

Livelihood contributions and gender empowerment from Marula projects in Matobo District in Zimbabwe.

By

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DECLARATION

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ABSTRACT

The study investigated the livelihoods contributions and gender empowerment from marula project in Matobo District in Zimbabwe. Marula projects are amongst a broad spectrum of Non-Wood Forest Products (NWFPs), and they constitute a vital component of human survival as they provide an alternative to livelihood sources. The study therefore sought to establish how the projects were contributing to the livelihoods and gender empowerment of local communities within the District. The study adopted a mixed research design which took the form of a triangulation approach. The study was carried out in Ward 16 which was purposively sampled from the 25 Wards that constitute Matobo District. Ward 16 was preferred because it had a dense population of marula tree species compared to other wards. Within the Ward, the study purposively sampled three villages namely: Silozwane, Tombo and Shazhabukwa, because of their active involvement in Marula projects. Data was collected through focus group discussions, key informant interviews and participant observation. Collected data was analysed using a side by side approach, which is a method for analysing data for mixed design studies. The findings were presented on an objective by objective basis. The findings from the first objective indicated that communities in Matobo District did not have a core livelihood strategy since their livelihoods were diversified and seasonally based. Findings from the second objective affirmed the effectiveness of marula projects as a livelihood strategy in Matobo District. The findings indicated that marula projects were compatible to other livelihoods within the district. Furthermore, the findings indicated that marula projects positively contributed to household income and wellbeing of the participating household farmers. Findings from the third objective established a correlation between marula projects and gender empowerment. The findings indicated that marula projecthave redefined the breadwinner concept as women who have traditionally depended on their husbands for livelihoodwere now economically empowered to put bread and butter on the table. This is a land mark finding which chronicles the significance of marula projects on gender empowerment. Findings from the fourth objective indicated that although the marula projects were effective as a livelihood strategy and also as a gender empowerment tool, the projects faced a plethora of challenges which needed to be redressed in order for the projects to be sustainable. Suggested solutions to the identified challenges were proffered. The study winded up by provoking future reseachers to establish the feasibility of NWFPs in creating lasting opportunities for rural livelihood enhancement.

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DEDICATION

This work in every sense of it is dedicated to my family who have been a steadfast foundation of my life. Your unshakable determination, commitment and support have made this work possible.

Together we have achieved.

ACRONYMS

NWFPs	Non Wood Forest Products
NTFPs	Non Timber Forest Products
FAO	Food and Agricultural Organisation
WHO	World Health Organisation
UNDP	United Nations Development Programme
ICRA	International Center for Development Oriented
SLF	Research in Agriculture Sustainable Livelihood Framework

TABLE OF CONTENTS

RELEAS	E FORM	i
DECLAR	ATION	ii
ABSTRA	СТ	iii
ACKNO	NLEDGEMENTS	iv
DEDICA	τιον	v
ACRON	/MS	vi
TABLE C	OF CONTENTS	vii
LIST OF	TABLES	x
LIST OF	FIGURES	xi
CHAPTE	R ONE: INTRODUCTION AND BACKGROUND	1
1.1	Introduction	1
1.2	Background to the study	2
1.3	Statement of the problem	4
1.4	Research objectives	5
1.5	The research question	5
1.5.1	Sub research questions	5
1.6	The hypothesis	6
1.7	Justification of the study	6
1.8	The conceptual framework	7
1.9	Delimitations of the study	8
1.10	Organisation of the study	9
1.11	Chapter summary	10
CHAPTE	R TWO: LITERARATURE REVIEW	11
2.1	Introduction action	11
2.2	Understanding livelihoods	11
2.2	The ecological profile of the Marula tree species (Sclerocarya birrea)	13
2.3	The significance of Marula tree products to communities in Zimbabwe	15
2.3	.1 Overview of the uses of marula products in Zimbabwe	16
2.4	Global studies on the contributions of Non-Wood Forest Products on livelihoods	19
2.5	The role of Non-Wood Forest Products enterprises on rural livelihoods	20
2.6	The role of Non-Wood Forest Products on gender empowerment	23
2.7	Chapter summary	

CHAF	PTER T	HREE: THE RESEARCH METHODLOGY	27
3.1	L Ir	ntroduction	27
3.2	<u>2</u> T	he research design	27
3.3	8 P	ositioning the research approach	28
3.4	ĻТ	he description of the study area and ward sampling	30
3.5	5 Т	he research population	32
3.6	5 Т	he studied Sample	33
3.7	7 R	esearch instrument for data collection	34
	3.7.1	The development of data collection instrument	35
3.8	8 V	alidity and practicability of the research instruments	36
3.9) E	thical consideration	37
3.1	L0 D	ata collection process	38
	3.10.1	Focus group discussions	38
	3.10.2	Key informant Interviews	40
3.1	L0.3	Participant observation	40
3.1	L1 D	ata analysis and presentation	41
3.1	12	The field work experience	41
3.1	L3 R	esearch limitations	43
3.1	L5 C	hapter summary	44
CHAF	PTER F	OUR: PRESENATION AND DISCUSSION OF THE FINDINGS	45
4.1	L Ir	ntroduction	45
4.2	<u>2</u> T	he demographic characteristics of the research participants	46
4.3	B 0	bjective1: Assessing the livelihoods situation in Matobo	47
4.4	4 O	bjective 2: The effectiveness of marula projects as a livelihood strategy in Matobo District	51
	4.4.1	Compatibility of marula projects with other livelihoods	51
	4.4.2	The contributions of marula projects to household income and wellbeing	53
	4.4.3	The role of marula projects in strengthened links between community groups	57
	4.4.4	Objective three: The contributions of marula projects to gender empowerment	59
4.5	5 C	bjective four: Strategies for enhancing the performance of marula projects	63
	4.5.1	Lack of markets	63
	4.5.2	Lack of processing center and storage facilities	64
	4.5.3	Kernel cracking machine	64
	4.5.4	Oil pressing machine	65

4.5.5	5 Lack of packaging material and labels	65
4.5.6	6 Lack of technical expertise	66
4.6	Chapter summary	67
5.1	Introduction	68
5.2	Summary of the findings	68
5.3	Conclusions	70
5.4	Recommendations	71
5.4.1	1 Venturing into agro based livelihoods	71
5.4.2	2 Intensifying livelihood promotion	72
5.4.3	3 Creating access to markets	72
5.4.4	4 Establishing and processing center	72
5.4.5	5 Going into partnerships with regional marula projects	73
5.4.5	5 Recommendations for further studies	73
REFERE	ENCES	74

LIST OF TABLES

Table 2.1. Uses of marula tree products by Households in Zimbabwe	17
Table 4.1: Livelihood Wealth Ranking Table	49
Table 4.2: Cost structure of marula products produced by Sweet Valley Natural Products	55

LIST OF FIGURES

Figure 1.1: The Sustainable Livelihoods Framework	7
Figure 2.1: Images of the Marula tree species with raw and ripen marula fruits	15
Figure 3.1:Location of Matobo district in matabelaland South Province	
Figure 4.1: The livelihood situation in Matobo District	
Figure 4.2: The contributions of marula projects to gender empowerment	62

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 Introduction

The study investigates the livelihood contribution and gender empowerment from marula projects in Matobo District in Matabeleland South Province in Zimbabwe. Marula projects are amongst a broad spectrum of Non-Wood Forest Products (NWFPs) and they constitute an important component of the livelihood of forest-dwellers and rural communities in Zimbabwe and beyond. A variety of NWFPs according to Agustino et al. (2011) are used directly or as supplements of food, and they involve among others, honey, mushrooms, fruits, nuts, tubers, bush meat, medicine and small stems, poles and sticks harvested for housing, fencing, fuel wood, and craft and furniture materials. These natural forest products resources are also very vital forhuman survival as they provide an alternative livelihood sources (Peters, 2013).

In Matabeleland South Province, community dependency on NWFPs has been fortified through the propagation of marula projects which were effected in Matobo District with the rational of reducing the multi-dimensional perspectives of rural poverty ranging from food insecurity, lack of access to knowledge and skills, poor health, and also to encourage participatory forest management. Ever since their propagation, these projects have proved to be very popular with the local communities. Despite such popularity, the nexus between the livelihood contributions and gender empowerment from marula projects is still poorly understood.

This is the reason why this study endeavors to advance knowledge on livelihood contributions and gender empowerment from marula projects in Matobo District. The study adopts a sustainable livelihoods approach which draws attention to a multiplicity of assets that people utilise when constructing their livelihoods. A stainable livelihood approach is adopted in this study so that a bird's eye view of the contributory role of marula projects on rural livelihoods and gender empowerment can be derived.

1.2 Background to the study

Since from time immemorial, man's interaction with, and dependence on forests and trees has always exclusively been centered on non-wood forest products (Agustino et al., 2011), and this has not changed for virtually all the rural communities. The interaction and dependency of man on NWFPs in Matobo District in Zimbabwe is manifested through the marula projects that were initiated in Wards12, 14 and 16. Interest in marula projects has been invigorated by the poor performance of rain fed rural agriculture in Matobo District which naturally falls under the agro-ecological regions 4 and 5, with a meager average annual rainfall of between 450 and 650mmper annum (Mtetwa, et al. 2013).

Rural agriculture according to the Netherlands Development Organisation (SNV, 2016) has always been the key livelihood activity for the majority of the predominantly (70%) rural population in Zimbabwe.However, in the recent past, Zimbabwe has been experiencing recurrent droughts, floods, crop pests and animal diseases (FAO, 2015). This has had a negative impact on the income and food security of rural communities particularly those from Matobo District which is naturally a drought prone region. To supplement the diminishing agricultural production, the Food and Agricultural Organisation (FAO) in partnership with the European Union (EU) implemented the Forest Forces' funded nature based enterprises which included bee keeping, baobab and the marula projects in draught prone districts such as Bulilima, Hwange, Lupane, Matobo, Hwedza, Mutoko, Chimanimani and Mutasa (Dube, 2015).

These projects were meant to augment the agricultural production which was adversely affected by unreliable weather patterns and also to find alternative livelihood sources. Of particular interest to this study are the marula projects which were implemented in Matobo District. The thrust of the marula projects were basically to increase the economic opportunities as well as enhancing the health and wellbeing of rural communities through the valorisation of marula tree' species products. The marula projects were also aimed at diversifying livelihood portfolios and most importantly, at enhancing the capacity of the Matobo communities to cope with adversities induced by natural shocks and hazards.

As postulated by Roy (2010), non-wood forest based enterprises such as the marula projects are a strategic means for generating forest-based economic development. They are an important pivot to livelihoods of rural communities, particularly those living in, or adjacent to dry-deciduous forests. What makes the marula projects essential to rural dwellers is that they resemble a typical copying strategy which Shackletonand Shackleton (2013) termed an "emergency net". This implies that marula projects rural communities with safety nets in times of adversity, which according to Shackletonand Shackleton (2013), is normally induced by sudden changes in the economic, social and theclimatic environments in which rural households exist and function.

The paradigm shift to forest and woodlands resources from the traditional crops and animal husbandry affirms the catalytic role of nature based enterprises in sustaining rural economies and household production. This also corroborates the notion that nature based enterprises such as the marula projects endows rural communities with viable livelihood options. As postulatedby Agustino et al. (2011), resorting to non-wood forest based enterprises to sustain rural livelihoods is crucial to poverty alleviation and sustainable rural development. This is mainly because non-wood forest enterprises constitute a critical source of income from non-farm activities and this is a vital component of rural economy. Income from non-farm activities provide a livelihood safety net during seasonal shortfalls in food and in periods of drought and other emergencies. This provides rural communities with a buffer against risks and household emergencies.

In China for instance, Pérez et al. (2004) documented that bamboo farming was a major livelihood activity for rural farmers, whilst in Ghana,Blay (2004) reported that the harvesting of *Garcinia* spp. for chewing sticks was a major income generating activityfor rural communities. Accordingly, Ndam and Marcelin (2004) reported that the living standard of rural communities in Cameron improved as a result of harvesting and trading in the products of the *Prunus Africana*tree. This was also reported by Wynberg (2004) who document that in South Africa, peri-urban women around Grahamstown and King William's Town generated cash income from harvesting the bark material of the *Cassipourea flanaganii* tree which is used for medicinal purposes. Similarly, Agustino et al. (2011) reported that in Zimbabwe, in 1991 alone, 237,000 people earned their cash income from employment in non-wood forest based enterprises compared to 16,000 employedin conventional forestry and forest industries for the same year. This affirms the pivotal role of non-wood forest based enterprises on livelihoods and sustainable rural development. When given the attention they

deserve, NWFPs can be a dependable source of remunerative rural enterprises which is a critical component that is lacking in rural communities in Zimbabwe. The implementation of marulaprojects in Matobo District was in recognition of this gesture.

As important as non-wood forest products are to farmland and rural livelihoods, an improper perception still dominate the forestry profession, that forests and trees products that do not produce timber are of low or no value. This has deprived nature based enterprise such as the marula projects for instance, from getting the heightened scientific attention they deserve. This is the reason why Ohlsson (2013), argued that NWFPs have received little attention from social scientists and development planners perhaps because of the small scale and dispersed nature of extractive activities. This is despite the fact that non-wood forest products are instrumental in providing livelihoods benefits which can either be social oreconomic, for the benefits of rural communities. Notwithstanding their widespread use by rural dwellers, their contribution to livelihood and gender empowerment still remain poorly understood. Attention by scholars such as Mirjam et al. (2003), Ninan (2006) and Warner et al. (2007) has been skewed towards establishing the relationship between harvesting these products for sustainable forest management and conservation practices whilst neglecting their instrumental role on livelihood contributions and gender empowerment.

Given man's perpetual dependence on forests and trees for survival, it is imperative to enquire how the marula projects are impacting on livelihood and gender empowerment of rural communitiesin Matobo District.Establishing this association is very important for both rural and forest management polices because of their potential role on rural development and poverty alleviation.

1.3 Statement of the problem

The marula projects are being propagated in Matobo District with relative success to livelihoods. Where these projects are successful, we do not understand whether it is due to their contributions to the livelihoods of local communities or their contributions to gender empowerment. This study therefore endeavours to establish why the marula projects are very popular with local communities in Matobo District.

1.4 Research objectives

The main objective of the study is to establish how the marula projects are contributing to the livelihood and gender empowerment of local communities in Matobo District of Matabeleland South Province. This is achieved through the following sub objectives:-

- 1. To examine the livelihoods situation in Matobo
- 2. To establish whether the marula project is an effective livelihood strategy in Matobo
- 3. To establish how the marula project is contributing to gender empowerment in Matobo
- 4. To suggest measures for further improving the performance of the marula projects in Matobo.

1.5 The research question

The flowing research question underpins the study:

What are the contributions of the marula projects to livelihoods and gender empowerment of local communities in Matobo District of Matabeleland South Province?

1.5.1 Sub research questions

The following sub research questions shall be used to answer the main research question:

- 1. What is the livelihood situation of local communities in Matobo District?
- 2. Are the marula projects effective as a livelihood strategy in Matobo?
- 3. What are the livelihoods benefits of the marula projects to local communities in Matobo?
- 4. How does marula project contribute to gender empowerment in Matobo?
- 5. What conclusions can be drawn with regards to the contributions of the marula project in livelihoods and gender empowerment?

1.6 The hypothesis

The study is conducted under the hypothesis which states that:

The marula project in Matobo is thriving because it contributes to livelihoods and gender empowerment of the local people.

1.7 Justification of the study

The implementation of NWFP's based enterprises such as the marula projects in drought prone districts in Zimbabwe has been hailed by the WHO (2010), the World Bank (2013) and FAO (2014) as a viable livelihood adaptation strategy to climate variability and poverty alleviation. However, there is still knowledge void on the contributory role of marula projects on rural livelihood and gender empowerment in Matobo District. This is attributed to the long held bias by the forestry profession that has since from time immemorial viewed NWFPs as weeds, and categorized them as "lesser known tree species".As a result, available literature has been skewed towards the principle of sustained timber production, whilst giving little regards to the instrumental role played by natural forests and non-wood products enterprises such as the marula projects on rural livelihoods and gender empowerment.

Given man's eternal dependenceon forests and trees for survival, it is imperative to enquire the livelihood contribution and gender empowerment from marula projects in Matobo District.Currently, there is scant research evidence on the extent to which the marula projects have impacted the livelihoods and gender empowerment of communities in Matobo District.

Establishing the livelihoods contributions and gender empowerment from marula projects will expose the institutional inadequacies that have rendered NWFPs to be classified under weeds and lesser known tree species. This way the potential of NWFPs on livelihoods and gender empowerment will be brought to thelimelight of modern economies, while at the same time retaining their accessibility to traditional uses. This reasoning amplifies the need for local studies on the livelihood contributions and gender empowerment from marula projects.

1.8 The conceptual framework

This study is persuaded by a Sustainable Livelihood Framework (SLF) which advocate for the view that any attempt to improve people's livelihoods should be founded on a firm understanding of the diverse range of factors and processes that constitutes their livelihoods. The framework according to Holling (1973) and Conway (1987) originated in the 1970s, from studies that sought to understand the different capabilities of rural households in coping with nature induced shocks and vulnerabilities. In this framework, household's capabilities and assets are placed at the epitome of livelihoods (Ashley and Carney, 1999).In the livelihoods framework presented in figure 1.1, the livelihood assets are also referred to as capital assets. According to Haidar (2009), these assets can either be tangible and or intangible. The key concepts underpinning the sustainable livelihoods framework are presented in figure 1.1.



Figure 1.1: The Sustainable Livelihoods Framework Source: Ashley and Carney (1999), Sustainable Livelihoods: Lessons from early experience.

The fact that Matobo District is prone to extreme weather patterns characterised by recurrent droughts which have continued to threaten the income and food security of local commutes, the SLF becomes the most ideal tool for assessinghow marula projects are affecting the capitals that underpin rural livelihood in Matobo District. The assessment is done in relation to the availability

of capital assets (natural, human, social, physical and financial), and the vulnerability context: (trends, shocks and stresses), in which these capitals or assets exist.

The relevancy of the SLF in this context is that it put more emphasis on the principal capitals that are believed by Morse and Mcnamara (2013) to be pivotal to rural livelihood. This emphasis is placed within the institutional and vulnerability contexts underpinning livelihood outcomes. The institutional context is a very important variable within the framework in that it determines household's access to capital assets. The entry point in understanding how the marula projects have contributed to the livelihood and gender empowerment of the rural communities in Matobo begins with the analysis of the context in which their livelihood exist.

As depicted in the SLF presented in figure 1.1, the vulnerability context is defined by trends, shocks, and stresses. According to Scoones and Wolmer (2003), shocks denote a more sudden pressure on livelihood. For instance, floods and droughts can adversely affect the natural capital and reduce crop yields within a short time frame. Similarly, stress denotes a long term pressure on livelihood. For example, a severe drought may impact on a wide range of capitals such as social, physical and human. Given the fact that Matobo District is characterised by perennial droughts, the SLF becomes a handy tool for understanding how the marula projects are contributing to rural households'adaptation to shocks and stresses, and also how this has impacted on gender empowerment. This is akin to Darwis et al (2015) who viewed the livelihood framework as a tool for assessing the capabilities of rural communities in coping shocks and stresses.

1.9 Delimitations of the study

This study is confined to marula projects that are being implemented in ward 16 in Matobo District. Within the ward, the study is delineated to three villages namely Silozwane, Shazhabukwa and Tombo. Although studying the entire villages in ward 16 could have given a holistic picture on the livelihood contributions and gender empowerment from marula projects, financial and logistical constraints compelled the researcher to dwarf the study to only three villages since the study was self-funded. Despite the fact that the study was conducted on a limited sample, it is still very valuable in that it studied villages that had greater involvement in marula projects.

As such, the study argues that it will still arrive at credible findings that will portray a true picture of the livelihood contribution and gender empowerment from marula projects since data will be collected from the households who were are actively involved in marula projects. On the basis of their involvement in marula projects, the study is convinced that their inputwill adequately reflect the views of the entire households within Matobo District since all the villages were participating in one way or the other, in marula projects.

1.10 Organisation of the study

This study is comprised of five chapters. Chapter one has contextualized the study by presenting its background and the problem under investigation. The chapter has laid the foundation for the entire study to take off. Chapter two reviews literature related to livelihoods and gender empowerment. The chapter is very pivotal to the study in that it provides a framework for establishing the importance of the study. It also provides a benchmark for comparing the results of the study with other findings from related studies. As a result of the reviewed literature, the study will manage to identify inherent gaps from previous studies, which then justified the current study. Chapter three will present the methodological roadmap to data collection, analysis and presentation. The chapter will lay the framework for at the research findings which are regard as the fruits of researcher's labour. The research findings and their implications to the study by summarizing and concluding it. Policy recommendations and recommendations for further studies shall also proffered in this chapter.

1.11 Chapter summary

This chapter has presented and discussed the research problem and its setting. The chapter has set the stage for the entire study to take off. This was done through presenting the background to the study, the research objectives, the research questions and the statement of the problem. The background presented indicated that although the marula projects were popular with the local communities in Matobo Districts, there were still some knowledge gapes on why these projects were popular. This led to the research problem which called for an enquiry on what makes the marula projects popular with local villagers in Matobo District, and also to establish how these projects were contributing to livelihoods and gender empowerment. The chapter also presented the conceptual framework which was based on the sustainable livelihood framework. The justification of the adopted framework was that it was best suited for providing a holistic view on how NWFPs enterprises such as the marula projects were contributing to rural livelihoods and gender empowerment in Matobo District.

CHAPTER TWO:LITERARATURE REVIEW

2.1 Introductionaction

This chapter reviews literature on non-wood forest based enterprises such as the marula projects and their intermediary role on livelihoods and gender empowerment. In order to put the discussion into context, the chapter begins by defining livelihoods. This is then followed by a brief discussion on the ecological profile and uses of the various products from marula tree species (*Sclerocarya birrea*). The contributions of marula projects on rural livelihoods and gender empowerment is also extensively reviewed. The chapter is very fundamental to the study in that it links it to the previous scholarly arguments on non-wood forest based enterprises, livelihoods and gender empowerment. The general understanding derived from the reviewed literature will give direction and meaning to the discussion of findings, the conclusions, and the recommendations.

2.2 Understanding livelihoods

Although the term livelihood is widely used in contemporary literature on poverty and rural development, it still lacks a universally acceptable definition. According to Chambers and Conway (1991), livelihood includes the capabilities, assets, income and activities required by people to recover from shocks and setback induced by upheavals such as natural, economic and social disasters. The United Nations Development Programme (UNDP, 2015) defines livelihood as the abilities of people to make a living by continually improving their material conditions without jeopardizing the livelihood options of the present and future generations. In unpacking the given definitions of livelihood, three dominant themes emerges. These are livelihood assets, livelihood context and livelihood strategies.

Livelihood assets:livelihood assets according to Chambers and Conway (1991), Morse and McNamara, 2013, UNDP (2015) and Darwis et al (2015),refers to a portfolio of tangible and intangible resources that give people strength to achieve positive livelihood outcomes. Tangible assets refers to natural capital such as land, soil, water, forest, minerals etc, whilst the physical capital refers to infrastructure such as roads, water and sanitation, schools, livestock, tools and equipment (Darwis et al, 2015). Intangible assets refers to nonphysical wealth such as human

capital (*skills, health and ability to work*) and social capital (*all forms of social resources such as informal networks, claims one can make for food, work, and assistance as well as access to materials, information, health services and employment opportunities*) (Morse and McNamara, 2013). Assets provides a vital springboard for understanding how people adapt to vulnerabilities that threatens their livelihood. Haidar (2009) believes that in order for people to achieve positive livelihood, they need to have access to a wide range of assets.

Livelihood context: Livelihood context according to UNDP (2015) defines the manner in which social, economic and political arena impacts people's access to livelihood assets and their ability to transform them into positive livelihood outcomes. Llivelihood context according to Morley (2014), is best understood byassessing how institutions, processes and policies affect people's ability to access and use assets for favourable outcomes. These processes determine how people interact. A change in any of these processes may create new livelihood opportunities or obstacles. This also applies even to changes in the natural environment (Ohlsson, 2000). For instance, the quality and availability of land, climatic and geographic conditions have an influence on livelihood decisions.

*Livelihood strategies:*Chambers and Conway, (1992) defines a livelihood strategy as the combination of activities undertaken in an endeavour to achieve their livelihood goals. The choice of a livelihood strategy is determined by the livelihood need. These strategies vary within communities depending on their access to livelihood assets (Lykke et al., 2011).

The initial definition of livelihood which was given by Chambers and Conway (1992), was modified by Dahal (2013) who viewed a livelihood to be comprised of capabilities, assets and activities required for a means of living. What makes Dahal (2013)' definition more applealingto livelihood gurus and rural development practitioners and scholars alike, is that it put more emphasis on the links between people's assets and their activities in pursuit of alternatives to craft livelihood strategies. Dahal' definition is similar to Niehofe and Price (2001)' definition which described livelihood as a wide range of activities practiced by people to provide for their basic needs. Similarly, the International Center for Development Oriented Research in Agriculture (ICRA, 2012) defined livelihood as a means to an end, which includes the aspects of food security, health security, sustainability and the power to control one's own destiny.

Similarly, Unituslubs (2012) also defined livelihood as a concoction of activities undertaken by households to economically support their members. What can be deduced from these definitions is that livelihoods connote the means, activities, entitlements and assets by which people make a living through natural, biological, social and human means. The ICRA (2012) and Unituslubs (2012)'are adequately suited for this study because they give an indication that rural livelihoods are much more than just maximizing on crops and livestock production, and that rural livelihoods are influenced by many variables such as economic, cultural, ecological, biophysical as well as institutional. What makes their definitions even more applicable to study is that they connect very well with the conceptual framework presented in figure 1.1.

2.2 The ecological profile of the Marula tree species (*Sclerocarya birrea*)

The marula tree whose botanical name is Sclerocarya birrea is an open woodland tree species that is widely found in semi –arid deciduous savanna woodlands (Munondo, 2005, Ngorima, 2006, Magadza 2010). The species according to Shackleton (2005), Von Teichman and Robbertse (2012) is predominant in South Tropical Africa (Angola, Malawi, Mozambique, Zambia and Zimbabwe), Southern Africa (Botswana, Namibia, South Africa and Swaziland), East Tropical Africa (Kenya, Tanzania). It is also popular in Madagascar (Shackleton, 2005). The marula species is a medium sized single steamed deciduous three whose height ranges from 7-17 meters. Even though the marula tree species prefer well-drained soils, they can also do well in a wide variety of soils ranging from deep sands on granite, to basaltic clays (Lewis 1987). The marula family clan consist of more than 70 genera and 650 species (Hall et al. 20008, Palgrave, 2010, and von Teichman, 2012). Its other common clan members includes the mango, cashew nut and pistachio (Munondo, 2005).

This tree species is characterised by its dark bark which is flanked in patchy sections and this gives it a mottled appearance (Shackleton and Shackleton 2005, Ngorima 2006, and Ticktin, 2009). Its leaves are spirally arranged and crowded near the ends of the branches (Munondo, 2005, Peter 2012 and Sheona et al. 2014). Although the fruit size varies from region to region, they are roughly plumsized (Ngorima, 2006, Gumbo et al. 2011). The skin colour of the marula fruit is green and firm before ripening whilst the colour changes to thick yellow peel with a translucent whitish flesh once ripe (Ticktin, 2009, Gumbo et al. 2011, and Swaine and Lieberman, 2014).

When it comes to its preferred habitat, the marula tree species can be typically found in open deciduous savanna woodlands although the tree also has a component of semi-deciduous forest (Gumbo et al. 2011). In Zimbabwe, the marula trees are densely populated in the southern eastern part of the country which falls under the natural ecological regions IV and V (Munondo, 2005, Ngorima, 2006, Magadza 2010, Roy 2010, and Gumbo et al. 2011). The Marula species according to Tasiyepi and Mhlanga (2012) is a prolific fruit bearer which play an instrumental role in the lives of many people in Zimbabwe and beyond.

In Africa, the Marula tree species are known by various names which reflects the vernacular from where they are found. For instance its Moroela in Afrikaans (Von Teichma et al. 2012), Umganu in iSiNdebele (Magaiza, 2010, Gumbo et al. 2011), Mushomo and Mupfura in Shona (Chibaya, 2009, Ngorima, 2006 and Tasiyepi and Mhlanga, 2012), Morula in Sotho (Mensah, 2014), Marula, Maroola and Cidar tree in English (Shackleton et al., 2005), Mfula in ChiChewa (Swaine etal. 2014), and Mufulain Venda (Munondo, 2005).

The Marula species are very significant to African communities because of their nutritional, medicinal, spiritual and cultural role, (Munondo, 2005, and Ticktin 2009). As a result, the species is surrounded by many societal norms, values and beliefs across the African continent (Mukamuri and Kozanayi, 1999, Madzara and Siamachira 2003). This ranks the Marula species amongst the most valued trees in many African communities to the extent that cutting the tree down is a taboo in most rural communities. In Botswana, Tanzania, Kenya, Mozambique, and Namibia and indeed in some parts of Zimbabwe, permission should be sought from the chief first, before the Marula tree can be cut down (Mojeremane and Tshwenyane, 2010). This shows that the marula tree species is a wonder tree which is governed by different tenure systems, access rights, and levels of protection. The images of the marula three species and its fruits are presented in figure 2.1 overleaf.



Figure 2.1: Images of the Marula tree species withraw and ripenmarula fruits

2.3 The significance of Marula tree products to communities in Zimbabwe

The marula species have also been linked to various commercial enterprises in most parts of the country (Madzara and Siamachira, 2003). For instance Manjengwa et al. (2012) documented that apart from being consumed fresh, the marula fruits form the basis for several alcoholic beverages, including *mukumbi*, and the commercially produced Amarula. Evidence of marula beer brewing according to Dlamini (2011), dates as far back as 9000 BC after the discovery of piles of marula kernels in Matopos Hills in Zimbabwe.Oil from the marula kernels has traditionally been used as culinary oil, cosmetic oil and meat preservative.

The significance of non-wood forest resources on rural communities in Zimbabwe was amplified by Mapfumo (2011) who reported that edible wild fruits contributed twenty to forty percent (20-40%) of small holder farmer's energy intake in Wedza District. This view was corroborated by Manjengwa et al. (2012) who postulated that in times of famine, marula fruits were used to make porridge which has high nutritional value. Similarly, Sheona et al., (2014) found marula fruits to be highly endowed with vitamin C, whilst the delicious kernels are rich in protein. Wynberg et al.

(2003) also found a high endowment of iron, calcium, copper, zinc, thiamine and nicotinic acid from marula fruits. In line with the aforesaid, Magaiza, (2010) averred that the rural communities in Mwenezi, Bulilima-Mangwe, parts of Zvishavane, Hwange andMatobo were actively involved in theprocessing of the marula fruits into a lot of useful products. Similarly, Shackleton et al., (2005) repotted that 98% of the rural households in Mberengwa were actively involved in kernel extraction and consumption.

In affirming the significance of marula species to rural communities in Zimbabwe, Munondo (2005), pointed out that several cultures around the country have specific beliefs and ceremonies tied around the marula tree species. This had long been established by Cunningham and Davis (1997) when they documented that marula beer played a unifying role in most communities in south-eastern Africa because of its social and traditional function. Accordingly, Dlamini (2011) chronicles that the marula beer is instrumental to the culture and spirituality of rural communities. This is what made Shackleton et al., (2005), Ngorima, (2006), Ticktin, (2009) as well as Swaine and Lieberman (2014) concur that various rituals and traditions associated with the marula fruits and beer are the pivot of social cohesion and maintenance of societal standards since they provide some form of social insurance to communal communities.

2.3.1 Overview of the uses of marula products in Zimbabwe

The marula tree is amongst the most important tree species compared to other indigenous fruit bearing trees in Zimbabwe.Whilst most indigenous fruit trees offer fruits and perhaps a very few other uses, Botelle (2001),postulated that virtually anything and everything from marula tree species can be used. This could be the reason why Petje (2008) averred that marula tree is a keystone species to both plants and animal ecology and productivity. This is what makes the marula tree to be rated amongst the most important indigenous fruittree species in Sub Saharan Africa in general, and in Zimbabwe in particular.Shackleton et al., (2000) and Mapfumo(2011) found the marula tree species to be widely used by Zimbabwean rural populations in which it is found.

This corroborates the assertions of Botelle (2001) who proclaimed that the wild plant resources play a pivotal role in coping with drought and marginal agricultural production for most rural communities.Mapfumo (2011) found marula fruits instrumental in maintaining the nutritional intake among children.Marula kernels were also reported by Munondo (2005) as a major source of food for elderly people unable to cultivate large fields.Table 2.1 present a list of the popular uses of the marula species resources by communal households in Zimbabwe.

Marula Tree	Products	Uses of Marula Products
Resources		
Fruits	 Fruits Beer/wine/Juice Jam Manure Skin of the fruit Traditional medicine Coffee from dried fruit skins Traditional medicine 	 Eating A high source of vitamin C Prevention of malaria Improving soil fertility Fostering social cohesion Delicious bread spread Fresh fruit juice is used to: i- treat wounds ii- Cure skin rushes iii- Cure boils Coffee
Kernels	 Culinary oil Cosmetic oil Food additives Rattles and Necklaces Traditional medicine 	 Cooking, backing, frying, food preparation and flavouring. Promoting healthy skin and hairs. Cake as animal feed Cure babies suffering from painful or swollen eyes. Meat perseverative
Wood/Branches	 Carvings Utensils Fire wood Cattle yoke Pols Devine dice 	 Art, aesthetic, curios Excellent kitchen utensils Cooking, heating, warming Fencing, roofing trusses, building poles Cultural and spiritual symbols
Bark	 Dye Rope/fiber Medicinal powder 	 Dyeing fabrics, paintings and artifacts Roofing and weaving mates and baskets treatment of ulcers, detoxification, malaria Treatment of:- Malaria, dysentery, diarrhea, scorpion stings and snake bites; Powder is used to tighten

Table 2.1. Uses of marula tree products by Households in Zimbabwe

Marula Tree	Products	Uses of Marula Products
Resources		
		women's virginal walls and increase virginal temperature
Leaves	 Animal feed Natural fertilizer Traditional medicine Relish 	 Nutritional feed for goats and cattle Fertilizer for their fields Treatment of burns and abscesses Eaten to relieve heartburn. Relish in food Dressing for burns and wounds
Roots	RootsTraditional medina	 Treatment of coughs, colds Treatment of Goat diarrhea used to make a traditional marula brandy Treatment of malaria Treatment of heavy menstruation, Bilharzia and gonorrhea

Source: Own conception

The uses of the marula tree resources presented in table 2.1 is not exhaustive, as each and every part of the tree has wide uses. However, the general observation of the table depicts a wide use of marula tree resources ranging from ecological, social to pharmacological. This is what makes the tree species pivotal to livelihoods of rural communities from where it is found. The species according to Mensah (2014) is a critical source of non-farm income which is currently estimated to account for about 40-45% of the average African and Asian rural household respectively. Apart from the nutritional and medicinal value, rural households can harvest the marula fruits trade them for wine, beer, juice and oil production. The cash income generated can make an important contribution to food, education and health (FAO, 2009).

Furthermore, the cash income generated from trading in marula products can be good sources of household recognition and self-esteem. McGregor (2007) and Obiri et al. (2011) alluded that cash income from marula products has the potential for improving the self-confidence and household status of rural dwellers. Since the gathering and trading in marula fruits has since from time immemorial been labeled a feminine activity, it is befitting to allude that commercially trading in

marula tree resources is catalytic to the economic emancipation of woman and children. This is what makes the marula tree resources a critical staircase to gender empowerment.

The conclusion that can be drawn from the uses of the marula presented in table 2.1 is that the species serve as a safety net to rural households in that it provides rural dwellers with a lot of options that can be used to prevent them from falling deeper into poverty, whilst at the same time reducing their vulnerability to natural and economic adversities. This according to FAO (2009) is very critical particularly in times of crisis and unusual need. Thus why why Vongkhamsao (2013), Chandrasekharan (2015), and Mohammed (2015) averred that the existence of marula tree species are crucial for human survival, particularly in rural communities since it has multiple uses ranging from pharmacological, economic, social and ecological.

2.4 Global studies on the contributions of Non-Wood Forest Products on livelihoods

The dependency of rural livelihoods on NWFPsin meeting their basic survival needs is not only peculiar to Zimbabwe (FAO, 1992). These products according to Alemu (2013) have played an instrumental role on the sustenance and safety-net in the rural economy since time immoral.

NWFPs according to FAO (2009) are comprised of a wide range of forest goods (and services), which have different sources, characteristics and uses.Poffenberger (2006) opined that irrespective of the globalization of the World's economy, non-wood forest products have remained an important source of income for millions of rural livelihoods the world over.Andel (2015) cited a plethora of global studies documented buy IFAD (2007), UNDP (2009), ODI (2009) CPRC (2011) the World Bank (2012), FAO (2013), Oxfam (2013), and WFP (2013) whose findings concurred that NWFPs such as marula, wild mushroom, honey, baobab and edible insects and worms are instrumental in supporting rural livelihoods and food security in many developing countries.Thus, the utelisation of NWFPs resources significantly contribute to rural household's small scale enterprises and thus collectively make substantial contributions to rural household economies.

Studies conducted in British Colombia by Wills and Lipsey (2010) reported that the harvest of wild mushrooms, floral greens and other products resulted in the employment of more than 32000 people

on a seasonal or full-time basis. Similar studies by Grimes et al. (2011) also concluded that if NWFPs could be exploited sustainably, they would contribute to about 77 % to the annual net returns for rural dwellers in Sub Saharan Africa. This implies that NWFPs are the pivot of rural economy. This was also confirmed by Sunderland et al. (1999) whose studies found a symbiotic association between NWFPs and the sustainability of rural livelihoods.

Heightened global interest on NWFPs according to Alemu (2013),Vongkhamsao (2013),Mohammed (2015) andChandrasekharan (2015) is not only because of the role they play in improving rural livelihoods, but also because their harvesting is more ecologically benign compared to timber. Thus, ensuring a sustainable forest resources management.

2.5 The role of Non-Wood Forest Products enterprises on rural livelihoods

NWFPs enterprises such as the marula project, honey production and the baobab fruit processing are instrumental in enhancing the resilience of rural communities to social and environmental threats (Chitave et al., 2016). As climate variability and ecosystem degradation continue to affect the performance of rain fed agriculture, which is the pivot of rural livelihood of over two (2) billion people globally, Ndoye (2004), Mukul, (2007), Chibaya (2009) and FAO (2012), NWFPs offer a livelihood alternativeparticularly to isolated rural dwellers.

In the face of the current economic hardship, the scourge of HIV/AIDS, increasing rates of unemployment and mass retrenchments in Sub Saharan Africa in general, and Zimbabwe in particular, Shackleton (2004) noted that the poorest people are increasingly turning to nature based projects as buffer zones to their livelihood needs. According to Sghosal (2010), natural forest and trees based enterprises such as the marula projects offer a good alternative source of non-financial benefits that are key to reducing vulnerability and improving the quality of life of the individuals and families concerned.

This reasoning was further amplified by Nyoni, (2015), who found marula projects to be very instrumental in reducing communityvulnerability to environmental and economic shocks. Indeed, in most rural communities in the southern hemisphere of Africa, trading in wild products is the most

popular option available for income generation. In Swaziland for instance, UND (2015) documented that more than 2,400 rural women were earning a living through selling various products from the marula tree species. This tallies with the assertions of Agustino et al. (2011) who found rural communities to be more dependent on NWFPs for their livelihoods.

The major milestones of marula projects on rural livelihoods is that they enhance theiropportunity for earning cash income, satisfying their household needs for medicine, shelter, and other household goods, and also for obtaining supplementary foods (Agustino et al., 2011). What makes NWFPs instrumental in rural livelihoods is that the linkages between the forestry and rural dwellers is traditional, and as such, they are ecologically and economically inseparable from each other. This therefore makes the dependency of rural communities on forest resources historic and cultural to the extent that they constitute an integral component of the forest ecosystem.

Furthermore, NWFPs based enterprises such as the marula projects are critical to rural livelihoods in that they provide avenues for rural employment. They provide a critical source of continued and seasonal employment. In economic terms, Chikamai and Tchatat, (2004) averred that they significantly contributed to economic growth and international trade. A case to note in this instance, arethe Swazi cosmetics which Hall et al. (2015) and UND (2015) stated that they received a tremendous recognition and acceptance in international markets as far as Europe. In South Africa for instance, Shackleton et al., (2011) reported that between 400 and 500 NWFPs are sold in the country and sub-region for traditional medicines.

In India alone, Olaniyi et al. (2013), reported that more than 50 million people depended on NWFPs for daily subsistence and cash income. Documented studies conducted in six communities in Tanzania concluded that communal farmers derived up to 58% of their cash income from trading in NWFPs such as wild vegetables, wild fruits, honey, fuel hood and charcoal (CIFOR, 1999). This trend was also reported by Muzayen (2009) who stated that the majority of the rural communities in South West Ethiopia depended on forest as their major source of livelihood and subsistence, because the forest provided them with a variety of NWFPs.

Agustino et al., (2011) emphasised the pivotal role of NWFPs in bridging rural livelihoods by stating that they substantially contribute to household food security and family nutrition by supplementing family diets. A variety NWFPs are also used by isolated rural communities as treatments and prevention of various ailments (Tieguhong et al., 2009). These products are also a valuable source of livelihood to various vulnerable groups who reside within and around forests (Olaniyi et al., 2013). In Botswana, Namibia, some parts of South Africa and Zimbabwe, Agustino et al., (2011) profiled the extraction of the Kalahari plant known as devil's claw (*Harpagophytum* spp.) as instrumental to the survival of rural communities with limited livelihood options.

Apart from the widely researched Marula, Baobab and Manketti fruits (FAO, 2014), rural communities in Zimbabwe also utelise a wide range of wild fruits for household consumption and commercial purposes. Goredema (2013) profiled a plethora of wild fruits that are foraged by rural and farmland communities for subsistence and commercial purposes in Zimbabwe. These includes among others,Nyii/Umnyi (Berchemia discolor), Mazhanje/Amahobobo (Uapaca kirkiana), Masawu/amasawu (Ziziphus mauritiana), Tsubvu/Umtshwankela, (Vitez mombassae), Matohwe/ Uxakuxaku, (Azanza garckeana), and Hacha/Umkhuna (Parinari curatellifolia). Over and above these wild fruits products, the livelihoods of most rural communities from districts such as Gwanda, Matobo, Bulilima and Mangwein Matabeleland South Province revolves around gathering and packaging of edible caterpillars known as Amacimbi/Madora (Nyoni, 2015). This affirms the reasoning that natural forests and treesproducts offer a perfect substitute of chronic agricultural crop failures and other contingencies.

Further to this, NWFPs offer important dietary supplements to households, particularly in the context of recurrent epidemics such as sugar diabetes, high blood pressure, asthma, and the depleted micronutrient status, which according to Enwonwu and Warren (2001) is believed to fuel the progression from human immunodeficiency virus (HIV) to Acquired Immune Deficiency Syndrome (AIDS). Agustino et al., (2011) documented that the use of medicinal herbs treating and preventing diseases does not only improve the biological utilisation, but also improveshousehold nutrition. For instance, dried Mopane worms were reported by Ghazoul (2006) to have a high protein content with 85.8% dry weight crude protein content and 53.3% dry digestible protein. The same can be said of

marula fruits and kernels who are also reported to high content of protein and other minerals essential for health human survival.

On the social side, the consumption of various NWFPs is critical cohesion and social capital in rural communities. For instance, mukumbi beer is believed to fortify the social ties of local communities because it is mostly tied to cultural values (FAO, 2015). In Matabeleland South Province in Zimbabwe for instance, women harvest the fresh back of the marula tree species and sock it in a bowel of water. They then pour that water in a bath tub or dish and sit in the water whilst enduring the itchy sensation from their reproductive organs. The belief around this practice is that the water will tighten the virginal walls whilst at the same time increasing its temperature. This is done to increase sexual pleasure which is very important for preserving marriages.

From the aforesaid, it can be argued that NWFPs are receiving heightened interest as instruments for achieving sustainable rural development and social change because their uses and value is much more than just meeting the basic needs of rural communities.

2.6 The role of Non-Wood Forest Products on gender empowerment

NWFPs have since from time immemorial continued to form a significant part of women's work and responsibility (Shackleton et al., 2011), and their everyday gathering has always been a women domain (Agustino et al. (2011). The involvement of man in the harvesting and trading in forest resources has mostly been confined to less frequently used products such as timber, fencing poles, honey and bush meatpartly because they are procured deep in the forest(Chabala, 2011),and partly because they are traded at more value (Shackleton et al., 2011).Products such asfood, fuel, tubers, medicines and craft martials which are frequently consumed at household level (Agustino et al. (2011),which also do not require much physical labour (Shackleton et al., 2011), have always fallen within the domainof women (Hecht, 2007).

In this view, it can be argued that forest use has always remained a gendered dimension, which according to Neumann and Hirsch (2000) may equally be transferred to the commercial trading in forest products. However, Shackleton et al., (2011) reiterated that it was only at the turn of the

21stcentury that the catalystic role of NWFPs on gender empowerment and economic emancipation of women has gained meaningful recognition. For this reason, NWFPs have received tremendous attention and widespread promotion as tools for enhancing gender equity and women empowerment, by agencies interested in promoting gender equity, poverty alleviation and sustainable rural development. What makes NWFPs catalystic to gender empowerment according to Chabala (2004), Gausset et al. (2005), Elmhirst and Resurreccion (2008), and Adedayo et al. (2010) is that unlike productive resources such as land, trees and natural mineral which are often restricted by cultural tradition, women's access to non-wood forest resources is immune to cultural and social barriers.

Accordingly, Carr (2008) postulated that the active involvement of rural women in nature based enterprises such as the marula, baobab and mopane worm projects has redefined their status in rural and economic development discourse. In Swaziland for instance, UNDP (2015) documented that women were earning a living through selling seed kernels, and producing a wide range of cosmetic products such as beauty soaps, skin nourishing oils and lotions form marula. As a result, Mulenga et al (2011) averred that commercially trading in marula products has leveraged the Swazi women's access to socio-economic resources and opportunities. Similarly, Lemenih et al. (2010), documented that during the dry season, Somali woman gathered and sold gums and resins, and this contributed to about a third of the cash income of Somali pastoralists in South Eastern Ethiopia. This can also be said of Zimbabwean women, particularly from Gwanda, Khezi, Plumtree and Matobo Districts whose marula and mopane worm enterprises have tremendously ushered their socio economic emancipation.

This is the reason why Shackleton et al. (2011) reiterated that trading in marula products such as beer, culinary oil, dye, pulp and cosmetics has stimulated the socio-economic emancipation of women in isolated rural communities, through employment creation, petty trading and home-based income generation. As a result, women are beginning to enjoy greater economic inclusion characterisedby access to own independent source of income. As such, it can be reiterated that improving women's access to own independent sources of income enables them to transform their choices into desired actions and outcomes (Majoor and Manders (2009). This according to UNFPA (2010) is critical for promoting gender equality and redressing power imbalances since
access to own independent financial sources gives rural women more autonomy to manage their own lives both within and outside the home.

This was also expressed by Magaiza (2010), who stated that women who participated in the marula project in Bulilima- Mangwe, in Matabeleland South province hailed the project for unlocking their financial potential and also for enhancing their social inclusion. Similar sentiments were also recorded by Monondo (2005)who stated the as a result of trading in marula products such as mkumbi beer, kennel extraction, homemade dye, marula jam, as well as rattles and necklaces, the social inclusion and financial liberty of Mwenezi women increased. As a result, these woman have managed to acquire household property and some have even bought small ruminant livestock such as goats. This is particularly impotent for the emancipation of women particularly in the context of high unemployment rates in Zimbabwe which has widened the gap between the rich and the poor, and also in the context of deepening of rural poverty and the scourge of HIV/AIDS. In South Africa for instance, Shackleton et al. (2008) reported that due to growing economic hardships and the impacts of HIV/AIDS, country side women of all ages have resorted to trading in NWFPs to generate income used to reduce their vulnerability.

Monondo (2005), Magaiza (2010) and Shackleton et al. (2011) concurred that when women control their own sources of income, they often invest it in the good of the household through purchasing food, household goods and also paying school fees for their children. Other benefits of NWFPs on gender empowerment according to Carr (2008) and Shackleton et al. (2011)includes usheringwomen's social capital by enhancing their social networks often beyond their immediate family and neighborhood bonds. This according to Ahenkan and Boon (2011) has the potential of influencing social change and economic order.

The United Nations (2009), found rural enterprises which are based on NWFPs such as the marula projects to have greater milestones associated for unlocking the financial potential of marginalised rural women. The UN hailed these enterprises for tremendously improving theirsense of self-worth and their access to economic opportunities and resources. This assertion was corroborated by the achievements of the Swazi women (Mulenga et al., 2011), the Bulilima-Mangwe woman (Magaiza (2010) and the Mwenezi women (Monondo (2005) whose self-worth,

community status and autonomy has improved as a result of the income generated through marula projects.

2.7 Chapter summary

This chapter has presented and discussed the literature related to NWFP resources and their impact on livelihood and gender empowerment. The NWFP resources that were under the spotlight in the reviewed literature were the marula tree species whose products such as fruits, kneels, buck, leaves and roots are usedby rural households in Matobo for various purposes. The major highlights of the reviewed literature were that the utilisation of NWFPs such as the marula, have always been integral to the survival of rural communities since from time immemorial. The marula tree species were found to be a reliable source of medicine, fuel, food, cosmetics, culinary and social engagements, and most importantly as a reliable source of livelihoods. Furthermore, the reviewed literature also gave an indication of the positive nexus between marula based enterprises and gender empowerment. The participation of women in marula projects emancipated their financial liberty and enhanced their decision making at both household and community level.

CHAPTER THREE: THE RESEARCH METHODLOGY

3.1 Introduction

This chapter provides an overall understanding of the methods and research procedures followed to investigate the livelihood contribution and gender empowerment from marula projects in Matobo District. The chapter presents the logical thinking underlying the epistemological considerations of the study. As posited by Smith (2010), fieldwork begins at home, not in the research site. By the time researchers arriveat the chosen village for data collection, they would have made a number of decisionsthat greatly influence the subsequent research. As such, the fieldwork preparations began by detailing the research design and the research philosophy. This was then followed by a detailed description of the study area and ward sampling. These constructs were critical in shaping the direction of actual data collection instruments as well as their validity and practicability are also discussed. The chapter concludes by discussing the procedures followed in analysing the collected data in order to arrive at the research findings, which Gay (2013) described as the fruits of researcher's labour.

3.2 The research design

The study adopted a mixed research design which according to Cason (2003) is defined as a research approach that integrates qualitative and quantitative techniques and concepts in a single study. Although they are endless ways of categorizing mixed designs, Creswell (2014) classified them into four broad categories namely: (i) Triangulation Design, (ii) Embedded Design (iii), Explanatory Design, and (v) Exploratory Design.

From these categories, this study adopted atriangulation design, which according to Creswell (2014) and Bentahar and Cameron (2015) entails simultaneously converging the quantitative and qualitative data collection and analysis techniques in order to provide a comprehensive analysis of the research problem. This was also concurred by Tashakkori and Teddlie (2009) who reiterated that a triangulation design is an efficient plan which involves the concurrent collection of both

qualitative and quantitative data in a single phase of the study.Reseachers often opt for triangulation designs when they are confronted with a research problem portraying the qualitative and the quantitative characteristics at the same time.Since the study investigated the livelihood contributions and gender empowerment from marula projects in Matobo District, the nature of the research problem is embedded with both the qualitative and the quantitative properties, hence it yearns for an integrative approach to thoroughly investigate it.

The livelihood contribution of marula projects can be best assessed by establishinghow the marula projects have impacted on the economic and the physical assets of households in Matobo District. This can be best assessed through quantifying the economic and physical assets such as income generated from marula projects, assets acquired using income generated from marula projects, asset ownership and savings. When it comes to assessing the contributions of marula projects on gender empowerment, social constructs such as the history and motives for engaging in marula projects, community linkages, social status, social networks, and woman autonomy need to be assessed. These constructs can be effectively addressed qualitatively, through focus group discussions (FGDs), key informant and in-depth interviews (Kii). This is what justified the preference for a triangulation design.

The underlying assumption behind a triangulation design according to Greene et al. (2014) are that it enriches our understanding of the research phenomena by providing different types of information taped from the detailed views of participants qualitatively, and scores on instruments quantitatively. A combination of these approaches in a single study yield results that holistically answers the research problem.

3.3 Positioning the research approach

Before embarking on any scientific odyssey, researchers are faced with a daunting task of choosing the most suitable methodological framework that best reflects their philosophical world view of the problem under the spotlight. This according to Subedi (2016), implies that the research endeavours of scientists reflects the orientation of their philosophical proposition. This is the reason why Oka and Show (2000) cautioned reseachers to first and for most, define their philosophical world view before embarking on any scientific enquiry so that possible confusions relating to data collection

and analysis are subverted. This confusion often emanates from the conflicting situations in paradigms (Subedi, 2016), with the positivists claiming the world to consist of objective consciousness (Saunders et al. 2009), whilst interpretivist focuses on the dominance of subjective consciousness (Ritchie and Lewis, 2013).

The epistemological assumptions of the two paradigms determine extreme positions on the issues of whether knowledge is something that can be acquired, or something that is personally experienced (Bryman, 2012). However, in the real world the two paradigms are interlinked. It is just like an egg and chicken issue (Creswell, 2011), since in reality it may not be quite possible to be an empiricist without first of all understanding the theoretical issues around the subject from which the research evidence will be gathered.

The view point adopted in this study is that it may be difficult to separate the two research approaches (positivism and interpretivism) because of the overlapping areas that bring complexity to the process of methodological selection. As such, this enquiry adopts an integrative approach which strikes a balance between positivism and interpretivism. This approach is what Subedi (2016) philosophically termed pragmatism. This approach according to Teddlie and Tashakkari (2009) is best suited when the researcher is conscious about avoiding methodological bias. The approach embraces both the objective and subjective perspectives in an endeavour to answer research questions with value free inquiry (Subedi, 2016). The pragmatic approach according to Subedi (2016) is best suited when addressing a research question which reflects a blend of positivism and interpretivismfeatures.

The research question under the spotlight in this research endeavour is "*What are the contributions of the marula projects to livelihood and gender empowerment of local communities in Matobo District of Matabeleland South Province?*" This question can be best answered using both the numerical and narrative formats since it is concerned with the unknown quantitative and qualitative aspects of a phenomenon. The numerical answers yearned for by the research question concerns the quantification of the income generated from marula projects as well as quantifying the physical and capital assets that have been acquired from the proceeds of marula projects.

The qualitative aspects on the contrary, entails the social issues which help to shape livelihood options, such as relationships between people, reciprocal arrangements, social and cultural norms and values as well as institutions that shape mutual support and assistance. In this context a pragmatism enhances the ability of the study to qualitatively interview and observe the research phenomena, whilst at the same time supplementing this process with a closed-ended items to systematically measure certain important variables identified in the reviewed literature on livelihoods and gender empowerments. This way, the understanding of the livelihood contributions and gender empowerment from marula projects in Matobo District can be expanded.

3.4 The description of the study area and ward sampling

The study was conducted in Matobo District which is one of the eight districts that constitute Matabeleland South province, which shares its provincial boundaries with Matabeleland North, Midlands and Masvingo provinces respectively. The district lies in the Southern and South Western part of Bulawayo city, which is the second largest city in Zimbabwe (Dube, 2008). Matobo District particularly shares its boarders with Bulilima, Mangwe, Gwanda and Umzingwane. Its closest border posts are Plumtree, and Masilojje which gives passage to Botswana, and the Baitbridge border post which gives passage to South Africa. The province in general and the district in particular has the lowest population density in country owing to climatic conditions and outmigration mostly to Botswana and South Africa (Dube, 2008).

The vegetationis mostly the lantana camara type of bushes with the big five tree speciesnamely Kirlia Acuminate (umvimila in the local language), Pterocpus angolensis (umvagazi, in the local language), Afzelia quazensis/ pod mahogany (umkamba in the local language), Sclerocarya birrea/marula tree (Umganu in the local language) and the Baobab (Umkhomo in the local language). The baobab is however more dominant in the southern part of the district. This type of vegetation is generally predominant in drier parts of the country, hence their density in Matobo District. The district lies in the natural ecological farming region IV and V where frequent draughts are the order of the day. Rain fed agricultural potential is very low with the exception of animal husbandry. The district is largely rural with Mapisa, Kezi and Makhasa being the nearest resemblance of urban settlements. The administration center of the entire Matobo District is

Gwanda town.Figure 3.1 present the sketch map of Matobo District with the wards where the marula projects are widespread being denoted in red dots.



Figure 3.1: Location of Matobo District in Matabelaland South Province

Matobo District is comprised of 25 wards. Within these wards, marula projects are predominantly widespread in wards 12, 14 and 16 which are marked in red dot on the areal map of the district. This is mainly because the marula tree species are densely populated in these wards. The study therefore purposively sampled ward 16 which is comprised of six villages namely: Silozwane, Shazhabukwa, Tombo, Lushumba, Gwandavale and Shumbeshava.

Ward 16 is an island which lies within Matopos National Park, formally Cecil Rhodes Matopos National Park, which is one of the World Natural Heritages in Zimbabwe. The ward is characterised by swampy areas withlantana camara bushes and the big fiveas the most dominant tree species. The

ward has a total number of 960 households, and its arable land is comprised of 7632 hectors whist its grazing land is comprised of 8883 hectares (Agritex – Matobo Data Base, 2017)

The study purposively sampled ward16 because it had more villagers participating in marula projects compared to other wards.Purposive sampling according to Teddlie and Yu (2007) entails choosing particular case units basing on a specific purpose rather than randomly. In purposive sampling, members of a sample are chosen with a 'purpose' to represent a location or type in relation to a key criterion (Ritchie and Lewis 2003).

Since the study sought to establish the livelihood contributions and gender empowerment from marula projects in Matobo District, marula projects becomes the key criterion. This means that wards that were not actively involved in marula projects did not meet the inclusion criterion. This is what justified the sampling of ward 16 which is leading the pack when it comes to involvement and participation in marula projects. According to Morse and Niehaus (2009), when purposively sampling elements for the study, researchers should ensure thatthe elements included in the study possess the key constituencies of relevance to the subject matter are covered and thatwithin each of the key criteria, some diversity is included so that the impact of the characteristic concerned can be explored. In this context, ward 16 qualified to be included in the study compared to other wards because all its villages are actively involved in marula projects at various capacities ranging from marula harvesting to processing and packaging of marula products.

3.5 The research population

The research population according to Sekaran (2010) refers to the entire collection of objects, cases or individuals that share common characteristics of interest to the researcher. A good research population according to Oosthuizen (2009) should contain all the variables of interest to the researcher. Likewise, the research population for the study was comprised of all the villages from ward 16 in Matobo District.

The uniqueness of villages from ward 16 were that they had common features and characteristic that were of interest to the researcher. These variables included among others, participating in

marula projects at various capacities as well engaging in marula projects for livelihoods. As such, they matched the criterion for inclusion in the study. Studying these villages enabled the study to get a detailed exploration and understanding of the central themes and puzzles underpinning livelihood contributions and gender empowerment from marula projects. This ensured that all key constituencies relevant to the research question were covered.

3.6 The studied Sample

Cooper and Schindler (2008), as Nani (2013) defined a studied sample to be comprised of a group of elements, objects or cases from the targeted population carefully drawn to represent that population. Their definition highlights two pertinent issues to sampling. The first one is that sampling is methodical whilst the second one is that a sample is drawn from a defined population. This entails that researchers ought to have a well-defined population from where to draw their samples, and a clearly defined sampling method.

Since this study was persuaded by a pragmatic research approach which entailed blending deductive and inductive methods of enquiry, it also followed that a mixed method sampling technique be adopted to determine the studied sample.Mixed method sampling has been defined by Collins et al. (2006) and Teddlie and Yu (2007) as the sampling technique that mixes probability and nonprobability techniques when sampling participants for the study. The reasons for combining the two is that probability sampling technique increases the external validity, whilst purposive sampling increases the transferability in selecting cases or units to be studied.

Creswell (2003), and Ritchie and Lewis (2003), singled out stratified purposive sampling and purposive random sampling as the most widely used mixed sampling strategies. Of these, the study adopted a sratified purposing sampling strategy, which is defined by Patton (2002),Ritchie and Lewis (2003), as well as Teddlie and Yu (2007) as a hybrid sampling technique whereby cases that display variation on a particular phenomenon, but each of which are fairly homogeneous are sampled so that subcasescan be compared.Patton (2002) further described stratified purposive sampling as selecting "samples within samples." In this form of sampling the researcher first of all arrange the cases of interest into stratas after which a small number of cases are selected for to be

studied intensively following the guidelines of the purposive sampling techniques (Teddlie and Yu, 2007).

Guided by this principle, the researcher arranged ward 16 villages into strata, with each village constituting a stratum, thereby resulting in 6 strata since ward 16 is comprised of 6 villages. The researcher then purposively drew three villages namely: Silozwane, Shazhabukwa and Tombo. The choice of these villages is justified by Ritchie and Lewis (2003) who stated in stratified purposive sampling, sample cases are chosen with a "purpose" to represent a location or type in relation to a key criterion. The active involvement in marula projects in this context become the qualifying key criterion.From these villages, the study carried a census on households that were members of the marula projects and earmarked them for focus group discussions and key informant interviews.These were targeted because the study considered them highly knowledgeable about the livelihood contributions from marula projects and gender empowerment because of their active participation in marula projects.

The stratified purposive sampling strategy has generated a hybrid sample that enabled the study to generate complementary database that included information that has both depth and breadth regarding the phenomenon under study. This has enabled the study to uncover and describe in detail how marula projects are contributing to livelihood and gender empowerment across the subgroups.

3.7 Research instrument for data collection

Data collection instruments according to Colton and Covert (2007) refer to various devices and tools that are used to gather factual information about a research phenomenon of interest, whilst data collection is defined by Ghauri and Gronhaug (2012) as a systematic fashion for gathering and measuring raw data from the research participants so that the research questions can be answered and evaluated. The choice of a data collection method according to Wills (2007) is influenced by the research design and the philosophical orientation of the study.

Since the study adopted a mixed research design whose philosophical world view was pragmatic, it become natural that data collection instruments reflect a blend of both qualitative and quantitative

aspects.As such, the study used an interview guidewhose research items solicited for both the numerical and non-numerical responses from the respondents. The numerical responses required the research participants to quantify assets acquired from the marula proceeds, as well as the contributions of marula projects on livelihoods. The non-numerical items solicited for social aspects of the marula projects on livelihoods and gender empowerment, such as social inclusion, social capital, and autonomy. It cannot be overemphasised that a mixed data collection instrument catered for the weakness associated with either method.

3.7.1 The development of data collection instrument

Questionnaire design according to Burns and Robert (2010) is very critical in determining the success and quality of the data gathered from the research participants. The nature or type of data that the researcher wishes to gather is what determines the design of the data gathering tool (Kothari, 2014). Since this study required data that had the qualitative and quantitative characteristics, it followed that data collection instrument reflect a blend of this characteristic.

The stages of constructing the research tool involved extensively reviewing literature with the aim of identifying pertinent issues in livelihood and gender empowerment. The structure of the reviewed literature was guided by the research objectives presented at the onset of the study. The reviewed literature directed the researcher to fundamental issues pertinent to livelihood contributions and gender empowerment from marula projects. On the aspect of livelihood contributions of marula projects, the pertinent issues that were identified were on contributions of marula tolivelihoods, whilst on the aspect of gender empowerment, the pertinent issues highlighted the socio cultural and socio economic benefits derived by men andwomen who participated in marula projects. The issues raised in the reviewed literature also positively reflected on the research items which basically sought to establish the livelihood contributions and gender empowerment from marula projects in Matobo District of Matabeleland South Province.

After identifying the major highlights pertinent to livelihood contributions and gender empowerment, the second step entailed grouping them into common subtopics which were then used to come up with themes. The third stage of the interview guide development involved reviewing research tools from similar studies that investigated livelihood contribution of NTFPs and gender empowerment. These studies were conducted by Munondo, (2005, Ngorima, (2006), Magadza (2010), Lipsey (2010), Mulenga et al. (2011) and Shackleton (2004). This was done with the rational of drawing a leaf from their data collection tools and also to ascertain that the fundamentals of what constitute a good research instrument were captured. After the researcher was satisfied that the identified issues were core to livelihood and gender empowerment from marula projects, the researcher then formulated themes which were in line with the research objectives.

This eventually resulted in an interview guide with four themes, with theme one assessing the livelihood situation of Matobo communities whilst theme two measured the effectiveness of marula projects as a livelihood strategy. Theme three measured the contributions of marula projects on gender empowerment whilst measures for improving the performance of marula projects were assessed in theme four. The statement of the problem and the theoretical framework were also very instrumental on the development of the interview guide.

3.8 Validity and practicability of the research instruments

Ensuring validity and practicability of data gathering instruments is one of the most important aspects of arriving at valid and reliable findings (Nani, 2013). This implies that researchers should always ensure that their research instruments have been subjected to the process of ensuring validity and practicability. Kothari (2010) defined validity as the extent to which a measurement instrument measures what it is intended to measure, whilst Makore-Rukuni (2001) averred that that a research instrument is practical if it is convenient, economical and interpretable.

In order to ensure the validity of the research instrument, the research items were contrasted with the research questions and the research objectives spelt out at the onset of the study. This was also followed by a through contrast of the research items with the reviewed literature and the research tool from similar studies. After that, the research instruments were subjected to a through critique by the supervisor who is a seasoned academic and social scientist and researcher. All these measures were mainly done to establish the content validity of the research instruments. To ensure the practically of the research instruments, the researcher through the guidance of the supervisor reworded the research items in a simple and straightforward language for ease of interpretation by the research participants. The research instruments were subjected to such rigorous practicability tests so that they could be convenient and easy to administer in a more economical way.

This was in line with the reasoning of Cooper and Schindler (2008) who asseted that a measuring devise should passes the convenience test for it to be easy to administer. Furthermore, its design and layout was also attuned to the research question and the research objectives.

3.9 Ethical consideration

Ethics in research according to Nani (2013) relates to major issues governing the conduct of research. According to Makore-Rukuni (2001) ethical considerations in research describe the procedures and behaviours to follow when conducting the research.Since the thrust of research is basically to promote human life and the enhancement of human worth and dignity, Resnik (2009) proffered that researchers should be bound by ethical codes of conduct that guides research. Similarly, Cooper and Schindler (2008) proffered that research ethics ensures that the research participants are not exposed to physical harm, discomfort, pain, embarrassment and or loss of privacy.

In heeding to the above caution, the study adopted the following ethical considerations. Firstly, the researcher sought for permission from Matobo Rural District Council to conduct the study. Upon getting the permission, the researcher then explained the meaning of the purpose and meaning of the research to sampled participants and asked for their consent. This was done to encourage their participation. The respondents were also informed that their participation in study was voluntary and that should they feel otherwise, they were free to abort the study. Although they did not sign a written informed consent, the fact that the study was conducted with those who participated out of their own volition entails an informed consent. According to Makore – Rukuni (2001), informed consent means that the research participants should not be coerced. They should only participate in the study after receiving full information that will enable them to decide if they could be any risks or harm associated with the study.

Secondly, the research participants were assured of their anonymity and confidentiality since their names were not required. Finally, the respondents were assured that the research findings were going to be reported accurately and that the findings would be made available to those who might need to see them. These ethical considerations were persuaded by Resnik (2009) who postulated that researches involving human subjects should be done in an honest and objective manner, integrity, competence, carefulness, openness, respect for intellectual property and confidentiality. Data collection commenced in earnest after all the ethical considerations had been fulfilled. Even during the data collection process itself, the study was always conscious of the ethical considerations.

3.10 Data collection process

Data collection according to Nani (2013) is the process of taping into respondents' views and opinions through the use of various data tools in order to solicit for information that answers the research question. It is a very important process that determines that quality of the research findings (Saunders et al. 2009). In this study, two methods of collecting primary data namely focus group discussions and key informant interviews were employed. The methods used collected both qualitative and quantitative data in line with the dictates of the mixed research design which was adopted.

3.10.1 Focus group discussions

Focus group discussions were also used as a data gathering strategy. Kumar (2011) defined a focus group discussion as an unstructured, free-flowing interview with a small group of people taking part at the same time. Initially, the study had envisaged to conduct three focus group discussions, with each of them being conducted in each of the three sampled villages. However, upon arrival on the study site, the researcher established that all the marula projects from the three villages had been merged to form one project called the Sweet Valley Natural Products. The reason to merge these projects was compelled by the fact that project membership from each of the three villages had dwindled. As such, the few farmers who had remained decided to merge and form one project named Sweet Valley Natural Products, and at the time of the study, it had a membership of 19

farmers. As a result the study had to conduct just one focus group discussion comprising of 14 participants who were farmers that constituted Sweet Valley Natural Projects.

The chairperson of the Sweet Valley Natural products was excluded from the focus group discussions since she had been listed for key informant interviews. All the participants who constituted the focus group discussion were female. This was mainly because the Sweet Valley Natural Products membership was one hundred percent (100%) female.

Restricting the focus group discussion to 14 participants was in line with Somnath (2010) who averred that a rational focus group discussion should be comprised of between 6 and 15 participants. Themes were discussed according to the structure of the interview guide. During the focus group discussions, there were some participants who were more dominant than others. The researcher from time to time interjected and encouraged everyone in the group to give their views. In order to discuss all the themes from the interview guide, the researcher carefully managed time right from the start of the discussions to end. The focus discussions lasted for of sixty (60) minutes.

During the focus group discussion, the researcher assumed the role of a moderator rather than an interviewer. The focus group discussions enabled the researcher to get real life insights and experiences of the research participants in their natural environment. This was very important in understanding the livelihood situation in Matobo, and also to shed more light on the contributions of marula projects on livelihood and gender empowerment. As a result of the focus group discussions, the study was exposed to a variety of ideas and opinions which enhanced the understanding of the research question. The focus group discussion were conducted in Ndebele which is the main language spoken in Matobo District. Conducting the group discussions in the local vernacular enabled the study to getin-depth insights to the research problem since the research participants freely expressed themselves in their own language.

After the discussions, the researcher thanked the participants and extended his gesture of gratitude, and also a zeal to have a practical feel of the Sweet valley Natural products by buying three 375milliliter bottles of kernels marula nuts which were being sold at \$ 1.00 each, three marula jam

375milliliter bottles which were sold at \$1.50 each, one 100 milliliter bottle of marula cosmetic oil which was being sold at \$3.50 and a two liter bottle of mukumbi beer which was sold at \$2.00.The researcher bought the products in order to taste them as he had never tasted such products before, and also as a strategy of bonding with the research participants.

3.10.2 Key informant Interviews

The key informant interviewswere also conducted as a primary data collection strategy. Meuser and Nagel (2007) defined key informant interviews as a dialogue conducted by the researcher with people who are well informed about a particular phenomenon being evaluated. For this study, three key informant interviews were conducted. The key informant interviewees were conducted with the councilor for ward 16, the chairperson of the Sweet Valley Natural Products, which is the dominant marula project in ward 16, and the Agritex Extension Worker for ward 16. All the key informants were females.

The key informant interviews generated rich data which enabled the study to assess whether marula projects were an effective livelihood strategy, and also whether the marula projects contributed to gender empowerment. These interviews, particularly the one conducted with the chairperson of the Sweet Valley Natural Products and the Agritex Extension worker were very useful in identifying the challenges faced by the marula projects in Matobo and the possible measures for curbing them. The councilor for ward 16 also provided invaluable information concerning access and ownership of marula projects within the district and the possible solutions for ameliorating the challenges faced by the Sweet Valley Natural Products.

The use of Key informant interviews in this study was in congruence with King (1994) who found them to very advantageous since they are comprised of respondents possessingexpert knowledge about the research question because of their role in day to day social, cultural, economic and administrative interactions with the research phenomena of interest.

3.10.3 Participant observation

The study also used participant observation method a data collection strategy. The strategy was mainly used to estimate the age range of the research participants. It was also used to observe their sex characteristics. Using this method, the researcher also observed the product and the machinery used for kernels cracking and oil pressing.

3.11 Data analysis and presentation

Data analysis according to Mataba (2015) is a pivotal part of the research process to arrive at findings, and the choice of an analysis method is determined by the research design adopted. Since the study adopted a mixed methods design, collected data were analysed using a side-by-side method. According to Creswell (2014), this method involves the researcher first of all reporting the quantitative statistical results followed by the qualitative results or themes. The basic idea is to merge both forms of data and present them concurrently.

Following the guidelines of Creswell (2014), the first stage of data analysis involved the breaking down of the quantitative data derived from the semi structured interviews. Since the statistics were minimal, they were entered in a computer using the excel programme for analysis. This was done so that graphs and tables for data presentation could be generated. This was then followed by the thematic analysis which accentuated on organizing a rich description of the data set in order to identify the recurrent and emergent themes and connecting them to the research objectives. The interpretation involved the transcribing of interviews which were arranged according to the sequence of the data collection process, ranging from semi-structured interviews, focus group discussions and key informant interviews. The analysed findings were presented thematically. The side by side data analysis and presentation catered for weaknesses associated with either approach.

3.12 The field work experience

Upon arriving at the research site for data collection, the first point of call was the Matobo Rural District Council Office for clearance and permission to conduct the study. This was on the 9th of

May 2017. Upon arrival, the researcher explained the purpose of his visit at the reception and produced the introductory letter from the University of Zimbabwe, Center for Applied Social Sciences (CASS) which confirmed that he was a Masters Student intending to conduct a study on livelihoods contributions and gender empowerment from marula projects in Matobo District.

The researcher was then directed to the office of the Social Services Director and upon arrival, the secretary to Director stated that the Director had already left for the day and that the following day he also was not coming to the office as he was going to be attending a meeting at the Gwanda Provincial Offices. As the researcher set on the chair trying to figure out what to do next, a young lady walked into the office and set over an adjacent desk and greeted the researcher and asked whether he had been assisted. The researcher once again explained the purpose of his visit and gave her his student identity card and the letter from CASS.

Upon reading the CASS letter the young lady asked a few questions about livelihoods and also why the researcher had opted to study Matobo District instead of studying districts closer to Harare. The researcher explained what livelihoods entailed and justified the choice of Matobo District over other Districts. After which the lady stated that she was a student from Lupane State University, studying towards an undergraduate degree in Development Studies, and that she was on attachment. As the conversation continued, she mentioned that she was working on her proposal on the effects of donors on community adaptation to environmental shocks. Being a finalist Masters student, the researcher explained about the topic and how the proposal should be structured and she was very excited.

After the discussion she then suggested to the secretary that they could phone the Director and explain to him about the researcher's request and find out if he could allow them to authorize the request. The researcher was asked to go outsideas they spoke to the Director over the phone, and in a few minutes, he was called and informed that the director had approved the request. They mentioned that the director told them that CASS had a good reputation in the district and that they also had an interest in marula projects that were being implemented in ward 16.Upon getting authorization, the researcher thanked them and headed for Nathisa Business Center where he had arranged for accommodation at the residence of the Agritex Extension Officer. Upon arrival at the

residence, the Extension worker explained the logistical arrangements that had been made for data collection including the costs of the vehicle that had been hired.

The following morning the researcher left for data collection together with Agricultural Extension Worker. By the time upon arrival at Silozwa Business Center for data collection, the members of the Sweet Valley Natural Products had gathered waiting for us. The Agricultural Extension Worker introduced the researcher to the councilor for ward 16, who also introduced the researcher to the members of the Sweet Valley Natural Products.

The first respondent to be interviewed was thecouncilor. However, the interviews almost failed to continue after the councilor had asked to see the copy of the approved letter by the Matobo District Council to conduct the study. The researcher had mistakenly forgotten the stamped letter at the residence and erroneously carried the unstamped copy. This did not go down well with the councilor. The situation calmed after the Agricultural Extension Worker vouched that the research was authorized and that she saw the letter, and also that the study was CASS initiated and that Professor Dzingirai was the researcher's supervisor.

The mention of CASS, and particularly Professor Dzingirai was enough to make the councilor calm down. She mentioned that she had great respect for Professor Dzingirai because he is a man of great integrity and that the marula projects he brought to ward 16 have remained the only tangible source of rural enterprise which has immensely capacitating women. She also mentioned that because of the trust she has for the Extension Officer who had accompanied me, she could not continue doubting that the study was approved. She however explained to the researcher the importance of moving around with the approval letter, of which the researcher acknowledged and sincerely apologized for the mix up, after which the interviews commenced. The experience exposed the researcher to the practicalities of gate keeping and the importance of ethical considerations during field work.

3.13 Research limitations

This research odyssey encountered a few limitations which affected the smooth flow of the field work. The study had initially planned to conduct three focus groups that is one from each of the sampled villages namely: Silozwane, Shazhabukwa and Tombo. However, the study had to conduct just one focus group discussion since the participants had merged their marula projects to come up with just one which they termed Sweet Valley Natural Products.

The other notable limitation was that the study only focused on the livelihood contributions and gender empowerment from marula projects instead of including other NWFPs such as mopani worm gathering, bee keeping, basketry weaving and craft caving which are also thriving rural enterprises in Matobo District. The fact that the study focused on farmers who were active participants on the marula projects was on its own a limitation. Widening the sample size to include even those who did not participate in marula projects could have further enriched the study by bringing an independent and neutral dimension on the role of marula projects on the contributions of marula projects on livelihoods and gender empowerment in Matobo District. Furthermore, the study could have interviewed the farmers who had pulled out of the marula projects. This was going to enhance understanding on the challenges faced by marula projects in Matobo and also to indicate on the areas of improvements. However, due to logistical constraints, this was not possible.

Irrespective of the chronicled limitations, the study managed to gather data that enriched understanding on the livelihoods contributions and gender empowerment from marula projects since the research participants were fulltime members of the marula projects and they hand firsthand on livelihood contributions and gender empowerment from marula projects.

3.15 Chapter summary.

This chapter has presented the methodological framework that guided the study. The chapter is fundamental to the entire research process in that it has laid down the road map to data collection, analysis and presentation. The chapter also made major highlights on what makes researchers to opt for a certain methodology over others. The major highlight to this debate were that although it is

documented that the choice of research design and research strategy depends on the research question that the researcher seek to answer, in reality however, researchers embark on their research odyssey with a set of preconceived ideas about how knowledge is developed and acquired. This is what determines the choice of the research design and the research methods. The chapter also discussed the study area, the reached population and sampling procedures as well as the ethical considerations. Methods of data collection, analysis and presentation were also elaborated. The chapter ended by chronicling the field work experiences of the researcher. The next chapter present a discussion of the research findings.

CHAPTER FOUR: PRESENATION AND DISCUSSION OF THE FINDINGS

4.1 Introduction

This chapter presents and discusses the research findings of the study which investigated the livelihood contributions and gender empowerment from marula projects in Matobo District. The research findings are presented in line with the research objectives which were formulated to source answers to the research problem. The analysed data was collected through key informant interviews, focus group discussions and participant observation, from Sweet Valley Natural Products, a 19 member marula project combining three villages namely: Silozwane, Shazhabukwa and Tombo, which were purposively sampled from ward 16 in Matobo District.

The focus group discussions and the key informant interviews were conducted in Ndebele, which is the main language in Matobo District. Likewise, the verbatim extracts were also presented in Ndebele. Where the English version of the extracts are presented, they will be reflecting the translation of the researcher. The extracts were quoted in the local vernacular so that their verbatim is maintained since translating them to any other language would dilute their original meaning. The collected data was analysed using a side by side technique which according to Creswell (2014) involves the researcher first of all reporting the quantitative findings followed by the qualitative results in a single study. A side by side data analysis technique is suitable for mixed methods studies that collect data blended with the qualitative and quantitative properties. In this study, the quantitative findings presented the quantifiable contributions of marula projects to livelihoods whist the qualitative findings presented the social and often intangible contributions of marula projects on livelihoods and gender empowerment. The milestones of side by side data presentation technique are that it caters for the weaknesses associated with either approach.

4.2 The demographic characteristics of the research participants

The research participants for both the focus groups discussions and key informant interviews were female. The researcher gathered this knowledge by simply observing and recording the sex composition of the participants during the focus group discussions. The participants expressed that they have been involved in the marula resources for the greater part of their lives. This is mainly because women have always been in the forefront of gathering and processing of marula fruits into various products. This finding affirms the assertions of Shackleton et al., (2011) and Agustino et al. (2011) who averred that the gathering of NWFPs such as the marula biotic resources has since from time immemorial formed a significant part of women's work and responsibility. Whilst men tended to focus more on less frequently used forest resources such as timber, fencing poles, honey and bush meat partly because they are procured deep in the forest and partly because they require a lot of physical strength to gather. The other probable reason could be that most men have emigrated to neighboring Botswana and South Africa which is a fashionable trend in Matobo District, and as a way of searching for greener pastures.

The age ranges of the female participants were approximated at within late thirties to early fifties. This trend could also be affirming the observations of Munondo (2005) who documented that elderly women were more involved in the gathering and trading of natural trees resources products compared to younger women. This could also be affirming the effects of outward migration of the youthful woman in search of greener pastures in neighboring countries. The other possible reason could be that elderly women are more knowledgeable about the various products and services that

could be derived from NWFPs, hence their active participation in the Sweet Valley Natural Products. However, the researcher did not probe the research participants for their educational attainments for ethical reasons as probing for educational qualifications would make those participants with lesser qualifications to feel inferior.

It is very important to reiterate that the characteristics of the research participants had some trends of homogeneity which is an essential component determining the effectiveness of focus group discussions. Basing on the demographic characteristics of the research participants, the study believes that they were better placed to give credible responses that truthfully reflected on the livelihood contributions and gender empowerment from marula projects in Matobo District.

4.3 **Objective1:** Assessing the livelihoods situation in Matobo

The first objective of the study investigated the livelihood situation in Matobo District. As such the interview guide that was used prompted the research participants to state the various activities they engage in, as a livelihood strategy. A composite breakdown of the responses gathered from the key informants and the focus group discussions revealed thatthe livelihood situation in Matobo District are diversified and seasonally based. The research participants expressed that the livelihood strategies they adopted were a direct response to adversities imposed by the chronic agricultural failures, and exposures to shocks and risks.Figure 4.1 presents a summary of the livelihood strategies of the Matobo communities.



Figure 4.1: The livelihood situation in Matobo District Source: Field work data. (10 May, 2017).

The findings presented in figure 4.1 depicts that households in Matobo District engage in a multiple of activities to diversify their income portfolios. The livelihood activities they engage in are determined by the type of vulnerabilities inherent in the district. For instance, Matobo District lies within the agro ecological region IV and V which is not good enough for field agriculture. This is the reason why field agriculture appears to be competing with other livelihood options such as casual labour in neighboring farms, mopane worm gathering and the gathering and procession of various products which are dependent on the marula fruits, which become abundant during summer.

In winter, the livelihoods activities are characterised by vendingincurios, basketry, and wild fruits. What makes vending a thriving livelihood option during winter is that this is the time when many tourists flock to Matopos National Park. Brick moulding, grass cutting and poultry production are also other thriving livelihood options during winter. The farm bricks and grass which is used for thatching, are mainly sold to the local community and the "*Injiva*", a local term used to refer to those who would have emmigrated to South Africa. The *injivas* are role models in the local

community as migrating to South Africa and Botswana is a very fashionable livelihood strategy particularly for the youths and the middle aged. It also gives a lot of status to the parents and siblings left behind. Although outward migration was emphasised in winter, the study gathered that it was an all year-round activity, with those who migrate rarely coming back. In spring, the livelihood activities revolves around gardening, bee keeping vending in forest and farm produce as well as migrant labour.

The general observation that can be deduced from the livelihood situation in Matobo is that the adversities brought by perennial droughts, unemployment and soil topography which is generally swampy, has compelled rural communities to diversify their income sources as a strategy for dealing with risks and uncertainties. Local communities have also internalized the seasonal whether cycles and manipulated them for their benefits. For instance, they capitalize on tourists who frequent Matopo National Park and vend their cultural artifacts and curios, wild fruits and basketry. It is this diversity of income sources that has built the resiliency of local communities to manage risks induced by socio economic and natural calamities. Income diversification according to Mutodi (2011) entails engaging in a wide range of activities which are based on the capabilities and resources at the disposal of households. This implies creatively exploiting the core resource fundamental to the socio-economic reproduction of the household at different time intervals.

After establishing the livelihood situation, the study then used a wealth ranking technique to categorize the identified options into livelihoods priority order. Wealth Ranking according to Malleson (2008), entails ranking the rural survival options in terms of their priority. As such, the researcher grouped the identified livelihood options into 6 distinct categories and asked the participants to rate them in order of their priority using a voting system, with 1 being the highly rated whilst 6 being the least rated, and the findings are presented in figure 4.1.

	Livelihoods Priority Ranking	No of votes	% Ranking
1	Marula fruits gathering and processing (mkumbi, kernels, jam, cosmetic oil)	14	100%
2	Mopane worm gathering (amacimbi), migrant labour	14	100%
3	Vending, gardening, bee keeping, food for work	13	92%

Table 4.1: Livelihood Wealth Ranking Table

4	Poultry keeping (contract farming of broiler chickens)	13	92%
5	Curios, basketry, brick moulding, grass cutting	12	85%
6	Field Farming (Maize, sorghum, millet), causal labour	11	78%

Source: Own field data

The outcome of the livelihood ranking presented in table 4.1 depicts that marula resources based livelihoods were rated first in table with a rating of 100%, followed by livelihoods based on mopane worm gathering which was placed at the second level of the table, with a rating of 100%. Vending, gardening, bee keeping, food for work were ranked at the third place of the table by 92% of the participants whilst Poultry keeping (contract farming of broiler chickens)was ranked on the fourth place of the table by 92% of the participants. Curios, basketry, brick moulding, grass cutting were placed at the fifth level of the table by 85% ratings. Field Farming (Maize, sorghum, millet), causal labour was rated to the sixth level of the table by 78% of the participants.

Basing on the livelihoods calendar presented in figure 4.1, and the livelihoods wealth ranking presented in table 4.1, the study postulates that the diversity of livelihoods options of local communities in Matobo District has matured from a mere copping strategy to an accumulation strategy which has predisposed local households to greater propensity for wealthcreation. This feeling is coming from the observation that field farming which is traditionally believed to be the major livelihood strategy for rural communities was relegated to the sixth level of the wealth ranking table by about 75% of the participants. This makes the NWFP based livelihoods the most preferred as evidenced by marula projects and mopane worm gathering being rated first (100%), and second (100%), of the wealth ranking table. This dispels the lifelong held myth which considers rain fed agriculture as the backborne of rural livelihoods. The finding also suggest that rural livelihoods in general, in Matobo District in particular are characterised by diversified portfolios.

The finding affirms the significance of NWFPs in forminglivelihood portfolio that have an important role to play in the growth and functioning of rural households' small-scale enterprises and thus, collectively making substantial contributions to rural households economies. This assertion is further corroborated by Matondi (2011), who averred that rural communities with diversified livelihood portfolios tend to be vibrant in their social standing and in handling adversities as they normally have a high level of civic engagement.

4.4 Objective 2: The effectiveness of marula projects as a livelihood strategy in Matobo District.

The second objective of the study assessed the effectiveness of marula projects as a livelihood strategy in Matobo District. The effectiveness of marula projects was assessed in terms of their compatibility with other livelihoods within the district, how they contributed to household income and wellbeing, how they strengthened links between community groups and how they enhanced the social status and social cohesion. Data was gathered through key informant interviews and focus group discussions, and the findings are presented as follows:

4.4.1 Compatibility of marula projects with other livelihoods

The findings concerning the compatibility of marula projects with other livelihoods within Matobo District revealed that the projects were highly compatible. This is due to the fact that marula projects are very seasonal in nature and as such, they do not interfere with most livelihoods which will be dormant during the marula season. The gathering of marula fruits which are a key ingredient in the production of various marula products such asjam, mkumbi beer, kernels and cosmetic oil thrives in summer where the fruits are found in abundance. The other livelihoodactivities that are also dominant during the summer season are field farming, mopane worm gathering and poultry breeding. The marula projects thrive during summer because most farmers in Matobo do not put more emphasis on field farming due to continued crop failures as a result of rainfall patterns and soil topography which are not very conducive for crop production. Another reason why marula projects are compatible with other livelihoods is that farmers gather the marula fruits for jam making and mkumbi beer brewing either during weekends or during afternoons since field farming is mostly done in the morning. This assertion is affirmed by the verbatim extracts from one of the key informants who stated as follows:

"Ukuphatheka kwethu ku Sweet Valley Natural Products kakusiphambanisi emisebensini yethu yemakhaya. Amaganu siwadhoba emini nxa sesivela emasimini. Siwadhabha futhi ngomqgibelo langesonto ngoba kasisyi emasimini. Amanengi siwadhobha ngolwesithathu ngoba yilo izilo lethu. "Key informant interview (11 May,2017). **English version:** [Our commitment to Sweet Valley Natural Products does not interfere with our household chores. We harvest marula fruits in the afternoon after field farming which is done in the morning. We also gather them on Wednesdays because it's a sacred day that we observe as a community, and field farming is prohibited. We also harvest marula fruits on Saturdays and Sundays.]

The respondent is expressing that the harvesting of marula fruits is done during their own spare time either during weekends, in the afternoons or during their community rest days which are sanctioned by the area traditional leadership. The community rest days are known as *izilo* in the local language. The other reason that makes marula projects compatible to other livelihoods is that Kernel cracking, jam making and mkumbi beer can donein the evenings, before farmers retire to bed. The following extract from one of the participants in the focus group discussion sums it all.

"Inkelo sizigqula ntambama nje sizikwejisele lemuli. Umama laye uyabe ezixhwathisela amaganu akhe epheka ijemu. Lomkumbi lawo wande ukwenziwa ntambama. Lokhu kwenza sithole isikhathi esinengi sokwenza eyinye imisebenzi yethu". Extract from the focus group discussion, (11 May, 2017).

English version:[We crack kernels in the evening whilst socializing with the family.At the same time I will be cooking the marula fruits for jam making. Mkumbi beer is also produced during the evening. This gives us ample time to engage in other activities during the day]

The research participant is expressing the compatibility of marula project to other livelihoods. The respondent is expressing that the project is very flexible as they can produce the raw materials needed for the production of marula products during their family time after they would have done all the day's work, which involves field farming, gardening and part-time work. The marula products such as marula kernels, marula jam, which farmers produce during their own spare time are then taken to the Sweet Valley Natural Products where they are stored for the market. This is unlike other livelihoods such as brick moulding, field farming, vending and grass cutting which cannot be done during family time or during their own spare time.

4.4.2 The contributions of marula projects to household income and wellbeing

The research participants were asked to describe how the marula projects were contributing to their household income and wellbeing. Before they responded, one of the participants broke into a chorus and eventually all the participants melodiously sang along. The lyrics of the chorus were as follows:

"Ungaceli 'tshukela..,ucela 'mahlamvu...,uceli 'sawudo....,Ubabu 'zakuyekela". Ubabu 'zakuyekela...., Ubabu 'zakuyekela...,Ubabu 'zakuyekela...., Ubabu 'zakuyekela"

The English version of the chorus is as follows:

"If you always ask for sugar, tea leaves and salt, your husband will desert you".

The chorus challenges women to think outside the box and engage in various income generating activities that enables then to generate their own independent income to buy basic household needs such as sugar, tea leaves and salt. It also reiterate the instrumental role of non-farm based livelihoods such as the marula projects on the socio economic emancipation of woman. Its salient meaning is that the income generated from marula projects provides much more than just the financial rewards as it also positively impact on other factors of woman's daily lives. Figure 4.1 present the photography Sweet Valle Natural Products farmers humming the chorus.



Figure 4.1: Photograph of Sweet Valley Natural Products humming the chorus Source: *Field work data, (11May,2017).*

These basics (sugar, salt, tea leaves and mealie meal) form the pivot of food security and family stability since they are at the core of household sustenance. They define the wellbeing of rural households since they constitute the basic ingredients of a basic meal, which is the starting point of basic living. This is very important in maintaining the food of nutrition of the household, and most importantly in keeping the family unit intact.

The last part of the chorus: "..... *Ubabu'zakuyekekela"*, "...*Your husband will desert you*" explains the importance of marula projects in economically empowering women. The chorus explains that woman who invest their livelihood resources on household basics such as sugar, salt, mealie meal and tea leaves earn a lot of attention and recognition from their husbands. The chorus is gravid with social meaningwhich reflects social reality. The chorus is in fact heralding the metaphorical justification why rural women have seen it fit and wise to engage in economic livelihoods such as the marula projects.

The fundamental message inherent in the chorus is that the marula project has redefined the breadwinner concept as women who have traditionally depended on their husbands for livelihoods are now economically empowered to put bread and butter on the table. The chorus has also given attention to the new concept of the femininity which is directly related to the redefining the breadwinner role in the household. Femininity defines the new woman as the one who is self-reliant and who can actively participate in the day to day decision making in the household. Thus, the marula project has unleashed the latent assertiveness, innovativeness and the resourcefulness of rural women.Women are taking their participation in marula project as a kind of safety valve which stabilizes the home through safer ways of disposing bottled male anger and frustration emanating from decades of socio economic blockages as a result of economic hardships and unemployment. The chorus encourages women to model the biblical virtuous woman profiled in Proverbs 31:10-31, who is an envy of everymen.

After the chorus, the researcher who had also joined in the singing and dancing appreciated the chorus and applauded the participants for melodiouslyhumming. The participants were then asked to describe how the marula projects have contributed to their household income and wellbeing. The participants expressed that the Sweet Valley Natural Products was a life changer as it has positively impacted on their household income and wellbeing. The respondents expressed that they collectively produce marula jam, kernels, cosmetic oil, and mkumbi which they sell and keep the money which is latter shared equally amongst them at the end of the marula season which runs from December to April.

The researcher asked them the prices of their products and their cost structure is presented in table 4.1 also follows:

Table 4.2: Cost structure of marula products produced by Sweet Valley Natural Products			
	Marula Products	Cost	
•	Marula Jam	\$ 1.50/ 375mls bottle	
•	Kernels	\$1.00/375mls bottle	

Table 4.2: Cost structure of marula products	produced by Sweet Valley Natural Products
Marula Products	Cost

- Cosmetic oil
- Mkumbi beer

\$3.50/ 100mls bottle
\$1./ Literbottle

Source:Field work data (11 May, 2017).

The research participants were then asked to state the quantities of marula products they produce per each season. The participants did not have records for the products produced in past years. They only remembered that in the current season, they had collectively produced 100 bottles of marula jam, 10 bottle of the cosmetic oil,20 bottles of kernels and 50 Liters of mkumbi beer which they had intended to exhibit at the 2017 International Trade Fair. However due to lack of proper coordination between the farmers and the Forest Forces Field Officer, whose role is to offer them technical advice, they could not manage to exhibit.

From the stock they had produced for the Zimbabwe International Trade Fair(ZITF), they had managed to sell60 bottles of marula jam and 5 bottles of kernels to the local community. These products were sold at Shazhabukwa and Mphisa shopping center. As for mkumbi beer, they did not sell it as it was a perishable product, instead they gave it for free to the local community. The research participants were then asked to explain how they used the income generated marula products. Their responses revolved around the following extract:

"Imali le iyasincedha sibili. Sesathenga imiganu, imbiza, ama nkomitsho, lokunye nye okuncani ncani okufeneka endlini. Siyencedhakala sibili. Ikakhulu etshukeleni, isawudo, impuphu lesitshebo. Unyaka ophelileyo mina ngathenga okulizinyani.Yikuthi nje kasikabi lomsika omhle esingathengisela khona isinto sethu." Focus group discussion, (11 May, 2017).

English version:[*The income we are getting is very helpful. We have managed to buy plates, pots, cups and a many small household items. The income is mostly helpful for buying sugar, salt, mealie meal and relish. Last yare I bought a goat. It's only that we do not have a stable market where we can sale our products*]

The extract is alluding that income derived from marula products has enabled them to buy kitchen utensils such as plates, pots, cups. One member mentioned that last year one of their members bought a goat.She further stated that the income has enabled them to buy basic household needs such as sugar, salt, mealie meal, tea leaves and relish. Generally, all the participants in the groups echoed similar sentiments. Except for just three of them who stated that they have paid school fees for their children using the income from marula projects. This findings affirms the contributory role of marula projects to household income and wellbeing.

4.4.3 The role of marula projects in strengthened links between community groups

The role of marula projects in strengthening community linkages is another construct that was assessed in a bid to establish the effectiveness of marula projects as a livelihood strategy in Matobo. Community linkages are premised on the notion of the social capital which puts more emphasis on social bonds and social norms as key determinants of sustainable livelihoods. The social capital is recognised in contemporary livelihoods literature as a vital asset for sustaining rural livelihoods (Ashley and Carney, 1999).

Likewise, the participants were asked to describe how the marula project have strengthened their social ties within Sweet Valley Natural Products, and also within their community at large. Their responses indicated that their involvement in the Sweet Valley Natural Products has enhanced their spiritual well-being and their sense of identity and belonging. Their responses also indicated that their social status and prestige has increased. The following verbatim extract form one of the focus group participants aptly sums this finding.

"I project yethu le inhle kakhulu. Isisenze sabangabantu abakhanyayo njalo abahloniphekayo kakhulu. Ukuphatheka kwethu ku project le, sokusenze sabambana kakhulu ngoba zonke inzinto zethu sizenza ndawonye. Singumzekeliso onuhle kubamama bonke esigabeni ngoba lokhu esikwenzayo sokusenze saze sayafikaegoli. Sebekwazi khonale ukuthi eMatobo kulabomama abaphilisa imuli ngamaganu. Lokhu sokusiphe isithuni esikhulu lokuhlaliseka emoyeni. "Focus group discussion, (11 May, 2017).

English version:[Our project is very good. Our commitment to the project has fortified our togetherness. We share everything we do. It has made us visible in the community. We are

good example to all the women in our village. This project has taken us to South Africa. In South Africa they know that in Zimbabwe there is a group of woman from Matobo who take care of their families through marula projects. We have set a good example to all the woman in our village. This has elevated our spiritual well-being and prestige].

An important observation that can be made from this extract is that the Sweet Valley Natural Products has strengthened social relations, reciprocity and mutual exchange amongst the farmers and the community at large. This has also given confidence to community members in general and the individual farmers in particular, to invest in collective actions and activities for the betterment of their livelihoods. Working together and collectively shearing resources and ideas has increased the capacity of the Sweet valley Natural Products to innovate through forging social connections with research organisations such as the Forest Forces which played an instrumental role inlinking Sweet Valley Natural Products member farmers with their counterparts in South Africa. This is a good gesture that has given member farmers the zeal to sustain the project through thick and thin. This was also echoed by the Ward 16 Councilor whose verbatim extracts are as follows:

"I project leyi kimi iqakathekile kakhulu ngoba isizale ukubambana lokuzwisisana okukhulu kubomama bonke abalapha. Njengoba nje lawe uzibonela ukuthi lapha kusemakhaya. Kambe ngabe iproject le ingekho, ngabe ijamu silithatha ngaphi?. Okungabafana lakho kungaqgula inkelo zibe lixekanyana, kuyagijima kuyethengisa ku Sweet Valley Natural Projects. Hanti uyabona phela ukuthi loba ukungezwa kwabo kubuya kube kulutshwana." Key informant interview, (10 May, 2017)

English version: "This project is very important because it has brought unity of purpose to all the women in this ward. As you can see that were in a rural area, where were we going to buy jam, if this project was not there? The project is very important to young boys who creak kernels whilst heading cattle, which they then sell to the project. This is good way of removing mischief from these little boys."

The assertions of Ward 16 Councilor gives rise to two fundamental observations that are critical to the linkages of community groups in Matobo. The first observation is that the Sweet Valley Natural

Products has provided a kernels market for the Matobo rural community. The second observation is that it is very compatible to other livelihoods within the Ward. Maybe the third observation is that the project is a good source of food and nutrition to the local community since it provides them with natural jam which is used for bread spread and also in some instances as relish, and kernels which are also used as relish. What can be deduced from these observations is that the Sweet Valley Natural Products has strengthenedthe connections of member famers with their community, their neighbours and the business associates at large. Basing on these findings, the study alludes that the marula project being implemented in Ward 16 of Matobo District is effective as a livelihood strategy.

The findings presented have also answered the second objective of the study which sought to establish if marula projects were effective as a livelihood strategy in Matobo District. Similar studies that were done by Chibaya (2009), FAO (2012), Agustino et al., (2011), Nyoni, (2015) and the UND (2015) also found marula projects effective as a livelihood strategy, in that theyenhanced the opportunities of rural communities to earn cash income which is a critical resource for satisfying their basic needs.

This was also upheld by Shackleton (2011) who posited that in the face of the current economic hardships, the scourge of HIV/AIDS and increasing unemployment rates in Sub Saharan Africa in general, and Zimbabwe in particular, the poorest people are increasingly turning to NWFPs, such as the marula projects in this instance, as buffer zones to their livelihood needs. This finding amplifies the reasoning that the marula projects being implemented in Matobo District are a good alternative source of financial and non-financial benefits that are key to reducing vulnerability and improving the quality of life of the individuals and families concerned.

4.4.4 Objective three: The contributions of marula projects to gender empowerment

The third objective of the study sought to establish the contributions of marula projects to gender empowerment in Matobo District. This was measured in terms of access to ownership of marula resources and projects, access to income and financial liberty, assets acquisition and ownership, autonomy of woman as well as food security. The findings from both the key informant interviews and the focus group discussion corroborated the assertions of Shackleton et al., (2011), and Agustino et al. (2011), who argued that since from time immemorial NWFPs such as the marula fruits in this case, has continued to form a significant part of women's work and responsibility. The gender composition of the membership farmers of the Sweet Valley Natural Products affirmed the thinking that the processing of marula fruits has always been a woman's business and that the money generated from marula biotic resources has remained in the hands of woman since from time immemorial. This reasoning was arrived at, after observing that all the members of Sweet Valley Natural Products were female. Out of interest, the researcher asked why the membership was all female. One of the research participants has thid to say:

"Vele kasifuni ukubona indoda kuproject yethu le. Lokhu ngokwethu thina omama. Obaba bangenelisa ukupheka ijamu yini mtanami? Okwabo yikulima lokubaza, kumbenje ukuyathengisa ejikweni." Focus group discussion, (11 May, 2017).

English version: [We don't want to see any man in this project. This is a woman's affair. Do you think that man can cook marula jam? Theirs is field farming, wood carving and selling ejikweni. The term "ejikweni" refers to a market place in Matopo National Park where locals sell various wares to tourists.]

The above extract reiterates the effects of patriarchal social systems on the utelisation of natural forest resources such as the marula biotic products for instance, where by women are relegated to low value chain livelihoods which are aligned to food and nutrition at a household level, whilst men engage at the apex of the value chain. This could be the reason why the respondent is expressing that "jam making" is a woman affair whilst field farming and wood carving as swell as curios vending are a male prerogative.

However, the worldwide recognition that marula biotic resources can be traded commercially has made marula projects catalytic agents for gender empowerment and economic emancipation of women. Commercially trading in marula products has given women farmers in the Sweet Valley Natural Products access to socio economic resources and opportunities. This has made them active players in their households and the community at large. As a result, women have regained lost self-confidence and self-reliance that has been eroded by decades of marginalization and patriarchal oppression. This assertion is reflected in the following extract:
"Obaba bayancindezela.Bengasijoyina lapha, bayacina sebefuna ukusibusa." Focus group discussion, (11 May, 2017).

English version: [Man are oppressive. If they join this project, they might end up dominating us]

The meaning that can be deduced from this extract is that the Sweet Valley Marula Project has emancipated women farmers to realize that they are also equally able to generate their own socio economic resources for self and household subsistence without the involvement of men. This is a landmark finding which exposes the livelihood contributions and gender empowerment from marula projects. This finding is akin to Shackleton et al. (2011) who reiterated that trading in marula products such as beer, culinary oil, dye, pulp and cosmetics has stimulated the socio-economic emancipation of women in isolated rural communities, through employment creation, petty trading and home-based income generation. The participants were further prompted to mention the benefits they had derived from Sweet Valley Natural Products, which they felt had empowered them socially and economically. The researcher collated their responses into direct and indirect benefits and presented in figure 4.2.

The findings presented in figure 4.2 show that marula projects have created employment opportunities and access to income for farmer members of the Sweet Valley Natural Products. When women are given access to own sources of income, they often invest it in the good of the household through purchasing food, household goods and also paying school fees for their children. This enhances their food security and wellbeing. The respondents also unanimously expressed that access to independent sources of income has enabled them to buy kitchen utensils and small ruminant livestock such as goats and chickens. Asset acquisition and ownership by women in a patriarchal society such as Matobo District is a strong indicator of gender empowerment. The Sweet Valley Natural Products has given its members access to social networks which are beyond the immediate family and neighborhood bonds. As a result of the marula project, some of the Sweet Valley Natural Products members have been on a familiarization tour to South Africa, whilst others have also exhibited at the International Trade Fair. This is very important for creating networks and synergies which are a core ingredient of gender empowerment. This according to Ahenkan and Boon (2011) has a huge potential for influencing social change and economic order.



Figure 4.2: The contributions of marula projects to gender empowerment. Source: Field work data

This is a land mark finding which corroborates the notion that marula projects are an effective conduit for enhancing gender equity and women empowerment in Matobo District. The finding has answered the third objective of the study which sought to establish the contributions of marula projects to gender empowerment in Matobo District. What makes marula projects catalytic to gender empowerment according to Chabala (2004), Gausset et al. (2005), Elmhirst and Resurreccion (2008), and Adedayo et al. (2010) is that women's access to marula biotic resources is immune to cultural and social restrictions, unlike productive resources such as land, timber and natural mineral which are often restricted by cultural traditions and restrictive social norms. Trading in marula products has stimulated the socio-economic emancipation of women in Matobo District through employment creation, petty trading and home-based income generation. As a result, the

Matobo women are beginning to enjoy greater economic inclusion characterised by access to own independent source of income. This has enabled them to transform their choices into desired actions and outcomes. This according to UNFPA (2010) is critical for promoting gender equality and redressing power imbalances since access to own independent financial sources gives rural women more autonomy to manage their own lives both within and outside the home.

4.5 Objective four: Strategies for enhancing the performance of marula projects

The fourth objective sought to establish the challenges faced by marula project with the rational of proffering suggestions that would improve their performance. As such, the research participants wereasked to describe the challenges they experience and also to suggest how they felt these challenges could be curbed. Their responses indicated that they faced quite a number of challenges which need to be addressed in order for the project to thrive. The challenges are itemized as follows:

4.5.1 Lack of markets

The research participants expressed that they lacked proper markets for their products. They expressed a strong feeling that with proper marketing and linkages, products such as mkumbi beer could be sold in hotels and resort centers such as Matopos National Park and Victoria Falls as natural cider, whilst kernels could also be sold as natural snacks because they form a traditional, nutritious and very healthy snack. They expressed a feeling that with proper access to markets, the Sweet Valley Natural Products had a potential to grow to become an effective community development project offering income and employment to virtually every member in the community. This feeling was expressed by the councilor for ward 16 and the chairperson for the Sweet Valley Natural Products whose interview extracts are as follows:

Uhlupho olukhulu esilalo lapha yikuthi kasila makethi enhle esinga themgisela khnana izinto zethu.Nxa singathola umuntu ongasikhulumela leziphathamandla ze ma Weteleni, umbe abe Matoposi National Park ukuthi besithengisele utshawla bethu lenkelo, ngbina angani kungahamba sibili. Njengoba ku natural, hanti kuthiwa izethekeli zivele zithanda izinto ezi natural. Key informant interview (10 May, 2017).

English version: [The problem is that we don't have a market for selling our products. If we could get anyone who can convince authorities in Hotels and Matopos National Park to sell mkumbi beer and kernels to tourists, I believe we can break through since tourists have a good test for natural products.]

The meaning that could be derived from this interview extract is that the member farmers of Sweet Valley Natural Products are aware of the market potential of their products and they believe that with proper market connections, their products can perform well in local Hotels and resorts.

4.5.2 Lack of processing center and storage facilities

The research participants also expressed that they did not have a processing center and a storage facility where they could store their products. They applauded the Matobo Rural District Council for giving them land at Shazhabukwa Business Center where they are supposed to build their processing center, but they bemoaned lack of funding as the major stumbling block. They expressed that if they could get funds, or a well-wisher to construct the processing center for them, the performance of their project could be leveraged. They expressed that at the present moment, production was done at the individual homesteads of member farmers and this posed challenges in standardising the quality of their products. Equipping the processing center with storage facilities would also enable them to gather the fruits in abundance during the peak season and store them so that production could continue throughout the year. They mentioned that since Shazhabukwa business center is electrified, storage facilities should be refrigerated.

4.5.3 Kernel cracking machine

Kernels cracking machine is also another challenge that the research participants felt was impeding the performance of the project. Although they applauded Forest Forces for giving them a kernels cracking machine, they were quick to point out that the machine was not very suitable since it was very manual and very heavy to operate. They mentioned that the machine was not conducive for a female environment because of its heaviness and the need for use of physical strength to operate it. The other limitation of the machine was that regardless of the size, it only cracked four kernels at a time. As a result, it took them a lot of time to crack a bucket of kernels, and this slows production. They expressed that the other limitation of the kernels cracking machine they were given is that it crashes the kernels instead of cracking them. The image of the kernel cracking machine that was donated by Forest Forces presented in figure 4.2

4.5.4 Oil pressing machine

The participants also applauded Forest Forces for donating an oil pressing machine, but still they pointed out that the machine was not very conducive for the operating environment. The major limitation of the oil pressing machine was that it was too manual and very laborious to press oil as it required a lot of energy. At the time of the study, the machine was not working. When asked what was wrong with the machine, one of the participants had this to say:

"Umchina lo, kuwusebenzi. Vele kawuzange uke usebenze. Uhlupho lwawo yikuthi kawulungiswanga kuhle. I ditshi yawo elikhongozela amafutha kalilungiswanga kuhle. Ngakhoke, u Sonono, walithatha wahamba lalo, wahle walobo. Kasikwazi ukluthi uyaphenduka nini".Focus group discussion (11 May, 2017).

English version: [This machine is not working. It never worked well. Its problem is that the dish that collects pressed oil is not compatible. So, Sonono took it and never came back. We don't know when he will came back with it]

The researcher asked who Sonono was, and they said he was a field officer seconded to their project by Forest Forces to give them technical advice and guidance. The image of the oil pressing machine is presented in figure 4.3

4.5.5 Lack of packaging material and labels

The research participants also stated that they did not have packaging material and labels. Even the products that the researcher bought as a sample, did not have labels except for the cosmetic oil. Mkumbi beer was parked in 2 liter Coca-Cola bottle. The researcher asked them where they got their labels and one of the research participants responded as follows:

Kuqala, umfana esasisebenza laya engakayi emazweni, sasingela hlupho ngama stickers lama containers. Wayesiya sithathela eForest Forces. Ujaha lo esamphiwayo singaze simuphe isikhalazo, kakulanto ephumayo. Samcela kudala ukuthi asiphe ama stickers lezimbodlela, wahamba waloba. Focus group discussion (11 May, 2017).

English version: [The young man we used to work with before he left for overseas, we never had problems of this nature. He would go and collect the labels and containers from Forest Forces. This young man who replaced him, even if we give him our request, he does not do anything with them. We asked him a long time ago to give us labels and containers, he never came back.]

The observation that can be deduced from this extract is that there is lack of proper coordination and corporation between the Sweet Valley Natural Products member farmers and the field officer seconded to their project as a technical advisor. This could be the reason why they are facing such challenges.

4.5.6 Lack of technical expertise

Lack of technical expertise also come out strongly as a problem hampering the efficiency of the Sweet Valley Natural Products. The respondents expressed that they needed to be capacitated with food and nutrition skills so that they could produce products that meet the world standards. This is very important if they seriously need to grow their markets above village level. They expressed that currently, there are some complaints that their marula jam was too sweet. Furthermore, they expressed that they needed knowledge on how to filter the crude cosmetic oil they produced so that the solid particles could be removed. They expressed a feeling that filtering the crude marula oil could make it more appealing to the market. They also expressed a strong need for skills development on how to stabilize the mkumbi beer so that it could be sold alongside with fruit juices as natural cider.

Despite the highlighted challenges associated with the Sweet Valley Natural Products, the overall findings presented in this chapter are persuasive enough to lead on observation that marula projects are effective both as a livelihood strategy and also a gender empowerment instrument. With adequate scholarly attention and livelihoods expert engagement and involvement in the marula

projects being implemented in Matobo District, the identified challenges that threaten the sustainability of marula projects in general, and the Sweet Valley Natural Products in particular, can be ameliorated for the benefit of the rural communities in Zimbabwe, particularly those lying in agro ecological regions 1V and V where Matopo District also lies. The identified challenges are in themselves clues on how to sustainably implement nature based enterprises such as the marula project being implemented in the district. This was also expressed byKrishnamurt (1995)whose idiom stated that the solution to a problem lies within the problem itself.

4.6 Chapter summary

The chapter has presented and discussed the research findings on an objective by objective basis. The findings presented and evaluated have succinctly expounded the livelihood contributions and gender empowerment from marula projects. The findings presented on the first objective which sought to establish the livelihood situation in Matobo District established a much diversified livelihood portfolio which is very seasonal. On the aspect of whether marula projects were effective as a livelihood strategy in Matobo District, the research findings lead to the observation that marula projects were an effective livelihood strategy, particularly for women farmers. What made the marula projects effective as a livelihoods strategy was their compatibility with other livelihood options. Findings from the third objective advanced knowledge on the contributions of marula projects to gender empowerment. The findings indicated that the Sweet Valley Natural Project has opened up women's economic avenues which were blacked by decades of patriarchal systems which repressed their active participation in rural economy. This answered the third objective of the third objective which sought to establish how marula projects were contributing to gender empowerment. This chapter concluded by presenting the findings on the challenges faced by the Sweet Valley Natural Products. This was in line with the fourth objective. Solutions on how to curb the identified challenges shall be proffered as recommendations in the following chapter.

CHAPTER FIVE: SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter ties up the entire study by presenting the summary and conclusions based on the research findings tabulated in the preceding chapter. The chapter highlights the implications of the research findings to the addressed groups and to the existing body of knowledge on livelihoods and gender empowerment from marula projects. Thereafter, the chapter proffers recommendations on how to address the identified challenges affecting marula projects in Matobo District. The research limitations and the recommendations for further studies are also highlighted.

5.2 Summary of the findings

This chapter ties up the entire study by presenting the summary and conclusions based on the research findings tabulated in the preceding chapter. The chapter highlights the implications of the research findings to the addressed groups and to the existing body of knowledge on livelihoods and gender empowerment from marula projects. Thereafter, the chapter proffers recommendations on how to address the identified challenges affecting marula projects in Matobo District. The research limitations and the recommendations for further studies are also highlighted.

The research findings presented and evaluated on the preceding chapter affirmed a symbiotic relationship between marula projects, livelihoods and gender empowerment. The findings fortified the instrumental role of marula project in providing rural dwellers with safety nets in times of adversities induced by sudden changes in the economic, social and the climatic environments in which rural households exist and function. This makes NWFPs such as the marula project in this case, a critical source of income from non-farm activities which is a vital component of rural economy. Income from non-farm activities provides a livelihood safety net during seasonal shortfalls and other emergencies. Thus, NWFPs provide rural communities with a buffer against shocks, risks and other household emergencies.

The major highlights of the findings from the first objective of the study which sought to establish the livelihood situation in Matobo District, reported a diversified livelihoods portfolio which are seasonally based. Communities diversified their livelihood portfolios in response to shocks and seasonal variations which are inherent in Matobo District since it lies in agro ecological region IV and V which is not quite conducive for field farming. The wide range of livelihoods activities were based on the capabilities and resources at the disposal of communities. This observation suggests that the communities in Matobo District do not have a core livelihood activity. Communities engage in a multiplicity of livelihood activities as a stop gap measure to stresses and shocks.

A summary of the findings from the second objective which sought to establish whether marula projects were effective as livelihood strategy in Matobo District leads to the observation that marula projects were instrumental in enhancing the resilience of rural communities to social and environmental threats and shocks which are normally induced by failed harvests, insufficient markets for products sourced elsewhere and most importantly for generating income to meet household living expenses. In the face of the current economic hardship, the scourge of HIV/AIDS, increasing rates of unemployment in Zimbabwe, rural communities in Matobo District are turning to NWFPs, such as the marula projects in this case, as buffer zones to their livelihood needs. What makes the marula projects instrumental to rural livelihoods is that the dependency of rural communities on forest resources is historic and cultural to the extent that they constitute an integral component of the forest ecosystem. The marula projects are critical to rural livelihoods in that they provided a critical source of continued seasonal employment which is very vital for achieving sustainable rural development.

The findings from the third objective which sought to establish the contributions of marula projects to gender empowerment also affirmed a symbiotic relationship. The marula projects were found to be instrumental in unlocking the latent potential of rural women to generate own independent income which they used to buy basic household needs and assets forthe betterment of their households. This is a landmark findingwhich chronicles that marula projects have redefined the household breadbasket concept, as women are now actively participating in providing the basics for household sustenance. For this reason, marula have received tremendous attention and widespread promotion as tools for enhancing gender equity and women empowerment, by agencies interested in promoting gender equity, poverty alleviation and sustainable rural development. The major highlight of the findings was that commercially trading in marula biotic resources has redefined status of women in rural and economic development discourse. This has leveraged their access to

socio-economic resources and opportunities. As a result, women are beginning to enjoy greater economic inclusion characterised by access to own independent source of income. This is critical for promoting gender equality and redressing power imbalances since access to own independent financial sources gives rural women more autonomy to manage their own lives both within and outside the home.

Findings on the fourth objective which sought to establish the challenges faced by marula projects in Matobo District with a view of suggesting possible remedies to the identified challenges revealed that the projects faced a plethora of challenges which threatened its sustainability. The major challenge that was highlighted related to the machinery for kernels cracking and oil pressing. The project lacked the state of the art machinery compatible to rural and female environment. Furthermore, the findings indicated that the project was inadequately resourced. Therefore, producing world class marula products was not possible. Finding external markets for the marula products produced, was also another hurdle faced by the Sweet Valley Natural Productsin Matobo District. Despite such obstacles, the zeal of the member farmers, and the demand for their products within the village indicate that the marula projects have a great potential if they could get serious attention from technical partners and livelihoods gurus. At the time of the study, the research participants bemoaned weak cooperation and coordination between the Sweet Valley Natural Products and the technical support they expected from their technical field officer.

5.3 Conclusions

Basing on the research findings, both from the reviewed literature and the primary research, the study concludes that the marula projects currently being implemented in Matobo District are effective as a livelihood strategy and also as a gender empowerment tool. However, what is inherent is that the marula projects are more effective as a female livelihood option compared to men, since the study did not find any evidence of male participation in marula projects in Matobo District. The milestones of the marula project is that they have redefined the breadwinner concept as women who have traditionally depended on their husbands for livelihoods are now economically empowered to put bread and butter on the table. The projects have given birth to the millennium women who is self-reliant and who can actively participate in the day to day decision making in the

household. Thus, commercially trading in marula biotic resources has empowered women to contribute to basic household needs such as sugar, salt, mealie meal and tea leaves. This is an indirect way of managing male frustration, which normally steams from decades of male unemployment and blocked socio economic needs. The marula projects have significantly enhanced the self-esteem, and self-worth, as well as improvingwomen's decision making, and thus, redefining women's status in rural and economic development discourse.

5.4 **Recommendations**

Following the research findings from both the reviewed literature and the primary data sources, the study identified some areas that need to be ironed up in order to enhance the operation of the Sweet Valley Natural Products, a 19 member marula projects combining the Silozwane, Tombo and Shazhabukwa villages from Ward 16 in Matobo District. As such, the study proffers the following recommendations:

5.4.1 Venturing into agro based livelihoods

Considering the fact that the livelihoods situation in Matobo District is much diversified and that there is lack of a core livelihood strategy within the district, the study recommends that Matobo rural communities should consider establishing agro based livelihoods such as poultry and fish farming. Boreholes can be drilled to extract underground water which is the key resource in fish farming. This can be done either as cooperatives or through contract farming. This could go a long way in creating rural entrepreneurship which is a missing link in Matobo District. The recommendation come as a result of the observation that fish is a scarce commodity in Matobo District. The targeted market of poultry and fish products could be the local community, boarding schools within and around Bulawayo, Masvingo and Gweru,Holes and restaurants.Local communities could also dry fish and poultry products. Currently, there is lack of dried chickens and fish in the country; hence these products are in demand because they have a high nutritional value.

5.4.2 Intensifying livelihood promotion

The study recommends that the Matobo Rural District Council in conjunction with the livelihoods technical partners should embark on livelihood promotion which entails capacitatinglocal communities with knowledge on how to convert the NWFPs into sustainable livelihood means. This entails equipping them with business development skills and the technical knowledge on how to utelise the natural forest assets into sustainable livelihoods. It also involves assisting local communities with low cost and labour serving technology such as the oil pressing and nut cracking machine in this case. The benefits of livelihood promotion are that it can have direct influence on the political, social and economic environmentswhich are critical for improving the livelihood opportunities of local communities. This might also go a long way in influencing policy changes on issues that constrain the livelihood potential within the district.

5.4.3 Creating access to markets

The study recommends that efforts should be made to establish local, regional and even international markers for the marula projects in Matobo District. Establishing market linkages is an effective strategy for enhancing the economic and social contributions of marula projects to livelihoods and gender empowerment. This also has a potential of widening the livelihoods benefits of marula projects to rural farmers. The recommendation comes as a follow up to the finding which indicated that market access was the greatest constraint affecting the livelihood contributions of marula project in Matobo District. This therefore suggest that establishing market linkages might strengthen the marula projects since this will competitively link the projects to markets.

5.4.4 Establishing and processing center

The study also recommends that the Sweet Valley Natural Products should seriously consider sourcing funding through its technical partners to construct a processing center on the land that they were given by the Matobo Rural District Council. The greatest advantage of the land they were given is that it is located at Shazhabukwa Business Centre which is electrified. With proper planning and proper technical partners, the processing center can be refrigerated so that marula fruits can harvested in bulk during the season, and then be stored for processing off season. This will ensure an all year round production, thus making the marula projects a core livelihood. Furthermore, the processing center will formalize the operations of the project as member farmers will have a fixed production place. During data collection, the researcher observed that the kernels and oil pressing machines where being kept at the homestead of one of the member farmers. This is not sustainable way of running a project, since access to the machines depends on the availability of that member farmer.

5.4.5 Going into partnerships with regional marula projects

The study also recommends that the Sweet Valley Natural Products should forge partnerships with local and regional marula projects whose operations have matured. Going into partnerships will expose the project on new knowledge concerning product diversification and cost effective production methods. This will increase their understanding of markets and the market penetration strategies. Furthermore, partnerships with established marula projects such as those in South Africa and Swaziland for instance, will expose the Sweet Valley Natural Products on product diversification, and smart technology that could be used to distill the marula cosmetic oil, and also how to stabilize the mkumbi beer into a traditional beverage that can be served in local hotels, restaurants and resorts. This way, the project can even derive better economic value for its products.

5.4.5 Recommendations for further studies

Throughout the research odyssey, the study stumbled on a number of gray areas which equally yawed for research attention within the field of livelihoods and gender empowerment for marula projects. The study observed that althoughMunondo (2005), Ngorima, (2006), Magadza (2010), Agustino et al. (2011), and Shackleton et al. (2011), as well as the primary research findings alluded to the livelihood contribution and gender empowerment from marula projects, there is still a need for empirical studies to establish the feasibility of NWFPs in creating lasting opportunities for rural livelihood and gender empowerment.

REFERENCES

- Adedayo et al. (2010). Access of Rural Women to Forest Resources and its Impact on Rural Household Welfare in North Central Nigeria. *Forest Policy and Economics*12: 439– 450.
- Agustino et al. (2011).Non-Wood Forest Products and Services for Socio-Economic Development. Compendium for Technical and Professional.
- Ahenkan. A andBoon, E. (2011). Improving Nutrition and Health through Non-timber Forest Products in Ghana. *Journal of Nutrition and Health in Ghana*. 29(2):141-148 Leakey.
- Albert Ahenkan, A. and Boon, E. (2011). Non-timber forest products farming and empowerment of rural women in Ghana. *Environment, Development and Sustainability*.
- Ashley, C., and Carney, D.(199). *Sustainable Livelihoods: Lessons from early experience*. Department for International Development. London.
- Bentahar, O, Cameron, R. (2015). Design and Implementation of a Mixed Method Research Study in Project Management. *The Electronic Journal of Business Research Methods* Volume 13 Issue 1 2015 (pp 3-15), available online at www.ejbrm.com.
- Botelle, A. (2001). A History of Marula Use in North-central Namibia. A Report Submitted to CRIAA SA-DC (Namibia).
- Bryman, A. (2012). Social research methods. New York: Oxford University Press.
- Carney, D, (1998). Ed. Sustainable Livelihoods: What Contribution Can we Make? London, Department for International Development (DFID).
- Carr M, (2008). Gender and Non-Timber Forest Products: Promoting Food Security and Economic Empowerment. International Fund for Agricultural Development (IFAD), Italy.
- Chabala, C. (2011). Forest mManagement in Zambia: A focus on Women's Access to Forest Resources Management in Chief Chiwala's area, Masaiti District. Masters Thesis, Southern African Regional Centre for Women's Law, University of Zimbabwe, Harare.
- Chambers R, Conway GR.(1992). Sustainable Rural Livelihoods: Practical Concepts for 21st Century. *IDS Discussion Paper 296*, Department for International Development, London.

- Chambers, R & Conway G. (1992). Sustainable Rural Livelihoods: Practical Concepts for the 21st Century. Brighton: Institute of Development Studies, University of Sussex. (IDS discussion paper; no. 296).
- Chambers, R. (1984). Rural Development: Putting the Last First. London; New York: Longman.
- Chambers, R. (1987). *Sustainable Rural Livelihoods*. Sussex: Institute of Development Studies at the University of Sussex.
- Chikamai, B and Tchatat, M.(2004). Forest Management for Non-Wood Products and Services in Africa. A Report Prepared for the Project: Lessons Learnt on Sustainable. Forest Management in Africa. AFORNET, Nairobi.
- CIFOR (1999): The Status of Non-Timber Forest Products in Tanzania, by forestry and Beekeeping Division.
- Clark & Carney, (2008).Sustainable Livelihoods Approaches What have we learnt?: A review of DFID's Experience with Sustainable Livelihoods, ESRC Research Seminar Paper.
- Collins et al. (2006). Prevalence of Mixed Methods Sampling Designs in Social Science Research and Beyond. Paper Presented at the Meeting of the American Educational Research Association, San Francisco.
- Creswell, J.W. (2011). Educational Research. New Delhi: PHI Learning Private Limited.
- Creswell, J.W. (2014). *Research Design. Qualitative, Quantitative and Mixed Methods Approaches.* Fourth Edition. Sage Publications. London.
- Elmhirst, R and Resurreccion, B.P. (2008). Gender, Environment and Natural Resource management: New Dimensions, New Gebates. In: RESURRECCION, B.P. and ELMHIRST, R. (eds.) Gender and Natural Resource Management: Livelihoods, Mobility and Interventions. Earthscan, London, Sterling, VA.
- Enwonwu, C., and Warren, R.(2001). Nutrition and HIV/AIDS in sub-Saharan Africa. In: Watson,
 R.R. (ed.). Nutrition and AIDS: Second Edition. (pp. 175–192). Boca Raton, Florida:
 CRC Press.Ethiopia and their development challenges. *Journal of Agriculture and Development*: 71–91.
- FAO, (2013). Forests, Food Security and Gender: Linkages, Disparities and Priorities for Action. Background Paper for the International Conference on Forests for Food Security and Nutrition, FAO, Rome, 13–15 May, 2013.

- FAO, (2014). Major Significance of Minor Forest Product: The Local Use and Value of Forest in the West African Humid Forest Zone. Community Forestry Note 6 Rome. Forestry Education World Agroforestry Centre (ICRAF). Noirobi
- Ngorima, G.T.(2006). Towards Sustainable use of Marula (Sclerocarya birrea) in the Savannah woodlands of Zvishavane District, Zimbabwe. University of the Witwatersrand.
- Gausset et al. (2005). Gender and trees in Péni, South-Western Burkina Faso. Women's needs, strategies and challenges. Danish Journal of Geography **105**(1): 67–76.
- Ghauri, P.N and Gronhaug, K. (2012). *Research Methods in Business Studies*: A Practical Guide. Financial Times Prentice Hall.

Goredema, B. (2013). Indigenous Knowledge, Sustainability. The Sovereign State.

- Ghazoul, J. (2006). Mopane Woodlands and Mopane Worm. Enhancing Rural Livelihoods and Resource Sustainability. Final Technical Report. Forestry Research Programme (FRP).
- Greene, et al. (2014). Toward a Conceptual Framework for Mixed Method Evaluation Designs. *Educational Evaluation and Policy Analysis*, 11(3), 255–274.
- Hecht, S.B. (2007). Factories, Forests, Fields and Family: Gender and Neoliberalism in Extractive Reserves. *Journal of Agrarian Change***7**(3): 316–347.
- Hill C, (2011). Enabling Rural Women's Economic Empowerment: Institutions, Opportunities, and Participation.
- Holling, C.S. (1973). *Resilience and Stability of Ecological Systems*. Annual Review of Ecology and Systematics 4:1-23.
- Mutenje, M.J. (2010). Rural Livelihoods in South-Eastern Zimbabwe: The Impact of HIV/AIDS on the use and Management of Non-Timber Forestry Products. Submitted in Fulfilment of the Academic Requirements for the Degree of Doctor of Philosophy, Agricultural Economics. School of Agricultural Sciences and Agribusiness Faculty of Science and Agriculture University of KwaZulu-Natal Pietermaritzburg.
- King, N. (1994). The Qualitative Research Interview. IN Cassell, C. & Symen, G. (Eds.)*Qualitative Methods in Organisational Research*: A Practical Guide. Sage, London.
- Krishnamurt, J. (1995). Book of Life: The Daily Meditations with Krishnamurti. Harper One.
- Lemenih, M. and Kassa, H. (2010) Socio-Economic and Environmental Significance of Dry Land Resources of Ethiopia and their Development Challenges. Journal of Agriculture and Development: 71–91.

- Manduna, D. T. (2014). An Investigation of the Effects of Job Satisfaction on Organisational Performance: The case of Harare City Council in Zimbabwe. Unpublished MBA Thesis. Mancosa. SA.
- Mensah, K.K. (2014). Assessing the Livelihood Opportunities of Rural poor Households: A case study of Asutifi district. Unpublished MSc Thesis in Development Studies. Kwame Nkrumah University of Science and Technology Kumasi.
- Malleson, R. (2008). A Methodology for Assessing Rural Livelihood Strategies in West Central Africa: Lessons From the Field.
- Mohammed et al. (2006). *Counting on Forests: Non-Timber Forest Products and Their Role in the Households and National Economy in Ethiopia.* (AESE) Addis Ababa.
- Morse, J. M., & Niehaus, L. (2009). *Mixed Method Design: Principles and Procedures*. Walnut Creek, CA: Left Coast Press.
- Morse, S., and Mcnamara, N. (2013). Sustainable Livelihood Approach. A critique of Theory and Practice. Springer.
- Haidar, M. (2009). Sustainable Livelihood Approaches the Framework, Lessons Learnt From Practice and Policy Recommendations. Economic and Social Commission for Western Asia (ESCWA).
- Mulenga et al. (2011).Contribution of Non- Timber Forest Products to Rural Income in Zambia. Policy Synthesis Food Security Research Project, Zambia. Ministry of Agriculture and Cooperatives, Agricultural Consultative Forum, Lusaka, Zambia. No 46.
- Nani G.V. (2013). Urban Zimbabwean Women Entrepreneurs: Challenges and Challenges. Directory Publishers. Bulawayo.
- OECD, (2012). Promoting Pro-Poor Growth: The Role of Empowerment. The OECD DAC Network on Gender Equality (GENDERNET).
- Ohlsson, L (2013). *Livelihood Conflicts: Linking Poverty and Environment as Causes of Conflict.* Swedish International Development Cooperation Agency.
- Olaniyi etal. (2013). Contribution of Non-Timber Forest Products to Household Food Security among Rural Women in Iseyin Local Government Area of Oyo State, Nigeria. Research on Humanities and Social Sciences. Vol.3, No.7.
- Peters, C.M.(2013)Sustainable Harvest of Non-Timber Plant Resources in Tropical Moist Forest: An Ecological Primer, Biodiversity Support Program, Washington, DC.

- Prosper B. Matondi (2011). "*I am doing my own thing*!" *Livelihoods diversity study in Zimbabwe*. Study Commissioned by Oxfam, Harare, Zimbabwe.
- Ritchie, J. and Lewis, J. (2013). *Qualitative Research Practice: A guide for Social Science Students and Researchers*. New Delhi: Sage.
- Roy, R. (2010). *Contribution of NTFPS [Non-Timber Forest Products] to livelihood in upperHumla*, Nepal. Unpublished PhD Thesis. Tribhuvan University.
- Saunders et al. (2009). Research Methods for Business Students,4th ed, Prentice Hall Financial Times, Harlow.
- Shackleton et al. (2011). Opportunities for Enhancing Poor Women's Socioeconomic Empowerment in the Value Chains of three African Non-Timber Forest Products (NTFPs). International Forestry Review Vol.13 (2), 2011.
- Shackleton, C., and Shackleton,S. (2014). Value of Non-Timber Forest Products and Rural Safety Nets in South Africa. Paper presented at The International Conference on Rural Livelihoods, Forests and Biodiversity 19-23 May 2014, Bonn, Germany
- Singh,Y. K. (2015). Fundamental of Research Methodology and Statistics: New Age International limited, Publishers. New Delhi.
- Somnath, G (2010). Non-Timber Forest Products in West Bengal: Knowledge, Livelihoods and Policy. PhD thesis, University of Nottingham.
- Subedi, D. (2016). Explanatory Sequential Mixed Method Design as the Third Research Community of Knowledge Claim. *American Journal of Educational Research*. Vol.4. No. 7. pp 570-577.
- Tashakkari and Teddlie(2009). Foundations of Mixed Methods Research: Integrating qualitative and quantitative approaches in social and behavioral sciences. California: Sage publication.
- Teddlie, C., and Yu,F (2007). Mixed Methods Sampling: A Typology With Examples. *Journal of Mixed Methods Research*. Volume 1 Number 1.
- Tieguhong, et al. (2009). Coping With Crisis in Central Africa: Enhanced Role for Non-Wood Forest Products. Unasylva 233(60): 49– 54
- Wills, J. W. (2007). World Views, Paradigms and the Practice of Social Science Research. Thousand Oaks, CA: Sage.
- Zimbabwe Election Support Network (ZESN), 2008, A Profile of Constituencies: Understanding Elections in Zimbabwe, ZESN, Harare.

APPENDIX I: INTERVIEW GUIDE

Livelihood contribution and gender empowerment from marula projects in Matobo district

Ice braking

- Greeting
- Introductions
- Consent issues
- Observe the sex composition of the research participants

Theme One: Assessing the Livelihood situation

What is the situation like regarding livelihood strategies? Rank them in order of priority

• Agriculture, Wild fruits foraging, Vegetable production, Beer brewing, Livestock production, Brick moulding, Craft production

Theme Two: The effectiveness of marula as a livelihood strategy

The effectiveness of the marula projects as a livelihood strategy is assessed in terms of how the projects are contributing to household income and wellbeing. Emphasis on the following areas:

- Accessibility and ownership of marula projects
- Compatibility of the marula project with other livelihood strategies,
- Income opportunities
- Food security
- Strengthening links between community groups,
- Health related benefits compared to other livelihood strategies highlighted in theme one

Theme Three: The contributions of marula to gender empowerment

Asses how marula projects have enhanced gender empowerment. Focus on the following guidelines

- Membership in marula projects
- Access to income and financial liberty
- Assets acquisition and ownership,
- Social status,
- Autonomy of women
- Justice and fairness
- Social cohesion
- Food security

Theme Four: Measures for improving the performance of marula projects

Find out strategies for improving livelihoods and gender empowerment through marula projects. Focus on the following

- Challenges experienced in the project
- Suggestions for further improvement

The End!! Thank the research participants

Appendix 11: Introductory and Approval Letter



University of Zimbabwe Centre for Applied Social Sciences 5 Aberdeen Road, Avondale, Harare Phone: 04-303080



8 February 2017

TO WHOM IT MAY CONCERN

This letter serves to inform you that the bearer **Bhekitemba Mkandla** ID 21-019489V21 is a University of Zimbabwe Masters student in the Centre for Applied Social Sciences (CASS). He is undertaking a research on '*Livelihoods contribution and gender empowerment from Marula: The Case of Matobo in Zimbabwe.*

Please assist him

Sincerely,

Dr B.B. Mukamuri

Chairman

0 8 FEB 2017 CENTRE FOR APPLIED SOCIAL SCIENCES

