

**TOBACCO FARMING AND ITS IMPLICATIONS ON POVERTY STATUS:
FARMERS' PERSPECTIVES IN URAMBO DISTRICT TANZANIA**



BY

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**FOR REFERENCE
ONLY**

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ABSTRACT

In its efforts to alleviate poverty among tobacco growers, the government of Tanzania adopted sub-sectoral reform aiming at improving tobacco gross margin. One of the basic strategies was the empowerment of co-operatives to source out finance through banks. It was in view of these initiatives that this study was undertaken in December 2009 and February 2010, to find out why poverty persists among tobacco growers despite the high income ensuing from tobacco production. The specific objectives of the study were to: estimate profitability of tobacco production; determine poverty status; determine expenditure of income from tobacco; assess perception of tobacco growers on tobacco farming and finally assess socio-economic factors affecting tobacco growers. The study findings show that, the respondents produce average of 1192 kg/ha which is below the potential production of 1900 kg/ha. The gross margin analysis reveals that, respondents' gross margin is 70% of total revenue per ha. Considering government minimum salary scale of Tshs 104 000 per month as a benchmark, respondents earn twice of the same from tobacco production per month. Regression analysis indicates that yield per ha had beta weight of +0.743($p < 0.000$), contributing significantly on increased gross margin than other variables. Further, respondents spend over 50% of their income on food, which accounts for the prevailing reality of poverty. Tobacco low yield, large household size, insufficient food crops production, inefficiency performance of cooperatives, lack of entrepreneurial training and lack of other income generating activities, contribute in accounting for poverty persistence. The study recommends that the Government provides goods which promote utilization of income generated from tobacco such as building materials, schools, health and communication.

DECLARATION

I, PETER STEWART MKUFYA, do hereby declare to neither the Senate of Sokoine University of Agriculture that this dissertation is my own original work and has neither been submitted nor being concurrently submitted for degree award in any other institution.



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DEDICATION

This dissertation is dedicated to following members of my family: my beloved parents, Stewart R. Mkufya and Petronila P. Mtei; my wife and three children, Rebecca, Stewart, Godfrey and Erick; and my brother and his wife, Raphael and Joyce.

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LIST OF ABBREVIATIONS AND SYMBOLS

AAEU	Adjusted Adult Equivalent Unit
AEU	Adult Equivalent Unit
AMCOS	Agricultural Marketing Co-operatives Society
ATTT	Association of Tanzania Tobacco Traders
BOT	Bank of Tanzania
FAO	Food and Agriculture Organisation
HA	Hectare
HHs	Household Heads
IFAD	International Fund for Agricultural Development
kg	Kilogram
NBS	National Bureau of Statistics
NCAER	National Council of Applied Economic Research
NTP	Net Tobacco Product
PTP	Poverty Training Programs
RCO	Regional Commissioner's Office
TISA	Tobacco Institute of South Africa
TLTC	Tanzania Leaf Tobacco Company Limited
TTC	Tanzania Tobacco Council
URT	United Republic of Tanzania
WB	World Bank
WETCU	Western Tobacco Cooperative Union

CHAPTER ONE

1.0 INTRODUCTION

1.1 Background Information

Tobacco (*Nicotiana tabacum*) is the world's largest cultivated non-food crop (TISA, 2007). In Africa, the vast majority of tobacco growers are smallholder growers, cultivating between 0.25 - 1 ha under contract farming system (Keyser, 2002). There are several socio-economic factors encouraging tobacco growing, some of which are; high yield and returns, its resistance against adverse weather conditions, absence of alternative crops, and failure of other crops raised in the past (NCAER, 1994). In some countries, there are no other crops which can substitute tobacco with the same level of profitability. Other alternative crops are grown as supplementary crop to tobacco. In East African countries, tobacco is grown since the past sixty years (TISA, 2007).

In Tanzania, tobacco production has increased by 84% from 2000/01 to 2007/08 season and a total of 92 000 farmers were registered as tobacco growers in primary cooperatives societies and associations (TTC, 2007; ATTT, 2009). Tabora region is a giant tobacco producer, accounting for more than 64% of tobacco produced in the country (Waluye, 1994). Tobacco is highly profitable cash crop for both large and small scale farmers, and unlike other food crops, tobacco tolerate wide variation of rainfall patterns (Keyser, 2002).

The crop significantly surpasses other crops in terms of gross margin product realized per hectare (Abdallah, 2007). The price of tobacco has also increased, currently above 3000 Tanzania Shillings per kg of high quality grades with reasonable average price per kg (BOT, 2008; TTB, 2008). Although there are empirical evidence that tobacco income have been increasing over the years, poverty among tobacco growers in Tabora region has remained very conspicuous (Waluye, 1994; Makunike, 2008).

Generally, income poverty is still high in Tanzania. About 35.7% of the population lives below the national basic need poverty line; while, 18.7% lives below the national food poverty line (URT, 2003). The level of poverty in Urambo district in Tabora region remains the highest in the country, with 38% of the population below the basic need poverty line which surpasses national basic need poverty line. According to the government source, 17% of the population in Tanzanian mainland falls below Food Poverty Line in 2007, whereas that of Urambo district is more than 18% which is also above the national average. In other urban regions like Dar es Salaam, only 16% of the population falls below basic need poverty line, while incidence and depth of poverty indicate that, 7.4% falls below Food Poverty Line, which is, far less below the national average as compare to Urambo, which is significantly above the nation figure (URT, 2007b). Therefore growing of tobacco need to be re-examined as this crop tends to increase poverty.

In the same comparison, poverty status of households in Urambo district of Tabora region indicates huge discrepancy as compared to some other poor districts. For instance, the total household monthly mean income in Urambo is around one hundred and twenty thousand Tanzania shillings (Tshs 120 000) while in Chunya district of Mbeya region where tobacco is also grown, households monthly mean income is above two hundred thousand Tanzania shillings (Tshs 150 000). In the aspect of housing, in Urambo, 63% of the households characterized by very poor housing, grass roofed, while about 75% of housing in Chunya district are roofed by iron sheets (NBS, 2004).

1.2 Problem Statement

There has been high increase in tobacco production in Urambo district, mounting from 4.7 million kg in 2000/2001 season to 15 million kg in 2008/2009 season, an increase of 219%. The increase in production is particularly attributed by increasing number of families engaging in tobacco production from 12 415 to 22 949 in 2000/2001 and 2006/2007 respectively which is an increase of 85%. The huge influx new farmers in tobacco production could be ascribed by price incentives. Kapinga (2008) found that the great incentive for agricultural production is price. Further, the increase of families engaging in tobacco production may also have been influenced by high gross margin from tobacco production (Kalamata, 2006: ATTT, 2008). In view of profitability of tobacco farming, Abdallah (2007) noted that the gross margin of tobacco farming is higher than alternative crops per unit area.

Tobacco net income gained by growers in Urambo district, has significantly went up from 2004/2005 to 2008/2009 seasons as more than Tshs 7.0 billion was paid to tobacco growers in Urambo district in 2004/2005 season. Moreover, in 2008/2009 season more than Tshs 27.0 billion was paid to tobacco farmers in Urambo (TTC, 2007; WETCU, 2009). It is estimated that more than Tshs 32 billion will be paid to same tobacco growers 2009/2010 season. The average price per kg of tobacco has also increased from Tshs 987 in 2005 to Tshs 2 750 Tshs in 2009. It should be noted that these figures indicate the net income paid to tobacco growers in Urambo after deduction of inputs debts and other loans taken by growers as production costs (ATTT, 2009; WETCU, 2009). However, despite significant increase of income from tobacco production, deplorable reality of poverty still constitutes one of the dominant unsavoury experiences which grip the tobacco growers in

Urambo district. The purpose of this study was therefore to find out why poverty persists among tobacco growers despite high income from tobacco production.

1.3 Justification

Poverty remains persistent among tobacco growers in Urambo district despite increasing income from tobacco production. The study was conducted in order estimate profitability of tobacco farming and poverty status among tobacco growers so as to provide information and new knowledge to tobacco growers, stakeholders and practitioners with respect to poverty alleviate in tobacco growing areas. The findings of the study are useful in making implementation of the National Strategy for Growth and Poverty Reduction (NSGPR) a success. The study is also relevant since it provides information that will facilitate the achievement of Millennium Development Goal number one (MDG₁), which focuses on reducing poverty by half by 2015.

1.4 Objectives

1.4.1 Overall objective

The overall objective of the research was to find out why poverty persists among tobacco growers despite the fact that income from tobacco is high.

1.4.2 Specific objectives

- i. To estimate profitability of tobacco production.
- ii. To determine poverty status among tobacco growers
- iii. To determine expenditure of income from tobacco on different household needs.
- iv. To assess perception of tobacco growers on tobacco farming.
- v. To assess socio-economic factors affecting tobacco growers.

1.5 Research Questions

- i. What is profitability of tobacco production?
- ii. What is poverty status among tobacco growers?
- iii. What are expenditure levels of tobacco growers on different household needs?
- iv. What is perception of tobacco growers on tobacco farming?
- v. What are socio-economic factors affecting tobacco growers?

1.6 Conceptual Framework

Economic theories argue that, profit levels of the given organization or firm indicates productive and efficient allocation of resources. Tobacco growers allocate resources with the intention to maximize returns. The conceptual framework of this study indicates independent variables and dependent variable. It presents poverty status (income, assets and expenditure) as dependent variable. Poverty status of tobacco farmers influenced by tobacco yield, costs of production, cultivated ha and average price. Age, sex, marital status, education level and household size were other factors which influence poverty status among the households. Intermediate variables include perception of tobacco growers on tobacco farming and socio-economic factors affecting tobacco growers. The conceptual framework is attached (Appendix 4).

1.7 Limitation of the Study

The study mainly made use of information from tobacco growers to estimate profit and expenditure of income from tobacco. Questions related to expenditures pose difficulties in capturing actual expenditures due lack, inconsistent or poor manner of keeping records of what was spent by growers. On the other hand, people might have failed to disclose expenditures assumed to be unproductive and money wastage. It was beyond this study to

capture expenditures which could not be disclosed by the growers. However, as a corrective measure, key informants who interact very closely with tobacco growers were contacted with the intention of capturing and incorporating in the study all other expenditures which were not disclosed by growers.

CHAPTER TWO

2.0 LITERATURE REVIEW

2.1 Poverty

According to IFAD (2006) poverty is not only a condition of low income and lack of assets. It is a condition of vulnerability, exclusion and powerlessness. It is the erosion of capability to be free from fear and hunger and having voices heard. On the other hand URT (1999) defines poverty as a state of deprivation and prohibitive of decent life that result from many mutually reinforcing factors including, lack of productive resources to produce material wealth, illiteracy, prevalence of diseases, discriminative social-economic and political systems, and natural calamities such as drought, floods, HIV/AIDS and wars. It is evident from the definition that, generation of material wealth among other things can not leave aside income due to the fact that most goods and services are bought by spending cash (Kayunze *et al.*, 2005).

2.1.1 Poverty dimensions

Poverty can be categorized mainly into two broad categories namely; absolute poverty and relative poverty. Absolute poverty is explained as inability to attain a specific minimum standard of living while relative poverty focuses on the economic wellbeing of the poorest percentage in the population. In this regard the minimum standard of living is known as poverty line. The significant of poverty line as a measure in poverty studies enables in traceability process of the changes in the welfare position of the poor and establishes a measure of the extent of poverty reduction (WB, 1990). One of the major weakness of relative poverty as a measure is that it ignores mobility into and out of poverty since it revokes the extent of poverty reduction (Atkinson, 1999).

2.1.2 Instruments of poverty determination

According to Narayan (1997) the conceptualization and measurement of poverty can be achieved with the use of several methods. The methods include conventional economic method which is based on quantifiable poverty line and confined itself to consumption and expenditure patterns as such poverty line is termed a useful measure in a given country over time. It should be noted that the interpretation of poverty is also expressed by the degree individual is exposed to vulnerability and risks, feeling of powerlessness, isolation within community and hopelessness thus one should avoid narrowing down poverty into income levels only (Alkire, 2007; Pallotto, 2008).

Once the Poverty line is established and specified, it is kept constant in real terms for meaningful comparison over a given period of time (Kayunze, 1998). However due to variation of social and basic needs among people of different localities and culture, income poverty line finds its limitation in categorizing poor and non poor, for instance how one can categorizes nomadic Sukuma or Maasai pastoralists who have neither permanent house nor money yet possess a good number cattle (Nzali, 2007). Obviously, it is difficult to apply income poverty line in such circumstances, hence its limitation.

2.1.3 Methods for measuring poverty

NBS (2004) cites two approaches which can be adopted in measuring poverty. One is by means of basic and social needs, and the second is monetarily defined poverty lines. Kisusu (2003) noted that poverty line is a minimal Purchasing Power Parity which allows an individual to acquire basic needs in a day as such those living above poverty line are characterized as non-poor while those living below it are poor. Basic and social needs approach is done by setting the minimum values of social indicators of which individuals

falling below the minimum amounts are labeled as poor while those who get the minimum and above the amount are termed as non poor. The weakness of this approach is that it is very subjective and focuses more on income poverty ignoring other dimensions of poverty, though the importance of poverty line lies in the fact that poverty measurement by social indicators poses great challenges.

2.1.4 Global poverty status

It is estimated that more than one billion people in the world live in extreme poverty, of which 939 million were found in rural areas. Asia is seen as having the highest number of people living in rural areas with about 633 million people estimated to be poor. Asia is followed by Sub-Saharan Africa with 204 million poor people, and then 76 million poor people in Latin America and Caribbean and the rest in the near East and North Africa (IFAD, 2006; Laura *et al.*, 2011). The World Bank report (2000) shows that between 1987 and 1998 the population in developing countries living on less than one dollar a day dropped from 28 to 24%, though with significant regional variation.

2.1.5 Poverty status in Tanzania

Basing on various monetary indices, Gross Domestic Product (GDP), Gross National Product (GNP), per capita income and the population of people living on less than one dollar a day, Tanzania is grouped among the poorest countries in the World (URT, 2003). The proportion of the population below the national basic needs poverty line is 35.7% whereas those below the national food poverty line constitute 18.7% (URT, 2005). It is estimated that half of all Tanzanians are basically poor and one third are living in abject poverty, and of this one third between 15 million and 18 million live below the poverty line of 0.65 dollar a day (WB, 2000).

2.1.6 Poverty status in Tabora region

The URT (2007b) shows that the monthly total household mean income for Tabora rural is Tshs 120 684, which is very minimal as compared to national average and other big cities like Dar es Salaam having the total mean income of Tshs 145 179 and Tshs 216 360 per month respectively. Basic need poverty counts for 38% of the population compared to the national average of 34%. Food poverty line is also alarming in rural areas of Tabora region as 18% of people are below the food basic line, again higher than other regions of Tanzania like Dar es Salaam which is only 7%. The region has very poor housing and sanitation facilities; 63% of houses are roofed by grasses while 17% of households have no toilets facilities. Striving against the enemies of nation, poverty inclusive; the government has put in place various strategies, programmes and plans advocating agriculture as one of lead sector to economic growth and poverty alleviation (Kapinga, 2008).

2.2 Agriculture as an Approach to Poverty Alleviation

Nissanke and Thorbecke (2008) found that in Africa and Tanzania in particular, development in the agricultural sector is imperative for poverty reduction. This is because 80% of economically active population in Tanzania is employed in agriculture (Kapinga, 2008). The major exports include coffee, cotton, tea, tobacco, cashew nuts and sisal (URT, 2007a). The traditional agricultural cash crops exports for the period of past ten years up to 2005 amounted to 35% (NBS, 2005). The percentage growth of GDP in the country depicted growth from 4.9 % in the year 2001 to 6.7 % in the year 2005. However in 2006 the GDP growth rate decline to 6.2 % (URT, 2007b). The global financial and economic crises have made the price of cotton, coffee and sisal dropped significantly while tobacco has progressively maintained the gross margin (Mkulo, 2009; ATTT, 2009). Tanzania is

reported to be the second largest tobacco producer in Sub Sahara Africa after Malawi (TISA, 2007).

2.2.1 History of tobacco production in Tanzania

British American Tobacco Company Ltd (BAT) had first introduced tobacco in Tanzania and Uganda back in 1908, with its headquarters based in Nairobi, Kenya. With aspiration to grow, BAT Company Limited was renamed East Africa Tobacco Company Limited (EATCO) after the World War II. The first institution in Tanganyika by then to be involved in the promotion of smallholder tobacco growers in mid fifties was named Tanganyika Agricultural Corporation (T.A.C). After Independence in 1961, EATCO Limited established the first tobacco processing plant in Dar es Salaam intertwined by deliberate efforts in offering extension services to farmers in Tabora region for the purpose on increasing both quality and quantity of tobacco produced. In 1965 a local company called British American Tobacco Tanzania Limited was formed as a substitute to EATCO. In 1967 after Arusha declaration, the company was nationalized, operating under Tobacco Authority of Tanzania (TAT) established under industry act of 1972. TAT was later converted to Tanzania Tobacco Processing and Marketing Board (TTPMB). Due to viability and policy reform TTPMB failed to last long and in its place Tanzania Tobacco Board (TTB) was formed in 1993, which focused on regulatory roles as the government arm.

2.2.2 Tobacco producing areas

In Tanzania, tobacco is produced in the districts of nine regions namely; Tabora, Rukwa, Ruvuma, Kagera, Kigoma, Shinyanga, Iringa, Singida and Mbeya. High exportation of

tobacco places the crop second in the hierarchy of traditional export crops (BOT, 2008; Mshiu, 2007).

2.2.3 Types of tobacco produced in Tanzania

Tanzania produces three main types of tobacco namely; flue cured tobacco, fire cured tobacco and air cured/burley tobacco. Tobacco is grown by smallholder farmers who use hand-hoe with little or no use of mechanized equipment (Waluye, 1994). According to TTC (2007) a total of 92 000 farmers were registered as tobacco growers in various primary cooperatives societies and associations in Tanzania.

2.2.4 Tobacco production as manifestation of poverty

According to Kibwage *et al.* (2009) tobacco growers in Nyanza province of Kenya were largely associated with traditional low quality housing while non tobacco growers were largely characterized by improved permanent and semi-permanent houses. Tobacco growers keep and maintain big household size to ensure availability of labour, which induce polygamy lifestyle among tobacco growers. Rweyemamu and Kimaro (2006) indicated that market distortion in tobacco farming reflect gross inefficiency in production and as a result increase costs and reduce revenue in the inputs/output market. This hinders growers from realizing potential income gains from tobacco, thus making poverty prevalent.

2.3 Tobacco Productivity and Profitability

2.3.1 Tobacco productivity

Tobacco production in Urambo has increased from 4.7 to 15 million kg from 2001 to 2009 (WETCU, 2009) whereas yield in 2007, 2008 and 2009 has remained somewhat static averaged at 1 146 kg/ha down from the target of 1 500kg/ha (WETCU, 2007). The possible reasons underlying increased production could be the increase in price per kg of tobacco, good weather and inputs availability (BOT, 2008). A measure of Tobacco Leave Loss (TLL), a factor which determines yield per ha has increased from 28% to 30% in 2001 and 2010 respectively (TTB, 2010). While various studies have noted increase in tobacco production, Asare (2009) found that since the last decade or so the lobbying and campaigns of ant-tobacco interest groups have led to adoption of more restrictive policies.

2.3.2 Tobacco revenue

Tobacco income has shown a positive steady increase for the past three years. The total of about Tshs 7.5 billion was paid to tobacco growers in Urambo district in season 2004/2005 whereas, a total of Tshs 27.3 billion was paid to the same growers in 2008/2009 season (ATTT, 2004; 2009). This is a reasonable increase of cash flow among tobacco growers in Urambo. It was estimated that about Tshs 32.2 billion would be paid to tobacco growers in Urambo district 2009/2010 season (ATTT, 2010). Moreover, the average price of tobacco shot from Tshs 987 to Tshs 2 750 per kg, a period Tanzania Leaf Tobacco Company (TLTC) offered a higher average price relative to other tobacco buying companies in the country.

Apart from tobacco growers who are foremost beneficiaries of tobacco, the Western Tobacco Cooperative Union Limited (WETCU), Tobacco Cooperatives Union Apex Ltd,

(TCUA) and Urambo District Council (UDC) depend significantly on levies from tobacco for their operations and services. For instance, UDC collected about Tshs 1.2 billion as levy from tobacco companies in the 2008/2009 financial year, which was 95% of the total district revenues (UDC, 2009). It was estimated that WETCU would have collected Tshs 797.5 million in 2010 season (WETCU, 2007; 2008; 2009). These facts indicate great dependency on tobacco industry not only by many rural people in Tabora but also by the supporting institutions. This dependency can largely be ascribed to prolific nature of tobacco production. According to TTC (2007) the central government and district councils in Tanzania collected more than Tshs 0.78 billion in 2004 and Tshs 1.52 billion in 2005.

2.3.3 Sustainability of tobacco production

In most countries there is no crop which can substitute tobacco with the same level of profitability, thus other crops can only be supplementary for tobacco (FAO, 2003). This contributes in accounting for its enduring production. Tobacco is resistant against adverse weather conditions, and it is grown in marginalized land. Failure of some other crops to be viable in terms of yield and/or market has also made many growers solely resort to tobacco production (NCAER, 1994). Abdallah (2007) reveals that none of the debatable alternative crops (maize, tomato and sunflower) came close to tobacco gross margin per ha.

2.3.4 Challenges for tobacco growers

Kibwage *et al.* (2009) found that in Kenya, majority of non-tobacco growing households surveyed had bicycles while tobacco growers' households had none. It was further noted that, in average, tobacco growing households spent relatively high amount of income on medical services /healthcare and less in education this may be linked to the fact that tobacco contains toxic materials.

CHAPTER THREE

3.0 METHODOLOGY

3.1 Study Area

3.1.1 Geographical location and climate

The study was conducted in Urambo district, Tabora region situated in mid-west part of Tanzania (UDC, 2009). Urambo district council was inaugurated in 1984. Geographically Urambo lies in between latitude 40° to 50° and the longitude 30° to 32° . It is 1100m above the sea level with temperature ranging from 21.3°C to 33.0°C . Usually, high temperature is being experienced in the months of August to October every year. Rainfalls range is between 900mm and 1 200mm and normally it rains from November to May every year.

The district has an area of 25 995km² equivalent to about 34% of Tabora region. The neighbouring districts are Nzega, Uyui and Sikonge districts in the East and Mpanda district in the South; Kahama district in the North and Kigoma region in the West. The district has four divisions namely Urambo, Ulyankulu, Usoke and Kaliua. The district has also 26 wards and 109 villages. The study was conducted in four villages namely; Jionee, Kazaroho, Uyogo and Nsimbo; whereby Jionee and Uyogo villages are from Urambo division whereas Kazaroho and Nsimbo villages are from Kaliua division. The villages were selected because they are the giant tobacco producers and thus farmers are assumed to have had longer experience in tobacco production (RCO, 2008). So by selecting the villages that are the giant tobacco producers it was presupposed that the tobacco producers in these villages had acquired profound experiences in tobacco production and as such would be able to proffer insightful and reliable information on tobacco related issues. Further, tobacco profitability and poverty status can be well measured due to high quantities of tobacco produced which can define returns.

3.1.2 Topography and population

Topographically, Urambo district is within the central plateau of Tanzania, an area of low topographic feature of between 1100 and 1300 m above sea level. The district lies in a gently undulating plain of 1050 m above the sea level, which extends to broad seasonal flooded 'mbugas' in the extreme west. It merges into permanent Malagarasi swamps and the shallow Sangara Lake. The underlying gneiss rocks occur in few hills in the south west of the district. The population and housing census conducted in 2002 revealed that, the district had a total of 370 796 inhabitants of whom 187 567 were females and 183 229 were males. The population growth rate is 4.8% which is above the national average of 3.1% per annum and the household size was 5.9 people per household. The possible reasons for high influx of population in the district include economic attraction through tobacco farming and human fertility. Basing on the district population growth rate, Urambo population at present is estimated to be 536 064 inhabitants (UDC, 2009).

The study was conducted in Songambebe and Kaliua wards of which according to the same census of 2002, Songambebe ward had population of 19 258 people, of which 9625 are males and 9633 are female; Kaliua ward had the population of 11 361 people, of which 5 475 were males and 5 886 were females (UDC, 2009).

3.1.3 Soil and vegetation

Urambo district soils are well drained and medium textured. The topsoil texture is loamy sand or sandy loam – occasionally as heavy as sand clay loam. The soils are usually deep but 25% have weathered rocks or iron pan within 25 – 100 cm of the surface. Rainfall infiltrates less rapidly into these soil than well drained sandy soils hence more water is needed to wet the soil to a given depth. Consequently the early rains are less effective in

wetting the soils and more water may be lost through run offs while light showers are lost completely through evaporation. Water as both economic and social good retained in the soils is less easily available to plants and consequently in the years of low rainfall the soil present more hazards to growers (Makwara, 2011). However, their ability to retain nutrients makes them potentially more productive in the years of goof rains (UDC, 2009).

There are six types of vegetation in Urambo district, namely: 'Miombo' woodland which covers about 62.7% of the district and is found in upland areas; 'Mbuga' wooded grassland covering 22.9% of the areas; Mbuga grassland occupying 4.2%; swamps 3.7%; cultivable land 5.6%; and open water 0.9%. Urambo district was chosen as a study area mainly due to its unique long term experience and high production of flue cured tobacco than any district in Tanzania.

3.2 Research Design

Cross-sectional research design was applied whereby data were collected at a single point in time (Babbie, 1990; Bailey, 1998). This research design is suitable given a limited duration of study and is also resource efficient (Cookey and Lokuji, 1995). The research design also facilitated the achievement of the study objectives by collecting data through the instruments of data collection as explained in section 3.6.1.

3.3 Sampling Procedures

Multistage sampling technique was employed in selecting Urambo as the study area; main reason being the fact that the district is the highest flue-cured tobacco producer in the country. Out of four divisions in the district, two divisions were selected by using the

same sampling technique above. Further, same technique was employed to select two wards through which four villages were obtained.

3.4 Sampling Frame and Sample Size

Simple random sampling technique was used to obtain the sample size of tobacco growers. Each grower was assigned a number and selection of 33 tobacco growers in each village was done randomly using a computer random number key. The sampling frame was obtained from Agricultural Marketing Cooperative Society (AMCOS) registration ledger, from which the sample of 132 growers for the study was established.

3.5 Types of Data

Primary and secondary data were collected. The primary data included both qualitative and quantitative data, collected directly from the respondents. The secondary data comprised of qualitative and quantitative data from district sources and other tobacco based organizations.

3.6 Instruments and Data Collection Method

3.6.1 Instruments

The main instruments used for data collection were; structured questionnaires with both open-ended and close-ended questions (Appendix 1). In addition to this, index scale, check list guide (Appendix 2) and note book were also used. These instruments were used to collect primary data whereas reports from tobacco companies (ATTT, TLTC and AOTTL), Tanzania Tobacco Board (TTB), Western Tobacco Cooperatives Union (WETCU) and Tanzania Tobacco Council (TTC) formed a base from which secondary data were extracted.

3.6.2 Data collection

Primary data were collected by administering questionnaires to tobacco growers (Appendix 1). Key informants namely AMCOS leaders, WETCU board members and district officials involved in community development were also consulted and opinion given with regard to research topic was recorded in the note book. In addition, checklist guide was used during focus group discussion (Appendix 2).

Secondary data were gathered by reading reports from WETCU, TTB, TTC, TLTC, ATTT, AOTTL and minutes from AMCOS. The reports were requested from respective offices. Sokoine University of Agriculture Library (SNAL) was also a great source of other more relevant information for the study.

3.7 Qualitative Data Analysis

Content analysis method was used to analyse qualitative data. Descriptive statistics was used to summarize and present data in form of means, frequencies, percentages, histograms and pie charts. An index scale was also used to determine growers' perception on tobacco farming.

3.8 Quantitative Data Analysis

Gross Margin analysis was used to estimate profitability of tobacco production per ha. Though the gross margin analysis is not a reliable measure of profitability, it remains the most dependable and satisfactory measure of resource efficiency in smallholder production (Phiri, 1991). The gross margin of tobacco production was calculated by the use of the mathematic model below.

$$GM = \Sigma TR_i - \Sigma TVC_i \dots\dots\dots(1)$$

Where,

- GM = Gross margin (profit) of i^{th} tobacco in Tshs/ha
 ΣTR_i = Sum of total revenue from sale of i^{th} tobacco in Tshs/ha
 ΣTVC_i = Sum of total variable costs spent on production of the i^{th} tobacco in Tshs/ha

Multiple regression analysis was used to assess contribution of tobacco farming on poverty status in the district. The following regression model was applied;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_n X_n + \dot{e} \dots \dots \dots (2)$$

Where;

- Y = Poverty status, determined through tobacco income, assets and expenditures of the households
 \dot{e} = Random error term
 β_0 = Regression constant
 $\beta_1 \dots \beta_n$ = Regression coefficient of variables
 $X_1, X_2, X_3, X_4,$ and X_5 are independent variables where by:
 X_1 = Area cultivated in ha
 X_2 = Experience of grower (years)
 X_3 = Production costs (Tshs)
 X_4 = Household size
 X_5 = Average price of tobacco (Tshs/kg)

The variables were included due to the fact that, they influence income from tobacco either negatively or positively in various levels. The degree to which two or more

independent variables (X) are related to the dependent variable (Y) was denoted by correlation coefficient R, which is the square root of R-square.

R assumes values between 0 and 1 while the sign of regression coefficients β expresses the direction of relationship. That is, if the regression coefficient is positive then the relationship of independent variable with dependent variable is positive, meaning that increase in tobacco production simultaneously increases of income of the households provided that other factors remain constant.

CHAPTER FOUR

4.0 RESULTS AND DISCUSSION

4.1 Socio-Demographic Characteristics of the Respondents

The general socio-demographic characteristics of the respondents described are sex, age, marital status, household size and education level. These demographic characteristics are important since can influence poverty either positively or negatively.

4.1.1 Sex of the household heads

The results indicate that majority (96.2%) of respondents were male-headed households while the smaller proportion (3.8%) of respondents were female-headed households. This could be due to the fact that majority of male are involved in tobacco farming than female. These results are comparable to those of Simon (1998) that male-headed households are dominant in tobacco production system. The findings are summarised in Table 1.

Table 1: Distribution of respondents by gender (n = 132)

	Frequency	Percent
Male-headed households	127	96.2
Female-headed households	5	3.8
Total	132	100.0

4.1.2 Age of respondents

Age is an important variable as it determines quality of available productive force. Human activities in any society have direct association to the age group (Maunder, 1993). According to the study findings, majority of respondents (37.1%) were in the age category of 36 and 43 years, while 21.2% of respondents were in the age category of 28 and 35

years old. The next age group was between 44 and 51 years old. Generally the results show that majority of respondents involved in tobacco farming were above 28 years old. These results suggest that majority of the respondents were within the productive age group. The implication is that tobacco farming in Urambo district is considered as one of the prolific income generating activity that cater for the high needs which normally characterize the lives of people in the productive age. The findings are shown in Table 2.

Table 2: Distribution of households by age (n = 132)

<i>Age of respondents</i>	<i>Frequency</i>	<i>Percent</i>
20 – 27	7	5.3
28 – 35	28	21.2
36 – 43	49	37.1
44 – 51	35	26.5
52 – 59	9	6.8
Above 60	4	3.1
Total	132	100

4.1.3 Education level of respondents

Kapinga (2008) stressed that the ultimate objective of education is to improve productivity, and ipso facto, enhance livelihood. As shown in Table 3, most of the tobacco growers (95%) had primary education while 5% did not complete primary education for various reasons. Low adoption of agronomic services and inefficient utilization of farm inputs by tobacco growers in the study area may stem from the fact of low education level on the side of the growers. Sahn and Younger (2004) found that human resource development is necessary for growth and poverty alleviation. This suggests the need to ensure that farmers in the study area attain advanced level of education in order to enhance yield and increase income through adoption of improved tobacco production techniques.

Table 3: Distribution of respondents by education level (n = 132)

Education category	Frequency	Percentage
Absconded school	7	5
Primary school	125	95
Total	132	100.0

4.1.4 Marital status of respondents

Marital status is likely to influence people's economic status, either through provision of adequate labour force or severing the meager resources by large offspring (Katunzi, 1999). According to the study findings in Table 4, majority (85.7%) of the respondents are married whereas very few (7.5%) of the respondents are unmarried. The study also found that low proportion (6.8%) of the respondents are separated. Collaboration and mutual efforts characterising marital life can bring about improved productivity in tobacco farming. Consequently, there is a need to sensitize married couples in the study area who are the majority on the importance of utilizing the existing marital bond and family unity to increase efficiency in tobacco farming.

Table 4: Distribution of respondents by marital status (n = 132)

Marital status	Frequency	Percentage
Single	10	7.5
Married	113	85.7
Separated	9	6.8
Total	132	100.0

4.1.5 Household Size

The results in Table 5 show that 65% of households had household size between 9 and 12 people per household, whereas 22.1% had between 5 and 8 people per household. Few

(7.7%) households had between 1 and 4 people per household. The average household size was found to be 9.6 people. According to UDC (2009) Urambo district has 5.9 people per household less than the household size found during the study. The possible reason could be rural households have bigger household size than the district towns or urban households. The big household size among tobacco growers was necessary as it provides the required labour force for tobacco farming. However, if a big household size is not productive enough, it can be an impoverishing force that overburdens the household head or major breadwinner (URT, 2007b). Supporting that rural households normally have bigger household size than the urban, Kayunze (1998) cautioned that large rural household size affects net households' product.

Table 5: Distribution of respondents by household size (n = 132)

Category	Frequency	Percentage
1 – 4	10	7.7
5 – 8	29	22.1
9 – 12	86	65.0
Above 13	7	5.2
Total	132	100.0

4.2 Profitability of Tobacco Farming

Estimating profitability from tobacco farming, gross margin analysis was applied. The respondents' average yield per ha and price per kg was used in generating average revenue from tobacco farming and overall costs of tobacco production per ha so as to compute gross margin from tobacco.

4.2.1 Average yield in kg

The results indicate that 71.2% of the respondents produce an average of 1192 kg/ha, followed by 18.9% whose produce is an average of 1275 kg/ha. The results also indicate that out of 132 respondents, 13 (9.8%) produce above 1255 kg/ha (Table 6). The potential yield of tobacco per ha in Tanzania is estimated to be 1900 kg/ha while in Brazil is above 2500 kg/ha (TLTC, 2009). The implication is that majority of respondents in Urambo were characterized by low yield as compared to potential yield hence low profit margin per ha despite the fact that tobacco fetches high price per kg. The 9.8% of respondents whose yields are more than 1275 kg/ha had high profit margin per unit area than their fellow growers produced 1192 kg/ha. This result suggests that to in order ensure high households' income through increase yield per ha there is need to empower tobacco growers through provision of education on prolific farm skills and credit opportunities. Price incentive is also another way of achieving the aforementioned objective.

Table 6: Respondents' average tobacco yield per ha in 2008/2009 season

Tobacco yield (kg/ha)	Frequency	Percent
1192	94	71.2
1275	25	18.9
Above 1275	13	9.8
Total	132	100.0

4.2.2 Average price (Tshs) of tobacco

The results indicate that the average price per kg was Tshs 3075, which more than double the average price of Tshs 1143, is paid to tobacco growers in 2007/2008 season (WETCU, 2008). The average price of tobacco has increased to Tshs 3075 per kg from Tshs 1143 per kg paid to tobacco growers to last year's (Figure 1). The increase in average price of

tobacco might have been attributed to high demand of tobacco in the world market. Moreover, tobacco was not severely affected by the global economic down turn as it was the case with other traditional cash crops such as cotton (Mkulo, 2008). Abdallah (2007) noted that tobacco production has high gross margin than alternative cash crops. Some key informants stressed that increase in the price of tobacco has led to increase in the number of tobacco growers, a phenomenon which triggers oversupply situation hence drop of tobacco price. These findings suggest the need to devise strategies in order to sustain socio-economic advantages of tobacco farming without compromising price incentive.

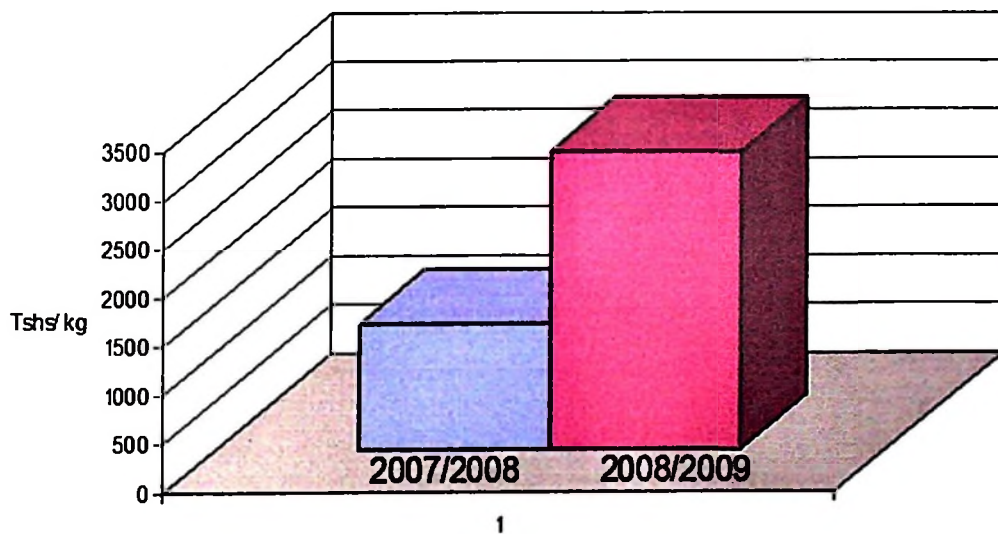


Figure 1: Average price (Tshs) of tobacco per kg

4.2.3 Average production costs per ha

According to the study findings shown in Table 7, 47.7% of the respondents had costs of production lying between Tshs 1.02 and 1.12 million per ha. Next to this category was 28% whose production costs were between Tshs 1.15 and 1.25 million per ha. Further, 13.7% of respondents spent between Tshs 0.90 and 1.00 million as production costs per ha, which is lesser than other categories. The results generally suggest that most of

limited resources and risk averse which is typically characteristics of small-scale growers. The average production costs of respondents were calculated and found to be Tshs 1.08 million per ha. The production costs indicate huge discrepancy among individual growers, possibly due to improper records kept by farmers especially on variable costs used. According to WETCU (2007; 2008; 2009), production costs for the past three years 2007, 2008 and 2009 were 45%, 42% and 35% of the gross tobacco revenues respectively; declining trend on costs of production is possibly due to government inputs subsidization process and increased tobacco price.

Table 7: Distribution of production costs (Tshs) of respondents per ha (n=132)

Costs categories (x 1000)	Frequency	Percent
Below - 750	4	3.0
775 – 875	9	6.8
900 – 1 000	18	13.7
1 025 – 1 125	63	47.7
1 150 – 1 250	37	28.0
1 275 – 1 375	1	0.8
1 400 – 1 500	0	0.0
Total	132	100.0

The costs of tobacco production did include such costs like purchasing of wrapping materials, construction of tobacco curing barn/stores, firewood collection for curing tobacco, transportation of tobacco bales from baling centers to market centers, labour costs and interest paid for miscellaneous loans taken by growers in the course of production. On the other hand, private money lenders charge very high interest rates of up to 100% of the loan served. The implication is that, tobacco farmers incur various costs which jeopardize their profits margin.

Figure 2 presents some other costs incurred by the respondents apart from costs of farm inputs (fertilizers and chemicals). The results show that while 66% of the respondents incurred costs of wrapping materials and transportation of tobacco to market centers, 33% of them incurred costs on firewood and grading. Only 1% of the respondents incurred costs on weeding and reaping of tobacco, mainly performed by members of households.

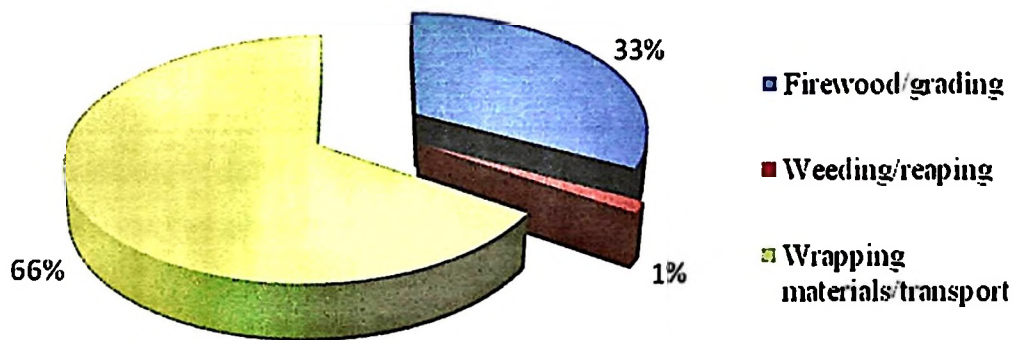


Figure 2: Other costs incurred by tobacco growers during production

4.2.4 Revenue from tobacco per ha

Table 8 shows distribution of respondents' revenue per ha. 56.8% of respondents had their revenues lying between Tshs 3.5 and 3.7 million per ha. This category was followed by 17% whose income was between 3.0 and 3.2 million per ha. Less than 5% of respondents had more than Tshs 4.0 million per ha higher than other growers. The average revenue of respondents was found to be Tshs 3.6 million per ha, which is three times above the average production costs per ha incurred in the same season. This results suggest that majority of respondents have high revenue from tobacco despite low yield as explained in section 4.3.2. The implication is that tobacco growers could maximize revenue with improved yield to about 1900kg/ha from 1192kg/ha achieved at present.

Table 8: Distribution of household's revenue per ha (n = 132)

Revenue categories (x 1000)	Frequency	Percent
2500 - 2700	5	3.8
2710 - 2910	9	6.8
3000 - 3200	23	17.4
3210 - 3410	11	8.3
3520 - 3720	75	56.8
3830 - 4030	7	5.3
4040 - 4240	2	1.5
Total	132	100.0

4.2.5 Gross margin of tobacco per ha

The result in Table 9 indicates that majority (62.0%) of the respondents had a gross margin of Tshs 2.8 million per ha. Low proportion (14.4%) of the respondents (inefficient growers) had a gross margin of Tshs 1.8 million per ha. Only three respondents (2.3%) who are the most efficient demonstrate that their gross margin was Tshs 3.4 million. Considering total average costs and total revenues presented in section 4.3.4 and 4.3.5 respectively, the average gross margin of respondents in the study area was calculated and found to be Tshs 2.5 million per ha. The implication is that growers incur 30% as costs of production and earning 70% as gross margin per ha. WETCU (2009) reported that in 2008/2009 season growers incurred 35% as costs of production. The 5% difference in this study may be due to omission errors from respondents' records.

Table 9: Gross margin in Tshs of tobacco production ha (n = 132)

Gross margin (x1000)	Frequency	Percent
1550	11	8.3
1850	19	14.4
2160	5	3.8
2470	9	6.8
2780	83	62.9
3090	2	1.5
3391	3	2.3
Total	132	100.0

4.3 Poverty status

Measuring poverty varies from one location to another depending on the indicators assigned to each category. In this particular study, household poverty status was measured by using average households' income from tobacco and other income generating activities, productive or domestic assets owned by the growers and expenditures on different types of the needs. Regression analysis was then used to find out the contribution of tobacco production on poverty status.

4.3.1 Income poverty

The average gross margin of the households calculated in section 4.3.5 above, when spread over twelve months is equivalent to an average income of Tshs 208 333 per month. Considering the minimum government basic salary of Tshs 104 000 per month as a base, tobacco growers in the study area, earn above the minimum salary scale offered by the government of Tanzania. These results indicate that, the income of tobacco growers per month is higher when compared to the government minimum wage.

4.3.2 Other income generating activities

Table 10 indicates that 47% of growers had no any other income generating activities, while 18.9% engaged in mason works and 9.1% engaged in selling groundnuts. Other income generating activities performed the respondents were: gardening and livestock keeping (4.5%), retail shops (1.5%) and commercial maize production (8.3%). These findings show that majority of tobacco growers had no any other income generating activities apart from tobacco production, thus contributions of other income generating activities to households earnings were negligible. The possible reason could be lack of enough time due to congested operations in tobacco farming. These results are similar to that presented by Kibwage *et al.* (2009) that tobacco farming is time demanding.

Table 10: Income generated from non tobacco activities (n = 132)

Activities	Frequency	Percentage
Gardening	6	4.5
Timber production	1	0.8
Groundnuts selling	12	9.1
Livestock keeping	6	4.5
Retail shop/trades	2	1.5
No additional income	62	47.0
Salary from PS	3	2.3
Mason/constructor	25	18.9
House rent	2	1.5
Carpenter	2	1.5
Maize production for sell	11	8.3
Total	132	100.0

4.3.3 Assets possessed by households by poverty status

Assets owned may be considered an approximate indicator of household wealth (URT, 2007b). The respondents in each village were requested to report productive and domestic

assets possessed. Through growers appraisal conducted in each village and supported by key informants, valuable assets were identified and wealth ranking method was used. Wealth ranking method allows respondents to define poverty in relation to own environmental setting basing on the assets outlined. Indicators used by respondents were; ownership of oxcarts, curing barns, ox plough, pairs of oxen, motorbike, bicycle, radio, sewing machine, hand hoe, burnt brick/iron sheet roofed and cement floor house. Respondents who owned these assets were categorized as non-poor, whereas respondents who had few or missed completely the listed assets were regarded as poor. Having identified such indicators, 33 respondents in each village were requested to identify and allocate each member into appropriate category of poor and non-poor as per predefined assets. The total scores were calculated and percentage of poor and non-poor in each village was established (Appendix 6).

Majority of respondents in Kazaroho village (79.4%) were found to be poor whereas 20.6% were non-poor. In Nsimbo village, 62.5% of respondents were identified as poor whereas 37.5% were non-poor. Findings in Uyogo village revealed that 32% of respondents were non-poor and 68% were poor. In Jionee village, majority of respondents (51%) were found to be non-poor whereas 41% were poor. The results indicate that Kazaroho, Nsimbo and Uyogo villages had high proportion of poor tobacco growers than Jionee village (Table 11). The implication is that, there is generally high proportion of poor people among tobacco growers in the study area, which suggests that, the profit margin from tobacco in the study area less reflected by assets possessed by the growers (Appendix 6).

Table 11: Wealth ranking among households interviewed (n = 132)

Village	Non-Poor		Poor		Total	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Kazaroho	27	20.6	105	79.4	33	100
Nsimbo	50	37.5	83	62.5	33	100
Jionce	67	51	65	49	33	100
Uyogo	42	32	90	68	33	100

4.3.4 Linear regression

Linear regression model explained in section 3.6.2 was applied to assess contribution of tobacco farming on household income (poverty status). The independent variables for regression equation were the area cultivated (ha), experience (year), yield per ha (kg), costs of production (Tshs) and size of the household, whereas dependent variable was poverty status (in this regard captured as income from tobacco).

The field results present a multiple correlation R (0.787) implying there is high correlation between poverty status and contributing factors which are the independent variables. The multiple coefficient of determination (R^2) obtained was 0.636, whereas the adjusted R^2 was 0.621. The results show that the independent variables accounts for 62.1% of the variation of income from tobacco. The other portion, which is 37.9%, is explained by the independent variables which were not included in the multiple regression model applied.

The yield appeared to have a greater beta weight relatively to other independent variables, with a beta weight of + 0.743 ($p < 0.000$). The implication is that there was significant contribution of tobacco yield per ha on the income of respondents. The results suggest that, effort to improve yield per ha, will have corresponding positive effect on increased gross margin of respondents.

Costs of production and experience had also positive beta weight of 0.097 and 0.112 respectively. even though it appears to have no significant contribution on poverty status of the respondents (Table12). The implication is that costs of production always apply the theory of marginal diminishing return which explains the relationship between inputs and outputs at a given optimal level beyond which increase in inputs decreases output. Experience of respondents is essential as it provides ability to create risks preempting mechanisms and efficient use of resources for production. The household size had a beta weight of + 0.112, portraying significant contribution on income from tobacco. The possible reason could be labour force needed in tobacco farming. According to Kibwage *et al.* (2009) tobacco growers had to maintain big household size because of labour requirement.

Area cultivated portrays a negative beta weight (-0.152), which significantly affect gross margin of the respondents. This was justified during data collection when respondents reported to have cultivated many ha over and above the facilities available to handle big volume of tobacco such as curing barn and wrapping materials. This makes glaring the problem of poor management, lack of adherence by agricultural practices and inefficient utilization of resources. The implication is that growers waste time, money and energy in cultivating huge areas than the actual output in real terms.

Table 12: Results of regression analysis

	R	R²	Adjusted R²	S.D beta weight	t- value	p- Value.
K	.787	.636	.621			
Costs of production				0.097	1.472	0.144
Size of household				0.112	0.201	0.047
Cultivated ha				- 0.152	-2.720	0.007
Yield per ha				0.743	11.152	0.000
Experience				0.022	0.390	0.697

P<000

4.4 Household income expenditure on different category of needs

Household income in developing countries fluctuates more over the short term and mostly reported less accurately. Consumption provides a more reliable measure of household income and for this reason consumption expenditure measure was used as the basis for analysis of households' money-metric welfare (URT, 2007b). The following explain expenditures in selected areas of education, healthcare and food.

4.4.1 Respondents expenditure on education per month

Table 13 reveals that majority (49%) of the respondents spent maximum of Tshs 6000 on education per month, followed by 14% who spent less than 5000 per month. It appears that expenditure on education for items like text books, pens and various school contributions account for increased expenditure of the respondents amid government policy of free primary education.

Table 13: Respondents expenditure on education per month (n = 132)

Income	Frequency	Percentage
0 – 1000	3	2.3
1100 – 2000	5	3.8
2100 – 3000	7	5.3
3100 – 4000	11	8.3
4100 – 5000	19	14.4
5100 – 6000	65	49.2
6100 – 7000	10	7.6
7100 – 8000	6	4.5
8100 – 9000	3	2.3
9100 - 10 000	1	0.8
10 100 – 11 000	2	1.5
Total	132	100.0

Since the number of schooling children per household influence household's expenditure on education in a given academic year, considering the average age of households' head (Table 2), it appears that the number of children schooling per household is more than the relative expenditure presented. This implies that either majority of respondents' children had education up to standard seven only or some households (3%) do not meet the minimum facilities required to take children to school hence increase illiteracy level among the rural community.

4.4.2 Respondents' expenditure on health services

The respondents were asked to recall their expenditure on health for the period of two weeks, and these costs were extrapolated into a month period. The assumption was that respondents could recall more precisely expenditure incurred within a period of two weeks rather than one month. The results in Table 14 show that, 40.9% of the respondents spent minimum of Tshs 8000 and maximum of Tshs 10 000 per month on healthcare. Some

other respondents (8%) spent between Tshs 12 100 and Tshs 14 000 per month on healthcare, when juxtaposed with other expenditures of tobacco growers it appears that much more income from tobacco production serves health related problems of the growers. Kibwage *et al.* (2009) observed that, tobacco growers in Kenya spend more of their income on healthcare.

In view of types of health services accessed by households, figure 3 shows that out of 132 respondents, 74 (56%) consulted local pharmaceutical shops for medications. This implies that financial ability of the respondents to access healthcare services in hospitals is limited. This may be accounted by lack of sufficient and/or long distance between areas of residence and health centers as reported by Mwambete *et al.* (2010). However, the findings also reveal that 33% of respondents accessed health services in public health centers. This is possibly due to complicated nature of their sicknesses which warranted overcoming odds of financial constraints and distance. On the other hand, 11% of the respondents accessed traditional health services which were mainly herbal medicines.

Table 14: Households' income expenditure on health per month (n=132)

Income	Frequency	Percent
2000 – 4000	12	9.1
4100 – 6000	17	12.9
6100 – 8000	21	15.9
8100 – 10 000	54	40.9
10 100 – 12 000	10	7.6
12 100 – 14 000	8	6.1
14 100 – 16 000	5	3.8
16 100 – 18 000	3	2.3
18 100 – 20 000	2	1.4
Total	132	100.0

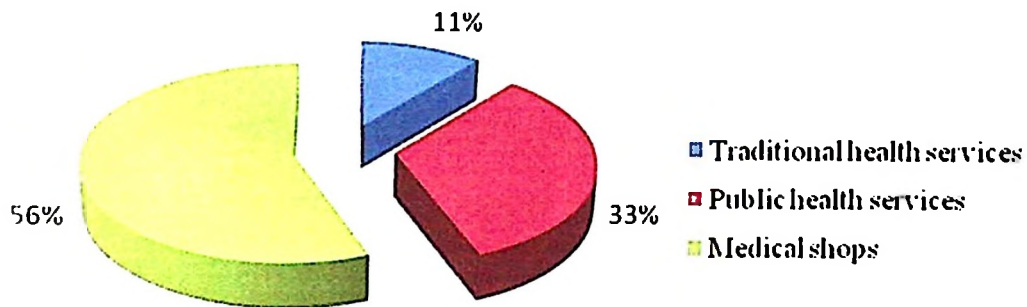


Figure 3: Distribution of respondents by category of health services

4.4.3 Expenditure on food per month

Income per capita is a poor indicator of living standards since households differ in size, sex and age, for this reason, household size was converted into Adult Equivalent Unit (AEU) by identifying all households by age and sex to obtain Adjusted Adult Equivalent Units (AAEU) of each household. The AEU was calculated and found to be 8.31. The AAEU was obtained by multiplying AEU by average costs factor of 0.741 giving the AAEU of 6.15. Calculating expenditure per adult equivalent from mean month income of tobacco growers gives Tshs 33 875 per adult equivalent per month. This figure is above national mean expenditure per adult of Tshs 20 212 given by URT (2007).

Further, the findings show that majority of respondents (53%) spent between Tshs 12 358 and Tshs 14 634 per adult equivalent per month on food, while 24.2% of respondents spent between Tshs 9919 and Tshs 12 195 per adult equivalent per month. Very few of respondents (3%) spent the maximum of Tshs 17 073 per adult equivalent per month. Basing on respondents' mean income of Tshs 33 875 per adult equivalent per month, the results indicate that majority of the respondents spent more than 50% of their mean income per month on food (Table 15). The possible reason could be insufficient food

crops production prompting households to spend same profit from tobacco to purchase food crops especially maize. Other factors could be that of big household size of 9.6 members (above national average of 4.8 members) and the increase in retail price of various commodities needed for household survival such as match box, soap, sugar, slippers, salt, needles, maize floor, cooking oil etc. Most of tobacco growers purchase these items daily at retail price which is potentially expensive. Increase in price of these commodities among the rural community poses big challenge as it make the problem of poverty becomes even more complicated to tackle (IFAD, 2006; Acham *et al.*, 2011). According to URT (1999), people who spend more than 50% of their income for food are regarded as poor. Nzali (2007) reported similar findings on income expenditure on food in Mufindi district, Tanzania.

Table 15: Expenditure on food per adult equivalent per month (n=132)

Income	Frequency	Percent
0 – 2439	2	1.5
2602 – 4878	5	3.8
5041 – 7317	8	6.1
7480 – 4000	10	7.6
9919 – 12 195	32	24.2
12 358 – 14 634	70	53
14 797 – 17 073	4	3
17 236 – 19 512	1	0.8
Total	132	100

4.5 Perception of tobacco growers on tobacco production

In assessing perception of tobacco growers on tobacco farming, index scale was used (Appendix 3). The scale presents a set of attitudinal statements of which respondents agree or disagree on a five scale measure. The essence was to ascertain whether growers produce tobacco with intention to combat poverty or the drive is due to failure of having

other alternative crops. The scale was composed of twelve positive statements about tobacco farming and each statement was assigned a score. The scale was pre-tested and ambiguous statements were omitted thus making a scale of ten statements. The five points were assigned scores as follows; 1 for Strongly Disagree; 2 for Disagree; 3 for Neutral; 4 for Agree; and 5 for Strongly Agree. According to Kayunze (2009) this format of index scale mimics Likert scale.

Assessing perception of tobacco growers (Table 16), 62.9% of the respondents agreed that tobacco production can keep them out of poverty while 37.1% disagreed that tobacco farming can keep them out of poverty. Furthermore, 56.1% of respondents agreed that tobacco farmers can build better houses. 78% agree that tobacco is only cash crop with high returns and stable price in each season. The findings also show that majority (59.1%) of the respondents agreed that tobacco growers depend solely on tobacco farming to earn the living.

However, 70.5% of respondents disagreed that tobacco growers have time to do other business, implying that tobacco growers depend on single income generating activity. With regard to living standard, majority (87.1%) of the respondents disagreed that tobacco growers have good living standards, while 12.9% of respondents were not sure whether tobacco growers have good living standards or not. These results indicate that although tobacco farming less provides time to carry out other income generating activities, growers' expectations to improve their living standard through tobacco production remain very high.

Table 16: Perception of tobacco growers on tobacco farming (n = 132)

Parameter	Frequency	Percent
Tobacco farming keeps farmers out of poverty		
Agree	83	62.9
Disagree	49	37.1
Total	132	100.0
Tobacco farming makes farmer build better houses		
Agree	74	56.1
Disagree	58	43.9
Neutral	9	6.8
Total	132	100.0
Tobacco production is only cash crop with attractive and stable price in each season		
Agree	103	78.0
Disagree	29	22.0
Total	132	100.0
Tobacco farmer depends entirely on tobacco production to earn living		
Agree	78	59.1
Disagree	54	40.9
Total	132	100.0
Tobacco farmers get time to do other business		
Disagree	93	70.5
Agree	31	23.4
Neutral	8	6.1
Total	132	100.0
Tobacco farmers possess valuable assets		
Disagree	115	87.1
Neutral	17	12.9
Total	132	100.0

4.6 Socio-economic Factors Affecting Tobacco Growers

This section identifies factors affecting tobacco growers on the effort to fight against poverty. Efficiency of primary cooperative society, accessibility of training, tobacco side selling and failure to reinvest profit made from tobacco so as to accumulate capital were some of the socio-economic factors affecting tobacco growers in the study area.

4.6.1 Efficiency of primary cooperatives societies

Table 17 summarizes main roles that primary societies (PS) perform of which may affect tobacco growers' returns and influence poverty. Majority of respondents (80.3%) indicate that the main role performed by the PS was facilitation agricultural inputs; whereas 16.7 % of respondents noted that the efficiency of primary society is centered on ability to manage financial loans. In the same results, 3 % of respondents looked at efficiency of PS on firewood collection and distribution. The implication is that, since contract farming system allows leaders to sign loans on behalf of the growers, high degree of integrity is needed to avoid building up heavily indebted primary society which affects growers' net returns. Ibaba (2011) found that corruption and lack of commitment to the goals of development neglect of citizens' needs and aspirations hence poverty persistence. These results suggest that tobacco growers depend entirely of the integrity of PS leaders, thus honest leaders are important to manage cooperatives resources if poverty need to be combated. FAO (2003) found that contract farming is profitable to grower and sponsor if well managed. This is because it reduces risks and uncertainty for both parties compared to buying and selling products in the open market

Table 17: The role of primary society (n=132)

Services	Frequency	Percentage
Agricultural inputs facilitation	106	80.3
Financial loans	22	16.7
Transportation of firewood	4	3.0
Total	132	100.0

4.6.2 Growers' tobacco payment

Table 18 indicates efficiency of PS to pay farmers the proceeds from tobacco sold. Findings show that 63.4% of respondent in Mirambo PS were satisfied by performance of PS with regards to tobacco payment made. In Juhudi and Tumaini PS, the majority (57.9% and 52.7%) of the respondents, respectively, noted that efficiency of PS to pay tobacco proceeds was satisfactory. However, 55.8% of respondents in Nguvukazi PS complained that efficiency of PS to pay growers' money after selling tobacco was poor. Some key informants revealed that there is substantial number of respondents who are not paid all money deserved from PS. The possible reasons are lack of transparency on the part of the leaders as it has to do with maximum liability of the PS and side selling practices which is done by some dishonesty growers. This is in line with observation of Kumwenda (2005) that side selling was one of the bottlenecks experienced among tobacco growers in Malawi under contract farming system. One of the implications for poor efficiency of PS to pay farmers is the attenuation of chances of the growers to socio-economic advance hence the lingering reality of poverty among tobacco growers in the study area.

Table 18: Tobacco payment efficiency by primary society (n = 132)

Primary Societies	Mirambo	Nguvu kazi	Juhudi	Tumaini
Satisfactory	21 (63.4 %)	15 (44.2 %)	19 (57.9 %)	17 (52.7 %)
Poor	12 (36.6 %)	18 (55.8 %)	14 (42.1 %)	16 (47.3 %)
Total	33 (100.0 %)	33 (100.0 %)	33 (100.0 %)	33 (100.0 %)

4.6.3 Lack of additional training

In attempt to evaluate whether respondents have attended any training related to poverty alleviation; 63.6% of respondents said that they had never attended any sort of formal training related to poverty alleviation, whereas 21.8 %, 11.5% and 3.1% indicated to have had attended training once, twice and more than twice respectively (Figure 4). The respondents who attended training more than twice stated that, these training in most cases were organized by tobacco buying companies as part of their initiative to improve farmers' efficiency. Given the findings on section 4.2.3 above (that majority of respondents had primary school education) any relevant formal training related to tobacco farming and poverty could have provided necessary skills and knowledge to growers for effective and efficient tobacco farming. Other results (Mwabua and Erik, 2004; Kapinga, 2008) have indicated that the ultimate goal of education is to improve productivity.

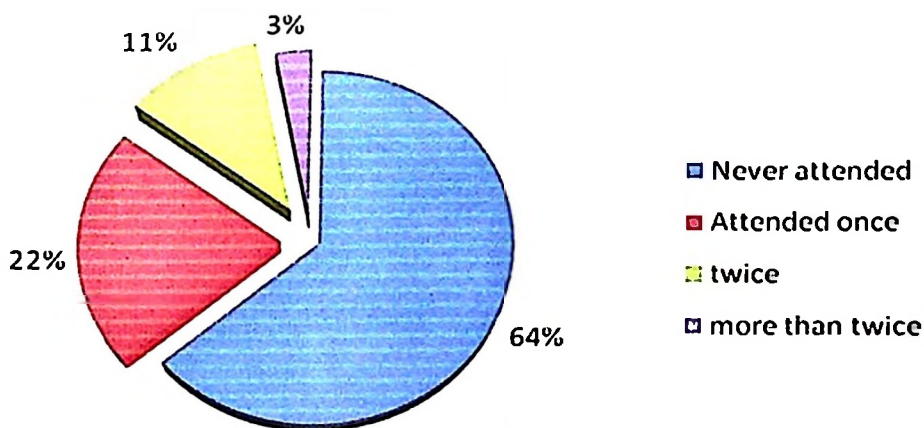


Figure 4: Training attendance among tobacco growers

4.6.4 Dependence on single source of income

The results in Table 19 show that majority (64.4%) of respondents had no other income generating activity except tobacco farming. It was also noted that 9.1% of respondents had

extra income from house rent, hiring motorcycles, bicycles and livestock keeping, whereas a small proportional of tobacco growers involved in activities like running milling machines (3.0%), shops venders (2.3%) and production of palm oil (4.5 %). These minorities had relatively better living standard than the majority who did not have any other income generating activity. The possible reasons for having no other income generating activities could be linked to lack of savings from tobacco sold; poor financial management and lack of relevant skills to invest in other income generating activities. Kapinga (2008) reported that reinvestment of available capital is essential for capital accumulation and hence economic development.

Table 19: Activities supportive to tobacco income (n = 132)

	Frequency	Percentage
Retail shop	3	2.3
Milling machine	4	3.0
Expanded livestock herds	12	9.1
Never invested	85	64.4
Palm oil trees	6	4.5
House rent and motorbike for hiring	12	9.1
Ox cart and oxen hired	6	4.5
Milling machine and house rented	2	1.5
House rent	2	1.5
Total	132	100.0

CHAPTER FIVE

5.0 CONCLUSIONS AND RECOMMENDATIONS

5.1 Conclusions

5.1.1 Gross margin of tobacco per ha

More than 62% of respondents had gross margin of Tshs 2.8 million per ha. The next group (14.4%) had gross margin of Tshs 1.8 million per ha. Only three respondents (2.3%) had gross margin of Tshs 3.4 million per ha, higher than the other respondents. Considering total average costs and total revenue calculated above, the profit of tobacco growers in the study area was estimated to be 2.5 million per ha.

5.1.2 Income poverty

The average income of respondents per annum from tobacco was found to be Tshs 2.5 million equivalent Tshs 208 333 per month. Considering the minimum government basic salary of Tshs 104 000 per month as a base, tobacco growers earn more relatively to minimum government scale however majority of respondents (47%) have no other income generating activities, hence depend entirely on profit from tobacco which does not suffice all the needs year around hence poverty presence.

5.1.3 Wealth ranking

Majority (79.4%) of respondents in Kazaroho village were found to be poor whereas 20.6% were non-poor. In Nsimbo village, 62.5% of respondents were identified as poor whereas 37.5% were non-poor. The same findings were in Uyogo village where 32% of respondents were non-poor and 68% were poor. In Jionee village, majority of respondents (51%) were found to be non-poor whereas 41% were poor. These results indicate that

Kazarocho, Nsimbo and Uyogo villages had high proportion of poor tobacco growers than Jionee village. Further, the findings in this section also reveal that there is a growing assets ownership culture among tobacco growers in the study area.

5.1.4 Regression analysis

The yield appeared to have a greater beta weight relatively to other independent variables, i.e. + 0.743 ($p < 0.000$). The implication is that there was significant contribution of tobacco yield per ha on the income of tobacco growers. The current low yield among tobacco growers with entirely dependence on tobacco farming contribute on poverty persistence. Efforts to improve yield per ha. will have corresponding positive effect on increased tobacco gross margin.

5.1.5 Expenditure

5.1.5.1 Expenditure on education

The results show considerable proportion (49.0%) of respondents spent maximum of Tshs 6000 per month on education. The findings reveal that expenditure on education for items like text books, pens and various contributions for school development account for the increased expenditure of income from tobacco, amid government policy of free primary education hence savings among growers so as to invest in other income generating activities become limited.

5.1.5.2 Expenditure on healthcare

The results show that minority (40.9%) of the respondents spent maximum of Tshs 10 000 per month on health related problems. Out of these respondents, 55.3% consulted local pharmaceutical shops for medications instead of health centers. Some participants at Focus Group Discussions attributed this phenomenon to dual factors of meager financial

resources and distance with respect to the location of health centers. The ill-health of the member of the household reduces efficiency on production at the same time increases expenditure through medical costs and thus impedes development.

5.1.5.3 Expenditure on food

The results indicate that majority of respondents spent more than 50% of their mean income per month on food which limit savings to do other development activities hence poverty persistence. Furthermore, perception of tobacco growers on tobacco farming indicates that, 56.1% of respondents agreed that tobacco growers can built better houses. However, 87.1% of the respondents disagreed that tobacco growers have good living standards.

Therefore the following can be summarized as the findings of the study;

- i. Majority of tobacco growers were male who attained only primary education, and in the age category of 36-43 years. Limited education level could be the cause of inefficiency production hence poverty.
- ii. Tobacco growers have large household size coupled with insufficient food crop production and lack other income generating activities. They depend mainly on income from tobacco to meet daily expenses on various domestic needs, as result lack savings to establish other income generating activities which could have addressed the lingering poverty.
- iii. Tobacco production is a profitable venture though labour intensive. Increasing yield per ha is a crucial component to increase profit. Any efforts to increase food crops production will assure reinvestment of profit generated from tobacco in other

business and thus provide enough income to meet various household needs including purchasing of valuable assets, built better houses, afford education and health costs hence better living standard.

- iv. Majority of tobacco growers in the study area had never attended any supplementary formal training on poverty reduction. This makes growers to rely on traditionally ways of producing crops and spending what they earn thus steering poverty persistent.

5.2 Recommendations

The study recommends the following basing on its findings;

- i. The study findings reveal that tobacco production is profitable; it is recommended that growers increase food crop production so as to save the income from tobacco and invest in other income generating activities so as to have multiple sources of income.
- ii. Since majority of tobacco growers possess primary school education; and getting them back to school is impossible, training should be strategically organized for tobacco growers aiming at improved tobacco yield per ha.
- iii. Practical trainings session on poverty alleviation focusing on domestic budgetary and entrepreneurship skills is highly recommended. Government is advised to use the Ministry of Agricultural Food and Cooperative through district cooperative officers and/or community development officer to conduct Poverty Training Programmes (PTP) entailing same objectives.

- iv. Improvement of yield per ha is essential. The yield of 1192kg/ha is very low as compared to potential production of up to 1900 kg/ha. Consequently, growers should use optimal inputs as per recommendations given by technocrats available in field.
- v. Since tobacco income is seasonally available and unpredictable from year to year because of weather variability, inputs availability and market terms and conditions, each household should look at ways and means to additional sources of income over and above tobacco farming like vegetable gardening for those who leave nearby water sources, commercialization of indigenous chicken, planting sunflower for oil production and alike.
- vi. Mainstreaming gender issues is important for poverty alleviation, PTP proposed in (ii) above should include the aspect of gender. Further, income from tobacco should not just be shared among household members participated in tobacco farming process rather household heads should invest in the family common good.
- vii. Tanzania Tobacco Board (TTB) and district cooperative officers are advised to prepare special reward days, so that best tobacco growers in terms of yield per ha are rewarded at least at the end of each tobacco marketing season.
- viii. Lastly, Urambo district council is advised to set a budget for research of this nature, aiming at transforming tobacco sub sector into more economic potential venture using rural appraisal approach.

5.3 Areas for Further Studies

- i. The study findings indicate that growers spent most of their income for domestic requirements hence lack savings; comparative analysis study is needed, to compare the profitability of commercial food crops producers against tobacco farming.
- ii. Large household size may contribute on poverty persistence especially if is not economically productive enough. The study to determine effective size of household members required for production is important.
- iii. The current contract farming model in Tanzania involves a chain of sub divided organizational structures that all depend tobacco revenue for operation expenses. The structural adjustment study on best producer cooperatives system that will benefit growers is needed.

REFERENCES

- Abdallah, J. M. (2007). Economic and Productive efficiency Analysis to Tobacco and Impact on the Miombo Woodland in Iringa Region. Dissertation for Award of Doctor of Philosophy at Sokoine University of agriculture, Morogoro, Tanzania, 252pp.
- Acham, H., Kikafunda, J. K., Tylleskar, T. and Malde, M. K. (2011). Nutrition and Health Status Primary School-children in Rural Uganda. *African Journal of Food, Agriculture, Nutrition and Development* 5: 862 – 880.
- Alkire, S. (2007). Missing Dimensions of Poverty Data. *Oxford Journal of Development Studies* 35(4): 347 - 359.
- Asare, B. E. (2009). Tobacco Regulation in South Africa: Interest groups and public policy. *African Journal of Political Science and International Relations* 3(3): 99 – 106.
- ATTT (2010). *Tobacco Procurement and Expected Debt Recovery Annual Report*. Production Department, Tabora. Tanzania. 4pp.
- ATTT (2009). *Tobacco Procurement and Input Recovery Annual Report*. Production Department, Tabora, Tanzania. 6pp.
- ATIT (2008). *Tobacco Procurement and Input Recovery Annual Report*. Production Department, Tabora, Tanzania. 3pp.

- ATTT (2004). *Tobacco Procurement and Debt Recovery Annual Report*. Production Department, Tabora, Tanzania. 4pp.
- Babbie, E. (1990). *Survey research methods*. Wadworth Publishing Co., California. 395pp.
- Bailey, D. K. (1998). *Methods of Social Research*. The Free Collier Macmillian Publisher, London. 478pp.
- BOT (2008). *Economic Bulletin*. Bank of Tanzania, Dar es Salaam, 40(1): 102pp.
- Cooksey, B. and Lokuji, A. (1995). *Some Practical Research Guidelines, Research on Poverty Alleviation*. REPOA, Dar es Salaam. 53pp.
- FAO (2003). *Issues in the global tobacco economy*. FAO Publisher, ROME. 13pp.
- Ibaba, I. (2011). Local Government and the Failure of Rural Development in Nigeria: Exploring the Role of Political Participation. *Journal of Social Development in Africa* 26(2): 93-116.
- IFAD (2006). Rural Poverty. [<http://www.ifad.org/sf/SFeng.pdf>] site visited on 9/11/2011.
- Kalamata, S. L. (2006). Performance assessment of extension services under contract farming arrangement in Urambo district. Dissertation for Award of MSc Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 150pp.

- Katunzi, A. L. (1999). Some demographic and socio-economic factors influencing poverty in Dodoma Region. Dissertation for Award of MA Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 170pp.
- Kayunze, K. A., Mwakalobo, A. B. S. and Urassa, J. K. (2005). Credit Enriching or Impoverishing?. *Tanzania Journal of Development Studies* 6(2): 79 – 92.
- Kayunze, K. A. (1998). Comparative contribution of non- farm and farms enterprises in rural poverty alleviation in Ileje and Rugwe districts. Dissertation for Award of MA degree at Sokoine University of Agriculture, Morogoro, Tanzania, 108pp.
- Kapinga, D. S. (2008). Rural Development issues. Reading Materials for DS 612, DSI, Morogoro. 32pp.
- Keyser, C. J. (2002). *The costs and profitability of tobacco compared with other crops in Zimbabwe*. World Bank, Zimbabwe. 108pp.
- Kibwage, J. K., Oondo, A. J. and Momanyi, G. M. (2009). Assessment of livelihood assets and strategies among tobacco and non tobacco growing households in southern Nyanza region. *African Journal of Agricultural Research* 4: 294 – 304.
- Kisusu, R. W. (2003). Adoption and impact of dairy and irrigated rice technologies in poverty alleviation in Dodoma. Dissertation for Award of PhD Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 159pp.

Kumwenda, I. and Madola, M. (2005).

[http://www.fanrpan.org/documents/d00691/Contract_Farming_Report.pdf] site visited on 8/9/ 2010.

Laura, W., Linda, G., Michael, S. and Sheila, Z. R. (2011). How Do States' Safety Net Policies Affect Poverty?. *Global Journal of Social Security, Income Aid and Welfare* (3)4: 19 – 28

Makunike, C. (2008). African Agriculture: Tanzania urged to pay more attention. [<http://africanagriculture.blogspot.com/2008/08/tanzania-urged-to-pay-more-attention-to.html>] site visited 13/7/2009.

Makwara, E. C. (2011). Water: An Economic or Social Good?. *Journal of Social Development in Africa* 26(2): 141 – 164.

Maunder, A. H. (1993). *Agricultural Extension: A reference Manual*. FAO, Rome. 21pp.

Mkulo, M. H. (2009). *State of Tanzania's Economy in the Face of The Global Financial and Economic Crisis*. Proceedings of Consultative Forum workshop, Dar es Salaam, Tanzania, 27 November, 2009. 18pp.

- Mshiu, S. L. (2007). Comparative analysis of contract farming modalities in Mtibwa. Dissertation for Award of MSc. Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 93pp.
- Mwabua, G., Erik, T. (2004). Rural Development, Growth and Poverty in Africa. *Journal of African Economies* 13(1): 17 – 61.
- Narayan. D. (1997). *Voices of the Poor, Poverty and Social Capital in Tanzania*. World Bank, Washington D.C. 80pp.
- NBS (2004). Regional Profile. [<http://www.nbs.go.tz/RegionalProfile/RegProfile-0604%20ALL.pdf>] site visited on 15/7/ 2009.
- NBS (2005). *Tanzania Demographic and Health Survey*. ORC Macro. Dar es Salaam, 2pp.
- NCAER (1994). *Export potential of the tobacco sector*. Tobacco Institute of India, New Delhi, 5pp.
- Nissanke, M. and Thorbecke, E. (2008). Globalization-Poverty Channels and Case Studies from Sub-Sahara Africa. *Journal of African Development Review* (20)1: 1-162.
- Nzali, A. S. (2007). Contribution of vocational education in poverty reduction in Mufindi district. Dissertation for Award of MA Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 106pp.

Pallotto, A. (2008). Decentralising Power or Spreading Poverty. *Review of African Political Economy Journal* (116) 221: 235 - 250.

Phiri, C. D. (1991). *Smallholders Farming Systems in Chinguluwe Settlement Scheme, African Rural Development*. Africa Rural Social Networks, Lilongwe. 104pp.

RCO (2008). Regional profile.

[<http://www.tabora.go.tz/kurasa/halmashauri/lga3/index.php>] site visited 13/7/2009.

Sahn, D. E., Younger, S. D. (2004). Growth and Poverty Reduction in Sub- Sahara Africa: Macroeconomic Adjustment and Beyond. *Journal of African Economies* 13: 66 – 95.

Simon, S.M. (1998) Effects of Liberalised Agricultural Markets on the Smallholder Agriculture in Tabora. Dissertation for Award of MSc Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 121pp.

Temu, M. J., Mwambete, D. K. and Nyaki, D. (2010). Public Knowledge, Attitude and Perception of Over the Counter Medicines. *East African Journal of Public Health* 7(4): 282 – 285

TISA (2007). Tobacco Production in Africa.

[<http://www.pmg.org.za/docs/2007/070821tisa.htm>] site visited on 12/6/2010.

TTB (2010). *Crop Survey Report*. Tanzania Tobacco Board, Urambo, Tanzania. 8pp.

- TLTC (2009). *Agronomy Annual Report*. Urambo Seed farm, Tabora. Tanzania. 3pp.
- TTC (2007). *Proposed Tobacco Sub-sector Development*. Tanzania Tobacco Council, Dar es Salaam, Tanzania. 40pp.
- United Republic of Tanzania (URT). (2005). *Tanzania Tobacco Act, 2001*; cited in The Tobacco Regulation subsidiary Legislation, supp. No. 30 of 29th July, 2005. GP. Dar es Salaam.
- URT (1999). *Poverty and Welfare Indicators*. Vice-President's Office. Dar es Salaam, 250pp.
- URT (2003). *Vulnerability and Resilience to Poverty in Tanzania, Causes, Consequences and Policy Implications*. Mkuki and Nyota Publishers Ltd., Dar es Salaam, Tanzania 166pp.
- URT (2007a). *Framework for a Tanzanian Growth Strategy, Poverty and Human Development Report*. Research and Analysis Working Group, Dar es Salaam, Tanzania. 11pp.
- URT (2007b). *Household budget Survey final report*. National Bureau of statistics, Dar es Salaam, Tanzania. 94pp.
- UDC (2009). *Urambo District population profile*. Urambo district. Tabora, Tanzania. 23pp.

Waluye, J. (1994). Tanzania Environmental Impact of Tobacco Growing.
[<http://tobaccocontrol.bmj.com>] site visited on 15/7/2009.

WETCU (2009). *General Meeting Annual Report*. Western zone Tobacco Cooperatives Union, Tabora, Tanzania. 57pp.

WETCU (2008). *General Meeting Annual Report*. Western zone Tobacco Cooperatives Union, Tabora, Tanzania. 48pp.

WETCU (2007). *General Meeting Annual Report*. Western zone Tobacco Cooperatives Union, Tabora, Tanzania. 36pp.

WB (1990). *World Development Annual Report*. Oxford University Press, London, 260pp.

WB (2000). *Agriculture in Tanzania since 1986, Follower of Leader of Growth?*. International Food Policy Research Institute, Washington, D.C. 167pp.

APPENDICES

Appendix 1: Questionnaires on: Tobacco farming and its implication for poverty status.

Instructions

Please well come, this questionnaire comprises of some questions which require some of your time to go through and answer it. Please, write a number of your preferable answer in the curled brackets located in each question or fill in the blanks as per direct given against each question.

1. Household Information

1.1 Identification of the Questionnaire

Interview date	Time	Division
Ward	Village	Hamlet
Questionnaire no.	Interviewer	Interviewee
Origin of household 1. Native 2. Immigrant	Tribe 1.	

1.2 Background of Respondent and Household Head Characteristics

2. Name of the household head.....
3. Age of the household head years
4. Gender of the household head 1= male () 2 = female ()
5. Years of schooling of the household head
6. Occupation of the household head
7. Marital status of the household head 1= single () 2=married () 3= separated ()
4= divorce () 5 = widow ()

1.3 Household size

8. Number of years spent by household head in the area

9. Proper Identification of the Farm Characteristics

10. Total farm size possessed by household

11. Total land cultivated

12. Land cultivated for tobacco in 2009

2.0 Tobacco production costs and revenues**2.1 Tobacco production costs**

2.1.1 How long have you been growing tobacco?

.....

2.1.2 Production costs

Items	Quantities	Tshs
(a) Hired labour		
(b) Fertilizers used (NPK and CAN Bags)		
(c) Chemical used (Decis, Confidor, Yamaotea plus other chemicals)		
(d) Other costs (firewood, grading, barn loans, wrapping materials, oxen loan, villages contributions, transportation charges, personal loans etc)		
Total		

2.2 Tobacco revenues

2.2.1 Kindly fill in the table below?

Season	Area cultivated	Kg produced	Aver. price	Revenue(Tshs)	Kg/ha
2007/08					
2008/09					
Total					

2.2.2 What other income generating activities do you do apart from tobacco?

2.2.3 What is your income from other activities per month?

2.3 Expenditure on different household needs

2.3.1 Indicate expenditure incurred against each utility below for past two weeks

Item	Expenses	Estimated amount (Tshs)
1	Food	
2	Health services	
3	Education	
4	Contributions (Government, religious, wedding etc)	
5	Others (Specify)	

2.3.2 What type of health service do you normally access?

	Tick the appropriate one
What kind of health service do you access	1. Public services 2. Traditional services 3. Consult local medical shops

2.3.3 What types of food crops do you grow in each season?

- 1..... 3.....
 2..... 4.....

2.3.4 How many meals do you normally have per day?

.....

2.4 Socio-economic factors that affect farmers' performance

2.4.1 What kind of support/services do you get from your primary society?

.....

2.4.2. How many seasons the primary society failed to pay your full amount?

.....

2.4.3 What types of decision making do you take part in your primary society?

.....

2.4.5 How many times have you attended formal trainings on poverty alleviation?

Thank you very much for your time

Appendix 2: Checklist for Focus Group Discussion

1. What is average acreage grown by farmers?
2. What is an average productivity scored?
3. In all stages of tobacco production, where do farmers lose a great number of leaves because of mishandling?
4. How much it equates in terms of kg?
5. Is tobacco production profitable?
6. Do farmer growing tobacco just because there is no an alternative crops or grow because it is profitable?
7. What expenditures absorb most of farmers' profit?
8. Do you organize any training to educate farmers on how they can develop simple investment from the same money gained from tobacco production?
9. Do you think taking alcohol increase with increase in tobacco profit?
10. Do you think farmers' change their consumption behavior during the period when the profit from tobacco is achieved?
11. What the things farmers do as the justification of behavior change?
12. Which rank the first out of the items outlined in 11 above?
13. What initiatives did government made to arrest the 12 above?
14. Do you think proceeding growing tobacco is worth to farmers or wastage of time?
15. What should be done to make tobacco production impact farmers lives positively?
16. Do growers pupils completed standard seven? Are there some children not going to school?
17. How many meals do farmers have per day?

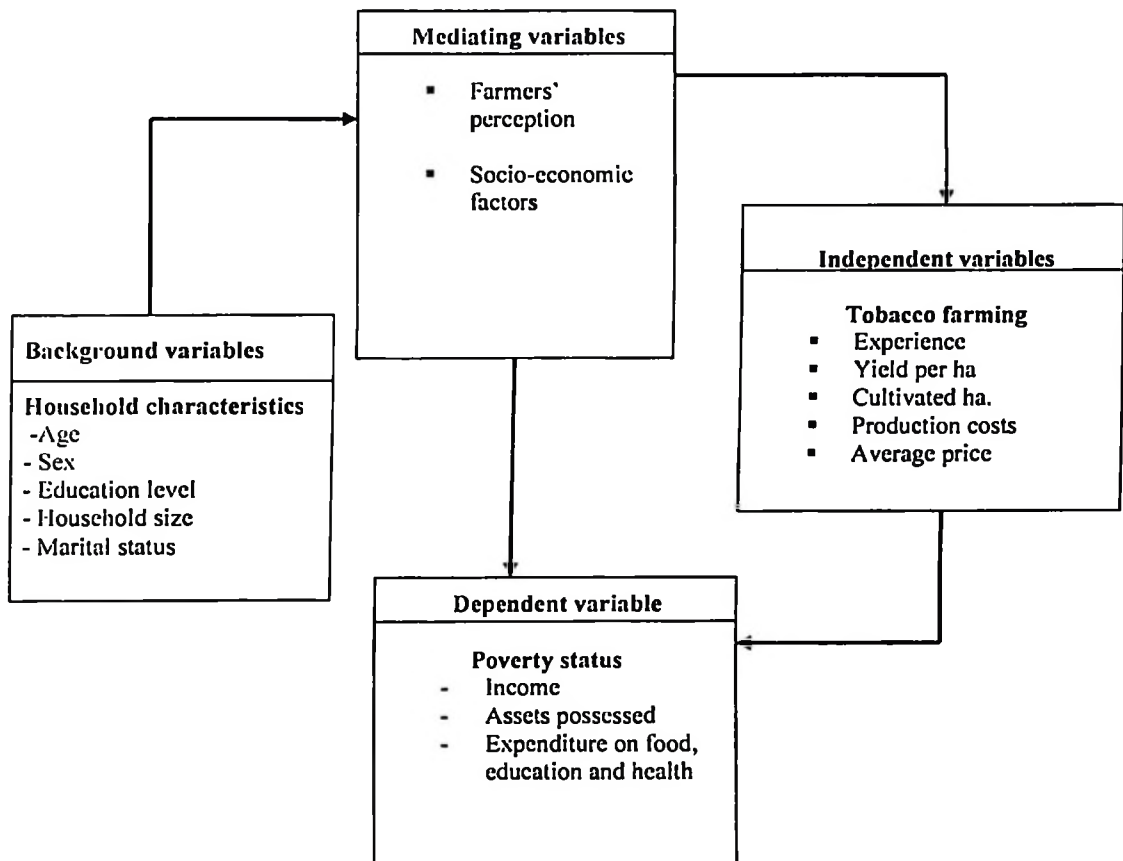
Thank you very much for your participation

Appendix 3: Index scale determining perception of tobacco farmers on tobacco farming

1 = Strong Disagree (SD) 2 =Disagrec (D); 3=Undecided (U) 4 = Agree (A) 5 = Strong Agree (SA)

S/n	Statements	Unit	SD	D	U	A	SA
1	Tobacco farming keeps farmers out of poverty	+					
2	Tobacco production make farmers build better houses	+					
3	Tobacco production is the only cash crop with attractive and stable price in each season	+					
4	Tobacco farming enable farmers to pay school fees	+					
5	Tobacco farmers are richer because of persistently tobacco production	+					
6	Tobacco farmers have good living standards	+					
7	Tobacco farming is an easy undertake	+					
8	Tobacco farmers get time to do other business	+					
9	Tobacco farming is expanding because of high turn over	+					
10	Tobacco farmers depend solely on tobacco production to earn living.	+					
	Total						

Appendix 4: Conceptual framework for tobacco farming and its implication for poverty status



Appendix 5: Operational definitions of variables

Variables	Operational definition
Age	Number of years of respondents
Marital status	An act of having a partner in the life time
Education level	Number of years spent to acquire formal education
Household size	Number of people in one household
Sex	Biological formation of people
Poverty status	The state of being extremely poor
Yield	Tobacco produced (kg) per unit area
Income	Annual monetary value of net earnings from economic activities in Tanzania shillings
Average price	Farmers average price of tobacco per season
Production costs	Agricultural inputs and monetary value incurred during tobacco production
Assets	Production implements, housing and domestics appliance possessed by respondents
Experience	Number of years spent in tobacco production
Attitude	A settled way of feeling or thinking
Expenditure	Amount of money spent in education, health and food per annum
Tobacco income	Total revenue generated from selling green tobacco in particular season
Non tobacco income	Total revenue generated from non tobacco related activities per annum
Expenditures	Money spent willingly by farmer to acquire goods or services to attain satisfaction
Profitability	Gross margin (Tshs) of tobacco per unit area
Area cultivated	A piece of land in ha prepared for tobacco production

Appendix 6: Wealth ranking of the households in each village surveyed

Village	Non Poor	Poor
Kazaroho	Two oxcarts, more than six curing barns, ox plough, pairs of oxen, motorbike, bicycle, radio, sewing machine, hand hoe with burnt brick/iron sheet roofed and cement floor house, harvest more than 1500kg of tobacco per ha, cultivate more than 1ha, food secured. 20.6% of respondents were in this category	less than six curing barns, axe, merchants, no oxcart, own mud/raw bricks walled and grass thatched house, having two meals a day, cultivate less than 1ha, harvest less than 1500kg of tobacco per ha. 79.4% of respondents fall in this category
Nsimbo	TV set, oxcarts, sufficient curing barns, ox plough, pairs of oxen, motorbike, bicycle, radio, sewing machine, hand hoe with cement/burnt brick/iron sheet roofed and cement floor house, possess cows, cultivate more than 2 ha, three meals a day. 37.5% of respondents went under this category	Old curing barns, axe, merchants, no oxcart, own mud/raw bricks walled and grass thatched house, having two meals a day, cultivate less than 0.5ha, harvest less than 1100kg of tobacco per ha. 62.5% of respondents fall in this category
Jionce	Four compartments house, ox plough, pairs of oxen, motorbike, radio, sewing machine, harvest more than 1600kg of tobacco per ha, cultivate more than 2ha, food secured, retail shop. 51% of respondents were under this category	Bicycle, old curing barns, axe, merchants, no oxcart, own mud/raw bricks walled and grass thatched house, having two meals a day, cultivate less than 1ha, harvest less than 900kg of tobacco per ha. 49% of respondents were in this group
Uyogo	Raw brick walls/cement floor iron roofed house, oxcarts, four curing barns, ox plough, pairs of oxen, motorbike, bicycle, radio, milling machine, harvest 1400kg of tobacco per ha, cultivate more than 1ha, food secured. 32% of respondents were in this category	two curing barns, axe, merchants, no oxcart, own mud/raw bricks walled and grass thatched house, having two meals a day, cultivate less than 0.8ha, harvest less than 1000kg of tobacco per ha. 68% of respondents came under this category