BINDURA UNIVERSITY OF SCIENCE EDUCATION

NATURAL RESOURCES DEPARTMENT

AN EVALUATION OF THE EFFECTIVENESS OF S.I 116 OF 2012 ON DIFFERENT TOBACCO FARM SETUP. A CASE STUDY OF WARD 9 AND 10 OF MAVHURADONHA WILDERNESS AREA.

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DECLARATION

The undersigned certify that they have read this research project and have approved submission for marking in relation to the department's guidelines and regulations.

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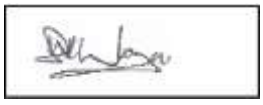
Signature:  Date :27/ 09/ 2024

DEDICATION

This project is dedicated to my parents for their kindness and devotion, and for their endless support through difficult times, their selflessness will always be remembered .God bless you.

ACKNOWLEDGEMENTS

I would like to express my special thanks to my supervisor Dr Gotosa as well as our Department(Department of Environmental Sciences) for giving me a golden opportunity to do this wonderful project on , evaluation of the effectiveness of S.I 116 of 2012 in different farm topology of tobacco. A case of ward 9 and 10 of Mavhuradonha Wilderness area , .This helped me in doing the research and I came to know so many things, I am really thankful .Lastly I would like to thank my parents and friends who helped me a lot in finalizing this project within the limited time frame

ABSTRACT

The study sought to evaluate the effectiveness of the statutory instrument 116 of 2012(Control of Firewood, Timber and Forest Produce) Forest Regulations on different tobacco farm setup. The main aim of the study was to assess the tobacco farmers compliance, perceptions, knowledge and attitude to the statutory instrument 116 of 2012. This statutory instrument requests all tobacco farmers to grow trees for tobacco curing and it tells when flue- or flame-cured tobacco farmers are required to be licensed. The study utilized questionnaires and interviews to gather information from ward 9 and 10 of Mavhuradonha Wilderness Area. The data were then analysed using SPSS 22. The results of the analysis showed that about 30 percent of the tobacco farmers were complying with the statutory instrument. About 30 percent were able to grow trees according to the requirements of the statutory instrument. Most of the farmers do not even know where the licences to use firewood for flue- or flame- curing tobacco are obtained hence there is confusion between a licence from the Forestry Commission and a permit from the Environmental Management Agency. There is need for awareness to the farmers so that they are able to differentiate the roles of Environmental Management Agency (EMA) and Forestry Commission.

Key words: Compliance, perceptions, statutory instrument, tobacco, woodlot and licensing.

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CHAPTER 1

INTRODUCTION

1.0 BACKGROUND TO THE STUDY

To stop the poaching of firewood, forest products, and lumber as well as deforestation in Zimbabwe, the Statutory Instrument 116 of 2012 was enacted. According to recent data from the Forestry Commission, Zimbabwe is reported to have lost 15% of its forested areas in the last 15 years as a result of deforestation. Experts warn that at the present pace of loss, the country runs the risk of becoming a desert in just 35 years. According to an article by (Mambo 2014), small-scale tobacco producers in Mashonaland Central have cleared a significant number of trees. According to his piece, the extensive tree-chopping by small-scale tobacco farmers who use firewood to cure their tobacco has left sections of forests barren and in danger of being denuded, shocking any remotely environmentally sensitive individual.

More than 2000 tobacco growers are presently operating in Zimbabwe, according to the Tobacco Industry Marketing Board, which environmentalists blame for the country's impending desertification. Stabilize Mlotshwa, an ecologist from the Save the Environment Association, an environmental lobby group, says that Zimbabwe will lose its forests due to the large-scale use of firewood used to cure tobacco and even increased domestic firewood use in rural and urban areas. "One has to imagine how the country would look like after the demise of the forests," she says. Since 2004, fast-growing tree woodlots have been encouraged to be established by tobacco growers as a means of reducing these issues. Then, S.I. 116 of2012, which mandates that each tobacco farmer develop 0.3 ha of fast-growing land for every hectare of tobacco farmed, made it a legal necessity. For every hectare of tobacco farmed, the woodlot must be planted over a period of five to seven consecutive years at a minimum rate of 0.3ha (550 to 850 trees at a spacing of 2m × 2m).

Additionally, the S.I. 116 of 2012 encourages a farmer of flue- or flame-cured tobacco to apply for a flue- or flame curing firewood licence if he or she does not grow a tobacco farm woodlot, does not use a common tobacco farm woodlot maintained in accordance with these

specifications, or does not exclusively use coal or fuel other than firewood to flue- or flame-cure his or her tobacco. This will assist in preventing pointless tree-cutting.

1.2 STATEMENT OF THE PROBLEM.

Observations have showed that deforestation is happening as a result of small-scale farmers chopping down trees. This is being done without enough purposeful or natural regeneration to replenish the devastated forests and woodlands that already exist. Fears have been raised about wide spread habitat destruction, biodiversity loss, and aridity, all of which have a severe effect on the bio-sequestration (the absorption and storage of atmospheric carbon dioxide). As a result, farmers are not adhering to S.I. 116 of 2012. A few trees in Mavhuradonha Wilderness Area Wards 9 and 10 demonstrate this.

1.3. OBJECTIVES OF THE STUDY

1.3.1 Aim of the study

The aim of the study was to evaluate the compliance of tobacco farmers knowledge and attitudes towards the S.I 116 of 2012

1.3.2. Objectives

- To determine compliance in terms of securing licensing to use firewood for flue- or flame- curing.
- To determine compliance in woodlot establishment and management.
- To determine the extent of harvesting compliance

1.4. Research Questions

1. Are the farmers complying in terms of securing licensing for flue or flame tobacco curing?
2. Are the farmers complying in woodlot establishment and management?
3. Are the farmers complying in terms of harvesting?

1.5 JUSTIFICATION

By evaluating how this regulatory instrument is being used, it will be possible to identify the challenges that the institution in charge of its operation is encountering while putting this statutory instrument into practice. In order for this regulatory tool to function, it would also be helpful to evaluate the awareness campaigns that the government and stakeholders have implemented. Both the student and the villages where the research will be conducted will benefit from it. The study will assist farmers in protecting significant native tree species that may be useful now or in the future.

Many tobacco growers have been observed to remove a lot of trees for tobacco curing without replacing them. As a result, this initiative will provide the tobacco farmers with a forum to talk about the reasons they aren't growing new plants to replace the ones they've already cut down. The difficulties they have creating woodlots for the curing of tobacco, as indicated in S.I. 116 of 2012, will also be helpful to them. The rate of deforestation will be slowed down by planting trees as directed by S.I. 116 of 2012. Degradation is largely caused by deforestation. It strips the earth bare, exposing it to many types of erosion. The country is losing 330 000 hectares annually, according to Zvobgo and Tsoka (2021). Furthermore, by following the legislative instrument, Wards 9 and 10 of the Mavhuradonha Wilderness area district will see a reduction in soil erosion.

Farmers of tobacco can cure their product without a permit from the forest commission if they have a woodlot with fast-growing trees. Therefore, since they don't have to pay for the license to collect wood for curing their tobacco, it becomes simple and affordable for them. Fines for harming the forest won't be paid by them. This study will thus aid them in understanding and averting these effects. To assist the tobacco farmers in Wards 9 and 10 of the Mavhuradonha Wilderness region District in collaborating with the forest commission to address issues caused by deforestation brought on by tobacco curing.

CHAPTER 2

LITERATURE REVIEW

2.1 THE STATUTORY INSTRUMENT 116 OF 2012 FOREST (CONTROL OF FIREWOOD, TIMBER AND FOREST PRODUCE) REGULATIONS 2012

According to the Forestry Commission, one of the major causes of deforestation has been the clearing of land for agriculture (2011). According to statistics from the Forestry Commission (2011), the nation loses 330 000 hectares of woods per year to deforestation and clearing land for cultivation. While Statutory Instrument 116 of 2012, which governs forests, specifically controls firewood, timber, and forest produce by attempting to influence the movement and trade in both wood and timber in Zimbabwe, it is insufficient due to the full range and scale of various agricultural activities, particularly land clearing for tobacco farming purposes and the harvesting of poles and sticks for constructing tobacco barns and curing purposes.

According to Statutory Instrument 116 of 2012, tobacco producers must cultivate fast-growing tree woodlots, such eucalyptus, in place of using native trees for curing purposes. The legislative document also calls for a license and movement permit, which are given after consultation with the districts where the tree is grown and ultimately utilized. These licenses are valid for a year and do not extend beyond the initial countries in which they were issued. They are restricted. The Forest (Control of Firewood, Timber and Forest Produce) Rules, 2012, also known as S.I. 116 of 2012, are regulations. On July 2, 2012, these restrictions went into effect, although it wasn't until 2016 that they were widely used. In these rules, "licensing officer" refers to the individual who has been designated by a local authority pursuant to section 5(2) of the legislative instrument and who is in charge of issuing licenses to firewood and timber dealers. The terms "bulk timber" and "common tobacco farm woodlot" refer to consignments of wood larger than 0.5 cubic meters and tobacco farms administered in line with section 12, respectively.

A flue- or flame-cured tobacco farmer is required to apply for a flue- or flame-curing firewood license under section 12 of the S.I. 116 of 2012. If the person does not utilize a common tobacco farm woodlot maintained in accordance with the requirements in the same section, does not grow a tobacco farm woodlot, or does not purchase firewood from a certified firewood trader for the purpose of flue- or flame-curing tobacco. If the farmer does

not primarily flue- or flame-cure his or her tobacco using coal or fuel other than firewood, he or she needs to additionally get a license (Statutory Instrument 116 of 2012). If he or she develops a tobacco farm woodlot that complies with the following requirements, the flue- or flame-cured tobacco farmer mentioned in paragraph (1) of the legislative instrument is not necessary to get a flue- or flame-cured tobacco licence. The woodlot must be planted over a period of five to seven consecutive years at a minimum rate of 0.3ha (550 to 850 trees at a spacing of 2m x 2m) for every one ha of tobacco grown. The woodlot must also consist of a plantation of fast-growing trees, which are trees whose wood can be sustainably harvested for firewood in five to ten years from the date of establishment of the woodlot; and the woodlot is either being harvested or not less than five years of age and in course for harvesting within the next two years (Statutory Instrument 116, 2012)

However, the consequences for failing to abide by the requirements set forth in the legislative document are not, however, indicated. This makes it challenging for the organization in charge of enforcing the laws to operate. Their issuance does not affect the issuing authority's ability to deny such disposal and does not waive the obligation to inform that authority of any intention to dispose of indigenous timber.

2.2 COMPLIANCE OF TOBACCO FARMERS TO S.I 116 OF 2012

Zimbabwe has engaged in extensive nationwide tree planting over the past three decades through the Environmental Management Agency and the Forestry Commission. Since 2005, there has been an average of 8.1 million trees planted, with a 65 to 70 percent survival rate (Forestry Commission, 2011). Only a small number of farmers are participating in these programs, despite the Forestry Commission and the Environmental Management Agency's attempts to plant many trees. The widespread tree-cutting by small-scale tobacco farmers who use firewood to cure their tobacco has left huge areas of woods in Mashonaland Central region barren and in danger of being depleted (Mambo 2014). This demonstrates that the majority of tobacco producers are not abiding by this regulatory provision. This is true since disobeying the legislative document carries no punishment. As a result, the farmers are in violation of the law.

In addition to landowners, organizations in charge of tobacco production also participate in compliance with the statutory document. The Sustainable Forestation Association and the Tobacco Research Board are collaborating closely on the seedling initiative, according to

Mwanawashe (2014). With the help of the Tobacco Industry and Marketing Board, the tobacco merchants in Zimbabwe founded the Sustainable Forestation Association. The group was formed in response to the rising need for a green economy that complies with the nation's legal framework for responsible stewardship of the environment and natural resources.

2.3 CONSTRAINTS TO S.I 116 OF 2012

The majority of tobacco producers are having a lot of issues complying with S.I. 116 of 2012. The lack of inputs, such as tree seedlings, is one of these issues. Some farmers do not have access to the tree seeds that should be planted for tobacco curing, which are sold by the Forestry Commission. The majority of farmers believe they are expensive for them even though they are quite affordable, thus they are unable to purchase from them. Inputs were found to be the key problem with the most frequency, according to a study by Madzianike (2015), because they were often mentioned by the population who were questioned. Nevertheless, on behalf of the farmers, the Forestry Commission and the Tobacco Research Board planted trees. On behalf of the farmers, the tobacco board pledged to plant 6 million trees by 2015 (Nyambara & Nyandoro, 2019). In around five years, most of the trees used for tobacco curing will be harvested. Due to the lack of alternatives for curing their tobacco, growers are forced to continue cutting down trees. One of the tobacco farmers IRIN spoke with acknowledged that while they are aware that they should cultivate trees or acquire a license for tobacco curing, doing so takes a lot of time and they still desire to grow tobacco since it would provide them with the income necessary to survive (IRIN 2014).

Despite government-initiated re-greening initiatives starting more than a century ago, deforestation rates continue to increase and indeed the gap between domestic supply of forest products is widening. Lack of management plans, low community engagement, and poorly defined restoration targets are problems with governmental and NGO-led re-greening practices. Other difficulties encountered include unclear roles, benefit-sharing agreements, and subpar forestry techniques. Programs for planting trees, particularly in the public sector, confront several difficulties and have been losing ground. This loss has occurred over the past two decades as a result of the public forest service’s becoming less important in the face of economic reforms like structural adjustment programs and dwindling interest in sponsoring forestry operations from development partners.

In addition, the woodlots and plantations face a number of difficulties that restrict their ability to offer goods and services. Low woodlot management practices, a lack of value addition, a lack of market intelligence, and poor germplasm quality are a few of them. Due to bad site/species, insufficient silviculture, and low growth, cleanliness, and volume yields, certain plantations have negative economic, environmental, social, or cultural effects. Conflicts may result from economic gains, alterations in the status of the soil and water, and the expropriation of traditional territories. Prudent planning, management, utilisation, and market can minimize these negative effects.

2.4 TOBACCO FARMER'S PERCEPTIONS TOWARDS THE S.I 116 OF 2012

To cut or trade firewood or trade firewood, tobacco producers must have a license. The Forestry Commission charges tobacco producers $25 yearly for a permit to harvest firewood. The seedlings are then planted in the cleared areas using this money. The farmers, however, have refused to pay the price and believe that a persistent push to inform farmers is necessary. This opposition demonstrates the farmers' dissatisfaction with the statutory instrument rules. The majority of tobacco farmers are aware that they must grow trees, acquire trade permits, or cut down trees for tobacco curing. Some of them made the commitment to grow trees for the curing of tobacco.

CHAPTER 3

METHODOLOGY

3.1 RESEARCH DESIGN

The researcher made use of the descriptive survey design in the investigation. The design made an effort to visualize and record the circumstances or mindsets that best characterized the current situation. The research assessed the degree to which the S.I. 116 of 2012 may be implemented and operate since it is used to ascertain the opinions of a certain demographic. With the use of this surveying technique, questionnaires could be used to collect data from respondents who made up a sample of the population. In order to match what the farmers were stating with the actual situation, observations were made. The sample size was obtained using a 10 percent sampling from each residential area. In order to execute the S.I. 116 of 2012, information from interested organizations, such as the forestry commission, was also obtained through interviews, and their opinions were also incorporated.

3.2 SAMPLING PROCEDURE

Systematic sampling was adopted to guarantee equitable involvement from the community and conservationists. Large-scale farmers and small-scale farmers made up the communities in Mavhuradonha Wilderness Area wards 1 and 2. The Muzarabani Rural District Council provided lists of the households. The responder was the head of the home without regard of gender. The informants who represented their respective organizations were heads of institutions. Ward councillors and other important informants participated in this study in their official capacities.

3.3 RESEARCH INSTRUMENT

The researcher used qualitative research methods. Qualitative research methods refer to techniques used to understand and explain social phenomena through exploring non-numerical data such as words, images and behaviors (Creswell, 2014) They generate descriptive data through open-ended questions, observations and document review to understand processes (Creswell, 2014). The research required an empirical and authentic evidence for it to be fair and just. Research instruments used to allow logical and sequential flow of information are mentioned below, field observation, questionnaires, interviews, questionnaire and consultations.

3.4 TARGET POPULATION

The study targeted at smallholder tobacco farmers' households in the ward, totalling 540 people organized into 6 villages. Three tobacco growing villages were selected for the survey and from each of these villages, 30 households were selected for interview making a total of 90 households. Systematic random sampling techniques were used to select participants for the study. The sample size was small enough to be manageable and to draw reasonable inferences about the population.

3.6 DATA COLLECTION METHODS

3.6.1 FIELD OBSERVATION

Observation is the process of collecting primary data by the investigator independently observing pertinent individuals, behaviours, and circumstances. It enhances the utilization of additional data collecting techniques. The main benefit of observation is that it provides vital information directly rather than through third-party reporting. Information that people are typically unable or unwilling to disclose can be learned via observation. To gather accurate and pertinent data on the ground, field observations were made. The main way of gathering data was field observation, which resulted in descriptive information.

3.6.2 INTERVIEWS

An interview is conversation between the interviewer and the interviewee with a specified purpose. Interviews were utilized to get information from the chosen residents and the government agency in charge of carrying out and adhering to S.I. 116 of 2012. Information from the respondents who represented the institutions engaged in the regulation's compliance was gathered through an interview using a questionnaire. A researcher can obtain both factual information and personal perspectives through interviews.

3.6.3 QUESTIONNAIRES

Questionnaires were administered to 90 smallholder tobacco farmers. Semi- structured questionnaire with a mixture of both closed and open ended questions was distributed to assess the compliance of tobacco farmers to S116 of 2021. In semi-structured interviews, a set of open-ended questions is used in advance, but the interviewer is also free to explore unexpected topics or replies (Miles et al., 1994). The 90 houses were chosen using systematic random selection, and the residents were then given questionnaires to complete. 17 percent of

the people in the wards were sampled for the surveys. The first house was randomly chosen as part of the systematic random sampling procedure, which continued with the selection of every tenth house until all the sample households had been chosen. Regardless of gender, the inquiry was directed at household heads. People of one or more families that shares a home, food, wealth, labor, farming, and decision-making are referred to as a household by Rocheleau et al. (1988).

3.6.4KEY INFORMANT INTERVIEWS

Key informant interviews were held with the two Ward councillors in the area, three village headmen and two forest officials from the Forestry Commission. Key informant interviews provide a greater flexibility of in-depth information that provides good quality assessments. Personal interviews were done with key informants to assess and diagnose the challenges experienced by smallholder tobacco farmers in compliance to SI116 of 2012 as well as to explore possible solutions. Purposive sampling technique was used in identifying these key inform

3.7 DATA ANALYSIS PROCEDURES

Data generated through qualitative techniques: that is interviews and observations was categorized and analysed by themes. Since the data collected was qualitative in nature, content analysis was used. In qualitative research, data analysis entails disassembling the data and looking for codes and categories that are then put back together to produce themes. Leedy and Ormrod (2010) define content analysis as a thorough and methodical review of the contents of a specific body of information with the goal of discovering trends, themes, or biases. A declaration of importance was returned, however data related to a certain subject will be synthesized. Microsoft Excel and the Statistical Package for social Scientist (SPSS) were used to code and analyze the questionnaire responses. On the data entered into SPSS, frequency range and cross tabs will be run. Data was gathered in tables and graphs, which were combined on the spot and used for analysis.

CHAPTER 4

4.1 COMPLIANCE OF TOBACCO FARMERS TO NUMBER OF TREES PLANTED

Fig 4.1 shows the percentage of farmers who are planting trees according to the S.I 116 of 2012. Those farmers who are in the range of 550-850 trees or more are 56 percent. These farmers are complying with the statutory instrument.

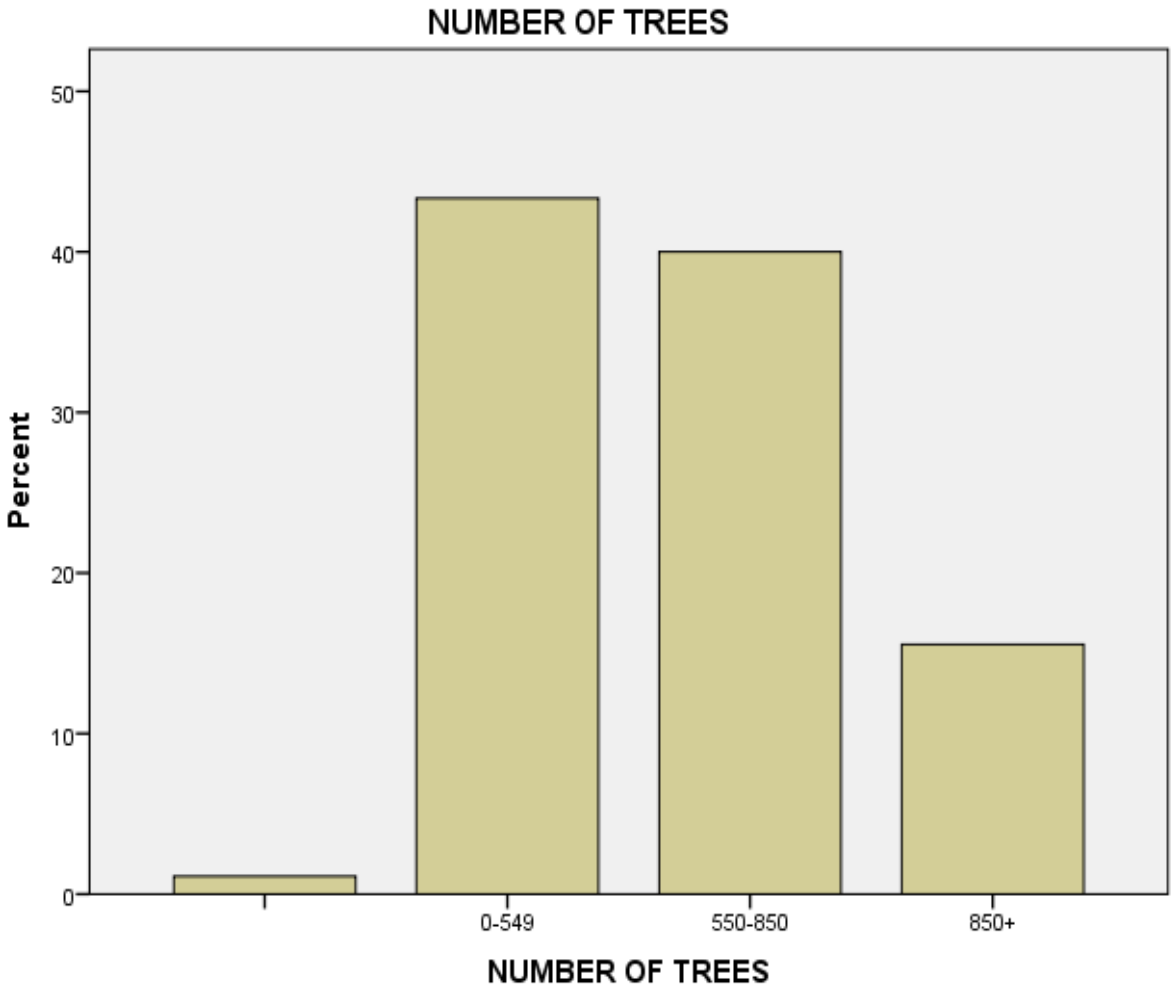

Figure 4.1: The farmers who are planting fast growing trees and number of trees planted

4.2 COMPLIANCE OF TOBACCO FARMERS TO WOODLOT ESTABLISHMENT

Figure 4.2 shows the percentage of farmers who established woodlots on their farms according to the S.I 116 of 2012.Farmers having 0.3 hectares of land or more are 81 percent. These farmers are complying with the statutory instrument.

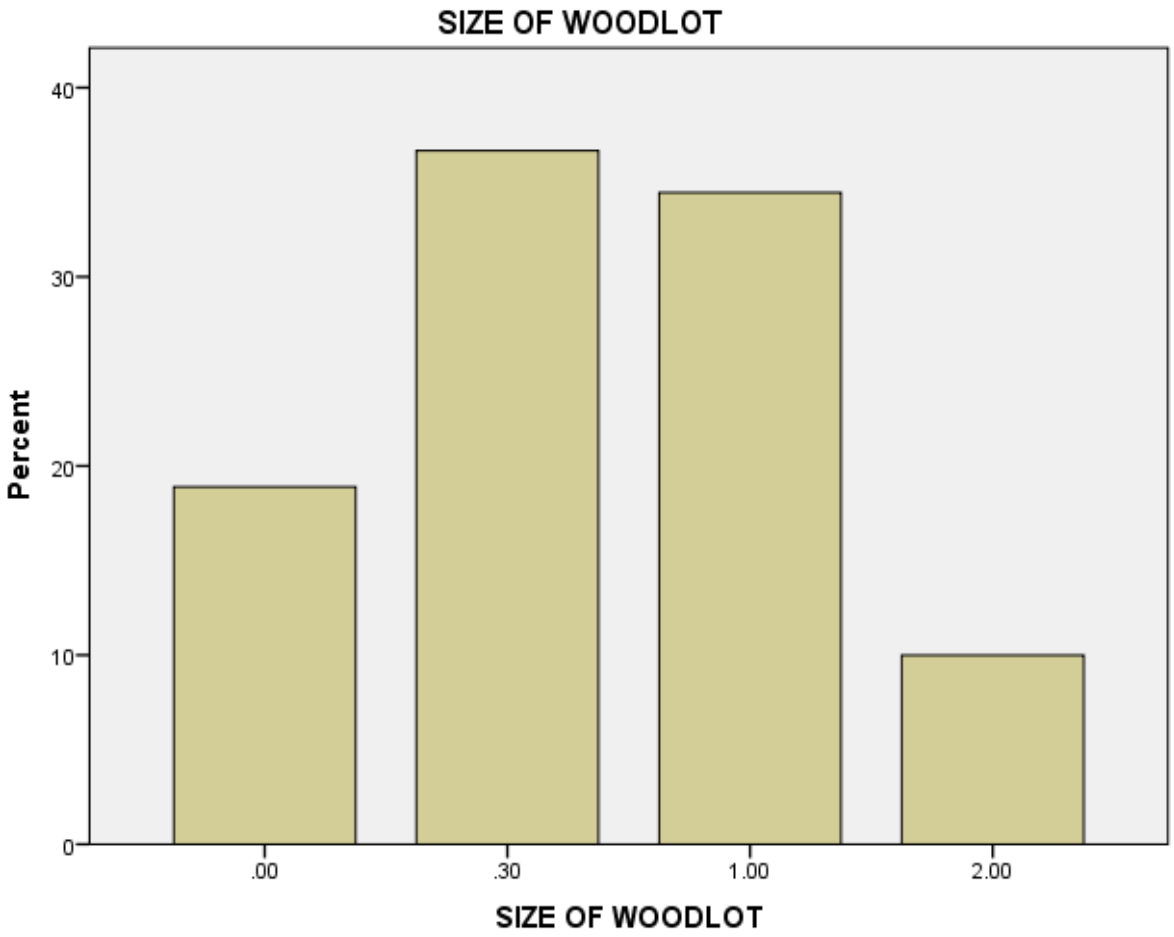

Figure 4.1: The farmers who are planting fast growing trees and size of the woodlot.

4.3 COMPLIANCE OF TOBACCO FARMERS ON HOW TO APPLY THE LICENCE FOR FLUE-FLAME TOBACCO CURING

Figure 4.3 shows that about 25 percent of the farmers know how to apply for the licence by filling the application form first. About 50 percent of the farmers they do not have an idea on how to apply the licence. Those who wrote get the application first and those who wrote pay the fee first do not know how to apply for the licence. Therefore this shows that only 26 percent of the farmers are complying with the statutory instrument.

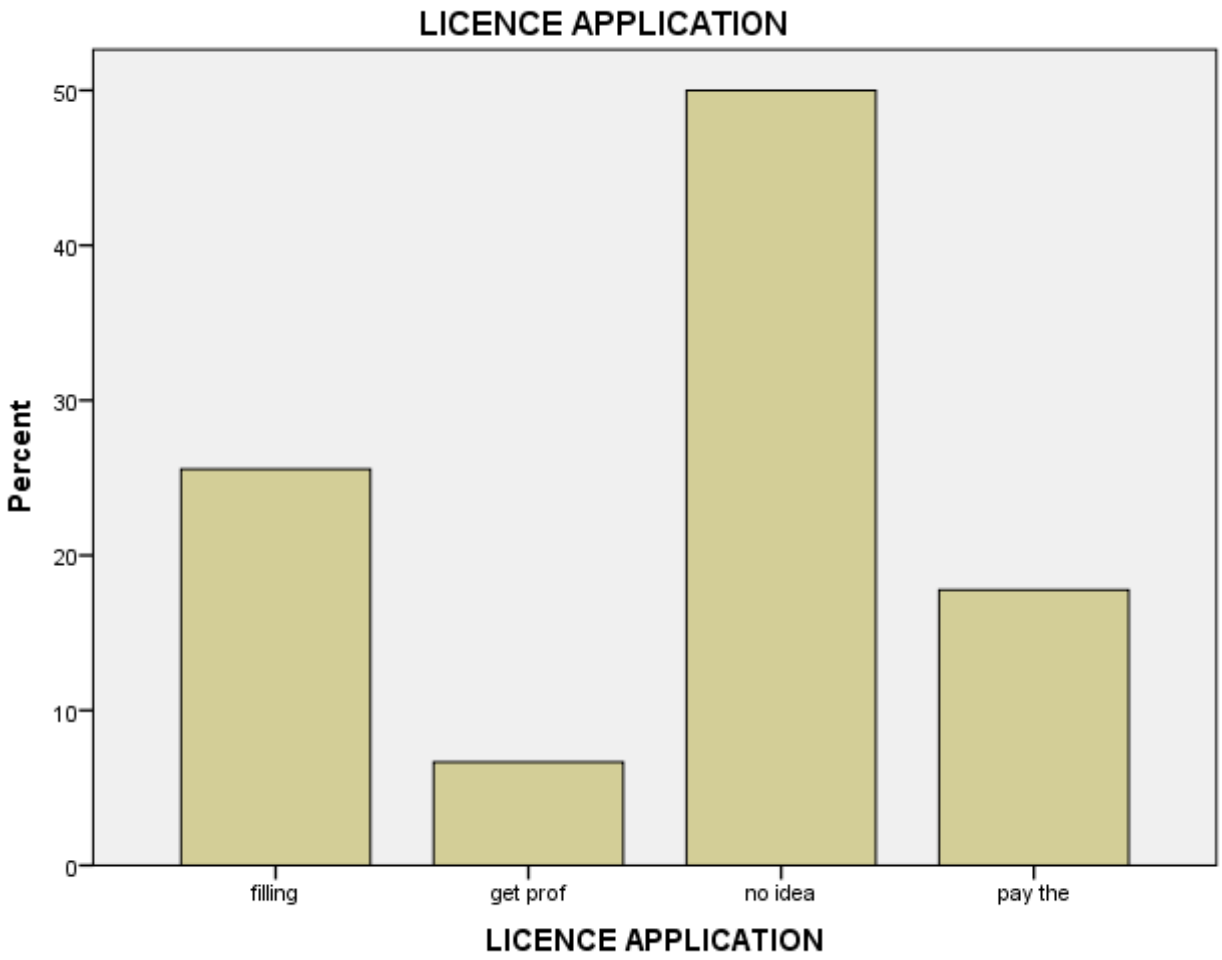

Figure 4.3 The farmers who are planting fast growing trees and size of the woodlot.

4.4 COMPLIANCE OF TOBACCO FARMERS ON WHERE TO APPLY THE LICENCE FOR FLUE-FLAME TOBACCO CURING

Most of the tobacco farmers could not differentiate a permit and a licence. Hence most of them think that the S I 116 of 2012 is a responsibility of the Environmental Management Agency. Most of the farmers think that a licence is obtained from EMA. Therefore this has shown that many farmers have a negative attitude towards obtaining licence.

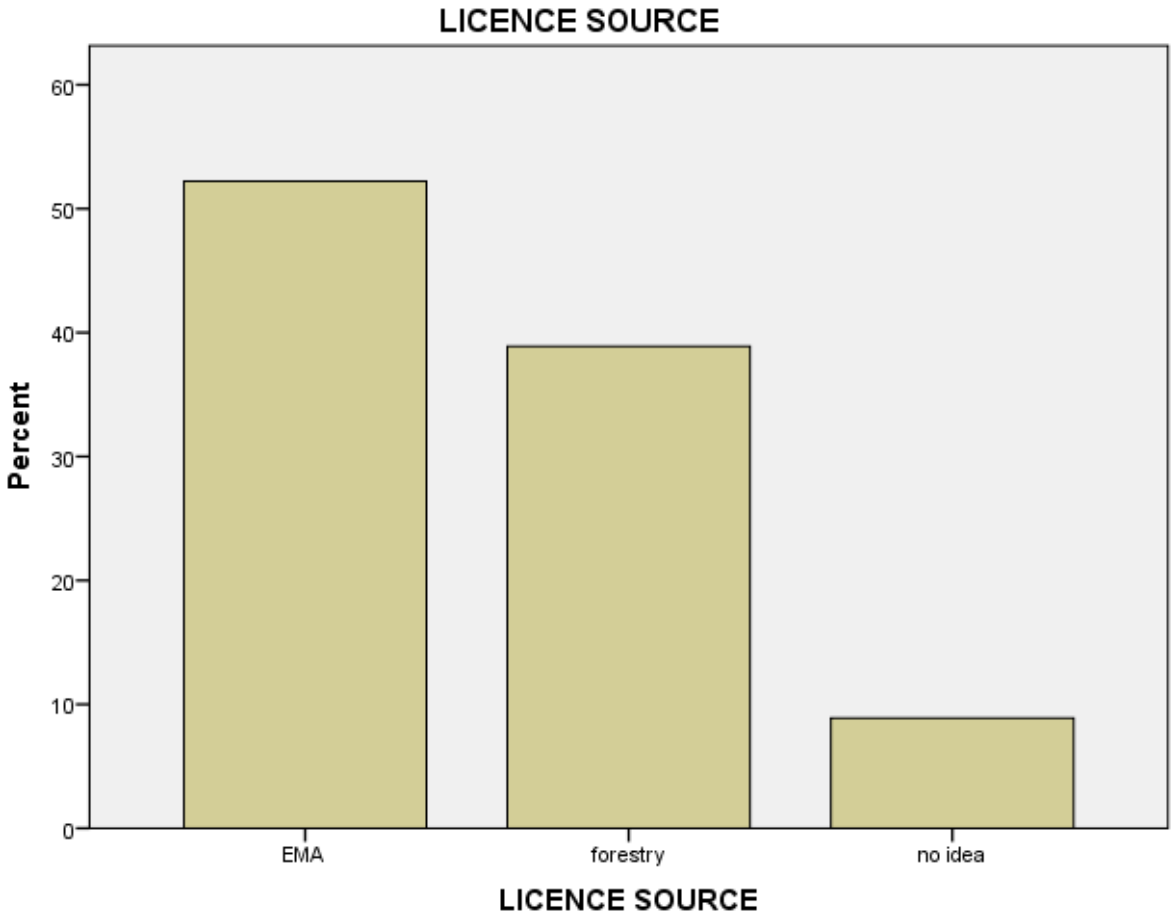

Figure 4.4 Origin of Licences (EMA stands for environmental management authority. Forestry stands for Forestry Commission

4.5 CHARACTERISTIC OF FARMERS RESPONSIBLE FOR COMPLYING WITH S.I 116 OF 2012

Large scale and small scale farmers are responsible for obtaining licences and growing tree woodlots for tobacco curing. From the study a large number (70 percent) of farmers indicated that everyone is responsible for obtaining a licence for cutting down trees and everyone is responsible for growing trees. Only a few (22 percent) asserted that large scale farmers only are responsible for obtaining licences and 3 percent had no idea. Only 5 percent were saying small scale farmers are responsible for adhering to the requirements of the S.I 116 of 2012.

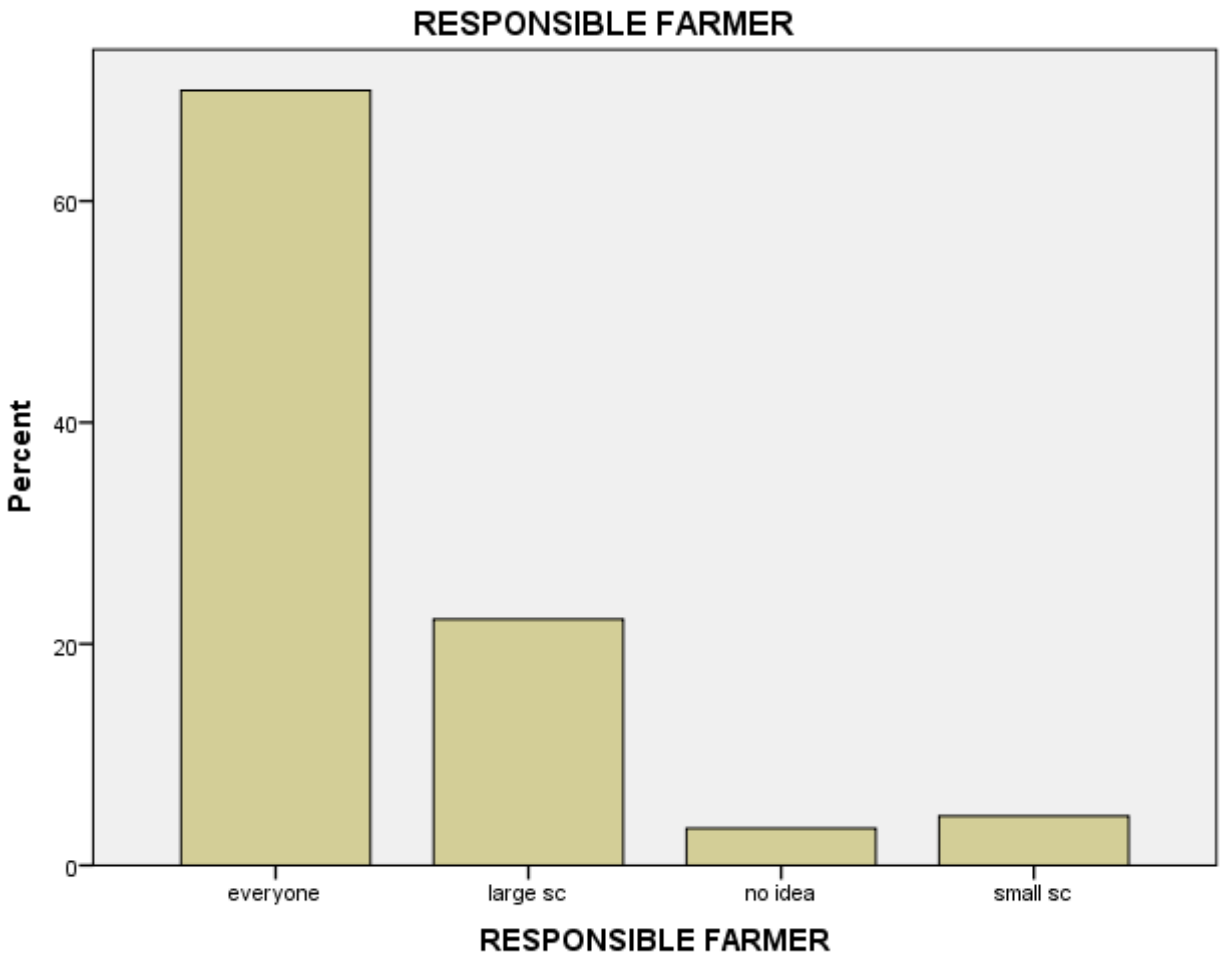

Figure 4.5: The characteristic of farmers complying with S.I 116 of 2012

4.6 CHALLENGES FACED BY TOBACCO FARMERS IN GROWING TREES

Lack of inputs (51%) was regarded as the key problem with the largest percentage since it was frequently mentioned by the people in establishing woodlots for tobacco farmers. Only 27% of farmers have inadequate land for developing woodlots. Rainfall (20%) and termites (2%), among other factors, are limiting farmers' ability to create woodlots.

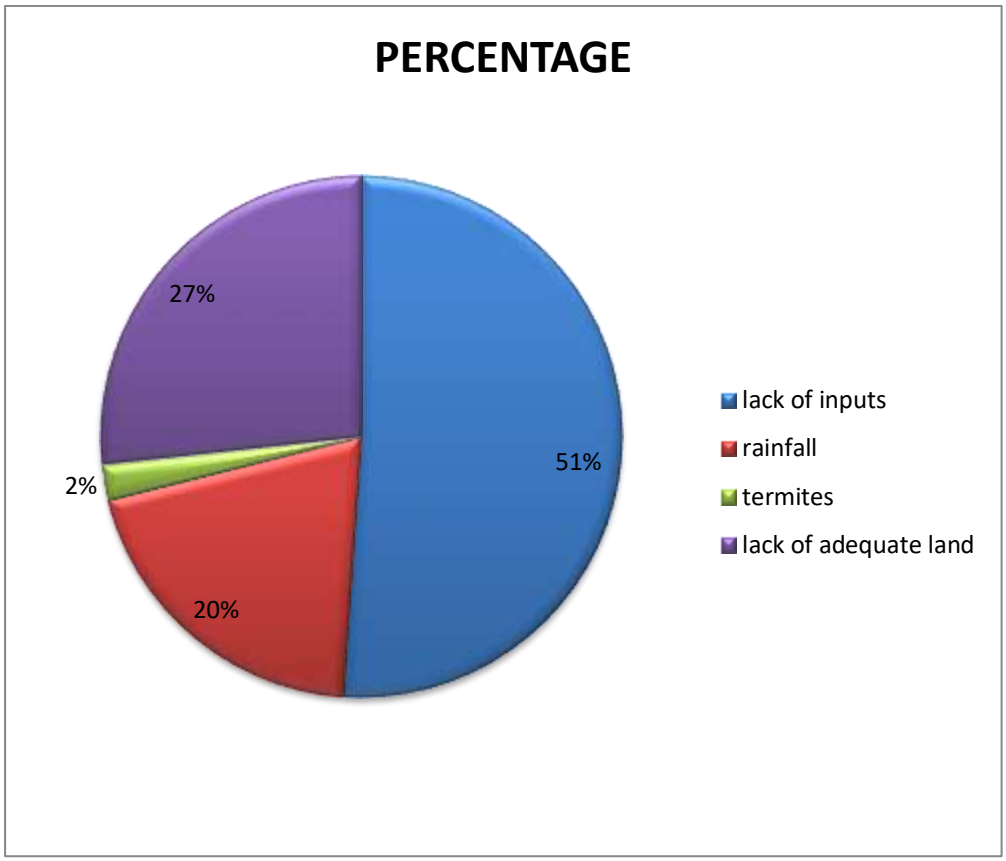

Figure 4.6 Constraints faced by the tobacco farmers in growing of trees

CHAPTER 5

DISCUSSION

5.1. FARMERS COMPLIANCE WITH THE S.I 116 OF 2012

The majority of tobacco farmers' over reliance on firewood for curing tobacco suggests that pressure on forests will continue until workable alternatives are made available. Only a few farmers are able to plant 0.3 hectares for every hectare of their tobacco, according to the field data. This demonstrates the necessity for farmers to receive training so they can understand and abide by the statutory instrument's obligations. Less than 40% of Mavhuradonha's tobacco farmers have submitted license applications. Since there is no penalty for failing to get a license, the majority of farmers do not apply for licenses from the Forestry Commission, making it challenging for the commission to adequately administer these requirements. Tobacco organizations including the Tobacco Research Board (TRB), IRIN, Tobacco Industry and Marketing Board (TIMB), and many others are working to assist farmers in obtaining a permit from the Forestry Commission to utilize firewood for flue- or flame curing of tobacco. Additionally, they are working on schemes to assist farmers in planting trees and buying firewood from authorized firewood dealers for the curing of tobacco. However, despite the fact that efforts are being made through programs like the Sustainable Forestation Association (SAA), they are not making a difference. Farmers continue to cut down trees without permits for flue or flame tobacco curing because they believe that as growing trees takes time, it will also take time for tobacco products.

5.2 FARMER'S PERCEPTIONS ABOUT THE S.I 116 OF 2012

Most farmers are willing to comply with the S.I. 116 of 2012's requirements, according to perceptions that are unfavorable to how EMA treats farmers who cut firewood. Although most farmers think it benefits the environment, it has an impact on their ability to produce. Detail-oriented work is required at every stage of tobacco cultivation, and the price of the harvest depends on how well it is cured. Despite being aware of the effects of uncontrolled tree cutting, most farmers are unable to stop it. As part of their attempts to limit environmental harm, the majority of them have set aside some space for wood lots and planted some eucalyptus trees. But it will take the trees around five years to be ready for harvest.

The Tobacco Levy Fund was reinstated by the government in the 2015 National Budget, requiring each tobacco company to contribute 1.5 percent of sales to reforestation efforts. The deductions were lowered to 0.75 percent of the sales revenues for the selling seasons of 2016 and 2017. The deductions are said to have been in place since 2015, but the Forestry Commission hasn't received any money from the fund. Finance and Economic Development announced that the deductions will end because the government intended to encourage more tobacco to be produced. The plan to tax the farmers has been viewed as counterproductive in efforts to encourage higher production of tobacco, which is the goal of the project. As a result, following the statutory instrument's requirements is simple.

5.3 CHARACTERISTICS OF THE FARMERS WITH RESPECT TO COMPLIANCE TO S.I 116 OF 2012

Every farmer feels that it's a responsibility for everyone to be complying with the statutory instrument from the results of the study. Also according to the S.I 116 of 2012 every farmer is subject to its requirements. Large scale tobacco farmers seem to be complying more in terms of growing trees and obtaining licences than the small holder tobacco farmers. This is so because large scale tobacco farmers have more land and their production can afford to pay for licences as compared to small scale tobacco farmers.

5.4. CONSTRAINTS FACED BY THE TOBACCO FARMERS IN COMPLYING WITH THE S.I 116 OF 2012

Interview with the tobacco farmers shows that they were facing diverse problems due to a number of constraints that were affecting the establishment and up-take of Eucalyptus woodlots in the region and obtaining licences from the Forestry Commission. The minority tobacco farmers were ready to comply with the legislative instrument's requirements, but because of elements in their socioeconomic and physical surroundings, they were not making the necessary efforts to make the rules successful. Lack of inputs (figure 4.6) was noted to be the main challenge that affects farmers in establishing Eucalyptus woodlots and obtaining licences from the Forestry Commission. Farmers of tobacco are less likely to adopt because of the resources required, the expense of planting woodlots, and the requirement to pay license fees. Farmers remarked that in order to obtain necessary inputs, they need support in the form of subsidies or lenient loans. This also supports a research from Bahia (Brazil) that found that farmers could not accept and sustain forestry schemes without

outside financial and technical assistance (McGintyetet.al., 2008). Farmers can get support from the local business community, the donor community, or the government with the help of local authorities and stakeholders, including chiefs and councillors.

Two additional obstacles that tobacco producers must overcome in order to create woodlots and secure licenses are Termites and rainfall patterns. Termites are destroying the farmers' efforts, and they are unable to stop them. Among the hazards highlighted by the Forestry Commission is the threat of termites. The majority of farmers who were experiencing these issues argued that if they received funding, they would be able to combat their issues and comply with the statutory instrument's criteria. As a result, their primary issue will continue to stem from a lack of resources.

CHAPTER 6

CONCLUSION AND RECOMMENDATIONS

6.0. CONCLUSIONS

The study reviewed that only a small percentage is complying with the requirements of the statutory instrument. Few farmers have obtained licences from the forestry commission at the same time they are producing fast growing trees required for tobacco curing. Some are just planting trees without applying for licences. Most of the tobacco farmers have a negative perception towards the adoption of the S.I 116 of 2012. It has been proven that the way EMA is fining people they have a negative attitude towards the implementation of the instrument. On the other hand Forestry Commission cannot fully implement the statutory instrument since it does not penalise anyone who is against the regulation. From the results of the study large scale commercial farmers are the ones complying most with the S.I 116 of 2012. Most of the farmers have problems that need to be solved in order to be able to comply with the statutory instrument.

6.2. RECOMMENDATIONS

- Training and awareness programs should be done to the Mavhuradonha area by Forestry Commission on the requirements of the S.I 116 of 2012. They should train the farmers on how they should apply for licences and they should also train them how they should protect and grow their woodlots
- The Forestry Commission should work with the agricultural extension services to set up farmer field schools in each village. This will allow lead farmers and extension officers to train their peers on woodlot establishment and management through practical sessions in demonstration woodlots. Various silvicultural techniques, tree species trials and woodlot protection methods can be exhibited and discussed. This hands-on learning approach is more effective than one-off awareness meetings.
- A scheme can be designed to reward farmers who are diligently maintaining their woodlots. Incentives such as priority access to seedlings and fertilizer, tools or certificates of recognition will motivate others to improve their practices. Compliant farmers can also serve as local resource persons for their communities. The scheme should have simple criteria that extension workers can verify through periodic woodlot assessments.

- There is need for Forestry Commission to adjust the S.I 116 0f 2012 so that it should have a penalty for those who are not complying with it.
- Recommend the agricultural extension with the help of Forestry Commission in the district to conduct farmer field schools with the smallholder tobacco farmers to address the lack of knowledge in silvicultural systems. This will enable the farmers to acquire a detailed understanding of the trade-offs between eucalyptus and their crops which will ultimately lead to the establishment of more Eucalyptus woodlots.
- NGOs such as the Tobacco Research Board and Tobacco Industry and Marketing Board and the government interventions in form of subsidies or loans should be given to the tobacco farmers in so that they can implement the reforestation initiatives and acquire their licences with fewer difficulties to ensure success. Local stakeholders including chiefs and councillors should assist farmers in sourcing support probably from the local business community, donor community or the government.
- Where land sizes are small, common woodlots managed by groups can be an alternative compliance model. Guidelines are needed on establishing such woodlots, benefit sharing arrangements and resolving conflicts if any. Local leadership must drive participation to ensure sustainability of the community woodlot approach.

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Appendix 1: QUESTIONNAIRE FOR TOBACCO FARMERS

My name is Musekiwa Rutendo a student from the Bindura University of science Education who is studying an Honors Degree in Environmental Science in Natural Resources Management. I am currently carrying out a research on the compliance of the S.I 116 of 2012. The S.I 116 of 2012 is one of the statutory instruments that have to do with the planting of woodlots for tobacco curing by tobacco farmers. I am appealing for your assistance in responding to my questionnaire. The information you will give me will be treated confidentially and will only be used for the purpose of this research only.

SECTION A: BIO - DATA

1. Age

   11-17yrs ☐ 18-40yrs ☐

   41-60yrs ☐ +60yrs ☐

2. Gender

   Female ☐ Male ☐

3. How long have you been growing tobacco?

0-5yrs ☐ 6-10yrs ☐

11-15yrs ☐ 16+yrs ☐

4. Source of Livelihood besides tobacco farming

Unemployed ☐

Self Employed ☐ Explain……

Employed ☐ Explain……

Any Other Means ☐ Explain……

5. Level of Education

Primary ☐ ZJC ☐

☐ ☐

‘O’ Level ‘A’ Level

Tertiary

Other specify …….

SECTION B: ATTITUDES AND PERCEPTIONS REGARDING THE WOODLOT ESTABLISHMENT AND MANAGEMENT.

1. What sources of energy do you use to flue- or flame- cures your tobacco?

   Firewood coal

   Any other specify ……..

2. Where do you obtain firewood for tobacco curing?

   Licensed firewood trader local forest

   Farm woodlot common tobacco farm woodlot

3. What type of trees do you have in your woodlot?

   Fast growing trees (exotic trees)

   Slow growing tress (exotic trees)

   Fast growing (indigenous trees)

   Slow growing (indigenous trees)

4. How many trees do you plant in the woodlot?

   0-549

   550-850

   850+

SECTION C:ATTITUDES AND PERCEPTIONS REGARDING THE HARVESTING.

5. After how long do you harvest your trees for tobacco curing from the date of planting?

2 years ☐ 5 years ☐

7years ☐ 10years+ ☐

6. For every 1 hectare of your tobacco what should be the size of your woodlot?

0, 3 ha ☐ ☐

2ha ☐

7. What challenges do you face in growing trees?

Lack of inputs ☐

Rainfall ☐

Termites ☐

Lack of adequate land ☐

8. Who is responsible for growing trees for tobacco curing?

Small scale farmers only ☐

Large scale Commercial farmers only ☐

Everyone ☐

SECTION D:ATTITUDES AND PERCEPTIONS TORWADS SECURING THE LICENCE.

9. Where do you get a license for flue- or flame-curing firewood?

EMA ☐ Forestry commission ☐

10. How do you apply for a license?

Pay the fee first ☐

Fill in the application form first ☐

Get professional people first ☐

Thank you very much for your time.

Appendix B: KEY INFORMANT QUESTIONNAIRE

My name is Musekiwa Rutendo a student from the Bindura University of science Education who is studying an Honors Degree in Environmental Science in Natural Resources Management. I am currently carrying out a research on the evalution of the Statutory Instrument 116 of 2012 by different types of tobacco farmers. I am appealing for your assistance in responding to my questions. The information you will give me will be treated confidentially and will only be used for the purpose of this research only.

1. To what extent are tobacco farmers complying to the statutory instrument 116 of 2012?

Greater extent ☐ Lesser extent ☐

Not much ☐

2. What are tobacco farmer's perceptions about the statutory instrument?

It should be removed ☐

Not easy to comply to ☐

Other ……..

3. Which type of tobacco farmers comply most with the statutory instrument?

Small scale farmers ☐

Large scale commercial farmers ☐

4. What constraints do these farmers face in compliance to S.I 116 of 2012?

Lack of funds ☐

Don't know how to acquire the license ☐

Don't know which trees to plant ☐

Lack of adequate land ☐

Other ……

5. What do you suggest must be done to increase the operationalization of the S.I 116 of 2102 by tobacco farmers?

   ……

   ……

   ……