

**SOCIO - ENVIROMENTAL IMPLICATIONS OF SMALL AND MEDIUM
SUNFLOWER OIL PROCESSING ENTERPRISES IN SINGIDA
MUNICIPALITY, TANZANIA**

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**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF MASTER OF ARTS IN PROJECT
MANAGEMENT AND EVALUATION OF SOKOINE UNIVERSITY OF
AGRICULTURE. MOROGORO, TANZANIA.**

EXTENDED ABSTRACT

This study was conducted in Singida Municipality to explore socio-environmental implications of sunflower Small and Medium oil processing Enterprises. A mixed methods approach was used to collect data; the methods were interview, key informant interviews and focus group discussions. SPSS was used to analyze the quantitative data whereas content analysis was used to analyze qualitative data. The results showed that socio-environmental implications were two-sided, meaning that there were both positive implications like job creation, innovation and infrastructure improvement, and negative implications like water pollution, conflicts, corruption and air pollution. Furthermore, the results indicated that sunflowers SMEs in Singida Municipality have challenges including small capital, poor infrastructure, poor technology, lack of training and development and high electricity charges and solutions for addressing those challenges were also mentioned. This study recommended the enhancement of positive implications and that development stakeholders should devise strategies to provide solution to negative implications and there is a need of promoting Public Private Partnership (PPP), so that the challenges encountered are addressed and the possible solutions are optimized.

Keywords: Sunflower oil processing, SMEs, socio-environmental implications and Singida.

DECLARATION

I, **Joseph W. Mshana**, do hereby declare to the Senate of Sokoine University of Agriculture that this dissertation is my own original work done within the period of registration and that it has neither been submitted nor being concurrently submitted in any other institution.

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The above declaration is confirmed by;

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DEDICATION

This work is dedicated to my Mother Madam. Theresia Salehe Msoffe for her prayers during the study, my friends for their patience during the study. This study will be a source of motivation to their lives at general. Also this work is dedicated to my friends Madam Sandra Frankline and Br. Nickson for their tireless encouragement and assistance during my university education, without which I would not have reached this level. Furthermore, I wish to dedicate this work to my late father William Joseph and my late Uncles Leonard Salehe Msoffe and Costantine Salehe Msoffe.

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LIST OF ABBREVIATIONS

CRDB	Commercial Rural Development Bank
EFB	Empty Food Brunch
FAO	Food and Agriculture Organization
FGD	Focus Group Discussion
GDP	Gross Domestic Product
GHP	Good Hygiene Practice
NBS	National Bureau of Statistics
NMB	National Microfinance Bank
SMEs	Small and Medium Size Enterprises
TRA	Tanzania Revenue Authority
USA	United States of America
VEOs	Village Executive Officer
WEOs	Ward Executive Officer

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Small and Medium Enterprises (SMEs) refer to a very broad range of initiatives from the established traditional family business that employ more than a hundred people to mere survivalist self-employed individual who originates from the poorest of the population (Wiese, 2014). Sunflower is an important crop that has been receiving a global attention, for example, in countries such as Russia, Ukraine and Argentina, these three countries are often referred as the “sunflower triangle”.

Sunflower oil processing has a long history around the world. This processing has been increasing over time (Mmasa,2013). For example, in industrialised countries such as Russia started in the 1830s and has been increasing over time. The demand for sunflower oil rose due to its low cholesterol nature as compared to animal fats (Ismail, 2007). In Canada the first official government sunflower breeding program started in 1930. The basic plant breeding material utilized came from Mennonite (immigrants from Russia) gardens. Acreage spread because of oil demand. By 1946, Canadian farmers built a small crushing plant. Thereafter, Acreage spread into Minnesota and North Dakota (Mlau, 2014). In 1964, the Government of Canada licensed the Russian cultivator called Peredovik. This seed produced high yields and high oil content. In the USA sunflower production in terms of acreage increased in the late 1970s with commercial interest in the production of sunflower oil. Sunflower was hybridized in the middle seventies providing additional yield and oil enhancement. During this time the acreage escalated in in the USA to over 5 million because of strong European demand for sunflower oily (Yohana, 2015). This European demand had been stimulated by Russian exports of sunflower oil in the

previous decades. During this time, animal fats such as beef tallow for cooking were negatively impacted by cholesterol concerns. However, the Russians could no longer supply the growing demand and European companies looked to the fledging USA industry. Europeans imported sunflower seed that was then crushed in European mills (Ndondole, 2014).

Western Europe continues to be a large consumer of sunflower oil today, but depends on its own production. U.S. exports to Europe of sunflower oil or seed for crushing is quite small. (Garwe, 2010). The change in the market situation of one country has a great influence on the market situation and affects the world market of sunflower seeds and sunflower by-products (RLDS, 2008).

In Africa, South Africa is leading for the production of sunflowers. South Africa is among the countries where these SMEs have been observed to significantly involve in sunflower oil processing. The production of sunflower which is the most important source of vegetable oil in south Africa, is prevalent in summer rainfall areas. Local annual production for sunflower seeds range between 500 000 and 700 000 tones (BFAP, 2015). Tanzania is another country in Africa producing sunflower. According to Tanzania Investment Centre (2017), production of sunflower oil in Tanzania has reached 181 000 tons, with annual output of around 350 000 tons of sunflower oilseeds, corresponding to about 90 000 tons of oil. Tanzania and South Africa are among the top ten sunflower oilseeds producers in the world.

1.2 Problem Statement

Sunflower is among the crops grown in Tanzania; the crop plays an important role in economic development. Such role includes contribution towards food security, income generation and employment. Sunflower has turned into one of the major cash crops in

Tanzania. The crops can be grown in most parts of the country as it is drought tolerant less susceptible to diseases and cheaper to cultivate compared to other oilseeds crops. Sunflower is increasingly popular in several regions and is adaptable over the wide range of environments (Larsen *et al.*, 2009).

One of the largest sectors of Tanzania's growing food processing industry is animal and vegetable oils (Mmasa, 2013), which benefits from sunflower production. Sunflower oil is example of an industry with great growth potential and demand is high in both rural and urban areas of Tanzania (Dietz *et al.*, 2000). In their market development strategy from 2008, The Rural Livelihood Development Company (RLDS) pointed out sunflower oil as the most important vegetable oil produced in the country (RLDS, 2008). It is the commercial product used by the majority of Tanzanians. Its demand has been increasing nowadays (Ilonga, 2008, as cited in Kombe *et al.*, 2017). Increase in sunflower oil demand has led to the emergence of small and medium enterprises that have specialized in processing of sunflower oil, the subsector commands a significant potential in terms of economic growth and poverty reduction. According to BERAS (2015), small-scale production of sunflower oil is the most common processing industry in Singida. Promenading along the streets of Singida Municipal substantiates multiple processing plants found scattered all over the area the sheer number of sunflower oil SMEs in Singida Municipal is what marks this setting particularly remarkable and from the reasons mentioned above, research in such a place should prove highly valuable.

Previous research of sunflower in Tanzania has focused on production and livelihood aspects. One of such studies is on internal and external factors that challenge sunflower small and medium enterprises in their daily operations in Mkalama district (Mlau, 2014). Another study is about valuation of factors affecting income of smallholder farmers in

Singida rural district (Yohana, 2015). Yet another study determined the impact of sunflower sub-sector to the Tanzanian economy; the results of this study uncovered that there was a huge potentiality of sunflower seed in Tanzania attributed to the existence of suitable land and availability of marketplaces (BoT, 2017). None of the previous studies focused on the sunflower SMEs in terms of their socio-environmental implications; and the present study focuses on this research gap.

1.3 Justification of Study

The study aimed at understanding the social and environmental implications of sunflower SMEs. The information obtained from this study generates useful knowledge to the development planners, policy makers and other relevant development practitioners in ensuring that sunflower SMEs improve the life of the local people and comply with environment rules and regulations. This is in agreement with the Sustainable Development Goal 9 which is about promoting sustainable industries and investing in scientific research and innovation as the basic means of facilitating sustainable development by making sure people's wellbeing is promoted and environment is conserved. Also, this research is in line with 5 Phase Government's motto of making Tanzania an industrialized country by 2025 as indicated in the Sustainable Industrial Development Strategy policy (1996 - 2020) which advocates for poverty reduction and ensuring environment conversation.

1.4 Objectives of the Study

1.4.1 General objective

The general objective of this study was to evaluate sunflower oil processing small and medium enterprises (SMEs) in Singida Municipality in terms of their social benefits and environmental implications.

1.4.2 Specific objectives

- i. To classify sunflower oil processing Small and Medium Enterprises (SMEs).
- ii. To assess the sunflower oil processing SMEs in terms of social benefits generated through them.
- iii. To assess how sunflower oil processing SMEs, ensure environmental conservation
- iv. To determine challenges to sunflower oil processing SMEs encounter and how they address the challenges.

1.5 Research Questions

- i. What are classifications of sunflower small and medium enterprises (SMEs) in Singida Municipality?
- ii. Do local people in Singida Municipality benefit from the Sunflower processing in SMEs?
- iii. How do SMEs ensure environmental conservation?
- iv. What challenges do Sunflower oil processing SMEs in Singida face?
- v. How do the SMEs deal with the above-mentioned challenges?

1.6 Theoretical Framework

The present study is guided by the Sustainable Development Approach and Entrepreneurship theory. Sustainable development can be defined as maintaining system stability by developing a balance of responsibilities: economic, social, environmental and technological support technique without compromising the needs of future generations (Ivascu, 2013). The approach postulates about three major components of human existence: economic, environment and social (Duran *et al.*, 2015). The first component is essential, in the sense that the aim of social and economic activity is to gratify human needs and wants, affecting for the three dimensions of human existence: organic (present

in the interactions with the physical, natural environment), social/collective/collective (as a member of some social groups) (Giovannin *et al.*, 2015). The relationship between economic growth and the protection of the environment is an essential problem in the approaching sustainable development because the approach of economic growth not only by GDP, without trying a quantification of benefits, resulting from environmental protection is only a basic form, deplorable in sustainable development analysis (Salmzadeh and Corvisanos, 2015). The social component in sustainable development has a major role, because the concept of equity incorporates several forms of indicators of sustainable progression of human society (Duran *et al.*, 2015). SDA understands poor people since it incorporates and involves different aspects to poverty reduction (Kamarrudin and Samsudin, 2014).

The approach focuses on enhancing poverty reduction aiming to increase people's control of their environment, build reliable and fair access to food and empower the extreme poor through increasing the skills, knowledge and resources they need. The SDA is used in this study based on the fact that the sunflower cooking oil processing enterprises have abilities and assets that can be developed to help local people improve their lives and the environment at large. The study uses Sustainable Development Approach to assess sunflower SMEs implications in people's lives in terms of income earned, employment availability as sunflower SMEs hypothetically provides economic returns and social benefits and conserves the environment.

Another theory used to guide the study is Entrepreneurship Theory. The Entrepreneurship theory by Jain (2017) argues that the success of the SMEs depends on the entrepreneur who is personally responsible for the management and operation of the business. Therefore, the entrepreneurship will bring to sunflower SMEs plasticity and can adapt

quickly to changes of challenges faced by sunflower SMEs like lack of financial support, lack of training and development, poor infrastructure, lack of provision of education and training and make a significant contribution to growth of sunflower SMEs. The rationale of using two theoretical perspectives is that the nature of the present study on sunflower SMEs that focuses on the socio-environmental implications and challenges encountered by the SMEs makes it unfeasible to be guided by either of the two theories alone. As such, the two theories have the comparative advantage in different setting.

On the one hand, Sustainable Development Approach (SDA) postulates about three major components of human existence: economic, environment and social which means its concerning with peoples livelihood. On the other hand, Entrepreneurship theory postulates that the success of the SMEs depends on the entrepreneur who is personally responsible for the management and operation of the business which deal with the challenges faced sunflower SMEs. In a nutshell, the two theoretical perspectives complement each other.

1.7 Conceptual Framework

The study's conceptual framework shows the interactions between and among the concepts as appearing in the objectives of the study. These concepts are socio-environmental implications and challenges sunflower SMEs face. The implications include includes job creation, income generation and health issues and environment implications include noise pollution, air pollution and water pollution. On the other hand, the challenges faced sunflower SMEs are small initial capital, high electricity charge from Tanzania National Electricity Supply (TANESCO), poor infrastructure and climatic changes, which can be solved by loan application from Commercial Banks such as Commercial Rural Development Bank (CRDB), National Microfinance Bank (NMB) and Tanzania Investment Bank (TIB), also improvement of the infrastructure and government

support of sunflower SMEs. These interactions among various concepts are summarized in Figure 1.

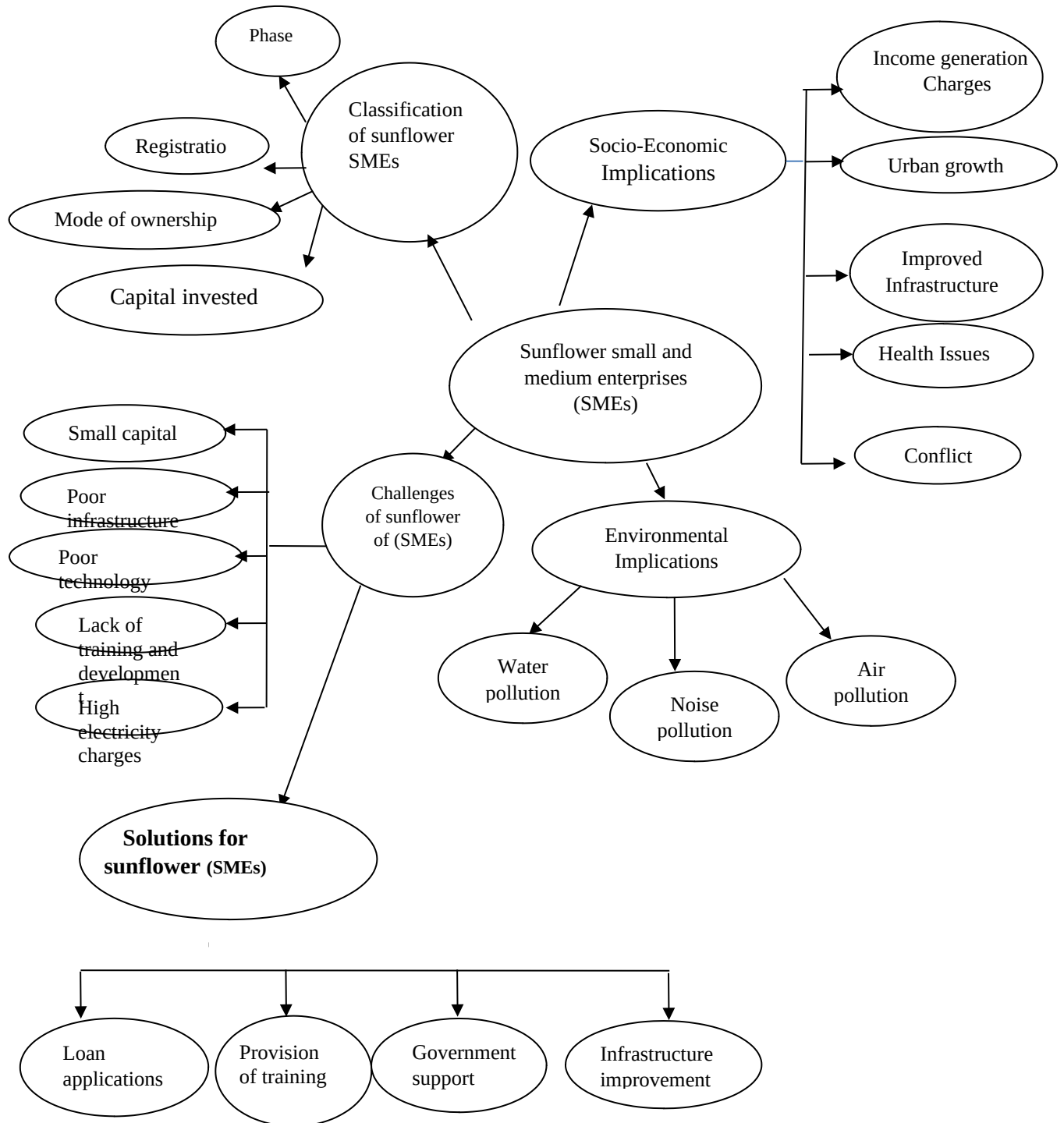


Figure 1: Conceptual Framework for socio-environmental implications of SMEs and challenges they face and potential solutions

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CHAPTER TWO

MANUSCRIPT I

2.0 Socio - Environmental Implications of Small and Medium Sunflower Oil Processing Enterprises in Singida Municipality, Tanzania

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Abstract

This study was conducted in Singida Municipality to explore socio-environmental implications of sunflower Small and Medium oil processing Enterprises. Mixed methods approach was used to collect data; the methods were interview, key informant interviews and focus group discussions. SPSS as a software which was used to analyze the quantitative data and content analysis was employed to analyze the qualitative data. The results showed that socio-environmental implications were two-sided meaning that there were both positive implication like job creation, innovation and infrastructure improvement and negative implications like water pollution, conflicts, corruption and air pollution. This study recommended the enhancement of positive implications and development stakeholders to provide solution for negative implications.

Keywords: Sunflower oil processing, SMEs, socio-environmental implications and Singida.

2.1 Introduction

Internationally, there is no universally acknowledged definition of SMEs; though, the most of definitions are based on the number of employees and capital requirements. The existing discrepancy of the concept among international agencies is far less scientific. For

example, the World Bank defines an SME as a firm with 300 workers and minimum revenues of 15 000 000. The UNDP defines SMEs as a firm with 200 employees (Marwa, 2014). In 2003, the government of Tanzania established the SME development policy that was intended at alleviating poverty and improving the SME sector (URT, 2013). The policy was reviewed in 2013 which recognized that regardless of the government efforts to develop the sector, SMEs were still faced with challenges such as a failure to compete in international markets, financial constraints, underproduction, poor supply chain management, technological difficulties, a lack of access to raw materials and a low business registration rate (Mashenene and Rumanyika, 2014; Kimathi, 2015; Anderson, 2017). As a result, SMEs still undergo challenges which force most of them to go out of business.

According to Wiese (2014) Small and Medium Enterprises (SMEs) refer to a very broad range of initiatives from the established traditional family business that employ more than a hundred people to mere survivalist self-employed individual who originates from the poorest of the population. Among these enterprises are those that involve with sunflower oil processing.

In Tanzania the SME employs over 33% of labour force. When taking both the informal and formal sectors, the total contribution of sunflower SMEs to the GDP is about 63%. Moreover, there are about 700 000 job seekers who enter the labour market each year (Marwa, 2014). The formal sector absorbs only 40 000 annually. The implication is that the remaining excess annual labour supply about 6 660 000 are absorbed by all SMEs under informal sector or left unemployed and based on the statistics the role of the sunflower SMEs can not be over emphasized (Marwa, 2014). In 2003, the government of Tanzania introduced the SME development policy that was aimed at reducing poverty and

improving the SME sector. The same policy was reviewed in 2013 which documented that despite the government efforts to improve the sector, SMEs are still faced with challenges such as financial constraints, underproduction, poor supply chain management, technological difficulties, a lack of access to raw materials by previous researchers to document SMEs challenges, these issues still persist and as a result, SMEs still undergo challenges which force most of them to go out of business (Mashenene and Rumanyika, 2014; Kimathi, 2015; Anderson, 2017).

Sunflower, botanically classified as *Helianthus annuus*, is a large plant grown throughout the world because of their relatively short growing season. Domesticated sunflowers typically have a single stalk topped by large flower; it is an important crop that has been receiving a global attention, for example, in countries such as Russia, Ukraine and Argentina these three countries are often referred to as sunflower triangle (BoT, 2015). In Tanzania sunflower production is predominantly done by small farmers with one or three acres under sunflowers. There are, however, also medium or large-scale farmers with more than a thousand acres of sunflower (Rumanyika, 2014).

Sunflower oil processing has a long history around the world. This processing has been increasing over time. For example, in industrialised countries such as Russia it started in the 1830s and has been increasing over time. The demand for sunflower oil rose due to its low cholesterol nature as compared to animal fats (Ismail, 2007). In Canada the first official government sunflower breeding program started in 1930. The basic plant breeding material utilized came from Mennonite (immigrants from Russia) gardens. Acreage spread because of oil demand (FAO, 2008). In Africa, South Africa is leading for the production of sunflowers. South Africa is among the countries where these SMEs have been observed to significantly involve in sunflower oil processing. The production of sunflower, which is

the most important source of vegetable oil in south Africa, is prevalent in summer rainfall areas. Local annual production for sunflower seeds range between 500 000 and 700 000 tons (BFAP, 2015). Tanzania is second country in Africa in producing sunflower. According to Tanzania Investment Centre (2017), production of sunflower oil in Tanzania has reached 181 000 tons, with annual output of around 350 000 tons of sunflower oilseeds, corresponding to about 90 000 tons of oil. Tanzania and South Africa are among the top ten sunflower oilseeds producers in the world.

Production and processing of sunflower has both socio-economic and environmental implications. Sunflower production is an important economic activity which has a potential for improving livelihood outcomes among SMEs. According to Mchopa and Jeckonia (2018), through participating in sunflower related activities, smallholder farmers were able to improve their wellbeing in terms of possessing more household assets as well as increasing their household incomes unlike before. The same has been reported by Mameho *et al.* (2014) who found that participation into sunflower cultivation improves the livelihoods of smallholder farmers in terms of increased household income and assets. Thus, based on the mentioned scholars, sunflower cultivation stands a better chance for improving livelihood outcomes among smallholder farmers than other economic activities.

From environmental point of view, oil processing activities generate significant quantity of organic solid waste and by products such as empty fruit bunch (EFB) and waste palm kernels. The amount of waste generated depends on the quantity of the raw material and use or reprocessing of the discarded materials into commercially viable by- products. Lack of modern mechanical oil extraction equipment and ineffective ways to increase productivity in agriculture has made Tanzania to spend more than 189.6 billion (\$120 million) Tanzanian shillings for importation of edible oil almost every year.

Environmental implications refer to as consequences and impacts or a change caused by sunflower SMEs to the environment (Stojavonic, 2016).

On the other hand, the production of sunflower occurs with limited amounts of N fertilizer, no irrigation and with limited use of pesticides. In addition, sunflower has a potential for providing multiple ecosystem services in diverse cropping systems (e.g. pollinators feeding). However, agro ecological innovations have been less developed or disseminated for sunflower than for cereals or oilseed rape (Mestries and Debaeke, 2016). Integrated crop management could be proposed to limit the use of pesticides and mitigate crop damages; cover crops could be used as bio fumigants to control soil borne diseases in sunflower; intercropping sunflower with soybean could be a valuable option for maximizing resource-use efficiency in low-input environments hence sunflower yield could be maintained at good level in very low input cropping systems. Previous examples point out how agro ecological principles could be applied to sunflower crop to improve its production in low-input conditions and enhance the ecosystem services deliverable by this oilseed crop.

Previous studies on sunflower SMEs have focused on production and livelihood aspects. One of such studies is on internal and external factors that challenge sunflower small and medium enterprises in their daily operations in Mkalama district (Mlau, 2014). Another study is about valuation of factors affecting income of smallholder farmers in Singida rural district (Yohana, 2015). Yet another study determined the impact of sunflower sub-sector to the Tanzanian economy; the results of this study uncovered that there was a huge potentiality of sunflower seed in Tanzania attributed to the existence of suitable land and availability of marketplaces (BoT, 2017). Moreover, Mchopa and Jeckoniah (2018) assessed the livelihood outcomes of sunflower production. None of the previous studies

focused on the sunflower SMEs in terms of their socio-environmental implications; and the present study focuses on this research gap.

2.2 Theoretical Framework

The present study is guided by the Sustainable Development Approach. Sustainable development can be defined as maintaining system stability by developing a balance of responsibilities: economic, social, environmental and technological support technique without compromising the needs of future generations (Ivascu, 2013). The approach postulates about three major components of human existence: economic, environment and social (Duran *et al.*, 2015), Figure 2.1. The first component is essential, in the sense that the aim of social and economic activity is to gratify human needs and wants, affecting for the three dimensions of human existence: organic (present in the interactions with the physical, natural environment), social/collective/collective (as a member of some social groups) (Giovannin *et al.*, 2015). The relationship between economic growth and the protection of the environment is an essential problem in the approaching sustainable development because the approach of economic growth not only by GDP, without trying a quantification of benefits, resulting from environmental protection is only a basic form, deplorable in sustainable development analysis (Salmzadeh and Corvisanos, 2015). The social component in sustainable development has a major role, because the concept of equity incorporates several forms of indicators of sustainable progression of human society (Duran *et al.*, 2015). SDA understands poor people since it incorporates and involves different aspects to poverty reduction (Kamarrudin and Samsudin, 2014).

The approach focuses on enhancing poverty reduction aiming to increase people's control of their environment, build reliable and fair access to food, and empower the extreme poor through increasing the skills, knowledge and resources they need. The SDA is used in this

study based on the fact that the sunflower cooking oil SMEs have abilities and assets that can be developed to help local people improve their lives and the environment at large. The study uses Sustainable Development Approach to assess sunflower SMEs implications in people's lives in terms of income earned, employment availability as sunflower SMEs hypothetically provides economic returns and social benefits and conserves the environment.

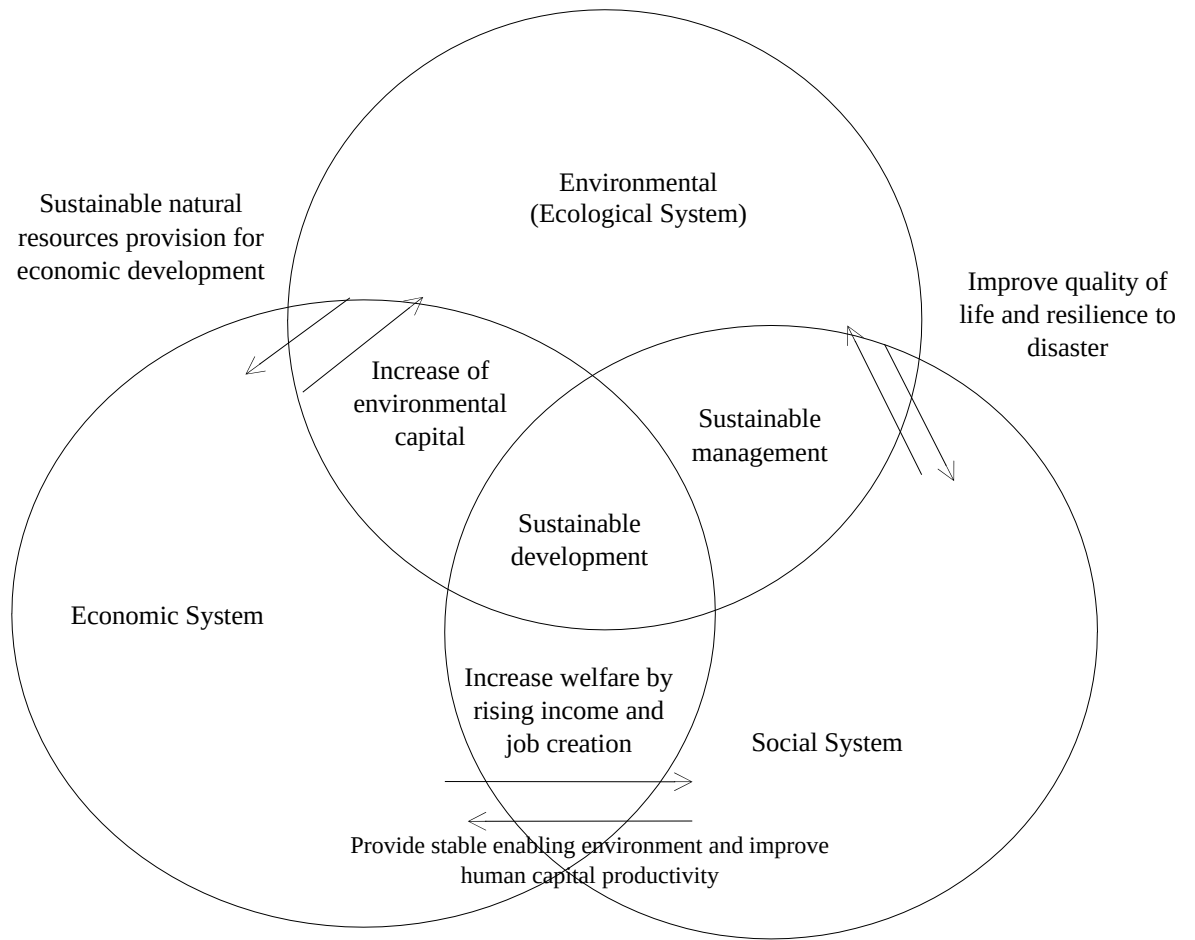


Figure 2.1: Sustainable Development Approach (SDA), (Sudo, 2016).

2.3 Conceptual Framework

The study's conceptual framework shows the interactions between and among the concepts as appearing in the objectives of the study. These concepts are socio-economic and environmental implications of sunflower SMEs. Figure 2.2. Socio-economic implications include job creation, income generation, and health issues and environment implications include noise pollution, air pollution and water pollution.

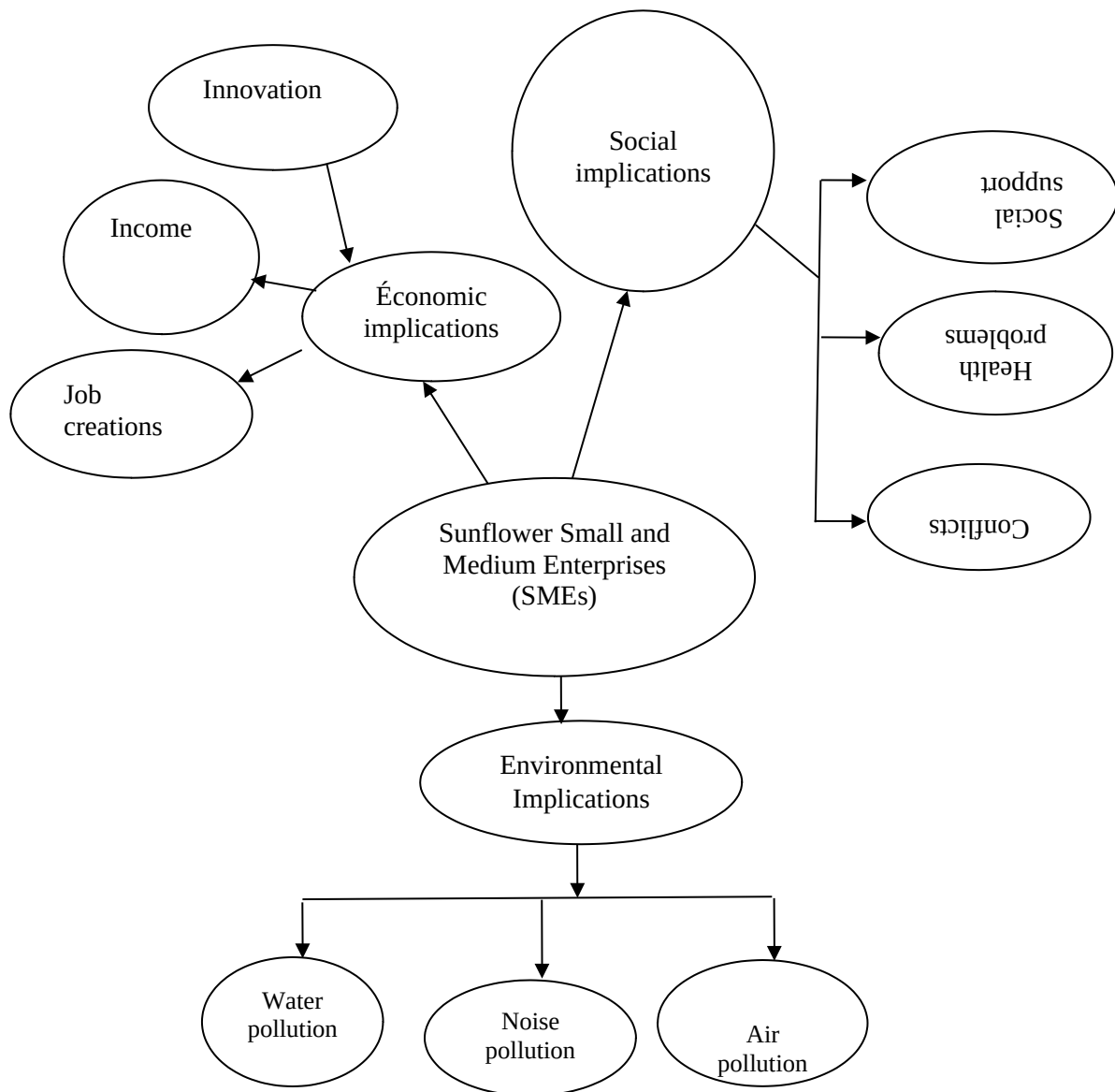


Figure 2.2: Conceptual framework

2.4 Methodology

2.4.1 Study area

This study was conducted in Singida Municipality in Singida Region. The choice of this area was based on the reason that Singida Municipality is a leading place of having high number of SMEs engaged in sunflower oil processing and production. Singida Region is the major producers of sunflower cash crop (Elewa, 2017).

2.5 Research Design, Sampling Procedures and Sample Size

2.5.1 Research design

The study used a cross-sectional design whereby data were collected in one-point at a time. The cross-sectional design is characterized by quick and constructive utilization of limited resources in terms of funds, labour, transport and time. It is also very useful for descriptive purposes and the data collected can be used to determine relationships between different variables focused in the field of study (Rovai and Ponton, 2013).

2.5.2 Sampling procedures

The study population comprised of all sunflower producing and oil processing SMEs and people living around the sunflowers SMEs. This study covered four (4) wards including Utenini (11 269), Kindai (12 658), Mandewa (17 932) and Misuna (13 061). These wards were purposively selected because they were the wards where sunflowers small and medium oil processing enterprises were found in Singida Municipality. Singida Municipal Council Strategic Plan 2016/2017-2020/2021(2017) depicted that, the dominating economic activities in the selected wards are small business and small industries including sunflower oil processing SMEs which is the focus of this study.

2.6 Sample Size

Four wards out of 16 wards where sunflower SMEs are located were purposively selected and all 30 sunflower SMEs in these wards were included for this study. From each ward selected, 10 local respondents were purposively selected to be included in the Focus group discussion to complement information given by sunflowers SMEs managers. Respondents from four (4) wards were purposively selected based on their residential location in relation to sunflower SMEs nearness. These were interviewed to explore environment implications of sunflower SMEs in their locality. Six (6) key informants were also

included to complement the information collected and they were selected based on their administrative ranks like ward executive officer, SIDO officer, Municipal environmental officer and their experiences in the sunflower SMEs making a total of 76 respondents.

2.7 Data Collection

The study was guided by mixed-methods approach. Questionnaire survey was used to collect quantitative data from SMEs managers. An interview guide was employed in key informant interviews for key informants who included; village executive officers (VEOs) and Municipal environmental officers (MEOs) and Small Industry Development Organization (SIDO) officer. A checklist containing questions was used as a guide in Focus Group Discussion (FGDs) from the 4 selected wards each comprising 10 respondents, i.e. 5 males and 5 females were used to avoid unequal participation by giving opinions among discussants and to extract information from the dwellers. Qualitative data were collected through key informant interviews and Focus Group Discussions (FGDs).

2.8 Data Analysis

The IBM Statistical Package for Social Science (SPSS) was used to analyse quantitative data. Cross tabulation was employed in which studied variables were crossed to observe variation among sunflower SMEs and content analysis was employed to analyze qualitative data. A thematic analysis framework in which themes were identified and enlightened using participant quotes was also used under content analysis.

2.9 Results and Discussion

2.9.1 Demographic characteristics of respondents

2.9.1.1 Age

The study consisted of respondents of the different age. Table 2.1 shows ages of the respondents who participated in this study. From Table 2.1 most of the respondents of sunflower SMEs are people with the age between 29 and 39 (50.0%), meaning that large group of the respondents engaging in sunflower oil extraction lie in a productive age and the activity offers them an opportunity for self-employment, a source for income and wealth creation (Mushi *et al.*, 2016).

The age group of 18-28 (19.2%) most of them are not at productive age. Therefore, this finding contradicts those reported by Zilihona *et al.*, 2013) which indicated that 50% of the respondents in Singida were in the age group between 36 and 45 years.

Table 2.1: Age of respondents (n=30)

Categories	Frequency	Percent
18-28	6	19.2
29-39	15	50.0
40>	9	30.8
Total	30	100.0

2.9.1.2 Sex

From Table 2.2 male and female respondents are almost equal though the males are relatively more with 54 percent while the female are relatively less i.e., 46 percent. This result implies that women are also participants of sunflower activity possibly because nowadays women are empowered to access resources through strategies to ensure gender balance and gender equity. This finding is contrary to that reported by Mushi *et al.* (2016)

in Dodoma which indicates that most of sunflower participants are dominated by males who represent 91.4% in Kongwa District and 94.3% in Dodoma Urban while female counterparts represented only 8.6% in Kongwa District and 5.7% in Dodoma Urban. Majority of these female sunflower participants are located in Kibaigwa market.

Table 2.2: Sex of respondents n=30

Categories	Frequency	Percent
Male	16	53.8
Female	14	46.2
Total	30	100.0

2.9.1.3 Education level of respondents

Results in Table 2.3 show that, generally the educational level of sunflower participants including operators of SMEs and local people around SMEs was high as majority (61.5%) of sunflower participants involved in this study reported to have completed secondary education. Less than quarters (19.2%) reported to possess each primary education respectively perhaps because most of educated people are good in business because most of them had received business skills like entrepreneurship course school though not all the case, therefore level of education is an important factor in coping with poverty and particularly coping with risks and uncertainties related to ownership of sunflower SMEs (Zilihona *et al.*, 2013). A certain standard of education can better equip a person to structure their enterprises to be sure that the family has enough to meet their requirements for cash, food and shelter. This study is similar to that of Mwita *et al.* (2013) which indicated that 26.7% of sunflower participants had secondary education followed by college education (6.7%) and vocational training (6.6%) whereas 60% of the sunflower participants had primary education.

Table 2.3: Education level of sunflower participants n=30

Education category	Frequency	Percent
No formal education	3	10.5
Primary education	5	15.8
Secondary education	9	28.9
College	8	27.6
University	5	17.1
Total	30	100.0

2.10 Classification of Sunflower Small and Medium Oil Processing Enterprises

Sunflower oil processing small and Medium Enterprises (SMEs) were divided into different groups based on four attributes (growth phase, registration, mode of ownership and capital invested) as seen from Table 2.4. This kind of classification has been used in previous studies such as by Kira and He (2012) and Sanga (2018) whereby the mentioned aspects were identified to be acceptable in classification of SMEs. The description of the SMEs is made in the following sections based on the four attributes namely Enterprise business growth phase, Enterprise registration, Mode of ownership and Capital invested.

2.11 Enterprise business growth phase

Under the business growth phase attribute, most of SMEs (80.9%) were in the growth phase. Only 3.8% of enterprises were in the starting phase. The findings showed that at the starting phase, industries are facing market challenges commonly observed among old enterprises have already attracted and dominated the customers' preferences. It was also revealed that to start a new business is a more challenging activity than to develop the existing one. The study conducted in Nigeria, at Anambra state by Onukwuli *et al.* (2014) concluded that starting a new investment is a risky venture and recommended that, there should be a good plan which show how the risks can be mitigated.

2.12 Enterprise Registration

Under this attribute, this study found that among 21 sunflower SMEs in the study area 80.8% were formally registered. One key informant revealed that,

“The municipal government has taken major efforts to ensure all enterprises are enrolled and recognized as economic entities which contributing to the community and government income. However, most of entrepreneurs are reluctant to register their business fearing for high registration fees, licenses and taxes”(KIIs, 22-02-2020, Mandewa ward).

This fear has been documented in the literature as it impacts the business negatively. For instance Sleuwaegen and Goedhuys (2002) argued that, informal SMEs exist because of the presence of tax burden, higher labor costs and difficult licensing policy. In reality they do not save anything since if they were found to be not complying with the rules and regulations they were fined and this caused a loss of their capital. This finding is supported by Sanga (2018) who argued that, taxes may cost a lot to SMEs, but registered business is on the safe side to enjoy the number of benefits like the acquisition of loans.

2.13 Mode of Ownership

Under the mode of ownership, most sunflowers SMEs (57.7%) were owned on family basis in the other words they were privately owned. The dominance of family-owned enterprises in sunflower SMEs was also identified by Daspit *et al.* (2015) and Erdem (2010) who pointed out that most SMEs in the world are family businesses. Contrary to that, 7.7% of the SMEs were government owned and 34.6% were owned by the entrepreneur groups who are supported by various organizations such as Small Industrial Development Organization (SIDO). Most of SMEs which are privately owned are constrained with technology advancement and limited level of capital. KIIs revealed that

sunflower SMEs supported by SIDO receive both financial and technical support from SIDO. For instance, during an interview SIDO officer admitted that;

“Always we support entrepreneurship groups who own sunflower SMEs by providing technical and financial support ranging from 5millions to 50 million. Also, we channel them with Microfinance institutions if their demands are beyond our capacity like high loans more than 50 million, transfer of money and depositing of money services such as Commercial Rural Development Bank (CRDB), National Microfinance Bank (NMB), and Tanzania Agricultural Development Bank (TADB)” (KII, 22-02-2020, Utenini ward).

According to observation those sunflower SMEs with modern technology do not pollute environment unlike those sunflowers without a modern technology because modern technology reduces the amount of dusts, noise and water pollution from the sunflower SMEs.

2.14 Capital Invested

In terms of the capital invested most of sunflower SMEs which are covered in this study (96.5%) reported to invest a capital ranging from 5 to 9 million Tanzania shillings. This is due to the fact that, sunflower SMEs are family owned with the small capital and their sources of capital were from the private saving unlike the government and sunflower entrepreneur groups owned SMEs and whose capital are from the investors and financial institutions like Microfinance Banks. These findings correlate with those of Kiwia *et al.* (2019), who reported low capital, competition, willingness of the business founder to relinquish power, conflicts in business ownership and management as among the challenges that affect the performance of family businesses.

Table 2.4: Classifications of Sunflower oil processing small and Medium Enterprises in Singida Municipality

Classification factors		Number of workers		
		5-49 (%)	>50%)	Total
Business Phase	Start	4(44.44)	0(0)	1(3.8)
	Growth	5(55.56)	17(80.98)	22(80.8)
	Maturity	0(0)	4((19.05)	4(15.4)
	Total	9(100)	21(100)	30(100)
	Registered	5(55.56)	18(85.7)	23(80.8)
Registration	Unregistered	4(44.44)	3(14.3)	7(19.2)
	Total	9(100)	21(100)	30(100)
	Family	6(66.67)	12(57.1)	18(57.7)
Mode of ownership	Partnership	3(33.33)	7(33.3)	10(34.6)
	Government	0(0)	2(9.5)	2(7.7)
	Total	9(100)	21(100)	30(100)
	5m-9m	6(66.67)	20(95.2)	26(96.2)
	>20m	3(33.33)	1(4.8)	4(3.8)
Capital invested	Total	9(100)	21(100)	30(100)

2.15 Social Implications of Sunflower SMEs to the Local People

Results in Table 2.5 show that mean average of income earned by respondents with no formal education, primary education, secondary education, college and university is TZS77 500. 00, TZS 72 083.33, TZS 781 81.82, TZS 214 761.90 and TZS 320 769.23 respectively this indicates that respondents with high education earn more than those with lower education. Furthermore, the minimum income earned by respondents with secondary education level is 60 000 per month compared to a minimum salary stipulated by world wage indicator organization which recommended minimum salary in trade, industry and commercial services is 115 000 per month (Kira and He, 2012).

Furthermore, employment and labor act of 2004, has identified contract as one among the rights of employees which is not the case with sunflower SMEs average number of

employees for sunflower SMEs enterprises is 41 employees and for medium is 119 employees. Results from focus group discussion indicated that there are both negative and positive social implications from these sunflower small and medium enterprises. Positive social implications the study revealed include creation of employment opportunities which can help in income generation, provisions of cooking oil such as Singida oil fresh, Sunola cooking oil, Makalla cooking oil and waste products that can be used as fertilizers to improve crops yields. Furthermore, during the interview, one ward executive officer as a key informant said that;

“I think the main social implications of sunflower small and medium enterprises is that they are responsible for the social developments, like here Mount Meru sunflower SMEs provide food to our pupils, also we have one health center here at our village because of sponsorship from them” (KII, 20-02-2020, Mandewa ward).

Table 2.5: TZS Income of respondent per month with respect to education level

Education level of respondent	Mean	Minimum	Maximum	Range
No formal education	77 500.0000	60 000.00	90 000.00	30 000.00
Primary education	72 083.3333	60 000.00	90 000.00	30 000.00
Secondary education	78 181.8182	60 000.00	120 000.00	60 000.00
College	214 761.9048	75 000.00	300 000.00	225 000.00
University	320 769.2308	250 000.00	350 000.00	100 000.00
Total	156 381.5789	60 000.00	350 000.00	290 000.00

This means that sunflower SMEs have both positive and negative social and economic implications to the local people. The SME sector is an engine of economic growth of many economies in developing and developed countries as it plays a major role in job creation, competition, economic enthusiasm and innovation. The sector stimulates the entrepreneurial fortitude and the dissemination of expertise while negative implications of

sunflower SMEs are like water pollution, air pollution and noise pollution (Kira and He, 2012).

Based on the results from FGDs and KIIs negative social implications in terms of social conflicts and corruption have been recorded. Social conflicts are of two different types which are local people and sunflower SMEs operators. One key informant was quoted saying.

“sunflower SMEs are the key causes of social conflicts between us (residents) and SMEs owners due to enterprises’ poor waste management example some chemical from the sunflower SMEs during rainy season spills to nearby by residents that leads to social misunderstanding” (KII,22 -02- 2020, Misuna ward).

2.16 Environmental Implications of Sunflower SMEs

From Table 2.6, percent of respondents saying “yes” for particular environmental management strategies are displayed (83.3 %) had special day for cleanliness, 76.7% had dustbins, 66.7% had modern machines hence most of these SMEs ensured environmental hygiene. For instance, from one KII response was quoted.

‘We are using guidelines from environmental management act 2004, where their designation of national cleanness day guidelines of 2016 and solid waste management regulations 2009, and respective by laws of local authorities shall have effect to penalties ‘which may be imposed by non-compliance with the directive of the minister” (KII,18-02-202,Kindai ward).

This means that, although most sunflower SMEs observed environmental hygienic practices, still some sunflower SMEs did not abide by environmental hygiene principles

by having a special day for cleanness, using dustbins and environmentally friendly modern machines like screw press machine which process high sunflower 9-4 tonnes per 24hours, low labor intensive, good quality of sunflower cooking oil and environmentally friendly. For instance, from one KII this response was quoted.

“We always experience bad smell due to the presence of this sunflower SME we need government interventions so much so that we end this millennium problems because of poor waste Management” “We cannot sleep well because of the noise from sunflowers small and medium oil processing now we don’t know even what to do please researcher tell the government to help us, please and please” (KII, 18-02-2020, Kindai ward).

FAO (2019), stated that among the benefits of environmentally friendly technologies is to reduce carbon foot prints in the atmosphere in an environmentally safe and sustainable manner. With respect to FAO (2019), sunflower SMEs does not seem to sufficiently ensure environmental safety and sustainability because people still claim to experience air pollution and noise pollution caused by sunflower SMEs.

Table 2.6: Sunflower SMEs Environmental Management Strategies

Environment management strategies	N	% of cases
Special day for cleanness	25	83.3
Use of Dustbin	23	76.7
Modern machine	20	66.7

Based on Table 2.6, the results are generally in line with the Sustainable Development (SDA). They follow what the approach advocates, it means they comply with the principles advocated through that approach, because of existence of environmental safety around sunflower SMEs, for example the use of dustbins and special day of cleanliness.

These environmental management strategies help on environmental conservation for present and future needs. Moreover, sunflower SMEs provides employment to local people thus helps them to improve their life standards. The use of modern machines has reduced the quantity of waste product released from sunflower SMEs thus prevent environmental pollution. Also, it is in line with National Environmental Policy of 1997 whose chapter 3 section 41, requires private sector not to discharge water that have the adverse impacts on the human health and environment therefore dustbins are used and cleanliness day is arranged and improvement is made in a production system through use of environmental technologies (URT, 1997).

Also Environment policy of 1997 has identified pollution of environment as one among the six major environmental problems in the country. It has given emphasis on pollution in relation to human health effects and environmental productivity (URT, 1997). Furthermore, chapter 3 sections 29, of the policy is emphasizing on the use of environmental sound technologies that protect the environmental, as well as recycling of their waste and products and handling residue waste in a more acceptable manner.

2.17 Conclusion and Recommendation

2.17.1 Conclusion

From the study results, it was notable that social implications of sunflower SMEs included social benefit to local people around them such as employment opportunity, income generation and social support in the social development and negative social implications like conflicts.

Also, sunflower SMEs have positive and negative environmental implications because sunflower SMEs observed environmental management strategies by having special

cleanliness day, using dustbins and paying cleanliness fees and minimal negative implications to environment such as dusting, water pollution and noise pollution.

This study confirms “Sustainable Development Approach (SDA)” because it has revealed that sunflower SMEs have been providing benefits to local people like employment, income and social support and also benefit to environment like follow environmental management strategies.

2.17.2 Recommendation

This study shows that there are positive socio-environmental implications and the negative socio-environmental implications. The study therefore suggests that development stakeholders such as public, private and development actors like Community based organization (CBOs), SIDO and Oxfam should improve the existing sunflower SMEs to tackle the observed negative socio-environmental implications and to enhance positive socio-environmental implications including establishment of sustainable sunflower SMEs. Furthermore, development stakeholders should ensure the availability of fertilizers, pesticides and irrigation system to increase production of sunflower and provision of environmental education and awareness about environment conservations to make community to be familiar with the importance of protecting environment. Moreover, government should monitor implementations of labor law for those sunflower SMEs which do not comply with stipulated recommended minimum salary.

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CHAPTER THREE

MANUSCRIPT II

3.0 Challenges facing sunflower small and medium oil processing enterprises in Singida Municipality, Tanzania

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Abstract

This study was conducted in Singida Municipality to explore challenges sunflower Small and Medium oil processing Enterprises face. Mixed methods approach was used to collect data; the methods were interview, key informant interviews and focus group discussions. SPSS software was used to analyze the quantitative data and on the other hand content analysis was employed to analyze the qualitative data. The results showed that challenges faced sunflower SMEs included small capital, poor infrastructure, poor technology, lack of training and development and high electricity charges. This study recommended development stakeholders to provide solutions to the challenges sunflower SMEs face. Such solutions can include provision of financial support, educational and training, government support, research and development transfer and access to physical infrastructure.

3.1 Introduction

Around the world, sunflower small and medium oil processing enterprises SMEs have been assimilated important chances in entire economic development process (Pephah *et al.*, 2016). Over the years this sector has played important role in developing Tanzania economy through creation of employment, equitable distribution of the income hence poverty reductions. However, this sector suffers a numbers of challenges and problems like globally and domestic competitions.

In the contemporary context of changing and dynamic economy, the sunflower SMEs in Tanzania besides facing inadequate capital misalliance annual production for sunflower seeds range between 500 000 and 700 000 tones (BFAP, 2015). Tanzania is one of the countries in Africa producing sunflower. According to Tanzania Investment Centre (2017), production of sunflower oil in Tanzania has reached 181 000 tons, with annual output of arund 350 000 tons of sunflower oilseeds, corrsponding to about 90 000 tons of oil. Tanzania and South Africa are among the top ten sunflower oilseeds produers in the world.

Sunflowers are botanically classified as *Helianthus annuus*. They are a large plant and are grown throughout the world because of their relatively short growing season. Domesticated sunflowers typically have a single stalk topped by a large flower. In Tanzania Sunflower production is predominantly done by small farmers with one to three acres under sunflower. There are however also medium or large-scale farmers with more than a thousand acres of sunflower.

The crop is grown all over Tanzania but over 50% of sunflower is planted in four regions: Dodoma (22.5%), Kilimanjaro (13.2%), Arusha / Manyara (13.1%) and Singida (8.9%).

Other major growing areas are Mbeya, Mtwara and Rufiji. As the majority of sunflower farmers are Small scale farmers who grow one to three acres sunflower, it is estimated that about 150 000 to 200 000 small scale farmers are involved in sunflower growing (Kombe *et al.*, 2017).

SMEs, or small and medium-sized enterprises, are defined differently around the world. The country a sunflower oil processing SMEs operates provides the specifics on the defined size of an SMEs (Williams and Schaefer, 2013). SMEs have a benefits like provision of employment opportunities, alleviation of poverty and technological development. Despite of, numerous benefits of SMEs to community there some challenges encountered by SMEs like constraints to participate in trade fair, time consuming in preparing goods and limited technology Ummulkulthoum and Jianhua (2017).

3.2 Theoretical Framework

The theoretical perspective which supports this study come from the Entrepreneurship theory. Different scholars suggested entrepreneurship as the main aspect to overcome challenges faced SMEs. Therefore, different theories have been developed to explain on the thoughts and development of entrepreneurship (Jain, 2007). Jain argued that the success of the SMEs depends on the entrepreneur who is personally responsible for the management and operation of the business. Therefore, the entrepreneurship will bring to sunflower SMEs plasticity and can adapt quickly changes of challenges faced sunflower SMEs like lack of financial support, lack of training and development, poor infrastructure, lack of provision of education and training and make a significant contribution to growth of sunflower SMEs.

Schumper and sweezy Theory (1943) argued that entrepreneur is agent for change, need to introduce new things in the society. Entrepreneur requires to have ability to innovate and takes the economy to a new level of development. Innovation includes in production process, management in acquired capital in provision of education and training, Therefore, through the innovation of entrepreneur can improve to tackle all challenges faced sunflower SMEs like lack of financial support, lack of education and training and poor infrastructure.

3.2.1 Conceptual framework

The study's conceptual mapping shows the relationships between and among the concepts as appearing objective that are used in this study. These concepts are challenges facing sunflower oil processing Small and Medium Enterprises SMEs. Figure 3.1. These include small initial capital, High electricity charge from Tanzania National Electricity Supply (TANESCO), poor infrastructure and climatic changes, which can be solved by loan application from Commercial Banks such as Commercial Rural Development Bank (CRDB), National Microfinance Bank (NMB) and Tanzania Investment Bank (TIB), also improvement of the infrastructure and government support.

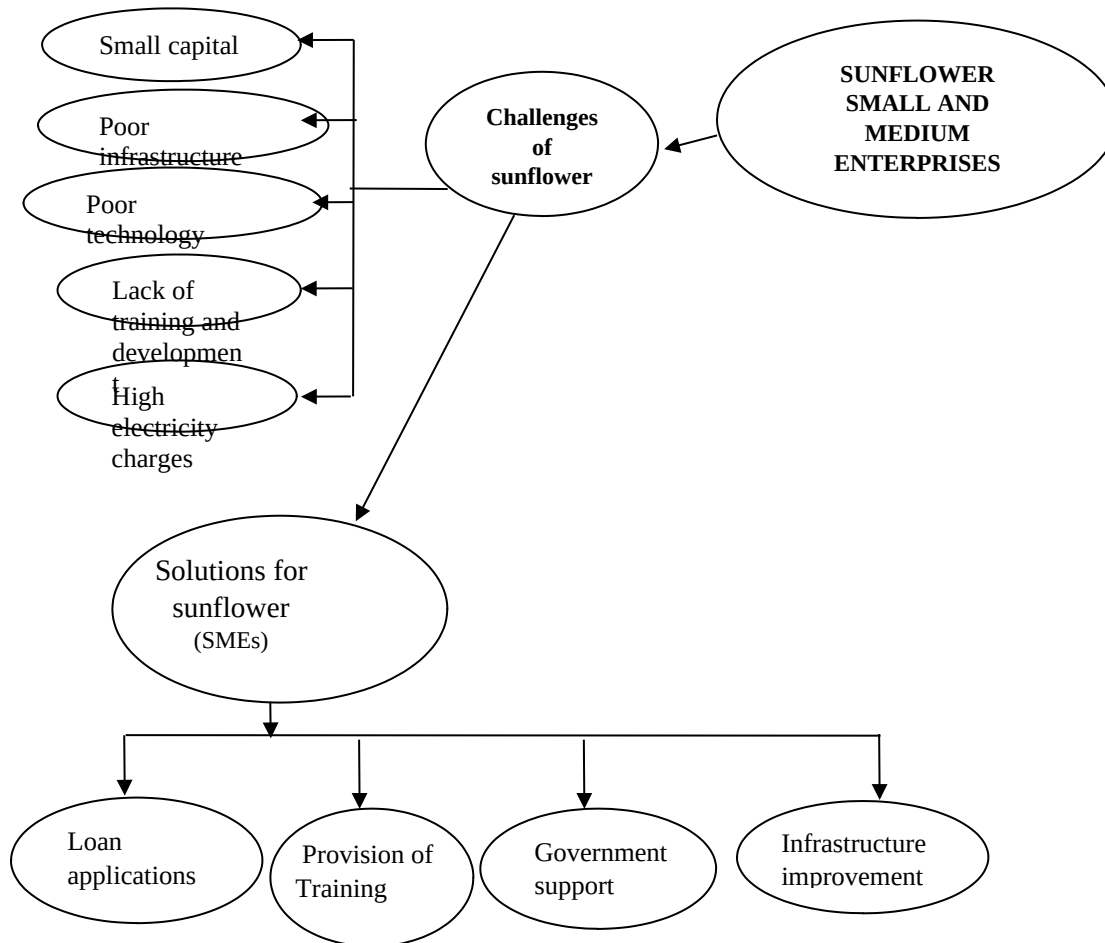


Figure 3.1: Conceptual framework on the challenges the SMEs encounter and the potential solutions

3.4 Research Methodology

3.4.1 Description of the study area

This study was conducted in Singida Municipality in Singida Region. The choice of this area was based on the reason that Singida Municipality is a leading place of having sunflower medium enterprises. Due to fact that Singida region is the major producers of sunflower cash crop (Elewa, 2017).

3.4.2 Research design

The study used a cross-sectional design whereby data were collected in one-point at a time. Cross-sectional design is characterized by quick and effectively utilization of limited resources in terms of funds, labour, transport and time. It is also very useful for descriptive purposes and the data collected can be used to determine relationships between different variables focused in the field of study (Rovai and Ponton, 2013).

3.4.3 Sampling of producers

The study population comprises of people of different categories such as SMEs owners, sunflower SMEs employees and local people around the sunflowers SMEs. This study covered four (4) wards which are (including their population in brackets) Utemi (11 269), Kindai (12 658), Mandewa (17 932) and Misuna (13 061). Because the study intended to determine all sunflower small and medium oil processing enterprises found in Singida Municipality, Singida Municipal Council Strategic Plan 2016/2017-2020/2021(2017), depicted that, the dominating economic activities in the selected wards are small business and small industries including sunflower oil processing SMEs which is the focus of this study. Furthermore, only selected four wards have the sunflowers processing SMEs the rest do not have even a single sunflower SMEs.

3.4.4 Sample size

Four wards out of 16 wards where sunflower SMEs located were purposively selected because the intention was to explore challenges faced sunflower SMEs and only 4 wards have sunflower SMEs the rest do not have and all 30 sunflower SMEs in these wards were included for this study.

3.4.5 Data collection

The study was guided by mixed-methods approach because it permits a more complete and synergistic utilization of data. Interview was employed to extract information from sunflower SMEs managers.

3.4.6 Data Analysis

Descriptive statistics mainly percentages were used to analyze the objective. Cross tabulation was employed in which studied variables were crossed to observe variation among challenges and solutions faced sunflower SMEs.

3.5 Results and Discussion

This paper aimed to assess the challenge facing sunflower SMEs but not only challenges were determined but also the solutions to address those challenges. This chapter presents the results of the study. First it presents demographic characteristics (such as age, sex and level of education) of the respondents of the study. Therefore, it provides results for objective of the study along the study.

3.5.1 Demographic Characteristic of the Respondents

3.5.1.1 Age

The study consisted of respondents of the different age. Table 3.1 show ages of the respondents who participated in this study. From the Table 3.1 most of managers of sunflower SMEs are people with the age group of 36-45(50.0%) because most of them by that age are high education graduates, also most of them have already accumulated capital also the high populated age group is 36-45.and age group of 18-35(19.2%) are not managers of sunflower SMEs because most of them are not yet graduated from higher learning institutions, so it's very hard to start business.

Table 3.1: Age of respondent

Categories	Frequency	Percent
18-28	6	19.2
29-39	15	50.0
40>	9	30.8
Total	30	100.0

3.5.1.2 Sex

From the Table 3.2 most of sunflowers owners SMEs are male with fifty three percentage due to their long operations in the sunflower SMEs while the Female are small in owning sunflower SMEs by fourteen six percent. This result implies those females are also owners of sunflowers SMEs possibly because nowadays women are empowered to own production resources. This is similar as reported by previous study by Mchopa and Jeckoniah (2017), assessed the determinant of gender participation in the sunflower value chain outcomes, where by most of sunflower participants are female with seventy-five percent while male are small in participation on sunflower production by sixty nine percent. This result implies that both male and female have almost equal participation on sunflower production.

Table 3.2: Sex

Categories	Frequency	Percent
Male	16	53.8
Female	14	46.2
Total	30	100.0

3.5.1.3 Education level of Respondents

Results in Table 3.3, show that, generally the educational level of sunflower small and medium oil processing enterprises SMEs owners was high as majority (61.5%) of

sunflower SMEs owners involved in this study reported to have had completed post-secondary education. Less than quarters (19.2%) reported to possessing each primary and secondary education respectively. It can imply that most of educated people are good in business maybe because most of them might have received business skills like entrepreneurship degree from college or university.

Table 3.3: Education level of Respondent

Education category	Frequency	Percent
No formal education	3	10.5
Primary education	5	15.8
Secondary education	9	28.9
College	8	27.6
University	5	17.1
Total	30	100.0

3.6 Challenges of Sunflower Oil Processing SMEs

From Table 3.4, to understand the challenges of sunflower SMEs, the researcher looked at challenges into industry registration status. Whereby, 31.3 percent of all registered SMEs encountered poor technology challenge as highest challenge and 21.4 percent of all registered SMEs encounter lack of training and development as lowest challenge because sunflower SMEs managers have recognized the need and importance of training and development and advanced technology. And 78.6 percent of all non-registered SMEs encountered lack of training and development as the highest challenge and 68.8 percent of non-registered SMEs encountered poor technology as the lowest challenge because non-registered SMEs managers have not recognized the importance of training and development.

Table 3.4: Challenges of Sunflower oil processing SMEs

Registration	Challenges of SME				
	Small capital	Poor infrastructures	Poor technology	Lack of training	high electric charges
Registered	27.6	30.0	31.3	21.4	25.0
Not registered	72.4	70.0	68.8	78.6	75.0

3.7 Solutions of the Challenges Faced Sunflower SMEs

From the Table 3.5, sunflower SMEs managers of registered and non- registered suggested the solutions for their sunflower SMEs .For registered 80 percent of sunflower SMEs the managers suggested research and development transfer as a highest solution and financial support as the lowest solutions. On the other hand, non-registered SMEs managers suggested financial support as the highest solution and research and development transfer as the lowest solutions because for the registered Sunflower SMEs recognize the importance of training and development unlike to non-registered SMEs.

Table 3.5: Solutions for sunflower SMEs challenges

Registration	Solution of challenges faced SMEs				
	Financial support	Education and Training	Government program	Research development transfer	Access to physical infrastructures
Registered	25.0	67.9	36.4	80.0	60.0
Not registered	75.0	32.1	63.6	20.0	40.0

The study confirm Entrepreneurship theory, because the perspective looks entrepreneurs as agent for change, can change the challenges faced sunflower SMEs such as small capital, poor infrastructures, poor technology, lack of training and development faced by sunflower SMEs and to overcome them by providing loans, provisions of education and

training, establishment of government programme, introduction of training and development and access to physical infrastructures.

3.8 Conclusion and Discussion

3.8.1 Conclusion

This study was conducted to determine challenges facing sunflower SMEs and how they addressed the challenges. About 30 sunflowers SMEs were assessed and the study revealed that sunflowers Small and Medium Enterprises in Singida Municipality are experiencing challenges such as small capital, poor infrastructure, poor technology, lack of training and development and high electricity charges. The solutions for addressing those challenges also mentioned including provision of financial support, provision of education and training, establishment of government programmer, establishment of research and development and increase access to physical infrastructures.

3.8.2 Recommendation

The study therefore suggests that development stakeholders such as government agencies, non-government organization and private sector should collaborate to solve challenges of sunflower SMEs. In other word there is a need of promoting Public Private Partnership (PPP), so that the challenges encountered are addressed and the possible solutions are optimized.

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CHAPTER FOUR

4.0 SUMMARY OF MAJOR FINDINGS

This section present a summary of the study` s major findings in chronological order as per presented manuscripts.

4.1.1 Assess the socio environmental implications of sunflower SMEs

From the study results, it was notable that social implications of sunflower SMEs including social benefit to local people around them such as employment opportunity, income generation, and social support in the social development and negative social implications like conflicts. Also, sunflower SMEs have positive and negative environmental implications because sunflower SMEs observed environmental management strategies by having special cleanliness day, using dustbins and paying cleanliness fees and minimal negative implications to environment such as dusting, water pollution and noise pollution.

4.1.2 Determines challenge to sunflower oil processing SMEs suggestions and on how to address the challenges

The results have shown that the sunflowers Small and Medium Enterprises in Singida Municipality are experiencing challenges such as, small capital, poor infrastructure, poor technology, lack of training and development and high electricity charges. The suggested solutions to the mentioned challenges include provision of financial support, improvement of education and training, improvement of government programmes, improvement of research and technology transfer and improvement on access to physical infrastructures.

4.2 Conclusion

Thirty sunflower SMEs were assessed and the study revealed that sunflower SMEs have social benefit to local people around them such as employment opportunity, provision of cooking oil, provision of fertilizer and social responsibility in the social development activities in spite of having the advantage to the local people but most of those sunflower Small and Medium Enterprises have the negative implications to the environment such as dusting, water pollution and noise pollution.

Furthermore, 30 sunflower SMEs were assessed and the study revealed that sunflower Small and Medium Enterprises in Singida Municipality are experiencing challenges such as small capital, poor infrastructure, poor technology, lack of training and development and high electricity charges.

4.3 Recommendations

Based on the findings of the study the following recommendations are made

- i. The study therefore suggests that development stakeholders such as public, private and development actors like community based organization (CBOs), SIDO and Oxfam should improve the existing sunflower SMEs to tackle the observed negative socio-environmental implications and to enhance positive socio-environmental implications included establishment of sustainable sunflower SMEs.
- ii. The study therefore suggests that the development stakeholders such as government agencies, non-government organization and private sector should collaborate to solve challenges of sunflower SMEs. In other word there is a need of promoting Public Private Partnership (PPP), so that the challenge encountered are addressed and the possible solutions are optimized.

APPENDICES

Appendix 1: Research Questionnaire

SECTION A: BIOGRAPHIC PROFILE

Section One: Personal information of sunflower SMEs owners

1. Respondent's age.....
2. Respondent's level of education.....
3. Respondent's gender.....
4. What Experience do you have (years) in sun flowers oil processing?

SECTION B: SOCIO-ENVIRONMENTAL IMPLICATONS

5. What is the type of your business?
6. Number of workers you have in your business?
 - a) Permanent contract.....
 - b) Part time workers.....
7. At which phase of business development are you?
 - a) Start
 - b) Growth
 - c) Maturity ()
 - d) Exist
 - e) Unsure
8. Do sunflower SMEs benefit local people? Yes /No. How?

9. Do sunflower SMEs Ensure environmental conservation? Yes /No. How?

10. What challenges face sunflower SMEs?

.....

.....

.....

11. How do sunflower SMEs deal with above mentioned challenges?

.....

.....

.....

12. What are positive consequences of sunflower SMEs?

.....

.....

.....

.....

13. What are negative consequences of sunflower SMEs?

.....

.....

.....

14. Is it a business family? YES/NO

If yes who is the overall manager?

15. What is the capital invested?

.....

16. What is the source of capital invested?

17. Who is the owner of the premises?

18. What is the annual profit of your business? (In Tshs.).....

19. How business is currently managed?

- a) Self/ owner manager
- b) Appointed manager ()
- c) Others

20. How do you access to finance/ capital?

- a) Investors
- b) Family loan
- c) Bank loan ()
- d) Private savings
- e) Others. Specify.....

21. Which of the following is important for your sunflower oil processing SMEs sustainability?

	Factors	Please give a tick
a.	Financial support	
b.	Education, training and development	
c.	Government policy	
d.	Government programs	
e.	Commercial and professional infrastructure	
f.	Research and development transfer	
g.	Market transparency	
h.	Access to physical infrastructure	

22. Does your sunflower oil processing SMEs have a strategic plan? YES/NO If yes which one?

- a) Short term

b) Medium ()

c) Long-term

23. What external environment influences for your sunflower oil processing SMEs sustainability?

a) Use of advisors

b) Networking ()

c) Use of accountancy

d) Informal/ formal links with other companies

e) Support from friends

**Appendix 2: Check list for the key Informant Interview for village executive officers
(VEOs)**

1. Respondent's age?
2. What is your level of education?
3. Respondent's gender.....
4. What are the benefits of the sunflower SMEs to the local people?
5. What are the negative consequences associated with sunflower oil processing
SMEs?
6. Do sunflower oil processing small and medium enterprises SMEs ensure
environmental conservation?
7. Do your sunflower oil processing small and medium enterprises SMEs have
strategic plan?
8. What are challenges associated with sunflower oil processing small and medium
enterprises SMEs?
9. What are possible solutions of the problem associated with the sunflower oil
processing small and medium enterprises SMEs?
10. How local village governments ensure that sunflower oil processing small and
medium enterprises SMEs benefit people?
.....
.....
11. How does local village government ensure that sunflower oil processing small and
medium enterprises SMEs conserve environment?
.....
.....

Appendix 3: Check list for the key Informant Interview for ward executive officers

1. Respondent's age
2. What is your level of education?.....
3. What are the benefits of the sunflower SMEs to the local people?
4. What are the negative consequences associated with sunflower oil processing SMEs?.....
5. Do sunflower oil processing small and medium enterprises SMEs ensure environmental conservation?.....
6. Do your sunflower oil processing small and medium enterprises SMEs have strategic plan?.....
7. What are challenges associated with sunflower oil processing small and medium enterprises SMEs?.....
8. What are possible solutions of the problem associated with the sunflower oil processing small and medium enterprises SMEs?.....
9. How local village governments ensure that sunflower oil processing small and medium enterprises SMEs benefit people?
.....
10. How does local village government ensure that sunflower oil processing small and medium enterprises SMEs conserve environment?
.....
.....

Appendix 4: Check list for the key Informant Interview for District Environmental Officer

1. Respondent's age
2. What is your level of education?
3. Respondent's gender.....
4. What are the benefits of the sunflower SMEs to the local people? ...
5. Do sunflower oil processing small and medium enterprises SMEs produce noise pollution?.....
6. Do sunflower oil processing small and medium enterprises SMEs produce dust?
7. Do sunflower oil processing small and medium enterprises SMEs have environmental strategic plan?.....
8. What are the benefits of the sunflower SMEs to Singida Municipal?.....
9. What are the punishments if sunflower oil processing small and medium enterprises SMEs do not adhere to the national environment conservation policy.....
10. Do sunflower oil processing small and medium enterprises SMEs adhere to national environment conservation policy?.....

Appendix 5: FOCUS GROUP DISCUSSION GUIDE

1. Respondent's age
2. What is your level of education?.....
3. Respondent's gender.....
4. Do sunflower SMEs benefit local people? Yes /No. How?
5. Do sunflower oil processing small and medium enterprises SMEs ensure
environmental conservation?
.....
6. What are positive consequences of sunflower SMEs?
.....
.....
7. What are negative consequences of sunflower SMEs?
.....
.....
8. What are possible solutions of the problem associated with the sunflower oil
processing small and medium enterprises SMEs?
.....
.....
9. How local village governments ensure that sunflower oil processing small and
medium enterprises SMEs benefit people?
.....
.....
10. How does local village government ensure that sunflower oil processing small and
medium enterprises SMEs conserve environment?
.....