

MIDLANDS STATE UNIVERSITY



FACULTY OF ARTS

DEPARTMENT OF DEVELOPMENT STUDIES

RESEARCH TOPIC

**SOCIO-ECONOMIC IMPACTS OF SMALLHOLDER TOBACCO FARMING ON
LIVELIHOODS. A CASE OF MVURWI TARASTORE AREA.**

By

NYASHA BULASHO

R177229M

CONVENTIONAL

SUPERVISOR: DR CHIBANDA

*Dissertation submitted to Midlands State University in partial fulfillment of the
requirements of the Bachelor of Arts in Development Studies Honours Degree*

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RESEARCH SUPERVISION ACKNOWLEDGEMENT FORM

**MIDLANDS STATE UNIVERSITY
FACULTY OF ARTS
DEPARTMENT OF DEVELOPMENT STUDIES**

NAME OF STUDENT NYASHA BULASHO

REGISTRATION NUMBER R177229M

M.O. E CONVENTIONAL

NAME OF SUPERVISOR DR T. CHIBANDA

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I, the undersigned do/ do not acknowledge that the above student has consulted me for supervision on his/her research project/ dissertation until completion. I therefore do/ do not advise the student to submit his/her work for assessment.

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DECLARATION

I, Nyasha Bulasho, declare that the work I have submitted is my own effort and it has not been submitted anywhere for any degree purposes in any other University. I certify that the information in the dissertation which is not mine has been identified and acknowledged. It is being submitted in partial fulfilment of the requirements of the Bachelor of Arts in Development Studies Honours Degree at Midlands State University.

Signature _____

Date _____

DEDICATION

Special dedication to God in Heaven for being my Fortress always. To my parents you have always been my pillar of strength and today I dedicate this piece of work to you.

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ABSTRACT

Tobacco is a strategic crop in Zimbabwe in that, it creates employment and it is a means for earning foreign currency which is vital for development in all forms. Smallholder tobacco farming has been adopted by Mvurwi Tarastore Area in Mazoe District, Mashonaland Central Province as a livelihood strategy. From a smallholder tobacco farmer population of 225 farmers, 23 participants were selected as a sample size which is 10% of the total population. Through purposive sampling, farmers with more or less than 5 years in tobacco farming were selected. Farm workers including children were included. Using qualitative research methods was used and data was collected using interviews, primary evidence and secondary sources. From the study, negative socio-economic impacts of smallholder tobacco farming on Mvurwi Tarastore Area livelihoods outweighed the positive socio-economic impacts. The negative socio-economic impacts were, low education levels, gender and labor, food insecurity, ill-health and child labor and the positive socio-economic impacts of tobacco farming are infrastructure development, asset accumulation and employment creation. These socio-economic impacts were discovered because tobacco farming has many limitations which are deforestation, capital and labor intensiveness, climate change and environmental degradation. To solve those limitations, smallholder tobacco farmers can/have adopted strategies which are afforestation and reforestation, engaging in grain farming, and money saving schemes. Some strategies like insurance facilities, human rights watch mechanization may also be adopted to enhance tobacco farming as a livelihood strategy in Mvurwi Tarastore Area.

Key Words: tobacco farming, livelihoods strategy, socio-economic, impacts

ACRONYMS

ACRWC	African Charter on the Rights and Welfare of Children
CGA	Commercial Grower Association
DFID	UK Department for International Development
EMA	Environmental Management Agency
ETI	Ethical Trading Initiative
FAO	Food and Agricultural Organization
FDI	Foreign Direct Investment
FTLRP	Fast Track Land Reform Programme
GDP	Gross Domestic Product
GMB	Grain Marketing Board
GNP	Gross National Product
GoZ	Government of Zimbabwe
GTS	Green Tobacco Sickness
SLF	Sustainable Livelihoods Framework
TIMB	Tobacco Industry Marketing Board
ZimVAC	Zimbabwe Vulnerability Assessment Committee
ZTA	Zimbabwe Tobacco Association

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INTRODUCTION

It is so disturbing to note that 85% of Zimbabweans are unemployed. As such, the majority of the population are living in poverty whereby they are lacking the resources to meet their basic needs for a healthy standard of living. These basic needs are food, shelter, health and educational access. Hence small-scale tobacco farming has been adopted as a way to free people from poverty but the results are debatable. It cannot be ignored that agriculture, as the backbone of Zimbabwe's economy has improved the nation's Gross Domestic Product (GDP) ranging between 10-43% in the past 10 years. Some livelihoods have been transformed to the positive whilst to some farmers, tobacco farming has become a "curse". Mvurwi has recently been declared a town status and there is drastic infrastructural development due to the contribution of income obtained from smallholder tobacco farming. Employment creation and asset accumulation are some of the positive socio-economic impacts of smallholder tobacco farming on livelihoods in Mvurwi Tarastore area.

The adopted smallholder tobacco farming as a livelihood strategy has also negatively impacted the livelihoods in that, it has led to food insecurity, it has affected education and health of the communities. Gender, child labor cases and environmental concerns have become common in tobacco farming communities like Mvurwi, Tarastore Area. Therefore, this research seeks to unpack, both the positive and negative socio-economic impacts of smallholder tobacco farming on Mvurwi Tarastore area. The limitations faced in tobacco farming as a livelihood strategy are explored together with the important strategies that can/has been employed to enhance tobacco farming as a livelihood strategy in this research.

BACKGROUND OF THE STUDY

African region is one of the poorest parts of the world economy and as such, heavily depends on agriculture for employment and income generation to sustain itself (Rukuni et al 1994).

African nations are caught backward in terms of technology so as to solve their problems at hand and at the end, they are in a dilemma of choices between short-term gains and long-term environmental conservation in resource use and manipulation. It has been noted that, in the past decade, tobacco farming has shifted from more developed or high income countries like US to developing countries particularly those in Africa. Most African countries have adopted and promoted tobacco farming as a way to alleviate poverty by increasing their GDPs through tobacco sales. In 2012, five African countries were among the top 20 producers of tobacco and these are Tanzania, Zimbabwe, Malawi, Mozambique and Zambia (FAO 2014). These most tobacco growing countries are among the world's poorest countries and it can clearly be noted that tobacco export is regarded as a very important source of income and a means to alleviate poverty. The export value of tobacco leaf from the entire African continent increased from US\$1.03 billion in 2000 to US\$1.79 billion in 2011 which is a 74% increase (Ibid). This increase was initiated by the increase of smallholder tobacco farmers around the African continent.

Tobacco farming in Zimbabwe dates back from the colonial Era around 1888-1980. Those days it was still called Southern Rhodesia with flue-cured Virginia leaf commercially produced. It was termed gold-leaf due to its color and also, because more profits were obtained from growing this plant. Many white farmers who got land through the Land Apportionment Act of 1930 formed the first Rhodesia Tobacco Association in 1923 which even became a strong political force. After Zimbabwe got its independence in 1980, tobacco farming was still common. Under the presidency of Cde R. G Mugabe, the controversial Fast Track Land Reform Program (FTLRP), was introduced in the year 2000. White farmers who occupied the large good farming land in Zimbabwe, were left with no option than to relocate to other nearby countries like Zambia and South Africa. The government redistributed land to the landless black Zimbabweans into plots (large and small).

The Land reform program fueled the nature of tobacco production in Zimbabwe in that, the country is currently heavily depending on agriculture for economic growth and development. Small holder farmers formerly focused more in grain crop production and by those years, Zimbabwe was termed '*the bread-basket of Africa*' because the country was food secure and would export some of its produce. However, due to the economic meltdown of Zimbabwe, farmers started to divert from grain crop production to tobacco farming with the perception of profit making. Tobacco farming has proved to produce high income, but it has its demands which are somehow a big backdrop for most smallholder tobacco farmers in order to produce a good yield like high capital, labor, good and sustainable energy, only to mention but a few. The failure to come up with that, will bring disappointing results and in most cases farmers who would have failed to produce more than anticipated are in often times, stressed and in depression. Backwardness in technology, agriculture and other economic activities are producing externalities that affect the environment such as deforestation, pollution which even affects the livelihoods of people and animals (Pearce and Brown, 1994). Smallholder tobacco farming in Zimbabwe has been defined by lack of inputs, poor farming technology and it is so true that the environment has suffered the most. Environmental degradation in the form of forest loss and soil erosion, due to bad cultivating methods, continue at unprecedented rate in Zimbabwe. Biodiversity and prospects for sustainable economic development of agricultural and forest resources have been eroded to an extent that they will not be replaced to their natural form (Bensel 2008).

Before FTLRP, Mvurwi was a service station mainly for large-scale tobacco and grain farmers in Mazoe district. The main dominating activities were mainly transporting and input supplying and many black Zimbabweans used to work for the large-scale white farmers, in Tarastore, maize and soybeans were the most dominating plants. After the land reform program, land was divided into small communal lands and plots. The former farm workers who resided in

compounds remained staying there with their families and then adopted tobacco farming as a livelihood strategy. Mvurwi town development was fueled by a recorded rise in smallholder tobacco farmers in Mvurwi Tarastore Area and other nearby farms and 13 Tobacco Companies are now based in the small town (TIMB 2015). Nationally, there are now 16 tobacco contracting companies (*Ibid*). Of them, there are locally run companies like Chidziva] Tobacco Processors, Boost Africa and Gold Leaf Services. Some international companies like Tian Ze (a Chinese Company), Northern Tobacco which is linked to the British American Company is also in Zimbabwe. Among all other tobacco contracting companies, the most dominating one in Mvurwi, is the Zimbabwe Leaf Tobacco (ZLT).

Smallholder tobacco farmers in Mvurwi Tarastore Area, were found to be rising from 87 smallholder tobacco farmers in 2010 to 139 farmers in 2015 and in 2020, there were 225 recorded (TIMB 2020). This means that, tobacco farming has been adopted by many people and it is being regarded as a livelihood strategy by many smallholder farmers in Tarastore. Its socio-economic impacts, have been and are still being experienced. The limitations of regarding smallholder tobacco farming as a livelihood strategy and ways to enhance tobacco farming have somehow been overlooked. Therefore, all these transitions in tobacco farming, are worth taking note of. Tracing the developments in terms of tobacco farming, made it necessary for this research to unveil the socio-economic impacts of Mvurwi Tarastore Area smallholder tobacco farming on livelihoods, since there was little or no literature about how tobacco farming has impacted livelihoods.

STATEMENT OF THE PROBLEM

The Government of Zimbabwe (GoZ), liberalized the economy in 1990 and embarked on FTLRP in 2000 but since then, research that informs agricultural policy development and implementation have been given limited attention. Tobacco production, shifted from commercial to smallholder farming which accounts more than sixty percent of crop area and

30percent of production as compared to grain crops (Marawanyika, 2011). However, despite the shift towards increasing smallholder tobacco farming, little research has been done in order to determine the socio-economic impacts of tobacco farming on livelihoods. The main drive, to a shift from smallholder grain farming to smallholder tobacco farming was to eradicate poverty in the Mvurwi Tarastore Area.

Due to the fact that tobacco farming is both capital and labor intensive, many smallholder farmers have resorted to contract farming where they are assisted with tobacco farming inputs. Although tobacco contracting companies provide inputs to the farmers, earnings from tobacco farming are not commensurate with the effort, time and everything that would have been put in place by farmers to make sure that there is a good harvest and good earning from it. This may be due to the fact that, farmers purchase these inputs at a higher price than the competitive market, the tobacco companies grade and tag prices on cured tobacco. Smallholder farmers are trapped in debt cycles, providing them with no option than to cultivate tobacco again in the next season, in a bid to try and payback the debt and not question the economic gains. It is due to these reasons that tobacco farming contributes to poverty in households more than it benefits them (Ellis et al, 2007). Thus, the affected families are left in no position to feed, educate and clothe their families adequately. The most surprising thing about it, is that, Mvurwi Tarastore area smallholder tobacco farmers still continue to engage in contract farming even after facing a lot challenges. This research has explored the reasons and motive behind tobacco farming. Tobacco growing has failed to transform lives of contract farmers Goma et al (2017).

Tobacco cultivation has defeated the very purpose of agriculture which is to provide food and enhance quality of life and instead, it has led to diseases, premature death and disability (Efroymson and FitzGeneral, 2002). All these challenges are caused by lack of capital as the main contributing factor, and it has resulted in so many negative socio-economic impacts of tobacco farming on livelihoods. These include child labor, gendered tobacco farming, food

insecurity, ill-health and education is also affected. Snell (2003), mentioned that tobacco farming involves severe irreversible costs to farmers and their families, which worsen and perpetuate the conditions of poverty in smallholder farmers. Even though many factors have contributed to the food insecurity situation in Zimbabwe, one of the causes was poor maize production (FAO 2013).

Limitations of smallholder tobacco farming as a livelihood strategy include deforestation and environmental degradation, of which there are no tobacco control regulations. Climate change, effects of pesticides use, capital and labor intensive nature, are some of the limitations inclined with tobacco farming as a livelihood strategy. These limitations make tobacco farming, unsustainable for future generations and the problems that are associated with this kind of agriculture have immediate and long term effects on the development Mvurwi Tarastore community and the development of the nation, as well as the entire world. This study, therefore, identified the positive and negative socioeconomic impacts of smallholder tobacco farming livelihoods of Mvurwi, Tarastore Area. The research will explore the positive and negative socio-economic impacts of tobacco farming on livelihoods within the broader agricultural sector basing on important factors like income, contract farming, deforestation and labor related issues. It is the aim of this research, to add literature in the academic sector, and to fill some of the gaps left out on the impacts of tobacco farming on livelihoods.

THEORETICAL FRAMEWORK

The Sustainable Livelihoods Framework (SLF), is used in this research to conceptualize smallholder tobacco farming as a sustainable livelihood approach. In order to better understand how people, develop and maintain livelihoods, the UK Department for International Development (DFID, 2012), building on the work of practitioners and academics, developed the Sustainable Livelihoods Framework (SLF). This framework can/has been used as an

analysis tool, for understanding many factors that affect a person's livelihood and how those factors interact with each other.

The SLF views livelihoods as systems and provides a way to understand: the assets people draw upon, the strategies they develop to make a living, the context within which a livelihood is developed and those factors that make a livelihood more or less vulnerable to shocks and stresses. Agriculture in general, has been known to be largely affected by climatic changes which can impact the whole course of operations across the globe leaving the farmers vulnerable to the negative impacts of climate change and these bring stress and shocks aspect (AGRA 2013). The SLF applied in this research implies that, households use available resources in terms of assets to come out with certain livelihood outcomes (Allison and Ellis 2001). According to Chambers and Conway (1992), assets refer to the resources that exist in the community that they can manipulate as they shape their living.

Livelihoods assets are the resources that are available at household's disposal in pursuit of livelihood strategies (IFAD 2013). These are termed household capital and the main types of assets or capital are; natural, human, economic/financial and social and physical capital as highlighted in the SLF. Human capital, refers to skills, knowledge, ability and work (Mubanga et al 2015), the labor requirements are one of the determinants of choice of the crop, as households, tend to shun from labor intensive crops. The physical capital, refers to the basic infrastructure, which is available to households, these may include, barns, grading shades, road networks, storage facilities. Financial capital, represents the economic base including cash, credit/ debit, remittances, savings and other food stocks which are important in the pursuit of any livelihood strategy. Natural capital as mentioned in the SLF is the natural resource stocks from which resource flows and services useful for livelihoods resources. These include, soil, water, forestry and ecological service. In this regard, the above mentioned are more important

in that, tobacco farming cannot be successful without them. And they are negatively and directly affected by tobacco farming.

The framework also put forward the ideas that, smallholder farming is affected by policies and or institutions which support or hinder farmers to develop and or adopt or pursue production of other grain crops and other livelihood strategies. These policies, laws and regulations, depending on the context they are put in, or supported or obstructed, have an impact on capitals. The major characteristic of rural livelihoods strategies is that, they all follow a diverse income generating activities at the same time, (Ellis 1988). According to the Sustainable Livelihoods Framework of analysis (IFAD 2012), accessibility of agricultural services constitutes the supporting structures which can influence livelihoods outcomes.

Therefore, the theory links with the research in that, tobacco farming is being adopted by many people with the idea of reducing poverty and the shocks and stresses brought about by climate change and its effects, debt crises, and so many other problems. The natural, physical, social, human and financial capital, forms the basis of this research in that, without them here is no tobacco farming in Mvurwi Tarastore Area. The major reason why smallholder farmers are engaging in tobacco farming is that, they would want to reduce poverty, which is one of the pillars which forms the sustainable livelihoods framework. In that bid, the financial capital will be small, leading to so many farmers engaging in contract farming, and even forming informal money lending clubs. At the end of it all, the natural capital suffers most in terms of water pollution, deforestation, and soil fertility depletion. The need for protective laws and regulations is a great need because the negative impacts of tobacco farming on the environment are visible.

CONCEPTUAL FRAMEWORK

The Sustainable Livelihoods Framework, forms the bases of this conceptual framework. It implores that the households use available resources (assets) to pursue certain livelihoods

outcomes (Allison and Ellis 2001). The context provides a background on how smallholder farming evolved in Zimbabwe as affected by different policies and structures which supported or hindered farming households towards the production of certain crops. Mvurwi Tarastore smallholder tobacco farmers face a series of unpredictable changes originating at global levels for instance increased competition on natural resources like land, water and forestry. Changes in global markets, rising costs of production and climate change are some of the unexpected changes that (IFAD, 2013). The positive socio-economic impacts of tobacco farming on livelihoods that will be discussed in the study are as follows, infrastructural development, asset accumulation and employment creation. The negative impacts are food insecurity, gender and labor, low level education, ill-health and child labor.

Definition of key terms.

Socio-economic - it mainly concerns with the interaction of social and economic factors. These are not limited to education, employment, religion, culture, population growth, income, infrastructure development. Socio-economic is also related to the differences between groups of people caused mainly by their financial situation.

Livelihoods - is when humans naturally grow and embrace a new way to protect their being. Those new ways to protect their being involves assets, both fixed and capital, stock and even capabilities and activities needed for a means of living. Amartya Sen came up with a Livelihoods Approach which defined sustainable livelihood as a capability of group of people or individuals to cope and recover from shocks and stresses caused by natural disasters, economic and social disruptions so as to enhance their well-being and that of the future generations without undermining the natural environment or resource base. In order to better understand, the investigation on the socio-economic impacts of tobacco farming on livelihoods, the study will be based on food security, assets, capital or income, standards of living, community development, poverty and healthcare.

Livelihood strategies: is how people access and use their capitals (assets) within the aforementioned social, economic, political and environmental contexts which form a livelihood strategy. The range and diversity of livelihood strategies are enormous. A certain individual can meet his/her needs through engaging in several activities

Livelihood vulnerability: the strength of given livelihoods not only measured by its productive outcomes, but equally by its resilience to shocks, stresses and seasonal changes and trends. Livelihoods are vulnerable to shocks which may include natural disasters, climate change and economic meltdown or market fluctuation.

Small holder farmer- they can also be known as small-scale farmers World Bank (2007). They function with family and controlled hired labor. This type of farmers is characterized by, and not limited to low farming skills, low inputs, prone to vulnerabilities like climate changes, small pieces of land for cultivation and poor market orientation. A small-holder farmer can be called subsistence ‘small-scale’, ‘resource poor’ and sometimes ‘peasant farmer’ (Umar 2013). The definition of smallholder farmer differs depending on the context, the country and even ecological zone. For Ellis (2000), the term smallholder farmer generally describes rural producers who mainly use family labor and derive their income from on-farm activities. In Zimbabwe, the term smallholder farmer has been used to define indigenous black farmers with small land holdings, (Masvongo et al. 2014).

Sustainable livelihoods- a livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhances its capabilities and assets both now and in the future, while not undermining the natural resource base (Carney 1999).

Poverty: the definition of poverty includes the economic consideration, literacy, health and longevity. It is the lack of means of providing material needs and when people are denied an

income sufficient for their material needs and when these circumstances exclude them from taking part in activities that are accepted part of daily life in that society (Vidyasagar 2006).

RESEARCH OBJECTIVES

The study seeks to achieve the following objectives:

- To examine, the socioeconomic impact of tobacco farming on livelihoods in Mvurwi Tarastore Area.
- To analyze the limitations of tobacco farming as a livelihood strategy in Mvurwi Tarastore Area.
- To identify the strategies that enhance tobacco farming as a livelihood strategy in Mvurwi Tarastore Area.

RESEARCH QUESTIONS

1. What are the socio-economic impacts of tobacco farming on livelihoods?
2. What are the limitations of tobacco farming as a livelihoods strategy in Mvurwi Tarastore Area?
3. What are the strategies to enhance tobacco farming as a livelihood strategy in Mvurwi Tarastore Area?

SIGNIFICANCE OF THE STUDY

Although Zimbabwe depends more on foreign currency in the form of income obtained from tobacco farming, there are few studies on its impact on socio-economic and environmental issues. The study will help the Government, Non-Governmental Organizations and other stakeholders like tobacco contracting companies, police and health services. to formulate, design and monitor policies, come up with strategies and enact laws to alleviate poverty which is the main aim of tobacco farming. Multi-stakeholder approach is needed in addressing child

labor, human rights violations, climate change and environment concerns which are some of the challenges caused by tobacco farming. Tobacco Contracting companies, may help in educating farmers on health messages about preservation and use of pesticides, chemicals and disposal of containers. The contracting companies may renew or revisit some of their conditions attached to attaining a loan which makes this study important. To the community, this research is important in that, it will give Mvurwi Tarastore community full appreciation of natural resources and then they will learn on how best they can preserve it for future generations.

This research is also important to NGOs and development practitioners who have a role in empowering and transforming livelihoods and communities in that, they will know where and which areas need to be addressed. The study is also significant in that, it will ensure sustainable development through addressing the current limitations of tobacco farming, and at the same time ensuring better living standards to Mvurwi Tarastore area residents.

LIMITATIONS OF STUDY

Financial constraints were one of the problems in carrying out this research. The researcher was staying in Gweru and needed money to travel to Mvurwi Tarastore Area, in order to undertake the research. There was also need to buy stationary, and considering the economic situation of Zimbabwe, finances seemed to be a drawback in carrying out this research.

RESEARCH METHODOLOGY

Research methodology is a systematic way to solve a problem (Rajasek et al 2013) It is a science of studying how research is to be carried out. Essentially the procedures or steps by which researchers go about their work of describing, explaining and predicting phenomena are called research methodology. This means that, we do not only discuss the methods that the researcher will choose, but also the logic behind the choice of the method. The selected Tarastore area in Mvurwi is one of the main tobacco growing areas in Mashonaland Central

province. The population in Tarastore area also demonstrate a range of varying or same human socio-economic impacts of tobacco growing among other factors.

RESEARCH DESIGN

The researcher made use of qualitative research which focuses more on exploring issues and answering questions. It emphasizes on the importance of looking at variables in the natural setting in which they are found. For those reasons, this method of research is also called naturalistic or anthropological type of research.

Due to more explanatory information that was obtained through data collection methods which are interviews, primary evidence, and secondary sources, qualitative research design was the best. It gave room for the researcher to see all the transpiring events in Tarastore smallholder tobacco farming area. Questions on how tobacco farming has positively or negatively impacted the socio-economic livelihoods of Mvurwi Tarastore smallholder tobacco farmers, were answered through interviews. This study has adopted a Rubin and Rubin (1995) term called, 'cultural interviews' which focuses more on 'hearing how people see, understand and interpret their world rather than the researcher posing detailed and focused questions.

The interviews were conducted with the aid of an interview guide in the form of semi structured, open ended questions. The interview guide served as a map for the path that could be followed by the researcher when dealing with the specific issues considered relevant to the field of study. The interview guide was divided into three sections namely the smallholder tobacco farmers and their experiences, secondly smallholder tobacco farm workers and finally, interview questions for organizations. The interview guide was written in English but it was translated to Shona during interviews. The researcher took 20-30mins on each respondent in an interview using open ended and closed ended questions. The time frame and the type of questions used, had an advantage of getting to know people's opinions, feelings and attitude towards their subject through explaining their different experiences.

Limitations of tobacco farming as a livelihood strategy and the strategies that have been / can be adopted by farmers to enhance tobacco farming as a livelihood strategy were examined mostly through primary evidence, secondary data and even through interviews. The secondary sources to be used in the research will include some publications and other sources from different scholars.

SAMPLING

Sampling is a technique or procedure employed by a researcher to systematically select a relatively smaller number of representative items or individuals (a subset) from a predefined population to serve as subjects (data source) for observation or experimentation as per objectives of his/her study (Watkins 2017). In this case, sampling is very important to the researcher in that, since the research was carried out during the time of tobacco harvesting and bailing, many smallholder farmers were tied up with work. Therefore, even if it is a subset, it is representative of the population of the population and suitable for research in terms of costs, convenience and time. Sampling is also important in this study so as to push forward the objectives of the study, to consider population variance in Mvurwi Tarastore Area, even to reduce the financial implications of the study. The researcher used nonprobability type of sampling called purposive sampling which is totally based on judgment.

Purposive sampling

Purposive sampling is also known as judgmental, selective or subjective sampling. It reflects a group of sampling techniques that rely on the judgment of the researcher when it comes to selecting the units for instance the people of Mvurwi Tarastore area, tobacco companies, and any other piece of data that is to be studied. In purposive sampling, decisions concerning the individuals to be included in the sample are taken by the researcher, based upon a variety of criteria which may include capacity or willingness to participate in the research, (Oliver and Jupp 2006). Purposive sampling was used because it focuses on particular characteristics of a

population that are of interest, which will best enable respondents to answer the research questions.

The researcher can justify the use of purposive sampling in that, the researcher wanted to focus on particular characteristics of the Mvurwi Tarastore Area population that are of interest. The sample being studied is not representative of the population but for researchers pursuing qualitative research design and this is not considered to be a weakness. This method of sampling is also less time consuming and less expensive and also proper care will be taken in selecting the sample. One of the major benefits of purposive sampling is the wide range of sampling techniques that can be used across this qualitative research design.

Creswell and Clark (2011) stated that, purposive sampling includes identification and selection of individuals or group that have knowledge about and experience towards the research topic. This sampling method assisted the researcher in gathering information from the people well vested with tobacco farming and how it has changed their lives both positively and negatively.

Sample size

The researcher focused more on the poor tobacco farmers, measured by farm size, cultivation status, tobacco contracted and non-contacted farmers, farmers with over 5 years in tobacco farming and farmers with less than 5 years in tobacco farming, farm labor including children and Environmental Management Agency(EMA) officers. Out of a recorded number 225 smallholder tobacco farmers, the researcher selected 23 respondents which if rounded off is 10% as the sample size. The smallholder tobacco farmers from Mvurwi Tarastore area, their workers, agencies from tobacco companies and environmental protection agencies among others were also consulted.

LITERATURE REVIEW

Introduction

This study assesses the socioeconomic impacts of smallholder tobacco farming on Mvurwi Tarastore area livelihoods. Thus the section seeks to review some theoretical explanations and literature on smallholder tobacco agriculture and how it has impacted positively or negatively on livelihoods. Using literature review, the objectives of this research which have been highlighted earlier, are to be met. The conceptual and theoretical framework, history of tobacco farming in Zimbabwe, socioeconomic and environmental impacts and well as limitations of tobacco farming as a livelihood strategy, are also discussed in this section.

Livelihoods is a means of securing the necessities of life. For (Chambers and Conway (1991) a livelihood comprises the capabilities, assets (including both material and social resources) and activities required for a means of living. A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future while not undermining the natural resource base. To Amartya Sen's Livelihood Approach, sustainable development is a capability or capacity of a group of people or individuals to cope and recover from shocks and stresses caused by natural disasters, economic and social disruptions so as to enhance their well-being and that of future generations without undermining the natural environment or resource base.

What is tobacco

The scientific name for tobacco is *Nicotiana tabacum* L. (Lugon- Moulin et al 2006). It is a cash crop which is grown widely in developing countries automatically making it ideal crop for smallholder farmers. Tobacco is a cash crop widely cultivated over the world for about 3.4 million hectares (FAO 2021). It is mostly cultivated in Africa and is consumed worldwide. WHO estimates that cigarette smoking is the most usual way of smoking, accounting for 65-85% of global tobacco consumption. Tobacco farming has been encouraged and financed by major rising cigarette companies around the world especially in developing countries, which

makes room for employment creation in auction floors, manufacturing plants. There are various types of tobacco namely *Virginia*, *Burley* and *Maryland* which is not grown in Africa (Leffingwell 1999).

Tobacco farming in Africa

During the past decade, tobacco farming has shifted from high income countries like United States to Africa (Hu and Lee 2015). Most African governments promote tobacco farming as a way to alleviate poverty, (Ibid). Tobacco farming has great economic and social importance in several countries (FAO 1989). In most developing countries, the majority of its population reside in rural areas and this makes it so true that rural areas have more influence on national development in terms of labor supply and demand considerations.

Development is a process that brings change towards the attainment of self-reliance and contentment, a process that enables individuals, groups, communities and countries to obtain the means that make them responsible for their own livelihoods, welfare and future (Kingsbury 2004). To Amartya Sen (1995) ‘social development is equality of social opportunities. According to W. Elkan development is a process which makes people in general, better off by increasing their command over goods and services and by increasing the choices open to them. This means that development is a conscious process that brings change towards the improvement of human wellbeing and welfare. In developing or less developed countries, the lack of rural areas development has been labeled as severe poverty. This is measured through standards of living, literacy rate, infrastructure and community development, community health and health services, food security, and income only to mention but a few. Poverty exists when one or more persons fall short of a level of economic welfare deemed to constitute a reasonable minimum either in some absolute sense or by the standards of specific society (Lipton and Ravallion 1993)

The African region is one of the poorest parts of the world economy and as such it heavily depends on agriculture for employment and income generation to sustain itself as stated by Rukuni and Eicher (1994). Keyser (2002) supports this view by saying that agriculture is the backbone of most developing economies or underdeveloped countries as it is the major source of income. The main problem that is affecting Africa's agriculture is its backwardness in agriculture technics. Pearce and Brown (1994), states that due to backwardness in technology, agriculture and other economic activities are producing externalities that affect the environment such as deforestation and pollution which affects livelihoods' health and other economic problems.

Tobacco farming in Zimbabwe

Tobacco farming in Zimbabwe is one of the cash crops produced by most small-holder farmers Rukuni et. al (2006). Pedersen (1992) opines that tobacco agricultural processing and marketing functions in Zimbabwe, as many other African countries have traditionally been controlled through the marketing boards and less developed in small towns and rural areas.

Tobacco is a strategic crop in Zimbabwe as it provides employment, foreign currency, however Rukuni (2006) points out that, for smallholder farmers, there is need for research based inquiry to ascertain economic benefits of choosing tobacco as a cash crop. Historically, the crop was the single most important export commodity in the economy and has dominated value of agricultural production from the 1920s. Studies show that, Zimbabwe is the largest producer of tobacco in Africa and in 2018, it accumulated for 10% of the country's GDP and the 6th largest in the world after China, Brazil, India, the USA and Indonesia (TIMB2019).

One of the contributory factors in tobacco farming was the Fast Track Land Reform Programme (FTLRP) which led to the transfer of 10million hectares of land from white farmers to more than 146000 smallholder farm families (Scoones et. al (2018) and (Mkodzongi et. al 2019). The FTLRP was a way to speed up the distribution of land to the indigenous people but

the manner in which it was launched has been described by many writers as '*jambanja*' (chaotic action) as distribution of land was filled with violence and human rights violations (Nyawo 2014). Of the farmers that were given land, TIMB (2019) recorded that 29% of the people who benefited from the FTLRP grow tobacco in the four main Provinces in Zimbabwe namely Mashonaland West (38%), Mashonaland Central (35%), Mashonaland East (13%) and Manicaland (14%). The 2000 fast track land reform programme was characterized by radical reconfigurations of land, low production, economic meltdown affected rural areas (Mavedzenge et. al 2008). It brought about benefits and opportunities as well as costs and challenges or pitfalls as postulated by Scoones et. al (2010). The benefits were that, land was distributed to many Zimbabweans and the negative was that, sanctions were imposed on Zimbabwe (Chingono 2010). That led to the expansion of tobacco farming from commercial to smallholder tobacco farming

Increased participation of smallholder tobacco farmers was followed by declining yields (Leaver 2004). Food crop production dominated the smallholder sector (Moyo 2011). The involvement of smallholder tobacco farmers in agriculture is slowed down by credit access limitations, backward or lack of machinery and also market related limitations (Minot 1986). However, in some ways, smallholder farmers may fail to look at other determinants of crop production choices. Ele et al (2013) identified that off-farm income, age, gender, household size, level of education will bring better results Adding on that, Zimbabwe does not have a large tobacco manufacturing industry and produces only enough cigarettes to supply domestic demand and maybe a small volume for export and 98% of all tobacco production is exported, (Chaloupka et.al 1996). Therefore, one may see that tobacco farming in Zimbabwe is mainly for income generation through foreign currency generation.

Organization of Smallholder Tobacco Farming in Zimbabwe

The Tobacco Industry Marketing Board (TIMB), is a board that undertakes a regulatory and advisory role in tobacco production in Zimbabwe. Its mandate includes registration of tobacco growers, and it is mandatory for companies that wish to contract tobacco farmers, to go through this board and the Ministry of Agriculture for registration. When farmers are contracted by a certain company, they are obliged to sell their tobacco to that company. In the history of tobacco production in Zimbabwe, contract farming agreements were introduced recently. The Zimbabwe Tobacco Association (ZTA) and the Commercial Grower Association (CGA) are responsible for linking smallholder farmers to potential contract companies, (ZTA, 2000). Currently, there are 16 tobacco companies in Zimbabwe, and 13 of them are also in Mvurwi (TIMB 2015).

Economic importance of tobacco crop in Zimbabwe

Tobacco crop in Zimbabwe through smallholder farming, is one of the top ranked crops in terms of output and returns (Chivuraise 2011). Tobacco production is economically important as it is exported and thus generates foreign currency. in Zimbabwe, it accounts for about 30% formal employment and manufacturing contributing 16% (Mumbengegwi 1998). Ninety-eight percent of Zimbabwe's tobacco is exported making it the country's largest foreign currency generator, accounting for 10-43% of the country's GDP, worth US\$933,7million (TIMB 2014).

The agricultural sector plays an important role in the development of the Zimbabwean Economy, through its impact on the overall economic growth, households' income generation and food security (Mlambo and Zitsanza 2001). World Bank (2003) Zimbabwe receives a higher percent of government revenue from tobacco leaf than any other country in the world, except Malawi. Tobacco, is a major source of employment. There are over 90000 small scale tobacco farmers in Zimbabwe.

Tobacco farming in Mvurwi

After the fast track land reform in Zimbabwe from 2000, the rural landscape has been transformed (Moyo 2011). Evolutionary changes take place as agricultural areas prosper and market expands, small towns grow with linkages forged through market, transport and labor exchange generating multiplier effects through a non-farm rural economy (Christiaensen et al 2013). Mvurwi in Mazoe District, Mashonaland Central province was designated a ‘town’ since 2014 due to its growth in population and many developmental initiatives brought about by smallholder tobacco agriculture. Mvurwi was a former service center for largescale white farming as well as being major farm labor settlements for commercial white farmers (Scoones 2020). Following the land reform, it is now at the center of a booming smallholder-led tobacco growing in areas like Tarastore (Scoones et al 2020).

Smallholder tobacco agriculture

Smallholder tobacco production of cash crops in Africa have been influenced by household characteristics of (gender, age, household size, household head) and household resources and endowments. These include farm income, labor and access to extension, markets and draft power (Kiriti- Nganga and Tisdell 2002, Mwangi et al. 2013, Justus et al. 2016). There was a paradigm shift from commercial tobacco farming to smallholder production. Shumba and Whingwiri (2006) are of the view that, the reason from that shift through the FTLRP, was to integrate more effectively the black indigenous farmers into the national economy hence the increased participation of smallholder farmers who now commands the majority of the land used for agricultural purposes in Zimbabwe.

The question of what is a smallholder farmer then comes in and Ellis (1988) subscribe that the term ‘smallholder farmer’ is used more generally to describe rural producers, predominantly in developing countries who grow crops using mainly family labor and for whom the farm provides the principle source of income. Mutami (2015), smallholder farmers have access to

land as means of livelihoods. To Masvongo et al. (2013), the term smallholder is used to describe indigenous black farmers. Smallholder farmer can be defined as a small scale farming, functioned within a household and with controlled hired labor (World Bank 2007).

Smallholder farmers are those farmers owning small-based plots of land on which they grow subsistence crops and one or two cash crops relying almost exclusive on family labor (Cousins 2009). Coeli and Fleming (2004), conquer with Cousins as they define smallholder farming as farms that are operated by farm families using largely their own labor.

The above definitions simply entail that smallholder farmers are poor. This type of farming is characterized by low inputs, restricted resources, prone to vulnerabilities, small land size and poor market orientation to mention a few. This can be well explained by Ethical Trading Initiative (ETI) Smallholder Guidelines (2005) which came with following guidelines.

Common characteristics of smallholder farmers by ETI Smallholder Guidelines.

- They produce relatively small volumes of produce on relatively small plots of land.
- They are generally less well-resourced than commercial scale farmers
- They may produce an export commodity as a main livelihood activity or as part of a portfolio of livelihood activities.
- They may depend on family labor, may hire labor as well.
- They are often vulnerable to supply chain.

Tittonel et al (2012) cemented that smallholder farming is characterized by an integrated set of cash cropping activities. These characteristics of smallholder farmers are not country specific but apply to many countries including Zimbabwe. In that regard, it can be noted that, in order to come up with quality output, there must be quality input and processes from the word go.

These determine the negative or positive impacts of agriculture on livelihoods. Therefore, if it means that, small holder farming is aligned with poor inputs, low skilled labor poor market orientation, then it means that poverty is the driving factor of engaging in agriculture.

Smallholder tobacco contract farming

Smallholder farmers engage in contract farming in a bid to solve their lack of inputs. Clark et. al (2020) subscribe to the notion that lack of capital combined with the initial attractiveness of inputs provided by tobacco companies, push farmers to choose contract system. Farmers get credit agreements whereby the farmer will get technical advice, seeds, pesticides, then payback after selling tobacco (Leppan et al 2014). Bobak et. al (2000), and Otanez (2008), found out that, tobacco farming impoverishes farmers in developing countries. They are also in line with Goma et.al (2017) who found out that tobacco growing has failed to transform the lives of contract farmers in Zimbabwe and Zambia as well.

This may be due to Mugati et. al (2019) assertion that contracting companies grade tobacco leaves and tag a price which means that they can get lower prices than they would have received. It may also be due to the fact that small holder farmers maybe purchasing inputs from contacting companies at a higher price than competitive market, or due to the fact that pay offs received may not be sufficient to pay loans, sustain farmers and their families and then pay their labor. This result in farmers drowning in debt circles, and increase poverty rate.

There were four contracting companies in Mvurwi, namely Chidziwa, Boost Africa, TRIBAC/ Shasha and ZTL (Scoones et al. 2017), currently, there are 13 tobacco contracting companies (TIMB 2021), and of them, ZTL is the most dominating company in Mvurwi (Scoones et al. 2017). About half of Mvurwi Tarastore Area smallholder tobacco farmers are in contract farming.

Socio-economic impacts of tobacco farming on Mvurwi Tarastore livelihoods.

Employment and infrastructural development

Smallholder tobacco farming impacted more negatively than positively on the livelihoods of Mvurwi Tarastore area. An increase in agricultural production has the potential to improve the livelihoods of poor people (Baiphethi and Jacobs 2009). Scoones (2014) supports that, tobacco farming has positively impacted livelihoods due to employment creation. Employment has a positive impact in that it changes the living standards of the people and reduces poverty. It was proven in Israel, (Stier et al. 2002) that poverty levels were substantially lower in households in which women participated in labor markets, either on a fulltime or on a part time basis than households with unemployed household heads. Tobacco farming is a major source of employment; there are more than 90 000 small-scale tobacco farmers in Zimbabwe (Lingui 2015). There are massive building projects ongoing in Mvurwi town and it has generated employment for many youths in building, welding, hardware store owners, brick molding sawmill operators and transporters, due to output mostly from smallholder tobacco farmers (Scoones et al. 2020).

Lingui (2015) noted that, as a result of the developments being brought up through tobacco farming, despite widespread hunger in Zimbabwe for the past years, farmers were more likely to grow tobacco than grain. Zimbabwe's economy is in shambles due to its US\$11 billion debt said Ncube (2014), high unemployment rate and other challenges, so due to those factors, in the face of economic strains, tobacco farming is likely to continue being a major income generator. Tobacco crop is a high paying cash crop compared to all other crops and it has helped in employment creation both in the formal and manufacturing spheres. From the above findings from different researchers, it can be noted that tobacco farming has somehow socio-economically impacted positively on livelihoods in Mvurwi Tarastore Area. However, there is still a gap on the negative socio-economic impacts of tobacco farming on livelihoods which the researcher will fill.

Food insecurity

Food security is defined by World Food Summit (1996), as a situation when all people have physical, social and economic access to safe and nutritious food all the time. The opposite of food security is food insecurity, which is a condition when individuals have an uncertain or limited access to food through socially acceptable channels (Tawodzera 2011). Smallholder farming is the backbone of African agriculture and food security (FAO 2012). Von Braun (1994) stated, that the effects of commercialization on income, consumption, food security and nutrition are very multifaceted in nature and hinge on household preferences and intra house allocations.

In 2009 almost half of Zimbabwe's population was considered as food and nutrition insecure (UN 2009). The main causes for this state of affairs were low agricultural productivity and declining soil fertility (Mupangwa et al. 2008), non-functional input and output markets (Jama and Pizzaro, 2008), and an adverse macro-economic environment. In Zimbabwe, smallholder farmers in the arid and semiarid areas are the most vulnerable people to this challenge and this include Mvurwi Tarastore Area. Madimu (2004) identified an increase in the production of cash crops like tobacco as contributing to the worsening food crisis.

Low levels of education

States have a multiplicity of needs for educated individuals including teachers, engineers, clerical stuff (Sokoloff and Engerman 2000). Education creates positive externalities for many types such as lower crime rates and better health (Moretti 2005). School fees was a major challenge to children's education particularly secondary education (Human Rights Watch 2018; ZimVAC 2017). For the adults from Mvurwi Tarastore Area, some of them are illiterate and some of them are migrants from other nearby countries (Scoones et al 2020). About 4.7% of the children who work within the agricultural sector do not attend school at all (Clacherty 2009). Education is an important part of development for future and current generations but

due to tobacco farming, it has been affected in that it has led to school dropouts and absenteeism.

Child Labor

The issue of child labor is a growing concern in Mvurwi Tarastore area. ILO (2018) estimates that 71% of all global child labor is in the agriculture sector, which is about 108 million children worldwide citing poverty as the main cause. Tobacco farming involves the entire family including school going children, making tobacco households less educated (Richard 2007). While child labor is very high, it is not labeled as something negative by many farmer families. Not only children in families of smallholder farmers work in the tobacco fields, even children from nearby families too are working as tenants in tobacco field.

Gender and tobacco farming

Smallholder tobacco farming in Zimbabwe is influenced by gender (FAO 2010). About 60% of women live in rural areas, and the fact that most of the agricultural activities are done by women and when it comes to land ownership and access to loans still remains a patriarchal thing (Chitongo 2017) and this is so true of Mvurwi Tarastore Area. Females often have lower access to agricultural resources as compared to males (Croppenstedt et al. 2013). Women do much of the daily activities of the day to day running of the farming activities like tobacco planting, weeding, grading, but they do not have opportunities to decision making (Bird and Prowse 2007). Women headed families may be the only who do not suffer from the above issues, but they may have land insecurities (Hoogenveen and Kinsey 2001). Women are among the vulnerable especially those in rural areas, hence the need to empower them so as to reduce poverty as well.

Ill-health

The health of tobacco farmers is also put to risk as tobacco farming requires a lot of fertilizers and pesticides that could cause diseases, disability and premature death (Efroymson and

FitzGerald 2002). The cultivation of tobacco has increased risks of injury and illness hence children and adults especially women who work in tobacco farms frequently suffer from Green Tobacco Sickness (GTS). It is caused by dermal absorption of nicotine from contact with wet tobacco leaves. It is characterized by nausea, vomiting, weakness, headaches, breathing difficulties, blood pressure. The impact of pesticides on human health is that, it leads to pulmonary dysfunction, immune system deficiencies and inborn deformity (Hassaan et al 2020).

These diseases are worsened by the excess and frequent application of pesticides to protect the plant from insects and diseases, they have been proven to have dangerous effects on human beings like respiratory problems, skin poisoning, disorders of the nervous system and kidney problems. Some of the Mvurwi Tarastore are losing their lives to GTS unknowingly and some use the chemicals to end their lives.

Limitations of tobacco farming as a livelihood strategy

Environmental concerns

One of the major consequences of tobacco farming in the Third World results from considerable energy requirements of the flue curing and the fire curing process (Lambin 2003). Curing is defined as a careful controlled process used to achieve the texture, color and overall quality of a specific tobacco type (Sauer and Abdullar 2005). Curing is the primary way in which tobacco contributes to deforestation. While natural gas or oil is often used in other countries, wood fuel is still common in Zimbabwe and Mvurwi Tarastore area. Coal and electricity and even associated infrastructure are beyond the reach of small holder farmers., thus the farmers are left with no other option than indigenous forests, (Scoones 2014).

According to Bellagio Statement on Sustainable development, an estimated 2000 hectares of forest is cleared each year because of tobacco farming (WHO 2013). Giam (2017) postulated that deforestation is an important factor that strongly affects local, regional and global processes involving soil degradation, biodiversity loss and climate change. In Zimbabwe, due

to tobacco agriculture, it has been recorded by the Environmental Management Agency (EMA), that the country has lost 70 000 to 100 000 ha of woodland has been lost to deforestation in Zimbabwe (Chivaurise et al 2017). Deforestation, continues unabated because a crop such as tobacco in this instance, is fetching an attractive market price even if this may be short lived as anticipation for improved prices is instigated (Charkravarty et al 2012)

Chitongo (2017) noted that, agriculture produces negative externalities that affect the environment. These include deforestation and environmental degradation. The production of tobacco generates environmental impacts that are often overlooked or even ignored (Ibid). Environmental harms include soil nutrient depletion, deforestation, and pollution of water sources by pesticides and herbicides (Kenkel et al 2014).

Climate Change

Climate change is a long-term change in global or regional climate patterns for instance in rainfall patterns, temperature wind and precipitation. Regassa (2011), propounded that it is believed that agriculture is the most susceptible sector to climate change. The most anticipated effects of climate change on a global scale include the rise in the extent and rate of occurrences of acute weather incidences like storms and high temperatures which result in floods, increase in sea level and ecological changes that have a bearing on livelihoods (Bhagwat et al 2017). Deforestation contributes as much as a fifth of the human-induced greenhouse gas emissions leading to global warming (Jaw saw et al. 2017).

Makaudze (2005), stated that, drought is one of the main climatic risks which affect the majority of smallholder farmers in the least developed countries. The past three decades, the number of food emergencies in Africa has increased and current challenges such as climate change are making the situation worse (World Bank 2008). Through time, the poor and hungry populations become less resilient to stress and disasters as they rely a great deal on the natural

environment and lack the capacity and the resources required to recover from disasters, (Oluoko et al 2011).

Capital and Labor Intensive

The labor requirements are one of the determinants of choice of crop, as households tend to shun from labor intensive crops such as tobacco when they do not have adequate labor (Mubanga et al 2015). Tobacco farming remains one of the most labor-intensive crops, often driving cash-poor farmers to employ their own and other children (Human Rights Watch 2016). Smallholder farmers often lack the necessary capital and their access to credit is restricted by the lack of collateral (Chitongo 2017). Minot (2011) supports that, the smallholder tobacco farmers are constrained in their ability to make profitable investments in farming activities that depend on expensive input requirement (TIMB 2012), insufficient inputs, technical expertise and finance are the key reasons for the decline in production, hence the need to adopt contract farming.

COVID-19

COVID-19 pandemic, triggered the imposition of regulations resulted in the disturbances of the production, processing, distribution and consumption of food (IFPRI 2020). State lockdown regulations deactivated the economy (van der Ploeg 2020) and triggered shortages and shifts in supply chains which impacted surplus value extraction. COVID-19 induced regulations are triggered increased illicit trade, corruption including fraud, theft and pillaging along agricultural commodity circuits (Shonhe 2021). Measures adopted to contain COVID-19 have disruptions on the transport systems and other centers like warehouses which affected market access. Some plants were affected due to lack of inputs since farmers were not allowed to travel frequently. Due to Covid-19 the start of the tobacco marketing period shifted from 20 March (the start date in 2019) to 29 April 2020 (Chikwati 2020). Access to seeds and other imported inputs was made more difficult by the need for foreign currency, in a context where the trade

of farm currency, in a context where the trade of farm commodities is in local Zimbabwean dollars. This was difficult for the smallholder farmers due to the sharp rise in exchange rates which makes dependence on tobacco farming associated with several limitations.

Strategies to enhance tobacco farming as a livelihood strategy.

In order to reduce deforestation, farmers need an enabling environment to achieve self-sufficiency in wood production (Bunderson and Hayes 1995). Tree planting must be practiced on a massive scale to meet the growing wood demand from tobacco farmers. Improvements in barn technology can also help in that there can be new designing of more efficient barns that use less fuel in order to make sustainable tobacco cultivation (BAT 2012). Farmers should establish their own source of wood energy before engaging in tobacco farming in the form of fast growing exotic trees which are renewable as compared to indigenous trees (Chifamba and Chikwati 2012).

Off-farm income is an important component of livelihood strategies among rural households in most developing countries (Ruben and Van den Berg 2001). The reliability of farming as a main source of income is normally indicated by the extent to which people engage in off-farm income activities.

Labor inspection or government official visits in the agricultural sector in response to human rights abuses (Sibeko 2017). Encouraging farmers to engage in grain farming as well as tobacco farming to improve food security can also improve the livelihoods of Mvurwi Tarastore Area

Therefore, studies have pointed out so smallholder tobacco farming on Mvurwi Tarastore livelihoods have been impacted more negatively than positively. Some other gaps which can enhance tobacco farming as a livelihood strategy will be discussed in the research so as to add literature for academic purposes. So this research will explain on the negative socio-economic impacts of smallholder tobacco farming livelihoods of Mvurwi Tarastore Area, and not

forgetting the positive change that it has brought up, limitations and strategies that can be adopted to improve their livelihoods.

ETHICAL CONSIDERATIONS

The main objective of ethics is to place humans at the heart of our care and try to act for his or her greatest good (Phaneuf 2004). This means that, it deals with what the researcher should or should not do but does so by being reasonable and taking moral considerations. Failure or violation of ethics means failure of the whole research.

Therefore, the researcher made sure that there is privacy and confidentiality in all the interactions. Pseudo names and anonymity were also critical to make sure that the respondents are not subjected to internal victimization which may hinder them to express themselves and their experiences. The researcher seek consent to the Council of Mvurwi and the village head, and even the respondent to participate and carry out a research. Non-discrimination (based on age, sex, social class, or anything) and honesty in everything was considered in this research.

Structure of the Dissertation

This research comprises three chapters with the first chapter covering the socio-economic impacts of tobacco farming on Mvurwi Tarastore Area livelihoods. These impacts are both positive and negative impacts and they are employment creation, infrastructural development and asset accumulation. The negative impacts are food insecurity, low levels of education, gender and labor, ill-education and child labor. Chapter two looks at the limitations of tobacco farming as a livelihood strategy in Mvurwi Tarastore Area. These limitations are as follows, deforestation, climate change, land degradation, COVID-19, labor and capital intensive.

Chapter 3 outlines the strategies that have been and that can be adopted by smallholder Mvurwi Tarastore tobacco farmers to enhance tobacco farming as a livelihood strategy. Afforestation and reforestation, decentralization in the management of natural resources, government intervention and energy sustainable infrastructure are the strategies that have been/can be

adopted to deal with deforestation, land degradation and energy challenges. Growing grain crops, money saving schemes, human rights watch, insurance and mechanization are some other suggested strategies that can be adopted to enhance tobacco farming as a livelihood strategy. Conclusion of the study presents the conclusion drawn from the whole research and a few recommendations

CHAPTER ONE: SOCIO-ECONOMIC IMPACTS OF TOBACCO FARMING ON LIVELIHOODS IN MVURWI TARASTORE AREA.

Introduction

This chapter will address the first objective of the study which is to examine or assess both the positive and negative impacts of tobacco farming on Mvurwi Tarastore Store Area smallholder livelihoods. The objective was met by data provided by the respondents through interviews, primary evidence and secondary sources. The indicators of the impacts were measured by income levels and assets acquired through tobacco sales (cattle, cars, solar panels, type of houses), educational levels, access to off farm income (remittances, local businesses like cattle sales, house rentals and transport) labor hiring levels, community and infrastructural development. All positive and negative socio-economic impacts of tobacco farming on Mvurwi Tarastore livelihoods will be explored and explained in this chapter.

Background of tobacco farming in Mvurwi Tarastore Area.

Mvurwi, formerly known as Umvukwesi was a service center for commercial large-scale commercial farmer (Scoones 2020). Tarastore was one of the farm lands and it had compounds in which the farm workers stayed. Through Fast Track Land Reform Programme that was initiated, the farm workers acquired land hence they became smallholder farmers. From 2000 up until around 2008, the smallholder farmers were into maize and soya beans farming. Due to hyperinflation in 2009, the local currency was abandoned and the US dollar was adopted. This spearheaded the expansion of tobacco farming in that, the farmers admired foreign currency that is attached to tobacco selling, for poverty alleviation.

In Tarastore, the smallholder tobacco farmers, use mainly manual way of doing tobacco work. This include ploughing, watering using buckets and cans, spraying using backpack sprayers not irrigation. Adding on that, some other structures used in tobacco cultivation and processes like barns and grading shades are of poor quality. Due to lack of capital, tobacco farmers have resorted to firewood as fuel in tobacco curing. Family labor in most cases, has been used since

tobacco farming is labor intensive. Child labor, and lowly wages for workers are dominant in Mvurwi Tarastore area and they depend on smallholder tobacco farmers for survival. Many smallholder tobacco farmers have depended on tobacco sales in order to buy food and they neglect grain farming. Tobacco farming has become trending in Tarastore area, in that only a few number of residents do not grow tobacco due to reasons like religion and lack of tobacco farming inputs. Tobacco contract farming was also adopted by 85% of farmers both smallholder and commercial farmers in a bid to solve capital and inputs challenges. Therefore, tobacco farming has impacted lives socially and economically and these impacts have long-term and short-term effects on human beings, climate and environment. These socio-economic impacts both positive and negative on livelihoods, were necessitated by the adoption of tobacco farming as a livelihood strategy for Mvurwi Tarastore Area smallholder farmers.

1.1 Positive socio-economic impacts of smallholder tobacco farming on livelihoods.

1.1.1 Employment

Tobacco growing plays a positive role in improving the livelihoods of smallholder farmers through employment creation. Employment has a positive impact as in, it changes the living standards of the people and reduces poverty in that households have a source of income to get access to basic needs. The Basic Needs Approach to development include the fulfillment of basic needs like food, water and it also include the provision of health and education. It also covers other non-material needs such as employment, and political participation. According to Lingui (2015), tobacco farming is a major source of employment; there are more than 90 000 small-scale tobacco farmers in Zimbabwe and in Mvurwi Tarastore Area, there are 225 farmers (TIMB 2020). Tobacco seeds are sown between end of July to mid-September, then tobacco bales are usually sold between March – July, hence the need for total devotion. Of the interviewed smallholder tobacco farmers, one of the successful farmers highlighted that, he employed 10 people to help him in his farm since tobacco farming is a full-year oriented process and activities.

Respondent 1 *“Since tobacco crop is an all year crop which needs full determination and focus, I have the capacity to employ 10 full-time workers. I need manpower from seedbed to bailing because relying on my family for labor will not work. I am renting another piece of land again so that I get a good yield”*

Scoones et al (2020), subscribe to the notion that, Tobacco farming has instilled massive building projects in Mvurwi town which has generated employment for many youths that is in building, welding, hardware store, brick molding sawmill operators and transporters (Scoones et al 2020).

Youth employment plays a pivotal role in development in that, it reduces the chances of them joining the revolts and mobs hence youth employment is good in peace building. Unemployment has been regarded as one of the reasons why a good number of youths are indulging in alcohol and drug abuse and increased crime rates. Therefore, due to employment creation, the socio-economic impacts of tobacco farming on livelihoods has brought light to the youths of Mvurwi Tarastore Area and Zimbabwe as a whole. A male young adult admitted that in an interview.

Respondent 8: *“Many thanks to Mvurwi Town Council for selling out some stands to these tobacco farmers. I have been contracted in so many house construction part time jobs in Mvurwi town. That has improved my life and it has become another source of income since through tobacco sales, we only get money once a year, hence the need to outsource some finances for survival until we have sold tobacco again the next season. I have no time to do drugs or to join rebel demonstrations because am always busy in trying to work for my personal development”.*

1.1.2 Assets Accumulation

Before engaging in smallholder tobacco farming, cars, solar panels and cattle were only owned by a few elites, but since the adoption of tobacco farming, there was a sudden change of lifestyles. The majority of the smallholder tobacco farmers in Mvurwi Tarastore Area now own cars, cows and solar panels systems for lighting and sound. Smallholder farmers who have more than 5 years in tobacco farming have built houses, better than the kind of houses they had before. A female tobacco farmer stated that after being disappointed by prices tagged on maize sales by GMB, she decided to try her luck in growing tobacco. She stated that although she had little knowledge of how to grow tobacco, she was not discouraged because her life was never the same due to the fact that she was able to build a modern house and she was able to solar electrify it.

Respondent 7: "I started growing tobacco about seven years back and my life extremely changed. I managed to build my three-bedroomed house which is roofed with iron-sheets and solar electrified for my children. Before tobacco farming, maize was the main crop that I used to grow, for family consumption and then I would sell the surplus to Grain Marketing Board, but then, this main buyer failed to pay us for the delivered produce".

Another respondent mentioned that, through tobacco farming, he was able to purchase a cattle herd, bought a small vehicle that he is investing in transport business. His confidence in tobacco farming and all he has accumulated have motivated him to an extent that he is not going to leave tobacco farming anytime soon even though there are some negative impacts related to tobacco farming.

Respondent 21: "To my family, tobacco farming has been a blessing for the past 10 years to an extent that, we have accumulated so much, like a car which is generating more money every

day. We bought cattle which is helping us for ploughing and we use a cart in carrying firewood for tobacco curing. Who would ever want to leave this high paying cash crop?”

However, poverty in Tarastore Area was differentiated through poorly built houses in Mvurwi Tarastore Area. These were seen by the type of houses the respondents lived in. Among the interviewed, the findings are in the table below.

Table 1: Type of House of the respondents

Type of house	Frequency	Percentage
Grass thatched/ Mud walled house	4	17.3
Iron sheet roofed with mud walls	5	21.8
Semi-permanent house(iron roofed, mud walls but plastered)	8	34.8
Permanent house(iron roofed/asbestos/bricks/stones	6	26.1
Total	23	100

(Source: primary data) by Bulasho. N (2021)

Therefore, one may clearly denote that, to some farmers, tobacco farming has brought a positive change in their asset accumulation and living standards and to some, tobacco farming has not yet transformed their lives.

1.1.3 Infrastructural development

Infrastructural development involves improvements of the quality of the various components such as power, ICT, water, sanitation, roads, businesses, building of schools, shopping centers and hospitals. Infrastructure contribute to raising the quality of life by creating amenities providing consumption goods (transport, energy, communication services and contributing to macro-economic stability (Nedozi et al, 2014). Mvurwi has developed to a ‘town’ due to tobacco revenue circulation (Scoones et al 2020). In an interview, the Mvurwi Council officer applauded the great work that has been done in community development of Mvurwi due to the great works done by Tarastore smallholder tobacco farmers.

Respondent 5: *“Mvurwi has become a well developing town due to money circulation brought forth mainly by smallholder tobacco farmers. These Tarastore smallholder farmers must be appreciated for their great work”*.

Respondent 3: *“We are so grateful, Mvurwi is now different from the environment that we once lived before the land reform. These days our communication and ICT facilities have been enhanced and we can communicate well. Another thing to be thankful of, is that the road network and banking facilities have improved too, which makes our lives easier”*.

More businesses have opened in Mvurwi (Sukume et al 2016) stated that, the expansion of tobacco farming in Mvurwi area, has resulted in an increased number of tobacco contracting companies. It has created a source of disposable income for the farmers who have invested in small and medium enterprises in the area such as grocery and hardware shops, sawmills, food outlets, beer halls, only to mention but a few. Some prominent banks like CBZ, POSB and AGRIBANK are present in the small town.

However, it is so true that smallholder tobacco farming has done good and it has transformed some livelihoods, but it cannot sugarcoat the negative socio-economic impacts of tobacco farming on Mvurwi Tarastore livelihoods that it has caused.

1.2 Negative socio-economic impacts of smallholder tobacco farming on livelihoods of Mvurwi Tarastore Area.

1.2.1 Food insecurity.

There are various methods used to measure food (in) security depending on the dimension one wants to measure (availability, accessibility, or utilization). Food insecurity is defined by Tawodzera (2011), as a condition when individuals have an uncertain or limited access to food through socially accepted channels. The debate on whether farmers should pursue cash cropping or food crop has been on going, (Govere et al. 1997). Improvements in increasing

crop yields have been made globally, but chronic food insecurity, hunger and undernourishment persist in many parts of the world (Muhoyi et al 2013). For Mvurwi Tarastore Area, food insecurity is due low food production. The basis of their food security is in line with Sen's (1980) trade based entitlement to household food security. It is the ability of a household to sell certain commodities to earn income, which they can use to purchase food. Most farmers grow tobacco with the idea in mind that they will secure their food through buying food when they sell their tobacco. This is supported by a respondent who stated that, they will just buy enough food for themselves when they get money from selling tobacco.

Respondent 2: *"If you sell your tobacco and get money, you will use that money, you will be able to buy food and all that is needed for families"*.

Chamunorwa (2010) stated that smallholder farmers were challenged with production and marketing constraints such as drought, high production costs and volatility of markets which led to a considerable decline in maize production which is the staple food of Zimbabwe, and other food types to sustain livelihoods. As postulated by FAO (2015), although many factors have contributed to the food insecurity situation in Zimbabwe, one of them was a decrease in area under maize farming. Insecurity of food is starting at household level and it affects the nation, all because of the fact that smallholder farmers are market oriented and not considering their food security.

1.2.2 Low levels of education

Education is one of the major factors that determine poverty levels. Education supports a child's social, emotional, cognitive and communication skills and abilities (Giovetti 2020). It can also reduce inequalities in terms of access to resources, and gives opportunities for the marginalized to participate in everything that affect them. Moretti (2005) denotes that education creates positive externalities for many types such as lower crime rates and better

health. However, about 4.7 percent of the children who work within the agricultural sector do not attend school at all of which education is an important part of development for future and current generations (Clacherty 2009). In Mvurwi Tarastore area, education has been affected in that during tobacco farming season, absenteeism in schools has become common in both primary and secondary schools. This was further supported by a teacher from Farai Secondary School in Tarastore who mentioned that close to 40% of pupils are usually absent in school during tobacco harvesting in most cases, and this situation is worrisome in that the future of those children is affected.

Respondent 6: *“In a class of 32 pupils, only 19 pupils are present in class every day, the rest will be absent every planting and harvesting time of tobacco. The situation is worrisome because it affects the future of the children because when they will come back to school, it will be hard for them to catch up with other children. The end result is in most cases are school dropouts”.*

Another respondent agreed that, due to labor shortages, he depends on his family for labor, hence at the end his children were caught up in dropping out of school.

Respondent 4: *“The only labor that I rely on, are my children and many times I intend to let them stay home and help me in tobacco related work so as to meet the target. You know that tobacco farming is timely, if you miss the target on any stage, it might affect the whole process till tobacco is sold”.*

Of the interviewed, smallholder tobacco farmers, teachers and children reported that, school fees is a major challenge to children’s education particularly secondary education. Some children were sent back home and some were denied end of term results because they had arrears, and this demotivated some children to go back to school, hence it led to a high number of school dropouts. Table 2 below shows that many adults and children in Mvurwi Tarastore

Area only acquired primary education, and the circle is still continuing in many smallholder tobacco farmers.

Table 2: **Education levels of households.**

Level of education	Frequency	Percentage
None	3	13
Primary	10	43.5
Secondary	6	26.1
Tertiary/College or University	4	17.4
Total	23	100.0

(Primary source) by Bulasho, N. (2021)

This has negatively impacted the livelihoods of the farmers currently and in the near future in terms of human capital development. States have a multiplicity of needs for educated individuals including teachers, engineers, clerical stuff and professionals (Sokoloff and Engerman 2000) but with this rate of education in communities, it will become difficult for Zimbabwe to upkeep the rate of education. Above all, high population of Zimbabwe is in rural areas and this calls for an emergence to deal with this problem before it goes out of hand.

1.2.3 Gender and Labor

Tobacco production not only requires more working capital than other crops, it is also labor intensive (Takane 2015). Due to its high demand in labor, small-scale farmers are forced to employ hired labor to work alongside family labor. FAO (2010) states that, smallholder tobacco farming in Zimbabwe is influenced by gender. Gender refers to characteristics of women, men, girls and boys which are socially constructed and these include behaviors, roles, norms and values.

In Mvurwi Tarastore area, tobacco farming is mainly dominated with men, and they are the ones who have the grower's numbers. Tobacco farming is labor and capital intensive farming

and when it comes to smallholder farmers, mechanisms to cut down on costs are implemented, for instance the use of family as labor. There are women gendered roles in that women often work in the fields more than men. With the help of children, women engage in watering tobacco seedlings, transplanting, fertilizing, topping and suckering, harvesting, sorting, stringing and grading the tobacco leaves (Babalola 1993). Tilling the land, fetching firewood and monitoring the barn for tobacco curing are mainly regarded as manly roles, however there are some women who can do the same roles like man do especially the female headed families. In an interview a female respondent aged 36years, who grows tobacco with her husband stated that due to the experience that she has right now, if she gets a chance to grow tobacco on her own, she can do better.

Respondent 23: *“I think with the experience that I have right now, if I am to do tobacco farming alone, I will be able to do the same work and produce good results all by myself, just that right now am only depending on my husband for tobacco farming inputs”.*

Another woman, who is a widow, but runs a small plot stated that, tobacco farming is so hard, and due to the fact that she has a small family, she is forced to hire labor. She stated that she has suffered theft problems which are hindering her progress and this drawback to her success is coming from the hired workers who steal agricultural inputs in most cases. She goes on to say:

Respondent 17: *“Being a widowed woman, people have taken advantage of my weakness as a woman. I have run a loss in tobacco farming. When I give the hired workers inputs to help me, they end up stealing those inputs, and apply only a few. I discovered the effects of their actions when my tobacco plants started to have a stunted growth and poor leaf quality”.*

It is so sad to see that, gender has shaped the rural communities in so many ways, women's access to land and inputs is also gendered in Mvurwi Tarastore Area. Female smallholder farmers usually do not have land security and this practice affects equity and sustainability (Hoogeveen and Kinsey 2001). When a woman is widowed, the Offer Letters of the land are in most cases given to the eldest son of the family or the immediate relative. This has resulted in women being vulnerable to abuses in order to get hold of those papers. This was alluded by a smallholder farmer who went through the dark pages of her life when she was asked to leave the land that she and her husband had acquired, before the husband passed on.

Respondent 13: *"I was forced to seek legal advice due to land issues, thank God I won the case! After my husband's death, I faced land related threats from my husband's relatives. They claimed that the land was acquired by my husband, and now that he is late, they wanted to get it."*

The community head who was interviewed by the researcher showed an understanding on the inheritance laws. He mentioned that, he supports women to acquire land and other inputs for agriculture so that their livelihoods will have a better transformation.

Respondent 20: *"I advised and supported some female smallholder farmers to acquire land and to make sure that it is not taken away from them by relatives and or anyone. For us to be who we are today, is all because of what the great women have been doing for us, 'saka vanotodawo rutsigiro rwedu kuti nyika ifambire mberi' (they need our support for the development of the nation)"*

Gendered roles and access to land as a socio-economic impact of smallholder tobacco farming on livelihoods has become a draw back in tobacco production rate. This is because, the majority of rural population which are women in Mvurwi Tarastore Area are facing challenges to

acquire land on their own, and it has been noted that men use the extra cash income provided by the sale of tobacco to attract other wives.

1.2.4 Ill-Health

The health of tobacco farmers is also put at risk as tobacco farming requires a lot of fertilizers and pesticides that could cause diseases, disability and premature death (Efroymson and FitzGeneral 2002). The cultivation of tobacco has increased risks of injury and illness hence children and adults especially women who work in tobacco farms frequently suffer from Green Tobacco Sickness (GTS).

GTS is “nicotine poisoning that results from the absorption of nicotine through the skin from contact with wet tobacco plants during cultivation and harvesting (Arcury and Quandt 2006). There are no established diagnostic criteria for GTS, but the common symptoms are dizziness, nausea, vomiting, headaches, pallor, weakness, increased precipitation and chills. Symptoms can also include abdominal cramps, and pain prostration, difficulty breathing, diarrhea and fluctuations in blood pressure or heart rate (Mc Bride et al 1998; Arcury and Quandt 2006). Among all farmers and farm workers, the researcher found out that almost everyone in Mvurwi Tarastore Area experienced or is experiencing the symptoms of GTS. Of the interviewed children who work for smallholder tobacco farmers, Respondent 14 and respondent 16 mentioned how they felt almost every day after working with wet tobacco or pesticides.

Respondent 14: *“Almost every day after work, I feel weak and sometimes vomit, I tried to find a cure, but I failed. I found out that, it was not only me who felt that way, almost everyone whom I worked with, was suffering from that disease unknowingly and **with time, it has become normal** for us to feel that way after work”*

Respondent 16: *“Due to lack of proper protective wear, I have suffered from wet tobacco related challenges and even pesticides poisoning. I work without gloves,*

*instead we put on plastic bags in trying to protect ourselves from dangerous tobacco chemicals. Several times, I have suffered stomach and chest challenges. **We just want money from tobacco selling, but in all honest, we are dying to the so called disease GTS and chemical related problems.***”

The symptoms of GTS are worsened by the excess and frequent application of pesticides to protect the plant from insects and diseases. Pesticides and chemicals used in tobacco growing such as Butramex 36EC, Ethephon 48SL and N-Decannol 79EC have been proven to have dangerous effects on human beings. Whether inhaled, absorbed through the skin or even swallowed, pesticides cause respiratory problems, skin poisoning, disorders of the nervous system and kidney problems. Some of the Mvurwi Tarastore residents are losing their lives to GTS unknowingly and some use the chemicals to end their lives. About 5 people per year attempt suicide and some even die using pesticides (Mvurwi Hospital Records 2018). It is so true that diseases inclined to tobacco farming decrease the life expectancy which is a threat to development (HDI indicators) of Mvurwi Tarastore Area livelihoods as children will be left orphans, and they will have other challenges related to that.

1.2.5 Child Labor

According to Chapanda (2016), one of the biggest issues in tobacco industry is child labor. Article 2 of the African Charter on the Rights and Welfare of the Child (ACRWC), defined a child as any person below the age of 18. Child labor is defined in Article fifteen of the ACRWC as in, the article states that,

*‘every child should be protected from all forms of **economic exploitation** and protected from performing any work that is **hazardous** or interferes with the **child’s mental, moral and social development**’*

Child labor is any work that is given to a person under the age of 18 in a bid to pay them for economic or financial support, that is hazardous to their health, be it chemicals, or work that requires a lot of energy beyond their capacity, and again work that hinders them to develop mentally, socially and morally, through education especially in schools. About 71% of all global child labor is in the agricultural sector and that is about 108 million children worldwide due to poverty as the main cause (ILO 2018).

In Mvurwi Tarastore Area, it is customary to have the entire family helping in farm work so as to make sure that the smallholder's farming business produce better results. Although it is common for children to contribute to family agricultural work, there must be a clear distinction between child responsibility and child labor. Children as young as 12 are into tobacco farming providing labor. Chaoanda (2016), stated that, while the occurrence of child labor is high, it is not labelled as something negative among many farmer families. Small holder farmers regard especially family child labor as necessary for children to learn how tobacco is grown so that they will sustain their families when they grow up. Accorded from a respondent who supported child labor as a way of teaching their children the good way of getting a living through hardworking. He stated that;

Respondent 22: *Children should be taught that, hardworking is the only way for them to get a better life. I wouldn't want a situation whereby I will be blamed by my children for not teaching them the good way of earning a living. The Bible even supports that parents should 'train up a child the right way he should go, and when he is old he will not depart from it' (Proverbs 22:6). It is a good thing to catch them young and teach them how tobacco is grown, and it's good for their future use.*

Not only children in families of smallholder farmer's work in tobacco farms, but even children from other families including child headed families. The kind of work that they will be doing

is called '*maricho*' (piece work) and in most cases children take up this work to sustain themselves.

Child labor has negatively impacted the socio economic livelihoods of Mvurwi Tarastore Area in that, violation of the Child Labor protection right, entails the violation of other children's rights for instance the right to education (Article 11 of the ACRWC) and the right to health and health services (article 14 of the ACRWC), among other rights like the right to leisure. Situations at home have forced them to seek employment to help them provide for themselves and their families (Human Rights Watch 2018). The kind of work that these children are for instance, carrying a 20litre backpack sprayer and apply chemical on crops, mixing chemicals with water, fetching water, or even grading tobacco. A sixteen-year-old boy, interviewed by the researcher stated that, he got sick after pouring a chemical which is used to help color the tobacco leaves into a backpack sprayer. He stated that spraying chemicals and carrying the backpack is a heavy task, but he doesn't have an option than to do the work;

Respondent 19: *The smell of that chemical causes nausea, and loss of appetite and many children after work reported sick after doing the same task we cannot afford to quit because we depend on working in tobacco farms. As of me, I only did primary education, so besides working in tobacco farms, there is no other way for me to get employed and earn a living'*

Thus, due to the fact that, children's bodies are still developing, long term exposure to bad working environments and chemicals, has long term effects in that, it will lead to serious chronic health effects including respiratory problems, cancers, depressions, neurologic deficit and even reproductive problems hence depriving the future of the children. Human Rights Watch (2018), stated that, 'children are particularly vulnerable to nicotine poisoning because of their size, and because they are less likely than adults to have developed a tolerance of nicotine. Public health research on smoking suggests that nicotine exposure during childhood

and adolescence may have lasting consequences on brain development. This child labor negative socio-economic impact of tobacco farming of Mvurwi Tarastore Area livelihoods has affected education and health of the children of which children are the future leaders, they are human capital for development.

1.3 Conclusion

It is of great importance to note that, in Mvurwi Tarastore area, the socio-economic impacts of smallholder tobacco farming are more negative than positive. Farmers are into tobacco farming mainly because many people are doing it, but a sizable number of them are not socially and or economically benefiting from it to a greater extent. Gender and patriarchy is a world cry, and it still needs to be dealt with in Tobacco cultivated farms like Mvurwi. Poverty has become the center of all the negative impacts of tobacco farming. It has resulted in child labor, health and education rights violations. As a result, livelihoods in Mvurwi Tarastore Area are affected currently and even in the near future, the next generation will not be in a position to live a life that they would cherish.

CHAPTER TWO: LIMITATIONS OF TOBACCO FARMING AS A LIVELIHOOD STRATEGY IN MVURWI TARASTORE AREA.

Introduction

Zimbabwe as a whole is facing an economic meltdown and the country is heavily dependent on foreign currency obtained from tobacco farming. In a bid to increase household income, Mvurwi Tarastore smallholder farmers have engaged in tobacco farming as a livelihood strategy for their sustenance. Therefore, in this chapter, the researcher will critically address the second objective of the study which is to analyze the limitations of tobacco farming as a livelihood strategy in Mvurwi Tarastore Area. Embracing new ways to protect human beings including activities, capabilities and resources needed for a means of living can be called livelihood strategies. Therefore, the limitations of regarding tobacco farming as a livelihood strategy will be discussed.

2.1 Deforestation.

Deforestation is the removal of trees from a forested site and the conversion of land to another use, most cases for agriculture (van Kooten 2000). It is an important factor that strongly affects local, regional and global processes involving soil degradation, biodiversity loss and climate change (Giam 2017). In Zimbabwe, due to tobacco agriculture, it has been recorded by the Environmental Management Agency (EMA), that the country has lost 70 000-100 000ha of woodland which has been lost to deforestation in Zimbabwe (Chivaurise et al 2017).

Depending on smallholder tobacco farming in Mvurwi Tarastore Area has deforestation limitations. Deforestation is continuing in Tarastore unabated because tobacco as a cash crop, is fetching an attractive market price even if this may be short lived as anticipation for improved prices is instigated (Chakravarty et al 2012). In Mvurwi Tarastore area, flue cured tobacco is the most dominating type of tobacco grown, and it demands firewood for treatment/ curing. Tobacco curing is a process of burning the harvested tobacco leaf with the varying conditions

as stipulated heat for about a week (USDA 1992). In an interview, Environmental Management Agency (EMA) Officer, admitted that, more than 100 hectares of land is being cleared for cultivation and for tobacco curing every year in Mvurwi Tarastore Area and environmental costs are more than the monetary value tobacco income. All smallholder tobacco farmers depend on firewood as the only energy they have.

Respondent 10: *'It's so true that we are benefiting from tobacco related foreign currency, but the costs on land are more than the money we are getting. Deforestation is happening at a fast rate to an extent that it must also be treated as a pandemic because the effects of deforestation are and will be experienced by everyone. Tobacco curing makes tobacco farming unsustainable. For smallholder tobacco farmers in Tarastore who rely on firewood as a fuel for tobacco curing, a plan must be implemented to curb this...'*

In an interview, another farmer responded on the challenges that are limiting tobacco farmers and he mentioned that the issue of over exhaustion of indigenous trees is worrisome, the next generations will be affected and he admitted in contributing to deforestation. He said that the smallholder tobacco farmers rely on firewood as a source of energy to cure tobacco leaves as other alternatives like coal, fossil fuel and electricity are logistically and financially beyond the reach of the rural households. They make use of indigenous trees instead because forest is the only nearby source of energy that they have.

Respondent 2: *'we do not have access to alternative sources of energy besides indigenous trees for tobacco curing and we have no option but to use locally available trees and in the end we have a problem of deforestation. Coal is expensive for most of us here, as we do not have money for the required capital. Firewood for domestic use*

has also become a problem in that, we have to go to a faraway forest with a cart so that we get firewood’.

Almost every interviewed farmer, admitted that they use firewood as their only source of energy to cure tobacco. Massive deforestation has threatened the viability of the tobacco sector and the sustainability of natural forest resources (Kamuti et al 2018). For those reasons depending on tobacco farming as a livelihood strategy has not only costed Mvurwi Tarastore area, but it has costed the entire world because the impacts of deforestation are experienced by everyone. However, climate change, forest loss and loss of biodiversity are some of the major impacts of deforestation which cannot be recovered. Bensel (2008) points out that, loss of biodiversity and forest loss imposes limitations on sustainable economic development.

2.2 Environmental degradation

Tobacco farming as a livelihood strategy has environmental degradation as a limitation and it makes it unsustainable for future generations to come. Environmental degradation has negative effects on the environment and even human beings. It has been exacerbated by the use of pesticides, chemicals, deforestation and bad cultivation skills. The ongoing deforestation, deterioration of forest resources in conjunction with loss of biodiversity has become a worldwide concern. Chitongo (2017) noted that, tobacco agriculture produces negative externalities that affect the environment. (Ibid) further states that, the production of tobacco generates environmental impacts that are often overlooked or even ignored. Bare soil is constantly being washed away by rain every season and this has led to many gorges, and siltation in Tarastore river. This can be supported by the picture below which shows the state of land degradation in Mvurwi Tarastore Area.



Fig1 shows

environmental degradation of Mvurwi Tarastore Area. Source: Bulasho. N (2021)

Environmental degradation has also been worsened by the use of pesticides in that, it has led to low soil fertility meaning to say that, even food production has been threatened. To add on that, some of the chemicals that are used by tobacco farmers have resulted in soil acidity and some of the chemicals cannot be absorbed by the soil hence they threaten human and animal life. This can be witnessed by Fig. 2 which is an abandoned piece of land because the pH of the soil is no longer favorable for farming. This was caused by excess use of pesticides and chemicals in tobacco farming.



Fig 2.

Shows an abandoned land and the soil fertility has become poor due to the use of pesticides and chemicals in tobacco farming. (Source: Bulasho. 2021)

Environmental harm includes soil nutrient depletion, deforestation, and pollution of water sources by pesticides and herbicides (Kenkel et al 2014). This is so true of some parts of Mvurwi Tarastore Area as highlighted in the photograph above. Nkala et al (2011), noted that the reduced potential of soils has been as a result of the traditionally used way of farming which realize high yields in the short run at the expense of soil fertility which gradually deteriorates as time goes by. Deterioration in produce in terms of poor yields per hectare has a long term impact on livelihoods in that it leaves farmers vulnerable to food insecurity and consequently hunger. One may clearly understand that, environmental degradation caused by tobacco farming is a big limitation for depending on tobacco farming as a livelihood strategy.

2.3 Climate change.

Climate change, which is a global or regional change in weather patterns like rainfall and temperature, has become a limitation in relying on tobacco farming as a livelihood strategy in

Mvurwi Tarastore Area. Climatic changes are not predicable, they happen suddenly and these sudden changes have been experienced in Mvurwi Tarastore Area. To support that, according to the Meteorological Department of Mvurwi (2020), they recorded that in 2019, the rain season started too late in December and Mvurwi recorded 22mm that month, whereas in December 2020, the amount of rain recorded in December was 38mm. This change in weather and rainfall patterns confuse the farmers as their tobacco farming business relies mainly on rainfall. They do not have irrigation facilities, hence too early or too late rainfall has an impact on their plants and also it determines the type and quality of tobacco leaves they will have.

One of the respondents mentioned that, she was disappointed by climatic changes that happened in 2020. Her plants sank in water for about a week and it affected the growth of the tobacco plants, she went on to mention that, it increased her expenses on buying inputs so as to speed up the growth of tobacco plants as much of the applied fertilizers were washed away by heavy rains.

Respondent 23: *'I have been in tobacco farming for the past 6 years, and surely, the weather patterns are changing drastically. It is so confusing and I don't know when is the rightful time to grow my plants. If I plant too early soon after the rain season has started, am afraid of a dry spell, and if I plant too late, time will not be on my side. Tobacco farming is timely. These climatic changes have put pressure on me because at some point, I was forced to look for other bags of fertilizer since the rain washed away all the fertilizer I had applied. Buying inputs during the rainy season is so expensive.'*

Therefore, relying on tobacco farming as a livelihood strategy has limitations in that climate change is unpredictable and smallholder tobacco farmers of Mvurwi Tarastore Area are left poor, and food insecure. The farmers are left food insecure in that, most of them do not grow

grain or even drought resistant plants. The basis of their action is to buy and stock food like maize and beans, after they have sold tobacco leaves. Climate change have made the poor smallholder farmers less resilient to stresses and disasters. Smallholder farmers rely a great deal on the natural environment and lack the capacity and the resources required to recover from disasters, (Oluoko et al 2011).

2.4 Labor intensive.

The limitations of tobacco farming as a livelihood strategy of smallholder Mvurwi Tarastore Area tobacco farmers is that, it is capital and labor intensive. With inadequate capital and labor, production will be low, of which smallholding or small-scale farming is characterized by poor resources and relies more on family labor. The labor requirements are one of the determinants of choice of crop, as households tend to shun from labor intensive crops such as tobacco when they do not have adequate labor (Mubanga et al 2015). Bunnak et al. (2009), mention that, tobacco farmers in Cambodia raised problems of high labor costs and now net returns, the same challenge is being faced in Zimbabwe.

Tobacco farming remains one of the most labor-intensive crops, often driving cash-poor farmers to employ their own and other children (Human Rights Watch 2016). The most painful thing about child labor is that, not only this protection right from child labor is violated, but even some rights like the right to education and the right to health and health services. Due to lack of technological advancement and capital, there are no machinery to help the farmers and instead they hire labor or they manually and tirelessly work for better results. Often with limited tools and technology, farmers need to open up fields, establish and tend nurseries, top and spray the plants, harvest the leaves progressively as they ripen and cure, and grade the leaves before sending or taking them to the market (Seijjaaka 2004). Many smallholder tobacco farmers intend to hire labor which they poorly pay and this type of labor is in most cases low skilled.

There have been labor law violations in tobacco farms in that, the International Labor Organization stipulates that 8 hours is the maximum working hours, if there is an overtime, it must be paid and the working conditions must be health conducive.

However, in Mvurwi Tarastore area, the respondents mentioned that, they were lowly paid for about US\$2 per day and sometimes they did not get the payment after work as agreed. They mentioned that they are often promised to get their payments after the farmer has sold his tobacco and sometimes instead of being given money, they are given an option to take up groceries equivalent to the number of days they would have work. Overtimes are unpaid because the farmers wanted to meet their targets. Workers are not given proper personal protective equipment (PPE) which make them exposed to GTS, chemical and pesticides poisoning. For good and best results, the kind of labor determines the quality of yields to be produced. One of the interviewed smallholder farmer admitted that the above conditions were exactly what they did;

Respondent1: *'I have hired labor to help me, but on payments we will pay as soon as my output is sold. When it comes to PPE for the worker, its beyond my capacity because its expensive. I cannot afford them. If that is against the law, those who will be in need of work will just come without looking at all those working conditions'*

That means that, labor is a limitation to regard tobacco farming as livelihood strategy because it is associated with human rights violations. The labor intensiveness of tobacco farming, worsens the situation and contributes to the highest rates of child labor across sectors (Otanez et al 2006). If the Labor Monitoring agencies are deployed in many tobacco farmers including Mvurwi Tarastore, many farmers will be sued.

2.5 Capital intensive

Tobacco farming is very capital intensive, and if there are not enough resources to fund tobacco farming, the smallholder farmers usually face disappointments one way or the other. Smallholder farmers often lack the necessary capital and their access to credit is restricted by the lack of collateral (Chitongo 2017). Minot (2011) supports that, the smallholder tobacco farmers are constrained in their ability to make profitable investments in farming activities that depend on expensive input requirement (TIMB 2012), insufficient inputs, technical expertise and finance are the key reasons for the decline in production, hence the need to adopt contract farming.

Smallholder tobacco farmers in Mvurwi Tarastore Area are in contract farming due to the fact that they do not have capital to engage in tobacco farming, which is bringing so many challenges in their farming business. The respondents complained about the late delivery of farming inputs purchased on a high price, low tagged prices for their graded tobacco leaves which is too low for the expenses that they would have encountered in growing the tobacco plants. A respondent mentioned that, he has been in tobacco contract farming for about 3 years now, but still in debt. The main reason behind continued engagement in contract farming is to try and pay the debt of which they are worsening the problem. On money collection, they are facing about 3 days long queues on bank, he said;

Respondent 6: *'I engaged in tobacco contract farming about 3 years ago, and my life has not transformed yet. I have a debt of about ZW\$750 000 which is close to US\$750. Am not in a position to pay it back anytime soon. At the same time, I cannot afford to be an independent tobacco farmer because the prices of tobacco inputs are too high, for instance, one bag of Compound C is about \$ZWL\$2520 of which for me to come up with a good yield depending on my piece of land, I need about 30bags of fertilizer...'*

Smallholder tobacco farmers lack adequate capital and that has led to use of poor quality processes and infrastructure like barns for tobacco curing. Almost every farming season, the respondents mentioned that about 2 barns get burnt out. This is caused the fact that the farmers oversleep whilst spending the whole night (for 1 week) attending the tobacco curing barn. Fatigue from harvesting and fetching firewood during the day. A respondent confirmed that his barn caught fire 3 years back and mentioned that it affected his production processes that year. He believes that it was a great drawback to his success. This means that, the farmers suffered losses in that, the full barn of tobacco was burnt to ashes which he estimated to be close to half a bale. The next harvested batch of tobacco was affected too in that the leaves started to go bad.

Respondent 11: *'In 2018, my production was disturbed so much, my barn caught fire whilst I was asleep. Tobacco farming is tiresome. I had to ask a friend to cure my tobacco in his barn, but still the process delayed because he had tobacco to be cured as well. Imwe fodya yakawora (some harvested tobacco got bad) and it delayed me to and sell my tobacco. I was so depressed by that event...'*

2.6 COVID-19

COVID-19 pandemic, triggered the imposition of regulations which resulted in the disturbances of the production, processing, distribution and consumption of food (IFPRI 2020). State lockdown regulations deactivated many operations in agricultural and other sectors for instance in the transport sector, it was affected because people were not allowed to do inter-city travel to search for inputs. For Mvurwi Tarastore Area, farmers used to get some inputs in Mvurwi, the inputs were limited and based on first come first serve condition, and on high prices. Some plants were affected due to lack of inputs since farmers were not allowed to travel frequently. Market access was also a threat to tobacco sellers. So many people queued on tobacco auction floors for so many days, exposing them to COVID-19. Due to Covid-19 the

start of the tobacco marketing period shifted from 20 March (the start date in 2019) to 29 April 2020 and their access to basic needs especially food was jeopardized (Chikwati 2020).

Therefore, one may clearly note that the capital intensiveness of tobacco farming as a livelihood strategy has serious limitations. If one doesn't have a strong economic muscle, engaging in tobacco farming will drown them in serious debt crisis. Indebtedness robs smallholder farmers in meaningful choices (Sejjaaka 2004). The researcher noted that, if farmers would like to like to diversify from tobacco to maize, they feel that they have no choice but to turn to tobacco.

2.7 Conclusion

Tobacco farming as a livelihood strategy has been adopted by smallholder tobacco farmers of Mvurwi Tarastore Area, of which the limitations inclined to doing that are dire. Tobacco farming has deforestation and environmental defects and these threaten the sustainability of tobacco farming. Climate changes are unpredictable, of which depending only on tobacco farming will threaten food security of the tobacco farmers leaving them with stresses and shocks related problems. Tobacco farming is labor and capital intensive, and these are so important to ensure a better yield. They become a limitation because in terms of capital, the economic dynamics of Zimbabwe are changing every time and not stable and these influence on the working conditions of labor

CHAPTER THREE: STRATEGIES TO ENHANCE TOBACCO FARMING AS A LIVELIHOOD STRATEGY

Introduction

This chapter focuses more on the third and final objective of the study which is to provide suggestions on how tobacco farming could enhance livelihoods in Mvurwi Tarastore Area. The main idea in this chapter is that, tobacco farming has been adopted by smallholder tobacco farmers of Mvurwi Tarastore Area to reduce poverty in themselves and as a livelihood strategy in which they depend on for survival. However, in doing all that, there are challenges that are faced by farmers and there are strategies that have been/ can be adopted to solve those problems.

3.1 Strategies adopted by smallholder farmers to enhance tobacco farming as a livelihood strategy.

In dealing with fuel related challenges for tobacco curing, Mvurwi Tarastore smallholder farmers can adopt the following strategies to enhance tobacco farming as a livelihood strategy.

3.1.1 Afforestation and Reforestation.

Virginia or flue cured tobacco requires fuel or energy to dry it. Farmers face energy challenges in that they only depend on indigenous firewood as fuel. In dealing with the energy problem, farmers have resorted in harvesting trees from the forest leading to deforestation. Deforestation leads to biodiversity loss and the cutting down of trees results in green house effects leading to global warming. Afforestation which is a process of planting many trees on a land which had no trees or which had few trees, and reforestation which is a process of replanting trees on an area which had trees before, but were cut for domestic and or industrial purposes. Will be a great deal in dealing with deforestation challenges.

Afforestation and reforestation of exotic trees will provide energy for the current and future generations for both domestic and tobacco curing. Exotic trees like gum trees only need about 5 years to mature to an extent that, they can be harvested, whereas indigenous trees need on average 15years to reach a harvesting stage. Many smallholder farmers admitted the use of

firewood for tobacco curing and domestic energy. Of the interviewed respondents was a woman mentioned that, they have tried afforestation and its promising good results in the next couple of years. She went on to say;

Respondent 11: 'My husband and I, resorted in gum tree planting in the edges of our field 7 years ago, and it shows that, in the upcoming years, we will not have firewood fuel challenges, we will just harvest our plantation. This method is sustainable and the gum tree harvest can be used for both domestic use and for tobacco curing. Am even encouraging some farmers to give it a try...'

Below is Fig.3 with the respondent's gum tree plantation.



Fig.3 is a respondent's gum tree plantation at the edge of her piece of land.

In support of afforestation idea an (EMA) officer was interviewed so that, they would lay out their view pertaining the issue of smallholder tobacco farming as a livelihood strategy and its negative impacts on the environment and ecosystem. The officer stated that, afforestation of

exotic trees such as gum trees is the only sustainable way to deal with deforestation related issues. He said;

Respondent 10: *'...to make the sustainable production of tobacco for both current smallholder farmers and the future generations, the only solution, is afforestation. If every farmer makes a woodlot and not to only wait for the national tree planting day, it will make a great difference not only for our communities, or our district, nation or continent, but it will help the whole world in curbing deforestation and climate change related problems'.*

3.1.2 Decentralization in the management of natural resources

Decentralization in management of natural resources maybe of great importance. This method will just make use of the leadership that is already in the Area from community head, to common community members. Through participatory development, which is a bottom up approach, the Mvurwi Tarastore Area, may come up with community based environmental management schemes. These schemes may even include fine payment of cutting down trees and an inclusive tree planting projects.

3.1.3 Government intervention

The government can intervene in raising awareness to stop deforestation and not to depend solely depend on revenue which comes with tobacco sales. Other environmental protection laws may be implemented or strengthened even to an extent that every smallholder or commercial tobacco farmer has come up with a replacement woodlot before being given permission to grow Virginia tobacco.

In terms of providing another source of energy besides firewood, for instance coal and electricity, in rural areas like Tarastore Area. The idea is good in that it reduces pressure on forests, but it is not sustainable because the government and ZETDC are not in a position to

provide enough electricity even for domestic purposes, and this is evidenced by the issue of severe power cuts.

3.1.4 Energy sustainable infrastructure

Unavailability of energy determines the strategies that are needed to make smallholder tobacco production sustainable since some farmers are self-funded. Farmers, both contracted and independent farmers lack proper, nicely built infrastructure like barns, which also serve energy. Sustainable use of fuel for tobacco curing requires technology advancement in tobacco farming like robot barns, being in other developed countries. Estimated by a farmer, he stated that, he needs about 3 carts full of firewood to cure 1 barn full of tobacco. If the barn is nicely and technologically advanced, it will reduce the amount of fuel needed to cure 1 barn of tobacco.

Some of the important factors which may require good infrastructure are tobacco grading shades and proper rooms to keep tools and inputs like fertilizers and chemicals are not to be forgotten. Some chemicals will lose their power when they are kept in unfavorable conditions. Mvurwi Tarastore Area, has many farmers who keep their inputs in their bedrooms for security reasons but putting their health at risk.

3.2 Growing grain for food security

This strategy of growing of food grains to ensure food security may be used as a strategy to enhance tobacco farming as a livelihood strategy can help in dealing with the effects of climate change effects and dealing with tobacco sales. There are farmers who depend more on tobacco farming sales as their source of income, so they tend to buy and stock their food like maize and beans after they get a good sale of tobacco. This way of getting food is not guaranteed due to the fact that tobacco markets are fluctuating meaning to say that, tobacco leaves may not be bought at a higher price than anticipated. However, smallholder tobacco farmers can adopt the government initiated Command Agriculture as a way to secure their food than to rely only on tobacco which may not be bought on high prices as they might have anticipated.

Adding on that, climatic changes are unpredictable, this means that, if smallholder tobacco farmers grow small portions of grain or even drought resistance crops, it will help them secure food for their families. Food security is not only about availability, stability, availability and accessibility, it is also about food utility. Food utility also talks about nutrition so as to reduce malnutrition issues. Investments in improved nutrition, enhance health human capital. Therefore, smallholder tobacco farmers can also engage in vegetable gardens for nutrition sake. A respondent mentioned in an interview that small gardening has transformed her life and boosted her diet. She even sells the surplus, she went on to say;

Respondent 18: *'Depending only on tobacco farming for survival will not be enough. In order to provide a nutritious diet for my children, I have a garden in which I grow tomatoes, onions, carrots, rape, Irish potatoes and even beans. I sell the surplus and also get an extra income. This is the way to go, women should be fast thinkers and make sure that their families are good health...'*

Fig. 4 below is the respondent's vegetable garden with carrots, to make sure that she maintains a balanced diet for her family and also for sell.



Fig. 4 is the respondent's vegetable garden with carrot plants.

3.3 Money saving schemes.

In a bid to make sure that Mvurwi Tarastore women maintain money circulation and support each other in tobacco farming in terms of capital, they introduced what is known as '*stokvel*' or '*mukando*' in Shona. It is a money saving scheme that is used like a credit union in which women put money together and then take turns to use it. When bringing it back on an agreed time, a certain interest is attached to the money. This money saving scheme is common in South Africa, and becoming popular in Zimbabwe. One of the key respondents confirmed that, this off farm income scheme has a potential of changing livelihoods and it can as well empower women, since they are facing challenges to access loans or any credit facilities. She said that,

Respondent 17: 'the women led money saving and lending group has changed my life completely. Respondent 23 and I work together in this group and I was able to boost my buying and selling business, which has improved the living standards of my family.'

Money saving scheme just needs people who are faithful, active and hardworking so as to benefit from it. If one fails to be like that, and uses the money for food consumption, definitely it will become so painful to pay back the money without something tangible brought about by money from the scheme.

So if this scheme is well understood by both men and women, they can get an extra income to sustain their families and it can enhance livelihoods in that, some tobacco sales will be used to fund their farming, and these stokvels will fund their off farm activities, hence poverty alleviation.

3.4 Human rights watch.

Tobacco farming is labor intensive, hence the need for serious monitoring of working conditions, age of workers and all human rights upholding. Shortage of skilled and a good number of labor is highlighted as a challenge that is being faced by smallholders from Mvurwi, Tarastore Area. The police investigations and labor monitoring officers may be engaged in dealing with the child labor problem in Tarastore, and the Labor Inspectors may visit the farms to see if the working conditions of farm workers are favorable. This strategy will enhance tobacco farming as a livelihood strategy in that, it will boost the morale of workers. If the workers are comfortable, then it is believed that they will be more productive. Adding on, if child labor is eliminated, it will ensure that the future of the coming generation will be secured with healthy and educated beings.

3.5 Insurance

Agriculture is a risky enterprise due to its cyclical nature. Risks of loss come from natural disasters, pest outbreaks, veld fires, climate change (hail storms, wind, dry spells), or even the barn may catch up a fire. These risks are not put in considerate and as a result it becomes imperative for the farmers to purchase insurance in order to prevent total loss of farm property, yields or revenue through a fall in agricultural prices or other disasters. Many farmers in

Zimbabwe, and especially Mvurwi Tarastore Area small holder farmers, see insurance as an unnecessary expense more than investment to curtail future risks especially given that they are smallholder farmers. Insurance a strategy to enhance tobacco farming as a livelihood strategy will ensure that smallholder farmers do not suffer total losses. It will also reduce the cases who commit suicide due to tobacco losses or any tobacco related issues like debt.

3.6 Mechanization

Mechanization has the potential to expand production, improve timelessness of operations; widen the application of power to crop processing irrigation and infrastructure improvement; compensate for labor shortages and alleviate drudgery (Adekunle 2015). This induced technological change in terms of irrigation schemes, use of tractors for tilling will save labor costs, and challenges like child labor, and reduce gender inequalities in terms of gender relations. The government of Zimbabwe can continue investing in this mechanization so as to improve the agricultural sector for instance the current program of giving a tractor to a community, and the irrigation schemes. these may help small scale farmers to come up with better yields too. Tobacco farming as a livelihood strategy, if mechanization is introduced in Mvurwi Tarastore Area will make a good livelihood strategy worth depending on for the population.

3.7 Conclusion

Throughout this chapter, it is clear that, at the end of it all, the strategies brought about, lead to sustainable livelihoods and development. A livelihood is sustainable when it can cope with and recover from stresses and shocks and maintain or enhances its capabilities and assets both now and in the future, while not undermining the natural resource base (Carney 1999). Sustainable development is the development that benefits the current generation using natural resources and not depleting them so that the future generations will use it. The question regarding the sustainability of tobacco farming still remains. Lack of fuel to use as energy, land degradation

problems, lack of capital and labor may only enhance tobacco farming as a livelihood strategy if there is afforestation, human rights watch, insurance facilities, mechanization, investing in off farm activities, and grain farming so that tobacco farming becomes sustainable.

CONCLUSION AND RECOMMENDATIONS

Smallholder tobacco farming has been adopted as a livelihood strategy by Mvurwi Tarastore Area farmers. From the study, negative socio-economic impacts of smallholder tobacco farming which are, low education, gender and labor, food insecurity, ill-health and child labor outweighed the positive socio-economic impacts of tobacco farming which are infrastructure development, asset accumulation and employment creation. These socio-economic impacts were discovered because tobacco farming has many limitations which include deforestation, capital and labor intensiveness, climate change and environmental degradation. To solve those limitations, farmers can/ have adopted some strategies which are afforestation and reforestation, engaging in grain farming, and money saving schemes. Some strategies like insurance facilities, human rights watch and mechanization may also be adopted to enhance tobacco farming as a livelihood strategy in Mvurwi Tarastore Area.

Recommendations

Adopting tobacco farming as a livelihood strategy has become more of an expense to Mvurwi Tarastore farmers than what they have benefited and it has threatened their livelihoods in that that, it has led to food insecurity loopholes, it has affected education of children, and it has threatened health of both smallholder farmers, families and workers. Therefore, due to these negative impacts, the researcher recommends the smallholder farmers to take serious considerations of the challenges that they are likely to face before engaging in tobacco farming.

Land degradation and climate change have been exacerbated by deforestation. Thus the researcher recommends that Mvurwi Tarastore Area smallholder tobacco farmers engage themselves and continue to plant gum trees so as to make their tobacco farming sustainable.

Off-farm activities like trading, money lending schemes, vending and money saving schemes may help in dealing with capital issues. Therefore, the researcher recommends smallholder

tobacco farmers of Mvurwi Tarastore area to strengthen their social relations and make sure that they remain united and tolerate each other for development to take place and reduce conflicts that may hinder implementations of certain projects. If these strategies are adopted diligently, it will ensure sustainable development.

Stakeholders in the agricultural sector such as government, tobacco contacting companies and EMA should come up with a conducive policy in environmental protection for all tobacco farmers. Wu (2006) supported the above assertion by stating that, ‘economic distortions and contract imperfections call for government intervention so as to improve the performance of the markets and operations in different economic sectors. Tobacco farming should not be regarded as a panacea for poverty alleviation and economic growth. Insurance companies may also help smallholder farmers not to suffer from the losses for instance caused by climate changes, and veld fires and barns which may catch fire.

Non-Governmental Organizations, the police department and Labor inspection and health department, should work hand in hand to end child labor, labor rights violations and environmental protection. The health services department may help in educating the smallholder tobacco farmers and workers on proper care and use of tobacco pesticides, and even disposal of empty containers and tobacco wastes. Institutions of higher learning and the Agricultural Research Department may invest in research ways to improve tobacco farming so as to impart positively on the livelihoods of the people and also for environmental protection to ensure sustainable development. These research ways include finding mechanisms to use tobacco stalks and waste tobacco leaves to produce a fuel for tobacco curing or anything useful. By so doing, tobacco farming will become sustainable and worth engaging in when everything has been dealt with correctly.

Appendices

My name is Nyasha Bulasho, a student from Midlands State University. Am pursuing a

Bachelor of Arts in Development Studies Honours Degree. I am undertaking a research on the **socio-economic impacts of smallholder tobacco farming, a case of Mvurwi Tarastore Area**. It is a requirement and an obligation of every Bachelor of Arts student in Development Studies to carry out a research on any area of interest.

The information collected in this research will only be used for academic purposes **only** and will remain private and confidential.

Appendix 1: Interviews

Section A: Interview questions for smallholder tobacco farmers

1. When did you start practicing tobacco farming?
2. Was tobacco the first crop to be grown by the farmer?
3. If tobacco was the first crop, then what were the reasons to engage in tobacco farming/
If not, then what caused the shift to tobacco farming?
4. What is the source of labor, energy, and funding?
5. What are the advantages or benefits that you have enjoyed so far, necessitated by tobacco farming?
6. State any improvements / changes in lifestyle or otherwise (type of house, education level, assets accumulated)
7. What are the challenges that you have encountered or challenges that were brought forth through tobacco farming?
8. How did you deal with the challenges that you faced?
9. Do you see yourself continuing or discontinuing from tobacco farming?
10. What do you think needs to be done so as to improve smallholder tobacco farming as a livelihood strategy?
11. How do you think the government and other organizations like NGOs can help?

Section B: Interview questions for small-scale tobacco farm workers.

1. How old are you and how long have you been a tobacco farm worker?
2. What is the level of education that you attained, and the reasons behind?
3. What are the challenges that you have been facing as a worker?
4. How best do you think these challenges may be solved?
5. Do you know GTS/ or have you come across this term?

Section C: Interview questions for Organizations (Council, EMA, Tobacco contracting companies)

1. What are the shortcomings of the policy towards smallholder tobacco farmers?
2. What are the likely changes in terms of policies and how will Mvurwi Tarastore Area smallholder tobacco farmers be affected by those changes?
3. What are the effects of tobacco farming on the environment and livelihoods?
4. What strategies can be implemented to make tobacco farming sustainable

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