ASSESSMENT OF TOBACCO MARKETING SYSTEM AT FARMERS LEVEL, A CASE OF TANZANIA LEAF TOBACCO COMPANY OF MOROGORO, TANZANIA

BY

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ABSTRACT

Tobacco is one of the major agricultural export crops in Tanzania. Tobacco farming industry is a contract farming business involving farmers in primary cooperative societies located in eight production regions namely Tabora, Shinyanga, Mbeya, Singida, Rukwa, Iringa, Songea and Kagera. A large proportion of tobacco grown in Tanzania (85%) is exported to overseas markets. The main tobacco customers demand tobacco leaves of high quality. The tobacco buying companies through Association of Tanzania Tobacco Traders (ATTT) are committed in ensuring that the tobacco purchased is of high quality to make sure that customers choose their produce over those of their competitors. In spite of the company's effort towards improving the quality of tobacco produced, the problem of poor tobacco quality still exists. Although studies on tobacco marketing had been carried out, information regarding tobacco quality at farmers' level is still insufficient. Generally the study intended to create a better understanding of the factors influencing the strategies for the improvement of quality of tobacco sold to Primary Cooperative Societies. Specifically, this study examined the impact of tobacco quality to farmers and the buying companies identify factors that lead into marketing of low quality tobacco at farmers level, identify and analyze cost and revenue of tobacco to growers and suggest alternative solutions that would reduce the problem of low quality tobacco at farmers' level. The data were collected, from seven Primary cooperative Societies, officers from all tobacco stakeholders and company's officials in Tabora region. Part of the analysis was based on descriptive statistics to describe the responses, characteristics and trends of some data and information regarding the current marketing system of tobacco at farmers' level. Gross Margin Analysis was used in

order to examine the effect of quality and price on farmers' income. The results of the study indicate that poor post harvest handling methods severely affect the quality of tobacco. The problem of quality has been a cause of higher cost of handling for the buyer companies and has also resulted into lower prices paid to farmers. The study recommended that, the company and other tobacco stakeholders should provide adequate and quality extension services on good agronomic practices, construction of improved barns and tobacco storage which will eventually improve tobacco quality at farmers' level.

DECLARATION

I, KEMILEMBE JESSEY KAFANABO, do hereby declare to the Senate of Sokoine University of Agriculture that the work presented here is my own, and has not been submitted for a degree award in any other University.

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12/06/2008
Date

The above declaration is confirmed

Dr. Anna Temu
(Supervisor)

13/6/08
Date

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DEDICATION

This work is dedicated to my beloved parents: my father Mr. Jessey Kafanabo and my mother Mrs. Grace I. Kafanabo, who laid down the foundation of my education.

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LISTS OF ABBREVIATIONS AND ACRONYMS

ASDP	:	Agriculture Sector Development Programme
ATTT	:	Association of Tanzania Tobacco Traders
BAT	:	British American Tobacco
CRDB	:	Cooperative and Rural Development Bank
EAT	:	East Africa Tobacco
EATCO	:	East African Tobacco Corporation
FAO	:	Food and Agriculture Organization
GDP	:	Gross Domestic Product
GM	:	Gross Margin
MOA	:	Ministry of Agriculture
NTRM	:	Non Tobacco Related Materials
PCS	:	Primary Cooperative Society
SPSS	:	Statistical Package for Social Sciences
TAT	:	Tobacco Authority of Tanzania
TCCIA	:	Tanzania Chamber of Commerce, Industries and Agriculture
TLTC	:	Tobacco Leaf Tobacco Company
TOSCA	:	Tanzania Official Seed Agency
TShs	:	Tanzanian Shillings
TTB	:	Tanzania Tobacco Board
TTC	:	Tanzania Tobacco Council
TTPMB	:	Tanzania Tobacco Processing and Marketing Board
USA	:	United State of America
WETCU	:	Western Zone Tobacco Growers Cooperative Union.

CHAPTER ONE

INTRODUCTION

1.1 Background

Tobacco is a cash crop grown worldwide in more than 120 countries and in all climates except the coldest ones (ITGA, 1998). The main tobacco producing countries worldwide are China, U.S.A and Brazil. Zimbabwe is the largest producer of Tobacco leaf in Africa and she is the world fourth largest producer of flue-cured tobacco (Maravanyika, 1996). Other major producers of tobacco in Africa include Malawi, Mozambique, Zambia and Kenya. Tanzania produces only 0.5 percent of world tobacco production, there are about 90 000 acres of land under tobacco. Recently, Tanzania has become Africa's third biggest producer of Tobacco after Zimbabwe and Malawi. (Hammond, 1997).

Agriculture is the leading sector of the economy of Tanzania and accounts for over 50% of the GDP and export earnings of about 75%. Tobacco is one of the major agricultural export crops in Tanzania. In 2006 crop season the tobacco export were recorded at USD 88 million (TTB, 2007). The main tobacco producing regions are Tabora, Shinyanga, Mbeya, Singida, Rukwa, Iringa, Songea and Kagera encompassing about 20 districts (TTC, 2006).

Tobacco production and its associated business (i.e. marketing of unprocessed tobacco, tobacco processing and cigarette manufacturing) have a strong positive contribution to the development of Tanzania. As of 2006, the industry employment records stood at about 92 178 growers, 550 in inputs distribution and extension

services and marketing activities, 7 291 people in tobacco processing and 2 000 in cigarette manufacturing and distribution (TTC, 2006).

1.2 Tobacco Development in Tanzania

Tobacco production in Tanzania started about 1933 in Biharamulo. The production of tobacco as a commodity began in 1963. Various stakeholders dealt with the crop in accordance to the political, administrative and economic change. The first institutions to be involved in the promotion of small – scale tobacco production in the mid- fifties were the Tanganyika Agricultural Corporation (T.A.C) and the East African Tobacco Company (EATCO). In 1970's, a new parastatal the Tobacco Authority of Tanzania (TAT) was established to take over all the responsibilities for development of tobacco (MAFS, 2006).

In 1985, the Tobacco Authority of Tanzania was disbanded and the Tanzania Tobacco Processing and Marketing Board (TTPMB) were established to take over the functions of the Authority. The board was the sole buying and marketing agent of tobacco from cooperative Societies. In this period, the industry was constrained by several factors such as, failure by the cooperative union to provide tobacco inputs on time and insufficient quantities, failure of the government extension service to pay adequate attention and to closely supervise tobacco production at farm level. Loan repayment etc was not good etc. and this led into high losses and low quality tobacco (MAFS, 2006).

Since 1991, massive restructuring and liberalization of agricultural marketing have been undertaken in Tanzania. According to Tanzania chambers of commerce,

Industries and Agriculture (TCCIA, 2005) industrial export of some crops has been on the rise following liberalization and privatization of public enterprises in Agriculture. Trade liberalization has resulted into major changes of operation in tobacco industry. Private Companies (Tobacco buyers) were given the license to deal with the sourcing and purchasing of green tobacco in the field particularly flue cured and other varieties, and processing of the green tobacco into processed tobacco. Companies are also involved in purchasing of inputs and pre-financing of the same.

Currently, there are two multinational companies operating in Tanzania, i.e. Tanzania Leaf Tobacco Company (TLTC) (Tobacco Operations and Support Services - TOPSERVE now fused in TLTC) and DIMON Morogoro Tobacco Processors (now changed to Alliance One Tanzania Tobacco Limited (AOTTL). Tobacco buyers and farmers (Primary Cooperative Society) are bound up with contract farming business which is regulated by Tanzania Tobacco Board (TTB) on behalf of the government.

Buyer Companies, through Association of Tanzania Tobacco Traders (ATTT), are committed in ensuring that, the tobacco purchased is of top quality to make sure that customers choose their produce over those of their competitors. ATTT is a consortium of companies providing services associated with the production of tobacco (ATTT-MOA, 1999). ATTT implement all shareholder companies operations such as farmers input requirements, market preparation and leaf transportation to the factories.

1.3 Problem Statement and Justification

Despite company's effort towards improving the quality of tobacco produced, the problem of poor quality of tobacco still exists. Considering the marketing regulation, any tobacco bale that has tobacco mixed with different qualities must be rejected or the grade issued by TTB Classifier must be lowered as a penalty to farmers. Farmers experience loss by selling their tobacco at a price lower than expected due to the fact that the whole bale will be considered as low grade hence low price. Where the case is severe the whole market is supposed to be canceled as a result it increase the cost of managing both PCS and the Company (TTB, 2005). Also, International Tobacco customers demand companies to buy tobacco that are uniformly packed with no mixing and/or nesting. Top quality tobacco is required to command a premium price.

In addition to the problem of poor quality, many Primary Cooperative societies in tobacco industry are poorly managed. This is known to be practically attributed by leadership problems which prompt farmers to sell their tobacco outside their contracted company. According to Kalamata, (2006), the history of cooperative societies in Tanzania is that of top down management, leaving little room for members to manage their society as a result, people tend to see cooperatives as the government institution instead of seeing it as their own. This has in turn been the cause of production of low quality tobacco which resulted into poor debt recovery and ultimately payments deficits among farmers.

Although studies on tobacco marketing had been carried out, information regarding tobacco quality at farmers' level is still insufficient. Price setting mechanism is more efficient in competitive market such that resulting prices reflect quality of

commodity offered for sale. For the tobacco market in Tanzania lack of information may be influencing/affecting the strategies for the improvement of the quality of tobacco sold by PCS to tobacco buyers.

1.4 Objective of the Study

1.4.1 General objective

Generally the study intended to create a better understanding of factors influencing/affecting the strategies for improvement of quality of tobacco sold to Primary Cooperative Societies.

1.4.2 Specific objective

Specifically the study was set;

- To assess tobacco marketing at farmers level and its effects to the company and farmers;
- To identify factors that lead into marketing of low quality tobacco at Primary Society level;
- To identify and analyze costs and return of tobacco growers and;
- To suggest alternative solutions that would reduce the problem of low quality tobacco at farmers' level.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

Tobacco production in Tanzania is based entirely on peasant farming with an average of three to four acres. The family is the major source of labour for crop production (Mwakyambiki, 1998). According to Rweyemamu (2001) tobacco is a labour intensive crop which demands a large amount of investment in terms of fixed and variable cost. The season for tobacco production begins in mid-September. The first activity at the beginning of the season is firewood collection to be used for tobacco curing and barn constructions. The second activity is preparation of nurseries which is done sometimes between October and November. Next is bush clearing and ploughing are undertaken between November and December before planting, which is usually done in January. Other pre-harvest activities like weeding and fertilizer application are carried out between December and March and harvesting is usually done between March and April. Post harvest activities of curing, sorting and grading are undertaken between April and July after which the crop is marketed (Alfeu *et al.*, 2004).

Tobacco is originated in South America and was used in rituals and ceremonials or as a medicine; it was smoked and chewed for centuries before its introduction into Europe in the 16th century. The generic name *Nicotiana* denotes the presence of the alkaloid nicotine in its leaves. The most important species in commercial tobacco cultivation is *Nicotiana Tabacum*. Another species, *Nicotiana Rustica,* is widely grown, to yield cured leaf for snuff or simple cigarettes and cigars. Tobacco has also

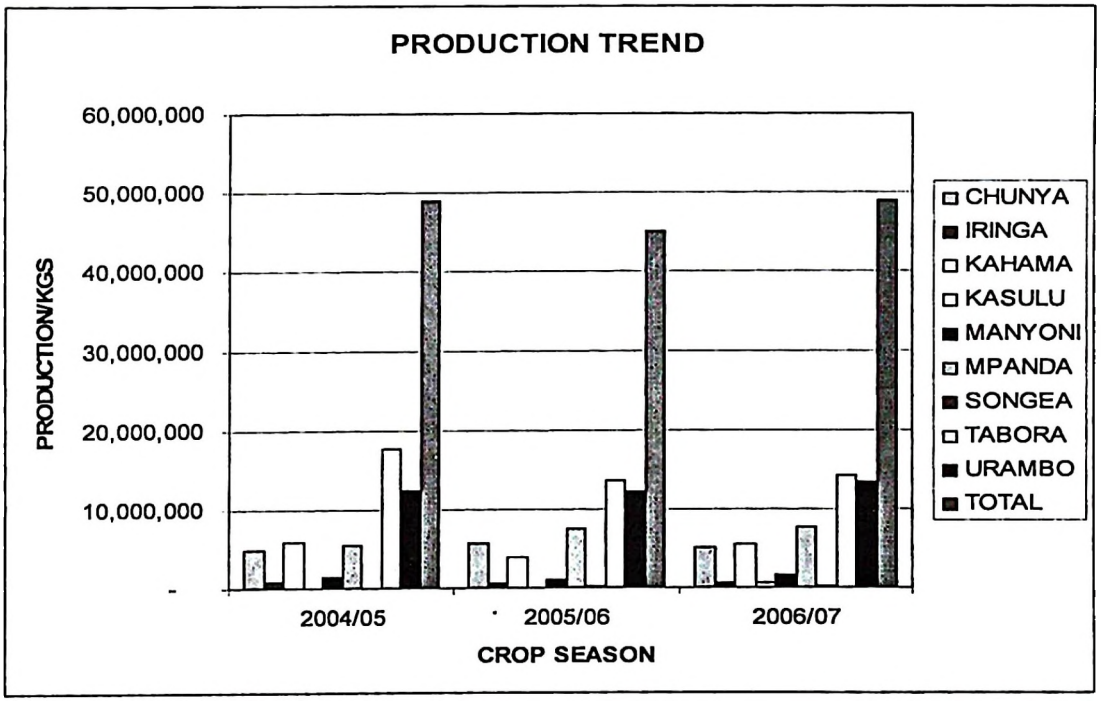
a number of compounds that can be extracted from the plant and utilized by pharmaceutical, food and dietary industries (MOA, 2006).

In Tanzania, tobacco is mainly produced in rural areas where there is availability of firewood. Most tobacco fields are located plus or minus 500m from homesteads. The following functions must be performed after the tobacco leaves have been harvested/reaped from the field before marketing. Tobacco leaves should be picked and laid in old hessian cover; then the leaves should be tied to sticks in the tying area. From the tying area, the sticks should be moved and loaded into barns curing. After curing, loose leaves should be moved to the bulking/storage (Alfeu *et al.*, 2004).

2.2 Economics of Tobacco as Income Generating Crop

There are seven types of tobacco produced in the world these include, light air-cured, fire cured, flue cured, barley, dark air/sun cured, dark air cured cigar, and dark fire cured tobacco (Rweyemamu, 2001). Tanzania produces mainly two types of tobacco which are flue cured tobacco and dark fire cured tobacco. Tobacco production is an important source of employment and income to household engaged in tobacco production (FAO, 1990). On average tobacco farmers earn between TSh. 81 000/= and TSh. 86 400/= per year (Masudi *et al.*, 2001). As of 2006, the industry employment records stood at about 92 178 growers, 550 in inputs distribution and extension services and marketing activities, 7 291 were in tobacco processing and 2 000 were in cigarette manufacturing and distribution (TTC, 2006). Tobacco is the leading crop among traditional export crops of Tanzania that contribute most to the Agricultural GDP and is among the four leading export crops in Tanzania. It

contributes 26% of the total traditional export crops for the year ending January 2008 (BOT, 2008). Domestic consumption of tobacco stands at four million kg of unmanufactured tobacco per annum for both flue cured and dark fire cured tobacco. The potential for tobacco production in the country is estimated at about 250 000 metric tons per annum. At the moment, this potential is largely unexploited if one considers the attained maximum production of about 56 000 tons (TTC, 2006). The tobacco production trend is shown in Figure 1 below.



Source: ATTT National Office

Figure 1: Tobacco production trend in Tanzania by regions

Tabora region account an average of 32 percent of total production from 2004/05 to 2006/07 crop season.

2.3 Agricultural Crops Marketing

The need for price and cost data to make adequate farm management decisions underscores the necessity for expertise in the field of marketing. To maximize income or even to survive, farmers must not only produce the crops or livestock efficiently, but they must also buy the inputs and sell the product at the prices that result into making a profit. The ability to analyse the market and to reflect the changing market expectations in production schedules, input purchasing and product selling strategies are the essential component of profitable farming (Mutayoba, 2005). Low profitability of most agricultural commodities and products is often a result of high losses in quality and quantity, at post harvest stage. Losses in quality and quantity are mainly caused by poor harvesting methods, inadequate primary processing, poor storage and inappropriate transportation systems (Dimitri, 2002).

2.3.1 Post harvest handling

In agriculture, post harvest handling is the stage of crop production immediately following harvest. Post harvest handling include cleaning, sorting and packing. The moment a crop is removed from the ground, or separated from its parent plant, it begins to deteriorate. Thus post-harvest treatment largely determines the final quality, whether a crop is sold for fresh consumption, or used as an ingredient in a processed food product. After the removal of the crop from the field, post-harvest processing is usually continued in a packing house. This can be a simple shed or a large-scale, sophisticated, mechanized facility, with conveyor belts, automated sorting and packing stations, and the like. Initial post-harvest storage conditions are critical to maintaining quality. Each crop has an optimum range for storage temperature and humidity. Also, certain crops cannot effectively be stored together,

as unwanted chemical reactions can result. Regardless of the scale of harvest, from home garden to the industrialized farm, the basic principles of post-harvest handling for most crops are the same; that is, handle with care to avoid damage (cutting, crushing, bruising) store under certain temperature and cull (remove damaged items) (Wikipedia, 2008).

In tobacco production, post harvest practices include curing, baling, grading and storage. For optimum quality, curing system/barns have to be filled with uniform leaves, ideally of the same ripeness and stalk position. It is recommended that, the whole operation from harvesting to storage should be carefully organized to avoid leaves damage and minimize handling losses which would ultimately results into the required quality (Alfeu *et al.*, 2004).

2.3.2 Tobacco grading and baling

Grading and packaging are important marketing functions in order to satisfy consumer preferences and serve the chosen markets (Mishili, 2006). Tobacco leaves of the same grade (leaf colour and plant position) must be tied in hands and stored before baled/packed. In principle, tobacco baling/packaging takes place in baling sheds where tobacco of different grades are baled separately. Tobacco is baled at 25kg to 100kg before it is delivered to the sales floor or marketing centers for sale. From here tobacco bales are moved the market centre (Alfeu *et al.*, 2004).

2.3.3 Tobacco marketing

The marketing season for flue-cured tobacco in Southside Virginia runs for approximately three months. The actual marketing of the tobacco takes place at a

tobacco warehouse (auction), but the tobacco is normally not stored there for any great length of time. Tobacco producers must designate their warehouse choice before the start of the marketing season and are required to market their tobacco at the designated warehouse for the entire marketing season. Tobacco grading and packaging/baling is done at a warehouse. The tobacco is auctioned by pile as the auctioneer and buyers proceed quickly down the rows. Storing, grading and packaging/baling tobacco at the warehouse has helped much in reducing leaves losses and time spent during marketing (Wise and Dixie, 1995).

In Tanzania, all the tobacco produced at farm level is sold to the contracted tobacco buying company through PCS. Tobacco can be sold either to the Primary Society market center or to the central market. All Primary Societies which are located about 40km from the selected central market are supposed to sell their produce to the central market. Under centralized market, the buying Company is responsible in paying transport costs of tobacco to the central market; the buying companies are also responsible to pay for other marketing arrangements to the PCS (TTC, 2006). For the purpose of quality control, tobacco classifiers in every market make random checkup of bales before the market starts. Also the weighing scales must be calibrated. The buyer and the seller shall be obliged to sign and complete a Purchase Contract. Tobacco buyers take the possession of the tobacco at these sale floors or marketing centers (TTB, 2005).

From all the market centers, tobacco bales are loaded into trucks (at costs of PCS) and moved to railheads (at Company cost - TLTC) where reweighing takes place at 100%, rechecking at 50% of all bales and stacked accordingly. Sometimes stacks are

changed top bales down and bottom bales up to avoid carbonization (all at Company cost). Finally tobacco is reweighed and then loaded on wagon/trucks and transported to Morogoro factory for processing. Finally, the processed tobacco is sold in the export market and domestic cigarette manufacturers.

2.4 Roles of Institutions in Tobacco Marketing

The marketing of tobacco depends on the institutional and organizational arrangement that promote the crop. The efficiency of marketing operations of tobacco depends much on tobacco stakeholders. Stakeholders involved in tobacco marketing are buying companies, cooperative unions, cooperative apex and Tanzania Tobacco Board (TTB).

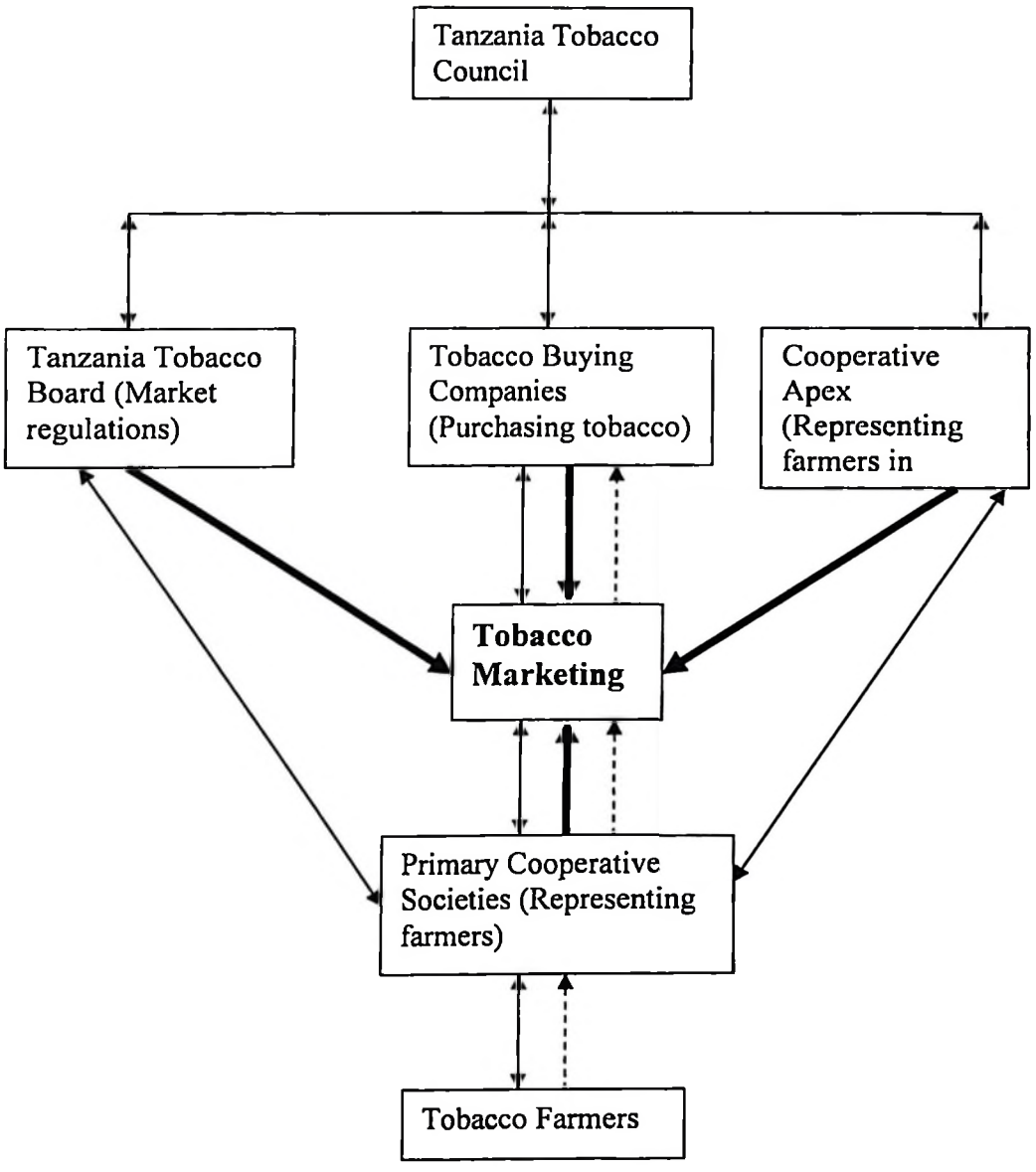


Figure 2: Roles of institutions in tobacco marketing at Farmers level

KEY:

Flow of information

Marketing chain

Tobacco marketing operations

2.4.1 Tobacco pricing

In a free market economy the price of a commodity or service will mainly be determined by demand and supply. Tobacco price setting is done by the tobacco council of Tanzania. The Tobacco council sets the prices for tobacco producers before the beginning of the new crop season to enable PCS (farmers) plan and make proper production decisions. Before the prices are announced consideration is given to the expected farmers production costs, Board's and Co-operative Unions operational expenses, crop volume and quality and foreign exchange rates. Currently, there are 64 grades of tobacco price ranging from 0.110 USD to 1.470 USD per kilogram as for 2006/07 crop season (TTB, 2006).

2.4.2 Quality control

For agricultural products to be imported, there are a number of quality regulations established by the importing country. Basic regulations focus on grades, size, weight and packaging (Mutayoba, 2005). Quality in tobacco is determined by uniformity, leaf structure, maturity, leaf nature and the degree of blemish, injury, finish and waste. In the USA, Growers can influence tobacco quality through their choices of farming, harvesting, curing, and sorting techniques. The ability to influence tobacco quality makes it possible for contracting firms to offer a "carrot and stick" approach to induce growers to produce tobacco at the quality level they desire. By paying high prices for high quality and low prices for low quality, contracts can provide growers with larger price incentives to increase the share of high-quality tobacco and decrease the share of low-quality tobacco for each crop. Contracts reward high quality produce and punish low quality produce (Dimitry, 2006). In Tanzania, there is a tendency of farmers to present tobacco for sale which does not meet the required

characteristics. The situation has resulted into farmers selling tobacco at low prices, resulting into low income to farmers. The buying company, on the other hand, incurs higher handling costs. The presence of dead or unusable tissues on leaves is one of the contributory factors for the company to incur higher handling costs (TTB, 2005).

2.4.3 Farmers/PCS's payments

There are two types of payments offered by the buying company to farmers. These payments are categorized into those originating from tobacco sales (after 100% deduction of inputs debts), and those considered as commission for covering some operations costs of the PCS.

After every tobacco market, farmers are supposed to be paid by the buyer company within fourteen (14) days after the respective market. After the completion of all tobacco markets and payments originating from tobacco sales, then payments of commissions follow. The amount of commission to be paid is decided by the Tobacco Council, and is paid based on the production (in kilograms) of the respective PCS (Alfeu *et al.*, 2004).

Another form of payment offered to PCS by the buying company is the "Into Store Cost", which is a type of commission for covering running of various operations of the crop, mainly office operations, undertaken by the PCS. It is also stipulated that, if inputs debts were not fully recovered from tobacco sales, then they are deducted from commission payments (Alfeu *et al.*, 2004).

2.5 Tobacco Market Assurance

According to Charles and Shepherd 2001, most farmers in developing countries are often stuck in what they can produce by limited marketing opportunities. Farmers can not produce efficiently unless they know are assured of the markets for their crops and traders or processors will not invest in ventures which have no guarantee as to whether the required commodities can be consistently produced. Contract farming is a system for the production and supply of agricultural produce under forward contracts between producers/suppliers and buyers. The essence of contract farming is the commitment of the producer/seller to provide an agricultural commodity of a certain type, at a time, price, and in the quantity required by a known and committed buyer usually involving the basic elements which include pre-agreed price, quality, quantity or acreage (minimum/maximum) and time (Baumann, 2000). Contract farming offers a potential solution by providing market guarantees of produce. Farmers do not have to search for and negotiate with local and international buyers.

Contracting is the marketing method used in many parts of the world (e.g. Brazil, Argentina, Mexico and Malawi). Contracting is gaining popularity on the demand side as food manufacturing/processing firms attempt to meet increasing demands of today's consumer in terms of product quality and uniformity. Production contracts specify certain production practices and holds ownership to some of the inputs. Marketing contracts generally specify quantity, quality, price and delivery date for agricultural products (Marvin, 2000).

Tobacco production and marketing in Tanzania is done mainly on a contract basis between the buying companies, multinational buyers and PCSs. Tobacco buying companies enter into contract with multinational manufacturer to supply tobacco of a given quality and quantity according to their specification. In order to qualify for annual supply contracts with the multinational manufacturer, tobacco growing industries must conform to certain minimum requirements of good governance, good agricultural practices, corporate social responsibility and sustainability.

Another form of contract is between the buying company and the Primary Co-operative Societies. This contract binds PCS and the buying company. PCS sign contract on behalf of individual farmers, whereby individual farmer's contract is done under collateral of PCS. On the other hand, the PCS is guaranteed by the Union. The companies have been implementing their tobacco purchasing and distribution function through Association of Tanzania Tobacco Traders (ATTT) since 1999. ATTT implement all shareholder companies operations such as PCS (farmers) inputs requirements, market preparation and leaf transportation to the processing factories.

Through contract farming, buying companies are responsible in training farmers on the efficient use of farm resources, improved methods of applying chemicals and fertilizer, knowledge of the importance of quality and the demands of export markets. The cost of acquiring and dissemination of such information/knowledge is all covered by the buying company. The buying company incurs more cost in monitoring and evaluation of all farming operations. Such costs includes supplying

of baling presses at each baling centers, training, investment in training extension workers, processing (checking tobacco grades and NTRM) etc. Contract farming has played an important role in reduction of cost of monitoring and evaluation, since some information which requires urgent decisions is to be dispatched to the contracted PCS. PCS are responsible in the dissemination of such information to individual farmers.

2.6 World Tobacco Demand

The world demand for tobacco is at best stagnant and more likely declining. Tanzania competes with China, India and other South Eastern Asian origins all of who are very competitive producer of tobacco (TTC, 2006). Therefore, there is a potential risk that due to bad quality tobacco the Tanzanian crop may not be competitive in the market and also farmers' income will not be improved.

2.7 Market Problems Facing Farmers and Tobacco Buying Companies

The marketing of agricultural products in many developing economies, is a major determinant of development generally and agricultural development in particular (Ashimogo *et al.,* 2003). Enumerating problems of smallholder farmers in marketing their produce, TARP II-SUA (2002) listed low quality of produce, producing without regard to market situation, poor infrastructure and lack of processing skills. In tobacco marketing the following were found to be the main problems facing farmers and tobacco buying companies.

Lack of information on quality requirements and how to attain the required classification and the practiced pricing system based on "all-in" classification were

found to be the main problem facing tobacco farmers and the buying companies. This problem results into high handling cost to tobacco buying companies before processing (blending). Also this type of classification has been the main factor farmers attaining, low income due to selling their produce at lower prices. In the USA, companies buy by tobacco in piles and after the purchases all tobacco is packed ready for transportation. The buying company pays high prices for high quality and low prices for low quality. This practice makes it easier for the auctioneer to classify tobacco and it also has helped in controlling the purchase of mixed grades.

Contractual arrangement seems not to consider mutual benefit resulting to defaults (side selling). This is due to the fact that, the current contractual agreement stipulate that farmers will be paid only after all inputs loans have been deducted. This has been the main cause of side selling of both inputs and tobacco. The sale of tobacco by farmers to a third party, outside the conditions of a contract exist in many PCS and are not easily controlled. Such attempts have not been beneficial to both PCS and tobacco buying companies, since they lead into bad debt to PCS and also buying companies get losses due to poor loan recovery.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Study Area

The study aimed at collecting information from respondents on tobacco quality and their opinion on how to solve the problem of tobacco quality. Tabora region was selected to be the study area. The region has the biggest potential for tobacco production, (flue cured varieties) and is the biggest producer country-wide. In the 2006/2007 season as it is shown in Figure 1 the total of 14 291 993kg which is about 32 percent of the total production was purchased by the two companies in Tabora, that is, TLTC and Alliance One Tobacco Tanzania Limited. The region has a total of 38 Primary Societies and 10 Independent Farmers under TLTC. All Primary Societies in the region are members of the Union (WETCU).

3.2 Sources of Data and Information

Both secondary and primary data have been used in addressing specific objectives of the study. Secondary data have been obtained from tobacco stakeholders, TTB, Cooperative union, tobacco companies, and Primary Societies. Primary data were collected through interview and focused group discussions with farmers, PCS Officers and company's officials and other stakeholder officials (WETCU, TTB and APEX). Also observation method and informal discussion was used during marketing season. According to Bailey, (1998) 30 sample size is considered to be the minimum for statistical analysis. In this study the sample size of 40 respondents were interviewd from selected PCSs and other tobacco stakeholders. These PCSs are Ugowola, Kalola, Ishihimulwa, Kigwa Kijiji, Migungumalo and Msimba.

3.3 Data Processing and Analysis

To achieve the study objectives quantitative and qualitative analyses of the data were carried out. The data were collected and statistically analyzed using Statistical Package for Social Sciences (SPSS) version 11.5. Part of the analysis was based on descriptive statistics to describe the responses, characteristics and trends of some data and information regarding the current marketing of tobacco at farmers' level. Production costs and returns were analyzed using Gross Margin Analysis in order to examine the effect of price on farmers' income.

3.3.1 Gross margin analysis

The gross margin of a farm activity is the difference between the gross income earned and the variable costs incurred. Gross margin analysis is used as an indicator of enterprise profitability/viability. It is easy, simple and flexible to use, also it does not require advanced mathematical computation beyond addition, subtraction and multiplication which are within the ability of an intelligent farmer. The Gross Margin Analysis was used to make comparison of returns to resources for different economic activities and suggest relative efficiency in the performance of different markets (Msangi, 2001).

$GM = TR - TVC$

Where;

GM = Average gross margin (TShs/ha)

TR = Average total revenue (TShs/ha)

TVC = Average variable total costs (TShs/ha)

CHAPTER FOUR

FINDINGS AND DISCUSSION

4.1 Overview

This chapter presents the study findings and the discussion. The findings are divided into two types namely, descriptive statistics and profitability analysis.

4.2 Gender of Respondents

The number of male farmers, PCS officers and other tobacco stakeholders interviewed was bigger than the number of female farmers, PCS officers and other tobacco stakeholders interviewed. In the farmer category which comprised males, there were 83 percent of the interviewees whilst in the latter category which comprised females there were only 16 percent of the interviewees. Fewer percentage of females in the sample was attributed by the cultural issues that, women's in rural areas are not involved in production issues especially the production of cash crops.

Table 1: Gender of respondents

Respondents	Gender		
	Male	Female	Total
PSC Officers	14	3	17
Farmers	11	2	13
Tobacco Stakeholder	8	2	10
Total	**33**	**7**	**40**

Source: Own survey, 2007

4.3 Mode of Land Acquisition

As for the mode of land acquisition, Table 2 shows that Majority of farmers (42.5%) acquired land through the village government, 25% inherited land while around 18 percent had free access. Free access involved clearing of natural forest land near the

village. Only 15% of the interviewed farmers had bought or hired the land for farming. An average land owned by tobacco farmers for the 2006/2007 was 3.5 acres which is equivalent to 1.5ha. According to Mutayoba, (2005) one has to acquire land through inheritance, purchasing or given by the government; the average land area ownership and occupation is in accordance with the villagelization programme of 1960s and 1970s, which require household to have a homestead plot of about 0.5ha.

Table 2: Tabora region: Mode of land acquisition

	Frequency	Percent (%)
Inherited	10	25.0
Bought	3	7.5
Hired	3	7.5
Given by the village Government	17	42.5
Access as free land	7	17.5
Total	**40**	**100.0**

Source: Own survey, 2007

4.4 Labour Requirement in Farm Operations

Household Labour requirement for tobacco production, farm processing and marketing is mainly on seasonal basis. From the table 3 below it can be seen that, tobacco has the highest labour demand per year is during harvesting and post harvest operations (that is curing, grading and baling operation). More than 50 percent of the respondents indicated that these operations require labour the most.

Table 3: Tabora region: Labour requirement by farm operation

Operation	Frequency	Percent (%)
Seedbed management	7	17.5
Field management	12	30.0
Harvesting/curing/grading/baling	21	52.5
Total	**40**	**100.0**

Source: Own survey, 2007

4.5 Tobacco Marketing

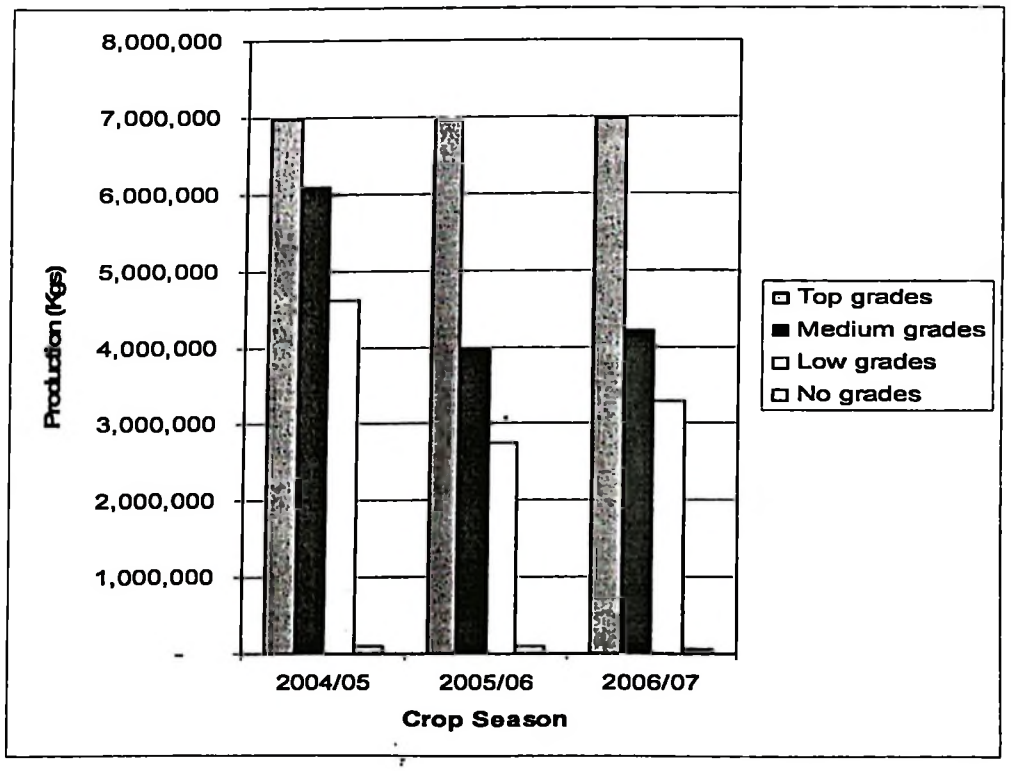
Tobacco selling is usually done at the market centers; it involves classification, agreement on grades and exchange. Tanzania Tobacco Board is responsible in certifying the warehouses to be used as market centers. One PCS can have more than one marketing center and also one marketing center can be used by more than one PCS. All the necessary preparations before buying are considered, including farmers representation and market center in-charge to avoid biasness, any shortcomings are rectified before the buying process starts. TTB classifiers are responsible in classifying tobacco grade and mark the bale ticket depending on the predetermination of the grade to be purchased as settled by the National Tobacco Council. If the blender (buyer) and farmers representative agree with the grading provided by the TTB then the bale is bought, however if either of the two part disagree with the grade, the TTB classifier will be summoned to the bale in question and classification will be resolved (Machunda, 2007).

Quality in tobacco products is highly considered in order to avoid restrictions of export market to final buyers. International customers demand that tobacco bales are uniformly packed with no mixing and/or nesting. In addition, uniform bale shape, weight and good quality wrapping and stitching is required to command a premium price (TTC, 2006).

4.5.1 Marketing problems

The study observed that, the current marketing problem identified is low quality of the delivered tobacco. This is due to the fact that majority of the farmers do not have enough skills on tobacco post harvest handling. E.g grading; they sometimes leave

the work (grading) to the laborer. As a result farmers end up with mixing the low unmatched grade with the superior grades in a single tobacco bale just for sale. This usually results into poor quality and hence low producer price. The quality problem was found to be one of the factors contributing to high marketing costs. Buyers have to check the deliveries, slowing the buying speed at the market center resulting into delay and lengthy marketing periods and consequently, lowering tobacco grades and in turns lowering producer price. Similar result of farmers selling tobacco of mixed grade (bad quality) was observed by Koester *et al.,* (2004). They concluded that the seller is in a better position to inspect the quality of its tobacco and he should therefore bear the penalty for bad quality.



Source TTB: Final report 2004/05 - 2006/07

Figure 3: Tabora region tobacco production by grades

According to Figure 3, top grades account for large shares. The share of medium and low grades has decreased while that of the top grade has remained the same. No grades tobacco has been minimal. Therefore the buying company should put more emphasis in training farmers on proper handling of tobacco after harvesting.

4.6 Factors for Marketing Low Quality Tobacco at Farmers' Level

From the findings of the study, the following emerged as the main factors leading to poor quality tobacco at farmers' level, farmers not follow good agronomic management practices (60%), low barn capacity (32.5%), not having tobacco stores (17.5%) and mismanagement of Primary Cooperative Society (22%).

Table 4: Factors for production and Marketing of poor quality tobacco

Factors	Frequency	Percent (%)
Poor agronomic management practice	11	27.5
Barn capacity	13	32.5
Storage	7	17.5
Mismanagement of PCS's	9	22.5
Total	**40**	**100.0**

Source: Own survey, 2007

4.6.1 Agronomic management practices

Most farmers do not follow good agronomic practices as a result they end up with low quality tobacco; this is reflected by low yield. Whereas the yield of flue cured tobacco variety per hectare is around 1 150kg, the potential yield is of at least 1800kg per hectare (TTC, 2006). Considering the marketing regulation which stipulates that every tobacco bale must have the weight of 25 to 60kg; farmers fail to produce tobacco of the same grade that can reach the minimum weight of 25kg due to low productivity. This study suggests that farmers should consider having farmers

groups that can have product pools to attain the required baling weight. However, institutional arrangement may be a hinderance especially on interlocking exchange of input credit and output proceeds.

4.6.2 Barn capacity

The study found out that majority of the farmers do not have enough barns capacity for tobacco curing. Inadequate barn capacity to accommodate reaped tobacco and hence over packing, leads into low quality tobacco due to rotting of tobacco leaves, breakages during offloading from barn, breakages during untying of cured leaves and breakages while carrying loose leaves to bulking stores. This make it difficult during grading and thus farmers end up with mixing tobacco of different grades. In attempt of addressing the problem, the company, through its loan scheme, issues loans for barns renovation and construction. The study observed that there is bureaucracy in issuing such loans, leading to delays on the loan payments. Consequently farmers do not receive such loans during the proper period for barns constructions (i.e following the crop calendar) as a result they misuse the fund. There is a need for the Company to restructure the system of issuing loan, by reducing the path that the loan application forms has to pass before being approved. Therefore there must be a set of conditions for the farmers to fulfill before they are approved for the loan which will need only one PCS leader and one company official to authorize. Also by rescheduling time set for farmers to start applying for the loan, will reduce the misallocation the fund by farmers and therefore they will construct more barns.

4.6.3 Storage

Storage is an important marketing function which plays an important role in tobacco marketing. After the curing process, tobacco must be stored in the bulking store according to plant position. Separation of tobacco leaf into distinct plant position is extremely important in tobacco grading at farmers level. The current study found out that most farmers do not have tobacco stores. They store tobacco in their houses, it is therefore difficult to separate tobacco leaves according to plant position this results into mixing tobacco with non-tobacco materials. The outcome of this is the mismatch of tobacco leaves and a considerable quantity of foreign materials, hence low quality tobacco. Since majority of farmers are small scale producers, it seems that there is lack of economies of scale (ie scale do not justify the investment in storage). Therefore the buying company should consider and issue loan for stores construction on long term basis. This will motivate farmers into building tobacco stores.

4.6.4 Mismanagement of primary cooperative society

The standard management of PCS in many cases has resulted into production of low quality tobacco. Whilst some PCS are adequately managed, there are many that are poorly managed. It happens that some Primary society's leaders are not transparent on their books of accounts; they tend to take inputs loans without considering the ability of farmers to repay. This has resulted into the failure for some of the farmers to recover their debts. Consequently, incidences of farmers not being paid for their tobacco deliveries have been increasing. This has induced farmers to strategically default PCS by first selling their inputs and second by taking their quality tobacco to an alternative buyer (a nearby PCS) but present poor quality tobacco to their contracted PCS. This leads to further accumulation of inputs debt (Table 5).

Table 5: Debt recovery, payment to PCS and percentage of payment to farmers (USD)

Area	Total debt	Tobacco Value	Recovery	Total Payment To PCS	% of Payment to Farmers
Tabora Central	658 777	1 302 682	655 969	646 712	50
Nzega	1 047 516	1 762 655	1 047 918	714 737	41
Mabama	1 110 273	2 267 431	958 901	1 308 515	58

Source: ATTT Procurement Report 2006/07

As it is shown on (table 5) due to the contract made between PCS and the company, farmers are liable to be paid by the PCS the remained amount after the deduction of debts by the company. As a result PCS members fail to repay themselves efficiently to realize their intended profit margin. Therefore the study suggests that, companies should train all PCS leaders on managerial skills. This includes inputs planning, record keeping, budgeting etc.

4.7 Profitability Analysis

The Production cost and revenue for tobacco was calculated and the gross margin analysis was used to get the profitability of the crop. Labour in tobacco used to be hired on seasonal basis; according to the study, at the end of the season a total of 310 180 TSh. is required. This includes labour charge and cost of food for hired labour. A total of 476 847 TSh. is required for farm input. Therefore the total production cost was 787 027 TSh.

Table 6: Tabora region: Cost analysis and revenue of tobacco in 2006/07 crop season

Costs		Revenue	
Item	Value in TShs.	Item	Value in TShs.
Labour costs (TShs/ha)	310 180	Average production/ha	1 150.00
Inputs costs (TShs/ha)	476 847	Average Price/Kg	1 175.00
Total Production cost	787 027	Total Revenue	1 351 250.00
		Gross Margin/ha	**566 548.00**

Source: ATTT Production Department

Note: The data on cost were extracted from the attached Appendix 2. The data in Appendix 2 was collected to assess small scale farmer's loan repayment ability.

Reference is made to 1ha of tobacco farm.

Family labour involved in production activities was not considered in calculating labour cost.

Average Productivity per hectare for small holder farmers is 1 150kg

Average Price/Kg in 2006/07 crop season was 1 175/=

According to the above data, the 2006/07 farmers' GM per hectare of tobacco farmers was 566 548 TSh. It is evident that tobacco growers in Tanzania have not captured the full potential benefit of production. There is a room for farmers to increase their GM per hectare above that currently attained GM if they improve quality of their produce, because in competitive market top quality product fetch higher price. Therefore the study suggests that, farmers should follow good agronomic practices, by construction of tobacco storage and improving barn capacity and hence reducing tobacco yield losses and ultimately good quality tobacco.

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

The World demand for tobacco has stagnated in recent years and the consumption for the same in most developed countries has declined due to high taxation on cigarettes and the mounting anti-smoking campaigns. For the tobacco company to meet the required standards in supplying tobacco they must purchase tobacco which is produced in high quality and free from non tobacco related material at farmers level. This will make the tobacco industry beneficial to both farmers and buying companies.

Based on the findings, the following recommendations are aimed at improving the tobacco production and marketing in Tanzania.

- Technical assistance to tobacco is an important component in rationalizing production and marketing of the crop. An increase in yield can be achieved through improved growing techniques. Improved quality can also be achieved though better handling, grading and baling. The company is advised to train farmers on proper field management and also farmers should plant tobacco by considering their barn capacity that is the number and size of barns for curing tobacco should match with the area cultivated. In this regard, the provision of adequate and quality extension services is therefore vital.

- A need for more government effort in reinforcing the lawful arrangement in solving the problem of mismanagement of PCS (theft and misuse of input) which is caused by PCS leaders in order to protect the interest of farmers.

Also training and seminar on management skills, proper record keeping of inputs and tobacco sales including debt repayment and farmers payments should be given to PCS's leaders.

- Farmers should be made more accountable in ensuring that no tobacco is delivered with mixed grade and NTRM. Farmers are in a better position to inspect the quality of its tobacco and that they should bear the penalty for delivering bad quality product. The present rule of purchasing the whole bale at lower price is not sufficient. The penalty should involve charging the seller for rehandling costs. Alternative mechanism is to give farmers incentives that will directly be associated with quality. Also, there should be efforts to educate farmers on quality handling and follow-up by extension officers at all stages of production. Also institutional innovations is required at baling, storage and in all other operations.

- TLTC should subsidize all PCS that are willing to build tobacco stores, permanent baling and grading center for the purpose of reducing incidences of mixing different qualities and foreign materials. This will reduce company's cost for handling and transaction in the tobacco market. The absence of stores, baling and grading centres have been a catalyst to tobacco mixing and nesting. Also, the company should subsidize all farmers who are willing to construct new barns for the purpose of increasing barn capacity. Such subsidy should be one of the construction materials, example iron sheets

etc. This will reduce unnecessary leaves loss during harvesting and curing period, and hence better quality tobacco.

- A need for buyer companies to impart knowledge to farmers on how to commercialize their production and follow good agronomic practices so that farmers can change the spirit of practicing farming on discipline basis to commodity basis. This will reduce the incidence of mixing tobacco of different grade. Farmers are advised to raise tobacco productivity by increasing farm size and reducing pre and post harvest losses in tobacco production. Buyer companies should maintain timely and adequate supply of tobacco production inputs to farmers; they must also ensure that farmers are accessible to reliable water supply for proper seedbed management.

- Further research on the Tobacco farming is needed to make sure that all agronomic practices are followed (from production to marketing) for the purpose of raising the quality and increasing the production of the tobacco leaves under the same acreage. Tanzanian farmers are far from reaching the production potential of Tanzania that currently is 1800kgs per hectare. Extension education in production and marketing aspects of tobacco farming is required.

The recommendations provided are aimed at addressing the problems of tobacco production and marketing in all the regions growing tobacco. The best approach to be used is combined efforts of all tobacco stakeholders on addressing the existing problem, and making sure that each tobacco stakeholder plays its role.

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APPENDICES

Appendix 1. FGD check list guide for tobacco farmers/PCS

Name of PCS.....

Name of PCS Leader/Farmers .....

Occupation .....

Date of interview

1. Why do you like to grow tobacco?
   i. Is more profitable
   ii. Persuaded by neighbours
   iii. Others Specify

2. Do you get any extension services from companies leaf Technician?
   i. Yes
   ii. No

3. How do farmers acquire land for Tobacco production?
   i. Inherited
   ii. Bought
   iii. Hired
   iv. Given by village government
   v. Accessed as a free land
   vi. Others specify

4. How many acres of tobacco do you grow?.....

5. What factors (from seedbed to marketing) can lead into poor quality tobacco
   i. Poor agronomic management practices
   ii. Poor Storage
   iii. Mismanagement of PCS
   iv. Low barn capacity

6. Does the PCS have the permanent balling shade?
   i. Yes
   ii. No

7. Where farmers grade their tobacco
   i. At the balling shade
   ii. Under the tree
   iii. At the store

8. Why farmers mix tobacco leaves of different grade?
    i. Lack of knowledge on tobacco grade
    ii. Mixing purposely in order to sell at the grade with high quality

9. What practices are strongly disliked by the tobacco farmers which may even lead to side selling?
    i. Instability of Primary Society leaders
    ii. Farmers not paid at 100% in the previous season
    iii. Delaying and poor inputs distribution

10. What should be done to improve tobacco quality?
    i. To build permanent balling shade
    ii. Loan for barns/stores to be issued on time
    iii. All tobacco stakeholder to play their role

11. What is you recommendation on the number of grades?

THANK YOU FOR YOUR COOPERATION

Appendix 2: FGD check list guide for tobacco stakeholders

Name of organization.....

Respondent name .....

Occupation/Position .....

1. For how many years have you been in marketing (tobacco business).....

2. Does your organization provide training/Seminar to tobacco farmers/PCS

   i. Yes
   ii. No

3. If no why?.....

4. What are the duties played by your organization related in promotion and development of the crop/industry
   .....

5. What factors (from seedbed to marketing) can lead into poor quality tobacco?
   i. Poor agronomic management practices
   ii. Poor Storage
   iii. Mismanagement of PCS
   iv. Low barn capacity

6. Why farmers mix tobacco leaves of different grade?
   i. Lack of knowledge on tobacco grade
   ii. Mixing purposely in order to sell at the grade with high quality

7. What practices are strongly disliked by the tobacco farmers which may even lead to side selling?
   i. Instability of Primary Society leaders
   ii. Farmers not paid at 100% in the previous season
   iii. Delaying and poor inputs distribution

8. What should be done to improve tobacco quality?
   i. To build permanent balling shade
   ii. Loan for barns/stores to be issued on time
   iii. All tobacco stakeholder to play their role

9. What is your recommendation on the number of grades?

THANK YOU FOR YOUR COOPERATION

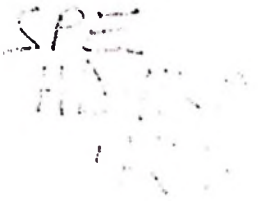
Appendix 3: Tobacco Production Cost per Hectare: Flue Cured Variety

COUNTRY: TANZANIA **COMPANY / REGION: ATTT** **CROP YEAR: 2006/07**

COST TYPE	LABOR				MATERIALS			
	Hours	Cost per hour	Total	USD	Quant.	Cost per unit	Total	USD
1. SEEDBED NUMBER PER HA (3)								
Leveling the soil	24	250	6000	5.3				
Watering to stimulate weed growth	14	200	2800	2.5				
Weeding seedbed	36	200	7200	6.3				
Fertilizer application	6	500	3000	2.6	0.5	29666	14833	13.0
Sowing	2	500	1000	0.9				
Insecticide application	4	500	2000	1.8	2	5500	11000	9.6
Mulching	40	200	8000	7.0				
Water management	540	40	21600	18.9	1	4530	4530	4.0
Thinning	3	350	1050	0.9				
Clipping	3	350	1050	0.9	1	1200	1200	1.1
Clean, disinfect & store seedbed materials								
Others:.....								
2. FIELD								
Plowing	168	100	16800	14.7	1	2500	2500	2.2
Harrowing	56	50	2800	2.5				
Furrowing	56	50	2800	2.5				
Basal fertilizer application	50	50	2500	2.2	10	29666	296660	260.0
Ridging	100	50	5000	4.4				
Transport of seedlings	10	100	1000	0.9				
Transplanting	90	150	13500	11.8				
Fungicide application	24	50	1200	1.1	1	5300	5300	4.6
Insecticide application	24	50	1200	1.1	2	5500	11000	9.6
Herbicide application								
Irrigation-equipment + operation								
Irrigation-Fuel								
Side-dress fertilization	48	100	4800	4.2	2.5	23400	58500	51.3
Cultivation/weeding	100	100	10000	8.8				
Mulching								
Scouting & other IPM practices								
Topping	32	200	6400	5.6				
Suckering	64	200	12800	11.2				
Suckericide application	32	200	6400	5.6	1	18256	18256	16.0
Reaping / Stalk-cutting	256	100	25600	22.4				
Transport of leaves	48	200	9600	8.4				
Stalk and root destruction	24	50	1200	1.1				
Others:.....								

COST TYPE	LABOR				MATERIALS			
	Hours	Cost per hour	Total	USD	Quant.	Cost per unit	Total	USD
3. CURING								
Stringing / Racking / Spicring	192	50	9600	8.4				
Loading	48	60	2880	2.5				
Curing supervision	1344	10	13440	11.8				
Fuel (+ loading wood, coal)	56	20	1120	1.0	4	1500	6000	5.3
Electricity (kW)								
Re-humidify								
Unloading	48	100	4800	4.2				
Others:								
4. MARKET PREPARATION								
Stripping / de-stringing	190	40	7600	6.7				
Grading	170	70	11900	10.4				
Bundling	21	40	840	0.7				
Baling + baling materials	20	100	2000	1.8	8	5884	47068	41.3
Transport to buying station	20	500	10000	8.8				
Others:.....								
SUB-TOTAL	3963		241480	211.6	34		476847	417.9

COST SUMMARY	Local Currency	US$
Labor	241480	211.6
Machinery+operator		
Materials	476847	417.9
Depreciation		
Maintenance and repair		
Other costs		
TOTAL PRODUCTION COST	**718327**	**629.6**



Source: ATTT National Office