An evaluation of the influence of Groundnut Commodity Association membership on the socioeconomic status of women farmers in Mt Darwin District, Zimbabwe

A dissertation submitted in partial fulfilment of the requirements for the Master of Science Degree in Food Security and Sustainable Agriculture
(Production option)

Bindura University of Science Education

Faculty of Agriculture and Environmental Science
Department of Agricultural Economics, Education and Extension

Full name of candidate: Fungisayi Susan Makuzwa
Registration number: B1852590

Name/s of Supervisor/s: Dr Renias Chivheya

Month and year of submission: August 2020

RELEASE FORM

Name of Candidate: Fungisayi Susan Makuzwa
Registration Number: B1852590
Degree: Master of Science Degree in Food Security and Sustainable Agriculture

Project Title: An evaluation of the influence of Groundnut Commodity Association membership on the socioeconomic status of women farmers in Mt Darwin district, Zimbabwe.

Permission is hereby granted to **Bindura University of Science Education Library** to produce a single copy of this dissertation and lend such copy for private, scholarly or scientific research only.

Signed 

Permanent Address: 434 Mutungagore Road, New Marimba Park, Harare, Zimbabwe

APPROVAL FORM

The undersigned certified that they have supervised and recommended to Bindura University of Science Education for acceptance of dissertation entitled, '**An evaluation of the influence of Groundnut Commodity Association membership on the socioeconomic status of women farmers in Mt Darwin district, Zimbabwe'**. submitted in partial fulfillment of a Master of Science Degree in Food Security and Sustainable Agriculture.

Name of supervisor: Dr Renias Chivheya

Signature:

Date:

DECLARATION

I hereby declare that the research project entitled "**An Evaluation of the influence of Groundnut Commodity Association membership on socioeconomic status of women farmers in Mt Darwin District, Zimbabwe**" submitted to Bindura University of Science Education, Department of Agricultural Economics, Education and Extension is a record of an original work done by me under the guidance and supervision of Dr Renias Chivheya and this work is submitted in partial fulfilment of the requirements for the award of a Master of Science Degree in Food Security and Sustainable Agriculture. The results embodied in this thesis have not been submitted to any University or Institute for the award of any degree of diploma.

Author: Fungisayi Susan Makuzwa

Registration Number: B1852590

Signature: 

Date: August 11, 2020

DEDICATION

I dedicate this study to:

The Lord God Almighty for the grace, strength and wisdom to undertake the research study.

My loving parents Hilton (the late) and Loveness Makuzwa who natured me up to this level.

My family, who sacrificed time and offered support during my entire studies.

My sister Kudakwashe for the support, encouragement during the entire period of my studies.

RUFORUM for the funding the research study.

ACKNOWLEDGEMENTS

Completion of this research study would not have happened without God's grace. Thanks to the Almighty God, Jesus Christ and the Holy Spirit for guiding me through the research study.

I thank my Supervisor, Dr Renias Chivheya for the profound guidance and unwavering commitment ensuring that I remained on track for the accomplishment of the research study. May the Almighty bless him and reward him generously.

I am thankful to the following AGRITEX personnel: Mukova Philimon (ward 10), Seremwe Joyleen (ward 36), Chiromo Chamunorwa (ward 16), Gocha David (Ward 17), Wonder Mapfumo (ward 14), Chidavaenzi Josiah (ward 12), and Chabvundura Shephard (ward 15) of Mt Darwin District for their support in data collection.

I am also thankful to the women groundnut farmers who agreed to take part in the research for their time and commitment.

Appreciation also go to personnel from University of Bindura for their unwavering support.

I thank my family for enduring my absence and for the encouragement as well as my siblings especially Kudakwashe for the support, encouragement and prayers.

Gratitude also goes to my colleagues from the MSc Food Security class especially Faith Dondo, Runyararo Motsi, Blessing Makunda, Cyprian Mahuni and Newman Choto. Each one of you helped in their own special way.

Lastly but not least, I thank Christopher Chamburuka for the support, encouragement, endurance during this program and my dear son Nigel and daughter Danai Chamburuka for the endurance.

Thank you all. May the Almighty Bless You All.

ABSTRACT

Commodity based associations can effectively transform socioeconomic status of women farmers in women dominated agricultural value chains. Groundnuts being a major crop grown by women in Mt Darwin District of Zimbabwe, profitable production has potential to impact women farmers' livelihoods. The study evaluated influence of membership to Groundnut Commodity Associations (GCAs) on socioeconomic (SES) status of women farmers. A three-fold approach looking at activities undertaken by GCA and evaluating delivery levels, understanding knowledge gaps and evaluating areas with notable gaps of women member farmers in comparison to non-members and lastly, determining effect of membership to GCA on SES status of the women was used. 175 respondents were purposively sampled (110 members and 65 non-members) from 7 wards with established GCAs. A survey questionnaire was administered. Data was analysed using descriptive statistics, Chi-square tests and Binary logistic regression. Results identified 9 key activities being done at varying degrees, some at 100% such as organizing and registration of farmers and others quite low like dispute resolution at 14%. Members had more knowledge on key groundnut value chain aspects compared to non-members. Knowledge levels varied with highest knowledge at 94% in field practices and lowest on pest and disease management at 59%. Binary logistic regression revealed membership to GCA influenced SES under Education on secondary level only: Members ($p=0.045$) and non-members ($p=0.026$), Occupation: Members group: formally employed ($p=0.001$), informally employed ($p=0.004$), Self-employed ($p=0.001$), Not employed ($p=0.029$), Non-members group: formally employed ($p=0.001$), informally employed ($p=0.011$), Marital status: married category only ($p=0.024$) and Experience: Members with below 5 years ($p=0.003$), 5 to 10 years ($p=0.006$), 11-20 years ($p=0.0012$), Non-members ($p= 0.019$), ($p=0.005$) and ($p=0.014$) respectively. Groundnut Commodity Associations contributed to improving socioeconomic status of women farmers. Optimal implementation of key deliverables can sustainably improve the women's socio-economic status.

Keywords: Groundnut Commodity Associations, Socioeconomic status, Activities, Knowledge gaps

LIST OF ACRONYMS AND ABBREVIATIONS

AGRITEX	Agriculture Extension
CAs	Commodity Associations
CBAs	Commodity Based Associations
CFU	Commercial Farmers Union
CPA	Commodity Producers Association
GCAs	Groundnut Commodity Associations
HPC	Horticulture Promotion Council
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IKPA	Kapenta Producers Association
LFSP	Livelihoods and Food Security Program
FAO	Food and Agriculture Organisation
FACAN	Federation of Agricultural Commodity Association of Nigeria
GSSCGA	Gokwe South Small Scale Cotton Growers Association
NGOs	Non-Governmental Organizations
PPPA	Public Private Partnership Agreement
RETZ	Rural Enterprises Trust Zimbabwe
SES	Socioeconomic Status
SPSS	Statistical Package for the Social Sciences
UN	United Nations
USA	United States of America

USAID	United States of Agency for International Development
ZATG	Zimbabwe Association of Tobacco Growers
ZFU	Zimbabwe Farmers Union
ZCFU	Zimbabwe Commercial Farmers Union
ZIMCODD	Zimbabwe Coalition on Debt and Development
ZimStat	Zimbabwe National Statistics Agency

TABLE OF CONTENTS

Contents

LIST OF TABLES

LIST OF FIGURES

1 CHAPTER 1 INTRODUCTION

1.1.1 Background of the study

Commodity farmer associations have been promoted as an element of strategy for agricultural modernization and structural transformation of national economies. Shepherd and Cadilhon (2008) define commodity associations as organizations that bring together a wide spectrum of interest groups related to a particular commodity or sector in a particular country, whether for export, for the domestic market, or for both. A more in depth definition from Gopala *et al* (2019) states that, 'Commodity Based Associations are the grass root level autonomous registered bodies established around a single enterprise or a group of related enterprises to offer end to end solutions to a group of producers in order to improve production efficiency, minimize cost of production, facilitate value addition and enhance the profit margins.

Farmer organisations such as commodity associations are not a new phenomenon in Zimbabwe. Historically, farmers' commodity associations take several forms, adapting to different geographical and socio-economic settings. The bulk of the organisations traditionally target export oriented value chains such as horticultural produce. The Horticulture Promotion Council (HPC) is one such organisation were the value chain of focus are horticultural crops. The Tobacco Producers Association of Zimbabwe focuses on tobacco, a commercially produced high economic value crop. Under the small holder farming sector examples include the Zimbabwe Farmers Union whose members produce a wide array of crops. In Zimbabwe, coordination of small scale farmers to form associations has been a challenge to the detriment of the farmers. Different types of partnerships are required to address various challenges along the groundnut value chains (ICRISAT 2015).

Groundnut crop is widely grown for both subsistence as well as commercial purposes in Zimbabwe in natural farming regions 2 to 3 under dry land conditions, and in regions 4-5 under irrigation. It is considered a woman's crop. Smallholder and commercial groundnut growers are estimated above 1.5 million and below 10,000 farmers respectively. According to the Agricultural sector survey of 2018-2019, an average output of 177,600 metric tonnes of groundnuts was produced between 2007 and 2011. The highest output of 230,480 metric tonnes was recorded in 2011. Beginning 2012 onwards, groundnuts production averaged output of 106,000 metric tonnes per

year, which is significantly lower than previous years. The area of production however started increasing in 2017 at a noticeable rate, which resulted in increase in production as well as an increase in the yield by 66% and 55.98% respectively. This was partly due to efforts in contract farming promotion by some actors in the industry. Large scale commercial farmers are not necessarily active in groundnut production in Zimbabwe. Nevertheless in 2018, the area under production increased by 17.9% but both national output and yield per hectare declined by 9.67% and 33.57%, respectively. The gap between farm yields and potential yields reflects constraints, such as insufficient adoption of more productive technologies, a lack of market integration and gender inequalities in small-scale family farming (FAO, 2011).

The upward trend in groundnut production levels in Zimbabwe as well as challenges faced by farmers participating in the value chain resulted in the Food and Agriculture Organisation (FAO)s' supported Livelihoods and Food Security Programme (LFSP) supporting farmers in Mt Darwin District of Zimbabwe to form and operationalize Groundnut commodity associations. The associations, are a farmer led structure with members drawn from the main groundnut producing wards. The Commodity associations are meant to reduce bottlenecks faced by players in the value chain and ultimately uplift the socio-economic status of its members, especially women who according to (FAO, 2013) are one of the most vulnerable groups in the rural societies. With rural women, improving socioeconomic status is an important target in the sustainable development strategy all over the world (UN, 2018). A research focus on how agricultural reforms such as commodity associations are affecting women in Zimbabwe, particularly in Mt Darwin District is critical. Little empirical evidence for the income generating effect of farmers' organizations in developing countries exist.

The research study area, Mt Darwin district, lies in the north of Zimbabwe in Mashonaland central province. Total area coverage of the district is 4,596 km^2 with a population of 212,725 and an average population density of 46.28/km2. The research assesses the influence of the groundnut commodity associations on women farmers' socio economic status in Mt Darwin District of Zimbabwe.

1.2 **Problem statement**

The objectives of existing commodity associations may have changed over time in order to adapt to changing socio-economic and political environments (FAO, 2009). Groundnut farmers in Zimbabwe experience a number of socio-economic challenges. Challenges faced include, limited access to extension and advisory services, inadequate access to credit, processing and storage challenges, inadequate access to productivity enhancing inputs, limited access to markets and market information as well as limited coordination amongst value chain actors. The effect of the constraints faced on the socioeconomic status of women farmers are said to be more. In the absence of empirical evidence, it becomes difficult to ascertain the extent to which women groundnut farmers whether in the commodity associations or not are affected. Commodity associations are meant to reduce identified bottlenecks thereby increasing viability of the groundnut value chain and ultimately the socioeconomic status of women groundnut producers. Groundnut Commodity Associations are a solution to small scale holder women farmer challenges.

1.3 **Objectives**

1.3.1 Main objective

The main objective of the study is to evaluate the influence of the groundnut commodity association membership on the socioeconomic status of women farmers in Mt Darwin District, Zimbabwe. The specific objectives and corresponding hypotheses are outlined in the table below:

Table 1.1 Objectives, research questions and hypothesis

Objective	Research Questions	Hypothesis
1. To determine the activities of groundnut commodity associations in Mt Darwin District of Zimbabwe.	-What are the main activities undertaken by the Groundnut Commodity Association members?	Groundnut commodity associations performs key activities along the groundnut value chain.
2. To analyse knowledge gaps by women in the groundnut commodity associations in comparison to non-members.	-What knowledge gaps exist for women farmers who are members of groundnut commodity association and those who are not?	Women farmers in groundnut commodity association have essential knowledge to positively influence their socioeconomic status
3. To determine the influence of membership to the GCA on socioeconomic status of women groundnut producers	-What is the influence of membership to GCA on socioeconomic status of women groundnut producers?	Membership to GCA influences socio economic status of women groundnut producers.

1.4 **Justification**

Commodity associations bring members together with the aim of creating a competitive advantage which should ultimately improve production and productivity, profitability and

ultimately livelihoods of participants. Hanyani-Mhlambo (2002) highlights, 'Farmers' unions and associations emerge as actors not only because they represent their members on the economic and political fronts, but also because they are active in policy advocacy, capacity building programmes and the dissemination of production and marketing information'. Individual small farmers are often marginal participants in lucrative value chains pointing to the importance of organizing farmers into value chain specific commodity associations. Socioeconomic status of women groundnut producers who are members and non-members should be determined to see if there is positive change being brought by the associations. Roles of women vary considerably between and within regions and are changing rapidly in many parts of the world, where economic and social forces are transforming the agricultural sector. The influence of such commodity associations especially on women who coincidentally are the major participants should be measured to ascertain their effectiveness thereby informing decision making. This research is envisaged to contribute to the gender debate in agriculture by assessing the empirical evidence with a particular emphasis on socioeconomic status of women involved in the groundnut commodity association. The study is poised to create a benchmark for further studies.

1.5 Scope/delimitations and limitations of study

The study is limited to influence of Groundnut Commodity associations on women groundnut producers. Special focus is on socioeconomic status of the women groundnut producers belonging to the groundnut commodity associations. The research is limited to Mt Darwin district of Zimbabwe. The study area is confined to the eight wards (ward 9, 10, 12,14, 15, 36, 38 and 40) of Mt Darwin District were the Groundnut Commodity Associations are operational. Women Groundnut producers in the mentioned wards form the research target group.

Firstly, activities undertaken by women farmers in the groundnut commodity associations during the 2019/20 farming season is to be determined, followed by identification of knowledge gaps inherent to women members and non-members of the Groundnut commodity associations. Lastly but not least, the influence of membership to the groundnut commodity association on socioeconomic status of the women groundnut farmers in and outside the association will be

determined. This will of cause include information relating to demographic data, production and productivity related information as well as linkages with stakeholders along the value chain which exist. Information gathered will inform analysis of the influence of the groundnut commodity associations in the study area. Availability of relevant information and adequate financial and time resources needed to undertake an in-depth study may restrain the proposed research study.

1.6 Outline of Thesis

The research outline is as follows:-

Chapter 1 Introduction

The introductory chapter gives a background to the study, main objectives and specific objectives of the study as well as research questions. In addition, the hypothesis upon which the objectives are derived will be stated. Justification of the research study to be clearly spelled out. This will be followed by an explanation on the scope of the study, this will be followed by the outline of the thesis and lastly the references.

Chapter 2 Literature review

Literature review chapter will focus on review of the existing literature with regards to influence of groundnut commodity association membership on the socioeconomic status of women farmers. The review will focus on relevant information in line with the three objectives of the research study. In addition the conceptual framework on which the study is premised will be explained.

Chapter 3 Methodology

This chapter will focus on a description of Mt Darwin District and more specifically the targeted wards. The research design will be explained in detail as well as the sampling procedure. Data collection procedure will be outlined followed by data analysis procedure. Ethical considerations will be explained in detail.

Chapter 4 Results

Results chapter will detail the materials and methods used during undertaking the research. A description of the study area as informed by on the ground research will be explained. This will

be followed by a description of data collection procedure as well as data analysis. Challenges faced in conducting the research will be explained. Results or findings of the research will be presented after which the findings will be discussed and appropriate recommendations given. A conclusion on the results to be presented as informed by the research findings.

CHAPTER 5 Summary, conclusions and Recommendations

A summary on the research will be presented as well as the concluding remarks and their implications on policy. Possible areas of further research as identified by the research study to be given.

1.7 References

1. Andrew W. Shepherd, Jean-Joseph Cadilhon and Eva Galvez (2009), Commodity Associations: a toll for supply chain development, Agricultural Management , Marketing and Finance Occasional paper 24, Rome, Italy
2. Bachke M.E (2009), Are farmers' organizations a good tool to improve small-scale farmers' welfare, AGRIS, Norwegian University of Life Sciences,
3. FAO (2009), Policy on Gender Equality Attaining Food Security Goals in Agriculture and Rural Development, Rome, Italy.
4. FAO (2011), The Role of Women in Agriculture. ESA Working Paper, No11-02, Rome, Italy
5. Gopala Y.M, Narayana Gowda K, Nataraju M.S and Lakshminarayan M.T. (2019), Commodity Based Associations – Offering Potential for Farmers' Prosperity, Journal of Agricultural Extension Management Vol. XX No. (1)
6. Hanyani Mhlambo (2002), Strengthening the pluralistic agricultural extension system:a Zimbabwean case study, Agriculture Research Council(ARC) Zimbabwe, Integrated Support to Sustainable Development and Food Security Programme, FAO
7. ICRISAT (2015), Sabine Hamann-Kee Tui, Andre van Rooyen, Thabani Dube, Kakhile Kudita, Pauline Chivinge, Aleck Kondwakwenda,Oswin Madzonga, Daveson Masendeke, Ngirazi N Savemore and Mutsa Muhambi, Partnerships for unlocking potentials in Groundnut Value Chains in Zimbabwe, Technical Report.
8. UN. Improved Status of Women Necessary to Sustain Economic Growth, Third Committee Told, as Debate Continues on Women's Issues. Accessed 10 May 2019)

2. CHAPTER 2 LITERATURE REVIEW

2.1 **Introduction**

The chapter reviews literature on influence of agriculture focused value chains commodity associations (CA) specifically on women farmers' socioeconomic status in the small-scale holder farmer context in Zimbabwe and abroad. The literature review provides an array of issues around farmers as value chain actors working in organisations which address bottlenecks in the groundnut value chain. In addition, it also exposes experience and evolution of farmers' organisations in today's developing countries such as Zimbabwe thereby highlighting issues that need to be addressed in any effort to understand the nature and potentials of small-scale farmer organisations. Focus is on activities carried out by the commodity associations, knowledge gaps that have been identified to exist in such associations as well as how being a member of the association affects one's socioeconomic status especially of primary producers, in this case the woman farmer. A gender lens which centres on women farmers is used. Findings by different researchers on groundnut value chain in view of its capacity to uplift livelihoods of farmers is also explored.

A review of the literature involves the finding, reading and evaluating of outputs of previous studies, observations and opinions pertaining to the area of investigation (Mugenda and Mugenda 2003:14). It surveys scholarly texts and empirical studies on previous research and expands the foundation for further research thus determining the importance of the research area (Frankfort-Nachmias and Nachmias 1996:558; Kothari 2004:28; Sheppard 2004:53-55; Gravetter and Forzano 2009:48). In addition, it captures published and unpublished work and draws attention to noteworthy variables as determined in prior studies that are related to the research problem being investigated and significant findings in the area of investigation (Hart 1998:10-11; Mugenda and Mugenda 2003:29-35; Sekaran 2003:63,67,97). A literature review condenses the significant aspects of past research (Frankfort-Nachmias and Nachmias 1996:558; Cooper and Schindler 2003:101), and helps in the development of data collection tools (McCracken 1998:31). Literature review is an evaluative report of information found in the literature related to the selected area of study (Murthy and Bhojanna 2009). Literature review is important because it assists the researcher to understand and identify a problematic area of research through gaining a sound knowledge in the field being studied and helps to determine information relating to the current study (Pathirage,

Amaratunga and Haigh 2005). It is through literature review that the knowledge gaps to be filled by a study being undertaken can be identified. Kumar (2009:3) also emphasized the importance of literature review when she said, “Every piece of ongoing research needs to be connected with the work already done, to attain an overall relevance and purpose; since there is hardly any research project which is totally unrelated with research that has already taken place”. Thus, the chapter describes, summarizes, synthesizes, evaluates, clarifies literature and determines the nature of the research.

The literature review for this research is structured as follows:-

a) Definitions on Commodity Associations
b) Background on agriculture based commodity associations in Zimbabwe and abroad.
c) Review on activities or roles undertaken by farmers associations in Zimbabwe and abroad.
d) Review on knowledge gaps existing in established farmer associations from member’s perspective across agricultural based value chains.
e) Review on socioeconomic status changes which accrue to women members of agriculture based farmers associations.
f) Conceptual/ theoretical frameworks
g) Summary
h) References

2.2 **Definitions on Commodity Associations**

According to FAO (2009), Commodity associations are organizations that bring together a wide spectrum of interest groups related to a particular commodity or sector (such as horticulture) in a particular country, whether the commodity is for export, for the domestic market or for both. H.E. Erdman in his journal article published in 1924’s Journal of Farm Economics Vol. 6 entitled The Commodity Cooperative Association: its strengths and weakness defines a Commodity Association as one dealing with one commodity or a narrow line of logically related commodities, and representing producers in a relatively large area, the size of area being determined either upon basis of wholesale market or natural boundary of production area. Examples given included the Barley Tobacco Growers Association of Kentucky, Indiana and California Fruit Growers Exchange.

Jo Cadilhon et al in their article in the Analysis- Center for studies and strategic Foresight No. 31, June 2011 entiled; Commodity Associations: a widespread tool for marketing chain management , note that in the agrifood sector, commodity associations group together different stakeholders within a marketing chain. Their goal is to act for the common interest of all their different members. This type of organisation, often seen as a French originality, is nonetheless widespread in both industrialised and developing countries.

Commodity associations normally draw membership from individual farmers or other associations. In some cases, actors along the value chain such as crop buyers, processors, distributors and exporters as well as from suppliers of support services may form of the commodity association. Sometimes government agencies are also members. There is a relatively thin literature on agriculture based commodity associations in developing countries compared to the developed world. Were et al (2010) notes that, over the last few years, actors along specific value chains have been attempting to amalgamate and form institutions such as agricultural produce based commodity associations with varied successes. Interestingly the concept of commodity associations is growing and gaining recognition in the value chain practice. In a study conducted by Baloyi (2010) in Limpopo province, South Africa, 'A range of impediments to participation in high-value markets were identified. These include lack of access to sufficient and productive land for expansion, sufficient water, modern irrigation systems, mechanization, transport logistics, and market information'. Farmers' associations present opportunities for securing better terms of trade such as better sourcing prices, lower transaction costs, and greater access to training and other services. FAO (2009) highlight that associations can play an important role in promoting the particular interests of their members and may conduct a broad range of other activities, such as product promotion, quality development, training, and information provision.

2.2.1 Background on agriculture based commodity associations in Zimbabwe and abroad.

Literature reveals that the original idea behind the concept of agri-food commodity associations was birthed in France in the late 19th century. It is generally attributed to inter-professional organisations in the wine and spirits industry at the end of the 19th century in order to protect product denominations from usurpation and to build a common industry strategy against the Grape

Phylloxera epidemic which is also known as the Great French Wine Blight. Similar inter-professions appeared at the same time in the French sugar industry. Inter-branch cross-industry coordination later appeared both to secure supplies to agro-processors in a context of agro-industrial development and to address the specific needs of agri-food production emanating from distinct terroirs. A terroir is a complete natural environment on which a particular wine is produced, including factors such as the soil, topography and climate.

A wide variety of collective organizations can be found in Zimbabwe, each with its own internal functions and external affiliations (Bratton, 1986). The private sector played a significant role in formation of umbrella farmer associations like Commercial farmers Union, Zimbabwe Farmers Union and specific sector boards like Horticulture Promotion Council, the Pig Industry Board, and Tobacco Research Board. Public institutions such as Cold Storage Commission, Agricultural Marketing Authority and Cotton Marketing Board were established to support farmers in the various value chains. These organizations mainly benefited large scale commercial farmers to the detriment of small scale holder communal farmers. Success of agricultural development was then depended on creation of large group of professional local farmers producing high volumes of marketable output of a consistent quality. Small-scale holder communal farmers experienced challenges in accessing inputs, credit, output markets, technical training as well as experiencing a general lack of coordination and having no say in policy influence.

The advent of the land reform in Zimbabwe brought about a new dimension which saw other farmer organisation emerge such as the Zimbabwe Commercial farmers Union (ZCFU) and Zimbabwe Association of Tobacco Growers (ZATG). The shift in the agrarian relations changed the political landscape and debates on future agrarian reforms. In their book entitled; Outcomes of Post 2000 Fast Track Land Reform in Zimbabwe (2013), Lionel Cliffe, et al highlighted that new forms of farmer organisations and protest emerged at the local, district and national levels, including Women Farmers, and through Commodity Associations. Contract farming relations also fomented the establishment of local farming associations, reinforcing the orchestration of farmer organisations by Capital, Non-Governmental Organisations and beaurocracy seeking access to scattered peasants as occurred in 1980. New Agricultural commodity Associations mostly representing middle-class farmers were established. For instance, the Sugar Cane Farmers Out growers Association in Chiredzi, Indigenous Kapenta Producers Association (IKPA) and the

Groundnut Commodity Association under study in this research. Commodity chain participants have also created associations sometimes with the backing of government and supported by Non-Governmental Organizations where the different professions linked to one commodity can jointly manage their business environment (Duteurtre, 2007). Private institutions such as the Commercial farmers Union (CFU) and Zimbabwe Farmers Union also established the Commodity Associations within their institutions. However, as noted the coming on board of various farmer organizations should have been a welcome move but unfortunately it wasn't because the benefits that arose from these were minimal as the majority of them failed to take on board the small holder communal farmers. (Sanderson Abel, 2020).

Community Specific based Commodity associations are rare in Zimbabwe due to lack of support and inherent motivation by the producers to establish one. Only in circumstances where the establishment is facilitated by mostly Non-Governmental organizations (NGOs) do we find some operational CAs. Here are some examples:

i. The Small scale cotton growers in Gokwe South launched a grassroots led Commodity Producers Association (CPA) in 2009, with the assistance of Zimbabwe Coalition on Debt and Development (ZIMCODD). The then new association, named Gokwe South Small Scale Cotton Growers' Association (GSSCGA), comprised of cotton farmers from six wards namely Jiri Ward one and two as well as Sai Ward one to four in the area covering Sengwa Bridge. The main goal was to organize the farmers to negotiate better Cotton prices with the well-organized domineering Cotton Merchants.
ii. In 2014, Rural Enterprises Trust Zimbabwe (RETZ) under its Community Based Commodity Enterprises Programme facilitated social-enterprise revitalization of Chinamhora Horticulture Association (CHA) which is a group of horticulture farmers in Domboshava located in Mashonaland East Province of Zimbabwe. CHA have got a membership of about 2500 farmers.
iii. SNV facilitated the creation of commodity-specific associations as a tool for supply chain development to promote the interests of smallholder farmers and for product promotion, quality development, and training and information provision. 21 commodity associations were created or strengthened in 7 districts where private sector companies had contracted

small scale farmers. These helped to promote soya bean, groundnuts and sesame. The associations were capacitated to solve problems between farmers and agro-industries, plan production and regulate marketing, food safety, traceability and environmental protection. Five of the associations have been registered with the Zimbabwe Farmers Union (ZFU) and Zimbabwe Commercial Farmers Union (ZCFU) as affiliates. The project collaborated with Agritex to capacitate the associations while simultaneously building the capacity of Agritex to effectively organize farmers and build sustainable, well-structured and efficiently managed associations and to improve co-operation and collective activity.

Other African Governments are leading in complete embracement of CAs and their importance in national economics. In Nigeria for example, The Federation of Agricultural Commodity Associations of Nigeria (FACAN), the apex and umbrella body for agricultural commodity associations was formed in 1991 in line with Public Private Partnership Arrangement (PPPA) as a one stop shop between the Government and the Organized Private Sector in Agriculture along the agricultural value chains. Its Mission is to promote mutual understanding among the agricultural commodity associations and create enabling environment for a unified organization that is better positioned operationally and financially to deliver to itself and the general public, value added services in agriculture and allied business. FACAN was established when marketing Boards were abolished in the 90s. Most state controlled commodity boards, as commonly witnessed in the developing and transitional economies in the 1980s, have failed. (Vindel 2005: Moetrans and Swinnen, 2007). Other African countries that have embraced Commodity Associations include South Africa, Ghana, Ethiopia, Mali, Kenya and Malawi. (Pretty et al 2011)

2.2.2 **Activities of groundnut commodity associations in Mt Darwin District of Zimbabwe.**

It is envisaged that by identifying activities undertaken by commodity associations their influence on socio economic status of women producer farmers who are coincidentally the main actors in the groundnut value chain can be determined. Agricultural Farmers' Associations and Agricultural

Farmers' Cooperatives are gaining relevance because they are believed to provide the way for the competitiveness and insertion of producers in the market; Zheng P et al (2011). Significant donor efforts to promote commodity associations have been recently made in Zimbabwe. Were et al 2010 notes that, the service offered to members also determines the strength of a commodity association. An understanding of the activities undertaken by commodity association is important in determining if the interests of farmers as primary producers are being met. Shephard A.W and J-J. Cadilhon (2008) identified key activities of commodity associations as, 'regulation, setting or advising on grades and standards and their implementation, promotion of trademarks or quality signs within the industry, support for research, export and domestic market promotion, provision of information and statistics, education and training, and support to government in trade negotiation'. The same authors goes on to state that the associations also have a role to play in dispute resolution amongst value chain actors.

Jo Cadilhon et al. (2011) listed five functions of Commodity Associations. These are:

1. **Advocacy of industry interests in policy making circles.**

Commodity associations usually play an advocacy role to defend the interests of their value chain in policy discussions. In the USA, this is the main reason of existence of the different Commodity Councils. An example is the US Apple Association which has an active Government Affairs Section responsible for lobbying members of Government, federal agencies and Congress in favour of policies that will support a viable apple industry. In France, several inter-professional organizations have created technical centers in order to improve product norms, denominations, special indications and quality references. In South Africa, the Red Meat Industry Forum has created the South African Meat Industry Company to enforce quality controls throughout the country's red meat marketing chains.

2. **Collective promotion of products**.

Commodity associations are generally active in promoting their products to consumers.

3. **Setting up of quality standards.**

Commodity associations can also play a role in the sharing and elaborating quality standards and codes of practice in order to ensure the homogeneity of all products coming from the industry. The Horticulture Promotion Council in Zimbabwe, as an association successfully established relationships with two national training institutes and has helped design training programs for participating farmers. (Alain Charles, 1997) as a way to ensure production of quality produce.

4. **Research and development.**

Commodity associations are also involved in research to improve production techniques or to develop new monitoring and management tools adapted to their commodity industry.

5. **Market regulation.**

In order to assess better the economic context, commodity associations often supply statistics on market information.

6. Arbitration of business conflicts between members is another significant role of commodity associations, especially in developing countries where courts do not necessarily exist or jurisdiction in almost non-existent. For example, the Ghana Rice Inter-professional Body resolves disputes related to rice price.

However, in Zimbabwe, S. Abel in the article Role of Farmers Organisations in the Success of Agriculture, he notes the following as the activities undertaken by Commodity Associations which are community based which do not have broad national objectives.

1. Identifying agriculture as a business; from production through to marketing.
2. Facilitating access to markets.
3. Opening up credit lines
4. Extension services
5. Information dissemination to members in production, harvesting, post-harvest, and value addition

6. Engaging with suppliers to ensure appropriate timing for inputs in the right quantity and quality
7. Promoting productivity and efficiency through sharing ideas and better methods of agriculture.
8. Helping to foster synergies through backward and forward linkages; value addition and technology transfer.

Commodity associations' functions are linked to value creation. Michael Porter (1985) clarified that, v**alue creation** creates added value which leads to competitive advantage. Ultimately, added value also creates a higher profitability for an organization. In the case of producer farmers added value leads to competitive advantage in the market place resulting in higher profitability.

Julio Berdegue´ (2000) argues that successful producer organisations function as vehicles for change and are well embedded in networks that generate ideas, resources and opportunities that can be shared with members. Producer organisations such as commodity associations can help farmers to strengthen their position in value chains. Sitoe & Sitole (2019) note that Farmers' organizations have been suggested as a tool to improve the living conditions of farmers in poor countries, both by improving their market situation and enhancing the dissemination of information

2.2.3 **Review on knowledge gaps existing in established farmer associations from member's perspective across agricultural based value chains**

Knowledge is recognized as an important weapon for sustaining a competitive advantage (Lee and Choi 2003). It has become the major driver of social and economic transformation in the world (Asenso-Okyere and Mekonnen 2012). Knowledge is a factor of production alongside land, labour, and capital (Rollet 2003) because it enables people to combine the other factors of production more rationally for optimal production.

For knowledge to be effectively used it must be timeously accessed. This can be possible when knowledge rich sources interact with people in need of knowledge. People are the custodians and

major knowledge sources; knowledge is shared and can be created when people socialize (Rollet 2003; Nonaka and Konno 1998). When people interact knowledge is transferred explicitly or implicitly (Rollet 2003). Bloomfire.com defines the two different types of knowledge as follows:

Explicit Knowledge: Knowledge that is easy to articulate, write down, and share.

Implicit Knowledge: The application of explicit knowledge. Skills that are transferable from one job to another are one example of implicit knowledge.

In light of this, Commodity Associations provide the necessary platform for knowledge transfer amongst farmers and from knowledge rich sources such as Agricultural Extension workers and agricultural specialist within the supporting institutions.

These platforms are important for linking agricultural research and farmers; increasing adoption of good agricultural practices; improving the performance of agricultural marketing systems for marketing agricultural produce/products; and enhancing effective post-harvest management (Bertolini 2004). Timely access to relevant agricultural knowledge enables farmers to make informed decisions regarding agricultural production, post-harvest management and marketing of agricultural produce/products (Lwoga 2010).

Knowledge gaps by producer farmers can negatively impact commodity associations' outcomes. Identification and analysis of such knowledge gaps is of importance to allow for closing the gaps in a way which enhances functionality of the groundnut commodity associations. Findings made by SNV during the Groundnut sub-sector study conducted in Zimbabwe also point to the fact that there are barriers to knowledge transfer along the groundnut value chain. This has contributed to constrained production of groundnuts. USAID (2010) estimated national demand for groundnuts to be between 120,000 tonnes and 130,000 tonnes per year. A mismatch between production levels and demand for groundnuts in Zimbabwe has been noted. The proposed research study will identify the knowledge gaps especially by women in the groundnut commodity association who are the most active value chain actors. Closing the knowledge gap is possible through supporting farmers' collective action which is enhanced by participation in value chain specific commodity associations. As discussed, access to information and knowledge can lead to gender equality when women are able to use it to control assets and resources, make decisions to affect outcomes in their

life, and experience increased confidence or socioeconomic status at a personal level (Huyer, 2006).

2.2.4 **Review on socioeconomic status changes which accrue to women members of agriculture based Commodity Associations.**

The objectives of existing commodity associations may have changed over time in order to adapt to changing socio-economic and political environments. However, the inherent goal to practice agriculture which is improved sustainable livelihoods has not changed at all. According to the American Psychological Association, Socioeconomic status (SES) is the social standing or class of an individual or group. Socioeconomic status (SES) encompasses not just income but also educational attainment, financial security, and subjective perceptions of social status and social class. Socioeconomic status can encompass quality of life attributes as well as the opportunities and privileges afforded to people within society. Poverty, specifically, is not a single factor but rather is characterized by multiple physical and psychosocial stressors. Further, SES is a consistent and reliable predictor of a vast array of outcomes across the life span, including physical and psychological health. Thus, SES is relevant to all realms of behavioural and social science, including research, practice, education and advocacy.

The contribution of women to agricultural production and household food security is substantial. It is stated that women in rural areas grow at least 50 percent of the world's food stuff (FAO, 1990). Where permanent drought and other limitations has forced men to migrate, women's participation in agricultural tasks that were traditionally done by men has increased. In some countries women perform laborious and repetitive tasks around the year, whereas men's works are limited to ploughing and threshing periods. Tamagi, VDC, Kaski (2008) reported that women in agriculture are still socio-economically deprived. The socio-economic status of women farmers is low because of inherent social hierarchy and economic deprivation. He further states that there is an immense need of women empowerment programmes and cash earning packages to break this vicious circle of economic deprivation.

Nhung Phum Thi et al (2019), note that SES of rural women is the consequence of their livelihood activities, which are mostly dependent on natural resources, including land, water, and natural

forest. Among these resources, agricultural land is the most important factor for rural development, as access to it is key to the livelihoods of farmers as well as economic growth. Decreasing access to land resources might lead to difficulties in the livelihood activities and SES of rural women. In recent decades, increasing access to land resources has been one of the solutions that has been applied in most developing countries to improve the SES of rural women. N.Mango et al (2018) study's findings show that land size, access to transport information, distance to the nearest town, age and education of the household head are among the important factors influencing the decision to participate or not to participate in the groundnut value chain. These finding further reinforce the aspect of land ownership and size as a key aspect in SES of women farmers as well as participation in organizations such as the Groundnut Commodity association which is under study.

Income is an important index of SES because it directly impacts health, access to goods, access to services, and increases the power in the family, but is also controlled by occupation and education level and vice versa. On its own, Income is not a strong indicator of Socio-Economic standing. In a study on commodity based associations offering potential for farmers' prosperity conducted by Gopala Y.M et al (2019), a significant increase was observed in the annual income, employment generation and social status of the farmer after joining commodity based associations. The increase in incomes not only improved the farmers' social status but also helped smallholder farmers in sustaining operations and improvement of production and productivity and ultimately improving lives of farmers.

Backed by literature review, according to FAO(2007) website," it is common knowledge and widely recognized that education is fundamental to overcoming developmental challenges encountered in most rural areas, there is only a direct connection between education and food security but there is also simple literacy and numeracy capabilities that help develop and improve farmers living standard". Education can be measured through either the number of years of school completed or the level of the education program completed. A high education level often relates to a high income and good occupation. We can evaluate occupation based on occupation prestige (goodness, status, worth, power), social class (working position, occupational title) or based on education requirements. Women with higher education level tend to adopt new production strategies thereby improving yields. Shafaq, et al. (2010) found that education had a positive effect

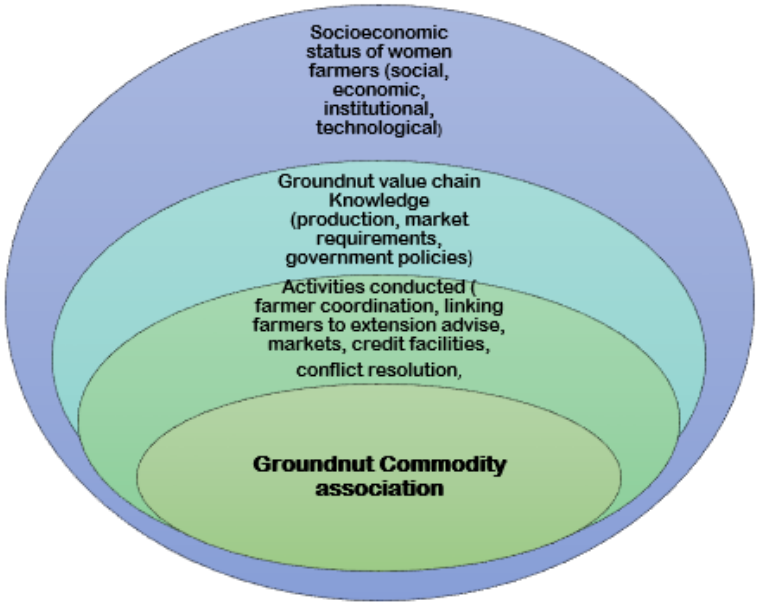
on female control over production activities. It was therefore expected that women that achieve higher levels of education were more likely to control groundnut production. However, E Kasada (2011) in a study on Gender and decision making in agriculture – A case study of groundnut farmers in Zambia, the results or finding implied that women diversify away from groundnuts as their level of education improves, and that groundnut tends to be grown by female farmers that are less educated. It is essential for women to have the essential skills training if these women are to contribute to the agriculture sector in a very positive way even though they lack formal education (Marirajan 2018).

Average age of women farmers in Africa has been found to be 40 years (Issa et al 2016). This result is similar to the findings of Olaniyi and Adewale (2010), Idrisa et al. (2012), Jamilu et al. (2014) who found that women groundnut farmers were between 30-35 years. Similar to this finding, Onyedicachi (2015) found a mean age of 40.79 among rural farming women in Africa. Younger women farmers are more dynamic with regards to the adoption of innovations and farming strategies like joining the GCA than older women who may be above 50 years; however, the women less than 30 years are usually more engaged with other job opportunities as compared to farming. (Sani 2018). Sithole et al. (2014) in his studies stated that married women have a higher probability of participating in farmer groups as compared to single women that is the never married, divorced and widowed. Gopala et al (2018) also highlight other socioeconomic status determinants including farmer's occupation, farm and asset ownership, and farmer's experience, household size influence women farmers to join commodity associations, level of participation and hence the benefits that the farmers reap out of the associations.

2.3 Conceptual/theoretical framework/s

In an attempt to have an in-depth understanding of the influence of Groundnuts Commodity Associations on women farmers in Mt Darwin District of Zimbabwe, the following conceptual framework will be used to guide the research study.

Fig 2.1. **Conceptual framework (own design)**



It is envisaged the framework will clearly bring out pertinent issues on Groundnut Commodity Associations and their influence on socioeconomic status of women groundnut producers. Sitoe & Sitole (2019) note that Farmers' organizations have been suggested as a tool to improve the living conditions of farmers in poor countries, both by improving their market situation and enhancing the dissemination of information. To establish the influence of the GCA to women groundnut producers' socioeconomic status, the study is outlined to look into the activities undertaken by association and assess if the activities are relevant and being delivered optimally to influence the outcomes as envisaged by the members. The knowledge gaps amongst the members in comparison with non-,members will also be evaluated as a way to check if the farmers have adequate knowledge across all key areas of the groundnut value chain inclusive of field practices, markets and marketing, pest and diseases and value addition.

2.4 Summary of literature Review

This chapter summarizes findings of past research done by other researchers in line with the research topic and the subsequent objectives. Literature on commodity associations, definitions and origins was reviewed. The expected activities of the commodity associated were reviewed in

alignment to functions of commodity associations. It was noted that the activities of a community based commodity association had different specific activities as comparison to one which was national based or within larger farmer groups. Scholarly articles were also studied to reveal understandings of Farmer knowledge, existence of knowledge gaps amongst women farmers and how platforms such as the commodity associations can assist in closing the knowledge gaps through facilitation of knowledge transfer. Socioeconomic status in relation to women farmers as found in literature from past work was reviewed. Socioeconomic determinants such as education, income, age, and farmer's experience in relation to commodity associations were studied from literature to assess what past researcher has establish from research results and how these determinates are influence and or / are influenced by membership in a Commodity association of farmers' group. To conclude on the chapter, the conceptual / theoretical framework was framed in an attempt to have an in-depth understanding of the influence of Groundnuts Commodity Associations on women farmers in Mt Darwin District of Zimbabwe, and guide the research study.

2.5 **References**

1. Alain Charles , 1997. " AfricanFarming and Food Processing". Code of Practice and Qualtiy, Page 248
2. Charles Dhewa. Commodity associations backbone of agric resilience(2017) https://www.herald.co.zw/commodity-associations-backbone-of-agric-resilience/
3. Dabali, S. D., (2010). Socio-economic evaluation of women Self Help Groups in northern Karnataka. Ph.D. Thesis (Unpub.), Univ. Agric. Sci., Dharwad, Karnataka.
4. Ednah Kasanda; Gender and decision-making in agriculture: A case study of groundnuts farmers in Zambia BS., University of Zambia, 2011
5. Economic Empowerment of African Women through Equitable Participation in Agricultural Value Chains; Africa Development Bank (2015)
6. Huyer, S., Twyman, J., Koningstein, M., Ashby, J., & Vermeulen, S. (2015). Supporting women farmers in a changing climate: Five policy lessons. Agriculture and Food Security Programme. Copenhagen, Denmark: CGIAR Climate Change. Retrieved April 24, 2016, from https://cgspace.cgiar.org/ rest/bitstreams/60479/retrieve International Telecommunication Union (ITU). (2015).
7. Issa, F. O, Kagbu, J. H. and Abdulkadir, S. A; Analysis of Socio-economic factors influencing farmers' adoption of improved maize production practices in Ikara Local Government area of Kaduna State, Nigeria ,National Agricultural Extension and Research Liaison Services (NAERLS), Ahmadu Bello University, Zaria, Nigeria, Samaru College of Agriculture, Ahmadu Bello University, Zaria, Nigeria (2018)
8. Idrisa, Y.L.; Shehu, H. and Ngamdu, M.B. (2012). Effect of Adoption of improved maize seed on household food security in Gwoza Local Government Area of Borno State Nigeria. Global Journal, volume 12, ISSN 5 version.
9. Jamilu, A.A.; Abdul-Aziz, H.; A.K. Jafaru; B.M. Sani and Abudu, S. (2014). Factors influencing the adoption of Sasakawa Global 2000 maize production technologies among small holder farmers in Kaduna State. Journal of Agricultural Extension 18(1): 73-83

10. Jules Pretty OBE, Camilla Toulim, Stella Williams 2011."Sustainable Intensification; Increasing Productivity in African \food and Agricultural Systems; International Journal of Agricultural Sustainability, vol8 Issue 1, page 41
11. *Journal of Farm Economics;* Vol. 6, No. 1 (Jan., 1924), pp. 106-116 (11 pages); Published by: Oxford University Press on behalf of the Agricultural & Applied Economics Association
12. Juliette Dufie Boateng , C.K. Brown, E.Y. Tenkorang; Socio-economic status of women and its influence on their participation in rural water supply projects in Ghana. International Journal of Development and Sustainability Online ISSN: 2168-8662 – www.isdsnet.com/ijds Volume 2 Number 2 (2013): Pages 871-890
13. Shepherd, Andrew W. & Cadilhon, Jean-Joseph, 2008. "Commodity Associations and Their Potential Role in Supply Chain Development," BANWA: A Multidisciplinary Journal, University of the Philippines Mindanao, vol. 8(2), pages 1-25.
14. Y.M. Gopala, K. Narayana Gowda, M.S. Nataraju and M.T. Lakshinaravan; Study on participation of members in Commodity Based Associations in Karnataka Department of Agricultural Extension College of Agriculture, University of Agricultural Sciences, Bangalore-560065
15. Y.M. Gopala1 , K. Narayana Gowda2 , M.S Nataraju and M.T. Lakshnaravan (November 2019) Commodity Based Associations – Offering Potential for Farmers' Prosperity
16. Nhung Pham Thi , Martin Kappas and Heiko Faust (August 2019)Improving the Socioeconomic Status of Rural Women Associated with Agricultural Land Acquisition: A Case Study in Huong Thuy Town, Thua Thien Hue Province, Vietnam
17. Mr Tayyib (FAO Hungary)Valeria Rocca (FAO, Hungary) Zsofia Bossanyi (FAO, Hungary), Core gender indicators for assessing the socio-economic status of the agricultural and rural population (November 2011)
18. Sabine Homann-Kee Tui, Andre van Rooyen, Thabani Dube, Sakhile Kudita, Pauline Chivenge, Aleck Kondwakwenda, Oswin Madzonga, Daveson Masendeke, Ngirazi N Savemore and Mutsa Muhambi; Partnerships for Unlocking Potential in Groundnut Value Chains in Zimbabwe(2014)

19. Marija Klopcic, Joze Osterc, Marko Cepon and Branko Ravnik; Knowledge transfer in cattle husbandry: New management practices and attitudes.Biotechnical Faculty, Zootechnical Department, Groblje 3, 1230 Domzale, Slovenia (2005)
20. Marirajan T. Dr, Lovely Chizimba, T.Velmurugan; A Study on the challenges faced by women farmers in accessing machinery agricultural technologies in rural Zambia (2018).
21. Olaniyi, O.A. and Adewale, J.G. (2012). Information on maize production among rural youths. A solution for sustainable food security in Nigeria.
22. Onyedicachi, A. C. (2015). The effect of social capital on access to micro credit among rural farming households in Abia State, Nigeria. Agrosearch 15(1): 59 – 75. Available @ Http://Dx.Doi.Org/10.4314/Agrosh.V15i1.4. Retrieved 20 June 2020
23. http://archive.kubatana.net/html/archive/econ/090901zimcodd.asp?sector=ECON
24. http://www.ruralenterprisezim.org/projects-cbce/
25. https://snv.org/cms/sites/default/files/explore/download/rarp_commercialising_smallholder_farming.pdf

3. CHAPTER 3 METHODOLOGY

3.1 **Introduction**

This chapter gives a description of the study area and methodology used in the research study. Study area is described at District level and more specifically at the selected wards cluster level. The following parameters were used to give a full description of the area under study: Location, Population and demographic aspects, rainfall patterns,

3.2 Description of study site: Mt Darwin District

3.2.1 **Location**

The study area, Mt Darwin district is one of the seven districts in Mashonaland Central Province in the northern part of Zimbabwe. Mt Darwin is 156 km from the capital city Harare and about 69 km from Bindura, the provincial town. The District lies 160 degrees South and 310 degrees East of Bindura, bordering with Mozambique along the Mukumbura River in the North, Rushinga in the East, Shamva in the South and Muzarabani in the West.

3.2.2 **Population and Demographic aspects**

In 2011, the district had an estimated population of 218 724 out of a total provincial population of 1.088 million (ZIMSTAT, 2013). The district accounts for 20% of the provincial population. Below is summary of some of the District's Demographic aspects.

Fig 3.1. Mt Darwin District proportion of males to females

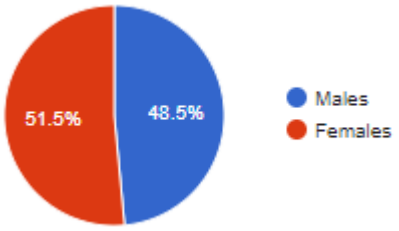
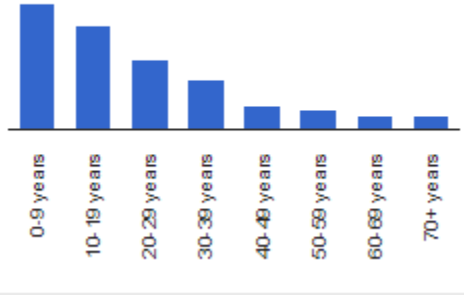


Fig 3.2 Age distribution of Mt Darwin District



Age Distribution (C 2012)	
0-9 years	63,276
10-19 years	51,941
20-29 years	35,316
30-39 years	24,951
40-49 years	12,076
50-59 years	10,233
60-69 years	7,483
70+ years	7,030

3.2.3 **Climate**

About 80% of the district falls within agro-ecological regions 4 and 5 receiving rainfall less than 650 millimetres per annum while the other 20% falls within ecological regions 2b and 3 where rainfall is fairly high.

3.2.4 **Economic Activities**

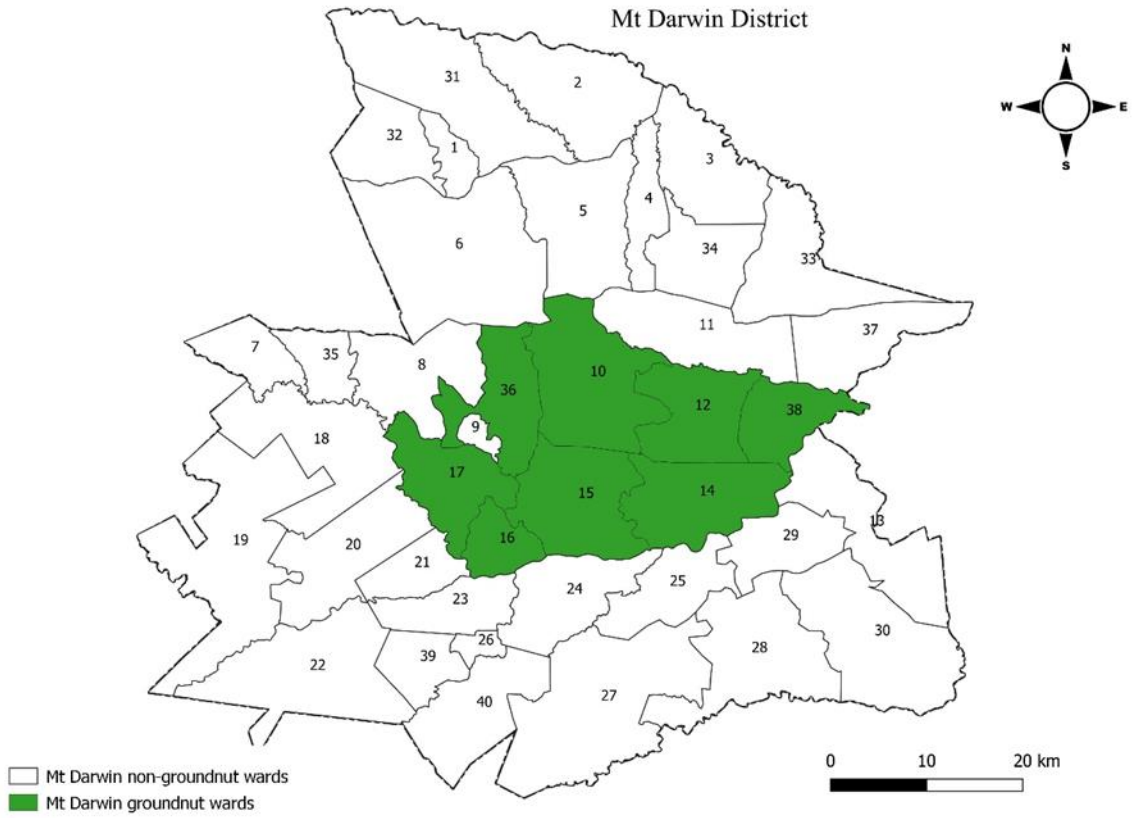
The main economic activity in the study area is small scale farming. The major crops produced include maize, small grains, groundnuts and Tobacco. Other crops of importance include Soya Bean, Sugar bean, and Cowpeas. The other agricultural activity of significance is livestock production which is dominant in the 10 wards (wards 1, 2, 3,4,5,6,31,31,33, 34) which lie in the lower Zambezi valley.

In addition to farming, the other significant economic activity is Artisanal Gold Mining mostly in Ward 24 and few wards in the Valley. Of smaller significance is petty trading especially in ward 1 due to proximity to Mukumbura Border post.

3.2.5 **Profile of the Wards Selected for study**

The wards located central to the District are the major groundnut producing areas. This study hence focuses on wards 10, 12, 14, 15, 16, 17, 36 and 38. Ward 9 (Dotito) was deselected because it is a Growth point, resembling an urban set up and hence agricultural activities are minimum. Highlighted in the map below are the major groundnut producing wards selected as the study area:-

Fig 3.3 Mt Darwin district map showing main groundnut producing wards



The highlighted wards were selected for the study due of the following reasons:

a) Groundnut Commodity Associations are established in these Wards.
b) They are the major groundnut producing wards due to ideal sandy loam soils, which are predominant in the wards.
c) They lie in Natural region 4 which is ideal for drought tolerant crop such as Groundnuts.
d) Traditionally the wards have well-established groundnut aggregation points used during marketing of the crop.
e) Women play a central role in both production and marketing of groundnuts.

3.3 **Research design**

A descriptive research design was used to explain the influence of commodity associations on the socio economic status of women groundnut producers. Data was collected through structured questionnaires which were administered by trained enumerators. The data collected was analysed using SPSS.

In this particular study, being a member of the Groundnut Commodity Association was hypothesized to positively influence women producer farmers in their socio-economic status.

To achieve the objectives set, the following tools were used to collect data:

Table 3.1 Research method approaches, data collection methods and analytic tools

OBJECTIVE 1	**To establish the activities of groundnut value chain commodity associations in Mt Darwin district.**
RESEARCH QUESTION	What are the main activities undertaken by the Groundnut Commodity Associations members?
DATA REQUIRED	List of activities done by groundnut association which benefit its members

MEANS OF DATA COLLECTION	Structured questionnaire
SECONDARY SOURCE	• Members of the association particularly female members. • Minutes or records of previous meetings held by Association. • Association documentation
UNIT OF ANALYSIS	Members of the Groundnut Commodity Association
ANALYTIC TOOL	Descriptive statistics; Frequencies
OBJECTIVE 2	**To analyse knowledge gaps by women in the groundnut commodity associations in comparison to non-members of the same gender**
RESEARCH QUESTION	What knowledge gaps exist for women farmers in the groundnut value chain commodity association?
DATA REQUIRED	Value chain related knowledge which the Groundnut commodity association members and non-members have.
MEANS OF DATA COLLECTION	Structured Questionnaires
DATA COLLECTION INSTRUMENT	Structured questionnaires.
SECONDARY SOURCE	Records kept by Association.

ANALYTIC TOOL	Descriptive statistics; frequencies and Chi square test to establish association between membership and the respondents' knowledge level.
UNIT OF ANALYSIS	Women members and non-members of the Groundnut Commodity Association
OBJECTIVE 3	To determine Socio economic status of women farmers who are part of the commodity associations in comparison to non-members of the same gender.
RESEARCH QUESTION	How do socioeconomic factors affect women farmers in the groundnut commodity association?
DATA REQUIRED	A list of the socio economic factors affecting women in the groundnut commodity association
MEANS OF DATA COLLECTION	• Structured Questionnaires • Literature review
DATA COLLECTION INSTRUMENT	Structured questionnaires.
SECONDARY DATA SOURCE	• Members of the association particularly female members. • Internet sources • Records kept by Association.
UNIT OF ANALYSIS	• Members of the Groundnut Commodity Association
ANALYTIC TOOL	• Descriptive statistics; frequencies and

	Binary logistics Regression to assess effect of membership to establish effect of membership on SES.

Table 1.1 Research method approaches, data collection methods and analytic tools

3.4 **Sampling procedure**

The target population of the study were women in groundnut production in the selected wards of Mt Darwin comprising of Groundnut Commodity Association members and non-members. Purposive sampling was used in this study. Firstly, the 7 wards were purposively sampled being the wards were the major Groundnuts producers in the District. Secondly these locations already have well-established Groundnut Commodity associations. Thirdly, the population of women in groundnut production in the selected Wards, was stratified according to Association Members and Non-members based on the sampling frames generated with the aid of Agriculture Extension Department within the Ministry of Agriculture. A sample was drawn, consisting of Women who were members and non-members of the Groundnut Commodity Associations. The determination of the sample size followed proportionate to size sampling methodology as specified by Kothari (2004) as follows:

$n = (z^2pq)/e^2$

where n = sample size, p= proportion of women groundnut producers in Commodity Association,
q = 1-p,
z = the standard variant at a given confidence level (a = 0.05),
e = the acceptable error (precision).
Using p = 0.5 assuming a conservative sample, z=1.96, q=0.5 and an acceptable error of 7.25% (e). q is the weighting variable and is computed as 1-P.

Therefore:
$n = (1.96^2 * 0.6 * 0.4)/0.0895^2$
$= 175$

Hence the computed using above formula, the sample size is 175 comprising of (110 Members and 65 Non- Members).

3.5 **Data collection procedure**

A structured questionnaire was used to collect data for the research from the sampled women groundnut producers. A questionnaire is defined as a document containing questions and other types of items designed to solicit information appropriate to analysis (Babbie, 1990:377). Structured questionnaires include pre-coded questions with well-defined skipping patterns to follow the sequence of questions. (Bidhan Acharya, 2010). Advantages of such structured questionnaires are - less discrepancies, easy to administer, consistency in answers and easy for the data management. Structured questionnaires are simple to administer and relatively inexpensive to analyse (Khothari 2004). The Questionnaires were self-administered and only in cases of low literacy, the Questionnaires were Interviewer administered. This strategy was used to improve response rate (Jaykaran 2011). The prepared questionnaire was pre-tested to check the vocabulary, consistency and ambiguity providing basis for amendment of questionnaire.

Secondary data was collected from data available at the Commodity Associations and /Extension Services in the Ministry of Agriculture. The information collected for the secondary data sources formed the basis of some of the structure of the questionnaire questions.
The Structured Questionnaire was used to collect data for all the three objectives of the study.

3.6 **Data analysis procedure**

Durrheim (2006:52) notes that the purpose of data analysis is to 'transform data into an answer for the original research question'. Data can be analysed quantitatively and qualitatively. In this study, the quantitative methods will be employed through use of appropriate statistical packages, in particular SPSS Version 16 statistical package. Table 1. tabulated the Data Analysis tools which were used for each objective. A Binary regression analysis was used to evaluate Objective 3, which was to determine the influence of membership to the GCA on socioeconomic status of women groundnut producers. Membership was the dependent variable, and factors like age, number of

dependants, level of education, farm ownership, farmer's experience, marital status, occupation and net income, were the independent variables. The data that was collected using structured questionnaires, coded, entered, cleaned and run in SPSS Version 16 software program for analysis.

Table 3.2 Mathematical representation of the Binary Logistic Regression model

Item	Description and Measurement type	Binary coding	Expected outcome (+/-)
Membership	Yes	Yes = 1	Dependent
	No	No = 2	
Age	18-30	1	
	31-40	2	
	41-60	3	
	60+	4	
Highest Level of Education	No formal education	1	
	Primary education	2	
	Secondary Education	3	
Occupation	Not employed	1	
	Informally employed	2	
	Self-employed	3	
	Formally employed	4	
Farm Ownership	Yes	1	
	No	2	
Experience	Below 5 Years	1	
	5-10 years	2	
	10-20 years	3	
	Above 20 years	4	
Marital Status	Married	1	
	Widow	2	
	Divorced	3	
		4	
Dependents	1-3		
	4-6	1	
	7-10	2	
	more than 10	3	
Income	Below US$50	1	
	US$51 - US$100	2	
	US$101 - US$200	3	
	Above US$200	4	

The binary logistic regression analysis is used when the dependent variable is dichotomous, in this case, membership to GCA and the independent variables are either continuous or categorical variables. The independent variables in our research were categorical. The binary logistic model adopted from Goldstein (2006), provides a model of observing the probability of the membership determining the socioeconomic status determinants explicitly specified as:

Model:

The Binary logistic regression has model:

$\log(E(Y|X)/(1-E(Y|X)) = \beta_0 + \beta_1 X$

Or for simplification sake the prediction equation in the log-odds units is

$$\log(p/1-p) = b0 + b1^{*}x1 + b2^{*}x2 + b3^{*}x3 + b3^{*}x3 + b4^{*}x4$$

Where:

- p is the probability of being a member of GCA. The estimates indicate the relationship between the independent variables (socioeconomic status determinants) and the dependent variable (Membership in GC), where the dependent variable is on the logit scale.
- b0 is the constant / reference category
- b1*, b2*…… are the categories within the socioeconomic status determinants.

3.7 Ethical considerations

Ethical considerations are meant to safeguard the rights of the research subjects or participants. Informed consent will be sought prior to collection of research information. No form of coercion will be used to get information from the participants. In addition, the principle of '*Do no Harm'*, also known as beneficence will be used in all circumstances during the research. Do no Harm principle is premised on protecting the interest of the research subjects and ensuring that the research does not result in maltreatment of any sort which may offend those participating in the

research. Lastly but not least, respect for privacy for research participants will be observed during conduction of the research study.

3.8 **Chapter Summary**

The chapter 3 has examined the research methodology by first describing the Mt Darwin District study area. Research design, sampling procedures, data collection and data analysis used in the research was described. The data analysis methods used were also described including the coding, entering, cleaning and processing of data and the SPSS version 16 statistical package used to analyse data. In addition, the coding into the Binary logistic regression analysis used to analyse objective 3, on determination of the influence of membership to GCA on socioeconomic status of women groundnut producers was described.

3.9 **References**

1. Achrya Bidhan, (2010). Questionnaire Design. Research Methodology, Centre for Post Graduate Studies, University Grant Commission, Pulchok, Nepal
2. Babbie Earl, (1990). Survey Research Methods, 2nd Edition, Blemont California, Wadsworth Company.
3. Durrheim Kevi, Blanche Terre Martin, Painter Desmon (2006), Research in Practice, Applied Methods for the Social Sciences, Juta and Company Ltd
4. Khothari C.M. (2014). Research Methodology, Methods and Techniques.
5. http://www.zimstat.co.zw/sites/default/files/img/publications/Population/National_Report.pdf
6. https://www.citypopulation.de/php/zimbabwe-admin.php?adm2id=205
7. http://www.researchgate.net
8. Jaykaran. (2011). Statistical Tests in Medical Research, Jaypee Brothers Publishers
9. Goldstein R, Taylor & Francis (2006), Regression Methods in Biostatistics: Linear, Logistic, Survival and Repeated Measures Models

4. CHAPTER 4 DETERMINATION OF ACTIVITIES UNDERTAKEN BY MT DARWIN DISTRICT GROUNDNUT COMMODITY ASSOCIATION

4.1 Abstract

An understanding of activities undertaken by commodity associations in women dominated value chains like the groundnut value chain is vital in the small scale holder farming sector in Zimbabwe and abroad. The activities largely determine the extent of productivity and profitability of member participants, directly influencing their Socioeconomic status.
This chapter aims to identify the key productivity and profitability enhancing activities as identified by women groundnut producers in Mt Darwin district of Zimbabwe. A survey research design methodology was used. Descriptive statistics specifically frequencies were used to determine the extent of the activities undertaken in relation to expectation of participants. Nine (9) key activities were identified, tabulated and were ranked in accordance to frequencies. Two activities performance stood at 100%, that is, Organizing and registration of groundnut producer farmers and Organizing aggregation of produce at selected sites in preparation for marketing. Facilitation of trainings of members on groundnut production was also high level at 90%. Provision of groundnut value chain information performance stood at 73%. Assisting farmers in adherence to harvest and post harvesting handling processes was at 65%. The least performed activities emerged as Dispute resolution among value chain actors (14%), giving farmers' advice on Value addition processes (24%), facilitating Bulk procurement of inputs (30%) and Facilitation of credit lines linkages at 42%.

4.2 Introduction

Community based Commodity Associations (CAs) have proved to be an effective solution in improving the gains of commodity specific value chains for farmers. (Dhewa 2017). As noted in Literature Review in Chapter 2, CAs functions and activities are linked to value creation and competitiveness leading to higher profitability being obtained by farmers. The groundnut value chain in Zimbabwe has been identified as one value chain that can have direct positive impact on women farmers since it is predominantly a Women dominated value chain. Women contribute

75% of production and marketing of groundnuts. The crop is an ideal vehicle for facilitating increase in rural incomes for women who are the main producers, micro-processors and marketers with scope for improving employment generation. (SNV 2016). Activities undertaken should therefore contribute towards improvement of the women socioeconomic status. In order to achieve this, the activities undertaken should thus be relevant, carried out at full capacity and timeously. Gopala et al (2019) notes that the annual income of farmers in Commodity Based Associations (CBAs) improves through participation in Association activities.

4.3 Material and Methods

The materials and methods are fully detailed in Chapter 3. The Chapter details Sampling method, Questionnaire designs, Data Collection methods and Data Analysis processes.

4.3.1 Description of study area

The research was done in Mt Darwin District, Zimbabwe. For a detailed description of the study area refer to Chapter three.

4.3.2 Research Design

A survey research design was used. Data was collected through structured questionnaires which was administered by trained enumerators. The data collected was analysed using SPSS.

4.3.3 Sampling procedure

Purposive sampling was used to select 8 wards out of which one ward was later dropped to remain with seven. The wards constitute the main groundnut producing wards in Mt Darwin district in which the GCAs are in operation. Sampling within the sampled cluster of wards with active Groundnut commodity association members was conducted using the snowballing method which relies on referrals.

4.3.4 Data collection procedure

A structured survey questionnaire was used as data collection tool. A total of 7 enumerators drawn from Agriculture and Extension (AGRITEX) department who reside in the sampled wards

were engaged to do data collection. The Extension personnel were selected on the basis that they were well educated and well cognisant of the study area making it easy to collect the data. First, a small pilot study was carried out in two wards mainly for purposes of ensuring that the sampling technique and the questionnaires were appropriate for the study. A few questions were refined so that the ambiguity they carried could be made clearer. Question 8 on the survey questionnaire for example, which read, '*Are you member of the Groundnut commodity association because your yield was low*'? The question was an assumptive and leading question making it not ideal. The question was changed to, '*Are you member of the Groundnut commodity association*? Thereby making it more precise.

4.3.5 Data analysis procedure and methods

Following data collection from the field, data entry was done into SPSS Version 16 software. A process of data cleaning followed to reduce errors which could have emerged. Data analysis was also done using SPSS. Descriptive statistics specifically frequencies were run to identify the Groundnut Commodity Association most and least performed activities.

4.3.6 Challenges encountered during data collect

The major challenge experienced were:-

1. Respondents' failure to understand questions in the questionnaire since it was in English language. This may be attributed to the majority of respondents (49%) having attained a highest level of education of primary education possibly making it difficult for them to comprehend questions being asked. In an effort to counter the language barrier challenge, enumerators had to explain the questions when administering the questionnaire.

2. Navigating through the wards was difficult due to the need to follow protocol. Authorization was sought from local authorities such councilors and village heads. The researcher also used a letter from the university as well as a clearance from the councilors' that authorized the student to carry out this study.

3. Covid 19 outbreak, an infectious disease which occurred during the time the research was being done resulted delays in data collection. This was mainly due to lockdown regulations set

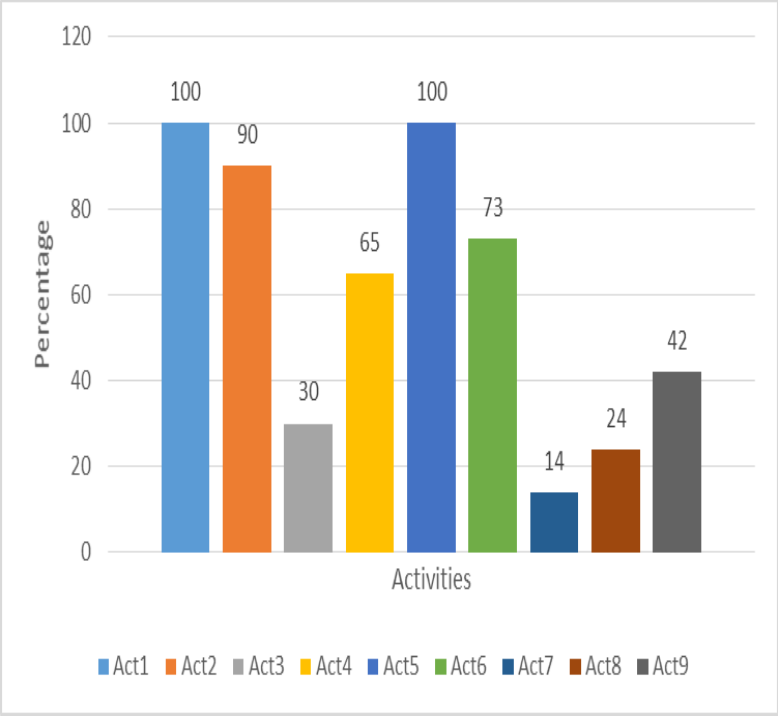
by the Government. Respondents were a bit hesitant to participate for fear of contracting the infectious Covid 19. In view of this challenge, the enumerators had to wear face masks during administering the questionnaire and also frequently sanitize their hands and those of respondents.

4.4 Results and Discussion

4.4.1 Results

In line with Objective number 1 of the study, that is, 'To determine the activities of Groundnut commodity associations in Mt Darwin District of Zimbabwe' analysis of results was done. The graph below shows the extent to which each activity was being done.

Figure 4.1 Frequencies of Key Activities done by GCA



Key:

Activity 1 - Organizing and registration of groundnut producer farmers in preparation of the Season.

Activity 2 - Facilitating training of registered member farmers on Groundnut production.

Activity 3 - Bulk procurement of Inputs such as seed and fertilizers.

Activity 4 - Assisting farmers in adherence to Harvest and Post-Harvest handling processes and standards.

Activity 5 - Organizing aggregation of produce at selected sites in preparation for marketing.

Activity 6 - Provision of information to members.

Activity 7 - Dispute resolution amongst value chain actors.

Activity 8 - Advising on recommended value addition processes to the produce brought by farmers.

Activity 9 - Facilitating Credit –line linkages for members.

Table 4.1: Ranking of Activities as per frequency results:

Rank	Activity	%
1	Organizing and registration of groundnut producer farmers in preparation of the Season	**100**
2	- Organizing aggregation of produce at selected sites in preparation for marketing	**100**
3	Facilitating training of registered member farmers on Groundnut production.	**90**
4	Provision of information to members.	**73**
5	Assisting farmers in adherence to Harvest and Post-Harvest handling processes and standards	**65**
6	Facilitating Credit –line linkages for members.	**42**
7	Bulk procurement of Inputs such as seed and fertilizers.	**30**
8	Advising on recommended value addition processes to the produce brought by farmers.	**24**
9	Dispute resolution amongst value chain actors	**14**

4.4.2 Discussion

A total of nine (9) activities emerged as the key activities being undertaken by the GCA. Of the nine (9), two (2) activities were being performed at 100%, which are, Organizing and registration of groundnut producer farmers in preparation of season and Organizing aggregation of produce at selected sites in preparation for marketing. Facilitation of trainings of members on groundnut production was also being performed at high level at 90% followed by provision of groundnut value chain information to members at 73%. Activity on, assisting farmers in adherence to harvest and post harvesting handling processes was fairly being done at 65%. The least

performed activities which were being performed at below 50% as revealed by the study came out as Dispute resolution among value chain actors (14%) followed by the activity on giving farmers' advice on Value addition processes ideal for groundnuts (24%) then facilitating Bulk procurement of inputs (30%). Facilitation of credit lines linkages also was being done to a limited extent at 42%.

Undertaking activities enables the GCA to meet its mandate as it focuses on components like training of farmers, promoting participation of members in different extension activities and continuous technical guidance to the members' (Gopala, 2019). The activities performed at 100% have a significant bearing on productivity and profitability of the women farmers. Registration of the farmers in the GCA identifies the smallholder farmers being served as well as enabling gathering of information on demography of the farmers and their production levels. Registration of farmers at the onset of season is critical for the GCA decision making on timeous engaging of private off-takers for the produce, organizing of aggregation sites and ascertaining number of farmers requiring training on agronomic practices. Farmer registration allows for easy identification of members enabling them to receive necessary support and benefits. If the farming environment cannot be measured, it cannot be managed (Dhewa, 2016). Organizing aggregation is also a critical activity as it has a direct bearing on the income gained from sell of produce.

Dispute resolution activity which was identified as one of the underperformed activities speaks to group dynamics and functionality of an organization. A functional farmer group that is ready for agro-enterprise has certain basic capabilities. It can manage itself in a democratic way, develop a shared vision, define common objectives, build mutual trust and responsibility, resolve conflict and sustain learning (CRS, 2015). Dispute resolution is vital in creation of safe spaces for members.

The value addition activity which is also being underperformed is key on improving income generated from the value chain by the farmers. Value addition increases the demand for farm produce which directly increases farmer's income (Stewart, 2020). The need to scale up efforts on facilitating training of members on value addition related activities should be pursued by the GCA.

Facilitation of credit line linkages for the GCA members is relatively low at 42% as the results show. This is consistent with findings made by FAO. Women continue to receive less financial support even in sectors they dominate including in agricultural production (FAO, 2017). In most cases the women fail to access credit since they lack collateral resulting in failure to afford essential inputs unlike their male counterparts. Research has proven that access to credit and other financial services by small scale farmers has been considered as one promising way to reducing poverty, improving farm productivity and easing a smooth transition from subsistence farming to large scale and agribusiness farming (Feder et al, 1996).

The study went further to explore if the GCA allowed non-members to participate in some activities spear headed by the association. 96% of the respondents indicated that they are allowed to participate whilst 4% expressed that were not allowed to participate. The study showed that the non-members mainly take part in field days, road shows as well as selling their produce to buyers which come under the invitation of the association. Most of the identified activities were open to the public and were not necessarily key activities. Since 96% of the non GCA members participated in some of the key activities, it can be seen that the association is accommodative though to a limited extent.

4.5 Conclusion

The chapter focused on determining the activities of Mt Darwin Groundnut Commodity Association. Key activities that were being performed by the GCA were identified as Organizing and registration of groundnut producer farmers in preparation of season and Organizing aggregation of produce at selected sites in preparation for marketing which were being done at 100%. The least performed activities as revealed by the study included, Dispute resolution among value chain actors (14%) followed by the activity on giving farmers' advice on Value addition processes ideal for groundnuts (24%) then facilitating Bulk procurement of inputs (30%). Facilitation of credit lines linkages also was being done to a limited extent at 42%. The results showed that the GCA was undertaking essential activities for the benefit of members and opened up some of its non-key activities to non-members. The activities are however being done at varying extents. This result may affect the GCAs outcomes, directly affecting the influence of the GCA on the Socio-economic status of women.

4.6 Recommendations

Based on the results of the study, it is recommended that the GCA :

- Scale up on activities undertaken for its members, especially those that affect rural women farmers such as those around access to credit and bulk procurement of inputs.
- Encourage and Support of lending and savings groups so as to generate income required to support production.
- Vertical linkages with private sector for the provision of the activities lagging behind to increase scale.
- The GCA can turn some of the association activities into businesses for Association members such as Value Addition. For example the members can undertake value addition related business such as Peanut Butter making, snack production, provision of transportation of product to aggregation centres and seed multiplication after linkage with seed houses.

4.7 References

1. Charles Dhewa (2017), Commodity associations backbone of agric resilience https://www.herald.co.zw/commodity-associations-backbone-of-agric-resilience/
2. FAO (2011), The Role of Women in Agriculture. ESA Working Paper, No11-02, Rome, Italy
3. Gopala Y.M, Narayana Gowda, Nataraju M.S and Narayana Lakshmi (2019), Study on participation of members in commodity based association in Karnataka, Department of Agricultural Extension College of Agriculture, University of Agricultural Sciences, Bangalore-56006
4. Hanyani Mhlambo (2002), Strengthening the pluralistic agricultural extension system:a Zimbabwean case study, Agriculture Research Council(ARC) Zimbabwe, Integrated Support to Sustainable Development and Food Security Programme, FAO
5. Sabine Homann-Kee Tui, Andre van Rooyen, Thabani Dube, Sakhile Kudita, Pauline Chivenge, Aleck Kondwakwenda, Oswin Madzonga, Daveson Masendeke, Ngirazi N Savemore and Mutsa Muhambi; Partnerships for Unlocking Potential in Groundnut Value Chains in Zimbabwe(2014)
6. Shepherd, Andrew W. & Cadilhon, Jean-Joseph, (2008), Commodity Associations and Their Potential Role in Supply Chain Development, BANWA: A Multidisciplinary Journal, University of the Philippines Mindanao, vol. 8(2), pages 1-25.
7. SNV (2016), Groundnuts Subsector Study, Harare, Zimbabwe
8. Stewart, J. S. (2020). The Socioeconomic Benefits Of Value Addition In Agriculture Production. https://www.modernghana.com/news/1018776/the-socioeconomic-benefits-of-value-addition-in.html

5 CHAPTER 5 KNOWLEDGE GAPS BY WOMEN IN THE GROUNDNUT COMMODITY ASSOCIATION

5.1 Abstract

Knowledge gaps amongst women farmers have been known to have detrimental effects on improving their socio-economic status. Knowledge is a factor of production alongside land, labour, and capital because it enables people to combine the different aspects of production more rationally for optimal production. Objective 2 of the study sought to identify knowledge gaps amongst the women groundnut farmers in the GCA in comparison with non-members. Survey research methodology was used for data collection. Descriptive statistics specifically frequencies and Chi square were used in data analysis to determine the areas where there are Knowledge gaps. Results revealed that GCA members had good knowledge on field practices (94%), which inputs to use (99%), climate smart agriculture (98%), harvesting and post harvesting information (95%), value addition (95%) as well as labour saving technologies (95%). The least known areas were on pest and disease management (59%) and market related information (83%). Non-members of the GCA exhibited lower knowledge levels on which inputs to use (41%), climate smart agriculture technologies (40%), market information (40%) and labour saving technologies (44%) to use. Non-members also had moderate knowledge levels on harvesting and post harvesting management (72%) as well as on value addition 74%, whilst their knowledge levels on ideal field practices surpassed those of GCA members at 96%. A statistical significance of (p=0.00) between membership to GCA and having key knowledge indicated strong dependency on membership and having key knowledge. The trend is however different for non-members where there is no strong correlation between membership and having key knowledge levels: Knowledge on inputs $p = 0.535$, knowledge on climate smart agriculture ($p = 0.264$), knowledge on pest and disease management ($p = 0.710$), market information ($p = 0.172$) and knowledge on labour saving technologies $p = 0.710$ where all the p values are above 0.05. Varying knowledge levels can have negative effects on improving socioeconomic status of the women farmers.

5.2 Introduction

One of main objectives of Commodity Associations is to close knowledge gaps amongst its members. SNV (2016) reported that, one of the constraints to groundnut productivity and profitability in Zimbabwe is lack of adequate value chain knowledge amongst players and limited knowledge transfer. This affects the women farmers more negatively as they are the main value chain players resulting in the Groundnut value chain remaining largely uncommercialized. Platforms like Commodity Associations are important for ensuring knowledge transfer on good agricultural practices, agricultural marketing systems for marketing agricultural produce/products; and effective post-harvest management amongst other critical information centers (Tamu, 2004). Commodity associations can help in supporting individual's ability to share and explain implicit knowledge (Dhewa, 2017) to other members. This helps in boosting practical knowledge, ultimately closing or narrowing the gaps in knowledge.

The GCA should work towards closing gaps on essential knowledge thereby making member farmers more balanced and geared towards socioeconomic transformation. Knowledge on critical areas like financial literacy, how to run farming enterprises as businesses, latest technological intervention on groundnut and understanding the value chain system is critical in transforming rural women farmers growing groundnut for subsistence to commercial enterprises. Knowledge is regarded by Rao (1987) as part and parcel of the overall social economic system of any society. Hence knowledge is a critical factor in influencing the Socio-economic status of women groundnut farmers, and Commodity Associations providing a critical exchange platform.

5.3 Material and Methods

The materials and methods are fully detailed in Chapter 3. The Chapter details sampling method, Questionnaire designs, Data Collection methods and Data Analysis processes.

5.3.1 Description of study area

The research was done in Mt Darwin District, Zimbabwe. For a detailed description of the study area refer to Chapter three.

5.3.2 Research Design

A survey research design was used. Data was collected through structured questionnaires which was administered by trained enumerators. The data collected was analysed using SPSS.

5.3.3 Sampling procedure

Purposive sampling was used to select 8 wards out of which one ward was later dropped to remain with seven. The wards constitute the main groundnut producing wards in Mt Darwin district in which the GCAs are in operation. Sampling within the sampled cluster of wards with active Groundnut commodity association members was conducted using the snowballing method which relies on referrals.

5.3.4 Data collection procedure

A structured survey questionnaire was used as data collection tool. A total of 7 enumerators drawn from Agriculture and Extension (AGRITEX) department who reside in the sampled wards were engaged to do data collection. The Extension personnel were selected on the basis that they were well educated and well cognisant of the study area making it easy to collect the data. First, a small pilot study was carried out in two wards mainly for purposes of ensuring that the sampling technique and the questionnaires were appropriate for the study. A few questions were refined so that the ambiguity they carried could be made clearer. Question 8 on the survey questionnaire for example, which read, '*Are you member of the Groundnut commodity association because your yield was low*'? The question was an assumptive and leading question making it not ideal. The question was changed to, '*Are you member of the Groundnut commodity association*? Thereby making it more precise.

5.3.5 Data analysis procedure and methods

Following data collection from the field, data entry was done into SPSS Version 16 software. A process of data cleaning followed to reduce errors which could have emerged. Data analysis was also done using SPSS were descriptive statistics specifically frequencies and Chi Square were run to identify areas with most and least knowledge levels.

5.3.6 Challenges encountered during data collect

The major challenge experienced were:-

1. Respondents' failure to understand questions in the questionnaire since it was in English language. This may be attributed to the majority of respondents (49%) having attained a highest level of education of primary education possibly making it difficult for them to comprehend questions being asked. In an effort to counter the language barrier challenge, enumerators had to explain the questions when administering the questionnaire.

2. Navigating through the wards was difficult due to the need to follow protocol. Authorization was sought from local authorities such councilors and village heads. The researcher also used a letter from the university as well as a clearance from the councilors' that authorized the student to carry out this study.

3. Covid 19 outbreak, an infectious disease which occurred during the time the research was being done resulted delays in data collection. This was mainly due to lockdown regulations set by the Government. Respondents were a bit hesitant to participate for fear of contracting the infectious Covid 19. In view of this challenge, the enumerators had to wear face masks during administering the questionnaire and also frequently sanitize their hands and those of respondents.

5.4 Results and Discussion

5.4.1 Statistical Analysis Results on Knowledge Gaps

The table below is a statistical analysis results on knowledge gaps:-

Table 5. 1 Measurement of skewness results knowledge on gaps

		I HAVE KNOWLEDGE AND INFORMATION ABOUT FIELD PRACTISES	I HAVE INFORMATION ABOUT INPUTS	I HAVE INFORMATION ABOUT CLIMATE SMART TECHNOLOGIES	I HAVE INFORMATION ABOUT PESTS AND DISEASES	I HAVE INFORMATION ABOUT HARVESTING AND POST HAVERSTING PRACTISES	I HAVE MARKET INFORMATION	I HAVE INFORMATION ABOUT VALUE ADDITION	I HAVE INFORMATION ABOUT LABOUR SAVING TECHNOLOGIES
N	Valid	175	175	175	175	175	175	175	175
	Missing	0	0	0	0	0	0	0	0
Mean		1.04	1.21	1.23	1.44	1.14	1.30	1.12	1.25
Skewness		4.736	1.426	1.266	-.244	2.128	.866	-2.359	1.156
Std. Error of Skewness		.184	.184	.184	.184	.184	.184	.184	.184

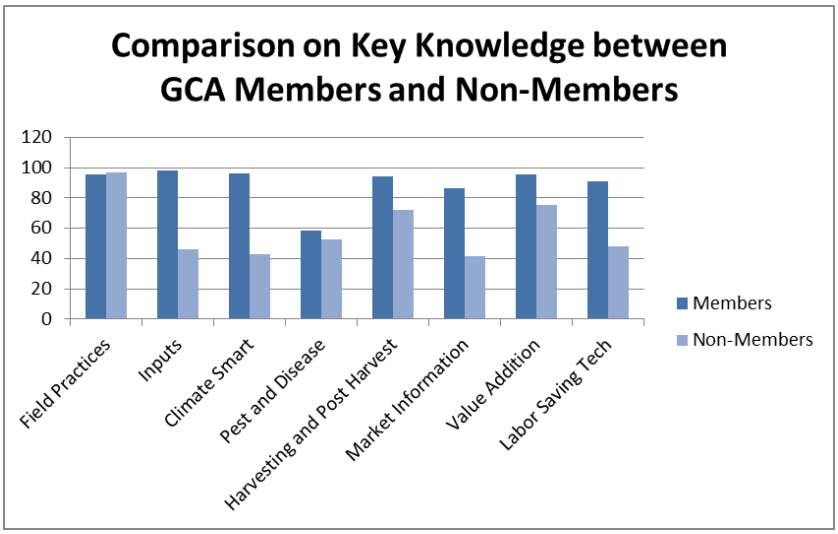
Areas identified for improvement include information provision on pest and disease management with a skewness of (-0.244), value addition (-2.359) as well as (0 .866) for market information since these were negatively skewed as seen from the table above.

Inadequate information in any one critical area has the potential to negatively affect income generated from the production of groundnuts for the women farmers and ultimately their socioeconomic status.

Comparison on key knowledge between GCA Members and Non-Members

The graphical presentation below shows a comparison on key knowledge between GCA Members and Non-Members:-

Figure 5.1 Comparison on key knowledge between members and non-members of GCA



As seen from the graph, the members of the GCA had more knowledge on the majority of the variables identified. Results revealed that GCA members had good knowledge on field practices (94%), which inputs to use (99%), climate smart agriculture (98%), harvesting and post harvesting information (95%), value addition (95%) as well as labour saving technologies (95%). The least known areas were on market related information (83%) and pest and disease management (59%). Non-members of the GCA exhibited lower knowledge levels on which inputs to use (41%), climate smart agriculture technologies (40%), market information (40%) and labour saving technologies (44%) to use. Non-members also had moderate knowledge levels on harvesting and post harvesting management (72%) as well as on value addition 74%, whilst their knowledge levels on ideal field practices surpassed those of GCA members at 96%.

Chi squire test results

In an effort to understand the correlation between being a GCA member and the knowledge that one had, a chi squire test was run in SPSS. See results below:-

Table 5. 2 Comparison on knowledge gaps between members and non-members of GCA results

Test Statistics

MEMBERSHIP TO THE GROUNDNUT COMMODITY ASSOCIATION		I HAVE KNOWLEDGE AND INFORMATION ABOUT FIELD PRACTISES	I HAVE INFORMATION ABOUT INPUTS	I HAVE INFORMATION ABOUT CLIMATE SMART TECHNOLOGIES	I HAVE INFORMATION ABOUT PESTS AND DISEASES	I HAVE INFORMATION ABOUT HARVESTING AND POST HAVERSTING PRACTISES	I HAVE MARKET INFORMATION	I HAVE INFORMATION ABOUT VALUE ADDITION	I HAVE INFORMATION ABOUT LABOUR SAVING TECHNOLOGIES
yes	Chi-Square	90.909[a]	102.145[a]	94.582[a]	2.945[a]	87.309[a]	58.182[a]	90.909[a]	73.636[a]
	df	1	1	1	1	1	1	1	1
	Asymp. Sig.	.000	.000	.000	.086	.000	.000	.000	.000
no	Chi-Square	57.246[b]	.385[b]	1.246[b]	.138[b]	12.938[b]	1.862[b]	16.754[b]	.138[b]
	df	1	1	1	1	1	1	1	1
	Asymp. Sig.	.000	.535	.264	.710	.000	.172	.000	.710

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 55.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 32.5.

The results indicate that there is a strong association between being a member of the GCA and having key knowledge concerning the groundnut value chain (p=0.00). The trend is however different for non-members where information on inputs or pest and disease management (p>0.710), market information (p>0.172) and labour saving technologies (p>0.710) were the P value was found to be greater than 0.05.

5.5 Discussion

Generally, the women groundnut producers in the 7 wards where the study was conducted, who are non-members had slightly more knowledge on general field practices (98% for non-members compared to 96% for members). The slight difference may be due to the fact groundnut is a commonly grown crop and a preferred crop by women under small scale holder farming. Women contribute 75% of production and marketing of groundnuts in Zimbabwe. Knowledge on general field practices such as planting is passed from generation to generation (SNV, 2016).

Knowledge levels within the GCA members was found to be higher on inputs, climate smart agriculture, harvest and post-harvest practises, market information, value addition and labour saving technologies as compared to non-members. This is confirmation that the GCA has strong influence on imparting knowledge to its members. Knowledge experts such as public and private extension personnel are given the platform during GCA activities to transfer this knowledge. This possibly happens during trainings, workshops, and field days and through work of extension workers. Knowledgeable farmers also have an opportunity to transfer knowledge to other farmers in GCAs. This is consistent with the Farmer to Farmer knowledge transfer

intervention which was implemented in the Campesino a Campesino (CaC) Movement in Guatemala which was a horizontal methodology of knowledge transfer led by farmers. 'The CaC movement walks on the legs of innovation and by widely sharing knowledge, creativity and experience and wisdom, farmer to farmer' – Holt-Gimenez (2013). Another example of farmer to farmer knowledge transfer is highlighted by Wiebers (1993), 'Farmer field school approach relies on participatory training methods to convey knowledge to field school participants, to make them into confident, experts, self-teaching experimenters and effective trainers of other farmers.

As highlighted in Chapter 2, Non- Governmental Organisation who played a strong role in facilitating the formation of the GCA also have knowledge rich personnel participating in the GCA activities who are well-versed on the Groundnut value chain and areas of possible knowledge transfer interventions which are effective.

Existence of commodity associations creates a platform which enables knowledge transfer to producers of a value chain in specified areas. Knowledge transfer performed through lectures, seminars and workshops has proved to be an effective method of education meant for agricultural populations (Klopcic, 2005). Research shows that knowledgeable farmers have high likelihood of producing more thereby getting higher yields. This is beneficial for their food security status as well as their socioeconomic wellbeing.

Lack of knowledge in any one key productivity enhancing area has the potential to negatively affect the socioeconomic status of the women farmers who are into groundnut production. The results clearly show that the women farmers who are members of the GCA have narrow knowledge gaps on essential areas and higher levels of knowledge across all importance sustainable skills and productivity outcomes compared to non-members.

The need to improve in closing knowledge gaps on all the identified areas is therefore imminent, if at all the socioeconomic status of women groundnut producers is to be improved.

5.6 Conclusion

The chapter focused on identification of knowledge gaps by women groundnut producers and how membership to the GCA results in closure or reducing the identified knowledge gaps. The results showed that membership to the GCA is beneficial in information dissemination and narrowing the knowledge gaps in all key groundnut value chain aspects which are field practices, inputs, climate smart agriculture , harvesting and post harvesting information , value addition as well as labour saving technologies. The least known areas were on pest and disease management and market related information. Varying knowledge levels on essential groundnut production aspects influences the Socio-economic status of producers since it has a bearing on the productivity and profitability.

5.7 Recommendations

Based on the results of the study, it is recommended that the GCA:

- The GCA should aim at facilitating proven knowledge transfer strategies such as farmer field schools. Farmer field schools have proved to be an effective way to facilitating tacit knowledge transfer, especially for members who attained low levels of education or no education all.
- Engage Product off-takers of produce (Reapers, Mama Peanut Butter, Shatbury and Lyons), input providers (SeeCo, Panner, ZFC, Windmill, Agricura, SuperFert) and Financers (Banks, Micro Finance Houses) and other value chain actors to carry our specific trainings.
- Create study circles which encourage more frequent interaction among members. These are group meetings where farmers meet and learn on different topics pertinent to the Groundnut value chain. Topics are selected after the groups conduct a training needs assessment. Study circles are an important tool for improving the living conditions for women living in poverty and in rural areas. They aim to develop capacity and competence through interactive exchange of scientific knowledge.
- Promote full participation of value chain actors in GCA activities

5.8 References

1. Charles Dhewa; Commodity associations backbone of Agricultural resilience (2017) https://www.herald.co.zw/commodity-associations-backbone-of-agric-resilience.
2. Herwig Rollet (2003); Knowledge Management; Processes and Technologies.
3. Eric Holt –gimenez (2013), Campesino A Campesino:Voices from Latin America's Farmermovement for sustainable agriculture. Latin America
4. Marija Klopcic, Joze Osterc, Marko Cepon and Branko Ravnik; (2005) Knowledge transfer in cattle husbandry: New management practices and attitudes.Biotechnical Faculty, Zootechnical Department, Groblje 3, 1230 Domzale, Slovenia
5. SNV (2016), Groundnuts Subsector Study, Harare, Zimbabwe
6. Tamu Andrew and Elibariki Msuya (2004), Capacity Building information management (ICM) towards food security, Munich Personal Archive, Sokoine University of Agriculture, Tanzania
7. Rao, A. N. 1987. Food, agriculture and education. Page 3 la A. N. Rao, ed. Science and Technology Education and Future Human Needs, Vol. 6. New York, New York: Pergamon Press.
8. http://www.weeffect.org

6 CHAPTER 6 DETERMINATION OF THE EFFECT OF SOCIOECONOMIC STATUS DETERMINANTS ON MEMBERSHIP TO GCA ON OF WOMEN GROUNDNUT PRODUCERS IN MT DARWIN DISTRICT OF ZIMBABWE

6.2 Abstract

The third objective of the study sought to determine the effect of membership to the GCA on socioeconomic status of women groundnut producers in Mt Darwin district of Zimbabwe. A total of 175 women farmers were interviewed constituting 110 GCA members (62.86%) and 65 non-members (37.14%). Binary logistic regression analysis was done to see the effect of membership to GCA on socioeconomic factors for both members and non-members. Results revealed that membership to GCA had an effect on the following socioeconomic factors: education: members occupation, marital status and groundnut production experience. Membership had an effect on Education in the secondary level (p=0.045) under the GCA members group and (p=0.026) for non-members. Under the GCA members group, on all categories membership had an effect on occupation with p values of; formally employed (p=0.001), informally employed (p=0.004), Self-employed (p=0.001) and Not-employed (p=0.029) and for non-members, formally employed category with (p=0.001) and informally employed (p=0.011). Membership had an effect on farmer's experience in groundnuts production for both members and non-members as indicated by P values ($p < 0.05$). Membership had an effect on the Marital status socioeconomic factor only for the GCA members group with P values (p=0.024). Membership had no influence on Age of respondents, farm ownership, and number of dependants and on net income. Across all income categories, Membership showed no effect as demonstrated by p values which were above p=0.05. Being a member of an association has an effect on the member's socioeconomic status (education, marital status, occupation). It is recommended that GCA consider vertical integration with stakeholders who have capacity to socioeconomically empower the women members. Such organisations include AGRITEX, value chain actors, supply chains, colleges and universities.

6.2 Introduction

Agriculture being the bedrock of social economic development, is a source of employment, national income and foundation for national stability. When the potential of agriculture is tapped fully, a nation can experience sustained economic growth and improvement in the poverty cleft especially for rural population (Stewart 2020). Chapter 2 defines socioeconomic status (SES) as the social standing or class of an individual or group. Socioeconomic status (SES) encompasses not just income but also educational attainment, financial security, employment status, food security, age, experience, asset ownership, decision making roles beyond the household, productivity and subjective perceptions of social status and social class. Social status is defined as 'the extent to which the status of a farmer has improved in the social system in which he / she lives as a result of his / her involvement in a program', (Linton, 1996). Gopala (2012) operationally defines social status as the improvement in position or the rank of the member due to his/her participation in the activities of CBAs. United Nations Women also emphasized that to reduce the vulnerability associated with the change of socioeconomic conditions, rural women need appropriate support systems that assist them improve holistically. Commodity Associations provide such systems.

Membership to a farmer association, has potential to improve one's socioeconomic status due to the benefits accrued by members, more so for women farmers, who are socioeconomically deprived – Tamagi (2008). Farmer organizations are able to bring out farmer revolution through facilitating farmer access to inputs, credit, output markets, technical training and to increase engagement with policy processes and improve coordination within the agricultural sector (Abel, 2020). Sitoe & Sitole (2019) note that Farmers' organizations have been suggested as a tool to improve the living conditions of farmers in poor countries. Inadequate farmer coordination in potentially economically viable value chains has resulted in limited improvement in the socioeconomic status of value chain actors. The need to assess how being a member to a farmer organization affect one's socioeconomic status is therefore of importance.

6.3 Material and Methods

The materials and methods are fully detailed in Chapter 3. The Chapter details sampling method, questionnaire designs, data collection methods and data Analysis processes.

6.3.1 Description of study area

The research was done in Mt Darwin District, Zimbabwe. For a detailed description of the study area refer to Chapter three.

6.3.2 Research Design

A survey research design was used. Data was collected through structured questionnaires which was administered by trained enumerators. The data collected was analysed using SPSS.

6.3.3 Sampling procedure

Purposive sampling was used to select 8 wards out of which one ward was later dropped to remain with seven. The wards constitute the main groundnut producing wards in Mt Darwin district in which the GCAs are in operation. Sampling within the sampled cluster of wards with active Groundnut commodity association members was conducted using the snowballing method which relies on referrals.

6.3.4 Data collection procedure

A structured survey questionnaire was used as data collection tool. A total of 7 enumerators drawn from Agriculture and Extension (AGRITEX) department who reside in the sampled wards were engaged to do data collection. The Extension personnel were selected on the basis that they were well educated and well cognisant of the study area making it easy to collect the data. First, a small pilot study was carried out in two wards mainly for purposes of ensuring that the sampling technique and the questionnaires were appropriate for the study. A few questions were refined so that the ambiguity they carried could be made clearer. Question 8 on the survey questionnaire for example, which read, '*Are you member of the Groundnut commodity association because your yield was low*'? The question was an assumptive and leading question making it not ideal. The question was changed to, '*Are you member of the Groundnut commodity association*? Thereby making it more precise.

6.3.5 Data analysis procedure and methods

Following data collection from the field, data entry was done into SPSS Version 16 software. A process of data cleaning followed to reduce errors which could have emerged. Data analysis was also done using SPSS specifically descriptive statistics, that is, frequencies. In addition binary logistic regression analysis was done to establish the relationship between membership and the socioeconomic determinants (income, age, marital status, number of dependents, level of education, farmers experience, land ownership).

6.3.6 Challenges encountered during data collection

The major challenge experienced were:-

1. Respondents' failure to understand questions in the questionnaire since it was in English language. This may be attributed to the majority of respondents (49%) having attained a highest level of education of primary education possibly making it difficult for them to comprehend questions being asked. In an effort to counter the language barrier challenge, enumerators had to explain the questions when administering the questionnaire.

2. Navigating through the wards was difficult due to the need to follow protocol. Authorization was sought from local authorities such councilors and village heads. The researcher also used a letter from the university as well as a clearance from the councilors' that authorized the student to carry out this study.

3. Covid-19 outbreak, an infectious disease which occurred during the time the research was being done resulted delays in data collection. This was mainly due to lockdown regulations set by the Government. Respondents were a bit hesitant to participate for fear of contracting the infectious Covid-19. In view of this challenge, the enumerators had to wear face masks during administering the questionnaire and also frequently sanitize their hands and those of respondents.

6.4 Results

The third specific objective of the study sought to determine Socio-economic status of women farmers who are part of the Groundnut commodity associations in comparison to non-members. Frequencies, Binary Logistic Regression Analysis were used to analyse data collected from survey.

The results are in the table below:

Table 6.1: Results of determination of the effect of membership to GCA on SES status of women groundnut producers in Mt Darwin District of Zimbabwe

Factor	Category		Member			Non-member	
		B coefficient	Frequency	Significance level	B coefficient	Frequency	Significance level
Age	18-30		3.60%	0.781		4.60%	0.802ns
	31-40	1.081	45.50%	0.381	-0.832	29.20%	0.81
	41-60	0.248	43.60%	0.777	-1.054	49.20%	0.49
	60+	0.026	7.30%	0.973	-1.081	16.90%	0.542
Highest Level of Education	No formal education		15.50%	0.49		26.20%	0.074
	Primary education	-0.667	42.70%	0.2	1.503	60.00%	0.273
	Secondary Education	0.836	41.80%	0.045***	0.667	13.80%	0.026**
Occupation	Not employed		31.80%	0.029**		33.80%	0.084
	Informally employed	-1.085	9.10%	0.004*	-3.529	12.20%	0.011**
	Self-employed	-1.175	53.60%	0.001*	-2.349	27.70%	0.161
	Formally employed	2.349	5.50%	0.001*	-3.434	26.20%	0.001*
Farm Ownership	Yes		55.50%	0.704		63.10%	0.284
	No	-0.212	44.50%	0.674	0.212	36.90%	0.345
Experience	Below 5 Years		39.10%	0.003*		24.60%	0.019**
	5-10 years	-3.171	23.60%	0.006*	0.976	15.40%	0.005*
	10-20 years	-2.195	24.50%	0.012**	2.231	30.80%	0.014**
	Above 20 years	-0.94	12.70%	0.22	3.171	29.20%	0.188
Marital Status	Married	41.096	79.40%	0.024**	-19.835	3.10%	0.088
	Widow	21.261	18.20%	0.999	-17.688	55.40%	0.999
	Divorced	23.407	5.50%	0.999	-41.098	41.50%	0.999
Dependents	1-3		16.40%	0.865		15.40%	0.719
	4-6	-0.77	45.50%	0.96	0.091	43.10%	0.943
	7-10	0.014	37.30%	0.993	-0.371	36.90%	0.757
	more than 10	0.448	0.90%	0.06	0.077	4.60%	0.55
Income	Below US$50		37.27%	0.115		24.60%	0.087
	US$51 - US$100	-2.239	32.72%	0.236	1.895	35.40%	0.107
	US$101 - US$200	-0.344	20.19%	0.737	2.24	24.60%	0.06
	Above US$200	0.001	9.09%	0.999	2.239	15.40%	0.269
Source: Field Survey							
Significance p<0.1* p<0.05** p<0.01*** not significant =ns							

6.5 Discussion

Socioeconomic status of women farmers has remained relatively low overtime, mainly due to inherent social hierarchy and economic deprivation (Gurung, 2008). The socioeconomic factors of age, number of dependents, farming experience, occupation, education level, land/ farm ownership and income were assessed. Membership was found to have an effect on Education, Occupation, Experience and Marital status socioeconomic factors.

Education

Membership influenced the Educational level of respondents in the Secondary level category for both members ($p=0.045$) and non-members ($p=0.026$). The study results show that 41.80% of GCA members have Secondary level education, which was the highest level of education amongst respondents. In consonance with the findings, the better educated women will view GCA as a new strategy to improve their productivity and ultimately their SES. Shafaq et al (2013) found that education has a positive effect on female control over production activities. Membership did not influence the lower levels of education (No education and Primary levels) for both members and non-members. Women with higher education levels tend to adopt new production strategies and technologies thereby improving yields Banler (2018) (Ibrahim et al 2011). A high education often relates to a high income and good occupation (Oakes, 2012). Low SES and its associates, such as lower educational achievement, poverty and poor health ultimately affect our society (American Psychological Association, 2010).

Occupation

The statistical results revealed the influence of membership on respondents occupation for the members group across all categories, that is, formally employed ($p=0.001$), informally employed ($p=0.004$), Self-employed ($p=0.001$) and Not employed ($p=0.029$). The study found that 53.64% of the GCA members said that they were self-employed, indicating that they took their farming enterprise as a business, a probable result of trainings facilitated by the GCA. For non-members

group, membership influenced the formally employed (p=0.001) and informally employed (p=0.011). In the not employed (p=0.084) category, there was less influence. As noted in objective one on key activities undertaken by the GCA, the activities may lead members to view groundnut production as a business resulting in one's occupation status changing from, 'not employed' or informally employed to self-employed indicating a change in social status. Gopala (2018) noted that the other important reason for success of CBAs is the self-employment opportunity confirming the strong influence of membership on occupation in the study.

Groundnut production farming experience

Membership to the GCA had an effect on Groundnut production farming experience. According to results, 39.09% farmers who are members of the association had below 5 years' experience in groundnut farming whilst only 12.73% of the members had above 20 years of groundnut production experience. Possibly farmers with less experience have more to gain by being members of the GCA, which is most unlikely for the well-seasoned farmers with more years of experience (20+ years). This finding speaks to the activities or roles of the association especially when it comes to dissemination of knowledge on groundnut production as highlighted in chapter 4. Naturally a more experienced farmer may have gained more production knowledge of groundnut production overtime thereby perceiving benefits to be derived from being in the GCA to be less. As the farmers gain more experience through continuous involvement with the GCA their SES is likely to improve. The work efficiency of the respondents would be higher in the 31-40 years category (Kavin 2019). This age group coincides with the below 5 year experience. This points to the positive effect being brought about by the GCA. Experience and exposure to the changing trends of agriculture will influence the performances of respondents in the farmer producer groups.

Marital status

The results showed that membership influenced marital status in the married category only (p=0.024). Considering marital status, married people have the highest membership to the GCA (79.4%) for members. The least membership to this group is by the single farmers. Married women tend to have support from their husbands which gives them balance. Married farmers are likely to be under pressure to produce more, not only for family consumption but also for sale. The desire to produce more could lead to agricultural information seeking and use by the married (Opara 2010)

Income

Binary logistics regression analysis revealed that membership had no effect on income earned across all income categories (p>0.05). P values computed were as follows: For members – less than US$50 (p=0.115), $51 - $100 (p=0.236), $101-$200 (p=0.737) and more than $200 (p=0.999); Non-Members - less than US$50 (p=0.0.87), $51 - $100 (p=0.107), $101-$200 (p=0.060) and more than $200 (p=0.269). In the study, across all the income categories, the frequencies results indicate that non-members of the association actually earn more than members except for those earning more than USD200 which was equal at 10 respondents in each group. A negative influence, however, was observed within the members groups, where only 9.09% of the respondents earn above USD200 compared to 15.38% for non-members. The majority of non-members (35.38%) earned between USD51-100 compared to the majority of members (37.27%), earning less than USD 50.00. This maybe one of the push factors for membership which is to increase one's income level (Muchingu, 2014). This result is a strong indicator the GCA should intensify efforts to make its members earn more income from production of groundnuts so as to contribute to the improvement their socioeconomic status. Income is one of the strong determinants of socioeconomic status. As noted in Chapter 2, income directly impacts health, access to goods, access to services and increase in the power of the family- Nhung Phum Thi et al (2018). Women earning more income are better positioned to provide adequately for their families especially when it comes to food security since they are the ones who are the caregivers for children in the home.

The study results revealed that membership did not influence the rest of the socio-economic factors explored, that is, age, number of dependents, and farm ownership as proven by p values above 0.05. This may be an indicator that the socioeconomic status of members remained depressed even after joining GCAs. Past research on women's empowerment supports the view that improvement of ones' socioeconomic status is a multidimensional, complex and context specific issue. The operations of the commodity associations play a contributory role to social status improvement amidst other interventions. Available studies in different settings on the relationship between socioeconomic factors and women's status show mixed results (Pambe et al 2013)

6.6 Conclusion

Objective 3 of the study was to determine the effect of membership to the GCA on socioeconomic status of women groundnut producers. Socioeconomic factors which determine socioeconomic status are quite intricate, extensive and context specific with regards to how they emerge in the presence of community based farmer managed commodity associations. Binary logistic regression was used to analyze data which had been collected using a survey questionnaire. Analysis of results revealed that membership to the GCA influenced the SES of the women groundnut producers, however, the influence varied depending on the socioeconomic factor under consideration. Education, occupation, marital status and experience had an effect on Membership. The rest of the determinants considered in the study which were age, number of dependents, farm ownership, and income were not influenced by membership to the GCA. It can therefore be concluded that in as much as the socioeconomic status of the women changed due to the membership to GCA, there is room for improvement.

6.7 **Recommendations**

In line with analysis of results as revealed by the research study, the following recommendations are made:-

- The GCA should conduct a Strength Weaknesses Opportunities and Threats (SWOT) analysis to come up with better strategies which can holistically improve the SES of its members.
- Consider vertical integration with stakeholders who have capacity to socioeconomically empower the women members.
- Tap into income generating opportunities along the groundnut value chain so as to increase incomes.

6.8 References

1. Banla EM, Dzidzienyo DK, Beatrice IE, Offei SK, Tongoona P, Desmae H; Groundnut production constraints and farmers' trait preferences: a pre-breeding study in Togo (November 2018)

2. Bhadaure-Tamagi V.D.C Kaski; Himalayan Journal of Sociology and Anthropology, Pokhara University
3. Gopala Y.M, Narayana Gowda K, Nataraju M.S and Lakshminarayan M.T. (2018), Commodity Based Associations – Offering Potential for Farmers' Prosperity, Journal of Agricultural Extension Management Vol. XX No. (1)
4. Gopala Y.M., B Krishnamurty KP, Raqhuprasad K; Imapct of farmers' participation in Farmer Field Schools, Journal of Rural Developemn 31 (1), 85-94 (2012)
5. Ibrahim Usman, Ayinde Bintu Taiwa, Dauda Haratu and Mukhtar Abubakar, Social and Economic Factors Affecting Groundnut Production in Sabongari Local Government of Kaduna State , Nigeria, International Journal of Food and Agricultural Economics, Vol1, No1, pp41-48
6. Gurung Kumar; Socio-economic status of women farmers, A sociological study; 2016
7. Linton, R. (1996). Status and role In: sociological theory-a book of readings. Eds. Coser, L.A., The Macmillan Company, New York. Pp. 71-80.
8. Nhung Pham Thi , Martin Kappas and Heiko Faust (August 2019)Improving the Socioeconomic Status of Rural Women Associated with Agricultural Land Acquisition: A Case Study in Huong Thuy Town, Thua Thien Hue Province, Vietnam
9. Oakes, M. Measuring Socioeconomic Status. 2012. http://www.resouceresearch.org/portals/
10. Opara Umunna Nnaemeka (2010); Personal and Socio-economic determinants of Agriculture Information use by farmers in the agricultural development program (ADP) Zones of Imo States, Nigeria. Library Philosophy and practice (e-journal) Nebraska Lincon
11. Pambe Madelaine Wayack, Bilampoa Gnpumou, Idrissa Kabore; Relationship between Women's Sociaoeconomic Status and Empowerment on Burkina Faso: A focus on

Decision Making and Experience of Domestic Violence. Demographic and Health Surveys. ICF International, Calverton Maryland USA 2013

12. Shafaq K, Arshad S., Muhammad S. (2013).Women's Participation in Livestock Farming, Journal of Animal and Plant Sciences, 23 (1). Pg 304-308
13. Stewart, J. S. (2020). The Socioeconomic Benefits Of Value Addition In Agriculture Production. https://www.modernghana.com/news/1018776/the-socioeconomic-benefits-of-value-addition-in.html
14. FAO (2010). Women in agriculture :closing the gender gap for development
15. https://www.nation.co.ke/kenya/nusiness/seeds-of-gold/five-reasons-to-be-farmers-association-are-way-to-go-1034404
16. https://www.apa.org/pi/ses/resources/publications/women
17. Kavin A and Divya K. Performance of farmer organisations based socio-economi factors in the western region of Tamil Nadu. International Journal of Chemical Studies. (2019)

7. CHAPTER 7 SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

7.1 Introduction

This Chapter summaries the research proceedings and findings of a study carried out in Mt Darwin District, Mashonaland Central province, Zimbabwe. The broad objective of the study was to evaluate the influence of Groundnut Commodity Association membership the socioeconomic status of women farmers in Mt Darwin District, Zimbabwe. A survey research methodology which made use of a structured questionnaire was done as detailed in chapter 3 on research methodology. A total of 175 women groundnut farmers were sampled and interviewed, these constituted 110 members of the groundnut commodity associations and 65 non-members. Chapters 4 to 6 fully elaborate the results from SPSS data analysis. Chapter 4 focuses on objective one on identification of GCA activities, where frequencies were used to determine the most and least performed activities. Chapter 5 centres on objective 2 on identification of knowledge gaps by members and non-members of the GCA. In this chapter, results from the Chi square test of significance was done to identify areas were respondents had the most and least knowledge on the groundnut value chain are detailed. Chapter 6 focuses on objective 3 on effect of membership on socioeconomic status of women groundnut producers where data analysis was done using binary logistic regression analysis. Finally, this chapter summarises, concludes, makes policy recommendations and looks at areas for further research.

7.2 Research summary

Chapter 1 introduces the research topic, states the problem statement, objectives, research questions, justification and end by giving an outline of the thesis. Chapter 2 on literature review, details information gathered from other scholars as well as other writers which is in line with the research topic. Methodology chapter which is Chapter 3, elaborates on the study site, research design, sampling procedure, data collection procedure, data analysis produce, ethical considerations and finally the summary of the methodology chapter. Chapter four, five and six were the results chapters as informed by each of the three study objectives.

Chapter 4 focuses on objective one on identification of GCA activities in Mt Darwin district. Data was analysed using SPSS software version 16 were frequencies were run. Nine (9) activities emerged as the key activities being undertaken by the GCA. Two (2) activities were being performed at 100%, that is, organizing and registration of groundnut producer farmers in

preparation of season and organizing aggregation of produce at selected sites in preparation for marketing. Facilitation of trainings of members on groundnut production was also being highly performed at 90%, followed by provision of groundnut value chain information to members at 73%. Activity on, assisting farmers in adherence to harvest and post harvesting handling processes was being done fairly at 65%. The least performed activities were Dispute resolution among value chain actors (14%) followed by the activity on giving farmers' advice on Value addition processes ideal for groundnuts (24%) then facilitating Bulk procurement of inputs (30%). Facilitation of credit lines linkages also was being done to a limited extent at 42%. As seen from the results, GCA was undertaking essential activities for the benefit of members though the activities were being done at varying extents. This result may affect the GCAs outcomes, directly affecting the influence of the GCA on the Socio-economic status of the women groundnut producers.

Following up on activities being undertaken by the GCA, the study went further to determine the knowledge gaps which the women groundnut producers had in Chapter 5. Data analysis was also done using SPSS software version 16 were descriptive statistics specifically frequencies and measurement of skewness. Chi square test results revealed a strong association between being a member of the GCA and having key knowledge concerning the groundnut value chain ($p=0.00$). The trend was however different for non-members where were the P value was found to be greater than 0.05 on inputs knowledge or pest and disease management knowledge ($p=0.710$), market information ($p=0.172$) and labour saving technologies ($p=0.710$). Areas identified for knowledge improvement were on pest and disease management with a skewness of (-0.244), value addition (-2.359) as well as (-0 .866) for market information since these were negatively skewed. GCA members had good knowledge on field practices (94%), inputs knowledge (99%), climate smart agriculture (98%), harvesting and post harvesting information (95%), value addition (95%) as well as labour saving technologies (95%). The least known areas were on market related information (83%) and pest and disease management (59%). Non-members of the GCA exhibited lower knowledge levels on which inputs to use (41%), climate smart agriculture technologies (40%), market information (40%) and labour saving technologies (44%) whilst their knowledge levels on ideal field practices surpassed those of GCA members at 96%. The results clearly show that the women farmers who are members of the GCA have narrow knowledge gaps on essential areas and higher levels of knowledge across all importance sustainable skills and productivity outcomes compared to non-members.

Chapter 6 detailed the findings on objective 3 on the effect of membership to the GCA on socioeconomic status of women groundnut producers. Using SPSS software version 16, Binary logistic regression analysis was done for data analysis. Results revealed that membership to GCA had an effect on education: occupation, marital status and groundnut production experience. Membership influenced Education in the secondary level category (p=0.045) under the GCA members group and (p=0.026) for non-members. On occupation, an effect was seen within the GCA members group, on all employment categories with p values of; formally employed (p=0.001), informally employed (p=0.004), Self-employed (p=0.001) and Not-employed (p=0.029) and for non-members, formally employed category with (p=0.001) and informally employed (p=0.011). Membership had an effect on farmer's experience in groundnuts production for both members and non-members as indicated by P values ($p < 0.05$). Membership had an effect on the Marital status socioeconomic factor only for the GCA members group with P values (p=0.024). Membership had no influence on Age of respondents, farm ownership, and number of dependants and on net income. Across all income categories, Membership showed no effect as demonstrated by p values which were above p=0.05. It can therefore be concluded that in as much as the socioeconomic status of the women changed due to the membership to GCA, there is room for improvement.

7.3 Conclusions

The Groundnut Commodity Associations operating in Mt Darwin district of Zimbabwe should be commended for being torch bearers in bringing women groundnut producers to form an association which enhances members' competitiveness in the groundnut value chain. As revealed by the study, the socioeconomic status of the association members is being positively influenced when compared to non-members. The association is playing a pivotal role in facilitating key groundnut productivity enhancing activities such as field trainings and organising farmers in the aggregation of produce for marketing. Such activities have potential to improve the socioeconomic status of the members. The varying levels to which key activities are being done as well as varying levels of knowledge gaps point to the fact that, the influence of the GCA is still somewhat limited. Binary logistic regression analysis results revealed that membership to the GCA had an effect on education, occupation, marital status and experience whilst it had no effect on age, number of dependents, farm ownership, and income. This imbalance clearly shows

that the socioeconomic status of the women groundnut producers has not yet reached an all-time high. This calls for intensification of the GCA efforts so that the SES of members can improve to a great extent and possibly encourage more women groundnut producers to join the association.

7.4 Policy implication and recommendations

Actors along specific value chains have been trying to unite and form institutions such as commodity associations with varied successes. The concept of commodity associations is growing and gaining recognition in the value chain practice. Government should develop policies which support formation of more value chain specific commodity associations for predominantly women dominated value chains. This can enhance government's women empowerment initiatives under the small scale farming sector. The identification and exploitation of weaknesses in the groundnut value chain can help in development of gender sensitive strategies thereby creating an environment where pro-development organisations as well as private sector players participating in economically viable value chains being able to address constraints which regress advancement of the socioeconomic status of primary actors in the groundnut value chain. The following recommendations are made:-

Key activities and Knowledge gaps

- Institutional support for farmer organisations through provision of trainings with a focus on identified needs e.g on pest and disease management, market information as identified in chapter 4.
- Vertical linkages with the private sector with expertise on areas which are not being performed at full capacity.
- Capacity development services can be extended to commodity associations to develop their knowledge management skills if they are to nurture to maturity, this will help reduce the varying knowledge levels as highlighted in chapter 5.
- Strengthening of public and private extension services for the benefit of small scale women farmers such as those in the commodity associations.

Socioeconomic status

- Development of Government structured policies for facilitating access to credit and markets which promote financial inclusion of small scale rural women farmers so as to increase incomes generated from agricultural activities.
- Promotion of income generating opportunities for women farmers so as to tap into the groundnut value chain and increase incomes.
- Consider vertical integration with stakeholders who have capacity to socioeconomically empower the women members.

7.5 Areas for further research

More research is needed in the assessment of the functionality of farmer organisations such as the groundnut commodity association to come up with recommendations on the most effective strategy that these platforms can use to enhance the living conditions of the members. Research into the levels of participation by members of these farmer organisations is also of importance since it will assist in coming up with strategies to enhance the outcomes and impact that the organisations have on the socioeconomic statuses of participants.

8 List of Appendices

Appendix 1

QUESTIONNAIRE

Questionnaire Number ☐

Ward Number ☐ **Enumerator Name** ☐

Introduction

My name is Fungisayi Susan Makuzwa (B1852590) a Masters student at Bindura University of Science Education. In partial fulfilment of MSc Food Security and Sustainable Agriculture (Production), I am conducting a research on**: Influence of Groundnut Commodity Association membership on the socioeconomic status of women farmers in Mt Darwin District, Zimbabwe**. Kindly help with information for the study by completing this questionnaire as accurately as possible.

Interviewee Consent

The data collected shall be used for academic purposes only and treated with the confidentiality of the highest order. Please note:-

- Your name will not be recorded.
- You have the right to refuse to answer any questions you might not want to respond to and terminate this questionnaire at any time.

Are there any questions you wish to ask before?

Influence of Groundnut Commodity Association membership the socioeconomic status of women farmers in Mt Darwin District, Zimbabwe

SECTION A: PARTICIPANT PERSONAL DATA

1. Age: 1 = 18-30; 2= 31-40; 3= 41-60; 4= 60+ ☐

2. Marital status: 1= Single; 2= Married; 3= Widow; 4= Divorced ☐

3. How many dependents to you have : 1= 1-3; 2=3-6 3=7-10 4= more tha ☐

4. Highest level of education: 1= No formal education; 2= Primary education;
   3= Secondary education; 4= Tertiary education ☐

5. Do you own the farm where you grow the groundnuts: 1= Yes 2= No ☐

6. How long have you been growing groundnuts:

7. 1=Below 5 years; 2= 5-10years;
   3=10-20 years; 4= Above 20 years ☐

8. Occupation: 1=Formally employed; 2=Informally employed;
   3=Self-employed; 4=Not employed ☐

9. a) Are you a member of the Groundnut Commodity Association?

   1= Yes 2=No ☐

   b) If No Do you wish to join the Association?

   1= Yes 2=No ☐

10. (a) Commodity Associations is a grass root level autonomous registered body established around a single enterprise or a group of related enterprises to offer end to end solutions to a group of producers in order to improve production efficiency, minimize cost of production, facilitate value addition and enhance the profit margins. Do you agree with this definition?

1=Yes 2=No ☐

b) If No What is your understanding of a Commodity Associations?

.....
……

SECTION B: ACTIVITIES UNDERTAKEN BY COMMODITY ASSOCIATION MEMBERS

11. (a)In your opinion, what are the main activities undertaken by Commodity Association members? (Identify activities you think should be done by the Commodity Association)

    1. Organising and registration of groundnut producer farmers in preparation of the Season.
    2. Facilitating training of registered member farmers on Groundnut production.
    3. Bulk procurement of Inputs such as seed and fertilizers.
    4. Assisting farmers in adherence to Harvest and Post-Harvest handling processes and standards.
    5. Organising aggregation of produce at selected sites in preparation for marketing.
    6. Provision of information to members.
    7. Dispute resolution amongst value chain actors.
    8. Advising on recommended value addition processes to the produce brought by farmers.
    9. Facilitating Credit –line linkages for members.
    10. Others (specify)……

……..

……..

(List down codes of identified activities)

(b) Which of the activities you identified in (a) benefit members of Groundnut Commodity Association in your area?

---

12. (a) Does the Association have any special arrangements to guarantee quality of produce?

1-Yes 2-No ☐

(b) If yes, specify?..……

---

13. (a)Does the Association allow non-members to participate in their activities?

1-Yes 2-No ☐

(b)If yes what activities are allowed non-members to participate?

…….

SECTION C: KNOWLEDGE GAPS FOR MEMBERS AND NON MEMBERS OF COMMODITY ASSOCIATIONS

14. Where did you get information about the groundnut value chain?

1-TV 2-Radio 3-Internet 4-Newspaper ☐

15. How often do you receive updates on groundnut value chain?

1-Hourly 2-Daily 3-weekly 4-Yearly ☐

16. Have you participated in trainings related to Commodity Association?

1-Seminars 2-Workshops 3-Meetings 4-Public lectures 5-Others……. ☐

17. Indicate if you have information on the following:

		YES	NO
a	Field practises (Land Preparation, Planting, Soil Nutrition Management)		
b	Inputs (Suppliers, Recommended inputs)		
C	Climate Smart Technologies (Conservation Agriculture, Drought Tolerant varieties)		
C	Pests and Disease Management		
d	Harvesting and Post-harvesting Practises (Maturity Indices, A-Frame, Mandela Cork)		
e	Market Information (Market Actors, Prevailing Practices, Quality Standard,		
F	Value addition (Processing e.g. Shelling, Peanut Butter Making, Roasting)		
G	Labor Saving Technologies (Use of Planters, Shellers)		

SECTION D: SOCIO-ECONOMIC FACTORS AFFECTING WOMEN FARMERS IN THE GROOUNDNUT COMMODITY ASSOCIATION

17. Table below shows some socio-economic aspects affecting women farmers in the Groundnut Commodity association.

a) In your opinion, which aspects are addressed in the groundnut commodity association? Answer Yes or No.

b) On a scale of 1 to 5 (1 being least and 5 being most), rank the aspects according to the level at which it is being addressed.

	Socioeconomic factors affecting women groundnut farmers	Yes	No	Rank (1 being least and 5 being most),

1	Access to extension and advisory services			
2	Access to credit			
3	Processing and storage of groundnuts			
4	Access to productivity enhancing inputs			
5	Access to markets and market information			
6	Others (specify)			

18. In your opinion, can you attribute the following to the existence of Groundnut Commodity Association,

19.

a) 1= Yes 2=No

b) State how?

	Contribution	Yes	No	State how ?
1	Increased annual income,			
2	Improved employment generation			
3	Improved the farmers' social status			

4	Improvement of production and productivity			
5	Improved food security			
6	More women taking leadership positions in the Association			
7	Enhanced financial literacy			

(List down all codes for positive factors brought by GCA)

20. Do you earn an income from Groundnuts 1= Yes 2=No ☐

20. What is your net annual income range from sale of groundnuts and value added products? *(Tick appropriate answer)*

Less than USD$50	
USD$51 – USD$100	
USD$101- USD$200	
More that USD$201	

Thank you