ulimi wa bizinesi?
- Which policies guide your implementation of the approach? Ndi ngodya/ndondomeko ziti zimene mumatsatira pa ulangizi wanu?
- What specific policies do you have in line with agricultural commercialisation? Muli ndi ngodya/ndondomeko zanu zimene munakhazikitsa kuti mupititse patsogolo ulimi wa bizinesi?
- What strategies are there to implement extension activities in line with agricultural commercialisation? Mumatsatira ndondomeko ziti?
- What challenges do you face in implementing the approach to promote agricultural commercialisation? Mumakumana ndi mavuto anji pogwira ntchito yopitisa patsogolo ulimi wa bizinesi?

5. Agriculture marketing & commercialisation

- What is the current status regarding main crops bringing cash, highly demanded crops, sources and type of marketing information, main buyers, mode of selling, levels of prices and profitability, access to premium markets, volumes transacted, conditions of market exchange, engagements in groups and cooperative marketing (probe across welfare groups and gender)? What have been changes over decades? Kodi mbewu zomwe zimabweretsa ndalama ndi ziti?
- From your experience and observations, are smallholder farmers increasingly commercialising their agriculture? What are the gender differences among those becoming increasingly commercialised or not? What is leading to the current agri-commercialisation trend? How different is it from previous decades? Mukuona ngati alimi ang'ono ang'ono ambiri ayamba kuutenga ulimi ngati business?

- How are gender dynamics, and local power dynamics and local politics affecting agricultural commercialisation? Kodi pali kusiyana pakati pa amuna ndi akazi popanga za ulimi ndi business? Komanso maudindo a mmuzi akuthandizira kapena kusathandizira motani?
- How have government policies affected agricultural commercialisation? Ndi ndodomeko ziti za boma zikuthandizira ulimi ndi business ndipo sikuthandizira bwanji

6. Infrastructure Changes

- Any economic and social services infrastructure (schools, health centre, ADMARC) changes in past decades? Pali kutsitha kwina kulikonse malinga ndi mkhoni ya zomanganga?
- Social infrastructure (norms and practices) chikhalidwe
- Infrastructure e.g. facilities for storage, warehousing, processing, road network, telephone connectivity, electricity e.t.c. that facilitates commercialisation. Zimango machitsanzo: mosugila kantundu, ma warehouse, minsewu, mafoni a mmanja, magetsi, ndi zina zotelo, zomwe zimathandiza kupitisa patsogolo malonda

7. Outcomes of commercialisation

- What are the welfare effects of commercialisation? (positive & negative on incomes, asset accumulation, expenditures, health, education, food security, employment (wage & self-employment, farm & non-farm employment), empowerment (household decision making, women taking up leadership positions etc)? zotsatila za kupanga malonda pa kapezedwe ka pakhomo ndi ziti? (ubwino kapena kuyipa kwake pa chuma, kupeza katundu, kugula, nthanzi, kukhala ndi chakudya, ntchito (yolembedwa kapena yozilemba wekha, ya ulimi ndi yoti siyaulimi), kupeleka mwayi, (kapangidwe ka chitsakho, udindo kwa amayi)
- How are gender dynamics and gender relations affected by agricultural commercialisation? How about local power dynamics and politics, how are they affected by commercialisation? ndi kutsitha kwanji kumene kukuchitika? Kutsithaku kukuyenda bwanji? (nyengo, tsiku loweruka ndi lamulungu, mafoni, kapena kusitha kwenikweni)
- What kind of transformation/change is happening? Process of transformation? (seasonal, weekend, telephone farmers or complete transition etc). ndi anthu ati amene akutukuka ndi ulimi? Chifukwa chake ndi chani?
- What proportion/kind of people are ‘hanging in’ agriculture? why? (probe for gender differences) (ndi anthu ati amene sakukuwona kutsitha kulikonse ndi ulimi? Chifukwa chake ndi chani?
- What proportion/kind of people have discontinued agriculture – ‘dropping out’? Why? (probe for gender differences) (ndi anthu ati asiya ntchito ya ulimi chifukwa chokanika kutukuka ndi ulimi wawo? Chifukwa chake ndi chani?
- What proportion/kind of people have started agriculture – ‘stepping in’? Why? (probe for gender differences) What is attracting them to agriculture? (Ndi anthu ati amene ayamba kumene ulimi? Chawakoka kapena kuwakopa ndi chani kuti ayambe ulimi?)

8. Drivers and challenges of smallholder agricultural commercialisation

- What are the drivers of agricultural commercialisation in your area? What things provide a conducive environment for smallholder agricultural commercialisation to happen? What role do you think agricultural extension and advisory service can play to promote agricultural commercialisation? (Probe for internal and external drivers and enablers) Ndi zinthu ziti zimene zikuthandizira kuti alimi ambiri azitenga ulimi ngati business? Mukuona ngati ulangizi utha kutengapo mbali pamemepa?
- What are the challenges to smallholder agricultural commercialisation in the area? What can be done to overcome these challenges? (probe for internal and external challenges) Mavuto ndi zophyinja zomwe alimi ofuna kutenga ulimi ngati business ndi ati? Mukuona ngati chingachitike ndi chani kuti tithane ndi mavuto amenewa?



Appendix E: Life History Guide

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Drivers, enablers and constrainers of smallholder agricultural commercialisation in Malawi:
A critical analysis of the agricultural extension system and implications for livelihoods

Life history interview guide – to be answered by farmers in different livelihood trajectories

Introduction

This guide will be used to interview individuals in different livelihood trajectories ‘hanging in’, ‘dropping out’, ‘stepping up’, and ‘stepping out’ as identified from the quantitative data analysis in the second phase of data collection. In the interviews, the respondents will be asked to identify their livelihood category at different critical stages of their life identifying the factors pushing them either up or down and the role of agricultural extension services in the process. While efforts will be made to direct the conversations, those facilitating these interviews will, as a rule of thumb, be expected to let the interviewee tell their story with very minimal interruptions and interventions.

Family Background – details of households origin and timeline (mbiri ya moyo wanu)

- Tell me about your background and your life growing up. Where were you born, what was the situation of your family (ndiuzeni za moyo wanu, kuyambira kubadwa mpakana kukula. Munabadwila kuti, nanga banja lanu linali lotani).
- Background your family (parents, siblings) makolo anu, komanso azibale anu obadwa bele limodzi)
- So what happened next? (ndifotokozereni kuti kenako zinali bwanji)
- How did you end up here? (zinakhala bwanji kuti mupezeke malo ano)
- Did you ever leave that area? Why? (munachokamo mmudzi muno nthawi ina? Chifukwa chani?)
- What is your current situation? (panopa zinthu zili bwanji)
- Tell me what happened in your life that has led up to now? (ndi zinthu ziti zimene zapangitsa kuti moyo wanu ukhale mmene ulili pakali pano)
- Draw your timeline indicating important stages and events in your life (mujambule mbiri ya moyo wanu tsopano) probe along stages of life - childhood, youth, early adulthood (getting married), late adulthood, old age (umwana wanu, chinyamata chanu, kukwatiwa/kukwatira, kukula, ukalamba wanu)
- Draw out a map showing changes in household’s agricultural activities including changes in land size, crops grown, livestock, commercialisation, agricultural extension. (mu mbiri ya moyo wanu, muonese kusintha kumene kwachitika pa nkhani ya ulimi monga malo olima, mbewu zozala, ulimi wa ziweto, ulimi wa bizinesi, ulangizi)

Livelihood and economic activities the household (including other members) is involved in and changes over time (kapezedwe ka zafuna za tsiku ndi tsiku)

- What are all the things that you and all your family members here do to make a living (fotokozani zinthu zones zimene inu ndi wina aliyense pa banja panu pano mumapanga kuti mupeze zofuna zanu za tsiku ndi tsiku)

- Describe how your livelihood activities have changed over the years (longosolani mumene zinthu zimenezi zasinthila mzaka zapitazi)
- What factors have contributed to changes in livelihoods over the years (ndi zinthu ziti zapangisa kuti zimenezi zisinthe)
- Describe how labour for different activities (agricultural and non-agricultural) in the household including gender division of labour has been over the years (kagwiridwe ka ntchito za kumunda ndi ntchito zina kuphatikizapo za pakhomo kakhala kakuyenda bwanji pa banja panu)
- What changes have occurred in labour availability and what impacts has this had?(pali kusintha kwina kulikonse pa kagwiridwe kantchito, kapena ogwira ntchito zimenezi? Zosatila za kusintha kumeneku ndi ziti?)
- Describe land issues in the household including access, ownership, value, renting over the years (longosolani mmene zakhallira za malo olima mzaka zapitazi, kapezedwe, umwini, mtengo, kugulisa)
- What changes have occurred regarding land issues and what impacts have these had? (pali kusintha pa za malozi? Zosatila za kusintha ndi chani?)

Agricultural commercialisation: details of household involvement in commercial farming (ulimi wa bizinesi)

- It sounds like your family mostly farms to sell/ for consumption/ for both. (zikuoneka ngati kuti pa banja panu, mumalima kwambiri zogulisa/ za chakudya/ zones?) Was it always like this? (Zinali chonchi nthawi zonse?) Tell me about how this situation has developed and changed over time? (Zimenezi zasintha bwanji mu zaka zapitazi?)
- When did you start? How? Any support? (munayamba liti ulimi wa bizinesi, munayamba bwanji? Munalandirako thandizo lililonse kuti muyambe?)
- What is the current status? (panopa ulimi wa bizinesi ulu bwanji)
- What factors have contributed to your involvement in commercial farming (ndi zinthu ziti zakulimbikisani pa ulimi wanu wa bizinesi - probe for (internal such as education, extension services, availability of labour, other income sources, availability of land) and external such as availability of markets, good prices, good weather, good soil fertility, availability of inputs, electricity, road infrastructure, communication infrastructure) (maphunziro, upangili, kupezeka kwa ogwira ntchito, ndalama zochokera munjira zina kupatula ulimi, malo olima, misika, mitengo yabwino, nyengo yabwino, nthaka yabwino, zipangizo za ulimi, magetsi, misewu, kulumikizana). Explain, (longosoni).
- Describe men and women involvement in commercial farming over time. What factors have contributed to changes in men and women crops? (longosolani za mmene amayi kapena abambo amatengera ulimi wa bizinesi mu zaka zapitazi? Pali kusintha kulikonse pa mbewu zimene amayi kapena abambo amalima zogulisa? Chapangisa kusintha kumeneku ndi chani?)
- Describe the input and produce marketing over time? What changes have occurred in input and produce marketing over time? What impacts has this had? (Longosolani mmene misika ya zipangizo za ulimi ndi ya zokolora yakhala ikuyendera zaka zapitazi? Pali kusintha kulikonse? Pali zosatila za kusinthaku?)

Agricultural extension services – details of the type of extension services they receive and how useful are they for commercial farming

- What has been your experience with agricultural extension services over time? (longosolani za mmene mwakhala mukulandila ulangizi wa zaulimi zaka zapitazi)
- Give a history of agricultural extension services in the area? (mbiri ya ulangizi mdela lino ndiyotani)
- When and how did your household start accessing agricultural extension services? (pa banja panu pano munayamba kulandila ulangizi liti, ndipo munayamba bwanji?)
- Describe the history of agricultural extension services in terms of sources, messages, mode of delivery, usefulness, market orientation, frequency of contact. (longosolani za mbiri ya ulangizi umene mwakhala mukulandila makamaka opereka, uthenga wake, njira yoperekera uthenga, kufunikakira kwake, okhuzana ndi ulimi wa bizinesi, kuwirikiza kwakwe)
- What changes have occurred in agricultural extension over the years and what impacts has this had? (pali kusintha kulikonse pa ulangizi? Longosolani? Zitsatira za kusintha?)

Livelihood outcomes – details of livelihood outcomes and the role of agricultural commercialisation (Zotsatira za ulimi wa bizinesi pa moyo wanu)

- How well is your family and household doing now, from your farming and other activities? (Longosolani mmene pakhome panu palili pakapezedwe, kutengera pa ntchito za ulimi komanso zina zimene mukugwira). Has it been like this over time?
- Asset accumulation over time. What has been the role of agricultural commercialisation? (katundu mkulu mkulu amene mwapeza zaka zapitazi. Ulimi wa bizinesi wathandizira bwanji?)
- Household income changes over time. What has been the role of agricultural commercialisation? (kapezedwe ka ndalama mu zaka zapitazi. Ulimi wa bizinesi wathandizira bwanji?)
- Describe your household food and nutrition security over time? What has been the role of agricultural commercialisation? (Chakudya ndi madyadwe mu zaka zapitazi. Ulimi wa bizinesi wathandizira bwanji?)
- Describe your household wellbeing over time? (probe for poverty periods, shocks, positive events) Mwadutsa mu nyengo zotani pa moyo wanu komanso banja lanu, umphawi, Ngozi zogwa mwazizizi, nyengo zabwino).

Gender and women empowerment (kusiyanana pakati pa amayi ndi abambo)

- What do men do in this household and what do women do – in terms of work on the farm and in the house, has this changed over time? (kodi pakhome pano azibambo amagwira ntchito ziti, azimayi nanga – za kumunda komanso za pakhome? Zasintha bwanji zimenezi mu zaka zapitazi?)
- Men and women access to agricultural extension services – targeting, who has access, what services, who uses it, benefits from it? (Pali kusiyanana pakaperekedwe ndi kalandiridwe ka ulangizi pakati pa amayi ndi abambo?)
- How has agricultural commercialisation impacted on household decision making, control of resources and benefits, crops for men and women, market participation, income sources and gender division of labour over time? Longosolani mmene ulimi wa bizinesi wasinthila zinthu izi kapangidwe ka ziganizo za ulimi mbanja, ulamuliro pa zipangizo komanso ndalama, mbewu zomwe azibambo ndi azimayi amalima,

kupita ku nsika, njira zina zopezera ndalama, kagwiridwe ka ntchito zakumunda ndi za pakhomo mu zaka zapitazi).

Context and changes over time (zinthu zimene zasintha komanso tsogolo)

- What are the biggest changes you have experienced in your own life and your household in farming over time? (ndi zinthu ziti zikulu zikulu zimene zachitita ndi kusintha moyo wanu, wa banja lanu zokhuza ulimi)
- Changes in livelihoods, agriculture, commercial farming, agricultural extension services) kusintha kukhuzana ndi kapezedwe ka zofuna zanu za tsiku ndi tsiku, ulimi, ulimi wa bizinesi, ulangizi
- Where do you see your household in the next 5-10 years? How? Why? (probe for the role of agricultural commercialisation and agricultural extension services) (baja lanu mukuliona litafika pati mu zaka zisanu zikubwerazi? Chipangise ndi chani? Chifukwa chani? Ulimi wa bizinesi komanso ulangizi ukutengapo gawo lanji pa kusintha kumeneku?



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Appendix F: Participatory Data Collection Tools

Drivers, Enablers and Constrainers of Agricultural Commercialisation in Malawi: A Critical Analysis of agricultural extension system and implications for livelihoods

PARTICIPATORY DATA COLLECTION METHODOLOGY TOOLKIT – PHASE 1

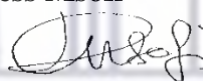
The toolkit: This tool kit is developed to guide data collection for the study. It is to be used by the researcher and research assistance. The tools included here are the ones to be used in this study and they have been carefully chosen to achieve the intended objective. The study will be done in different phases and different tools will be used at each phase. These will be used sequentially and in some instances, simultaneously, depending on the intended goal and the overall contribution to the study. The toolkit include a description of the tool, and the procedure on how to conduct the tool.

Included in this toolkit include tools for the first phase of data collection. The aim of the first phase is to do. A reconnaissance study of the area to collect general information about the villages and to understand the specific groups of the people in the village in relation to agricultural commercialisation and extension services. In addition, the toolkit has included tools to conduct data collection on the actual trends and situation of agricultural commercialisation and extension.

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I am accountable to my supervisor: **Professor Ruth Hall**

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HSSREC, Research Development, UWC

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Preliminary phase

This phase will involve collecting general information about the village with purposes of understanding the different groups for people in the village with regards to the wealth or general wellbeing, agricultural commercialisation activities, participation in agricultural extension activities, their specific location and number of people in the particular group. This phase will be done with the aim of identifying the key populations for the study which will enable the researcher to draw samples for the study. Below are the tools to be used for this phase:

9. Trend analysis

A trend analysis is a participatory tool that is used to show changes or 'trends' over time. The tool is used to discuss a very wide range of issues. In our case, trend analysis will be used to describe the current condition and trends in agricultural commercialisation, agricultural extension services and livelihoods. Specifically we will use the tool to discuss trends in crops grown, production levels, commercialisation levels, agricultural extension services provision, livelihood changes, empowerment, food security situation, nutrition issues, poverty levels, of the village. We will also discuss how things have changed over time, why they have changed, people's views of the changes, expectations, hopes and fears, strategies for improving or changing a trend. Appendix 1 is the full checklist to be used.

Steps:

- i. Have small groups of separate males and females, young and old, not more than 10
- ii. Agree on what changes, trends to explore
- iii. Agree on time period in our case and draw a matrix
- iv. Agree on the scale of the trend showing the changes as they increase or decrease
- v. Plot the trends on the diagram
- vi. Discuss each trend and reasons for change and discuss possible relationships between the trends

Remember:

- Triangulate the trends with other information e.g. government statistics
- Useful early but after mapping tools
- Make sure to take notes and record the discussions

10. Wealth ranking

the exercise is aimed at coming up with different categories of well-being that are unique and specific to the area depending on the locals categorisations. We will aim to describe the main well-being groups in the area using people's own definition of well-being, describing categories and their distinguishing characteristics. In addition, we will probe on characterization of the households based on sex of the household head. Appendix 2 is the checklist for well-being ranking.

Steps:

- a) Outline local understandings of 'well-being', wealth and poverty
- b) List characteristics that distinguish the well-being groups
- c) Divide the people in separate groups of male and female (10 people per group)
- d) Write the names of all the households on cards
- e) Write the categories on a flip chart (use one or more flip charts to represent the well-being category)
- f) Ask participants to place each household in the wealth category they belong.
- g) Compare the two and discuss the outcome and agree on one outcome.

11. Social mapping

Social mapping is a visual method of showing the relative location of the households and distribution of different types of people together with social structure and institutions of an area. In our case the main focus will be to show the location of the households categorized during well-being ranking exercise, and to discuss the characteristics of these households in relation to agricultural commercialisation, agricultural extension and livelihoods. Appendix 3 is a checklist for social mapping exercise.

Steps

- a) Select participants/local analysts to talk to about 5-10 people. Can decide to have separate groups of men and women.
- b) Provide introductions and explanations. The team must introduce themselves and explain clearly the objectives of the discussions.
- c) Produce a social map.
 - a. First agree on the things that are going to show on the map, based on the descriptions above.
 - b. Choose a place to draw the map, in our case, it will be a flipchart.
 - c. Agree with the farmers the symbols to be used to represent the things to be drawn on the map.
 - d. Ask participants to sketch the map of the village and indicate one central point or landmark as a starting point (eg roads, rivers).
 - e. Ask participants to locate institutions and important places such as churches, schools, health centers, extension office/meeting place, markets, agro-dealers, community centers, electricity, water
 - f. Then ask participants to mark all the houses and use different colors to indicate those belonging to different well-being categories
 - g. Write the names of households on cards, use different colors to represent the different well-being category.
 - h. Place the households in their exact location on the map.
 - i. Ask participants to describe the map, ask questions where necessary
 - j. If had male and female groups, each group should present their maps and agree record comments from others and reach a consensus
 - k. Conclude the activity. Check that participants know how the information is used, finalise and thank participants.

CHECKLIST FOR TREND ANALYSIS

A: Background information

- A1: Village
- A2: Group village head
- A3: Traditional Authority
- A4: Extension Planning Area
- A5: District
- A6: Date of the interview
- A7: Location of the Interview (GPS coordinates)

B: General information

- B1. Describe major changes in agriculture in the village
- B2. What has been the trend in agriculture in the village?
- B3. Explain changes in agricultural commercialisation in the village
- B4. What has been the trend in agricultural commercialisation in the area?
- B5. Discuss changes in livelihoods in the area

B6. What has been the trend in livelihoods in the village?

C: Agricultural commercialisation trends

C1. What is the present situation of the following in the village

- a) Crops grown
- b) Main crops sold
- c) Volumes being sold
- d) Production levels
- e) Land for cash crops
- f) Hiring labour
- g) Mechanisation
- h) Improved technologies
- i) Markets for produce
- j) Prices for produce
- k) Markets for inputs
- l) Prices for inputs
- m) Market search behaviour
- n) Incomes from crops

C2. What has been the changes in the above?

C3. Over time what has been the trends in the above?

C4. Why these changes and this trend?

C5. What are your views about the changes and the trend?

C6. What do you expect the trend to be like?

C7. What are your hopes and fears of the changes and trend?

C8. Are there any strategies for improving or changing the trend?

D: Agricultural extension trends

D1. What is the present situation of the following:

- a) Extension service providers
- b) Sources of agricultural extension services
- c) Extension messages
- d) Extension methods used
- e) Extension techniques used
- f) Improved technologies
- g) Post-harvest handling techniques
- h) Usefulness of extension services to promote commercial farming
- i) Satisfaction levels with extension services and providers
- j) Market orientation
 - a. Business skills development
 - b. Market research
 - c. Gross margin analysis
 - d. Processing and value addition
 - e. Facilitation of linkages with profitable markets
 - f. Facilitating collective marketing

D2. What has been the change in the above?

D3. What has been the trend in the above?

D4. Why these changes and this trend?

D5. What are your views of the changes and trend?

D6. What do you expect the trend to be like?

D7. What are your hopes and fears of the changes and trend

D8. Are there any strategies to improve or change the trend?

E: Livelihood trends

E1. What is the current situation of the following:

- a) Food security – availability, access, utilization and stability
- b) Nutrition – malnutrition incidences, food groups consumption, food shortages, food stability, health situation, sanitation
- c) Poverty – income levels, well-being levels
- d) Women empowerment – decision making, division of labour, access and control of resources (especially land), access and control of benefits (especially income).

E2. What has been the changes in the above?

E3. What has been the trend in the above?

E4. Why these changes and this trend?

E5. What are your views of the changes and trend?

E6. What do you expect the trend to be like?

E7. What are your hopes and fears of the changes and trend

E8. Are there any strategies to improve or change the trend?

Wealth ranking checklist

1. What is your understanding of well-being?
2. What is your understanding of wealth?
3. What are the characteristics that distinguish different wealth or well-being groups?
4. In this village, what are the different categories of well-being that are present?
5. Which households belong to which category?
6. Discuss the characteristics (household head, number of people, education and age of the household head) of the households in each category
7. Which category has more, and which one has less?
8. Over time, what has been the trend in the number of households in each category?
9. What has driven the trend observed in (7)
10. What do you expect the trend to be like? Why?
11. What can be done to improve or change the trend?

Checklist for social mapping exercise

1. What are the main features, land marks, important places?
2. Where are these features located in the village?
3. How many households are in this village?
4. Which wealth category do they belong to?
5. On the map of the village, where are the households located?
6. Describe the households in terms of the following:
7. How is land distributed for housing, farming?
8. Is the number of households growing or shrinking?
9. Which households are members of any farmer groups
10. Which households grow tobacco, maize, groundnuts?
11. Which households are under clusters, NASFAM, ARET?
12. Which households have access to agricultural extension services?
13. Which households grow crops for sale?
14. Which households grow maize, groundnuts, tobacco for sale?
15. Where are the agro-dealers?
16. Where are the produce markets?
17. Which households have empowered women?
18. Which households own businesses (any type)
19. Which households have relatives abroad
20. What assets are owned by which households?
21. How do people access inputs?

Appendix G: Ethics Approval



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22 October 2019

Ms L Msofi
PLAAS
Faculty of Economic and Management Science

Ethics Reference Number: HS18/10/43

Project Title: Drivers, enablers and constrainers of smallholder agricultural commercialisation in Malawi: Analysing the role of agricultural extension services.

Approval Period: 17 October 2019 – 17 October 2020

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval.

Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink that reads 'Josias'.

*Ms Patricia Josias
Research Ethics Committee Officer
University of the Western Cape*

HSSREC REGISTRATION NUMBER - 130416-049

Appendix H: Renewal of Ethics Feedback

From: **Postgraduate Programme** postgraduates@plaas.org.za
Subject: **Renewal of Ethics Feedback**
Date: **15 January 2021 at 11:49**
To: **Loveness Msofi** loveness.msofi@gmail.com
Cc: **Ruth Hall** rhall@uwc.ac.za

PP

Dear Loveness

Compliments of the new year to you and your family.

Please see the below feedback from the HSSREC Committee.

11.1. Ms L Msofi (PLAAS)

Study Project: **Drivers, enablers and constrainers of agricultural commercialisation in Malawi: A critical analysis of the agricultural extension services system and implications for livelihoods**

Registration number: **HS18/10/43**

Ethics: *The application for renewal was approved*

Kind Regards
Carla

PLAAS Postgraduate Programme



[Institute for Poverty, Land and Agrarian Studies \(PLAAS\)](#)

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