

**CONSTRAINTS FACING COMMUNITY SECONDARY SCHOOLS IN  
INCORPORATING AGRICULTURAL SCIENCE SUBJECT IN THEIR  
SCHOOLS: THE CASE OF SONGEA MUNICIPALITY, TANZANIA.**



**FOR REFERENCE  
ONLY**

**PROTAS LAURENT KOMBA**



**A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF MASTER OF SCIENCE IN  
AGRICULTURAL EDUCATION AND EXTENSION OF  
SOKOINE UNIVERSITY OF AGRICULTURE.  
MOROGORO, TANZANIA.**

**2012**

## ABSTRACT

The aim of this study was to find out constraints facing community owned secondary schools in Tanzania in incorporating agricultural science as one of the subjects taught in their schools, with specific reference to Songea Municipality. The study specifically identified the constraints facing the community owned secondary schools in incorporating agricultural science as one of the subject taught and assessed whether or not secondary school students were in need of studying agricultural science subject. Also it examined the views of secondary school students not studying agricultural science subject as well as assess if the Tanzanian education policy favored secondary school students to study agricultural science subject or not. It also assessed whether there were self-reliance activities carried out in schools such as animal husbandry, crop cultivation and school projects. The study adopted a cross-sectional survey method whereby students and teachers from randomly selected community secondary schools were selected and involved in the study. Descriptive statistics such as frequencies and percentages were used to summarize the information obtained from the respondents. The identified constraints include improper Tanzanian education policy concerning teaching agriculture science subject, lack of teaching and learning materials, inadequate school physical facilities, unavailability of qualified agriculture teachers and also financial problems in schools. The study further found out that students viewed agriculture science subject to be an important subject to them because of its immediate use of the knowledge and skills obtained through studying the subject. Moreover, the study found that there was no self reliance activities carried out in community secondary schools. Thus, the study concluded that, there is need to incorporate agricultural science subject in the community secondary schools since the informants were supportive of it, in spite of the constraints associated with incorporating the subject in these schools.

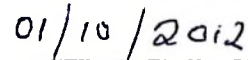
**DECLARATION**

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



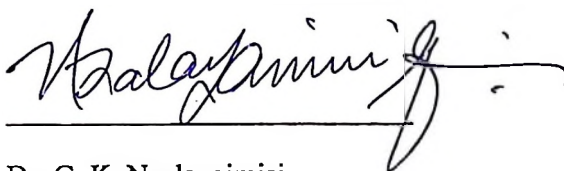
Protas Laurent Komba

(MSc. Candidate)



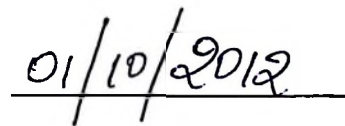
Date

The above declaration is confirmed by



Dr. G. K. Nzalayaimisi

(Supervisor)



Date

## **COPYRIGHT**

No part of this dissertation may be reproduced, stored in any retrieval system, or transmitted in any form or by any means without prior written permission of the author or Sokoine University of Agriculture in that behalf.

## ACKNOWLEDGEMENTS

First and foremost, I thank the Almighty God for granting me good health and capability of undertaking postgraduate studies at Sokoine University of Agriculture (SUA). Second, I wish to express my heartfelt thanks to my supervisor Dr. G. K. Nzalayaimisi, for his guidance, patience and support that made this work possible. Also I am thankful to my employer the Songea Municipal Council for granting me study leave that enabled me to pursue the Master of Science in Agricultural Education and Extension (MSc AEE) degree.

I appreciate and thank the Embassy of Belgium through the Belgian Technical Cooperation (BTC), for the scholarship rendered to me to pursue this study.

I extend my honest gratitude to all staffs in the Department of Agricultural Education and Extension (AEE) for giving me knowledge and skills during the entire period of studying at SUA, which contributed a lot to the accomplishment of this study.

Furthermore, my sincere gratitude is directed to my colleagues (MSc AEE students' 2010-12 program) for their social, academic interaction and co-operation. Special gratitude goes to my parents, siblings and friends for their prayers and encouragement throughout my course of study. Furthermore, I am grateful to my wife Bumi Kasege and our children Gabriel, Doris and Dorcas, who tolerated my absence while I was away studying.

Lastly but not least, I am grateful to the Head of schools of Matarawe, Ruvuma, Mashujaa, Kalembo and Mletele Secondary Schools for their generosity. Moreover, I thank all my informants for the kindness and willingness to participate in this study. May God bless them all.

## **DEDICATION**

I dedicate this work to my late father Laurent Komba and to my beloved mother Kerubina Kimbira, who laid the foundation for my success in education, and to my beloved wife Bumi Kasege, our children Gabriel, Doris and Dorcas, whose understanding and encouragement enabled me to attain this level of education.

## TABLE OF CONTENTS

<b>ABSTRACT.....</b>	<b>ii</b>
<b>DECLARATION.....</b>	<b>iii</b>
<b>COPYRIGHT .....</b>	<b>iv</b>
<b>ACKNOWLEDGEMENTS .....</b>	<b>v</b>
<b>DEDICATION.....</b>	<b>vi</b>
<b>TABLE OF CONTENTS .....</b>	<b>vii</b>
<b>LIST OF TABLES .....</b>	<b>xi</b>
<b>LIST OF FIGURES.....</b>	<b>xiii</b>
<b>LIST OF APPENDICES .....</b>	<b>xiv</b>
<b>LIST OF ABBREVIATIONS.....</b>	<b>xv</b>
 <b>CHAPTER ONE .....</b>	 <b>1</b>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
<b>1.1 Background Information.....</b>	<b>1</b>
<b>1.2 Problem Statement and Justification of the Study.....</b>	<b>5</b>
<b>1.3 Objective of the Study .....</b>	<b>6</b>
<b>1.3.1 General objective .....</b>	<b>6</b>
<b>1.3.2 Specific objectives .....</b>	<b>6</b>
<b>1.3 Research Questions.....</b>	<b>7</b>
 <b>CHAPTER TWO .....</b>	 <b>8</b>
<b>2.0 LITERATURE REVIEW.....</b>	<b>8</b>
<b>2.1 Historical Background of Community Secondary Schools .....</b>	<b>8</b>

2.2	The Rationale for Establishing Community Secondary Schools in Developing Countries .....	8
2.3	Profile of Community Secondary Schools in Tanzania.....	11
2.4	Management of Community Secondary Schools in Tanzania .....	12
2.5	The Role of Resources in Managing Schools .....	13
2.5.1	Human Resource .....	13
2.5.2	Teachers.....	13
2.5.3	School leaders .....	14
2.5.4	Non - teaching Staff .....	14
2.5.5	Students .....	14
2.6	Teaching and Learning Materials.....	15
2.7	Physical Infrastructure .....	15
2.8	Financial Resources.....	15
2.9	Secondary School Agricultural Teaching in Tanzania .....	16
2.9.1	Agriculture teaching pre-independence period.....	16
2.9.2	Agriculture teaching post-independence period .....	17
2.10	Summary.....	18
2.11	The Conceptual Framework.....	19
CHAPTER THREE.....		21
3.0	<b>METHODOLOGY</b> .....	21
3.1	Description of the Study Area.....	21
3.1	Research Design .....	21
3.2	Population and Sampling Procedure.....	21
3.2.1	Sampling of schools .....	22
3.2.2	Sampling of teachers .....	22



3.2.3	Sampling of students .....	22
3.2.4	Summary.....	23
3.3	Instrumentation.....	23
3.4	Pre-testing .....	23
3.5	Data Collection.....	24
3.5.1	Primary data.....	24
3.5.1	Secondary data .....	24
3.6	Data Analysis .....	24
CHAPTER FOUR.....		25
4.0	<b>RESULTS AND DISCUSSION</b> .....	25
4.1	Socio-demographic Characteristics of the Respondents.....	25
4.2	Student's Background in Agricultural Science Subject.....	28
4.3	Importance of Agricultural Science Subject .....	30
4.4	Danger/Problems for Secondary School Students not having knowledge on Agricultural Science Subject.....	32
4.5	Self Reliance Activities .....	33
4.6	Tanzanian Education Policy Concerning Agriculture Science Subject.....	35
4.7	Teaching/ Learning Materials .....	36
4.8	School Physical Facilities .....	38
4.9	Teaching Staff .....	41
4.10	Funding .....	42
4.11	Respondents' Perceptions on Agricultural Science Subject .....	45

CHAPTER FIVE.....	47
<b>5.0 CONCLUSIONS AND RECOMMENDATIONS .....</b>	<b>47</b>
5.1 Overview.....	47
5.2 Conclusions.....	49
5.3 Recommendations .....	50
 <b>REFERENCES.....</b>	 <b>52</b>
<b>APPENDICES .....</b>	<b>61</b>

## LIST OF TABLES

Table 1:	Community Secondary Schools in Tanzania between 1999 and 2002 .....	11
Table 2:	Number of respondents; students and Teachers .....	23
Table 3:	Names of the schools and their respondents.....	26
Table 4:	Socio-demographic characteristics of teachers and students	27
Table 5:	Student's background in Agricultural Science subject (students) .....	29
Table 6:	Teachers' comments on Student's background in Agricultural Science subject .....	29
Table 7:	Responses on subjects that teach all basic agriculture components (Students) and (Teachers).....	30
Table 8:	Students' response on the importance of studying Agricultural Science subject (students).....	31
Table 9:	Teachers and student's responses on the problems of secondary school students not having knowledge on Agricultural Science .....	32
Table 10:	Students' responses on the existence of self reliance activities in their schools .....	33
Table 11:	Teachers' responses on the existence of self reliance activities in their school .....	34
Table 12:	Students' views on the implementation of self-reliance activities in their schools .....	35
Table 13:	Teachers' views on the implementation of self-reliance activities in their schools .....	35
Table 14:	Teachers' views on Tanzanian educational policy regarding teaching of Agricultural Science subject in secondary schools	36

Table 15:	Students' views on Tanzanian educational policy regarding teaching of Agricultural Science subject in secondary schools .....	36
Table 16:	Teachers' opinions on availability of Teaching/Learning materials .....	37
Table 17:	Adequacy of school physical facilities (furniture and buildings) .....	40
Table 18:	Number of teachers in some science departments .....	41
Table 19:	Teachers' response on sources of funds and financial problem on running schools properly .....	42
Table 20:	Teachers' opinion on the effect of availability of funds on physical infrastructure.....	43
Table 21:	Teachers' opinion on the effect of availability of funds on teaching and learning materials .....	44
Table 22:	Teachers' opinion on the effect of availability of funds on personnel .....	44
Table 23:	Respondents' opinion on teaching Agricultural Science subject in all Ordinary level community secondary schools.....	46

## LIST OF FIGURES

Figure 1:	Conceptual framework of constraints facing community secondary schools in incorporating agricultural science subject in their schools .....	20
-----------	---	----

## LIST OF APPENDICES

Appendix 1:	Questionnaire for Teachers.....	61
Appendix 2:	Questionnaire for Students.....	72
Appendix 3:	Map of Songea Municipality.....	79

## LIST OF ABBREVIATIONS

AEE	Agricultural Education and Extension
BTC	Belgian Technical Cooperation
DEO	District Education Officer
DSEO	District Secondary Education Officer
EFA	Education for All
IMF	International Monetary Fund
LDCs	Least Developing Countries
MEO	Municipal Education Officer
MOEVT	Ministry of Education and Vocational Training
MOEC	Ministry of Education and Culture
NGOs	Non Government Organization
PEDP	Primary Education Development Programme
PMORALG	Prime Minister's Office-Ministry of Regional and Local Government
REO	Regional Education Officer
SEDP	Secondary Education Development Programme
SNAL	Sokoine National Agricultural Library
SPSS	Statistical Package for the Social Science
SUA	Sokoine University of Agriculture
TETP	Tanzania Education and Training Policy
UNESCO	United Nations Educational, Scientific and Cultural Organization
UPE	Universal Primary Education
URT	United Republic of Tanzania
VEO	Village Education Officer
WEO	Ward Education Officer

## CHAPTER ONE

### 1.0 INTRODUCTION

#### 1.1 Background Information

Education provision at all levels in Tanzania aims at developing and promoting personalities of the citizen of Tanzania with a particular focus on building self-confidence and inquiring mind, an understanding and respect for human dignity and human rights and creating competent human resource and readiness to work hard for personal self advancement and national development (United Republic of Tanzania (URT, 1995a). The emphasis on secondary education is one among the efforts to meet the stipulated aims and objectives of education in Tanzania that “Secondary education is a significant level that links primary education, teacher education, tertiary and higher education” (URT, 2008a). Secondary level of education is defined as “post – primary formal education offered to persons who will have successfully completed seven years of primary education and have met the requirements” (URT, 1995a).

The Tanzania Education and Training Policy (TETP) 1995 that was reviewed in 2009, points out the objectives of secondary education as to consolidate and broaden the scope of baseline ideas, knowledge, skills and principles acquired and developed at the primary education level. Furthermore, it intends to enhance further development and appreciation of national unity, identity and ethic, personal integrity, respect for and readiness to work, human rights, cultural and moral values, customs, traditions and civic responsibilities and obligations. Other objectives include inculcating a sense and ability of self study, self confidence and self – advancement in a new frontier of science and technology (URT, 1995a).



In implementing that policy, the curriculum to be taught in secondary schools has been designed to satisfy the stated objectives. Agricultural science is one among the subjects required to be taught in secondary schools and has the following aims and objectives:

According to URT (1995b), the Agricultural Science course in secondary education is intended, at Forms 1 – 4; to emphasize the fact that the Tanzanian economy is dependent and continue to depend on agriculture for a long time to come; to illustrate that industrial development is dependent on agricultural development; to develop and apply skills and procedures of scientific investigation and experimentation; to stimulate interest by demonstrating in a practical way, that agriculture is an applied science and is a dignified and paying occupation; to promote the acquisition and application of modern scientific and technological skills required in crop and livestock farming; to develop and apply knowledge and understanding of basic concepts and economic principles used in farming business; to maintain the environment while carrying out agricultural activities; to insulate knowledge and understanding of the extension process adopted in teaching farmers modern agricultural practices; to provide lee ways for self employment in agriculture, both in the rural and sub-urban areas; to provide avenues for higher education and training in agricultural programmers and fields demanding related subjects; to enable schools to become production units and so to become self-reliant through agricultural mechanization; to utilize the vast untapped land in Tanzania for increased production through agricultural mechanization; to demonstrate the inter-relationship among the various disciplines of agriculture in any agricultural mechanization; to ensure gender balance in teaching and learning methodologies and activities.

According to Tanzania Education and Training Policy (TETP) (1995), Agricultural Science subject is one among biased subject. Others are Home Economics, Business and Technical subjects.

In 2004 Agricultural Science and all other biased subjects were omitted in Ordinary level secondary school curriculum by Education Act No. 9 of 2004 (URT, 2004). However, these subjects were reintroduced in Ordinary level secondary school curriculum by the Education Act No. 1 of 2006 (URT, 2006). Majority of community secondary schools in the country however, do not teach these subjects.

Community Secondary Schools emerged in most developing countries in Asia, Latin, America and in Africa including Tanzania because of the increasing demand for secondary education which could not be met through conventional secondary schools. In Nepal, Bangladesh, India, South Korea and Tanzania education was liberalized through conscientizing and empowering private enterprises, communities, parents, end-users, NGO's, households and individuals to establish and run secondary schools in partnership at the ward or division level since 1980's (Bray, 2003).

According to Khalfani (2010), the establishment of community owned secondary schools in Tanzania can be traced from mid 1980s. Community owned secondary schools have been massively established with a focus to realize three major objectives:

- (i) To improve access to secondary school education. The goal is to increase the transition and participation rate from primary to secondary education to reach 50% by 2010 (URT, 2004). Among the key strategies to realize this objective is an emphasis on the establishment of community owned secondary school at least one in each ward or division (URT, 2008b).

- (ii) To improve equity in the provision of secondary education from 36% in 2004 to 70% in 2015. The goal is to ensure a balanced participation in education in underserved areas across geographical locations, gender, disadvantaged groups and income inequalities at household levels (URT, 2008b). For that reason, the government under the Ministry of Education and Culture (MOEC) then formulated Secondary Education Development Programme (SEDP) in year 2004 with the aim of improving equity by supporting construction of schools and expanding school facilities in underserved areas (URT, 2004, as cited by HakiElimu, 2007).
- (iii) To achieve a 50% improvement in levels of literacy by 2015 especially for girls to secondary and continuing education through establishing community secondary schools at the level of each ward or division. HakiElimu (2007) emphasized that building more community schools is among the efforts to implement Education for All (EFA) goals that stresses on provision of quality-based education in all schools.

Between 1985 and 1995, the number of community secondary schools reached 44 while between 1999 and 2002 the number increased to 500 countrywide which was 91.2% increase (URT, 2002). Currently, there is a remarkable expansion of secondary education due to the rapid increase of community secondary schools to an extent that, by 8<sup>th</sup> June, 2009 the total number of community secondary schools had reached 3,131 from 500 in 2002 which is 84.0% increase (URT, 2008c).

HakiElimu (2007, 2008) further reports that, since 2004 many community secondary schools have been rapidly established at each ward or division in urban and rural areas as a remarkable implementation of SEDP goal of expanding enrolment of pupils in secondary

education. Mbepera (2008) states that, the fast speed of constructing community secondary schools is attributed to the positive response of individuals, communities, Non Government Organizations (NGOs) and other educational stakeholders and partners, whereby many community secondary schools are being built at ward , division or village level.

### **1.2 Problem Statement and Justification of the Study**

Tanzanian economy is dependent and continues to depend on agriculture for a long time to come. At present about 80% of the total Tanzanian population depends on agricultural activities (Shekiangio, 2008). However little effort has been made to make sure that Agricultural Science subject is taught in the massively established community owned secondary schools. According to the Ruvuma Region Secondary Schools Mock Examination Panel (2010), all form four students in all seventeen community owned secondary schools of Songea Municipality did not sit for the Agricultural Science examination paper.

The science and practice of agriculture in general secondary education is meant to serve a variety of purposes. Apart from providing a sound foundation of specialized training for those who will make their future career in agriculture, it is envisaged that agricultural science courses in the general secondary school curriculum will help to give every pupil basic understanding of agricultural prospects and problems. This understanding is important in Tanzania where about 80% of the population depends upon the products of the land and where agricultural exports are vital to the national economy. Agriculture contributes 26 percent of GDP, 30 percent of export earnings and provides the bulk of raw materials for local industries (URT, 2008d). It is on such contribution of agriculture to the national economy that, agriculture is an important subject to be studied so as to impart to

young Tanzanians a respect for the knowledge and experience of farmers, the willingness to solve their problems and at the same time learn to place what is going on in the rural areas within the framework of the past and future economy of Tanzania.

This study assessed the constraints that face the community owned secondary schools in Songea Municipality in incorporating Agricultural Science subject in the schools. Understanding these constraints will be of particular importance for the Ministry of Education and Vocational Training, curriculum developers, policy makers and other stakeholders in implementing their functions on the matter under consideration.

### **1.3 Objective of the Study**

#### **1.3.1 General objective**

The primary objective of this study was to find out the constraints facing community secondary schools in Tanzania in incorporating Agricultural Science as one of the subjects to be taught in their schools with specific reference to those schools in Songea Municipality.

#### **1.3.2 Specific objectives**

The study specifically intended to:

- (i) Assess whether or not secondary school students are in need of studying Agricultural Science subject.
- (ii) Assess the views of secondary school students not studying Agricultural Science subject.
- (iii) Assess if the Tanzanian education policy favors secondary school students to study Agricultural Science subject.

- (iv) Asses whether there are self-reliance activities carried out in schools such as animal husbandry, crop cultivation and school projects.

### 1.3 Research Questions

The major question of this study was:

What are the constraints facing the community secondary schools in incorporating Agricultural Science as one of the subjects to be taught in the schools?

The study was guided by the following research questions:-

- (i) Are secondary students in need of studying Agricultural Science subject?
- (ii) Is there any effect for secondary school students not studying Agricultural Science subject?
- (iii) Does the Tanzanian education policy favor secondary school students to study Agricultural Science subject?
- (iv) Are there self-reliance activity such as animal husbandry, crop cultivation and school projects practiced in the schools?

## **CHAPTER TWO**

### **2.0 LITERATURE REVIEW**

This chapter basically reviews the historical background of community secondary schools and the rationale for establishing community secondary schools in developing countries. It further explains the profile of community secondary schools, management of community secondary schools in Tanzania and the role of resources in managing them. Secondary school Agricultural teaching in Tanzania was also reviewed.

#### **2.1 Historical Background of Community Secondary Schools**

Community secondary schools emerged in the Least Developing Countries (LDCs) including Tanzania since 1980. Their emergence has been attributed to the increasing demand for secondary education which could not be met through conventional secondary schools system only. In Nepal, Bangladesh, India, South Korea and Tanzania for example, education developed through the efforts of private enterprises, local communities, parents, NGOs, households and individuals. Such individuals and groups established and ran secondary schools in partnership with wards or divisional leadership since 1980's (Bray, 2003).

#### **2.2 The Rationale for Establishing Community Secondary Schools in Developing Countries**

Community secondary schools are very important to community development. They provide with skills, knowledge and work habits to the young people needed to find or create gainful as well as satisfying employment. Young people pursued their post secondary goals in order to be independent, productive, and contributing community members (Bray, 2001). Schools help students to fulfill their personal potentials, develop life skills, that is, "learn to learn" build self-esteem, develop interests, build integrity and

help them to become good citizens in their respective communities (World Bank, 1999; Faustor, 1995; Okumbe, 1998).

Faustor (1995) and Ota (1986) argue that, since community secondary schools are within localities, students are familiar with the environments that favor them for enrollment and studies. To that effect also, parents and households can easily participate fully in matters pertaining to management of community secondary schools in their wards, division or village. This sense of owning the schools helps stakeholders feel responsible and accountable for their growth and sustainability.

Matekere (2003) and Bray (1997), emphasize that community secondary schools have potential significance for communities' social, economic, cultural and political development and functions. Such schools help students and the community to interact towards fostering socio-economic and cultural development under effective management of the schools. Community secondary schools are therefore regarded as significant educational interventions in developing countries which are trying to attain universal access to basic and secondary education (Galabawa, 2001; Bray, 1996a; 1996b). Generally, communities are sensitized and more efforts are made to build in their minds and make them feel that, secondary schools at ward or division level are their own properties and they are responsible to participate in matters pertaining the management of such schools (Bray, 1996a; 2001; Ota, 1986).

There are several reasons for different countries to establish community secondary schools. The basic reasons include:

- (i) The need to increase access to education. Community schools increase access to education particularly for children from neglected population such as those from rural areas, ethnic minorities' girls and those with disabilities (Bray, 2001).



Community secondary schools in Tanzania provide opportunity to absorb a large number of pupils from primary schools as part of implementing EFA goals through the old Universal Primary Education (UPE), the current Primary Education Development Programme (PEDP), SEDP in Tanzania and millennia goals (Raphael, 2008).

- (ii) The need for educational decentralization. The introduction and existence of community secondary schools is one among the ways of implementing educational liberalization by decentralization as advocated by the International Monetary Fund (IMF) and World Bank as a mechanism of improving education provision in developing countries (Richard, 2003; Ota, 1986). This has been accompanied by governance reforms promoting stakeholders' participation in educational provision and management (World Bank, 1999, as cited in Kasandiko, 2006).
- (iii) Communities need schools; therefore there is relevance of these schools to the communities. Community schools are relevant to the wants and needs of the community whereby children who complete in such schools are expected to play productive roles for the socio-economic, cultural and political activities and development in their own communities where such schools have been established (Bray, 2003; World Bank, 1999).
- (iv) Communities need to share governance and accountability in education provision. The presence of community secondary schools contributes to overall development in Africa through developing democratic local organizations. These schools are empowered to educational governance and accountability at a local level and represent interests of parents in the field of education (Okoye, 1986).

- (v) Community secondary schools are cost effective comparable to conventional schools. In such schools educational stakeholders utilize their limited resources effectively and efficiently in order to solve problems and provide quality education for children in community schools. These schools, for example have reduced the daily transport costs for children schooling far away from their homes because the schools are built within the ward or division (Chung, 1990). An example of that is in World Bank Report (1999) which shows that, in the year 1994 the cost was US \$ 36 per year to educate a child at community schools versus US \$ 42, per year for the old and large government schools in Mali, Senegal, Ghana and Namibia.

### 2.3 Profile of Community Secondary Schools in Tanzania

In Tanzania, the establishment of community secondary schools began in the middle of the 1980's. Findings by Matekere (2003) show that Tanzania had only 5 community owned secondary schools in 1985. Between 1985 and 1995 the number of established community secondary schools increased from 5 in 1985/86 to 44 in 1994/95 leading to an average of nine (9) community schools that were established in each year between 1985 and 1995. Muzo (1985) argues that, communities have been encouraged to join government efforts in the establishment of community schools. Between 1999 and 2002, many other community secondary schools were established as summarized in Table 1.

**Table 1: Community Secondary Schools in Tanzania between 1999 and 2002**

Type of Secondary School	Year		Increased	Percentage Increase (%)
	1999	2002		
Community Secondary Schools	336	500	264	88.6
Other Private Secondary Schools	312	334	22	7.4
Religious affiliated Schools	66	78	12	4.0
Total	714	912	298	100

Source: URT (2002).

As data on Table 1 reveals, community secondary schools have been rapidly increasing to the extent that, they have outnumbered Government secondary schools as well as Non-Government schools. Mosha (2000, 2006), is of the opinion that establishment of schools should tally with a high level of excellence in academic performance that can be measured by the established and acceptable benchmarks or standards of good performance.

#### **2.4 Management of Community Secondary Schools in Tanzania**

At a macro level, the entire management of secondary schools is determined by the Department of Secondary Education at the Ministry of Education and Vocational Training (MOEVT) Headquarters. However, since 2005 in the implementation of SEDP (2004-2009), Ministry of Education and Vocational Training (MOEVT) collaborates with the Prime Minister's Office-Ministry of Regional and Local Government (PMORALG) to coordinate and supervise the development and management of community secondary schools through effective interaction with the Regional Education Officers (REO), District Education Officers (DEO), Ward Education Officers (WEO), Ward Council members and heads of community secondary schools in the areas of their jurisdiction (URT,2004;2006; 2008a). Also from the year 2009 the post of District Secondary Education Officers (DSEO) was introduced to strengthen the collaboration.

Raphael (2008) and Mliga (2008) maintain that, in a decentralized system, school boards on behalf of the community and other stakeholders will eventually become responsible for the management and administration of schools. The school management team involves the school board and the head of the school whereby the school-heads become accountable to both the school board and the education system authority that includes Ward Education Officers (WEO)/ Village Education Officers (VEO), District Education Officers (DEO), Municipal Education Officers (MEO), and Regional Education Officers (REO) (Babygeya, 2002).

The appropriate management of community secondary schools in Tanzania has to include: effective communication within the school, effective communication between stakeholders and school administration in managerial functions such as planning, controlling school development programs as well as staff and students performance review. The school management team and the community have to take part in identifying school needs, setting concepts, objectives, goals and implementing the school projects (Raphael, 2008; Mtolea, 2007). These functions are not well practiced in Tanzania.

## **2.5 The Role of Resources in Managing Schools**

Abagi and Sifuna (2006) and Galabawa (2001) assert that, educational resources are most significant in simplifying the task of managing the schools. The resources include: human resource, teaching-learning materials, school physical infrastructures (facilities) and financial resources.

### **2.5.1 Human Resource**

Mosha (2006) and Okumbe (1998) contend that, in schools human resource involves workers (teaching and non teaching staff) and students whereby a combined effort of workers and students results into an enhanced teaching-learning performance and management in schools.

### **2.5.2 Teachers**

The study by Hammond (2000) found that, teacher quality is more strongly related to students' achievements than other school inputs. In the same idea, Mwamwenda (1989) recognize that, professionally trained teachers contribute more to quality education than those who are not trained or partially trained in teaching profession. He noted that pupils taught by well trained and experienced teachers, perform significantly better than those

taught by less experienced teachers. However, teachers' constraints such as transfers, social status, parental support, and poor working and living condition tend to erode teachers motivation and commitment to their teaching job gradually (Osaki and Njabil, 2004; Carron and Chau, 1996).

### **2.5.3 School leaders**

Hoy and Miskel (2008) argue that, leaders are among educational human resources who are obliged to be well educated, trained and experienced so that they can manage, guide, rule and inspire others when managing the schools.

### **2.5.4 Non - teaching Staff**

Non-teaching staff includes registrars, bursars, accountants, clerks, matrons, secretaries, typists, cooks, and watchmen. They provide support services in schools and their potentials need to be consciously detected, developed and realized because they play a very crucial role within the content of an integral system of managing schools (Okumbe, 1998).

### **2.5.5 Students**

Okumbe (1998) points out that students are raw materials in schools and thus form an integral part of human resource development programme. Students' representatives within the school management can perform their roles effectively if their potentials are consciously developed in planned forums such as seminars, debates and speech days. Govinder and Varghese (1993) view that students are significant input for a school to exist whereby teaching-learning process takes place. They stated that, the capacity to learn in school is determined in part by prior learning experience of children from either poor rural primary schools or effectively managed and facilitated primary schools.

## **2.6 Teaching and Learning Materials**

Omari and Mosha (1995) identified the teaching and learning materials to include; textbooks, students' guides, maps, blackboards, chalk, pencils, pens, paper as well as globes, chemicals, laboratory and library facilities. The availability of all the identified teaching-learning materials facilitates an easy task of managing the schools. Mosha (2000) informs that, provision of adequate teaching- learning materials has a significant positive association with students' achievement and quality of education provided in schools. United Nations Educational, Scientific and Cultural Organization (UNESCO, (2000) in Luyagila (2002) argue that, the provision of adequate teaching and learning materials is an effective way to improve students' academic performance and results that count for achieving curriculum objectives as specific in the schools' syllabus of Tanzania.

## **2.7 Physical Infrastructure**

Mosha (2000) and Okumbe (1998) pointed out that, school infrastructure refers to physical facilities like classrooms, laboratories, library, students' desks and chairs, toilets, staff' houses, offices, water and electricity. Abagi and Sifuna (2006) argue that, the presences of physical facilities encourages smooth running of school activities and learning process. The study by Urwick and Junaidu (1991) in Nigeria has established that, quality physical facilities allow teaching methods that permit active participation by students in lessons, effective use of time and improvement of teachers' level of commitment.

## **2.8 Financial Resources**

Mpango and Mushi (1998) argue that adequate financing of schools through effective funding sources facilitates schools to have more equipment and maintained with enough infrastructure and teaching as well as learning resources that finally sophisticate the task of managing the schools. Mwiria and Ogbu (1999) studied the implication of financial

resources on running private schools in Kenya and found that, appropriate funding of schools almost brings availability of the necessary physical and human resources that help management of schools.

## **2.9 Secondary School Agricultural Teaching in Tanzania**

### **2.9.1 Agriculture teaching pre-independence period**

According to Mutakyawa (1993), the desire to combine practical instruction with education and the policy of encouraging school agriculture in particular, can be traced back to the colonial period. For example, in 1924 the Phelps-Stokes Commission visited East and Central Africa to inquire the educational problems and to recommend solutions. From this report a memorandum was issued in 1925 by the Advisory Committee on Education Policy in British Tropical Africa, which formed the basis for British education policies for most of the colonial periods (Mattee, 1978). The Phelps-Stokes report questioned the academic basis of colonial education, and urged a new approach to education in terms of the needs of indigenous people. It also mentioned agricultural education as the focus of the new approach. Furthermore, the memorandum formed the basis for educational policy in Tanganyika until independence. The key statement of the policy was that:

*...education should be adapted to the mentality, aptitudes, occupations, and traditions of various people, conserving as far as possible all sound and healthy elements in the fabric of their social life, adapting them where necessary to changed circumstances and progressive ideas as an agent of natural growth and evolution (Mattee, 1978).*

Agriculture was introduced in the middle schools to fulfill this objective. However, Moris (1976) argues that school agriculture was not fully tried during colonial period since no



time were all ingredients in place which might be expected for a seriously intended subject. For example, requirement like text books, teaching aids, farm equipment, enough time and space, teacher training and inspection were never adequate at any one particular time. The only concrete input by the government was a detailed syllabus.

### **2.9.2 Agriculture teaching post-independence period**

After independence, Tanzania resolved to make education offered in secondary schools more relevant for her development. This resolution was made more specific in the Education for Self-reliance policy statement in 1967 where, among other things, it was stated that education offered in secondary schools should have a vocation bias (Pendaeli, 1983). The purpose of vocationalizing secondary education was to provide secondary school graduates with vocational or work skills for earning a living in their communities. As pointed out by Monoszon (1963), secondary school curriculum must contribute to all in developing future members of the society, bringing young people into touch with the essentials of science, technology, culture, socially useful productive work, and physical education.

The Ministry of Education issued a circular known as Circular No. 2 of 1972 in which the Ministry specified how the diversification of secondary education was to be implemented. The circular specified the type of biases to be offered, the subjects to be included in each bias and the number of schools which would offer such biases. It stated further that there should be more agricultural, technical and commercial schools in Mainland Tanzania. Circular No. 3 of 1974 of the Ministry of National Education, was an elaboration of Circular No. 2 mentioned above on the implementation of the diversification of secondary education.



As a response to the policy statement of Education for Self-Reliance, the first syllabus of the science and practice of agriculture for agricultural biased secondary schools in Tanzania (ordinary level) was prepared and made available in 1971. During the same year, the Ministry of Education, in cooperation with the Ministry of Agriculture, enrolled experienced Agricultural Field Officers III and Assistant Field Officers II/III for one year Diploma Course in Agricultural Education at Butimba Teachers College.

In 1972, agricultural education was introduced to Form One in 18 pre-selected secondary schools. In 1973, agricultural education was introduced to 13 more secondary schools. This brought the total number to 31. Up to 1993 there was 90 government secondary school teaching agriculture in Tanzania (Mutakyawa, 1993).

In 2004 Agricultural Science and all other biased subjects were omitted in O-level secondary school curriculum by Education Act No. 9 of 2004. However, these subjects were reintroduced in O-level secondary school curriculum by the Education Act No. 1 of 2006 but majority of community secondary schools in the country do not teach these subjects.

#### **2.10 Summary**

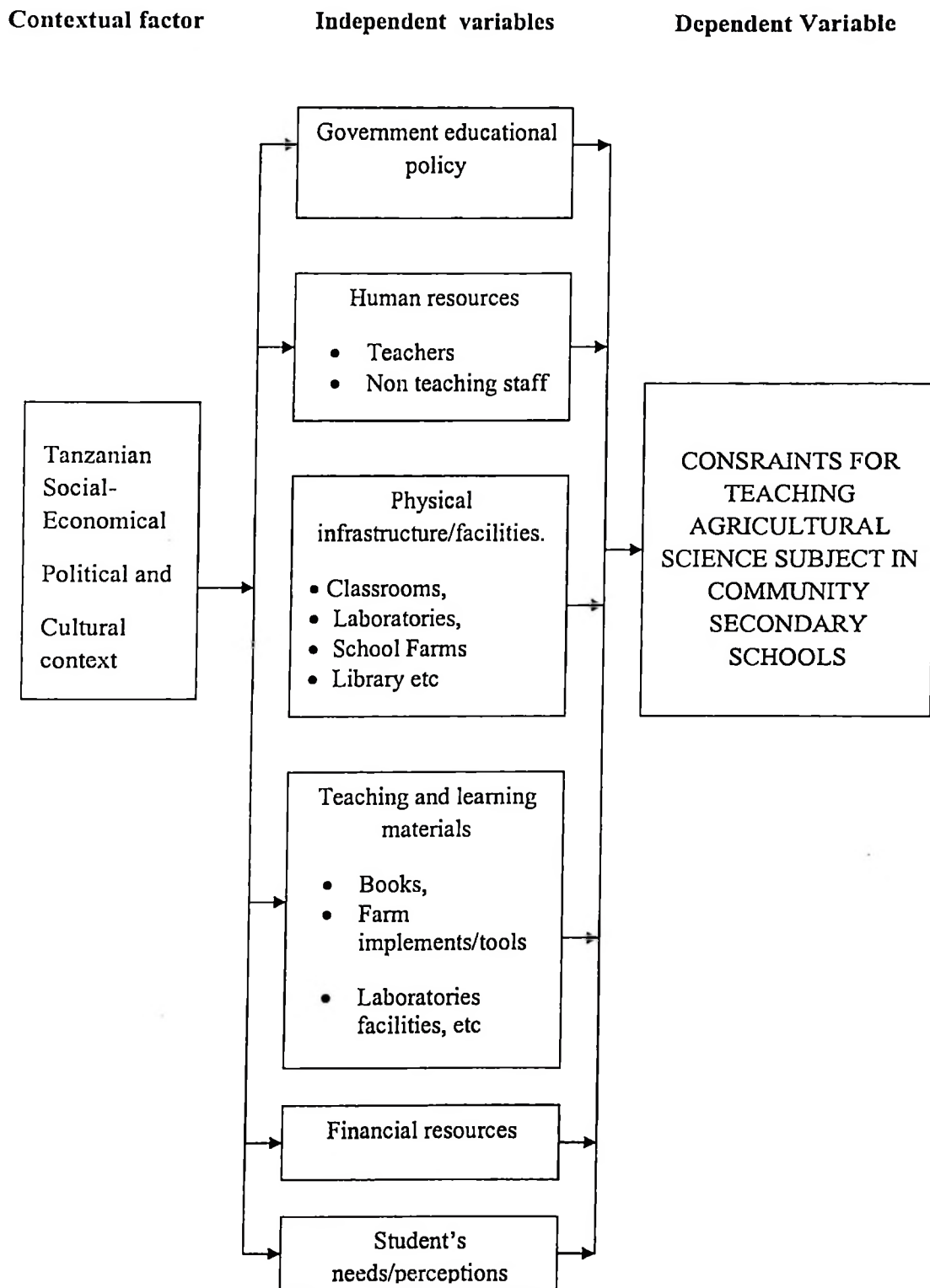
In summary, community secondary schools emerged in the Least Developing Countries (LDCs) including Tanzania since 1980. Their emergence has been attributed to the increasing demand for secondary education which could not be met through conventional secondary schools system only. Community secondary schools are very important to community development when they are effectively managed. They provide to the young people with skills, knowledge and work habits in order to be independent, productive, and contributing community members. Educational resources are most significant in

simplifying the task of managing the schools. The resources include: human resource, teaching-learning materials, school physical infrastructure (facilities) and financial resources.

Education is an important factor to development and indeed agricultural development. Formal schools are also believed to be agent for social change in society. Therefore programmes geared for change especially the transformation of traditional to modern agriculture have to be introduced in schools. The introduction of Self-reliance and consequently agriculture into the school system in 1972, made agricultural learning a regular feature of primary, secondary and post-secondary education in Tanzania but currently secondary agricultural education seems to be deteriorating.

### **2.11 The Conceptual Framework**

This study was guided by conceptual framework, which was an author' work. It is comprises by three major parts being: a) the conceptual b) the independent variables c) the dependent variable. Independent variable(s) also termed as predictors/response which include government educational policy, human resources, physical infrastructure/facilities, teaching and learning materials, financial resources and students needs/perceptions were used in this research as a base for examining constraints facing community secondary schools in incorporating agricultural science subject in their schools. Further the dependent variable also known as observed results which are constraints facing community secondary schools in incorporating agricultural science subject in their schools were found to be an output of the influence of the independent variable. The conceptual part presents the assumed conditions under which the research was conducted.



**Figure 1:** Conceptual framework of constraints facing community secondary schools in incorporating agricultural science subject in their schools

## CHAPTER THREE

### 3.0 METHODOLOGY

#### 3.1 Description of the Study Area

This study was conducted at Songea Municipality of Ruvuma Region which is lying in the southern part of Tanzania. It is lying between latitudes  $9^{\circ} 35'$  to  $11^{\circ} 45'$  South and longitudes  $34^{\circ} 35'$  to  $38^{\circ} 10'$  East. The topography of Ruvuma region is between 300 to 2000 meters above sea level. Furthermore, the Region receives a unimodal rainfall, which on average range between 800 to 1400 mm per annum. The major economic activities found in the region include agriculture, fishing, mining, lumbering and trade. Major crops grown in the region are maize, cassava and rice as food crops, whereas coffee, tobacco and cashew nuts are grown as cash crops. The Region has five districts namely Songea Municipal, Songea Rural, Tunduru, Mbinga and Namtumbo.

A map of Songea Municipal has been attached in Appendix 3. Songea Municipal has seventeen community secondary school, whereby there was no even one school that taught Agricultural Science subject. This study concentrated on five systematic randomly selected schools namely Matarawe, Ruvuma, Mashujaa, Kalembo and Mletele.

#### 3.1 Research Design

Due to limited resources like manpower, finance and time, the research used a cross sectional survey design. This design allows data to be collected at once in time from a sample that is selected to describe the larger population (Babbie, 1990; Kothari, 2004).

#### 3.2 Population and Sampling Procedure

In research, population includes all members, or individuals or things of a specific group that fit certain specification. The target population in this study consisted of ordinary level secondary schools students and teachers in the selected community owned secondary

0571277



schools in Songea Municipality in Ruvuma Region. Songea Municipality has 17 community owned secondary schools of the 17 community owned secondary schools, five (29.4%) schools were selected.

### **3.2.1 Sampling of schools**

Purposive sampling procedure involving only community owned secondary schools with form four students was done because these schools have long practical/teaching experience; whereby 15 schools out of 17 were selected. Then names of the 15 community owned secondary schools were listed alphabetically and assigned numbers serially. By using systematic random sampling technique five schools were finally selected. The selected schools were Matarawe, Ruvuma, Mashujaa, Kalembo and Mletele.

### **3.2.2 Sampling of teachers**

Five teachers from each selected school were involved in this study to make a total of 25. They included Head of school, Academic master/mistress and three other randomly selected teachers.

### **3.2.3 Sampling of students**

Form four students from each five selected schools were stratified according to sex and then randomly selected in order to have the required sample size. To obtain the required sample size, Bailey (1998) recommends that regardless of the population, a sample size of 30 is the bare minimum for data collection. This study therefore involved a total of 100 students, 20 from each selected school. In order to have gender balance in the study ten students from each sex were randomly selected by picking cards labeled number 1 to 10 from the two boxes, each containing cards matching with the total number of boys and girls as shown on Table 2 below.

**Table 2: Number of respondents; students (n=100) and Teachers (n=25)**

School	Number of students (n=100)		Number of Teachers (n= 25)		Total
	Male	Female	Male	Female	
Matarawe	10	10	3	2	25
Ruvuma	10	10	4	1	25
Mashujaa	10	10	3	2	25
Kalembo	10	10	3	2	25
Mletele	10	10	4	1	25
<b>Total</b>	<b>50</b>	<b>50</b>	<b>17</b>	<b>8</b>	<b>125</b>

### 3.2.4 Summary

The sample size of this study was 125 elements that is, 100 and 25 students and teachers respectively.

### 3.3 Instrumentation

The structured questionnaires were used to collect primary data. Structured questionnaires with closed and open ended questions were used to solicit quantitative data from students, teachers and heads of schools to seek information on the constraints faced by community owned secondary schools in Tanzania in incorporating agricultural science as one of the subjects taught in their schools, with specific reference to Songea Municipality.

### 3.4 Pre-testing

The structured questionnaires were pre-tested before being used to seek information for the study. The pre-testing was done in Namabengo Secondary School which is one of the community owned secondary schools located outside the study area where 20 students and five teachers were involved. This was done to determine validity, reliability and practicability of the prepared instrument as advised by Kothari (2004). From pre-test results some of the questions were revised to solve identified problems in order to improve clarity.

### **3.5 Data Collection**

#### **3.5.1 Primary data**

Primary data were collected from the respondents by the researcher assisted by two enumerators. The enumerators were trained before and during pre - testing of the research instrument in order to gain experience on questioning the informants by using the questionnaire. Structured questionnaires with closed and open ended questions were used to solicit information from students, teachers and heads of schools. The enumerators first explained objectives of the study to the respondents in order to avoid misunderstandings and then continued to ask the respondents the structured questions from the questionnaire.

#### **3.5.1 Secondary data**

Secondary data both published and unpublished were collected from various sources such as books, journals, thesis, reports and other documentations from secondary schools offices, District Secondary Education Office, Sokoine National Agriculture Library (SNAL) and Sokoine University Agricultural Extension Departmental Library and various website.

### **3.6 Data Analysis**

The process of data analysis involves making sense of the data collected. This was done through organizing and breaking data into manageable units, and synthesizing them to make meaningful patterns. Informants' response patterns were then coded, entered, cleansed, and analyzed by using the Statistical Package for Social Science (SPSS) computer software, version 16.0 at the Sokoine University of Agriculture Computer Laboratory. Descriptive statistics such as frequencies and percentages were calculated to determine distribution of the study variables and where necessary tables and diagrams were drawn.

## **CHAPTER FOUR**

### **4.0 RESULTS AND DISCUSSION**

This chapter presents the findings of the study conducted to investigate constraints faced by community owned secondary schools in Tanzania in incorporating Agricultural Science as one of the subjects taught in their schools, with specific reference to Songea Municipality. The study had the following specific objectives: Identify constraints faced by community owned secondary schools in incorporating Agricultural Science subject; assess whether or not secondary school students were in need of studying Agricultural Science subject; assess the impact of secondary school students not studying Agricultural Science subject; assess if the Tanzanian education policy favored secondary school students to study Agricultural Science subject; assessed whether there were self-reliance activities carried out in schools such as animal husbandry, crop cultivation and school projects.

The study results presented in this chapter are based on primary and secondary data sources. The chapter provides socio-demographic characteristics of the respondents; student's agricultural background; need, interest and importance of Agricultural Science subject; danger/problems for secondary school students not having knowledge of Agricultural Science subject; self reliance activities; Government policy on Agricultural Science subject; teaching/ learning materials; school physical facilities; teaching staff; source of funding and lastly, the chapter presents the respondents' perceptions on Agricultural Science subject.

#### **4.1 Socio-demographic Characteristics of the Respondents**

The respondents for this study were 100 students and 25 teachers sampled from Matarawe, Ruvuma, Mashujaa, Kalembo and Mletele secondary schools as shown in Table 3.



The socio-demographic characteristics of teachers are shown in Table 4 indicated that there were eight (32.0%) female teachers and 17 (68.0%) male teachers involved in the study. Out of 25 teachers their ages ranged as follows 14 (56.0%) aged 20 to 30years, eight (32.0%) aged 31 to 40 years, one (4.0%) aged 41 to 50 years and the remaining two (8.0%) of teachers were aged 51 to 60 years. Of the 25 teachers, 18 (72.0%) were diploma holders and seven (28.0%) had degree level of education. Community built secondary schools had more male teachers than female teachers. Out of the 25 teachers in community built secondary schools surveyed, 17 (68.0%) were males, and eight (32.0%) were females.

**Table 3: Names of the schools and their respondents**

Variable Name of School	Students		Teachers	
	Frequency (n)	Percent (%)	Frequency (n)	Percent (%)
Matarawe secondary school	20	20.0	5	20.0
Ruvuma secondary school	20	20.0	5	20.0
Mashujaa secondary school	20	20.0	5	20.0
Kalembo secondary school	20	20.0	5	20.0
Mletele secondary school	20	20.0	5	20.0
<b>Total</b>	<b>100</b>	<b>100.0</b>	<b>25</b>	<b>100.0</b>

The study found out that community owned secondary schools had more teachers with diploma level of education and few with degrees. Also community built secondary schools had more young teachers aged between 20 to 30 years. Probably this is due to the fact that most of the community owned secondary schools do not have A-level student that is why most of the teachers are diploma holders. The emphasis of the government recruiting many new teachers in the recently years probably causes many teachers to be young/fresh from the college.

Table 4: Socio-demographic characteristics of teachers (n=25) and students (n=100)

Socio-demographic characteristics of the teachers (n=25)		Frequency	Percent
<b>Sex</b>			
	Female	8	32.0
	Male	17	68.0
	Total	25	100.0
<b>Age</b>			
	20 to 30 years	14	56.0
	31 to 40 years	8	32.0
	41 to 50 years	1	4.0
	51 to 60 years	2	8.0
	Total	25	100.0
<b>Education level</b>			
	Diploma	18	72.0
	Degree	7	28.0
	Total	25	100.0
<b>Experience in the same school</b>			
	0 to 1 years	10	40.0
	2 to 5 years	13	52.0
	6 to 10 years	2	8.0
	Total	25	100.0
<b>Socio-demographic characteristics of students (n=100)</b>			
<b>Sex</b>			
	Female	50	50.0
	Male	50	50.0
	Total	100	100.0
<b>Age</b>			
	16 to 18 years	72	72.0
	19 to 21 years	27	27.0
	Above 22 years	1	1.0
	Total	100	100.0
<b>Education level</b>			
	Form IV	100	100.0
	Total	100	100.0
<b>Experience in the same school</b>			
	2 years	2	2.0
	3 years	4	2.0
	4 years	94	94.0
	Total	100	100.0

Of the 100 students, 50 (50.0%) were female students and the remaining 50 (50.0%) were male students. Seventy two (72.0%) of the total students had age ranging between 16 and 18 years, 27 (27.0%) age between 19 to 21 and one (1.0%) age above 22 years. Of the 100 students, all are Form IV students. Most of the students 94 (94.0%) had studied in the same school for 4 years, four (4.0%) for 3 years and two (2.0%) for 2 years.

#### **4.2 Student's Background in Agricultural Science Subject**

This study investigated students background in agriculture and found that 97 (97.0%) of the students had never studied Agricultural Science subject in secondary school. However, the study found that 85 (85.0%) of the students reported to have a basic knowledge on some of the agriculture components such as fundamentals of agriculture, crops production, livestock production, farming business and economics, soil and water use for production, agriculture and environmental management, agricultural mechanics (agro-mechanics) and agricultural extension. Out of these 46 (46.0%), 38 (38.0%), 14 (14.0%), two (2.0%) obtained the knowledge from home, in the same school, primary school and in other schools respectively. For those who had obtained some components of agriculture knowledge from the same community secondary school 29 (76.3%) and nine (23.7%) admitted that they have obtained the knowledge from Geography and Chemistry subjects respectively. Table 5 summarizes this information.

All 25 (100.0%) teachers stated that their form four students have a basic knowledge on some of the agriculture components such as fundamentals of agriculture, crops production, livestock production, farming business and economics, soil and water use for production, agriculture and environmental management, agricultural mechanics (agro-mechanics) and agricultural extension.

**Table 5: Student's background in Agricultural Science subject n=100 (students)**

Variable	Frequency	Percent
Studied agricultural science subject in secondary school	3	3.0
Not studied agricultural science subject in secondary school	97	97.0
Total	100	100.0
Have basic knowledge on some agriculture components	85	85.0
Have basic no knowledge on some agriculture components	15	15.0
Total	100	100.0
Have agriculture knowledge from home	46	46.0
Have agriculture knowledge from Primary school	14	14.0
Have agriculture knowledge from this secondary school	38	38.0
Have agriculture knowledge from other secondary school	2	2.0
Total	100	100.0
Obtained some basic agriculture knowledge from Chemistry	9	23.7
Obtained some basic agriculture knowledge from Geography	29	76.3
Total	38	100.0

The source of where knowledge was obtained varied as reported that 16 (64.0%), seven (28.0%), two (8.0%), obtained the knowledge from the same school, home, and primary school respectively. For those who have obtained some components of agriculture knowledge from the same community secondary school 18 (72.0%) and seven (28.0%) teachers admitted that they have obtained agriculture science subject components knowledge from geography and chemistry subjects taught at the school as reported in Table 6.

**Table 6: Teachers' comments on Student's background in Agricultural Science subject n=25**

Variable	Frequency	Percent
Have basic knowledge on some agriculture components	25	100.0
Have basic no knowledge on some agriculture components	0	0
Total	100	100.0
Have agriculture knowledge from home	7	28.0
Have agriculture knowledge from Primary school	2	8.0
Have agriculture knowledge from this secondary school	16	64.0
Total	100	100.0
Obtained some basic agriculture knowledge from Chemistry	7	28.0
Obtained some basic agriculture knowledge from Geography	18	72.0
Total	25	100.0

Almost all students that is 99.0% admitted that agriculture science subject is the one which accommodate all basic agriculture components such as fundamentals of agriculture, crops production, livestock production, farming business and economics, soil and its agricultural utilization, agriculture and environmental management, agricultural mechanics (agro-mechanics) and agricultural extension. When teachers were asked about the same question as in which subject students were exposed to most basic agriculture components, their responses were not very different from those of their students. Their responses are reported in Table 7.

**Table 7: Responses on subjects that teach all basic agriculture components n=100 (Students) and n=25 (Teachers)**

<b>Students responses n=100</b>	<b>Frequency</b>	<b>Percent</b>
Agricultural science	95	95.0
Geography	4	4.0
Chemistry	1	1.0
Total	100	100.0
<b>Teachers responses n=25</b>		
Agricultural science	19	76.0
Geography	4	16.0
Chemistry	2	8.0
Total	100	100.0

#### **4.3 Importance of Agricultural Science Subject**

Students were requested to respond to the importance of Agricultural Science subject to be taught in their community secondary schools. Further they were asked if they have an interest and need to study the subject. Almost over two thirds that are 89.0% of the students reported Agricultural Science subject to be an important subject thus be taught in all community secondary schools. With regard to having interest in studying it at their schools, 79 (79.0%) were of the opinion that they have great interest and desire to study agriculture science subject and particularly crops production, livestock production,

farming business and economics, soil management and its agricultural utilization, environmental management and agricultural mechanics (agro-mechanics).

All teachers (100%) commented that agriculture science subject is an important subject to be taught in the community secondary schools they are teaching. They needed to study them because such knowledge is useful to them after graduating from secondary school.

Teachers further argued that among the aims of establishing community owned secondary was that it is relevant to the local needs that is why many people including themselves want Agricultural Science subject to be taught in community owned secondary schools. Bray (2003), argued that community secondary schools are relevant to the wants and needs of the community since children completing in such schools were expected to play productive roles for the socio-economic development and to be able to participate in cultural and political activities and development in their own communities where the schools have been established.

**Table 8: Students' response on the importance of studying Agricultural Science subject n=100 (students)**

	<b>Frequency</b>	<b>Percent</b>
Agricultural science subject is important	89	89.0
Agricultural science subject is not important	11	11.0
Total	100	100.0
Interested in Agricultural science subject	68	68.0
Not interested in Agricultural science subject	32	32.0
Total	100	100.0
Need Agricultural science subject	80	80.0
Not in need of Agricultural science subject	20	20.0
Total	100	100.0

#### 4.4 Danger/Problems for Secondary School Students not having knowledge on Agricultural Science Subject

The study investigated whether there were problems for secondary students for not having knowledge on agriculture science subject. All teachers (100%) responded that there were and will be many problems if secondary school students are going to miss this knowledge. They reported that the percentage enrolment for O-level secondary school is increasing due to establishment of community owned secondary schools which is not matching with A-level secondary school expansion due to economic hardship the country is facing. This is a reason why there was a need to provide the students with the knowledge and skills that would enable them to live profitably in the country even if they would not have the chance to join the Advance level education. Teachers' responses on secondary students not having knowledge on agriculture science to be problematic is summarized in Table 9.

**Table 9: Teachers and student's responses on the problems of secondary school students not having knowledge on Agricultural Science n=25**

Variable	Frequency	Percent
<b>Teachers' responses</b>		
There are and will be many problems	25	100.0
<b>Students' responses</b>		
There are and will be many problems	74	74.0
There are no problems	26	26.0
Total	100	100.0

There is a slight difference on the responses of teachers and students as only 74 (74.0%) of students reported that there were and will be many problems if secondary school students will not be taught knowledge generated by studying Agricultural Science subject. The remaining 26 (26%) were of the opinion that, there would be no problems if Agricultural Science subject would not be taught in their respective community secondary schools. The

reasons to support their responses included the fact that such knowledge if missed could also be gained through studying some Chemistry, Geography, Biology and also personal experiences gained from their homes and other places which was significantly enough. Table 9 summaries students' responses on the problems if secondary school students would not be taught knowledge generated by studying Agricultural Science subject.

#### 4.5 Self Reliance Activities

The existences of self reliance activities in community secondary schools in the study area were studied. Ninety five (95.0%) students reported that they do not have a school farm, 96 (96.0%) said they don't cultivate crops in their schools, 100 (100%) said that they do not keep animals in their school, and 92 (92.0%) said that the schools does not have projects which can be used as a source of money and a place where students can study on how to manage various projects. Table 10 summarizes the students responses regarding the existence self reliance activities at their schools.

**Table 10: Students' responses on the existence of self reliance activities in their schools n=100**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
They have school farm	5	5.0
They don't have school farm	95	95.0
Total	100	100.0
They cultivate crops	4	4.0
They don't cultivate crops	96	96.0
Total	100	100.0
They keep animals	0	0.0
They don't keep animals	100	100.0
Total	100	100.0
They have school projects	8	8.0
They don't have school project	92	92.0
Total	100	100.0



Twenty three (92.0%) of teachers reported that they did not have a school farm, and all 25 (100%) reported that they do not cultivate crops in their schools. The same results have been reported for animal keeping. However 20 (80.0%) of the teachers reported that there were no economic agricultural activities while five (20%) reported that there were such activities at the school. During the open ended interviews the teachers reported that the activities reported by five teachers were actually belonging not to the schools but to individual person within the schools. Table 11 summarizes the above information.

**Table 11: Teachers' responses on the existence of self reliance activities in their school n=25**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
They have school farm	2	8.0
They don't have school farm	23	92.0
Total	25	100.0
They cultivate crops	0	0.0
They don't cultivate crops	100	100.0
Total	100	100.0
They keep animals	0	0.0
They don't keep animals	100	100.0
Total	100	100.0
They have school projects	5	20.0
They don't have school project	20	80.0
Total	100	100.0

Teachers as well as students were asked whether their school will gain by having self reliance activities at their schools. Tables 12 and 13 below shows that, only 44 (44.0%) students reported that their schools would gain and the rest of the students that is (56%) opposed it. Few teachers (40.0%) reported that their school will gain if self reliance activities will be implemented in their schools. The majority of them (60%) opposed it.

**Table 12: Students' views on the implementation of self-reliance activities in their schools n=100**

	Frequency	Percent
Schools gain on implementing self reliance	44	44.0
Schools do not gains on implementing self reliance	56	56.0
Total	100	100.0

The general observation from the findings was that both teachers and students were not supportive of the implementation of self reliance activities in their schools to contribute positively to their schools in terms of gain. Teachers and students subscribed their views that due to lack of the sense of accountability, responsibility and trust to those who were to manage the projects.

**Table 13: Teachers' views on the implementation of self-reliance activities in their schools n=25**

	Frequency	Percent
Schools gains on implementing self reliance	10	40.0
Schools not gains on implementing self reliance	15	60.0
Total	25	100.0

#### **4.6 Tanzanian Education Policy Concerning Agriculture Science Subject**

According to the Tanzania Education Policy of 1995, Agriculture Science subject is a biased subject together with Home Economics, Business and Technical subjects. In 2004, agriculture science and all other biased subjects were eliminated in O-level secondary school curriculum through the established Education Act No. 9 of 2004. In the year 2006 all biased subjects including agriculture were reintroduced in O-level secondary school syllabus by the established Education act No. 1 of 2006. However, the subject was made not a compulsory one to be studied in all O – level secondary schools but could be opted during the school registration process. Twenty two (88.0%) of teachers stated that the

Tanzanian Education Policy does not favor Agricultural Science subject to be taught in secondary schools, this is shown on Table 14.

**Table 14: Teachers' views on Tanzanian educational policy regarding teaching of Agricultural Science subject in secondary schools n=25**

	Frequency	Percent
The policy favors teaching of agriculture science subject in secondary schools	3	12.0
The policy does not favor teaching of agriculture science subject in secondary schools	22	88.0
Total	25	100.0

Students had similar views as 84% reported that the Tanzanian Educational Policy does not support Agriculture Science subject to be studied in secondary schools.

**Table 15: Students' views on Tanzanian educational policy regarding teaching of Agricultural Science subject in secondary schools n=100**

Variable	Frequency	Percent
The policy favors teaching of agriculture science subject in secondary schools	16	16.0
The policy does not favor teaching of agriculture science subject in secondary schools	84	84.0
Total	100	100.0

#### **4.7 Teaching/ Learning Materials**

The Agricultural teaching and learning materials referred to agricultural tools/implements, textbooks, reference books, teaching guides, laboratory apparatus, visual aids, supplementary books, and journals. In almost all cases inquired, teachers from these community secondary schools indicated that agricultural teaching and learning materials were not available in their respective schools as reported in Table 16.

Johnson *et al.* (2004), clearly stated that teaching and learning processes are based on reflection, experience, and instructions upon the availability of teaching and learning materials. Altbach (1982), observed however the lack of textbooks in developing countries' schools and that students either lacked textbooks or were forced to share a few available textbooks. Community built secondary schools seemed to suffer more compared to government owned secondary schools.

**Table 16: Teachers' opinions on availability of Teaching/Learning materials (n=25)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
Agricultural tools/ implements are available	14	56.0
Agricultural tools/ implements are not available	11	44.0
Total	25	100.0
Agriculture textbooks are available	0	0.0
Agriculture textbooks are not available	25	100.0
Total	25	100.0
Agriculture reference books are available	0	0.0
Agriculture reference books are not available	25	100.0
Total	25	100.0
Agriculture teacher's guide are available	0	0.0
Agriculture teacher's guide are not available	25	100.0
Total	25	100.0
Agricultural laboratory apparatus are available	0	0.0
Agricultural laboratory apparatus are not available	25	100.0
Total	25	100.0
Agricultural Visual Aids are available	0	0.0
Agricultural Visual Aids are not available	25	100.0
Total	25	100.0
Agricultural supplementary books are available	0	0.0
Agricultural supplementary books are not available	25	100.0
Total	25	100.0
Agricultural journals are available	0	0.0
Agricultural journals are not available	25	100.0
Total	25	100.0

The importance of agricultural textbooks and other instructional materials for teaching and learning of students which are usually expensive to purchase, consequently making students studying Agricultural Science subject to be adversely affected. That scenario results to constraints in terms of teaching and learning the subject matters, practical and observations that help students gain knowledge and acquire necessary skills.

#### **4.8 School Physical Facilities**

Both Mosha (2000) and Okumbe (1998), pointed out that school infrastructure refers to physical facilities such as classrooms, laboratories, library, students' desks and chairs, toilets, teachers' house, staff offices and utilities. Of the 25 teachers, 15 (60.0%) reported that there were no adequate desks in the schools, seven (28%) agreed that desks were about adequate, while three (12.0%) indicated that desks were adequate. On availability of chairs and tables, over half of the respondent teachers 16 (64.0%), reported that there were inadequate chairs and tables in the schools, six (24%) agreed that chairs and tables were about adequate, while three (12.0%) indicated that chairs and tables were adequate.

With regard to the availability of classrooms in the community built secondary schools almost half 56% of the teachers reported that classrooms were not adequate. Seven (28.0%) teachers reported that there about adequate classrooms and only four (16%) reported that there were adequate classrooms in these schools. Recruiting many students with the intention of training more students at secondary education level, may explain why these schools have inadequate classrooms.

Laboratories are also important physical facilities in secondary schools and therefore teachers were asked to comment on them. Of the 25 teachers from the community built secondary schools, 18 (72.0%) reported that laboratories were not adequate, five (20.0%)

reported that laboratories were about adequate and only two (8.0%) reported that laboratories were adequate. The same case was applied to the adequacy of libraries. Twenty four (96.0%) of teachers reported that libraries were not adequate.

Teachers also commented on the adequacy of hostels and toilets, whereby all 25 (100%) believed that hostels were not adequate and 15 (60%) teachers agreed that toilets were not adequate. Personal observations by the researcher found that, in all community owned secondary schools in the study area there was no even a single agricultural laboratory. This could be one among the reasons why agriculture science subject is not taught in many community secondary schools in the study area.

Opinions on the adequacy of school facilities, like desks, chairs, tables, classrooms, laboratories, library, dormitories and toilets were studied and the study found that such facilities were not adequate as they do not match with either the number of students and/or requirements for the school. This brings a lot of difficulties in the learning process and probably in incorporating agriculture science subject in the community owned secondary school as Abagi and Sifuna (2006), argued that the presence of physical facilities encourage smooth running of school activities and learning process. This has also been found in Nigeria where Urwick and Junaidu (1991), found out that quality physical facilities allow teaching methods that permit active participation by students in lessons, effective use of time and improvement of teachers' level of commitment. The responses on the question on the availability of physical facilities in these schools are reported in Table 17.

Table 17: Adequacy of school physical facilities (furniture and buildings) (n=25)

<b>School physical facilities (Furniture)</b>		<b>Frequency</b>	<b>Percent</b>
<b>Desks</b>			
	Adequate	3	12.0
	About adequate	7	28.0
	Not adequate	15	60.0
	Total	25	100.0
<b>Chairs</b>			
	Adequate	3	12.0
	About adequate	6	24.0
	Not adequate	16	64.0
	Total	25	100.0
<b>Tables</b>			
	Adequate	3	12.0
	About adequate	6	24.0
	Not adequate	16	64.0
	Total	25	100.0
<b>School physical facilities (buildings)</b>			
<b>Classes</b>			
	Adequate	4	16.0
	About adequate	7	28.0
	Not adequate	14	56.0
	Total	25	100.0
<b>Laboratories</b>			
	Adequate	2	8.0
	About adequate	5	20.0
	Not adequate	18	72.0
	Total	25	100.0
<b>Library</b>			
	Adequate	1	4.0
	Not adequate	24	96.0
	Total	25	100.0
<b>Hostels</b>			
	Not adequate	25	100.0
	Total	25	100.0
<b>Toilets</b>			
	Adequate	2	8.0
	About adequate	8	32.0
	Not adequate	15	60.0
	Total	25	100.0
<b>Agricultural Laboratory</b>			
	Not available	25	100.0
	Total	25	100.0

#### 4.9 Teaching Staff

Windham (1988), argues that appropriate academic and professional education qualification of teachers have an influence on the academic performance of students in the secondary schools. Additionally the study by Hammond (2000), found that teacher quality is strongly related to students' achievements than other school inputs. On the same issue, Mwamwenda (1989), is of the opinion that professionally trained teachers contribute more to quality education than those who are not trained or partially trained in the teaching profession. In this study, teachers were asked to comment on availability of qualified teachers in various school science departments. Report on Table 19 shows that out of the 25 teachers, five (20.0%) and 20 (80.0%) indicated that there were not even one qualified teacher for Chemistry and Agriculture Science subject respectively in their community secondary schools. Ten (40%), 15 (60%) and five (20%) indicated that there was only one qualified teacher for Chemistry, Biology and Agriculture science subject respectively in their community secondary schools. These show that there is a serious shortage of science subject teachers including Agricultural Science subject thus causing the agriculture science subject not to be taught in these secondary schools.

**Table 18: Number of teachers in some science departments (n=25)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Chemistry</b>		
None	5	20.0
One	10	40.0
Two	10	40.0
Total	25	100.0
<b>Biology</b>		
One	15	60.0
Two	10	40.0
Total	25	100.0
<b>Agriculture</b>		
None	20	80.0
One	5	20.0
Total	25	100.0



#### 4.10 Funding

Mwiria and Ogbu (1999), studied the implication of financial resources on running private schools in Kenya and found that, appropriate funding of schools almost brings availability of the necessary physical and human resources that help management of schools. Mpango and Mushi (1998), also argue that adequate financing of schools through effective funding sources facilitates schools to have more equipment and maintain enough infrastructure and teaching and learning facilities as well as learning resources that finally sophisticate the task of managing the schools.

Table 19 summarizes teachers' responses on sources of funds and financial problem on running schools properly. Almost all (96.0%) teachers from community-built secondary schools were of the opinion that the major sources of funds were the government and the community. Also the majority of them reported that there were financial problems in their schools that is, funds in the resources envelope were always not adequate or not there.

**Table 19: Teachers' response on sources of funds and financial problem on running schools properly**

<b>Teachers' responses on Source of fund n=25</b>	<b>Frequency</b>	<b>Percent</b>
Source of fund is from community	1	4.0
Source of fund is from community and government	24	96.0
Total	25	100.0
<b>Teachers' opinion on problems related to fund n=25</b>		
Community is not contributing any fund	0	0.0
Government is not contributing any fund	0	0.0
Little contribution by government and not in time	11	44.0
Little contribution by community and not in time	14	56.0
Total	25	100.0

The study found out that 25 (100.0%), 22 (88.0%), 20 (80.0%), 20 (80.0%), 24 (96.0%), 25 (100.0%), 22 (88.0%), 23 (92.0%), 22 (88.0%), and 23 (92.0%) of teachers reported that enough fund has an effect on classrooms, laboratories, libraries, hostels, desks and chairs, books, laboratory apparatus, chemicals, visual aids and personnel respectively. Almost half of the teachers that is 14 (56%) were of the opinion that there are scarcity of funds that affect them to make decision on incorporating Agricultural Science subject in their community secondary schools. Tables 20, 21, and 22 illustrate the above information.

Previously, the government was the sole source of funding to run schools, a situation that resulted into having fewer schools. With the introduction of building community secondary schools, there were now many established schools thus causing funding to be a problem and sometimes schools are not getting funds on time from the government and sometimes communities fail to contribute their share. One community secondary student is supposed to get twenty five thousands Tanzanian shillings per year from the government URT (2010), but in actual practice the government contributes less than stated amount.

**Table 20: Teachers' opinion on the effect of availability of funds on physical infrastructure (n=25)**

Variable		Frequency	Percent
Classrooms	Yes	25	100.0
	Total	25	100.0
Laboratories	Yes	22	88.0
	No	3	12.0
	Total	25	100.0
Library	Yes	20	80.0
	No	5	20.0
	Total	25	100.0
Hostels	Yes	20	80.0
	No	5	20.0
	Total	25	100.0

**Table 21: Teachers' opinion on the effect of availability of funds on teaching and learning materials (n=25)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Desks and Chairs</b>		
Yes	24	96.0
No	1	4.0
Total	25	100.0
<b>Books</b>		
Yes	25	100.0
Total	25	100.0
<b>Laboratory apparatus</b>		
Yes	22	88.0
No	3	12.0
Total	25	100.0
<b>Visual Aids</b>		
Yes	22	88.0
No	3	12.0
Total	25	100.0

**Table 22: Teachers' opinion on the effect of availability of funds on personnel (n=25)**

<b>Variable</b>	<b>Frequency</b>	<b>Percent</b>
<b>Teachers</b>		
Yes	23	92.0
No	2	8.0
Total	25	100.0
<b>Non teaching staff</b>		
Yes	23	92.0
No	2	8.0
Total	25	100.0

#### **4.11 Respondents' Perceptions on Agricultural Science Subject**

Finally, the study wanted to seek information on the respondents' perception on Agricultural Science Subject as subject to be compulsory taught in all community secondary schools in the study area. That is not only opted in these schools but also if the subject will bring changes in terms of improving knowledge on agriculture such as increase of production that will add to the national income. The question was finally asked since agriculture is the backbone of the nation's economy and thus improve crop and livestock production knowledge would improve the economy. Schools with Agriculture Science subject were expected to have a positive impact on the surrounding communities and nation at large. Thus Table 23 summarizes respondents' views on whether agriculture science subject should be a compulsory subject taught in all community secondary schools in Songea Municipality. Almost all teachers (96.0%) were of the opinion that teaching Agricultural Science Subject in these schools will improve agriculture knowledge to many Tanzanians. Consequently, raise agricultural production in the nation and thus improve the economy of the people starting from the households to the national level. People can support themselves and thus be self reliant and poverty free.

Students alike were of the opinion that Agricultural Science Subject in these schools should be compulsory, as the learning outcomes in terms of knowledge and skills to be gained by the students will improve the lives of the students after graduation. Students further explained that they are expecting to use the knowledge and skills gained while studying Agricultural Science subject at home since the majority of them expect to return to the village where crop farming and livestock keeping are the major self employment opportunities to sustain their lives. Conclusively, all respondents agreed that the subject

should be a compulsory one to be taught in all community secondary schools in Songea Municipality.

**Table 23: Respondents' opinion on teaching Agricultural Science subject in all O-level community secondary schools**

	Students n=100		Teachers n=25	
	Frequency	Percent	Frequency	Percent
Will improve the agricultural knowledge to the Tanzanian and therefore rise agricultural production as well as national economy.	92	92.0	24	96.0
Will have no effect/changes with the current situation.	8	8.0	1	4.0
Total	100	100.0	25	100.0

## CHAPTER FIVE

### 5.0 CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Overview

The primary objective of this study was to find out constraints faced by community owned secondary schools in Tanzania in incorporating Agricultural Science as one of the subjects to be taught in their schools with reference to Songea Municipality. The study further aimed to assess whether or not secondary school students were in need of studying agricultural science subject in the study area; examine the impact of secondary school students not studying agricultural science subject in the study area; find if the Tanzanian education policy favored secondary school students to study agricultural science subject in the study area. Finally, the study aimed to assess whether there were self-reliance activities carried out in schools such as animal husbandry, crop cultivation and school projects.

The study found out that in the community owned secondary schools, there were more male teachers than female, diploma holders, and also young teachers whose age ranged from 20 to 30 years.

Regarding whether students in these schools had ever studied Agricultural Science subject the study found out that majority had basic knowledge on some of the agriculture components such as fundamentals of agriculture, crops production and livestock production. Home, primary school where students were enrolled were the places where these students had gained some knowledge on agriculture science components while few acquired knowledge from Chemistry and Geography subjects.

teachers to teach the subject, delay in availability of funds from the government to these schools and little commitment and reimbursement of funds from the communities that own the schools.

Respondents were of the opinion that if funds from the funding sources for the development of these schools were to flow timely and adequately, many those schools would have opted to incorporate Agricultural Science subject in their schools since the financial problems that hinder development would have been solved and schools would run smoothly and as academically planned. And lastly, the study found out that, the fact of incorporation of Agricultural Science subject to be taught in community secondary schools was optional, and any decisions to not incorporate the subject in their schools become a rational one.

## 5.2 Conclusions

The study identified various constraints which faced the community owned secondary schools in incorporating agricultural science as one of the subject taught in the study area such as improper Tanzanian education policy concerning with agriculture science subject, lack of teaching and learning materials, inadequate school physical facilities and unavailability of qualified agriculture teachers and also financial problems in schools.

These being some of the constraints identified by the study, opting to teach the subject in those schools would help students not to miss the basic knowledge taught in agriculture science subject.

These Agriculture Science subject components are very important to be studied by students since they have direct relationship and contribution to the life they were going to

live after completing schools and join village life where agriculture is the major source of food and cash earning activities.

For that matter, implementation of education for self-reliance into practice through establishing, running and managing activities and projects associated with Agricultural Science at those schools was significantly important and beneficial to the students.

### **5.3 Recommendations**

Given the aforementioned study conclusions, the following recommendations are therefore made;

- (i) The government should design education policy which will favor Agricultural Science subject to be incorporated in community secondary schools and if possible Agriculture Science subject should be among the compulsory subjects, thus to be studied by all secondary school students so as to provide the students with knowledge and attitude which will enable them to live profitably in their country.
- (ii) Government and community should improve the availability of teaching and learning materials and school physical facilities. The government also, should increase the number of qualified agricultural teachers as well as solve financial problems in these schools.
- (iii) The community and government should promote the interest and needs of the students by providing what they want since most of them showed interest on studying Agricultural Science subject and interest on agriculture activities.



- (iv) Finally, all Tanzanian education stakeholders should make sure that, self reliance activities are reactivated in secondary schools so that they can be used as sources of income generating and a place where students can study on how to manage various economic projects.

## REFERENCES

- Abagi, O. and Sifuna, D. N. (2006). Report of the final evaluation of tusome vitabu Project (TVP) in Tanzania. Dar es Salaam. Care International Tanzania. pp. 67 – 84.
- Altbach, P. (1982). Key Issues of Textbook Provision in the Third World Prospects. *Quarterly Review of Education* 13(7): 21 – 25.
- Babbie, E. R. (1990). *Survey Research Methods*: 2<sup>nd</sup> Edition. Wadsworth Publishing Company Inc. Belmont, California. 395pp.
- Babyegeya, E. B. N. (2002). *Educational Planning and Administration*. Open University of Tanzania, Dar es Salaam. 165pp
- Bailey, D. K. (1998). *Method of Social Science Research*. The Free Press Collier, Macmillan Publisher, London, UK. 478pp.
- Bray, M. (1996a). *Counting the full cost: Parental and community financing in education in East Asia*. Washington DC, The Word Bank. 100pp.
- Bray, M. (1996b). Equity issues in local resources of education: Community financing of primary schools in Buthan. *International Reviews of Education* 42(5): 459 – 514.
- Bray, M. (1997). Community financing of education: Rationales, mechanisms and policy implications in less developed countries. *Marketing Education and Health in Developing Countries, Miracle or Mirage?* Oxford. Clarendon Press. pp. 185 – 204.

- Bray, M. (2001). Community partnership in education. Dimensions, Variations and Implications. Paris (EFA) Inter – Agency Communication, UNESCO. 52pp.
- Bray, M. (2003). Community initiatives in education goals dimensions and linkages with governments. *Journal of Comparative Education* 31(1): 33 – 47.
- Carron, G. and Chau , T. N. (1996) . *The quality of primary schools in different developing Contexts*. Paris, UNESCO.113pp.
- Chama Cha Mapinduzi (CCM) (2005). Election Manifesto for the general election of NEC. Dar es Salaam, Tanzania.
- Chung, F. (1990). Government and community partnership in financing education in Zimbabwe. *International Journal of Education Development* 10(3): 191 – 194.
- Faustor, C.N (1995). *Decentralization and planning of education experiences in five Latin American countries*. [internet] [http://www. voced edu au /td/tnc](http://www.voced.edu.au/td/tnc).Retrieved on February 16, 2011.
- Galabawa. J. C. J. (2001). *Perspectives in education management and administration*. KAD Associates. Dar es Salaam, Tanzania.159pp.
- Govinder, R. and Varghese, N. V. (1993). *Quality of primary schooling in India A case study of Madhya Pradesh* Paris UNESCO/IIEP.

Hakielimu (2007). Is secondary education progressing? Key findings from the government reviews of SEDP implementation. Haki Elimu Dar es Salaam, Tanzania. 21pp.

Hammond, L. D. (2000). Teacher quality and student achievement. *State policy evidence and Educational policy analysis achieves* 8(1): 1 – 42.

Hoy, W. K. and Miskel, C. G. (2008). Educational administration: Theory. Research and practice. [[http://www.waynehoy.com/power\\_points.html](http://www.waynehoy.com/power_points.html)] site visited on 10/9/2011.

Johnson, B. D., Parker, D. O., Lunsford, M.W. and Henderson, L. J. (2004). *Dimensions of Learning for Life*. (3<sup>rd</sup>Ed.). Mc Graw Hill, Custom Publishing, New York. USA 316pp.

Kasandiko. J. C. P. (2006). Financing in community secondary schools in mainland Tanzania. Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 102pp.

Khalfani, H. (2010). Constraints in managing community secondary schools in the Morogoro Municipality Tanzania. Dissertation for Award of MA Degree at University of Dar es salaam, Tanzania, 110pp.

Kothari, C. R. (2004). *Research Methodology: Method and Techniques*; (2<sup>nd</sup> Ed). Age International Publisher Ltd., New Delhi, 75pp.

- Lugayila, C. P. N. (2002). Assessment on the District Rural Development Programme (DRDP) Initiatives to Improve Quality in Primary Education: A case of Kahama District. Dissertation for Award of MA Degree at University of Dar es Salaam, Dar es salaam, Tanzania, 159pp.
- Mattee, A. Z. (1978). Educational Transformation in Tanzania: Implementing the Policy of Education for Self-Reliance in secondary schools. Dissertation for Award of MSc Degree at University of Wisconsin, Madison, 125pp.
- Matekere.Y. M. (2003). The effectiveness of community secondary schools in Tanzania: A case of Mvomero District. Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 109pp.
- Mbepera, J. (2008). The perception of members of the school community towards female heads of co- education secondary schools in Tanzania. A case of Mtwara region. Dissertation for Award of MEMA Degree at University of Dar es Salaam, Tanzania, 132pp.
- Ministry of National Education Circular (1972). No.2.Government printer, Dar es Salaam, Tanzania.
- Ministry of National Education Circular (1974). No.3. Government printer, Dar es Salaam, Tanzania.
- Mliga, G. (2008) . School environment and school performance in certificate in secondary education examination in community secondary schools in 2001-2005. Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 99pp.

Monoszon, G. I. (1963). The Content of Secondary Education in the USSR. *West African Journal of Education* 3: 129 – 137.

Moris, J. R. (1976). Agriculture in the African Secondary Schools. Case Studies of Botswana, Kenya and Tanzania. The African-Institute, New York. 154pp.

Mosha, H. J. (2000). Conceptualizing quality of education. In Galabawa. J.C.J. (Eds). *The Quality of Education in Tanzania: Issues and Experiences*. Institute of Kiswahili. Dar es Salaam. 64pp.

Mosha , H. J. (2006). *Planning Education Systems for Excellence*. E and D Limited. Dar es Salaam, Tanzania.

Mpango, P. I. N. and Mushi, D. P. (1998). Financing primary education in Tanzania: Impacts and prospects of the Matching Grant and targeted subsidy mode of cost Sharing. *Papers in Education and Development* 19: 1 – 16.

Mtolea, H. H. (2007). Community involvement in staff management practices. A case study of selected community secondary schools in the Coast region in Tanzania. Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 139pp.

Mutakyawa, F. P. (1993). The effectiveness of the secondary school farm and Agricultural unit in Teaching Agriculture in Tanzania. Dissertation for Award of MSc Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 125pp.

- Muzo , F.M.L (1985) . *Factors for increased social demand for secondary educating in Tanzania* . Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 102pp.
- Mwiria, K. and Ogbu, O. (1999). *Public expenditure and delivery of education in Kenya. Lessons from secondary schools in cost sharing in education and health perspective from Eastern and southern Africa* . TEMA Publisher, Dar es Salaam Company Limited.108pp
- Mwamwenda, T. S. (1989). School facilities and pupils academic achievement. *Comparative Education* 23: 233 – 235.
- Okoye, M. (1986). Community secondary schools. A case study of a Nigerian Innovation in self- help. *International Journal of Educational Development* 6: 263 – 272.
- Okumbe, J. A. (1998). *Educational management: Theory into practice*. University Press, Nairobi, Kenya. 45pp.
- Omari, I. M. and Mosha, H. J. (1995). *The Quality of Primary Education in Tanzania*. Main Graphics. Nairobi, Kenya. 86pp.
- Ota, C. C. (1986). *Community financing schools in Zimbabwe* .*Prospects* 3: 355 – 368.
- Osaki, K. M. and Njabil, A. F. (2004). Tanzania secondary education sector analysis Consultancy report. MOEC and the Word Bank. Dar es Salaam, Kenya

- Pendaeli, E. S. (1983). The Diversification of Lower Secondary Education and Access to Secondary Education. Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 132pp.
- Raphael, C. (2008). Community involvement in secondary education management in Selected community schools in Singida rural district. Dissertation for Award of MA Degree at University of Dar es Salaam, Tanzania, 119pp.
- Richard, H. (2003). Towards Financial Self-reliance. *A Handbook on Resource Mobilization for Civil Society Organization in the South – word*. Prentice-Hall. London, UK.
- Ruvuma Region Secondary Schools Mock Examination Panel (2010). Form Four Mock Examination Panel Report. 86pp.
- Shekiangio J. M. (2008). Contribution of Fertilizer Management Practices to Poverty reduction the case of Kilindi District. Dissertation for Award of MA Degree at Sokoine University of Agriculture, Morogoro, Tanzania, 81pp.
- URT (1995a). *Education and Training Policy*. Ministry of Education and Culture. NPC, Dar es Salaam, Tanzania. 117pp.
- URT (1995b). *Agricultural Science Syllabus for secondary schools forms 1-4*. The United Republic of Tanzania Government Printer. Dar es Salaam, Tanzania. 56pp.



URT (1999). The Tanzania development vision 2025. [<http://www.tanzania.go.tz/vision.htm>] site visited on 5/9/2011.

URT (2002). *Minister's budget speeches for education at the national assemblies 1999-2002*. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania.

URT (2004). Education Act No.9 of 2004. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania. 10pp.

URT (2006). *Education Act No.1 of 2006*. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania. 7pp.

URT (2008a). *Minister's budget speech for education at the national assembly 2008/9*. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania.

URT (2008b). *Medium term strategic plan 2007/08 -2009/10*. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania. 44pp.

URT (2008c). *Basic education statistic in Tanzania 2004-2008*. National Data. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania. 246pp.

URT (2008d). *Agricultural Sector Development Strategy*. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania. 99pp.

URT (2010). Ministry of Education and Vocational Training, Secondary Education Development plan 2010 – 2015 Guideline for the use of Capitations Grant for Secondary School. The United Republic of Tanzania Government Printer, Dar es Salaam, Tanzania. 6pp.

Urwick, J. and Junaidu, S. U. (1991). The effect of school physical facilities on the process of education. A qualitative study of Nigerian primary schools.

*International Journal of Education Development* I: 19 – 29.

Windham, D. (1988). Effectiveness Indicators in the Economic Analysis of Educational

Activities. *Special issues of the International Journal of Education*

*Administration* 5(7): 12 – 18.

Word Bank (1999). Community Education Funds. *Human Resource Development*. The

Word Bank. Washington, DC.149pp.

## APPENDICES

### Appendix 1: Questionnaire for Teachers

**Title: Constraints facing community secondary schools in incorporating Agricultural Science subject in their schools: The case of Songea Municipality, Tanzania**

Dear Teachers, in spite of the fact that Tanzanian economy is dependent and continues to depend on agriculture for a long time to come, and about 80% of the total Tanzanian population depends on agricultural activities, very little efforts have been made to make sure that Agricultural Science subject is taught in the massively established community secondary schools.

In line with the above, I wish to assess the constraints that face the community owned secondary schools of Songea Municipality in incorporating agricultural science subject in their schools. The findings are expected to be generalized to other schools with the same characteristics in Tanzania.

Your response will contribute to an important research work, which will help stakeholders to rethink on how to promote the agricultural science subject teaching in the secondary schools.

- (a) You do not have to write your name on this script.
- (b) Information given will be treated confidentially.

### A. PERSONAL INFORMATION

**Instructions:** Put a tick (✓) in a bracket with the correct answer and fill in the blanks provided for some of the questions.

1. Name of School.....

2. Date.....

3. Sex

1) Female ( )

2) Male ( )

4. Please put a tick on the appropriate range of your age e.g. 20 – 30 (✓)

1) 20 – 30 ( )

2) 31 – 40 ( )

3) 41- 50 ( )

4) 51 – 60 ( )

5) 61+ ( )

5. What is your education level?

1. Diploma ( )

2. Bachelor degree ( )

3. Masters degree ( )

4. Others ( ) Please specify .....

6. For how many years have you been in this school?

1) 0 – 1 ( )

2) 2 – 5 ( )

3) 6 – 10 ( )

4) 10 – 15 ( )

5) 15+ ( )

7. Put a tick (✓) in a bracket for subjects you teach.

- |                                   |                                 |
|-----------------------------------|---------------------------------|
| 1. Basic Mathematics ( )          | 8. Physics ( )                  |
| 2. Civics ( )                     | 9. Chemistry ( )                |
| 3. Kiswahili ( )                  | 10. Agricultural Science ( )    |
| 4. English ( )                    | 11. Home Economics subjects ( ) |
| 5. Geography ( )                  | 12. Technical subjects ( )      |
| 6. Biology ( )                    | 13. Commerce                    |
| 7. History ( )                    | 14. Book Keeping ( )            |
| 15. Others ( ) Mention them ..... |                                 |

8. If you are teaching agricultural science subject where have you been trained?

1) Training college ( )

2) University ( )

9. Please mention the agricultural training college or university you attended. ....

#### B. NEED FOR AGRICULTURE SCIENCE SUBJECTS

10. Do your Form Four students have a basic knowledge on some of the following agricultural component listed below?

Fundamentals of Agriculture, Crops Production, Livestock Production, Farming Business and Economics, Soil and its Agricultural Utilization, Agriculture and Environmental Management, Agricultural Mechanics (agro-mechanics), Agricultural Extension

1) Yes ( )

2) No ( )

11. If they have knowledge in question 10 above where did they get the knowledge?

1) Home ( )

2) Primary school ( )

3) In this school(secondary school) ( )

12. If they have knowledge in question 10 above and they have obtained from this school, in which subject did they obtain that knowledge?

1) Agricultural Science ( )

2) Chemistry ( )

3) Geography ( )

13. In which subject do you think that **all** the knowledge in question 10 above can be obtained?

1) Agricultural Science ( )

2) Chemistry ( )

3) Geography ( )

14. Are the knowledge mentioned in question 10 above important for secondary school students?

1) Yes ( )

2) No ( )

15. Put a tick (✓) in a bracket for subjects taught in your school

1. Basic Mathematics ( )      8. Physics ( )

2. Civics ( )      9. Chemistry ( )

3. Kiswahili ( )      10. Agricultural Science ( )

4. English ( )      11. Home Economics subjects ( )

5. Geography ( )      12. Technical subjects ( )

6. Biology ( )      13. Commerce ( )

7. History ( )      14. Book Keeping ( )

15. Others ( ) Mention them .....

16. Put a tick (✓) in a bracket concerning the agricultural science subject status in your school?

- 1) Taught in earlier years and then abandoned ( )
- 2) Not taught ever since the school started ( )
- 3) Is being taught up to now ( )

17. If you are teaching agricultural science subject what problems are you facing? Please list them

- 1).....
- 2).....
- 3).....

### C. EFFECTS FOR NOT STUDYING AGRICULTURE SCIENCE SUBJECTS

18. Is there any danger/problems for secondary school students not having knowledge on Fundamentals of Agriculture, Crops Production, Livestock Production, Farming Business and Economics, Soil and its Agricultural Utilization, Agriculture and Environmental Management, Agricultural Mechanics (agro-mechanics) and Agricultural Extension?

- 1) Yes ( )
- 2) No ( )

19. If the answer in question 18 is Yes, please mention the problems/danger you experienced.

- 1).....
- 2).....
- 3).....

#### D. SELF-RELIANCE ACTIVITIES

20. Does your school have a school farm?

1) Yes (   )

2) No (   )

21. If the answer in question 20 above is yes, what is the size of it in acres?

.....acres.

22. Do you cultivate crops in your school?

1) Yes (   )

2) No (   )

23. If the answer in question 22 is Yes, please list the crops grown.

1).....2).....3).....

4).....5).....6).....

24. Do you keep animals in your school?

1) Yes (   )

2) No (   )

25. If the answer in question 24 is Yes, please list the animals you keep at your school.

1).....2).....3).....

4).....5).....6).....

26. Do you have school economic projects ?

1) Yes (   )

2) No (   )



27. If the answer in question 26 is Yes , please list the projects.

1).....2).....3).....

4).....5).....6).....

28. Are the students doing / studying anything on implementing the above self-reliance activities and school projects?

1) Yes (   )

2) No (   )

29. If the answer in question 28 is Yes, please list what they do / study.

1).....

2).....

30. If the answer in question 28 is No, please list what they do not study.

1).....

2).....

3).....

#### **E.     TEACHING/LEARNING MATERIALS**

31. Do you have agricultural tools / implements?

1) Yes (   )

2) No (   )

32. If Yes, please list the agricultural tools / implements you have at the school.

1).....2).....3).....

4).....5).....6).....

7).....8).....9).....

10).....11).....12).....

13).....14).....15).....

16).....17)..... 18).....

33. In your school do you have the following teaching and learning materials of agriculture science subject? Please put a tick

ITEMS	Yes	No
Textbooks		
Reference books		
Teachers' guide		
Chemicals		
Laboratory apparatus		
Visual Aids		
Supplementary books		
Journals		

34. Are the materials mentioned for teaching and learning agriculture science subject on question 33 above sufficient, about sufficient or not sufficient? Please put a tick

ITEMS	Sufficient	About Sufficient	Not Sufficient
Textbooks			
Reference books			
Teachers' guide			
Chemicals			
Laboratory apparatus			
Visual aids			
Supplementary books			
Journals			

#### F. SCHOOL FACILITIES

35. Do you think that your school has the following?

ITEMS	Adequate	About Adequate	Not Adequate
Desks			
Chairs			
Tables			
Classrooms			
Laboratories			
Library			
Hostels			
Toilets			

36. Does your school have an agriculture laboratory?

1) Yes ( )

2) No ( )

37. If the answer in question 36 above is yes, is the laboratory having sufficient equipment?

1) Yes (    )

2) No (    )

38. If the answer in question 36 above is yes, is the laboratory having sufficient chemicals?

1) Yes (    )

2) No (    )

#### G. TEACHING STAFF

39. How many teachers do you have in your school for the following departments (give their number);

Subjects	Number	Adequate	Not Adequate
Mathematics			
Physics			
Chemistry			
Biology			
Agriculture			

#### H. FUNDING

40. What is the major source of funding for your school?

1) Community (    )

2) Government (    )

3) Community and Government (    )

4) Others (    ) Specify; \_\_\_\_\_

41. Are there any financial problems in your school?

1) Yes (    )

2) No (    )

42. If the answer in question 41 above is yes, Please mention the problems.

1).....

2).....

43. Do you think that the source of funds in school has an effect on the following?

	Yes	No
Classrooms		
Laboratories		
Library		
Desks		
Chairs		
Tables		
Books		
Hostels		
Laboratory apparatus		
Chemicals		
Visual Aids		
Teachers		

44. Do you think that the source of funds have an effect on incorporating agricultural science subject in your school?

1) Yes (   )

2) No (   )

#### I. GOVERNMENT EDUCATIONAL POLICY

45. Does the Tanzanian educational policy favor agricultural science subject to be studied in secondary schools?

1) Yes (   )

2) No (   )

46. Mention the reasons for your answer in question 45 above.

1).....

2).....

3).....

47. What if the agricultural science subject could be among the compulsory subject to be studied in O-level community secondary school?

1) Will improve the agricultural knowledge to the Tanzanian and therefore rise agricultural production as well as national economy. ( )

2) Will have no effect/changes with the current situation. ( )

**J. PERSONAL OPINIONS**

48. What are your opinions on the need of the agricultural science subject to be taught in the massively established community owned secondary schools, please list them.

.....

**Thank you very much for your time and generous cooperation**

## Appendix 2: Questionnaire for Students

### **Title: Constraints facing community secondary schools in incorporating Agricultural Science subject in their schools: The case of Songea Municipality, Tanzania**

Dear students, in spite of the fact that Tanzanian economy is dependent and continues to depend on agriculture for a long time to come, and about 80% of the total Tanzanian population depends on agricultural activities, very little efforts have been made to make sure that Agricultural Science subject is taught in the massively established community secondary schools.

In line with the above, I wish to assess the constraints that face the community owned secondary schools of Songea Municipality in incorporating Agricultural Science subject in their schools. The findings are expected to be generalized to other schools with the same characteristics in Tanzania.

Your response will contribute to an important research work, which will help stakeholders to rethink on how to promote the agricultural science subject teaching in the secondary schools.

- (a) You do not have to write your name on this script.
- (b) Information given will be treated confidentially.

#### **A. PERSONAL INFORMATION**

**Instructions:** Put a tick (✓) in a bracket with the correct answer and fill in the blanks provided for some of the questions.

1. Name of School.....

2. Date.....

3. Sex

1) Female ( )

2) Male ( )

4. Please put a tick on the appropriate range of your age e.g. 20 – 30 (✓)

1) 16 – 18 ( )

2) 19 – 21 ( )

3) 22 + ( )

5. For how many years have you been in this school?

1) 1 year ( )

2) 2 years ( )

3) 3 years ( )

4) 4 years ( )

6. Put a tick (✓) in a bracket for subject you are studying in your school.

1. Basic Mathematics ( )

8. Physics ( )

2. Civics ( )

9. Chemistry ( )

3. Kiswahili ( )

10. Agricultural Science ( )

4. English ( )

11. Home Economics subjects ( )

5. Geography ( )

12. Technical subjects ( )

6. Biology ( )

13. Commerce ( )

7. History ( )

14. Book Keeping ( )

15. Others ( ) mention them .....

7. Have you studied agricultural science subject in secondary school?

1) Yes ( )

2) No ( )

8. If the answer in question 7 above is yes, in which secondary school? Please mention

.....

### 3) NEED FOR AGRICULTURE SCIENCE SUBJECTS

9. Do you have any basic knowledge on some of the following mentioned agricultural components such as Fundamentals of Agriculture, Crops Production, Livestock Production, Farming Business and Economics, Soil and its Agricultural Utilization, Agriculture and Environmental Management, Agricultural Mechanics (agro-mechanics), Agricultural Extension?

1) Yes ( )

2) No ( )

10. If you have knowledge in question 9 above where did you get the knowledge from?

1) Home ( )

2) Primary school ( )

3) In this school (secondary school) ( )

4) In another school (secondary school) ( )

11. If you have knowledge in question 9 above and you have obtained it from this school, in which subject did you obtain that knowledge?

1) Agricultural Science ( )

2) Chemistry ( )

3) Geography ( )

12. In which subject do you think that all the knowledge in question 9 above can be obtained?

1) Agricultural Science ( )

2) Chemistry ( )

3) Geography ( )



13. Is the knowledge mentioned in question 9 above important for secondary school students?

2) Yes (   )

3) No (   )

14. Do you have an interest on agricultural science subject?

1) Yes (   )

2) No (   )

15. Do you have an interest on agricultural activities?

1) Yes (   )

2) No (   )

16. If the answer in question 15 above is yes, mention agricultural activities you are interested with.

1).....

2).....

3).....

#### 4)      **EFFECT FOR NOT STUDYING AGRICULTURE SCIENCE SUBJECTS**

17. Is there any dangers/problems for secondary school students not to have knowledge on Fundamentals of Agriculture, Crops Production, Livestock Production, Farming Business and Economics, Soil and its Agricultural Utilization, Agriculture and Environmental management, Agricultural Mechanics (agro-mechanics) and Agricultural Extension?

3) Yes (   )

4) No (   )

18. If the answer in question 17 is Yes, please mention the problems/dangers

1).....

2).....

3).....

### 5) AGRICULTURE SCIENCE SUBJECT CONSTRAINTS

19. If you were/are studying agricultural science subject, what difficulties/constraints would you face? Please mention them all.

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

### 6) SELF-RELIANCE ACTIVITIES

20. Does your school have a school farm?

1) Yes (   )

2) No (   )

21. If the answer in question 20 above is yes, what is the size of it in acres?

.....acres.

22. Do you cultivate crops in your school?

1) Yes (   )

2) No (   )

23. If the answer in question 22 is Yes, please list the crops grown in your school.

- 1).....2).....3).....
- 4).....5).....6).....

24. Do you keep animals in your school?

1) Yes (   )

2) No (   )

25. If the answer in question 24 is Yes, please list the animals you keep in your school.

- 1).....2).....3).....
- 4).....5).....6).....

26. Do you have school economic projects?

1) Yes (   )

2) No (   )

27. If the answer in question 26 is Yes, please list the projects.

1).....2).....3).....

4).....5).....6).....

28. Are you doing / studying anything on implementing the above self-reliance activities  
and school economic projects?

1) Yes (   )

2) No (   )

29. If the answer in question 28 is Yes, please list what you do / study.

1).....

2).....

3).....

30. If the answer in question 28 is No, please list what you do not gain / study.

1).....

2).....

3).....

## 7) GOVERNMENT EDUCATIONAL POLICY

31. Does the Tanzanian educational policy favor you to select agriculture science subject  
as one of subject to be studied?

1) Yes (   )

2) No (   )

32. Explain the reasons for the answer above .....

.....

.....

33. What if the agricultural science subject could be among the compulsory subject to be studied in o-level community secondary school?

1) Will improve the agricultural knowledge to the Tanzanian and therefore rise agricultural production as well as national economy. ( )

2) Will have no effect/changes with the current situation. ( )

#### 8) PERSONAL OPINIONS

34. What are your opinions on the need of the agricultural science subject to be taught in the massively established community owned secondary schools? Please list them.

.....

.....

.....

**Thank you very much for your time and generous cooperation.**

### Appendix 3: Map of Songea Municipality

