

**ROLE OF PALM OIL PRODUCTION IN POVERTY REDUCTION IN
TANZANIA: EXPERIENCES FROM SMALLHOLDER PALM OIL
PRODUCERS IN KIGOMA REGION**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN
MONITORING AND EVALUATION (MAME)
DEPARTMENT OF ECONOMICS AND COMMUNITY ECONOMIC
DEVELOPMENT
OF THE OPEN UNIVERSITY OF TANZANIA**

2025

CERTIFICATON

The undersigned certifies that he has read and here by recommends for acceptance by the Open University of Tanzania a dissertation entitled; **“Role of palm oil production in poverty reduction in Tanzania: experiences from smallholder palm oil producers in Kigoma Region”** in partial fulfilment of the requirement for the award of the degree of Master degree of Arts in Monitoring and Evaluation (MAME).

.....
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I, **Mwajuma Ally**, declare that the work presented in this study is original. It has never been presented to any other university or institution. Where other people's works have been used, references have been provided. It is in this regard that I declare this work as originally mine. It is hereby presented in partial fulfillment of the requirement for the Degree of Master of Arts in Monitoring and Evaluation (MAME).

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Date

DEDICATION

This thesis is dedicated to my lovely mother Halima Ally whose unwavering love, guidance and support have been the foundation of my strength and perseverance. Your selflessness, wisdom and encouragement have shaped me into who I am today, and this achievement is as much yours as it is mine. Thank you for always believing in me, even when I doubted myself.

ACKNOWLEDGEMENTS

First and foremost, I want to thank Almighty God for his Grace that enabled me to accomplish my studies. This research would not be successful without a great support from my supervisor Prof. Deus Ngaruko for his guidance throughout my research. Also, I want to give special thanks to my family who have been supporting and encouraging throughout my studies, their patience and encouragement made me reach this far.

I thank my office supervisor Mr. Deogratias Sangu for granting my study leave which I needed so much without it none of this would have been possible. All thanks to Open University (Dar es Salaam) and Open University (Kigoma) for their timely support on my studies and research in general. Lastly, I want to thank all my friends and everyone who supported my efforts to accomplish my dissertation.

May Almighty God bless you all abundantly.

ABSTRACT

This study was set to examine the effect of palm oil production in poverty reduction in Tanzania among smallholders of palm oil. The study had the following objectives; to assess the palm oil production and social economic levels; to examine farmer's perception on importance of palm oil production; to evaluate the significance of income generated from palm oil production on smallholder's livelihood system. This study was a quantitative research study, the study used questionnaire as a tool of data collection. Data was collected from 112 respondents who were the smallholders of palm oil at Kigoma. The study used Microsoft excels to analyze data collected from the respondents. The finding of this study revealed that there are so many inadequacies that hinder the success of agriculture sector. Majority of civilian at Kigoma produce palm oil depend on it as the source of eradicating poverty in their communities. The study has discovered challenges such as; awareness of Agriculture Policy among the stakeholders of palm oil production, government support, credit services, agriculture knowledge, availability of water and sanitation, extension officers and agriculture inputs. The study has provided the following recommendations; the government should ensure proper implementation of the National Agriculture Policy (2013); the government should modify the budget given as a loan to agriculture sector. The government through its organs should organize and emphasize investors to finance on agriculture sector. The government should prepare educational programs to stakeholders of agriculture sector including palm oil producers and availability of extensions officers in every Region.

Keywords: *Oil Palm, Poverty Reduction, Smallholder, Poverty.*

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LIST OF ABBREVIATIONS AND ACRONYMS

AEO	Agriculture Extension Officer
ASDP	Agricultural Sector Development Programme
BOT	Bank of Tanzania
EDI	Economic Development Initiatives
FAO	Food and Agriculture Organization
FFB	Fresh Fruit Bunches
FYDPs	Five Year Development Plans
MA	Ministry of Agriculture
MDGs	Millennium Development Goals
MPI	Multiple Poverty Index
NBS	National Bureau of Statistics
NSGRP	National Strategy for Growth and Reduction of Poverty
NSPE	National Strategy for Poverty Eradication
PRSP	Poverty Reduction Strategy Paper
TAFSIP	Tanzania Food Security Investment Plan
TEOSA	Tanzania Edible Oils Actors Association
URT	United Republic of Tanzania
SOAP	Product of Oil Palm

CHAPTER ONE

INTRODUCTION

1.1 Overview

Palm oil production has been increasingly gaining popularity worldwide, primarily driven by the rising demand for edible oil due to the growing population and its diverse applications in the food, cosmetics, and bio-fuel industries (Ucker, *et al.*, 2015; Brandi, *et al.*, 2013; Ayompe, *et al.*, 2021). At present, around 36 percent of the global edible oil production originates from oil palm trees (Uckert, *et al.*, 2015; Ayompe, *et al.*, 2021).

1.2 Background Information

Globally, it is projected that the demand for palm oil will double by 2050, necessitating the addition of 12 million hectares of oil palm trees to meet this demand. This expansion could pose significant environmental and climatic risks if rainforests and peatlands are utilized for supporting this growth (Uckert *et al.*, 2015). On the positive side, oil palm production holds relevance for households in terms of food security and self-sufficiency due to its richness in vitamins and carotenes (Uckert, *et al.*, 2015). Furthermore, it serves as a vital driver for (rural) development. The literature indicates that oil palm farming has been used as a poverty reduction measure in countries like Indonesia, Malaysia, and Thailand (Pamploma, 2016).

These countries have successfully addressed rural poverty through oil palm cultivation, a practice that could potentially have similar benefits in African countries like Tanzania (Mwaikambo, 2018). Similarly, the existing literature suggests that oil palm cultivation is linked to income gains for many smallholder

farmers (Chrisendo, *et al.*, 2022). However, it remains uncertain whether these income gains translate into long-term improvements in household living standards, particularly in Africa (Chrisendo, *et al.*, 2022). In addition, there are conflicting findings in the general literature regarding the contribution of oil palm production to household living standards (Poverty reduction).

In Africa, the role of palm oil production differs with other countries in the world where by over 87 percent (87%) of palm oil originating from Indonesia and Malaysia, while only about 11 percent (11%) is produced in Africa (Uckert, *et al.*, 2015). In Tanzania, the production of oil palm is significantly limited, with the main oil palm producing regions being Kigoma, Mbeya, and Pwani, with production figures of approximately 61.4%, 35.7%, and 0.9%, respectively, in the 2017/18 agricultural season (TIC, n.d). This raises questions as to why oil palm production in Tanzania is small despite its known economic and health benefits. Rural people in Tanzania primarily engage in agriculture for subsistence and as a means of poverty alleviation, cultivating food and cash crops such as Tobacco, Coffee, Tea, Sisal, Sugar, Cashew nuts, and Pyrethrum (Mwaikambo, 2018).

In Tanzania, specifically Kigoma region, the statistics of palm oil production presents an interesting case for studying oil palm due to several reasons. Firstly, Kigoma accounts for approximately 80% of the oil palm cultivation in Tanzania. Secondly, it is home to the majority of oil palm farmers in the country, boasting over 80,000 small-scale farmers. However, despite its prominent role in palm oil production, Kigoma has experienced the lowest per capita GDP on the mainland over the past decade.

1.3 Problem Statement

However, despite of the admirable efforts done by the Tanzanian government, such as the Tanzanian Development Vision (TDV) and the National Strategy for Growth and Reduction of Poverty (NSGRP), aimed at alleviating poverty, particularly within the Kigoma region, the extent of poverty in Kigoma remains substantial (Mwaikambo, 2018). It is estimated that 49 percent of its population lives below the poverty line (URT, 2014). Furthermore, Kigoma takes the lead in palm oil production, contributing to more than 80 percent of the country's total output. In spite of, the domination of small-scale farmers in Tanzania's palm oil production landscape.

Also, there is a shortage of research concerning the impact of oil palm production on reducing poverty, particularly among these small farmers. This gap in knowledge has resulted in uncertainties surrounding the actual contribution of palm oil production. Moreover, there is a limited understanding of the specific challenges faced by oil palm production in Tanzania, specifically in the Kigoma region, as well as the factors that facilitate its growth. To address this gap in understanding, the present study aims to investigate the effect of palm oil production in reducing poverty in Tanzania.

1.4 Objectives of the Study

1.4.1 General Objective

The general objective of this study is to examine the effect of palm oil production in poverty reduction in Tanzania among smallholders of palm oil.

1.4.2 Specific Objectives

Specifically, the study will concentrate on the following:

- i. To assess the palm oil production and social economic levels.
- ii. To examine farmers perception on importance of palm oil production.
- iii. To evaluate the significance of income generated from palm oil production on smallholder's livelihood system.

1.5 Research Questions

- i. What is the level of palm oil production and economic levels?
- ii. What is the perception of the farmers in palm oil production?
- iii. How does the income generated from the palm oil production benefit the smallholder's livelihood system?

1.6 Significance of the Study

The research identified diverse sources of income on oil palm farmers along with the challenges faced by small-scale farmers in the study area. The findings unequivocally demonstrated the significant contribution of oil palm cultivation to poverty reduction. The study pinpointed specific areas within the palm oil production sector where the government, the Kigoma community, and other stakeholders like Tanzania Agricultural Research Institute (TARI) should focus their efforts to utilize it as a means of reducing poverty. Moreover, the study provided valuable insights for policymakers and other stakeholders seeking to implement development interventions to support oil palm farmers in Kigoma rural district.

1.7 Scope of the Study

The study is confined on assessing the role of palm oil production in poverty reduction in Tanzania: experiences from smallholder palm oil producers in Kigoma

Region. This assessment covered the following areas; the palm oil production and social economic levels, farmers' perception on the importance of palm oil production and the significance of income generated from palm oil production on smallholder's livelihood system. The study conducted at Kigoma Region, Tanzania. Kigoma Region is well known in manufacturing of palm oil; hence it was more suitable to conduct the study due to availability of participants in this study who have relevant and in-depth information about the study.

1.8 Limitation and Delimitation of the Study

Throughout conducting this study, the researcher faced a number of constraints which are; participation of respondents and time. Some respondents refused to participate in data collection because they had a lot of activities to do during the interview which caused interruption. To tackle this challenge the researcher did not hesitate to wait for respondents during their free time. Furthermore, there was no fund located to researcher for conducting this study; hence the researcher incurred cost from her own sources.

CHAPTER TWO

LITERATURE REVIEW

2.1 Definition of key Concepts

2.1.1 Poverty Reduction

Poverty reduction refers to more than just raising people's incomes; it involves establishing circumstances where every individual can enjoy a wholesome and imaginative existence. This includes having an ample supply of nourishment, accommodation, and attire while also ensuring that they have the assurance of freedom, respect, self-worth, and protection from unjust treatment by both the government and the local community. Furthermore, it encompasses their active involvement in society (Barder, 2009). In the current study, poverty reduction was examined in terms of household income. Being classified as poor is determined by living below the international extreme poverty rate of US\$1.9 (approximately TZS 4,762.27) per day.

2.1.2 Oil Palm

Palm oil is an agricultural crop that involves the production of oil palm trees that are used in manufacturing of palm oil, an edible vegetable oil sourced from the fruit of the African oil palm tree (*Elaeis Guineensis*). There are two main types of oil that can be derived from this process: crude palm oil (CPO), which is extracted by pressing the fleshy fruit, and palm kernel oil (PKO), obtained by crushing the kernel or the stone located within the fruit. In essence, both CPO and PKO serve as fundamental raw materials in this context (Naidu & Moorthy, 2021). The Mature tree of oil palms can extent to 20 meters high, the leaves of the tree can reach five meters

long with no branches (Oil World, 2013).

2.2 Theoretical Literature Review

2.2.1 Cumulative and Cyclical Interdependencies

The Cumulative and Cyclical Interdependencies Theory, supported by Myrdal (1957) and developed Bradshaw (2000), suggests that individuals and their communities can get trapped in a cycle of problems or opportunities. When problems dominate, they can create a chain reaction of more problems, making it hard to find effective solutions. For example, lack of employment in rural areas leads to insufficient income and savings, affecting access to health care and education. This cycle of poverty also impacts confidence and mental well-being (Mwaikambo, 2018).

2.2.2 Relevancy of the Theory

In the context of this study, the theory is relevant to palm oil production in rural areas. Scaling up palm oil production can break the cycle of poverty in the study area where agriculture/farming offers employment to about 83% of people in Kigoma. Hence, agriculture provides employment to a significant portion of the population. This leads to better income, access to essential services, and improved living conditions, provides ability to increase income and access to own assets, preventive medicine, good health, food security and schooling children (Mwaikambo, 2018).

2.2.3 Criticism to the Theory

Critics argue that the theory does not fully explore the relationship between individuals and their communities in the process of poverty. However, the theory still holds importance in this study, as it highlights the significance of individual self-

employment such as engaging in oil palm farming as a means to escape poverty in rural communities like Kigoma (Mwaikambo, 2018). Despite the critics this theory is still relevant to this study as it poses the importance of individual self-employment in order to meet the daily needs; In the case of Kigoma rural societies they need to engage in oil palm farming as a mechanism to get out of poverty.

2.3 Factors Influencing Palm Oil Production

2.3.1 Finance

Formal financial services are mainly reported in handful of oil palm chain actors. Loan granted to farmers are rare and hard to qualify. Majority of the farmers are of the opinion that accessibility of loan is impossible to acquire. Majority of the middle persons and thwarts farmers lack the ability to expand their production due to lack of funds. Moreover, some countries in Africa have a high-interest rate example in most of formal banks in Tanzania had a high interest rate of 18% or higher. On the other hand, micro finance institution provide loan for 25% interest or higher.

2.3.2 Labour Market

On-Farm Labor: Farm laborers are not hired on a formal or regular basis instead using family labor or a reciprocal system of labor sharing with neighboring farmers. On the very rare occasions that farmers do hire extra labour (typically for harvesting FFBs) pay ranges from TZS 2,000 to TZS 5,000 per workday. The majority of family members of farming families typically contribute, in some way, to on-farm labor. However, this is informal work interspersed with other household duties and is not considered a full-time labour substitution.

2.3.3 International Palm Oil Trends

Global trade data oil palm is one of the edge products among the types of oil, this is followed by sunflower and soya beans, groundnuts, cotton seed oil and sesame which is produced in small quantity. The largest importer of oil palm is South Asia followed by Southeast Asian and EUI. In Africa Ethiopia is considered to be the largest oil palm producers where by almost 8.5% of global import in 2016. In EAC Middle East, China and North Africa region are reported to lose their shares. Only 5% of oil palm has been produced in a period between 2005 – 2016 (Varkkey and Choiruzzar, 2018).

2.3.4 Regional (East African) Palm Oil Trends

In East Africa there are 5 popular markets of palm oil which dominate the importation of other oils such as groundnuts, sunflower, soya beans, sesame, cotton seed and kernel oil for a share of 96%. In a period between 2005- 2016 there has been a massive importation of sunflower which was 12.68% compared to palm oil which was 4.95% (EAC Secretariat, 2017).

2.3.5 Domestic Edible Oil Trends

In Tanzania the production of oil palm does not meet domestic demands, it is estimated that 755,000 tonnes has been produced in 2015 which has led to an increase of demand (3ADI+, 2018). Despite the fact that Dar es salaam is considered to be the largest processor the refining capital in between 350-700,000 MT CPO year where the industry remains to be separate local production. However, there are several companies that export palm oil regionally in Rwanda, Kenya, Malawi and Uganda (3ADI+, 2018).

2.3.6 National Agricultural Policy

National Policy of Agriculture of 2013 was established by the Tanzania government which aimed to increase development in Agricultural sector. For national revenue to increase through agriculture there has to be facilitation and providing resources to the farmers for more sustainable ways. The objective is to develop competence, efficient and profitable agricultural industry which will directly impact the livelihoods of Civilian and attain a broad economic growth and elimination of poverty.

Other objectives of the national policy is to increase profitability, production and productivity and utilization of the production factors which are capital, labour and land and enhance food security production of sufficient quality and quantity of food.

Other specific objectives are to increase production, productivity and profitability from utilization of the factors of production (land, labour and capital); enhance national food security through production of sufficient quantity and quality of food to mention the few. The national policy also covers implementation constitution in all issues that covers agricultural sector (URT, 2013).

2.4 Empirical Literature Review

Uckert, *et al.*, (2015) conducted a comprehensive investigation into strategies for enhancing oil palm productivity in Africa, focusing specifically on the case study of Kigoma region. Through a combination of Informant Key interviews (IKIs) and structured questionnaires, the researchers found significant variations in output levels arising from different agricultural management practices. Moreover, the study revealed the potential benefits of transitioning from subsistence-based farming to market-oriented production. This shift not only created valuable income

opportunities for farmers but also contributed to meeting the ever-growing global demand for palm oil.

Additionally, the researchers explored the possibilities of an improved small-scale palm oil production system, which includes practices like agroforestry or mixed cropping, along with intensified plant maintenance. Embracing such sustainable methods may lead to increased yields without causing harm to the environment. Mwaikambo (2018) studied how palm oil farming contributes to poverty reduction among small-scale farmers in Kigoma Rural District, Tanzania. The research utilized a descriptive survey design and collected data through a combination of Informant Key interviews (IKIs), interviews, and questionnaires. The findings revealed that the majority of small-scale farmers in the district (82%) relied on agriculture, encompassing both cultivation and livestock keeping, as their primary source of income.

Notably, oil palm emerged as a significant cash crop in this context. However, the study's results highlighted a notable disparity in income between small-scale oil palm farmers and those not involved in oil palm cultivation. On average, a small-scale oil palm farmer earned Tshs.175,000 annually, while non-oil palm farmers earned a considerably lower income of Tshs.89,000 per year (roughly equivalent to Tsh 14,000 and 9,000 per month, respectively). These figures fell below the basic needs Poverty Line in Tanzania, which is set at Tshs.36,482 per month.

Astuti, *et al.*, (2020) conducted research to examine the income contribution of non-oil palm and non-farming households, as well as the impact of oil palm plantations on farmers' income in West Sulawesi, Indonesia. The data for this study were

collected through questionnaires. The study's findings indicate that oil palm cultivation proves highly profitable, yielding an average income of IDR 30,666,620 per hectare per year. The second significant source of income for farmers is derived from a combination of oil palm farming, non-oil palm farming, and non-farming activities, resulting in an average total household income of IDR 46,363,655 per year for oil palm farmers. Furthermore, the research highlights that the contribution of oil palm plantations to farmers' income is moderate, accounting for approximately 66 percent of their total income, placing it in the medium category.

Mehraban, *et al.*, (2021) conducted research to analyze the influence of oil palm production on socioeconomic development in Indonesia. The study employed a panel data model, more precisely utilizing pseudo fixed effects panel estimators. The findings revealed that, on average, oil palm cultivation contributes to a 13% increase in household living standards, as measured by annual consumption expenditures. Chrisendo, *et al.*, (2022) examined the impacts of oil palm cultivation on different measures of living standards. Employing panel data analysis, the study found that oil palm cultivation enhances nutrition, dietary quality, and education expenditures, all crucial indicators of human capital development with potential long-term benefits.

Moreover, the study identified positive correlations between oil palm cultivation, household asset ownership and electricity consumption, while accounting for potential confounding factors. Siswati, *et al.*, (2023) conducted a study to explore the various types of food crops and assess the income generated from both oil palm and food crop farming in Siak Regency. The survey method was employed to collect data through questionnaires, interviews, and field observations. The findings revealed the

presence of several food crops, including sweet corn, cayenne pepper, long beans, and cassava. Income from both palm oil and food crops was measured, with the combined annual income per hectare amounting to Rp 86,700,770.

Additionally, the monthly income per hectare was Rp 7,225,064. Notably, food crops contributed 71.89% to the total farmers' income, while palm oil contributed 28.17%. Alwarritzi, *et al.*, (2016) investigated the impact of oil palm expansion on the food security of farm households in Indonesia. By employing OLS and quantile regression models, the study results indicated a notable correlation between income from oil palm expansion and calorie intake.

Tabe-Ojong (2023) explored the links between oil palm production and women's dietary diversity. The study utilized data from a household survey for oil palm production in Cameroon. Through regression analysis, the study revealed that oil palm cultivation is connected to reduce dietary diversity among women. Euler *et al.* (2017) conducted research on the adoption of oil palm cultivation, household well-being, and nutrition among smallholder farmers in Indonesia. Through the use of quantile regression, the study demonstrated that the adoption of oil palm has beneficial effects on consumption and nutrition.

Ayompe, *et al.*, (2021) conducted a study to explore whether the increasing investment in small-scale oil palm plantations, which contributes to deforestation, is driven by financial gains or other motivations. The research examined the economic feasibility of smallholder farmers choosing between selling their fresh fruit bunches (FFBs) to intermediaries or large agricultural firms equipped with mills, and

alternatively, processing the FFBs in traditional mills to generate palm oil. By utilizing financial metrics such as payback period (PBP), internal rate of return (IRR), benefit-cost ratio (BCR), and net present value (NPV) for a 1-hectare oil palm plantation over a 28-year span, considering a base discount rate of 8%, the study assessed the viability of these options.

The findings of the research indicate that smallholders generate greater income by processing their FFBs in traditional mills to produce crude palm oil (CPO) rather than selling the FFBs to intermediaries or agro-industrial companies with mills. Santika, *et al.*, (2019) examined the impact of oil palm agriculture on the reduction of poverty in Indonesia. Employing a matching technique to assess the consequences of oil palm plantations on various dimensions of human well-being, the study revealed that the societal effects of oil palm cultivation are not consistently advantageous or detrimental. Instead, these impacts demonstrate a systematic divergence dependent on the biophysical characteristics of the areas and the initial socioeconomic circumstances of neighboring communities before the commencement of oil palm activities.

2.5 Conceptual Framework

Based on the literature review, the current study has conceptualized that poverty reduction may be influenced by factors such as oil palm production level, income level, revenues and sales from main production of oil palm (palm oil), farmers perception on importance of oil palm (palm oil) production, as well as demographic characteristics such as the age and education level of the household head, all this are presented in Figure 2.1.

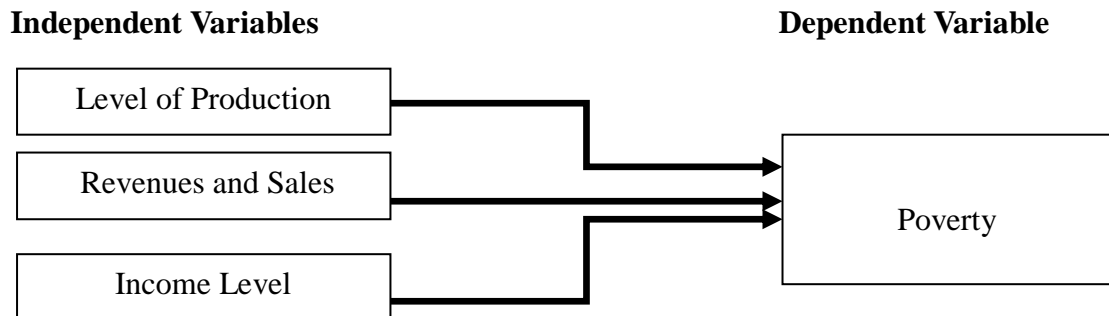


Figure 2.1: Conceptual Framework

Source: Author (2023).

2.6 Research Gap

Drawing from the theoretical literature review, it becomes apparent that palm oil production should theoretically yield a positive impact on poverty reduction in Tanzania, specifically within the Kigoma Region. However, during examining empirical literatures in regard to correlation between palm oil production and poverty reduction, contradictory outcomes emerge. Consequently, the actual effect of palm oil production on poverty reduction remains unclear.

Furthermore, a significant gap exists in research that investigates the influence of palm oil production on poverty reduction, particularly among small-scale farmers. This absence of comprehensive research has given rise to uncertainties surrounding the tangible contribution of palm oil production. In addition, there is a limited comprehension of the specific challenges faced by palm oil production in Tanzania, specifically within the Kigoma Region, and the factors that drive its expansion. To bridge this knowledge gap, the present study sets out to scrutinize the contribution of palm oil production in reducing poverty within Tanzania.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Overview

Research can be referred to as an activity of people to find out new things in a systematic way and therefore expand their body of knowledge (Saunders, 2007). A ‘systematic way’ means the research is undertaken through a certain logical order of events, The logical order of events is crucial in carry out the research, which can also be referred to as research methodology. This chapter covers the Research Design, Research Approach, Area of the study, Scope of the study, Population, Sample, Sampling, techniques and procedure, Data Collection methods and Instruments, Data Management and Data Analysis Plan.

3.2 Research Design

Research design can be defined as comprehensive study of a well define phenomenon using multiple data sources (Creswell, 2013). The study used quantitative research design; this is because a quantitative research design provided a researcher with more realistic responses than a purely statistical survey. Also, quantitative research design provided a room for the researcher to collect data from a large number of respondents in regard to the subject matter and add strength to what is already known through previous research. Furthermore, a quantitative research design enabled a researcher to promote the result from the participant involved in the study and not imposed data by structured statistical analysis.

3.4 Research Approach

Research approaches can be referred to as procedure and plans a researcher use to

span steps from broad assumptions to detailed methods of data collection, analysis, and interpretation. There are two types of research approaches, qualitative approach and quantitative approach. Qualitative research approach refers to the data which is in terms of images, words, photographs, observations and conversations (Creswell, 2012). For the purpose of this study, the researcher used quantitative research approach. This approach is relevant to this study because the study focused more on acquiring information about the subject matter from shareholders of oil palm.

Through this approach a researcher was able to gather the need information of this study through the tool that was used in data collection. Hence, the approach enabled a researcher to be flexible when collecting data and analyzing them. Similarly, the study focused mainly in quantitative approach because, similar studies may be conducted in the future to fill the gap of knowledge about how oil palm production contributes to reduce poverty.

3.5 Study Area

The study was carried out in Kigoma Region. Kigoma Rural District is where majority of farmers of oil palm dominates in Kigoma (Uckert *et al.*, 2015). Smallholder farmers are the majority of the population engaged in oil palm production. Moreover, the researcher was interested in conducting a study in this area because there are more than 11,110 oil palm producers (Kigoma Regional Investment Guide, 2018) and there are few studies that have conducted to examine small farmers in Tanzania, thus creating a gap in knowledge about how oil palm production contributes to reduce poverty.

3.6 Population of the Study

The study included 112 respondents who were the smallholders of palm oil producers at Kigoma, distributors, wholesalers, and farmers. Population is a group of individual persons, objects, or items from which samples are taken for measurements for example a population of presidents or professors, books or students (Mugo, 2002). The sample of 112 respondents was retrieved through Yamane formula, from the total population of the participants of this study. Hence, researcher used 112 respondents as a representation of all stakeholders of this study.

3.7 Sample Size and Sampling Techniques

3.7.1 The Sample Size

The size of the sample size was calculated using a formula developed by Yamane (1973). Hence the sample size used in the study was 112 from a total population of 11,110 participants of smallholders of oil palm (Kigoma Regional Investment Guide, 2018). The study also adopted a significance level of 5 percent, indicating that the chance of making a type I error was below 5 percent;

$$n = N / (1 + Ne^2)$$

Where; n is the sample size to be used in the study

N is the total population of smallholders of oil palm (for this study) = 11,110

e is the standard error for the study (e=5% while confidence level 95%).

$$\text{Therefore; } n = 11,110 / (1 + 11,110 \times 0.05^2)$$

$$n = 11,110 / (11,110 \times 0.05^2)$$

$$n = 11,110 / (11,110 \times 0.0025)$$

$$n = 11,110 / 12,355,432$$

$$n \approx 112$$

$$n = 112$$

3.7.2 Sampling Technique

The sampling technique that is used in obtaining the said sample of respondents above, the study deployed two kind of sampling techniques namely; purposive sampling and simple random sampling technique. Simple random technique was used to select respondents from different areas who participate in activities of oil palm. These respondents were ought to be selected randomly due to the consideration of their availability and readiness to participate into the study. Purposive or judgment sampling technique was used to select respondents who were said to be owners of oil palm farms. Respondents from this category were expected to provide clear and reliable information about the study.

3.8 Types and Sources Data

3.8.1 Types of Data

Data can be defined as a collection of raw facts or numbers, which, when processed can provide meaningful information. There are type of data which is qualitative data and quantitative data. Qualitative data is the non-numerical information that describes qualities or characteristic, while quantitative data is numeric data that can be measured and counted (Creswell, 2012). This study used quantitative data which help to provide a statistical amount of information of this study.

3.8.2 Data Collection Methods

There are two types of data that are used in data collection these are; primary and secondary data. Primary data are all data collected in a field during data collection it

can be through interview, distribution of questionnaires; focus group discussion etc., while secondary data is collected through review of literatures of different authors (Creswell, 2012). This study deployed primary data which helped to acquire numerical data that was necessary in this study.

3.8.2.1 Questionnaire

This study used questionnaires as an instrument of data collection because the study involves quantitative research approach. This method was used to get quantitative data from small holder of oil palm at Kigoma Region. The questionnaires in this study distributed to 112 participants, the questionnaire includes closed-ended questions which enabled respondents to be free to express their thoughts and share their experiences regarding the issues of oil palm.

3.9 Data Analysis Plan

During data analysis measures of frequency and correlation was used to interpret quantitative data obtained during data collection. All data obtained undergo data processing before they were analyzed for presenting information. Data processing involves data editing where data checked for accuracy and completeness prior to coding and entry. In this research the researcher used Microsoft excels to analyze data collected from the respondents.

3.10 Data Reliability and Validity

To ensure the validity and reliability of this study, a pilot test was conducted. The pilot test involved 20 households and 2 government officers selected from the designated Ward. This process aims to verify the accuracy of the questionnaires in

achieving the study objectives. Additionally, the study employed Cronbach's alpha coefficient to evaluate the dependability of the research tool. The alpha coefficient is a numerical value that spans from 0 to 1. Elements with values below 0.7 are regarded as inadequate and were eliminated.

3.11 Ethical Consideration

The researcher adhered to research ethical consideration during data collection through the following procedure; first the researcher requested a research permit from the University. The permit to collect data enabled a researcher to the easily collect data. Additionally, the researcher created an informed consent form that was used during data collection phase of this study, which each participant was required to read, comprehend, and sign before taking part. This gave participants the freedom to choose whether or not they were willing to participate in the study. Additionally, the researcher guaranteed the participants' secrecy by giving them anonymous names and promising them not to divulge any information that would identify their identities at any time, including when the results were published.

CHAPTER FOUR

RESEARCH FINDINGS

4.1 Chapter Overview

This chapter presents the finding of the data that was collected during data collection. The researcher used both questionnaires to collect data from 112 respondents of this study. The findings of this study were analyzed using Microsoft excel and clarified in paragraphs to cover the objectives of this study. This study was aimed to collect data from smallholders of palm oil at Kigoma which included distributors, wholesalers, and farmers. The findings were presented per each specific research objective which answers research question. The general objective of this study was to examine the effect of palm oil production in poverty reduction in Tanzania among smallholders of palm oil.

The specific objectives of this study were; (i) to assess the palm oil production and social economic levels, (ii) to examine farmers' perception on importance of palm oil production and (iii) to evaluate the significance of income generated from palm oil producers on smallholders' livelihood system. The research questions were; (i) what is the level of palm oil production and social economic levels? (ii) What is the perception of the farmers in palm oil production? (iii) How does the income generated from the palm oil production benefit the smallholder's livelihood system? Before presentation of the findings the study will provide characteristics of the respondents of this study and their purpose.

4.2 Respondents Demographic Characteristic

This study considered using different type of characteristics of the participants who

participated in this study. This is because of the fact that the researcher was curious to get information from the right people who provided in-depth information about the subject matter of this study. The characteristics involved in this study were; age, gender, occupation, education level and years of experience.

4.2.1 Age of the Respondents

The study grouped the palm oil producers according to their, this is because it helps in grouping the respondents in terms of youth and elderly. The findings under Table 4.1 indicate that only 15.2% of palm oil producers were youth. While, 41% of the palm oil business is dominated by those who are more than 45 years. This entails that the industry of palm oil production is dominated by elderly population. These findings correlate with World Bank (2003), which provides that elderly people have responsibilities such as providing education, food and shelter for their family, as the results it increases the number of workers.

Table 4.1: Age of the Respondents

Age	Respondents	Frequency	%
18 – 25		3	2.7
26 – 35		14	12.5
36 – 45		49	43.8
46 – 55		38	33.9
55 – Above		8	7.1
Total		112	100

Source: Field Data (2024).

4.2.2 Gender of Respondents

The researcher was interested in studying the gender of the respondents so as to learn on gender participation in oil palm agriculture. The results in Table 4.2 portray that 77.7% of palm oil producers were female participate more in palm oil production

than male. These results are similar to the finding of World Bank (2001), which provides that women play the vital role of providing basic needs to their family, hence participate more in agricultural activities compared to men. According to Carrere (2010), majority of women participate more in processing of oil palm fruit into red palm oil using traditional oil. Further, at a local level female are put to be in charge of milling and boiling of palm oil, selling palm oil products such as soap and oil Carrere, 2010).

Table 4.2: Gender of the Palm Oil Producers

Gender	Palm Oil Producers	Frequency	%
Female		87	77.7
Male		25	22.3
Total		112	100

Source: Field Data, (2024).

4.2.3 Education Level

The palm oil producers were required to state their level of education because it helps to identify their capacity in a field area. Further this category helped the researcher to understand whether education holders by farmers are relevant to their field work. In addition, education level of palm oil producers helped in sampling method where it was necessary to group them in a different level of education. The results in table 4.3 indicated 60.0% of farmers have acquired primary education. According to the palmoil producers their families were unable to let them pursue upper education due to economic constrains. It is evident that most of the people who participate in palm oil production are poor because 36.6% could not afford going to school.

Table 4.3: Palm Oil Producer's Education Level

Education level	Palm Oil Producers	Frequency	%
No Education		41	36.6
Primary Education		67	60.0
Secondary Education		4	3.4
Degree		0	0
Others		0	0
Total		112	100

Source: Filed Data (2024).

4.2.4 Years of Experience in the Field

The study classified palm oil producers according to their experience in oil palm agriculture activities. This helped in collecting data from highly experienced individuals in the field. Also, this was crucial because it provided room to collect in-depth information about the study. The results in Table 4.4 depict that 4.5% of palm oil producers have engaged palm oil business for less than one year. The majorities of the palm oil producers have experience of one year and above indicate that the study has involved the most experienced palm oil producers. Hence, it ensures the uniqueness of this study.

Table 4.4: Palm Oil Producers by working Experience

Age	Palm Oil Producers	Frequency	%
Less than 12 months		5	4.5
1- 5 years		44	39.3
6 - 10 years		38	33.9
11 - 15 years		17	15.2
16 years and above		8	7.1
Total		112	100

Source: Filed Data (2024).

4.3 Oil Palm Production Level and Income Levels

This part targets to explore specific objective number one and answer research question number one of this study. The Palm oil producers were required to answer questions that provided detailed information on the source of capital, ownership of

oil palm, number of oil palm tree for each your farmer, number of hectares cultivated in a year, method used to cultivate oil palm, amount of liters produced in one tree per month, amount of liters produced in one month, number of workers, amount of liters sold in a month, accessibility of market for oil palm products, challenges in sales of the products, income per month in cultivating oil palm, number of taxes which is required to be pay per year.

4.3.1 The Smallholders Palm Oil Production

The Palm Oil trees become productive after three years after planting, and grows in large bunches or Fresh Fruit Bunches and the fruit is reddish in color (FFB) (Sheil, et al, 2009). The trees are replaced after 20 – 25 years due to declining yields and their high height makes it difficult to harvest, although the trees can live up to 50 years (Vijaya, *et al.*, 2010). The oil palm tree is capable of producing up to 4,080 kg of palm oil in a year and 456 kg of palm kernel oil giving a total of 4,536 kg of palm oil products per year from a hectare of land (Ramli& Wahid, 2010). A sample of matured oil palm is provided under Figure 4.1.



Future 4.1: Oil Palm

Source: Researchers, (2024).

Smallholder Palm oil producers have no single definition. Instead, different indicators have been used to define small scale farmers. African small-scale farmers have been categorized in to two basis which are; revenue gained by farmers and agro- ecological zones in which they work. The growth of palm oil depends on the ownership of the land where by in high population area can be cultivated less than a hector up to 10 hectors of land (Salami, 2010). Figure 2.2 provides smallholder palm oil producers.



Figure 4.2: Smallholders Palm Oil Producers
Source: Researcher (2024).

4.3.1 Source of Capital

The palm oil producers were required to state source of funds as it helps analyzing the benefits one might get after marketing their products. The results in Figure 4.3 indicate that 59.8% of the farmers had individual source of capital. This finding

aligns with the findings of Mwaikambo, (2018) which show that 92% of the farmers did not receive any government support.

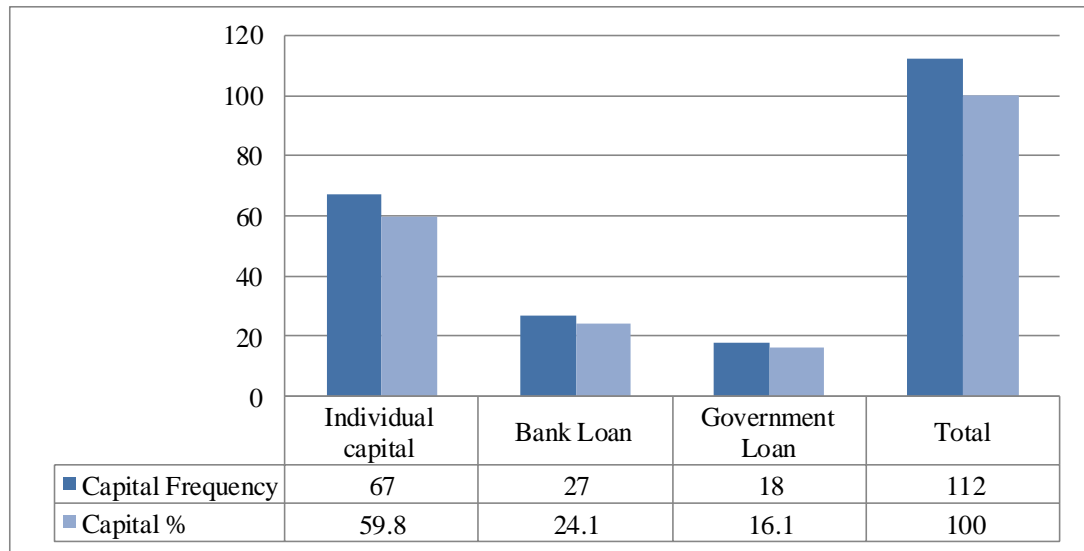


Figure 4.3: Source of Capital

Source: Filed Data, (2024).

Lack of the support from the government, investors and NGO's reduces the capacity of the farmers to produce oil palm due to many reasons. Further, studies shows that the government has failed to provide conducive environment for farmers to meet their goals of high production (Mwaikambo, 2018). The results are contrary to the policy which ensures government support to farmers in order to increase revenue.

4.3.2 Ownership of Oil Palm Farms

The palm oil producers were required to state the status of farm ownerships, because it helped to determine the benefits involved in oil palm activities. The results under Figure 4.4 indicate that the ownership of land used for cultivation of oil palm have a slight difference. 51.8% of the palm oil producers own their farm through lease agreement. However, a significant number of palm oil producers 48.2% have private ownership.

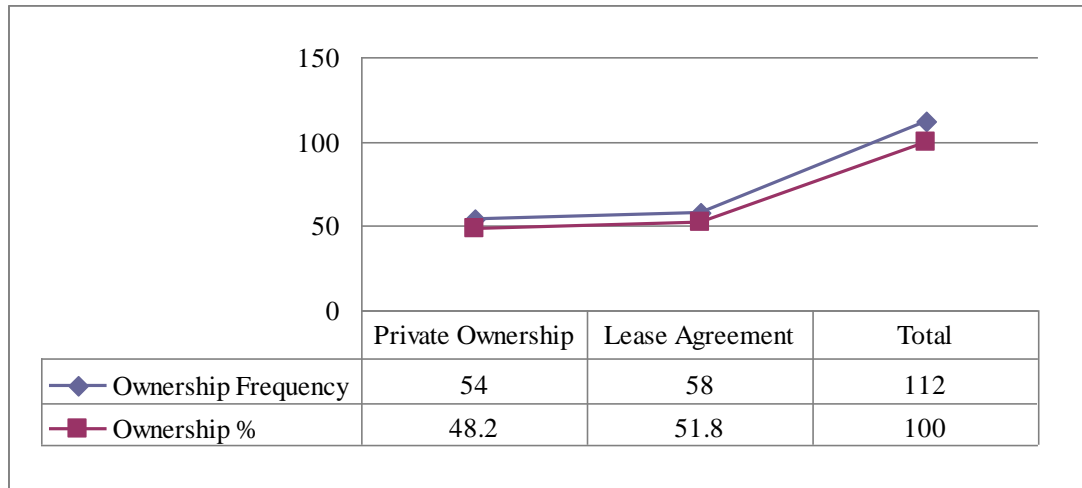


Figure 4.4: Ownership of Oil Palm Farms

Source: Filed Data (2024).

Most of private farms owners have inherited them from their ancestors. The findings are similar to the Village Land Act (CAP. 114 2019) which provides that the government is the ultimate owner of the land; it grants the right to occupancy. This gives legal protection to individuals who have customary rights of occupancy under section 18(1) of the act. Moreover, it is obviously that majority of the land owners are women as stated in 4.5.

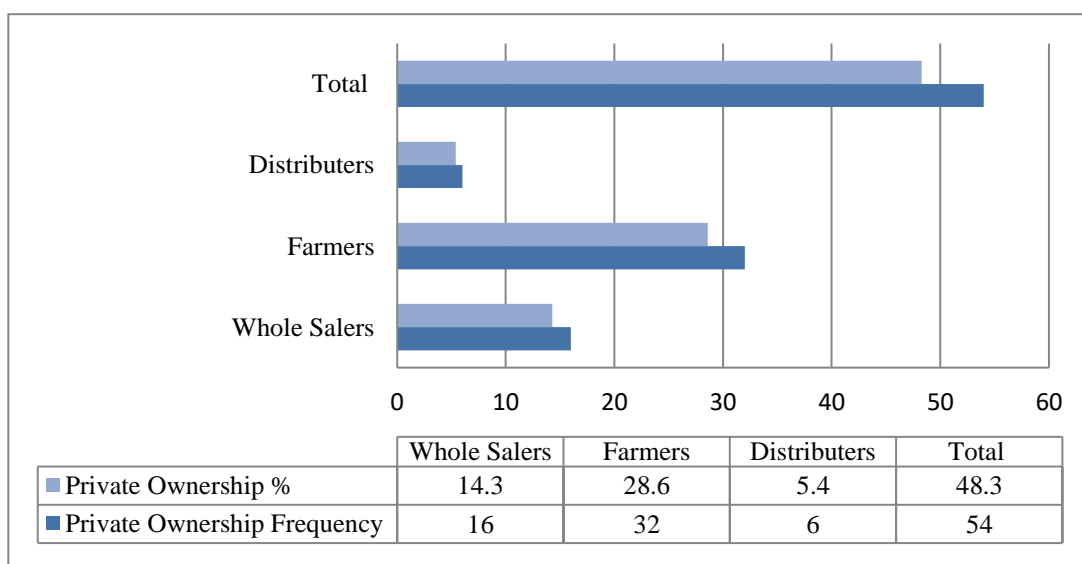


Figure 4.5: Private Ownership

Source: Filed Data, (2024).

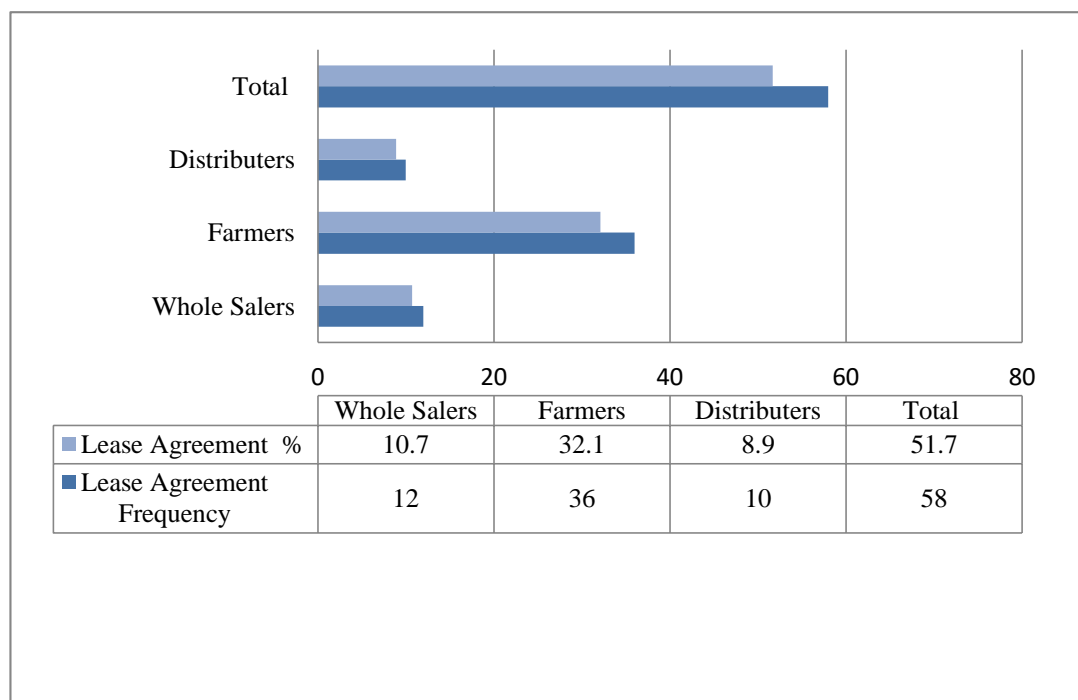


Figure 4.6: Lease Agreement

Source: Filed Data, (2024).

The findings proves that the principal of equality is been adhered. However, not every participant in this study was a farmer; hence the study categorized the ownership of farm land into three groups. However, the findings shows that 60.7% of the farmers own farms through private ownership and lease agreement as shown in Figure 4.5 and Figure 4.6 respectively.

4.3.3 Palm Oil Farm Features

The palm oil producers were required to disclose number of hectors they owned. This helped to project the profit gained after marking their products. The results in Figure 4.7 indicate that majority of palm oil producers 48.2% own 1 to 10 hectors of farm land. The results are contrary to the findings of FAO, (2015) which states that small farmers at Kigoma region in rural districts own less than 2.2 hectors of land.

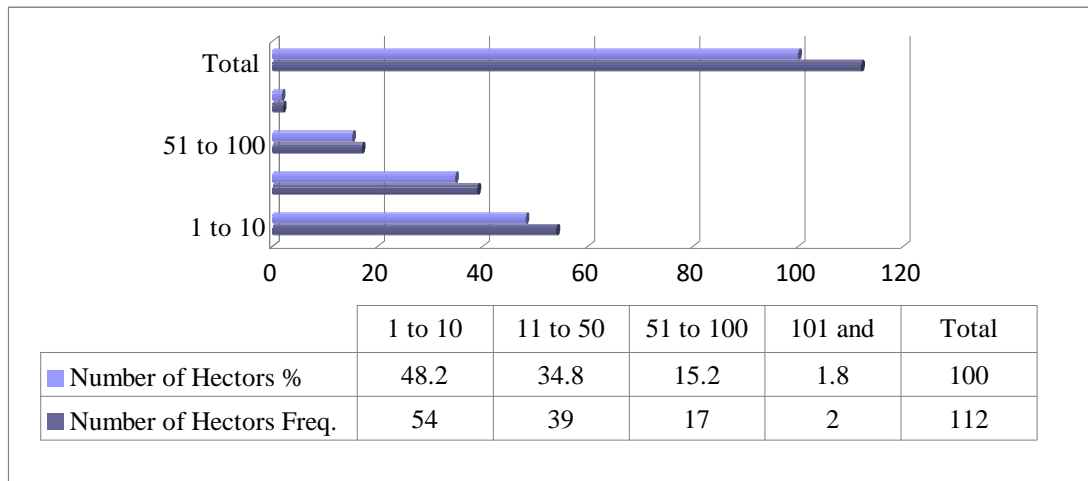


Figure 4.7: Numbers of Hectors

Source: Filed Data, (2024).

The mere fact that there are palm oil producers who own 50 hectares to 100 and above as provided in Figure 4.7, and the fact that 48.3% of palm oil producers own 1501 trees and above as provided in Figure 4.8 proves that with good investment the level of palm oil production may increase to the extent of eliminating poverty to farmers and their families in Kigoma region.

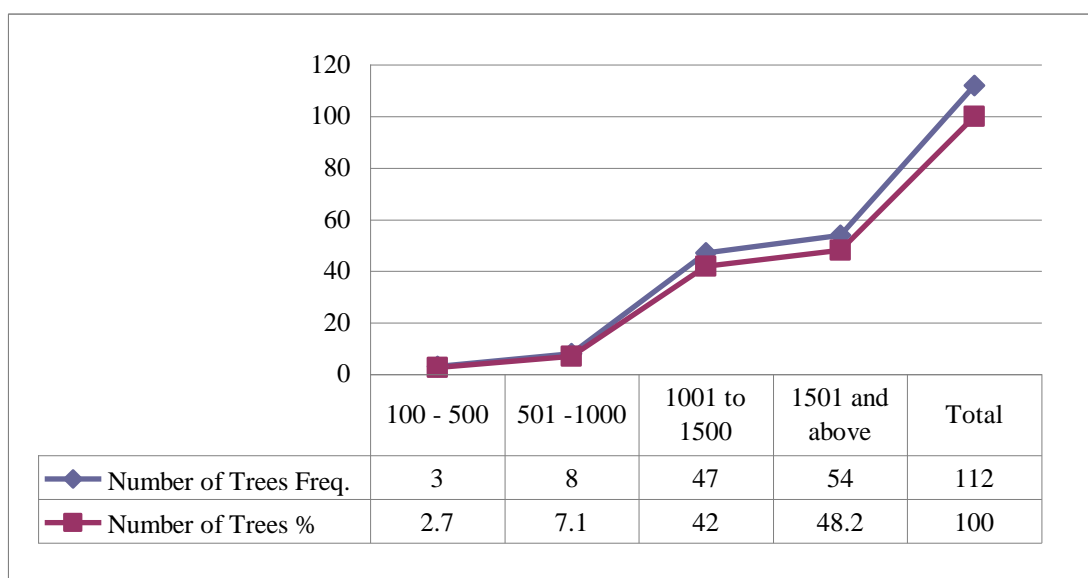


Figure 4.8: Numbers of Trees

Source: Filed Data, (2024).

4.3.4 Number of Trees Cultivated in a Year

The results in Figure 4.9 indicate that majority of the palm oil producers were of the opinion that cultivation of oil palm depends on the weather. Hence not all trees can produce oil palm at once some of them delays in producing oil palm. The results shows that majority of the palm oil producers 51.8% cultivate oil palm in between 100 to 500 trees in a year. This finding is related to the study conducted by Mwaikambo, (2015) who stated that 42% of the respondents had 1 to 10 years in cultivating oil palm. These findings indicate that the number of individuals engaging in oil palm cultivation is increasing as is the cash crop which has potential worldwide.

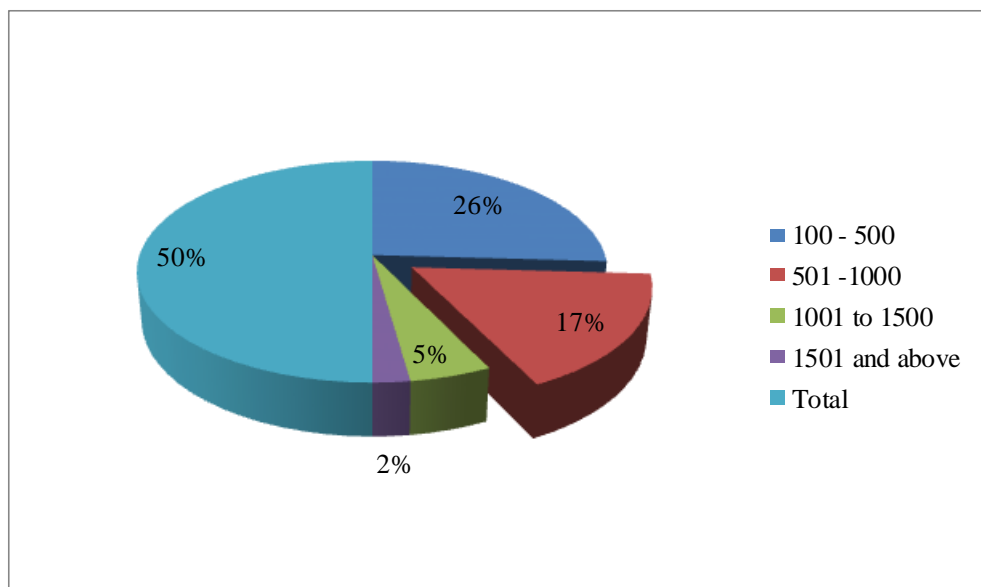


Figure 4.9: Number of Trees Cultivated in a Year

Source: Filed Data (2024).

4.3.5 Method Used to Cultivate Oil Palm

The study reveal method used in cultivating oil palm because it provide information on whether the methods used in cultivating oil palm may have an impact on the number of liters produced during cultivation process. The results in Figure 4.10

indicate that all the palm oil producers stated that there is a chain of procedure in cultivating oil palm. This process involves the number of workers. Hence there is a chain of procedure in cultivating oil palm.

Furthermore, 84.8% have shown that they use local method of cultivation. This result implies that the level of oil palm product is low since majority of the palm oil produces use local method to cultivate oil palm. The findings are similar to Carrere, (2010), which provides that traditional mode of palm oil production are still used and dependent in manufacturing of palm oil to date as a major source of employment and income in more than 13 African countries.

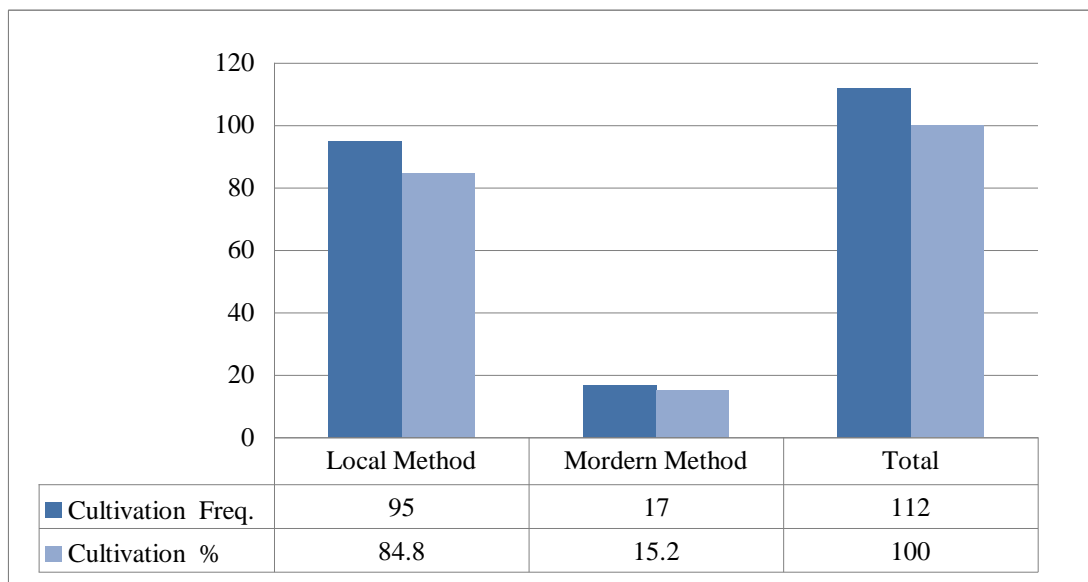


Figure 4.10: Method of Cultivation and Production

Source: Filed Data (2024).

The local method of cultivation and production reduces the quality of goods that fail to challenge similar products in the market. The market was reported to be weak, Oil palm farmers rely solely on local market for their products, but there was evidence that, oil palm products were found beyond Kigoma Region to commonly Mwanza,

Kagera, and Tabora regions (Watkins, 2011). Figure 4.11 and Figure 4.12 provides for some of the local method of manufacturing oil palm. Furthermore, Cotz, et al, (2015) conducted a study to evaluate the process used in manufacturing oil palm products. The findings indicate that palm oil producers mostly use a hand driven machines (“mashineyangazi”) which was originated from Burundi. Thereafter they boil to process palm oil.



Figure 4.11: The Local Machine for Processing Oil Palm (Hand Driven Machine)
Source: Researcher (2024)



Figure 4.12: Method of Production
Source: Researcher (2024)

4.3.6 Number of Workers

The palm oil producers were required to state the number of workers they have hired in cultivation process of oil palm. This helped to understand more about employment opportunities provided to people in regards to oil palm production. The results in Figure 4.13 indicate that majority of the palm oil producers 77.7% stated that they

employ temporary workers. The rest 22.3% hire permanent workers. Further the results shows that temporary workers are only hired when there is an activity needs to be done at the farm while permanent workers are mostly hired at the wholesale store and manufacturing industries.

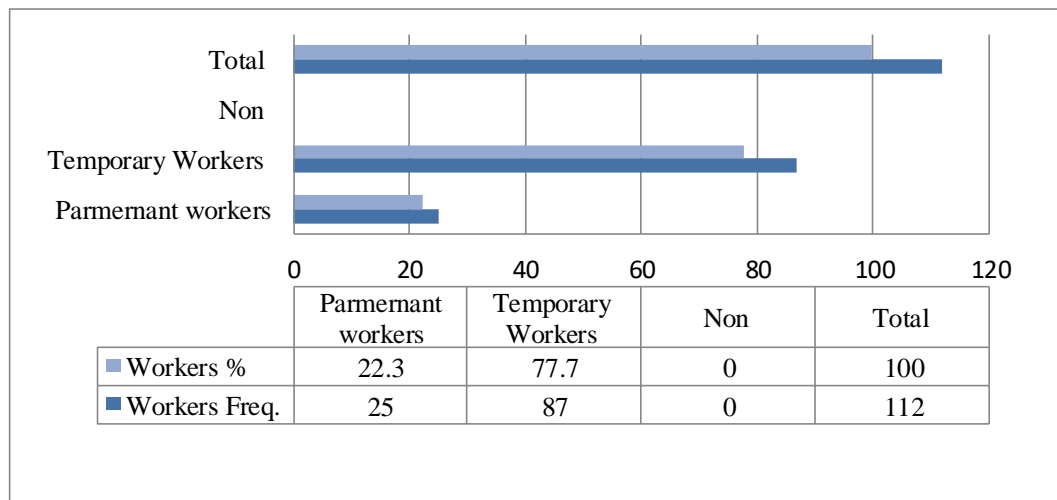


Figure 4.13: Numbers of Workers

Source: Filed Data (2024).

These results are similar to the study conducted by Walkins, (2011) which states that more than 80% of people living in Tanzania are employed in agricultural sector. This is because of the fact that agricultural sector is considered to be the backbone of Tanzania economy. Also, the study is similar to Mwaikambo, (2018) study which evaluated the major source of income of palm oil producers and realized that 82% of palm oil produces considered agriculture as the major source of income while 18% of them state that lumbering and fishing were their source of income.

4.3.7 Accessibility of Markets for Oil Palm Products

The palm oil producers were required to state their opinion whether they have faced any challenges in accessing market to sale their products. This help to understand the availability of market and its relation to profit making. The findings in Figure 4.14

indicate that 96.4% of the total population has no difficulties in accessing market for their product. This finding is contrary to the study conducted by Gotz, et al., (2015) which provides that the market was reported to be weak where by palm oil producers their products depend on merely local market to sale. Nevertheless, it was evident that oil palm products are sold beyond Kigoma region commonly Mwanza, Tabora and Kagera.

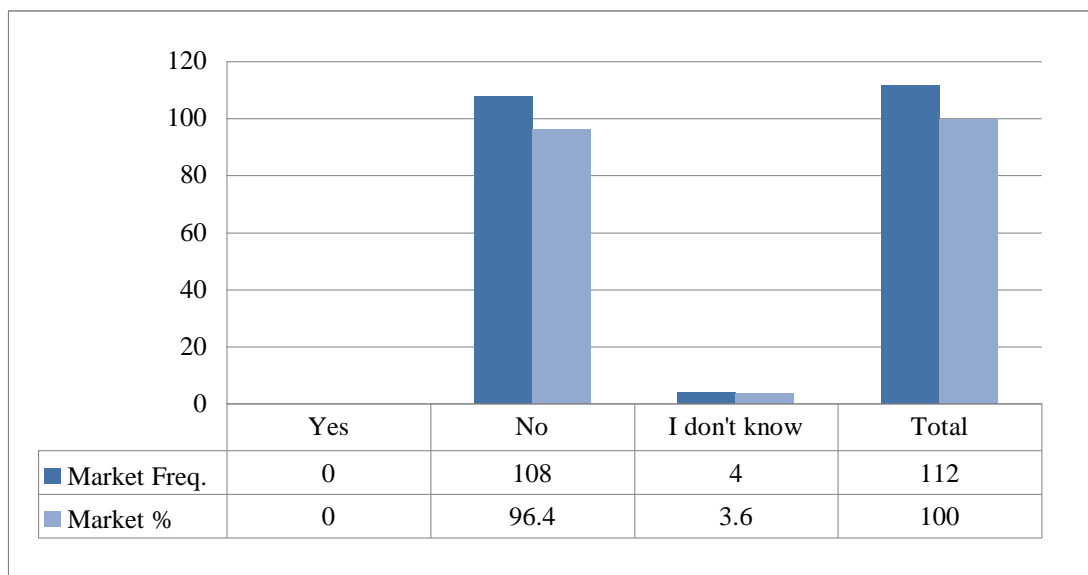


Figure 4.14: Accessibility of Markets

Source: Filed Data (2024).

4.3.9 Challenges in Sales of the Products

The palm oil producers were required to state their opinion on whether they face any challenges during sales of oil palm products. The aim was to discover challenges because they have direct impact in the profit and hence have an impact to the maintaining the living standards of stakeholders. The results in Figure 4.15 indicate that 92.0% of oil palm producers agreed with the statement that they face several challenges in sales of the oil palm products. These findings are similar to the study conducted by Gotz, et al., (2015) which provided that some of the reasons is due to

the used of poor technology in production and refining process which lead to low quality and hence fail to compete with similar products in the market.

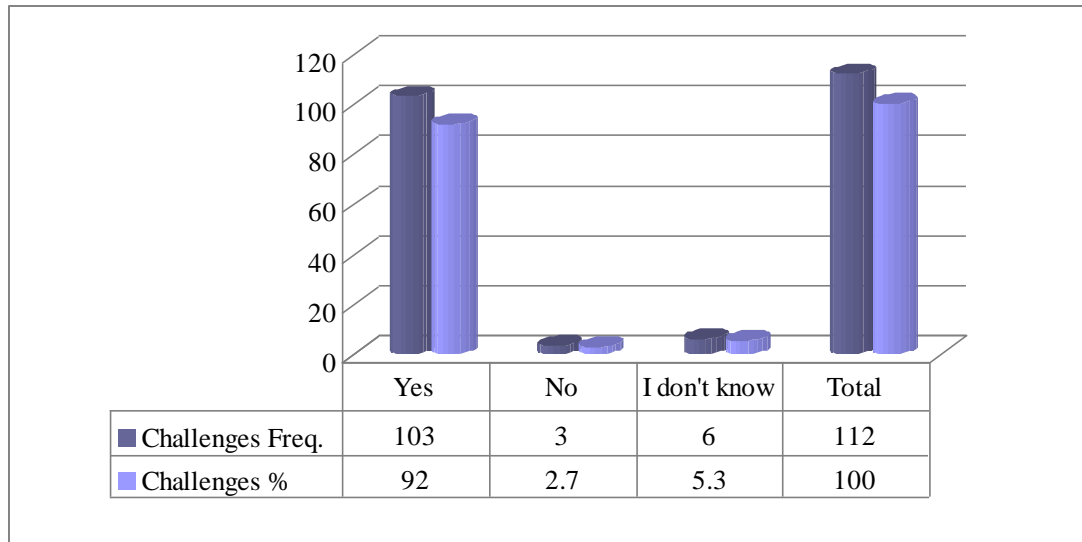


Figure 4.15: Challenges in Sales of the Products

Source: Filed Data, (2024).

4.3.10 Income per Month in Cultivating Oil Palm

The palm oil producers were required to give their opinion on the profit they make per month. The help to learn distinction of the taxes, wages, and capital used in making oil palm product and the profit gained. The results in Figure 4.16 indicate that 50.0% of palm oil producers earn Tsh. 200,000 to Tsh. 500,000 a month. These results are contrary to the findings of the study conducted by Mwaikambo, (2018) which assessed monthly income level made by small scale farmer in Kigoma. The result revealed that for a farmer earn Tshs. 14,000 per month and workers earn 9,000 monthly. Similar to this the study, a study was conducted to assessed the annual income of palm oil farmers in Kigoma region, aim to determine the role of oil palm production in the issue of poverty reduction. The findings provided that oil palm farmers earn Tsh. 175,000 (NBS, 2012).

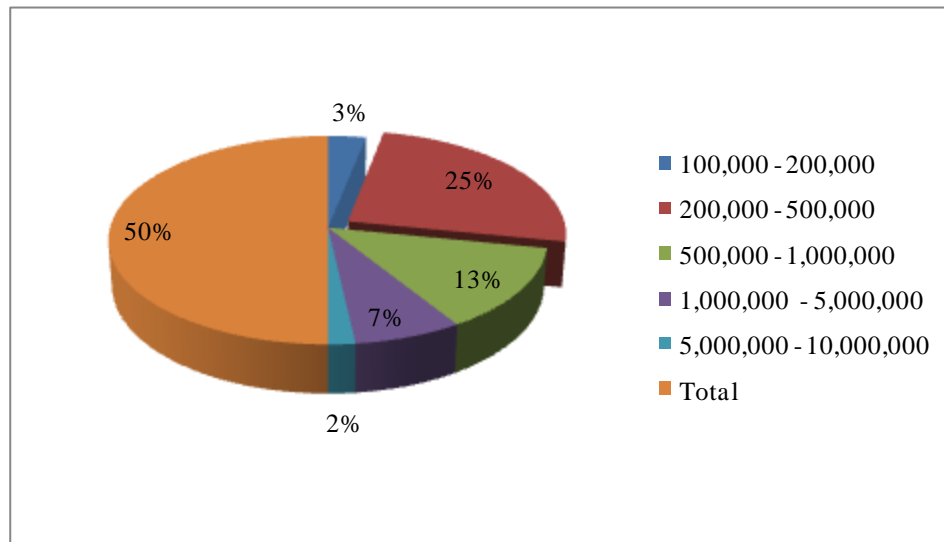


Figure 4.16: Income per Month

Source: Filed Data (2024).

4.3.11 Number of Taxes which are Required to be paid per Year

The respondents were required to state down their opinion on the number of taxes they are required to pay from the cultivating oil palm to the buyer. The researcher was interested in learning about the issue of taxes and how it can affect the profit made on oil palm activities. The respondents were of the opinion that they are required to pay municipal taxes in respect to the transportation of the product from one region to another.

Therefore, if the sellers have to transport their product in more than four regions to access the market then they will be required to pay municipal tax for each region they enter. Furthermore, for the ones that transport their products from one country to another they will be required to pay municipal taxes and state taxes depending on the number of regions they have transported the goods. Moreover, the tax paid in to transfer the product from our country to the foreign country has no relationship with the taxes that will be required to be paid in the foreign country.

4.4 The Perception on the Importance of Palm Oil Production

This part provides answers to specific objective number two and answer research question number two of this study. The following were the areas of concentration; the advantages of engaging oil palm production, the advantage of oil palm as products, and challenges of exporting oil palm outside the country.

4.4.1 The Advantages of Engaging Palm Oil Production

The palm oil producers were required to state their opinion whether oil palm production has importance in their daily activities, and whether it benefits them enough to secure their daily life needs. The purpose was to discover the effect of palm oil production in their lives which aims at reduction of poverty. The results in Figure 4.17 indicate that all the palm oil producers agreed that oil palm production provide them with immerse advantages that enable them to escape poverty. The study assessed the use of profit generated from oil palm production whereby number of advantages that comes together with engaging in oil palm production was stated.

Also, 100% the profit gained from oil palm activities was able to provide food, clothes and shelter to their family. Reimbursing school fees for their children, been able to afford medical needs. Contribute to state revenue; Oil palm itself is used as a natural medicine for some diseases. Therefore, oil palm production can be a stepping stone in reduction of poverty in Tanzania. Furthermore, annual amount spent in health insurance Community Health Insurance (CHF) in order to receive medical services was Tsh. 10,000 this is according to 62% of the oil palm farmers at Kigoma region and while 38% spent Tsh. 5,000 to cover their medical bills (Mwaikambo, 2018).

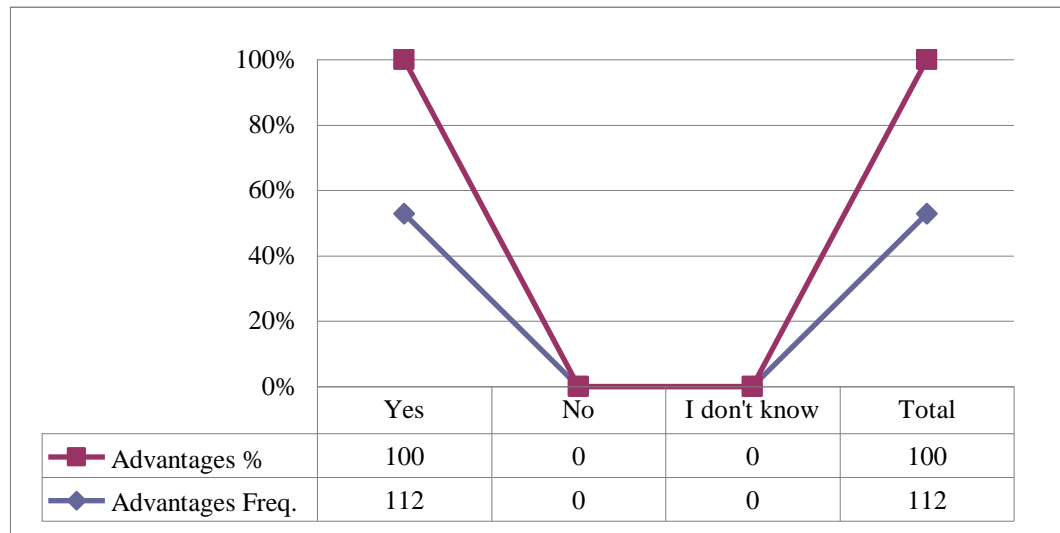


Figure 4.17: Advantages of Engaging Oil Palm Production
Source: Filed Data (2024).

4.4.2 The Advantage of Palm Oil as Products

The palm oil producers were required to state their opinion on the advantage of oil palm products. The aim was to learn about the advantage of oil palm product as it may be the source of increasing the use of oil palm products and hence increase the profit. The study reveals that there are several advantages of oil palm products such oil palm can be used to produce oil palm soaps and as the result increase profit to the farmers. A sample of oil palm soap is provided in Figure 4.18.

According to Mrokim (2016) the income produced from oil palm products are used to finance family needs such as food and medical services that are considered to be a non-development investment. Furthermore, the palm oil farmers invest more in business and education which help to see palm oil production as a stepping stone towards reduction of poverty.



Figure 4.18: Product of Oil Palm (SOAP)

Source: Researcher (2024).

4.4.3 Challenges in Exporting Palm Oil outside the Country

The oil palm producers were required to state whether they export some of their oil palm products outside the country. The purpose was to learn if exportation of goods increases profit to the stakeholders. The results in Figure 4.19 indicate that 88.4% of palm oil producers disagree that they do not export their product. Some of the challenges encountered are high tax rate in foreign country and transportation. Some of the literature reveals that exportation of palm oil becomes difficult due to insufficient level of production of palm oil and its products given the level of technology in production.

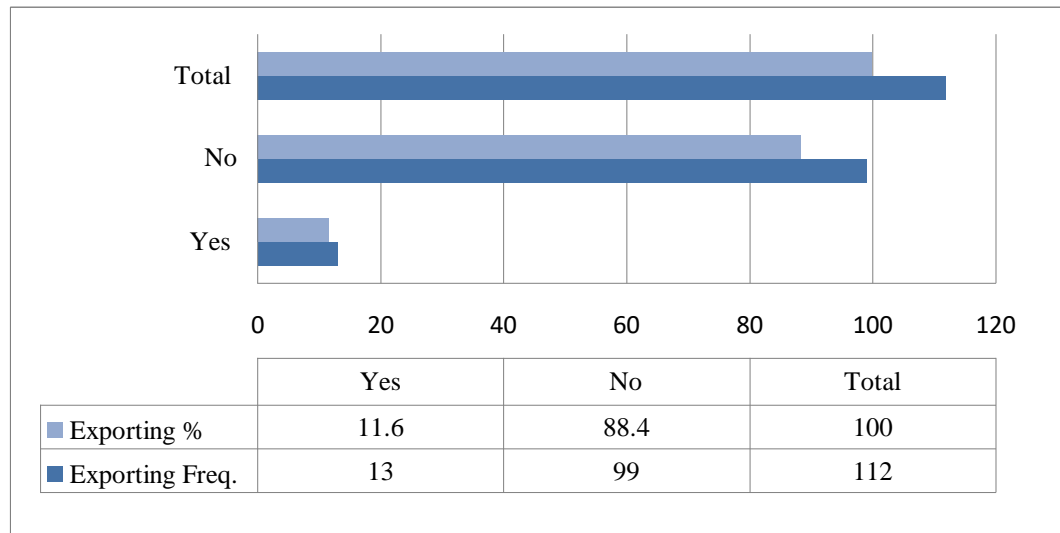


Figure 4.19: Challenges in Exporting Oil Palm outside the Country
Source: Filed Data (2024).

Due to the development of technology local palm oil producers have been left far behind to reach standard of the market. This is due to the use of local method of cultivation. Poor technology has led to low quality of goods that fail to challenge similar products in the market. In Africa, specifically in Tanzania palm oil production is mostly dominated by small-scale subsistence farming systems. These systems are characterized by low yields and low even in regions with the most suitable cultivation conditions (Gotz, et al., 2015).

4.5 Significance of Income Generated from Oil Palm Producers on Smallholder's Livelihood System

This part covers specific objective number three and answer research question number three of this study. Detailed information was gathered in the following areas; the economic advantage from the income of oil palm production, challenges in generating income in oil palm production, and recommendations on eliminating challenges in oil palm production.

4.5.1 Whether Palm Oil is Counted as a Reliable Source of Income

The finding in Figure 4.20 reveals that majority of the oil palm producers 61.6% of the palm oil producers agree that oil palm is the reliable source of their income. This finding is similar to the study conducted by (Mwaikambo, 2018) which provided that 89% of palm oil farmers counted oil palm as a reliable source of income to them. This is due to the fact that oil palm acquires more income in their local areas compared to other crops. In addition to that (Adebo, 2015) conducted a study that argue oil palm production has enormous potentials in creating employment opportunities and increase income levels to the poor, also it can be used as one of the factors that will provide solutions and eradicate the spread poverty.

Historically, in Tanzania the production of palm oil dates back in 1920s where the famous source of palm trees was Kigoma region. Tanzania has been ranked as the 35th country within the group of 42 countries in production of oil palm. Over 65% of oil palm is produced in Kigoma region, where the remaining 35% comes from Mbeya region and Kyela district (TEOSA, 2012). In 2018/19 agricultural session, more than five regions of Tanzania mainland and a total of 25,773 operators engaged in oil palm production. The total area of 9,742 hectares was planted with oil palm and 7,717 hectares were harvested (79.2%) of planted area. Moreover, there are many more regions other than Kigoma, Mbeya (Kyela) and Kagera that are suitable for oil palm production such as; Morogoro, Kagera, Tabora (Kaliua & Urambo), Mtwara, Katavi, Lindi, Tanga.

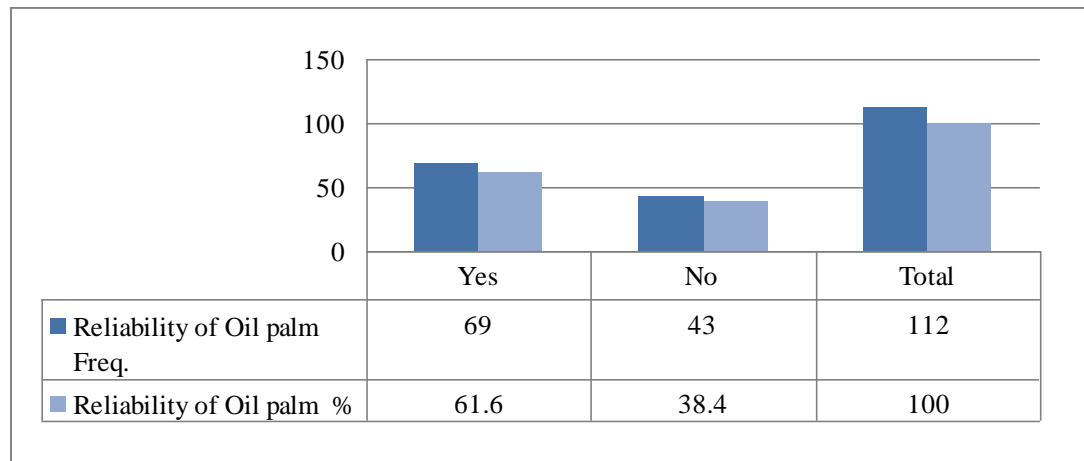


Figure 4.20: Whether Oil Palm is Counted as a Reliable Source of Income
Source: Filed Data (2024).

4.5.2 Challenges in Generating Income in Oil Palm Production

The palm oil producers were required to state down their opinion on the challenges they encounter during oil palm production. This help to reveal a direct impact on increasing or decreasing of the profit and hence affect the economic status of the stakeholders. The findings of this study indicate that there are several challenges in generating income on oil palm production. These challenges are; awareness of Agriculture Policy, government support, credit services, agriculture knowledge, availability of water and sanitation, extension officers and agriculture inputs. The respondents were required to answer a yes or no in every statement that was provided in a table.

4.5.2.1 Awareness of Agriculture Policy

Figure 4.21 indicates that 91.1% of the palm oil producers are not aware are not aware of the agriculture policy. Inadequate of awareness to the agriculture policy is the threat to the economic development at Kigoma region and at national level. This is evident because no awareness of the policy is equal to non-implementation of the

policy. The results are similar to Mwaikambo, (2015) which revealed that 91% of the small scale farmers are not aware of the policy governing agriculture, mostly for daily conduction of cultivation of crops. Hence this brought hindrance in implementation of the policy and other laws regarding agricultural sector.

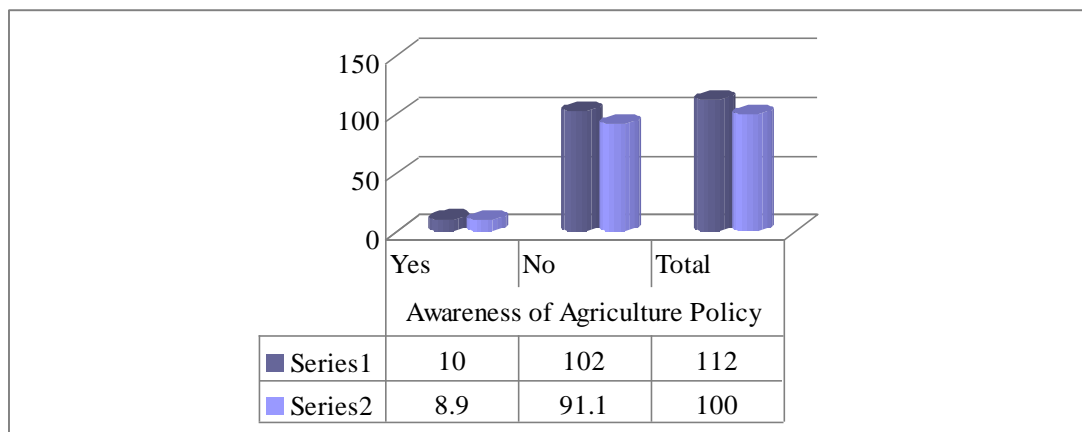


Figure 4.21: Awareness of Agriculture Policy

Source: Filed Data, (2024).

4.5.2.2 Government Support

Figure 4.22 provide for availability of government support to stakeholders of oil palm production. The study revealed 96.4% of the total respondents disagreed with the statement that the government provides enough support to the stakeholders. Moreover the studies revealed that lack of support was seen in government delays in intervention of the agricultural sector and ensure proper implementation of agriculture policy (Mwaikambo, 2018). This can be achieved through local government guaranteeing the availability of extensions officers to assist farmers in technical issues and timely supply of inputs. Moreover, the lack of government support included lack of encouraging farmers to join as a group for credit services, joining financial institutions and poor supervision of the division of input vouchers (done by AEOs, WEOs and AEOs).

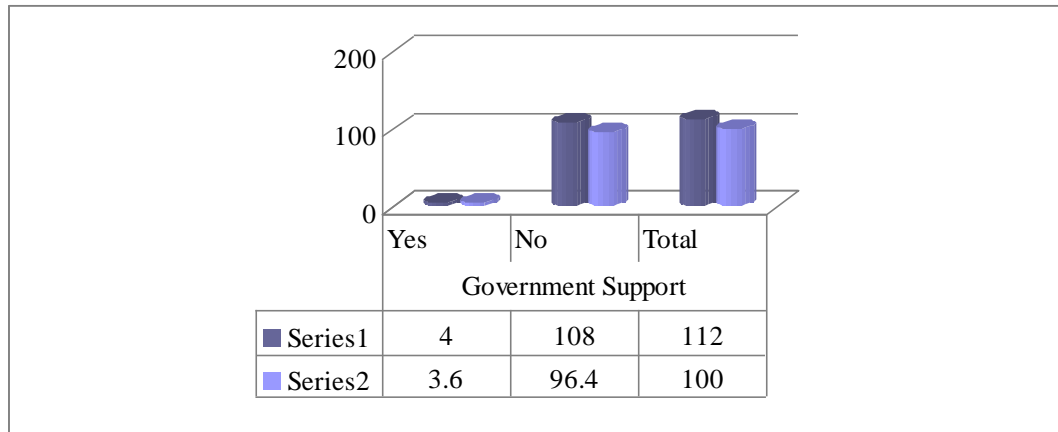


Figure 4.22: Government Support

Source: Filed Data (2024).

4.5.2.3 Credit Services

The palm oil producers were required to state their opinion on the availability of credit services. The results in Figure 4.23 indicate that 88.4% of the total respondents disagree with the statement that they have access to the credit services. Further the studies reveals that the government has failed to unite the financial institution such as bank and ensure that stakeholders are provided with soft loans which include low interest (Mwaikambo, 2018). Due to lack of availability of credit services to most stakeholders, the funding of oil palm production becomes low and hence affects the development of the sector and hence increases level of poverty in Kigoma and national level.

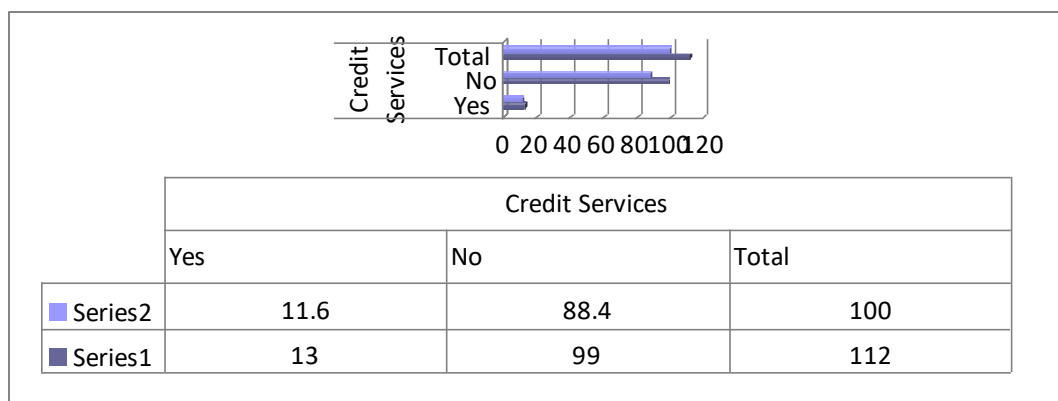


Figure 4.23: Credit Services

Source: Filed Data, (2024).

4.5.2.4 Agriculture Knowledge

The results under Figure 4.24 indicate that majority of the palm oil producers 88.4% disagree with the statement that they have not received any agricultural knowledge other than the one passed down by their generations. Most of the farmers use indigenous agriculture knowledge that was inherited from their parents; this knowledge is passed from generation to generation. It helps them in tackling issues rising during oil palm productions and hence it increases the chances of increasing economic developments. These findings concur with the findings of FAO (2012) revealed that the major factors that have slowed the development of small-scale agriculture in Sub Saharan Africa, Tanzania include low produce prices, high cost of agricultural machinery, lack of agricultural credit, etc.

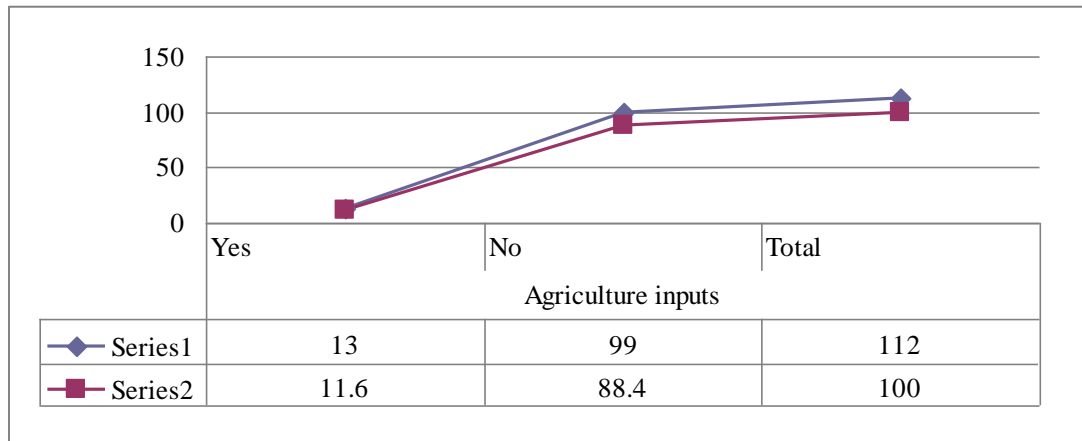


Figure 4.24: Agriculture Knowledge

Source: Filed Data, (2024).

4.5.2.5 Extension Officers

The palm oil producers were required to state their opinion on whether there are enough extensions officers provided by the local government in handling professional issues and providing education to the stakeholders. The result in Figure 4.25 provides that 73.2% disagree with the statement that there are no enough

extension officers to guide them on technical matters of agriculture. The findings clearly justified lack of extension officers may be one of the reasons for poor oil palm production and hence decrease in economic development.

The findings related with the study of Mwaikambo, (2015) which state that 27% of palm oil farmers had technical support in regard to agriculture acquired from extension officers. While 73% of palm oil farmers had no any technical support. Further the study revealed that there was only one extension officer who covered Mwandiga and Bitale Village and Mwandiga there was one AEO which is not a proper ratio comparing to the population of the area and in Mahembe there was no external officer who is in charge of technical matter.

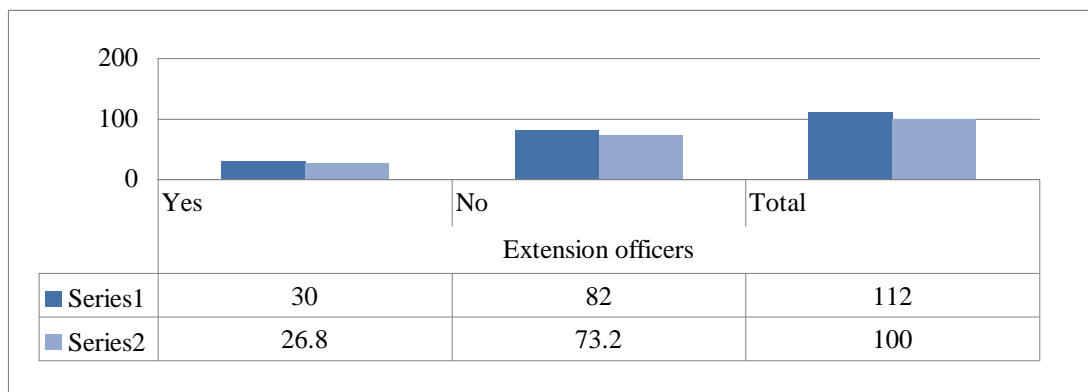


Figure 4.25: Extension Officer

Source: Filed Data (2024).

4.5.2.6 Agriculture Inputs

The results in Figure 4.26 indicate that majority of the respondents which is 88.4% of palm oil producers disagree with the statement that there is enough provision of agriculture inputs by the local government. Through these findings it is evident that stakeholders have difficulties in acquiring inputs for agriculture activities. This is contrary to the National Agriculture Policy of 2013 (page 21) which provides the

inputs such as pesticides and seeds should be available to majority of the small scale farmers. The results are similar with Mwaikambo, (2015) study which provides that only 12% of respondents had access to agriculture inputs supplied by government. This shows that small scale farmers in the study area have difficulties in obtaining inputs for agriculture.

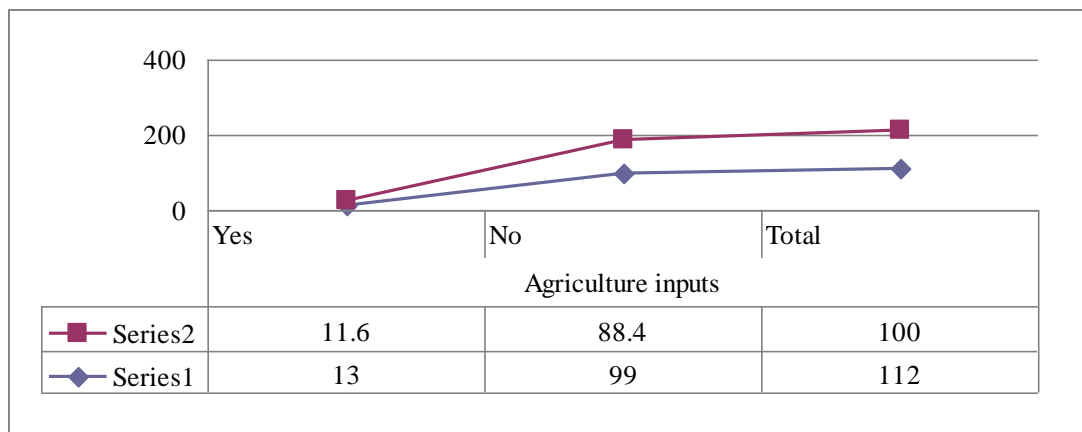


Figure 4.26: Agriculture Inputs
Source: Filed Data, (2024).

4.5.2.7 Availability of Water and Sanitation

The results in Figure 4.27 indicate that 92.9% of palm oil producers disagree with the statement that there is availability of water in their community. Availability of water and sanitation is one among the determinants of poverty level of the community or individual. The time spent to access water and the type of water used and the source area of water determine the level of poverty. Inadequate of water and sanitation increase the chances of eruption of diseases and poor products. This may results into poor economic development and increase of poverty level. Additionally, Figure 4.28 discloses that 78.6% of palm oil producer's uses rive/dam water; these results indicate that the supply of water system is not adequate enough to meet the demand of the community despite of having Lake Tanganyika in the region.

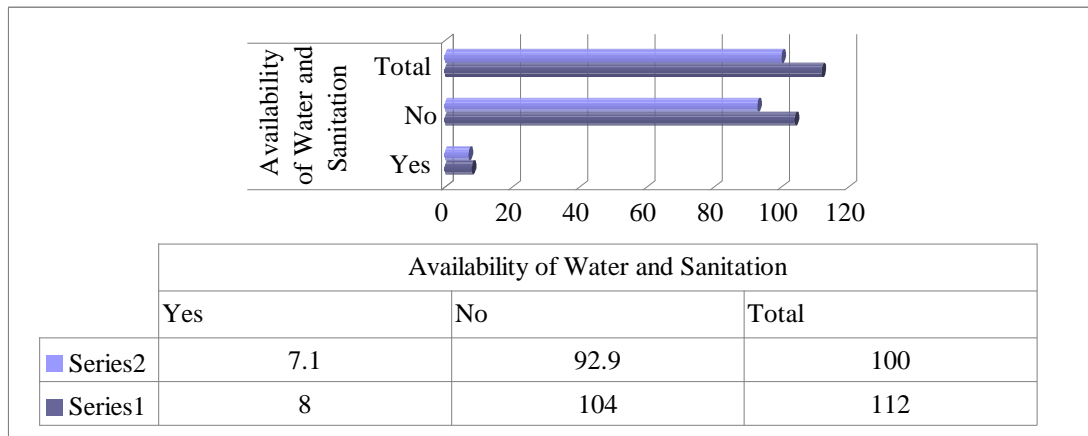


Figure 4.27: Availability of Water and Sanitation

Source: Filed Data (2024).

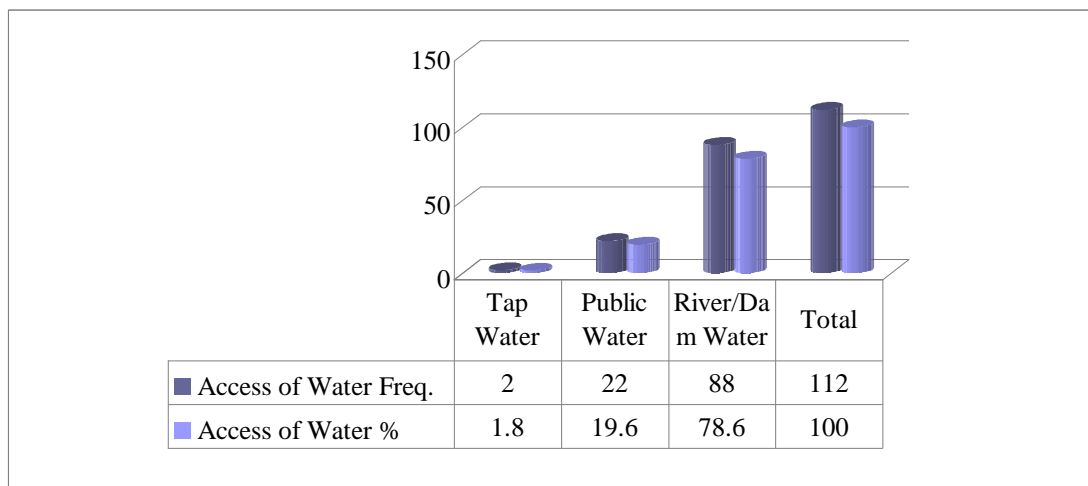


Figure 4.28: Accessibility of Water

Source: Filed Data, (2024).

Furthermore, the 78.6% who uses river/dam water they walk in long distance up to one hour to fetch water. This has an impact because most of the man power is use to spend time fetching instead of using it to generate income generation. As the results it contributes to increasing level of poverty. These results align with the finding of the study by Mwaikambo, (2018) which provides that only 3% of the farmers use water tap in their premises. One among the factors that determine poverty level is source of water and time spent to access such water.

CHAPTER FIVE

DISCUSSION OF THE FINDINGS

5.1 Chapter Overview

This chapter aim to address the discussion of the findings provided in chapter four of this study. This chapter helped a researcher to explore personal opinion of the study in regard to the finding and the assessment done during data collection. Hence this chapter discusses the findings of the study basing on the objectives and research questions as provided in chapter one of the study.

5.2 Summary of the Study

This study mainly focuses on examining the effect of palm oil production in poverty reduction in Tanzania among smallholders of palm oil. The specific objectives of this study were; to assess the palm oil production level and social economic levels; to examine farmers perception on importance of palm oil production; to evaluate the significance of income generated from palm oil production on smallholder's livelihood system.

In addition, this study had the following research questions; what is the level of palm oil production and social economic levels? What is the perception of the farmers in palm oil production? How does the income generated from palm oil production benefit the smallholder's livelihood system? The study used a case study design and used a quantitative approach. The use of case study design and quantitative approach help the researcher to select a good study and select required number of respondents that acquire detailed information on the subject matter. Information and all data collected in this study were obtained from 112 respondents who were participants in

palm oil production. The study used questionnaire as the main instrument in data collection. The findings obtained during data collection were analyzed using Microsoft excel and it was clarified in paragraphs and presented.

5.3 Palm Oil Production Level and Social Economic Level

In chapter four the findings provided that 59.8% of palm oil producers had their own private source of capital. These results are contrary to the National Agriculture Policy and poor implementation since only 16% of the respondents could acquire government loans (Mwaikambo, 2018). Failure in proper implementation of the National policy results to decrease of economic development. In regard to the ownership of oil palm farms the results indicated 51.8% of palm oil producers own the farm through lease agreement. This clearly indicates that majority of the stakeholders use more of capital compared to those who have a private ownership. This factor can be used to determine stakeholders who should be considered in government loans. However, this is not considered as it has been stated previously that only 16% of the respondents were able to acquire government loans.

In regard to the number of hectors and trees owned by palm oil producers the study showed that 48.2% owned 1 to 10 hectors and majority of the respondents own 1501 trees and above followed by 34.8% own trees between 1001 and 1500. These results indicate that there is potential in oil palm production. Additionally, the findings provided that 51.8% of palm oil producers cultivate oil palm in between 100 to 500 trees in a year. Furthermore, the finding provided that there is 84.8% use local method of cultivation and only 15.2% of palm oil producers use modern machines in manufacturing oil palm. These results imply that the palm oil production in our

country have not been fully explore. The results will change once the sector will be invested by providing modern tool of cultivation and production of oil palm. Hence eradicate poverty from community level to national level.

Moreover, the study established that large number of civilians in Kigoma and other region that produce palm oil depend on the job opportunities provided from the palm oil production. The results indicate that 77.7% of palm oil producers employ temporary workers while 22.3%) hire permanent workers. The is a positive factor of eradicating poverty in the community, henceforth it is important for the government, NGO's and Investors to consider working on the gaps found in this study. Additionally, there were no any difficulties in accessing the market. 96.4% of palm oil producers were of the opinion that the products that come from oil palm have a very high demand in the market hence it is easier to access the market.

However, there are several challenges facing majority of the palm oil producers in selling of palm oil products as 92.0% of palm oil producers agree to the statement on whether they face many challenges in sales of their products. Despite of the challenges encountered by stakeholders still they earn a significant amount of profit as 50.0% stated that per month they earn 200,000 to 500,000 a month. While 25.9% earn 500,000 to 1,000,000 a month, 14.3% earn 1,000,000 to 5,000,000 a month, 6.2% of the total respondents earn 100,000 to 200,000 a month and the rest 3.6% earn more than 5,000,000 a month. Lastly the study revealed that the stakeholders are required to pay municipal taxes in respect to the transportation of the product from one region to another. Some of the stakeholders are required to pay both municipal taxes and state taxes because they transfer goods from one state to

another.

5.4 The Perception on the Importance of Palm Oil Production

In regard to objective number two of this study, the results provided that there are several significances of oil palm productions that enable the palm oil producers to escape poverty. Some these advantages are; been able to provide food, clothes and shelter to their family. Reimbursing school fees for their children, been able to afford medical needs. Contribute to state revenue; Oil palm itself is used as a natural medicine for some diseases. Therefore, palm oil production can be a stepping stone in reduction of poverty in Tanzania.

These advantages of oil palm product are also the source of increasing the profit that technically eradicates poverty. Further the study revealed that oil palm can be used to generate different products such as cooking oil and soap. Reflecting of the challenges of exporting oil palm product the study revealed that majority of the respondents which was 88.4% of palm oil producers do not export their product outside the country. And only 11.6% agree to the statement that they export oil palm products outside the country. Some of the challenges encountered are high tax rate in foreign country and transportation.

5.5 The Significance of Income Generated from Palm Oil Producers on their Livelihood System

In chapter four of this study the findings provide that majority of palm oil producers 61.6% consider palm oil production as the reliable source of their income. While 38.4% do not consider palm oil production as the source of their income. Despite of

this factor, the finding under objective three has expansively the challenges encountered by stakeholders in generation income in palm oil production. There are several challenges encountered in palm oil production, but this study has provided the common challenges which are; awareness of Agriculture Policy, government support, credit services, agriculture knowledge, availability of water and sanitation, extension officers and agriculture inputs.

In regards to awareness of agriculture policy the results indicated that majority 91.1% are not aware are not aware of the agriculture policy. And only 8.9% are aware of the agriculture policy. Inadequate of awareness to the agriculture policy is the treat to the economic development at Kigoma region and at national level. This is evident because no awareness of the policy is equal to non-implementation of the policy. On the other hand, Lack of government support has been termed as the challenges of palm oil production whereas 96.4% stated that the government does not provide enough support to the stakeholders. And only 3.6% stated the government provides enough support to the stakeholders in production of palm oil.

The lack of support from the government is reflected on; delays in intervention of the agricultural sector and ensure proper implementation of agriculture policy. This can be achieved through local government guaranteeing the availability of extensions officers to assist farmers in technical issues and timely supply of inputs. Moreover, the lack of government support included lack of encouraging farmers to join as a group for credit services, joining financial institutions and poor supervision of the division of input vouchers (done by AEOs, WEOs and AEOs).

In regards to availability of credit services the study provides that 88.4% disagree with the statement that they have access to the credit services. While 11.6% agree to the statement that there is enough access to the credit services. Further the study reveals that the government has failed to unite the financial institution such as bank and ensure that stakeholders are provided with soft loans which include low interest. Due to lack of availability of credit services to most stakeholders, the funding of oil palm production becomes low and hence affects the development of the sector and hence increases level of poverty in Kigoma and national level.

Likewise, the study identified that lack of agriculture knowledge to the stake holders is among the challenge that hinders economic development in Kigoma region. The findings result indicated 88.4% of palm oil producers disagree that they do not acquire any professional agricultural knowledge other than the one passed down by their generations. Most of the farmers use indigenous agriculture knowledge that was inherited from their parents. While 11.6% agree that they have received professional skills on agriculture. This helps them in tackling issues rising during oil palm productions and hence it increases the chances of increasing economic developments. As the results lack of this knowledge may lead to poor management of several technical issues.

In regards to availability of extension officers 73.2% of palm oil producers disagree that there are no enough extension officers to guide them on technical matters of agriculture. While only 26.8% agree that there are enough extensions officers. The findings clearly justified lack of extension officers may be one of the reasons for poor oil palm production and hence decrease in economic development. In respect to

agriculture inputs majority of the respondents 88.4% disagree that there is enough provision of agriculture inputs by the local government. While 11.6% agreed that there is enough provision of agriculture inputs. Through these findings it is evident that stakeholders have difficulties in acquiring inputs for agriculture activities. This is contrary to the National Agriculture Policy of 2013 which provides the inputs such as pesticides and seeds should be available to majority of the small-scale farmers.

Inadequate of water and sanitation another challenge whereby the study has revealed that 92.9% disagree that there is availability of water in their community. While 7.1% of palm oil producers agree that there is availability of water in their areas of cultivation. Availability of water and sanitation is one among the determinants of poverty level of the community or individual. The time spent to access water and the type of water used and the source area of water determine the level of poverty. Inadequate of water and sanitation increase the chances of eruption of diseases and poor products.

This may result into poor economic development and increase of poverty level. In addition, the finding discloses that 78.6% uses river/dam water, 19.6% use public water tap and 1.7% use private water tap. These results indicate that the supply of water system is not adequate enough to meet the demand of the community despite of having Lake Tanganyika in the Region. Furthermore, the 78.6% of the respondents who uses river/dam water they walk in long distance up to one hour to fetch water. This has an impact because most of the man power is use to spend time fetching instead of using it to generate income generation. As the results it contributes to increasing level of poverty.

CHAPTER SIX

CONCLUSION AND RECOMMENDATION

6.1 Chapter Overview

This chapter provides for conclusion and recommendations of this study in accordance to findings obtained during data collection. Further, this chapter introduces the areas considered to be important for future studies that might be conducted by other researchers in relation to what has been observed in the field.

6.2 Summary of the Study

This study was presented to explore on examining the effect of oil palm production in poverty reduction in Tanzania among smallholders of palm oil. The study contained six chapters were as chapter one provided for introduction and background of the study, statement of the problem research objectives and researcher questions. Further this chapter covered the significant of the study, scope of the study and limitation and delimitation of this study. Chapter two of this study provided for theoretical literature review, empirical literature review, conceptual framework and research gap.

Chapter three mainly covered the methodology used in conducting this study, some of the methodology used in this study was; case study design, quantitative approach, targeted population of 112 respondents who were participants in oil palm production. Also, the study used questionnaire as the main instrument in data collection. In chapter four presents the findings of all the information obtained during data collection. The findings obtained during data collection was presented in figures and clarified in paragraphs. Chapter five provide for discussion of the findings of this

study. This is the last chapter of this study it provides for conclusion and recommendation of this study.

6.3 Conclusion

The study mainly based on examining the effect of palm oil production in poverty reduction in Tanzania among smallholders of palm oil in Kigoma. The study reveals that despite the fact that Tanzania has been ranked as the 35th country within the group of 42 countries in production of oil palm, still there are so many inadequacies that hinders the success of the sector and been a reliable source of eradicate poverty in Kigoma region and Tanzania at large. The study has discovered that there is poor implementation of National Agriculture Policy this is due to the fact that only 16% of the stakeholders were the ones who could access loans from the government.

Also, majority of the farmers use local methods for cultivation of oil palm products which is not safe as it involves contamination of products and reduces the level of production. Also, the study has established that majority of the civilians in Kigoma and other regions that produce palm oil depend on the job opportunities provided from the oil palm production. Also, the study verified that palm oil production is considered to be the reliable source of their income to most of the stakeholders.

Furthermore, the study has revealed that there are several significances of palm oil productions that enable stakeholders to reduce drought in their families. Some of these advantages are; been able to afford medical needs, contribute to state revenue, to provide food, clothes and shelter to their family and it may be used to produce different products other than oil palm. Moreover, the study provided the common

challenges that are encountered in palm oil production which are; awareness of Agriculture Policy, government support, credit services, agriculture knowledge, availability of water and sanitation, extension officers and agriculture inputs.

6.4 Recommendation of the Study

Base on the finding of this study, the following are the recommendation that can be considered by the respective ministry of the government and other relevant institutions to ensure changes and improve the sector;

- i. The government should ensure proper implementation of the National Agriculture Policy (2013). This policy has provided good ways that will benefit the stakeholder in oil palm production and agriculture sector in general. Hence, good implementation of this policy will eradicate biasness in providing government loans and other agriculture inputs. Also, this can be implemented well by the in trusted government bodies such as local government.
- ii. The government should modify the budget given as a loan to agriculture sector. As it is well known that the budget provided in agriculture sector is used to provide loans and other agriculture inputs. Hence the government should review the National Agriculture Policy and other relevant document that are relevant to this subject.
- iii. The government through its organs should organise and emphasize investors to finance on agriculture sector and specifically on oil palm cultivation as it is in high demand worldwide. This will help to meet the demand of each stakeholder in terms of cheap loans and availability of agriculture inputs. Also, this will promote agriculture sector to higher lever inside and outside the

country. Also, this will eliminate sources of poverty to stakeholders of oil palm production.

- iv. The government through agriculture sector should prepare educational programs to stakeholders of agriculture sector including oil palm producers in educating them about the modern ways of agriculture. Also, employment of extension officers and ensure the availability of extensions officers in every region. This will help in solving professional issues in the field and ensure that awareness of the policy is passed to every stakeholder.
- v. Palm oil producers should modify their local machines through acquiring technology from SIDO this will upgrade their existing machines for better oil extraction rates, reduce wastage and improve their output.

6.5 Recommendation for Further Research

The study revealed the potential of oil palm in poverty reduction. However, the scope of the study was restricted to Kigoma Rural District. According to the available information, oil palm is grown in many parts of Tanzania including Kyela and some parts of Tanga. In this regard the further study is recommended with a wider scope in order to come up with suggestions to the government on the need to invest more in oil palm production.

REFERENCES

- Alwarritzi, W., Nanseki, T. & Chomei, Y. (2016). The Effect of Oil Palm Expansion on Farmers' Household Food Security in Indonesia. *J. Agric. Econ.* 72, 901–915.
- Astuti, N. S., Karim, I. & Abdullah, M. A. (2020). Contribution of oil palm plantations to farmers' income in West Sulawesi. *Anjoro: International Journal of Agriculture and Business*, 1(2), 45-51.
- Ayompe, L. M., Nkongho, R. N., Masso, C. & Egoh, B. N. (2021). Does investment in palm oil trade alleviate smallholders from poverty in Africa? Investigating profitability from a biodiversity hotspot, Cameroon. *PloS one*, 16(9), e0256498.
- Bank of Tanzania, (2017). Working Paper Series (Potentiality of Sunflower Subsector in Tanzania) – WP No. 10.
- Barder, O. M. (2009). What is poverty reduction? Center for Global Development Working Paper, (170).
- Borko, Z. P. (2017). Determinants of poverty in rural households (The case of Damot Gale District in Wolaita Zone) A household level analysis. *International Journal of African and Asian Studies*, 29, 68-75.
- Brandi, C., Cabani, T., Hosang, C., Schirmbeck, S., Westermann, L., & Wiese, H. (2013). Sustainability certification in the Indonesian palm oil sector: benefits and challenges for smallholders (No. 74).
- Chrisendo, D., Siregar, H., & Qaim, M. (2022). Oil palm cultivation improves living standards and human capital formation in smallholder farm households. *World Development*, 159, 106034.

- Euler, M., Krishna, V., Schwarze, S., Siregar, H., & Qaim, M. (2017). Oil palm adoption, household welfare, and nutrition among smallholder farmers in Indonesia. *World Development*, 93, 219-235.
- Mehraban, N., Kubitza, C., Alamsyah, Z., & Qaim, M. (2021). Oil palm cultivation, household welfare, and exposure to economic risk in the Indonesian small farm sector. *Journal of Agricultural Economics*, 72(3), 901-915.
- Mwaikambo, S. T. (2018). The contribution of oil palm farming to poverty reduction: a case of small-scale farmers in Kigoma rural district, Tanzania, unpublished Master dissertation, The University of Dodoma, Tanzania.
- Naidu, L., & Moorthy, R. (2021). A review of key sustainability issues in Malaysian palm oil industry. *Sustainability*, 13(19), 10839.
- Oil world, (2013). Palm Oil Facts and Figures. WRM series on tree plantations No. 15.
- Saediman, H., Rahmayana, R., Indarsyih, Y., Budi, N., & Yunus, L. (2021, July). Contribution of Oil Palm Plantation to Household in Kolaka District of Southeast Sulawesi. In *IOP Conference Series: Earth and Environmental Science*, 819(1), 012037, IOP Publishing.
- Santika, T., Wilson, K. A., Budiharta, S., Law, E. A., Poh, T. M., Ancrenaz, M., ... & Meijaard, E. (2019). Does oil palm agriculture help alleviate poverty? A multidimensional counterfactual assessment of oil palm development in Indonesia. *World Development*, 120, 105-117.
- Sheil, D., Casson, A., Meijaard, E., Nordwijk, M., Gaskell, J., Sunderland-Groves, J., Wertz, K. & Kanninen, M. (2009). The impacts and opportunities of oil palm in Southeast Asia: What do we know and what do we need to know?

Occasional Paper No.51. Indonesia. CIFOR, Bogor.

Siswati, L., Insusanty, E., Susi, N., Nizar, R. & Wahyudiono, A. (2023, April). Analysis of oil palm smallholder income during replanting in Siak Regency, Riau. In *IOP Conference Series: Earth and Environmental Science*, 1160(1), 012067, IOP Publishing.

Tabe-Ojong, M. P. J. (2023). Context matters: Oil palm production and women's dietary diversity in the tropical forest of Cameroon. *Journal of Agricultural Economics*.

Tanzania Edible Oils Actors Association (TEOSA), (2012). Assessment of the Potential of Edible Oilseeds Produced in Tanzania: The Case of Sunflower and Sesame. Research Document No: 01/2012

TIC, (n.d). Investment Opportunities in the Oil Palm Value Chain, Tanzania. TIC.

Uckert, G., Hoffmann, H., Graef, F., Grundmann, P. & Sieber, S. (2015). Increase without spatial extension: productivity in small-scale palm oil production in Africa—the case of Kigoma, Tanzania. *Regional environmental change*, 15, 1229-1241.

URT, (2014). Household Budget Survey Main Report (2011/2012). URT.

APPENDICES

APPENDIX 1: QUESTIONNAIRE FOR SMALLHOLDERS

My name is Mwajuma Ally; I am a student at Open University of Tanzania pursuing Master of Arts in monitoring and evaluation. I am currently working on the research study titled; **“The role of Oil Palm Production in Poverty Reduction in Tanzania: experiences from Smallholder Oil Palm Producers in Kigoma Region”**. This research study aimed at exploring the significant role of oil palm production in poverty reduction within Tanzania. Your invaluable perspective and insights as smallholder farmers play a vital role in this research.

This questionnaire has been carefully designed to collect data that will help us understand the intricate relationship between oil palm production and poverty reduction in Tanzania. Your participation in this survey is of great importance, as it will contribute to a deeper understanding of the challenges and opportunities faced by smallholder farmers in the context of oil palm production. Please rest assured that your responses will remain completely anonymous. Your privacy is our utmost priority, and your individual responses will not be disclosed to anyone. The data collected will be used solely for research purposes and will be reported in an aggregated and anonymous form.

Your candid and thoughtful responses will enable us to formulate recommendations and strategies that can potentially enhance the livelihoods of oil palm smallholder farmers and contribute to poverty reduction efforts in Tanzania. We kindly request your participation in this survey. Your insights are invaluable in shaping the future of oil palm production in Tanzania and its impact on poverty alleviation. Your

contribution will be greatly appreciated.

Please tick the appropriate boxes and complete the blanks accordingly.





QUESTIONNAIRE

SECTION I: DEMOGRAPHIC INFORMATION OF THE RESPONDENTS




Please tick the appropriate boxes and complete the blanks appropriately			
NO	Question	Particulars	Response Tick the Ans.
1.	Level of education	a) No education	
		b) Primary education	
		c) Secondary education	
		d) High school education	
		e) Degree	
		f) Postgraduate	
2.	Age	a) 18 – 25	
		b) 26 – 35	
		c) 36 – 45	
		d) 46 – 55	
		e) 55 – Above	
3.	SEX	a) Male	
		b) Female	

SECTION II: OBJECTIVE 1. To assess the oil palm production level, revenues and sales from main production of oil palm


Please tick the appropriate boxes and complete the blanks appropriately			
S/N	Question	Particulars	Response
4.	What is the source of your capital?	a) Private source	
		b) Mortgage or Loan	
		c) Others	
5	Do you own a farm of oil palm?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
6.	How many trees of oil palm do you have in your farm?	a) 1 – 10	
		b) 11 -50	
		c) 51 -100	
		d) 101 and above	
7.	How many hectares do you	a) 1 – 10	

	have?	b) 11 -50	
		c) 51 -100	
		d) 101 and above	
8.	How many hectares have you cultivate?	a) 1 – 10	
		b) 11 -50	
		c) 51 -100	
		d) 101 and above	
9.	What method do you use to cultivate oil palm in tour farm?	Please state 	
10.	How many liters of oil palm do you produce in one tree per month?	a) 1 – 10ltrs	
		b) 11 -50 ltrs	
		c) 51 -100 ltrs	
		d) 101 ltrs and above	
11.	How many liters do you produce in one month?	a) Less than 1,000ltrs	
		b) 1,000 – 2,000 ltrs	
		c) 2,001 – 3,000 ltrs	
		d) 3,001 – 4,000 ltrs	
		e) 4,001 -5,000 ltrs	
		f) Above 5,000 ltrs	
12.	How many liters do you sale in a month?	a) Less than 1,000ltrs	
		b) 1,000 – 2,000 ltrs	
		c) 2,001 – 3,000 ltrs	
		d) 3,001 – 4,000 ltrs	
		e) 4,001 -5,000 ltrs	
		f) Above 5,000 ltrs	
13.	Do you easily access the market for oil palm products?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
14.	Do you have any challenges in sale your products other buyers?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
15.	What are your recommendations in solving issues of oil palm production?	Please state 	
16.	How much income do you get from cultivating oil palm in a month?	Please state 	
17.	How many taxes are you required to pay in a year?	Please state 	

OBJECTIVE 2: To examine farmers perception on importance of oil palm production

Please tick the appropriate boxes and complete the blanks appropriately			
S/N	Question	Particulars	Response
18.	Do you get any other advantages of engaging in oil palm production?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
19.	Advantages of engaging in oil palm production.	Please state 	
20.	What factors should be improved to extend these advantages?	Please state 	
21	Do you export oil palm outside the country?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
22.	If, the answer above is AGREE, what advantage did you get by exporting oil palm outside the country?	Please state 	

OBJECTIVE 3. To evaluate the significance of income generated from oil palm producers on smallholder livelihood system.

Please tick the appropriate boxes and complete the blanks appropriately			
S/N	Question	Particulars	Response
23.	Basing on your experience did oil palm production improve your livelihood?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
24.	Do you face any challenge in generating your income?	a) Agree	
		b) Disagree	
		c) Neither agreed nor disagree	
25.	If, the answer above is AGREE, what are the challenges facing oil palm production in Tanzania?	Please state 	

Thank you for your Cooperation

Appendix 2: Research Clearance Letter



Ref. No OUT/PG202100226

19th June, 2024

District Executive Director (DED),
Kigoma District Council,

P.O Box 332,

KIGOMA.

Dear Director,

RE: RESEARCH CLEARANCE FOR MS. MWAJUMA ALLY REG NO: PG202100226

2. The Open University of Tanzania was established by an Act of Parliament No. 17 of 1992, which became operational on the 1st March 1993 by public notice No.55 in the official Gazette. The Act was however replaced by the Open University of Tanzania Charter of 2005, which became operational on 1st January 2007. In line with the Charter, the Open University of Tanzania mission is to generate and apply knowledge through research.

3. To facilitate and to simplify research process therefore, the act empowers the Vice Chancellor of the Open University of Tanzania to issue research clearance, on behalf of the Government of Tanzania and Tanzania Commission for Science and Technology, to both its staff and students who are doing research in Tanzania. With this brief background, the purpose of this letter is to introduce to you **Ms. Mwajuma Ally, Reg.No: PG202100226**, pursuing **Masters of Arts in Monitoring and Evaluation (MAME)**. We here by grant this clearance to conduct a research titled **"Role of Oil Palm Production**

in Poverty Reduction in Tanzania: Experiences From Smallholder Oil Palm Producers in Kigoma Region. She will collect her data at your area from 12th June to 30th July 2024.

4. In case you need any further information, kindly do not hesitate to contact the Deputy Vice Chancellor (Academic) of the Open University of Tanzania, P.O.Box 23409, Dar es Salaam. Tel: 022-2-2668820. We lastly thank you in advance for your assumed cooperation and facilitation of this research academic activity.

Yours sincerely,

THE OPEN UNIVERSITY OF TANZANIA



Prof. Gwahula Raphael Kimamala

For: VICE CHANCELLOR

Appendix 3: Approval Letter for Data Collection

JAMUHURI YA MUUNGANO WA TANZANIA

OFISI YA RAIS

TAWALA ZA MIKOA NA SERIKALI ZA MITAA

HALMASHAURI YA WILAYA YA KIGOMA
(Barua zote zitumwe kwa Mkurugenzi Mtendaji Wilaya)

Tel. 028280 4865
Fax. 028280 2719/2370
Email: ded@kigomadc.go.tz
Tovuti: www.kigomadc.go.tz

Ofisi ya Mkurugenzi Mtendaji,
S.L.P 332,
KIGOMA.

Kumb.Na: KDC/T.3/28/61. Tarehe 22/06/2024

Mtendaji wa Kata ya **Simbo**,
Halmashauri ya Wilaya Kigoma,
S.L.P 332,
KIGOMA.

**YAH: KIBALI CHA KUFANYA UTAFTI WA UMUHIMU WA UZALISHAJI WA
MAFUTA YA MAWESE KATIKA KUPUNGUZA UMASIKINI TANZANIA.**

Tafadhali husika na somo tajwa hapo juu pia rejea barua yako yenye kumb Na. **OUT/PG202100226** ya tarehe **19 Juni, 2024**.

- Unajulishwa kuwa, ombi la barua yako ya kibali cha kufanya Utafiti juu ya muhimu wa uzalishaji wa Mafuta ya Mawese katika kupunguza umasikini Tanzania ndani ya Mkoa wa Kigoma hususani katika Halmashauri ya Wilaya ya Kigoma Kata ya Simbo limekubaliwa na unaruhusiwa kuendelea na shughuli za kazi hiyo kwa kuzingatia miongozo na taratibu za nchi.
- Aidha Kwa barua hii, namtambulisha kwako **Bi: Mwajuma Ally** atakayefanya Utafiti ndani ya Kata yako kuanzia tarehe 12 Juni 2024 hadi tarehe 30/ Julai, 2024.
- Nakutakia kazi njema.



Abdillahi Mchau ABakari
KNY: MKURUGENZI MTENDAJI
HALMASHAURI YA WILAYA YA KIGOMA
ay. MKURUGENZI MTENDAJI
HALMASHAURI YA WILAYA
KIGOMA

NAKALA; Bi Mwajuma Ally.