

**CIVIL SOCIETY ORGANIZATIONS AND MODERNIZATION OF AGRICULTURE IN
YAMBIO COUNTY, GBUDWE STATE, SOUTH SUDAN**

BY

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DECLARATION

This dissertation is my original work and has not been presented for a master degree in any other University or any other award.


Signature: 

Date: 14.6.2018

MBORIHENGA IGNATIUS

APPROVAL

I confirm that the work in this dissertation was carried out by the candidate under my supervision:

Signature: 

Date: 14th June 2018

DR. Kigundu Kafero

DEDICATION

I dedicate this book to my friend Ed Moreno, whose support and encouragement has kept me in the pursuit of quality education. Ed has always wished to read from me an improved paper worth of a standard. You have extensively contributed to what I am today.

To my people; Jackline Peter, Freda Natale, Peace Christine, Bakindo Bill, Namaku Cecily, Minaida and Bahinipai. My brothers and sisters, you stood with me morally and socially. I thank you for your support and prayers.

I also dedicate this book to my benefactors and friends; Sr. Theresa Mei-Chan, Fr. John Barth and Fr. Ken Deasy. I thank you very much for the financial support you offered me. I am a Master degree holder because of your sacrifices and generosity. Thank you all!

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I express gratitude to my Lord and Savior Jesus Christ, who has worked marvels in my life; the protection, fortune and providences. I testify that St. Jude Thaddeus is my Patron Saint whose intercessions have raised me to this level.

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LIST OF ACRONYMS AND ABBREVIATIONS

CCEWA	Consultation Center for empowering women Association
CSO	Civil Society Organization
DEPT	Department
FBO	Faith-based organization
GDP	Gross domestic product
INGO	International Non-governmental organization
MDGs	Millennium development goals
MoH	Ministry of Health
NECSOs	Network for Civil Society Organizations in greeter Western Equatoria States
NGO	Non-governmental Organization
NO.	Number
RDAA	Rural development Action Aid
REG	Registration
SDGs	Sustainable development goals
SPLA	Sudanese people's Liberation Army
SPSS	Statistical package of Social Sciences
USAID	United States Aid
YWCA	Young women's Christian Association

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ABSTRACT

This study was done to assess the role of Civil Society Organizations in the modernization of agriculture in Yambio County and it was guided by the following research objectives; to assess the level of agricultural production in Yambio County; to examine the activities of these CSOs aimed at modernizing agriculture in Yambio County and to analyze the challenges faced by them in the process of modernizing agriculture in Yambio County. The study employed a cross-sectional Survey design, in which 203 questionnaires were given to households in Yambio Payam, and 12 key informants were interviewed. The findings revealed that there is insufficient food production in Yambio and therefore, its availability is limited. The majority of the community cannot afford three meals a day because they do not cultivate large fields. A household of four members cannot produce 300 kg of maize per a year and this is a low level of productivity.

The research finding exposed a mean value of 2.38 for the activities executed by CSOs for modernizing agriculture; implying activities were sub-standard and not effective enough to support modernization of agriculture. It also infers that CSOs have limited capacity and poor funding which contributed to the ineffectiveness of these organizations.

Indeed the study findings revealed that many challenges faced civil society organizations in modernizing agriculture in Yambio County and this had an average mean of 3.36 which is equivalent to high on Likert Scale; such as low capacity in financial management, lack of expertise and proficiency for CSOs chores. These challenges constrained CSOs from implementing conventional agriculture.

The study recommends that a household should operate a farm size of more than 1 hectare of land at least as the weighted median threshold of operated land. CSOs should support mechanization of agriculture as to increase productivity at low costs and provide improved seeds to ensure quality of produce as to commercialize agriculture. The study submits that civil society organizations in Yambio need capacity building for fundraising, finance management and expertise in service delivery/modernization of agriculture.

The government should be collecting and reporting agricultural statistics and providing standards of measurement for agricultural produce that are brought for sale.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

In this chapter, the researcher presents the historical background to the study, a statement of the problem, the purpose of the study, general and specific objectives, research questions and justification/rational, the conceptual, contextual and theoretical background of the proposed study.

1.1 Background of the Study

1.1.1 Historical Perspective

The term "civil society" can be traced through the works of Cicero and other Romans to the ancient Greek philosophers, although in classical usage civil society was equated with the state. The modern idea of civil society emerged in the Scottish and Continental Enlightenment of the late 18th century. A host of political theorists, from Thomas Paine to Georg Hegel, developed the notion of civil society as a domain parallel to but separate from the state-a realm where citizens associate according to their own interests (Mohan, 2002).

The concept of civil society was rediscovered in the 1980s and accorded pre-eminence in political practices in a very definite political context: in Stalinist states in Eastern and Central Europe, which had denied their citizens' basic rights, and in Latin America, where military regimes had managed to survive by employment of the same methods. It was in civil society that individuals and groups set out to challenge unresponsive and authoritarian states through peaceful and non-violent methods: strikes, protest marches, demonstrations, dissemination of information through informal networks, and the formation of associational life through the setting up of reading clubs and discussion forums (Chandhoke, 2007).

CSOs include NGOs, faith-based organizations (FBOs), self-help groups (groups initiated by community members), professional associations, research institutes, and think tanks. At its most simple, CSOs work can be summarized in terms of three main sets of activities that they undertake, and these can be defined as three roles: implementers, catalysts and partners.

The implementer role is concerned with the mobilization of resources to provide goods and services to people who need them. The service delivery role embodies a very wide range of activities carried out by NGOs in fields as diverse as healthcare, microfinance, agricultural extension, emergency relief and human rights.

A catalyst is normally understood as a person or thing which brings about change. The catalyst role can therefore be defined as a CSO's ability to inspire, facilitate or contribute to improved thinking and action to promote change. It may include grassroots organizing and group formation, gender and empowerment work, lobbying and advocacy work, undertaking and disseminating research, and attempts to influence wider policy processes through innovation and policy entrepreneurship.

A partner works together with another and shares the risk or benefit from a joint venture. The role of partner reflects the growing trend for CSOs to work with local government, donors and the private sector on joint activities, such as providing specific inputs within a project. It also includes activities that take place among CSOs and with communities such as 'capacity-building' work which seeks to develop and strengthen capabilities.

Civil Society organizations began to be established and gained public attention as associations in Africa, growing and becoming visible in the 1980s (Mohan, 2002). The inadequacy of the government to provide social services; emerged the international NGOs to respond to the people's needs, and also the local institutions and organizations surfaced to meet the community needs.

South Sudan saw the activities of civil society organizations within the year of 2005, following the signing of the Comprehensive peace agreement between North Sudan and south Sudan. In the previous epoch, years from 1990 to 2004 experienced intensity of insecurity, violent conflict and there was no freedom of association and movement in South Sudan liberated areas. Yambio was the strong hold and safe base of the then rebels SPLA.

CSOs seek to advance development and overcome threats in their communities - in health, environment, agriculture, infrastructure, and education. CSOs usually step into areas where

governments have been unable to meet the needs of citizens: advocate for rights and public accountability, service delivery, and community organization. CSOs ensure for;

Participation in local governance initiatives, and creating a political arena for public opinion! Providing civic education to the people! Mobilizing resources for social economic development in the areas! Providing education in areas of skill capacity gap! Monitoring development projects to ensure their successful completion! Advocate to ensure that the rights of the communities are not trampled upon and the task of guaranteeing that democracy, solidarity, and citizenship are in order! Partnership with Local Government authorities in promoting development in the local area! There are registered CSOs supporting agriculture in Yambio County South Sudan; but their contribution to the modernization of agriculture is not well established.

1.1.2 Theoretical Perspective

This study was based on the Neoclassical Growth Model which was proposed by Robert Solow in the year 1956 and “it is an economic theory that outlines how a steady economic growth rate can be accomplished with the proper amounts of the three driving forces; labor, capital and technology” in a Journal entitled A note on Professor Solow's Growth Model published by Oxford University Press (Buttrick, 1958).

The neoclassical theory is used in economics that identifies the factors necessary for the growth of the economy. It emphasizes the three factors that influence the growth of an economy, which includes capital, availability of labor and technology. It states that a temporary equilibrium can be achieved when capital size, labor and technology is appropriately adjusted. The theory also states that temporary equilibrium differs from a long-term equilibrium, which does not involve any of the three factors. The approach of this model is the use of a primary tool which is the aggregate production function. The aggregate production function relates technology and factor inputs like capital and labor to total potential GDP.

The underlining principle of the neoclassical growth model is capital deepening. Like More farm machinery and irrigation system in farming

The assumption is that the absence of a technological change, the capital deepening does not lead to a proportional increase in the production output because of diminishing returns.

The model also holds that while capital deepening can dramatically increase the productive output of an economy, it will eventually lead to an economic stagnation in the absence of technological change.

This means that in the long run, the economy will enter a steady state in which capital deepening ceases as capital-labor ratio stops rising. This is because as real wages rise and returns to capital fall, further investments become unprofitable. So that without technological change, both capital incomes and wages stagnate!

Therefore, it is only through technological change that modern economies can avoid the trap of economic stagnation. The technological change represents both;

- Advances in production processes
- The introduction of new and improved goods and services
- New managerial techniques
- New forms of business organizations

1.1.3 Conceptual Perspective

Civil society is the "aggregate of non-governmental organizations and institutions that manifest interests and will of citizens." Civil society includes the family and the private sphere, referred to as the "third sector" of society, distinct from government and business. Civil society is the aggregate of non-governmental organizations and institutions that manifest interests and will of citizens or individuals and organizations in a society which are independent of the government. Sometimes the term civil society is used in the more general sense of "the elements such as freedom of speech, an independent judiciary, etc., those make up a democratic society" (Collins English Dictionary). Especially in the discussions among thinkers of Eastern and Central Europe, civil society is seen also as a concept of civic values. The civil society organizations in the post war situation are extremely relevant in the process of peace building. For instance in South Sudan through assisting in the process of demilitarization, demobilization and adaptation to civil life for demobilized combatants, through undertaking post war rehabilitation projects, especially in restoring basic social services like primary health care, education etc. and then they also help in

the creation of a new awareness and consciousness through enlightenment about the futility of war and the primacy of dialogue in political and social interactions in South Sudan.

Agricultural Modernization is the process of transforming the agricultural sector into one that is dynamic, technologically advanced, and competitive, yet centered on human resource development, guided by the sound principles of social justice. Conventional (modern) agriculture is grounded on the belief that the goal of farming should be to produce as much food/fiber as possible for the least cost. It is driven by the twin goals of productivity and efficiency. Agricultural technology expands to include fisheries, forestry and livestock together with crops - involves growth and harvesting (Shrum, 2000). The main objective of modernization of agriculture is the need for increased food production for which, traditional agriculture is transformed by adoption of modern varieties of crops and livestock and external inputs (such as fertilizers, pesticides, antibiotics, credit service and machinery etc.) necessary to make these productive. The second objective is to minimize soil erosion (Umarani & Subramaniyan, 2000). Infrastructure such as irrigation schemes, roads and markets, guaranteed prices and markets for agricultural produce as well as range of policies.

1.1.4 Contextual Perspective

All land in South Sudan is owned by the people of South Sudan and its usage is regulated by the government in accordance with the provisions of the Constitution and the law. The land tenure system consist of; public land, community land; and private land (Aruai, 2010).

Yambio County is fortunate enough to have an abundance of arable land relative to the size of the population. Average precipitation is over 40 inches a year falling in an eight or nine month period. Soils are laterized, of low intrinsic fertility, and susceptible to erosion. They vary, however, from deep red loams of good water holding capacity to light shallow soils full of ironstone pebbles and of poor water-holding capacity (Hance, 1955).

Yambio soil fertility is categorized as a green belt zone, with the average rainfall of 1,500 mm falling within 8 months of rainy season from April to November (Schlippe, 1955). The land is covered by tropical deciduous forest or woodland.

The community practices the opening method of slash-and-burn or hoe-and-burn which is used in forest and dense grass-bush land. The field types of the clearings are cultivated in succession with fallows of variable durations. The fallow period is very indefinite as it is the aspect of vegetation and not the number of years of rest which guides the choice of clearings.

The majority of the population is Azande, who are accustomed to Hedge Strip Farming (Schlippe, 1955). It is a rotational system- a better form of shifting cultivation. The purpose of this is to minimize bush fallows that end up in the practice of shifting cultivation. Here is an example of the few rules adapted for the hedge strip farming of the community; the groundnut-eleusine succession is started with the early rains and established before the end of May. It requires either virgin land (ngasu) or, if it is established after previous cultivation (fute), a second, rarely a third shift. Groundnuts should not succeed groundnuts. Forest (bure) or rich grass woodland (ngasu) is required and accordingly this field type is established by the hoe-and-burn opening method (Schlippe, 1955). Subsistence cropping with a hedge strip system is practiced. This involves separating crop strips with permanent, fire-resistant, tree hedge (Hance, 1955).

Yambio saw the activities of civil society organizations within the year of 2005, following the signing of the Comprehensive peace agreement between North Sudan and south Sudan. In the previous epoch, years from 1990 to 2004 experienced intensity of insecurity, violent conflict and there was no freedom of association and movement in South Sudan liberated areas. In Yambio County, Civil Society organizations perform activities of; provision of education, health services, agriculture, civic education and advocacy.

Rural Development Action Aid (RDAA) with a total of 7 full time Staff, 12 Volunteers is a national Non-governmental organization of South Sudan since 2008 operating within the greater Western Equatoria Region taking sides with the poor people to fill gaps in development. RDAA came to existence as a State civil society organization and is now upgraded to a national organization through the extension of her services to other parts of the Country and communities. RDAA has its head office in Yambio and operating to contribute significantly towards enabling communities achieves social and economic growth through participatory mobilization, use and control of resources. RDAA mobilizes and sensitizes the communities, forming advocacy club, and offering fitting trainings for development.

Community skills development organization (CSD) was initiated since 2008 by the community for the promotion of community empowerment through agriculture programs, women support activities, children education and capacity building through vocational trainings. CSD is promoted by 5 full staff and 9 part time members. CSD supports women tailoring and hair dressing activities, women farmers group, and scholarship to children at various educational levels and provide vocational skills imparting activities to young men.

Star Trust Organization (STO) with a total of 15 full time Staff, 10 Volunteers is a national civil society organization. STO operates within Gbudwe, Maridi and Tombura States helping the poor people through the following programs of; food security and livelihood, gender and protection, water and sanitation, and lastly education. STO serves the entire three states of Gbudwe, Maridi and Tombura. STO has its head office in Yambio and operating to contribute significantly towards enabling communities achieves social, economic growth and with big emphasis on agriculture.

1.2 Statement of the problem

Despite the agricultural activities of several civil society organizations for many years, the results are not clear in regard to modernization of agriculture in Yambio County.

Yambio communities practice subsistence farming using rudimentary basic tools and strictly labor intensive (Schlippe, 1955). And again, crop cultivation in Yambio is related to the average allocated land ranging from 1 to 4 feddans (0.4 to 1.7 hectares), and is determined by family labour availability (principally women). The households produce enough food stuff to take them for approximately a year, sale some stuff to acquire other basic needs and remain to purchase seeds for the following season. The primary purpose of agriculture in Yambio is not commercial but rather subsistence.

Yambio County remains poor; illiteracy rate is 70%, wages and salaries are received by only 6% of the population, infant mortality rate is very high 151 per 1,000 in Western Equatoria, and crop farming 90%, (Southern Sudan Centre for Census, 2010). Life expectance is 54.64 and GDP for the year 2016 was US\$ 1,044. Yambio town payam has 17,226 households and 38% of the population live below poverty line (Statistics, 2012).

The state government is expected to enhance efficiency of agricultural activities for farmers of great business undertakings; afford the facilities of credit best suited to their practical needs. In each step from the farm to the market, a framework of national, state, and local government policies should exist. Government may influence what a farmer grows, where a farm is located, how products are transported and processed, how a commodity is traded, and the price the farmer might receive.

The goal of conventional (modern) agriculture is to produce as much food as possible for a least cost (Shrum, 2000): These twin goals of productivity and efficiency; is the desired situation for Yambio.

Currently, despite the agricultural mandates of numerous CSOs in Yambio, policies and the presence of State ministry of agriculture, farming practice has remained rudimental and subsistent. Therefore, this study seeks to investigate how CSOs can contribute to modernizing agriculture in Yambio County.

1.3 Purpose of study

The purpose of this study was to assess the role of Civil Society Organizations in the modernization of agriculture in Yambio County

1.4 General objective

This study was to examine the promotion efforts of civil society organizations in regard to modernizing agriculture in Yambio County.

1.5 Specific objectives

The specific objectives of this study were:

1. To assess the level of agricultural production in Yambio County.
2. To examine the activities of civil society organizations aimed at modernizing agriculture in Yambio County.
3. To analyze the challenges faced by civil society organizations in modernizing agriculture in Yambio County.

1.6 Research Questions

1. What level of agricultural production exists in Yambio County?
2. What are the activities of civil society organizations aimed at modernizing agriculture in Yambio County?
3. What challenges are encountered by civil society organizations in modernizing agriculture in Yambio County?

1.7 Research Scope

The study enclosed the geographical scope, content scope, theoretical scope and time scope focusing on civil society organizations and their performance in modernization of agriculture.

1.7.1 Geographical scope

This study covered Yambio County and concentrated in the Payam Centre of Yambio County, Gbudwe State. This study focused on three civil society organizations that among the twenty different civil societies organization in Yambio, do support agricultural programs:

Rural development Action Aid that operates in Yambio and now extending its services to the entire region of Western Equatoria, and does support agriculture and livelihood! RDAA has managed to upgrade to a national non-governmental organization.

Community Skills Development Organization started in Yambio with a small number of members; got expanded to offer agricultural services and other programs to the community

Star Trust Organization is a community based organization in Yambio that operates for food and livelihood, gender and protection, water and sanitation and then education.

The study focused on Yambio County because it is the hub for the CSOs operating in the State of Gbudwe and Yambio County is considered the bread basket for South Sudan and it has the availability of statistical records for agriculture.

1.7.2 Content scope

This study covered civil society organizations' activities in regard to modernization of agriculture and the following independent variables were considered; the Provision of agricultural extension, the provision of veterinary services and promoting agriculture. The study focused on three key CSOs namely; Rural development Action Aid, Community Skills Development, and Star Trust Organization. The study reflected on the contributions of civil societies to have bearings on the modernization of agriculture as supporting mechanization, improved seeds, Marketing, and knowledge in modern agriculture.

1.7.3 Time Scope:

This study was carried out on civil society organizations that had their origins stretching between 2005 and 2015.

1.8 Significance of the Research

The research work will be of benefit to the following:

Civil society organizations in Yambio will use this work as a tool of evaluation for improvement.

The community of Yambio County will benefit when civil society organizations learn from this work and improve their performances in order to modernize agriculture.

The government of South Sudan will be informed of how civil society organizations operate and how these CSOs can be helped.

Other scholars and researcher will use this work as reference.

Development partners that fund Civil Society organizations in Yambio will have better knowledge of civil society organizations in Yambio and how best to cooperate with them.

The researcher got enriched in research skills and knowledge.

1.9 Operational definitions of key concepts

Civil Society Organization

Civil Society Organizations are private, non-profit distributing, self-governing, voluntary organizations (Desse, 2012).

Organizations: it means that they have some structure or regularity. Whether they are formally and legally registered or not are not important but they do have some permanent activity through regular meetings, membership or some organizational frame. **Private:** this signifies that they are institutionally separate from the state, even if they can receive consequent amount from the state. **Not-profit distributing:** this means that their purpose is not primarily commercial and they do not distribute profit to specific people (shareholders, a set of directors etc.). This means that if they make some profit, they reinvest it or use it to fulfill their mission. **Self-governing:** this means that they are independent from both firms and governments, which means that they are in control of their own affairs. **Voluntary:** this means that no one is obliged to join or become member of these organizations. Membership is the result of a free choice which means that these organizations are at least partially based on voluntary actions (Desse, 2012).

Modern agriculture; this stipulates that modern equipment, science and technology, industrial systems, management and development ideas shall be used to improve the quality, economic returns and (international) competitiveness of agriculture (Waldron, Brown, & Longworth, 2011).

Modernization requires a deep transformation. New services are necessary in areas such as research and development, extension and training, information, measurement and credit. In the process, the person-based nature of exchanges evolves into a rules-based system, measurement procedures shift from subjective to objective, and financial systems become more formal. Perhaps most importantly, the new services and institutions must create close and continuing linkages between diverse actors over increasingly large distances.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The literature review in this study addressed the theoretical review and the conceptual review frame work. This study further reviewed literatures related to the activities performed by CSOs, the challenges they face in the process to modernize agriculture and the elements of modern agriculture.

2.2 Theoretical review

This study was based on the Neoclassical Growth Model which was proposed by Robert Solow in the year 1956 and “it is an economic theory that outlines how a steady economic growth rate can be accomplished with the proper amounts of the three driving forces; labor, capital and technology” in a Journal entitled A note on Professor Solow's Growth Model published by Oxford University Press (Buttrick, 1958).

The neoclassical theory is used in economics that identifies the factors necessary for the growth of the economy. It emphasizes the three factors that influence the growth of an economy, which includes capital, availability of labor and technology. It states that a temporary equilibrium can be achieved when capital size, labor and technology is appropriately adjusted. The theory also states that temporary equilibrium differs from a long-term equilibrium- which does not involve any of the three factors. The approach of this model is the use of a primary tool which is the aggregate production function. The aggregate production function relates technology and factor inputs like capital and labor to total potential GDP.

The underlining principle of the neoclassical growth model is capital deepening. Capital deepening is the process of increasing the amount of capital per worker e.g.

- More farm machinery and irrigation system in farming
- More railroads and highways in transportation
- More computers and communication systems in banking

The first major insight of the model is that in the absence of a technological change, the capital deepening does not lead to a proportional increase in the output. The reason is because of the law of diminishing returns (Buttrick, 1958).

The model holds that while capital deepening can dramatically increase the productive output of an economy, it will eventually lead to an economic stagnation in the absence of technological change. For instance, for workers; they may have more capital so their marginal product rising along with wages. But, the owners of the capital will lose because they see lower rates of return and falling real interest because of diminishing returns to capital.

This means that in the long run, the economy will enter a steady state in which capital deepening ceases as capital-labor ratio stops rising. This is because as real wages rise and returns to capital fall, further investments become unprofitable. So that without technological change, both capital, incomes and wages stagnate!

Therefore, the theory assumes that it is only through technological change that modern economies can avoid the trap of economic stagnation. The technological change represents both;

- Advances in production processes
- The introduction of new and improved goods and services
- New managerial techniques
- New forms of business organizations

The study is related to the theory in a way that if technological changes in terms of production inputs (use of fertilizers, pesticides, improved seeds) are not employed by the farmers in Yambio, then agricultural practices will stagnate at shifting and subsistence.

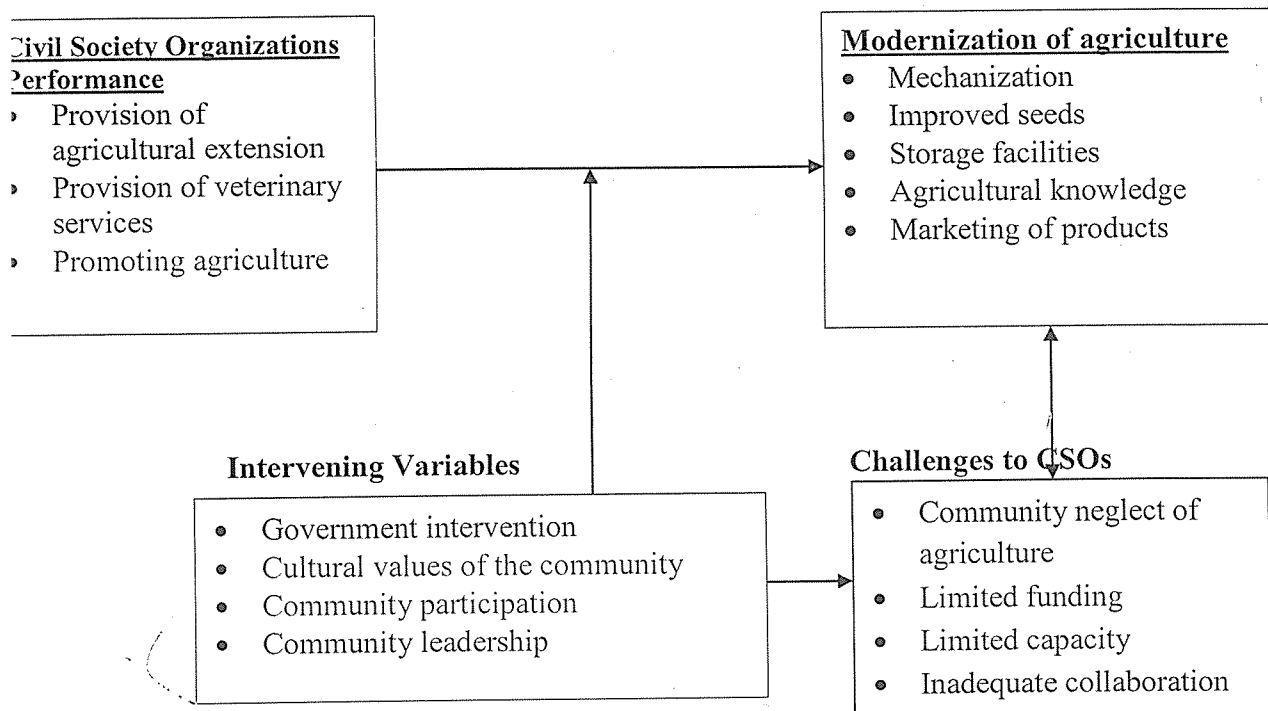
More still, the neoclassical growth model emphasis on balancing the three driving forces of production; labor, capital and technology! Meaning that modern agriculture practice demands for skilled labor through agriculture extension, capital should be intensive through use of tractors, draft animals etc. Lastly, technological changes for right techniques, required infrastructure like roads, storage facilities and marketing technology. New managerial techniques for administration and new forms of business like cooperatives for better results.

2.3 Conceptual Framework

The conceptual frame work shows the major elements of the study interact to produce results on modern agriculture from the performance of civil society organizations.

Independent Variable

Dependent Variable



The conceptual framework adopted by Jose Magadia (Magadia, 1999) and refined by the researcher.

The conceptual framework above explains the relationship between the independent variables and the dependent variables in the study. In this research study, the dependent variables are the modernization of agriculture indicators. It is considered dependent because modern agriculture practice is the result of several factors.

The independent variables are the activities performed by civil society organizations.

Jose (Magadia, 1999) says that within the contemporary development practice there are numerous roles executed by Civil society organizations.

2.4 Related studies

The related literature has been prepared according to the objectives of the study.

2.4.1 Activities of Civil society organizations aimed at modernizing agriculture in Yambio County

There are a number of activities performed by the CSOs to empower the community for modern agriculture and here presented are the key elements. The CSOs roles are categorized into service delivery as direct implementer, advocacy and lobby work.

Provision of agriculture extension

Agricultural extension is the application of scientific research and knowledge to agricultural practices through farmer education. Generally, agricultural extension can be defined as the “delivery of information inputs to farmers.”

The field of 'extension' now encompasses a wider range of communication and learning activities organized for rural people by educators from different disciplines, including agriculture, agricultural marketing, health and business studies.

Agricultural communication can take three modes—face-to-face training, training "products" such as manuals and videos, or information and communication technologies (ICTs), such as radio and short message system (SMS). The most effective systems facilitate two-way communication and often combine different modes.

According to the report by NAFES (NAFES 2005), there are four paradigms of agricultural extension;

- Technology transfer; involves a top-down approach that delivers specific recommendations to farmers about the practices they should adopt.
- Advisory work; this paradigm can be seen today where government organizations or private consulting companies respond to farmers' inquiries with technical prescriptions. It also takes the form of projects managed by donor agencies and NGOs that use participatory approaches to promote predetermined packages of technology.

- Human resource development; it is practiced today in the outreach activities of colleges around the world. Top-down teaching methods are employed, but learners are expected to make their own decisions about how to use the knowledge they acquire.
- Facilitation for empowerment; this paradigm involves methods such as experiential learning and farmer-to-farmer exchanges. Knowledge is gained through interactive processes and the participants are encouraged to make their own decisions. The best known examples in Asia are projects that use Farmer Field Schools (FFS) or participatory technology development

NGOs/CSOs, staffed by one or a few people, appeared throughout the developing world, offering training for producers, working with communities, indigenous peoples and the rural poor (Shrum, 2000). Also CSOs play a critical role as transformers in society by being involved in training and advocacy processes, which build the capacities and knowledge of the general populace towards achieving the SDGs. This will ensure that people become the focus of the SDGs and that the most vulnerable in society are not left behind when these global development goals are localized (Shrum, 2000).

In Korea by 1960s according to Udo (Simonis, 1974), many investments in education, training in the infrastructure of the country such as transportation, communications, and in agriculture set the stage for a development. Udo (Simonis, 1974) would stress that training of the community members to change their mental outlook, instilling in them an ambition for higher standards, will ensure for community development.

Provision of veterinary services

To foster increased productivity and control quality of products, modern agriculture encourages the use of pesticides, antibiotics and treatment for pests and diseases (Umarani & Subramaniyan, 2000).

The veterinary services have traditionally been funded, managed and delivered by the public sector in Countries and typically in India (Datta, 2013). Due to the importance of dairy farming among the poor and the assumption that the poor cannot afford to pay for the veterinary services, a major pillar of the Government of India's dairy development strategy has been the highly subsidized

public delivery of these services. The Government has built-up vast networks of physical and human infrastructure to provide these services to millions of farmers across the country. The State Animal Husbandry Departments are the only institutions serving the diverse needs of farmers in almost all the States. Generally, their role is limited to vaccination and artificial insemination (AI) services, in addition to the treatment services that they render.

Good health of farmers is important to the success of agriculture. Improvements in health are enhancing the productivity of labor in agriculture. The best available measure of these improvements is the increase in life-span (Schultz, 1981).

Promoting agriculture

Larger NGOs - some founded as relief agencies, some with an environmental focus - expanded operations to include agricultural assistance that would help clients raise incomes and become self-sufficient without undermining the natural resource base (Shrum, 2000).

The best practice for an agricultural system is to have a sustainable agriculture which make better use of available biophysical and human resources. This can be done by minimizing the use of external inputs, by optimizing the use of internal resources, or by combinations of both. This ensures the efficient and effective use of what is available, and ensures that any improvements will persist, as dependencies on external systems are kept to a reasonable minimum. Sustainable agriculture seeks the integrated use of a wide range of pesticides, nutrient, agroforestry, soil and water management technologies. By-products or wastes from one component or enterprise become inputs to another. As natural processes increasingly substitute for external inputs, so the impact on the environment is reduced.

An agricultural extension is an education process for communicating useful information to the people, to help them better their lives, their families and their communities.

The main sectoral emphasis of community development is on improvement of agriculture and ancillary services, like animal husbandry and irrigation, which employs majority of the rural population; and also the development of small- scale industries and the provision of basic

amenities like drinking water, village primary schools, communications, adult literacy, social education and the promotion of community organizations (Acharya & Al, 2007).

Although agriculture has been in the forefront of the Community Development programme, small farmers and marginal farmers who form the large majority of the peasantry in India have not been able to take advantage of the new technology due to various reasons such as lack of timely credit, crucial inputs and necessary advice (Acharya & Al, 2007).

2.4.2 Modernization of agriculture

Is a term used to describe the wide type of production practices employed by farmers in the developed Countries (Waldron et al., 2011)! It makes use of hybrid seeds, technologically advanced equipment and lots of energy subsidies in the form of irrigation water, fertilizers and pesticides, management and development ideas to improve the quality, economic returns and (international) competitiveness of agriculture. Modern agriculture has been summarized under the following key aspects;

Mechanization

Agricultural technology - even under the expanded definition that includes fisheries, forestry and livestock together with crops - involves growth and harvesting. To grow more, or grow it with fewer resources, or without adverse effects, are all legitimate goals and this leaves out what for many are the critical issues of opportunities for growth and distribution (Shrum, 2000).

According to Rahman, nothing else symbolizes modernization of agriculture more than the use of tractors and its accompanying machines in the developing Countries. Infrastructure such as irrigation scheme guarantee year-round good agriculture yields.

Draft animals are best in such situations, where the nature of farmlands are small, scattered and odd shaped, which also provide milk, meat and dung used for fertilizer and fuel (Rahman, 1987). There is evidence that mechanization leads to growth in size of the farms.

The abundance of land in the U.S. and the relatively high wages available outside of the agricultural sector, have encouraged the use of labor saving mechanization to increase output per worker. In China, where scarcity of land is a major challenge to feeding the population, the

situation is very different. There exists only 0.09 hectares of arable land per person and changes in agriculture have focused on increasing yields per hectare by using large inputs of chemical fertilizer.

Fossil fuels are used to manufacture fertilizers, pesticides, and herbicides and also to power industrial farm machinery. Vast irrigation networks bring water to semi-arid regions, sometimes over distances of hundreds of miles. These developments have enabled tremendous increases in yields by U.S.

However, an ordinary wooden plow and traditional technology which is being used in the area for thousands of years seem viable, until institutions are changed in the country. What is needed is appropriate technology and cultural technology which are resource-based, can be locally made, repaired and keep the people employed and yet improve the agriculture.

As they develop agricultural programmes, CSOs become arenas for technological selection and transfer (Shrum, 2000).

Improved seeds

The main objective of modern agriculture is to increase food production by adopting modern varieties of crops and livestock and the use of external inputs like fertilizers, pesticides, credit machinery. Modern varieties of staple cereals mature quickly, permitting two or three crops to be grown each year (Umarani & Subramaniyan, 2000).

In countries with a heavy dependence on agriculture, progress towards improved food security does depend on making agriculture more productive (Pretty et al., 1996).

Biotechnology is expected by many to contribute to agriculture's productivity and possibly to more environmentally-friendly agriculture (such as with microbial growth promoters, virus-free stocks of cassava, and nitrogen-fixing nodules on cereal roots).

In the US, inside the National Seed Storage Laboratory (NSSL) are a quarter of a million samples of crop seeds and their wild relatives, offering an almost unimaginable selection of genetic traits useful in the development of heartier, higher-yielding crops (Rauburn, 1990). The continual

replacement of existing crops with improved varieties made crops yields more superb and contributed to the growth of American agriculture during that period.

However, mixture of traditional species with modern variety will provide for resistance against attack of the pests and diseases. Outbreaks and insurgency are more likely to occur when the landscape is simplified just to contain a single crop. Modern varieties are more highly responsive to fertilizers.

Storage facilities

Storage is an important marketing function, which involves holding and preserving goods from the time they are produced until they are needed for consumption. The storage of goods, therefore, from the time of production to the time of consumption, ensures a continuous flow of goods in the market. Storage protects the quality of perishable and semi-perishable products from deterioration;

Some of the goods e.g., woolen garments, have a seasonal demand. To cope with this demand, production on a continuous basis and storage become necessary; it helps in the stabilization of prices by adjusting demand and supply; Storage is necessary for some period for performance of other marketing functions. Storage provides employment and income through price advantages.

Some of the storage facilities include: Underground Storage Structures; Underground storage structures are dugout structures similar to a wall with sides plastered with cow dung. They may also be lined with stones or sand and cement. They may be circular or rectangular in shape. The capacity varies with the size of the structure.

Surface storage structures; Food grains in a ground surface structure can be stored in two ways - Bag storage and Bulk or loose storage, improved grain storage structures

CAP Storage (Cover and Plinth) -It involves the construction of brick pillars to a height of 14" from the ground, with grooves into which wooden crates are fixed for the stacking of bags of food grains. The structure can be fabricated in less than 3 weeks. It is an economical way of storage on a large scale.

Silos -in these structures, the grains in bulk are unloaded on the conveyor belts and, through mechanical operations, are carried to the storage structure. The storage capacity of each of these silos is around 25,000 tons. Warehousing; may be private, public or bonded warehouses. Warehouses can also be general, special commodity and Refrigerated Warehouses. Warehouses are scientific storage structures especially constructed for the protection of the quantity and quality of stored products. The storages depend on the purpose.

Scientific storage -the product is protected against quantitative and qualitative losses by the use of such methods of preservation as are necessary. Financing -Warehouses meet the financial needs of the person who stores the product. Nationalized banks advance credit on the security of the warehouse receipt issued for the stored products to the extent of 75 to 80% of their value.

Price Stabilization -Warehouses help in price stabilization of agricultural commodities by checking the tendency to making post-harvest sales among the farmers. Market Intelligence -Warehouses also offer the facility of market information to persons who hold their produce in them.

Improved agricultural knowledge

Civic engagement constitutes one of the key institutional mechanisms propelling agricultural sustainability. According to Schultz (Schultz, 1981) more and better schooling, the acquisition of information about better production techniques, and learning from experience improve the abilities of farm people. Each of these investments in human capital enhances the quality of human beings. Their labor will be more productive; many farmers in low-income countries have become robust entrepreneurs.

The Europeans think of books, schools, cinemas, speeches and other propaganda means suited to their own situation, and which are obviously not yet of immediate value to most inhabitants of the African bush as a means to educate on agriculture.

Theodore (Schultz, 1981) says if we hope to modernize agriculture, we must invest in the education, skills, and health of the farmer, and provide him with market incentives to increase production.

Rainfall, soil, animals, chemicals, organic matter, tools and seeds all interact with knowledge and social organization to generate the most basic of production outputs- sustenance and risk. Indigenous knowledge and traditional social organization have, of course, provided these outputs for ten millennia. Yet globalization of agricultural research has proceeded apace, producing knowledge claims that often replace or supplement indigenous knowledge (Shrum, 2000).

It has been studied and found that increased agricultural output per head of the rural population decreases poverty (Mellor, 2002). Small Farmers if aware of the possibilities of loans from the bank, can access credit to expand on their farming activities. A survey jointly conducted by the World Bank and the Agriculture Development Bank of Pakistan of the farmers who took out loans to buy tractors, showed that there was a 142% increase in the average size of their farms, from 18 to 44 ha. Only 10% farmers did not increase their holdings (Rahman, 1987).

As entrepreneurs, farmers are constrained not only by land, equipment, and other factors of production, but also by information about worthwhile economic opportunities and by incentives.

Pretty (Pretty et al., 1996) recommends for developing farmer-centered research and extension by supporting farmer-to-farmer exchanges and schemes for farmer training in their own communities. The local knowledge of an area should be incorporated in bringing about a social change (Schlippe, 1955). More important, however, is the need to make progress in financing and organizing (national) agricultural experiment stations and laboratories at the agricultural research centers. These innovations will lead to successes of agriculture productivity (Schultz, 1981).

Marketing of products

Schultz (Schultz, 1981) says that any economic organization of agriculture that does not provide viable markets cannot optimize agricultural production and the returns to farm people for their work and entrepreneurial abilities. Indeed investment and the organization of economic activities too are essential in achieving agricultural growth.

The modernization of agricultural products requires close linkages between numerous actors, the development of industry services and institutions to forge those linkages. In the production sector, there should be a preparation of homogeneous products well sorted to maintain quality. This

requires training for the farmers for farm management, mechanized farming, sorting and bagging. Products from households must then be put into larger commercial lots requiring then another level of cooperation and infrastructure (Schultz, 1981).

The homogeneous, commercial-sized lots must then be objectively tested based on a set of recognized standards and testing procedures. The certification forms the basis for sales through formal channels such as auctions or contracts which, enforceable, must be supported by formal legal structures.

For the modern system to function, large amounts of working capital must also be raised through a formal credit system. This working capital is required to make down-payments to farmers on delivery of their products, so as to compete for supply with private traders and companies that buy through spot transactions. The balance is then paid to the Farmers after product is sold through modern channel which, in the case of auctions, can take between three to six months (Waldron et al., 2011).

Waldron and the team continue to indicate that this modern way of marketing system will ensure the processor of the quality and quantity of products and minimize on the cost of resorting. Therefore, the processor will be prepared to pay significant price premiums for this better-prepared product. The price premiums must then be passed back through the marketing chain to pay for the additional services. After the deduction of these costs, surpluses must also be passed back to farmers in order for them to have incentives to supply fine products into the modern fine product marketing system, rather than the "traditional" marketing system (Waldron et al., 2011).

It is expected that in the modern marketing system, private sector will join the chain as dealers, brokers, auctioneers, and transporters.

Agriculture plays a dual role in the abolition of hunger - it produces the food and it can also produce a great many of the jobs needed by households to buy food. Since agriculture is the world's single largest employer, raising productivity can immediately place additional purchasing power in the hands of the rural poor, who will in turn use the additional income for buying more food and other basic consumer goods. The increased agricultural produce can become raw material for a wide

range of agro-based industries and services, stimulating the formation of new enterprises and creating downstream jobs(Acharya & Al, 2007).

In a market economy very small farms are often unable to compete with larger operations because they cannot match the market power associated with economies of scale. However, the medium-sized, family-run farms are the most efficient and sustainable ones over the long run (Lyson & Barham, 1998).

A rich network of private economic associations and political organizations have constructed an environment in market proposer by promoting cooperative behavior and by providing small farms with the infrastructure needs that they could not afford alone.

Improved agriculture method and practice lead to increases in real income and establishing the capacity to save, employment creation and the diversification of livelihoods, reduced dependence on credit, increasing land values and greater investment on farms, creation of markets or improved access to markets, greater ability to pay school fees, hospital bills, etc. and increasing confidence of people in the productive capacity of their land and in their own abilities.

Pretty and others (Pretty et al., 1996) recommend for improving rural infrastructure to ensure access to markets with positive price incentives.

2.4.3 The intervening factors

In this section, the researcher elaborates on the variables that are not necessarily the functions of CSOs but also contributing to the modernization of agriculture. These intervening elements include but not limited to; Culture of the people, government guidance on national programs, community participation, community leadership,

Cultural values of the community

Economists are fond of saying, "there is no free lunch". What is noteworthy about this phrase is that it is true for any society (country) regardless of its culture, social structure, or political organization. . Free food, free housing (no rent), or free health care can conceal the economic value of these services, but they cannot eliminate the costs of producing them. Social and cultural values do matter. They must be properly included in economic analyses as they are in most studies

pertaining to human capital. If we hope to modernize agriculture, we must remember that the farmer is an indispensable economic agent. He calculates his marginal costs and returns carefully. The dynamics of agriculture depend in no small measure on the incentives and opportunities that farmers have to increase their production (Schultz, 1981).

It is important to understand the values and beliefs of cultures, and use those values and beliefs to empower and develop communities (Grodache Carl, 2010). According to Lewis, culture refers to the web or collective matrix of influences that shape the lives of groups and individuals, including social institutions, systems of norms, beliefs, values and world-view (Williams, 2004).

Culture creates social structure by organizing its members into small units to meet basic needs. The cultural values central to Japan's spectacular achievements and rapid elevation to the world's third largest economic power include, but are not limited to, its strong work ethic; entrenched sense of group responsibility; company loyalty; interpersonal trust; implicit contracts that bind individual conduct; and commitment to education and investment in young people.

Government intervention

In modernizing agriculture, the institutions that are essential parts of economic organization include both particular government activities and viable free markets. Schultz (Schultz, 1981) enlists that stable and well-managed governments have a comparative advantage in the following activities: In collecting and reporting agricultural statistics, which are important sources of information for producers and consumers. In providing standards of measurement things that are bought and sold along with the enforcement of such standards in trading. In both national and international markets these standards are exceedingly important in pricing agricultural commodities and inputs.

In determining the property rights of buyers and sellers. In reducing the occurrence of or spread of plant and animal diseases and of pests. Closely related is the health inspection of food products. Maintaining a stable level of prices and thereby not having periodic inflation or deflation is important function of governments. It is beyond the capability of consumers, farmers, laborers, or businessmen to do this. Organized endeavors to reduce the inequality in the distribution of personal income have become predominantly a function of government. Agricultural research acquires

special institutional organization in which governments are much involved. Organized agricultural research is a recent development and we have learned a good deal during recent decades about its economics. It contributes much to increases in agricultural productivity. The rates of return on the expenditures are in general decidedly favorable.

The national government intervention and support; it may issue working guidelines for programs for community development, like the support of community to diversify sources of income activities of farm households. Provide mass education and needed resources for community programs (Rostow, 1959).

The government should work to ensure for agricultural sustainability where the stress is not just about food production, but about increasing the capacity of rural people to be self-reliant and resilient in the face of change, and about building strong rural organizations and economies (Pretty et al., 1996). Pretty (Pretty et al., 1996) commends for redirecting subsidies and grants towards sustainable technologies and practices.

States with high levels of "hard" or coercive form of state capacity have, however, been less successful in upgrading economic structures than have states with high levels of "soft" state capacity. States with high levels of soft capacity build linkages with society in a positive-sum relationship and build institutions conducive to economic upgrading. The State has resources and policy instruments available to set standards, provide information, regulate food safety and facilitate coordination for agriculture development (Waldron et al., 2011).

According to Schultz (Schultz, 1981) the instability of many governments in parts of Africa does not bode well for agricultural development.

Community participation

The popular participation of the people in planning and implementing programs and projects is key factor for successful community development. There is a very strong commitment to collective endeavor and action (Kenny, 2011).

Community Leadership

The leadership is supposed to be performed in collaboration with the village chief appointed by the township office. Village leaders selected by the villagers play an important role as change agents disseminating technological innovation, and also as managers in planning and implementing projects and programs. The cooperation of women leaders in the community makes possible the utilization of their talents in community action projects within the prevailing socio-cultural context. Community leadership provides a ground for people to look for strong ties with others under the realization of “we-ness”(Kenny, 2011).

2.4.4 The challenges faced by civil society organization in the modernization of agriculture

Mechanization of agriculture may be capital intensive and may not be easily managed by poor communities (Rahman, 1987). Service and supply of spare parts may become a disaster as a breakdown in the middle of plowing season happens. Such service and spare parts are not readily available. The machines use fossil fuel that keeps operational cost still higher for a rural setting.

According to Pretty and others (Pretty et al., 1996) most agriculture today progressively depletes natural and human capital, by removing soil nutrients, organic matter and water, and by diminishing human capacity and skills. Therefore, majority of the people in the developing World avoid it.

It has been recognized that pesticides and fertilizers are among the leading causes of water pollution (Rauburn, 1990) and this is one of the reasons why many communities will reject them. Pesticides are not popular with consumers, who don't relish eating chemical residues with their food.

The lack of organizational culture causes crisis in the system and limits its performance. Crisis in culture and education system poses a challenge. The major deficiencies of civil society organizations is of lack of legitimate accountability and transparence (Gebre, 2016). The lack of a highly qualified, experienced, motivated and professional cadre of new generation; community workers, a generation of Civil Society activists; the lack of leaders, managers and tested methods of working, solving social and local problems, rendering services, activating and mobilizing communities and social groups (Glinski, 2011).

The directive on administrative and operational costs; requires CSOs to allocate 70% of their budget for programme activities and 30% for administrative purposes. The logic behind the law stems from the pre Proclamation allegations that CSOs spent 60% of their budget on administrative matters and that their highly paid leaders allegedly advanced the interests of foreign agencies rather than the citizens. However, the items classified as administrative costs undermine the quality of CSO activities. The classification of transportation, training, research and monitoring and evaluation expenses as administrative costs (rather than operational costs) is considered mistaken and counter-productive (Gebre, 2016).

A Country's CSO legislation may prohibits charities and societies from receiving certain percentage of their funds from foreign sources. Some organizations may be forced to change their mandates, scale-down their activities or terminate their operations as a result (Gebre, 2016).

Western donors remain the main source of funds for CSOs. Securing foreign funds is rather difficult because of stringent and complex criteria. Many small CSOs lack the capacity to meet the requirements of donors. Thus, foreign funds have long been monopolized by some larger and more capable local organizations and the international NGOs. The principle of aid effectiveness has been promoted by donors to avoid aid fragmentation and to reduce transaction costs. Therefore, donors' gravitation towards concentrating spending on larger organizations is likely to marginalize smaller CSOs. Meaningful resources cannot be generated from local sources due to the weak state of the economy, a lack of resolute philanthropists and the lack of a tradition of giving to secular organizations (Gebre, 2016).

For some CSOs funding problems translate into capacity deficit in terms of human resources. Most small and resource-poor CSOs lack qualified and experienced staffs to help with the mobilization of funds. The lack of experienced staff also affects the quality of planning, project implementation, monitoring and evaluation and the timely reporting on projects (Gebre, 2016).

Many civil society organizations rarely cooperate in terms of sharing resources and information and jointly voicing their concerns. Meaning that CSOs rarely make active and sustained efforts to collaborate with each other or coordinate their activities.

2.4.5 Literature gap

Many studies have been conducted for international Nongovernmental organizations such as World Vision, UNCEF, UNMIS and UNCHR that operate also in Yambio, while much little research has been conducted on the CSOs in Yambio. Apart from the database maintained by the civil society network itself, there is little evidence from literature of the work of CSOs in Yambio. A report on gender and state building in South Sudan by Nada Mustafa, raises a recommendation for the empowerment of women in the aftermath of civil war in South Sudan, in which Yambio civil society organizations is called upon to establish an understanding of dialogue within the local justice system for the support of women (Aric Rindfleisch, Alan J. Malter, 2008). This report mainly dwells on women participation.

According to Radio Tamazuj News (2017), members of civil society of Yambio have been trained on key areas on communications and how they can advocate for issues affecting local communities.

The United Nations Mission in South Sudan news (2014), states that civil society organizations in Yambio have the skills and full awareness about human rights and they have the capacity to monitor human right abuses in the community.

Currently there is no study conducted in Yambio on civil society organizations, activities for the promotion of agriculture. We do not have sufficient literature on these CSOs in Yambio.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter explains the methodology used to conduct the study. It was structured to include; research design, target population, sample size, sampling techniques, research instruments, validity and reliability of research instruments, data collection procedure, data analysis, ethical consideration and limitation of the study.

3.1 Research Design

This study employed a Cross-Sectional Survey design (Aric Rindfleisch, Alan J. Malter, 2008). This design was aimed at determining the frequency (or level) of attributes quantitatively of the variables at the households in Yambio. The researcher used the interview guide for CSOs staff and this was interpreted qualitatively. The data was statistically analyzed in SPSS.

3.2 The study population

In this research, the target population was 17,226 households of CSOs program beneficiaries. The target number for the CSOs staff was 27 from the designated three selected CSOs who work on agriculture programs in Yambio County.

3.3 Sample size

The study used a sample size of 203 households based on published tables by Israel (Israel 1992). The sample size of the study was estimated given a household population of 17,226 in Yambio Payam, the sample size was calculated based on a precision of $\pm 7\%$. Hence 17,226 falls between a proportion of 15,000 and 20,000 (see Israel 1992 pg. 3)

$$\text{Thus } \frac{201+204}{2} = 202.5 \approx 203$$

Therefore, the sample size for this study was 203 households

3.4 Sampling technique

The study used simple random sampling technique. The overall sample size of 203 household respondents. The sample was categorized as here below in the table. For CSOs, 12 staff members were purposively chosen by the researcher as key informants from the three identified CSOs whose thematic areas include agriculture.

Table 3.1 the number of respondents from each category

Category of employees	Population size	Sample size	Sampling technique
Household of program Beneficiaries	17226	203	simple random

Source: Primary Data (2018)

Table 3.1 above shows the number of respondent from Yambio town households and the staff of CSOs. It shows that population of CSOs staff is 27 and beneficiary household is 17,226. It further indicates that the sample size of the beneficiary households was 203. Now for CSOs, 12 staff members were purposively chosen by the researcher as key informants.

3.5 Data collection methods

The study used both the primary and secondary data collection methods as complementary.

3.5.1 Questionnaire

The study mainly used (written and printed) questionnaires to the households (Mugenda & Mugenda, 1999). The questionnaires comprised of structured (closed-ended), unstructured (open-ended) and matrix questions. The results of the questionnaires usually are quickly and easily quantified by either a researcher or through the use of a software package (Sekaran 2003). This was the primary source. The researcher used the primary source of questionnaire and interviews because it is direct, gives accurate information and therefore reliable.

3.5.2 Interview method

The researcher used the interview guide for key informants and these key informants were staff from CSOs. The researcher considered three CSOs namely; Rural development action Aid,

Community Skills development and Star Trust organization. The researcher interviewed four staff from each CSO; the manager, the finance person and an extension worker. The CSOs considered were identified as working on agriculture sector; the researcher also interviewed government employees working for the ministry of agriculture, cooperatives and environment in Gbudwe State.

The researcher had a note book to ask and record the interview sessions. After that the data were thematically arranged and meaning made from it through descriptive methods that allowed for quotes to be made. These two methods were good for probing and keeping the respondents in line with the questions for clarity and expansions.

3.5.3 Documentary Review Method

This method allowed the researcher to obtain information related to the study from Journals, Magazines, government reports, Textbooks and Periodical reports among others to gain an understanding of the contribution of CSOs to modernization of agriculture in Yambio County, Gbudwe State in South Sudan.

3.6 Validity of instrument

The research instrument was tested for validity to ensure that the content validity was relevant to the study's conceptualization. The instrument was subjected to the judgment of experts (who estimated the validity on the basis of their experiences) such as panel of senior lecturers from Kampala International University, External supervisors, who were to assess the validity content in conjunction with the research supervisor.

In calculating the content validity index (C.V.I)

$$C.V.I = \frac{\text{Number of questions rated relevant}}{\text{Total number of questions in the questionnaire}}$$

Table 1.2 determination of content validity of instrument

Relevant questions	Not relevant questions	Total
33	4	37

$$CVI = \frac{33}{37}$$

Table 3.2 shows that the computed C.V.I was 0.890 and this is $0.89 * 100\% = 89\%$

3.7 Reliability of the instrument

Reliability is a measure of the degree to which a research instrument yields consistent results or data after repeated trials (Muganda & Mugenda, 2003). It is the degree to which the instrument constantly measure whatever it intends to measure. Joppe (Joppe, 2000) noted that reliability is used as an extent to which results are consistent to research instruments and accuracy in representation. The researcher measured the reliability of the instruments using Cronbach's Alpha results as indicated below;

Reliability Statistics

Cronbach's Alpha	N of Items
.738	37

3.8 Data Gathering Procedure

Before administration of questionnaire/interview:

The researcher got a letter of introduction from the College of Higher degree and Research for the researcher to solicit approval from the concerned authorities in the area of research to conduct the study from prospective households, CSOs and government employees.

When approved, the researcher appointed research assistants and briefed them about sampling techniques.

During administration of questionnaire/interview:

The researcher briefed the respondents about the intention of the study. Asked them to sign the informed consent, requested them to answer the questions and then gave them the questionnaire. The researcher emphasized on the retrieval of questionnaire after five days from the day of distribution. On retrieval, all returned questionnaires were checked if all were answered.

After administration of questionnaire:

The researcher retrieved questionnaire, thanked them and then arrange for data analysis.

3.9 Data Analysis

Data was tallied using several statistical and non-statistical methods. The questionnaires were assigned codes and were statistically analyzed using statistical package for social sciences (SPSS).

The biodata of the respondents and the first research objective; to assess the level of agricultural production in Yambio County, were analyzed by use of frequencies and percentages. The second and third research objectives; to examine the activities of civil society organizations aimed at modernizing agriculture in Yambio County and to analyze the challenges faced by civil society organizations in modernizing agriculture in Yambio County were analyzed by use of mean, standard deviations and ranking.

Qualitative data was analyzed by the use of quotes from the interviewees in the findings.

3.10 Limitation of the Study

The researcher met the following problems in the process of executing the study;

1. The unstable political environment in South Sudan in terms of insecurity including violent conflict interrupted the process of data collection. The researcher had to wait days for the situation to be resolved by the government, then continue to collect data
2. Limited time assigned to conduct of the research was another limitation. However, the researcher doubled effort to fit in every activity as per schedule.

3.11 Ethical Consideration

The researcher sought the consent of the respondents before getting them involved in the study. The researcher had shared with each CSOs management for them to know that the study was purely for academic purposes.

All authors/ academicians whose ideas were used in this study were dully recognized.

CHAPTER FOUR

PRESENTATIONS, INTERPRETATIONS AND ANALYSIS OF DATA

4.0 Introduction

This chapter covers the presentation of the findings according to the themes of the study which were: to assess the level of agricultural production in Yambio County, to examine the activities of civil society organizations aimed at modernizing agriculture in Yambio County and to analyze the challenges faced by civil society organizations in modernizing agriculture in Yambio County

4.1 Demographic characteristics of respondents

Under this section, the researcher was interested in finding out the demographic characteristics of the respondents. They are presented as follows:

4.1.1 Age of the respondents

The study went on to establish the different age groups of the respondents and the findings were as presented in table 4.1. The study also involved all respondents who are responsible and with mature understanding.

Table 4. 1 Showing age distribution of the respondents

Age	Frequency	Percentage (%)
20-29 years	33	16
30-39 years	44	22
40-49 years	89	44
50-59 years	34	17
60 and above years	3	2
Total	203	100

Source: Primary Data (2018)

The study revealed that the majority of the respondents fell in the age category 40-49 years with a 44% representation. Age category 50-59 years had a total response of 17%, while 60 years and above age group was represented by 2% the 30-39 years category had a total representation of 22% while that of 20-29 years had a representation of 16%. This implies that most of the respondents were relatively middle-aged, who are mostly households' heads, more productive and strong for work.

4.1.2 Gender of Respondents

The researcher wanted to know the gender or sex distribution of the respondents and this is shown in the following table and illustration. This section indicates both sexes within the community.

Table 4. 2: Gender distribution of the respondents who participated in the study

Gender	Frequency	Percentage (%)
Males	110	54
Females	93	46
Total	203	100

Source: Primary Data (2018)

In the above table 4.2, the study findings exposed that the sample constituted of 203 respondents of which 54% were males and the 46% remaining were females. This implies that the study had males as the majority and this implies that most respondents were men due to the societal structure bestowing men as heads of families and the fact that males are physically strong for the activities of agriculture.

4.1.3 Education Levels of the Respondents

The study also sought about the educational levels of the respondents and the findings were as represented in table 4.3. Under this section, the researcher was interested in finding out the education status of all respondents involved in the study.

Table 4.3: Educational level of the respondents

Education level	Frequency	Percentage
Did not complete secondary school	140	69
Certificate	28	14
Diploma	24	12
Degree	11	5
Postgraduate	0	0
Total	203	100

Source: Primary Data (2018)

The study findings in table 4.3 revealed that the least represented level of education was the postgraduate group which comprised of 0%, followed by degree group (5%), while diploma level was represented by 12%, certificate level was represented by (14%) and the most represented group was that of those who never completed secondary school and it was composed of (69%). This implies that most respondents in the study were the farmers who depend solely on agriculture and having little education.

4.1.4 Occupation of the Respondents

The study further investigated upon the occupation of the respondents and the findings were as represented in table 4.4. The researcher was interested in finding out the occupation of respondents.

Table 4. 4 showing occupation of the respondents

Occupation	Frequency	Percentage
Farmer	183	90
Headman	8	4
Government employees at Ministry of agriculture	4	2
Financial dept.	2	1
Programme officer	3	1
Management	3	1
Total	203	100

Source: Primary Data (2018)

The study established that 90% of the respondents were farmers, 4% of the respondents were Headmen, 2% of the respondents were government employees at the state ministry of agriculture, 1% were officials in finance departments of CSOs, 1% were CSOs programme officers, and 1% were managers in the CSOs. This implies that the study stretched out to a cross-section of the community with most of the respondents being farmers. CSOs staff were also interviewed in order to have a clear view of what is taking place within organizations in regard to modernization of agriculture.

4.1.5 Category of CSOs

The study also established the category of CSO of which the respondents worked or were beneficiaries and the findings were as represented in table 4.5. The researcher was interested in finding out the category of the CSOs at work.

Table 4. 5 Showing category of CSOs

Category of CSOs	Frequency	Percentage
Local & INGOs	113	56
Interest groups/HR self-advocates	13	6
Faith based organizations	44	22
Traditional Leaders	8	4
Media	25	12
Total	203	100

Source: Primary Data (2018)

The study results presented in the table above indicate that 56% were local & INGOs, 6% were Interest groups/HR self-advocates, 22% were Faith based organizations, 4% of the CSOs were traditional leaders and the remaining 12% were media CSOs. This implies that most of the CSOs involved in modernization of agriculture are local and INGOs in nature and the Faith based organizations were also seen to offer some support to the community.

4.1.6 The intervention areas the CSO focused on

The study further investigated upon the intervention areas of CSOs and the findings were as represented in table 4.6.

Table 4. 6 The intervention areas the CSO focused on

Occupation	Frequency	Percentage
Service delivery (Relief and/or development)	43	21
Lobbying and advocacy for human rights, gender empowerment, child protection & good governance	130	64
Agriculture Modernization of CSOs and government agencies	30	15
Total	203	100

Source: Primary Data (2018)

It was also revealed that 21% of the CSOs were Service delivery (Relief and/or development), 64% of the organizations were focused on lobbying and advocacy for human rights, gender empowerment, child protection & good governance and the remaining 15% of the CSOs were for Modernization of agriculture and government agencies. This implies that majority of the CSOs were involved in lobbying and advocacy for human rights, gender empowerment, child protection and good governance.

4.2 The level of agricultural production in Yambio County

To achieve this objective, the respondents were asked about their household production related activities in Yambio County. These are presented as follows:

Table 4. 7: Level of agricultural production in Yambio County

CATEGORY	Yes		No		TOTAL
	Freq.	Percent	Freq.	Percent	
household has three meals a day	41	20	162	80	203
household cultivates more than 1 Hectare per a year	32	16	171	84	203
Each member of household plants crop (maize) in a hectare per a year	18	9	185	91	203
Four member household harvests more than 300 kg of crop (maize) per a year	49	24	154	76	203
Every year household purchases the seeds you need to plant	177	87	26	13	203
household begins to purchase food items from the market by the middle of the year	138	68	65	32	203
household income is mainly from the sale of agricultural produce	175	86	28	14	203
household owns more than 10 herds of domestic animals	24	12	179	88	203

Source: Primary Data (2018)

The table indicates that 91% of the household respondents in Yambio showed that each member of a household cannot plant crop (maize) in a hectare per a year.

In the second position, 88% of the respondents indicated that a household in Yambio do not own more than 10 herds of domestic animals.

Furthermore, 87% of household respondents indicated that every year the households purchase their planting seeds as required for the following season.

More still, 86% of household respondents voiced that households' income was not mainly from the sale of agricultural produce.

Further still, 84% of the respondents showed that households of four members do not cultivate more than 1 Hectare per a year.

In addition, 80% of the respondents said that Yambio households cannot afford three meals a day. Implying that there is less food availability for their intake!

Moreover, 76% of the respondents showed that the households do not harvest more than 300 kg of crop (maize) per a year in their fields.

Furthermore, 68% of the respondents indicated that households begin to purchase food stuff from the market just by the middle of the year. Meaning that the available stock of food for each house cannot fully bring them to a year even when they adjust to less than three meals a day!

Generally, these high percentages for the negative answers infer that there is insufficient food production in Yambio and therefore, its availability is limited. The majority of the community cannot afford three meals a day because they do not cultivate large fields. A household of four members cannot produce 300 kg of maize per a year and this is a low level of productivity.

Estimates of staple food crop production

Annual production of each staple crop (tons)	=	Proportion of garden land planted with each crop	X	Population in each agricultural system	X	Average garden planted per person per year (ha)	X	Average crop yield adjusted for environment (t/ha)
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Source: Bourke, R.M., Gibson, J., et al (R. M. Bourke, J. Gibson, A. Quartermain, K. Barclay, B. Allen, 2009).

4.3 Activities of civil society organizations aimed at modernizing agriculture in Yambio County

To achieve this objective, the respondents were asked about the activities of civil society organizations aimed at modernizing agriculture in Yambio County. These are presented as follows:

Table 4. 8: Activities of civil society organizations aimed at modernizing agriculture in Yambio County

Statements	SA (%)	A (%)	NS (%)	D (%)	SD (%)	Mean	Std Dev
Os provide agricultural extension for modernization of agriculture in Yambio County	3.8	15.4	23.1	37.5	20.2	3.33	1.519
Os provide training for farmers for modern culture in Yambio County	1.9	6.7	18.3	46.2	26.9	3.21	1.402
Os train farmers on sustainable agriculture	3.8	7.7	17.3	49.0	22.1	2.5	1.262
Os provide veterinary services for farmers in Yambio County	6.7	7.7	18.3	39.4	27.9	2.46	1.096
Os provide pesticides, antibiotics, and other treatments for animals and crops in Yambio	4.8	9.6	15.4	34.6	35.6	2.41	.944
Os have supported farmers to irrigate their farms in Yambio	4.8	4.8	20.2	44.2	26.0	2.40	1.004
Os do have State Seed Storage Laboratory to support the development of heartier, higher-yielding crops in Yambio	5.8	7.7	16.3	41.3	28.8	2.2	1.050
Os have constructed some storage facilities for the farmers in Yambio	6.7	7.7	12.5	31.7	41.3	2.15	1.149
Os have supported farmers to produce more food on large scale	3.8	15.4	23.1	37.5	20.2	2.0	1.519
Os have provided hybrid animals to the farmers	1.9	6.7	18.3	46.2	26.9	1.9	1.402
Os have supplied improved seeds to farmers	3.8	7.7	17.3	49.0	22.1	1.8	1.262
Os have provided Tractor(s) or draft animals to farmers for cultivation	6.7	7.7	18.3	39.4	27.9	1.7	1.096
Os assisted farmers to access credit from the bank to better their agricultural investment	4.8	9.6	15.4	34.6	35.6	1.65	.944
Os help to build a marketing chain between the producer and the processor/consumer	4.8	4.8	20.2	44.2	26.0	1.6	1.004
average mean						2.38	

Source: Primary Data (2018)

The results presented above were based on the activities of civil society organizations aimed at modernizing agriculture in Yambio County. For this study, it was established using fourteen indicators which the respondents were required to indicate the extent to which they agreed.

As indicated in table above, the first indicator was that CSOs provide agricultural extension for modernization of agriculture in Yambio County was ranked first with a mean of 3.33 equivalent to very good.

Program manager for a CSO on agriculture on 21.3.2018 said:

“We mainly offer agricultural extension services through radio talk shows on Yambio FM and Anisa FM. These talk shows are intended to help farmers on different topics e.g. early planting, weeding and harvesting.”

This was followed by the finding on CSOs providing training to farmers for modern agriculture in Yambio County with a mean of 3.21 equivalent to good. CSO trains farmers on sustainable agriculture followed with a mean of 2.5 equivalent to poor.

An extension worker for one of the CSOs supporting agriculture program had this to say:

“We train groups of farmers in the fields on modern planting methods, how to handle harvests and storage of yields. We do have two groups in Yambio; at Saura and Naakiri where we have programs and train farmers.”

In the forth rank was the indicator that CSOs provide veterinary services for farmers in Yambio County with a mean of 2.46 equivalent to poor. The interview with all the CSOs staff provided negative answers for veterinary services and a manager at one of the CSOs had this to say;

“We have not planned on any veterinary provision for the farmers and we hope we can do that in the future”

This was also followed by the finding on CSOs providing pesticides, antibiotics, and other treatments for animals and crops in Yambio with a mean of 2.41 which is equivalent to poor on the Likert Scale. In the sixth position is the indicator that CSO has supported farmers to irrigate

their farms in Yambio which had a mean of 2.2 equivalent to poor. This was followed by the indicator that there is the State Seed Storage Laboratory to support the development of heartier, higher-yielding crops in Yambio with a mean of 2.2 which is equivalent to poor on the Likert Scale.

Only one CSO working on agriculture does support greenhouse seedling management and the manager had this to say:

"Our State does not have the seed storage laboratory for helping improved seeds; however my organization has setup a small greenhouse seedling tray for aiding a small group of farmers at Asanza. This is only one site and we hope to expand on it."

This was followed by the eight ranks that CSOs have constructed some storage facilities for the farmers in Yambio which had a mean of 2.15 equivalent to poor.

Again another CSO manager did mention that:

"Our organization has worked hard to construct two permanent storage facilities; one at Naakiri and the other at Saura. Unlike the tents erected by some international organizations, our ware houses are concrete and can house each 30 tons of maize."

It was also followed by the outcome on CSOs have supported farmers to produce more food on large scale with a mean of 2.0 corresponding to poor.

In one of the CSOs, an extension worker stated:

"In our community most members do not want to belong to cooperatives, they like individual work. So we principally work on food security, working to ensure that the family has food for the year and if anything more they take it for sale! The youth do not want to work on the farm; they are lazy and stay idling."

This was also followed by the result on CSOs have provided hybrid animals to the farmers with a mean of 1.9 equivalent to poor.

A manager of one CSO attested to the fact that not much has been done to provide hybrid animals to the farmer and he said:

“Since 2008 to 2018 the CSO has been able to provide improved variety of piglets from Uganda only once and the number of piglets brought was less than 20 animals. Our CSOs is the only one that ventured to bring in hybrid animals.”

It was followed by CSO has supplied improved seeds to farmers with a mean of 1.8 corresponding to poor. This was also followed by CSOs have provided Tractor(s) or draft animals to farmers for cultivation which had a mean of 1.7 equivalent of very poor. This was followed by CSOs assist farmers to access credit from the bank to better their agricultural investment with a mean of 1.65 equivalent to very poor on the Likert Scale. Finally, CSOs help to build a marketing chain between the producer and the processor/consumer had a mean of 1.6 equivalent to very poor.

A staff at one of CSOs was interviewed on 29.3.2018 and he had this communicate:

“The CSOs in Yambio do not link farmers in a market chain; we only help farmers to participate in an annual agricultural exhibition. The exhibition exercise is normally organized by the state ministry of Agriculture, cooperative and environment and we as CSOs help to mobilize our client farmers to participate.”

To sum up on CSOs activities on modernizing agriculture, the average mean was 2.38 which is poor on the Likert Scale implying that activities of the CSOs with regard to modernization of agriculture were sub-standard and not effective enough. It also implies that there was limited capacity and poor funding strategies which contributed to the ineffectiveness of these organizations.

4.4 Challenges faced by civil society organization in modernizing agriculture in Yambio County

To achieve this objective, the respondents were asked about the challenges faced by civil society organization in modernizing agriculture in Yambio County. These are presented as follows:

The researcher had an interview with a government employee at the state ministry of agriculture who said:

"Our soil fertility is still good and so we do not need inputs in terms of fertilizers; but excessive air- and water-borne nitrogen from fertilizers may cause respiratory ailments, cardiac disease, and several cancers, and can also inhibit crop growth."

This was followed by the finding that CSOs support very poor farmers who may not run any mechanized farm machines; farmers cannot purchase spare parts, fuel and services of those machines with a mean of 3.69. One of the headmen said who was interviewed on 27.3.2018:

"Majority of the people is poor, cannot afford proper treatment, cannot afford the purchase of motorbike, send children to good school; how can we purchase spares of a tractor?"

This was also followed by the indicator that Mechanization of agriculture is capital intensive, the CSOs cannot afford to purchase draft animals for cultivation to the farmers with a mean of 3.62.

This was also followed by the indicator that lack of continuous funding for CSOs activities by the back donors is a reason why they do not have permanent staff with a mean of 3.18.

An informant from a CSO finance department interviewed on 27.3.2018 had this to declare:

"We do not have a smooth funding running for a year or two. We access only a tiny amount of funding coming directly to us; this undermines progress towards truly sustainable development"

The CSOs face some crisis in organizational structure and that limits their performance followed with a mean of 3.12. The CSOs do not have legitimate accountability (good audit report and transparency) followed with a mean of 3.3, The CSOs lack highly qualified, experienced, motivated and professional staff had a mean of 3.27.

Another key informant from the finance department of another CSO interviewed on 28.3.2018 said:

“CSOs are blamed for lack of capacity to fill in all financial requirement forms and to spend all donors’ money effectively and that is true.”

The government limits the operations of CSOs in your area followed with a mean of 2.50,

A manager to a CSO working on agriculture said:

“For sure, the government does not limit our operations; they do not limit us.”

That CSOs’ main source of funding is the western donors, and so CSOs lack the capacity to meet the stringent and complex criteria for their funding had a mean of 2.70 and that CSOs have no network of CSOs for sharing resources and information and jointly voicing their concerns followed with the same mean of 2.70

When the researcher cross-examined the secretary to civil society network for Western Equatoria States, he said:

“We do have an existing network for civil society organizations (NECSOs) operating in the three states of Tombura, Gbudwe and Maridi, but some civil society organizations have the dearth to participate with us, they try to work independently in isolation.”

Lastly and generally the Challenges faced by civil society organizations in modernizing agriculture in Yambio County had an average mean of 3.36 which is equivalent to very high on Likert Scale. This implies that there were very many challenges affecting CSOs in the attempt to modernize agriculture.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.0 Introduction

This chapter presents the discussions of findings, makes conclusions to the study, raises recommendations and suggests areas that need further research following the study objectives.

5.1 Discussions

The study was directed by three specific objectives which included;

To identify civil society organizations in Yambio; to examine the activities of civil society organizations aimed at modernizing agriculture in Yambio County; to analyze the challenges faced by civil society organizations in modernizing agriculture in Yambio County.

5.1.1 The level of agricultural production in Yambio County

The research finding demonstrated 91% of respondents pointed to the fact that each member of a household cannot plant crop (maize) in more than one hectare per a year. Moreover, 76% of the respondents showed that a household of four members do not harvest more than 300 kg of crop (maize) per a year in their fields. Implying less planting to harvest less produce as well! This is in line with the report from the Statistical year book for Southern Sudan (2010) that puts the production rate for cereal by 2009 in Western Equatoria States at 147 tons. This is totally opposite to the standard in a report in a biannual publication by FAO (R. M. Bourke, J. Gibson et al, 2009) which shows that in the past 50 years, global crop production has expanded threefold. This increase has been driven largely by higher yields per unit of land, and crop intensification resulting from multiple cropping and/or shortening of fallow periods.

Meanwhile it has been evidenced in the research that 87% of households in Yambio, every year purchase their planting seeds as needed for the following season. This is in addition to the fact that 80% of households cannot afford three meals a day. Yet according to the Food and Agriculture Organization of the United Nations, the average minimum daily energy requirement is about 1,800 kilocalories (7,500 kJ) per person (Jacobs & Sumner, 2002).

As if that is all, 68% of the respondents indicated that households begin to purchase food stuff from the market just by the middle of the year.

Generally, these high percentages imply that there is insufficient food production in Yambio and therefore, its availability is limited. The majority of the community cannot afford three meals a day because they do not cultivate large fields. A household of four members cannot produce 300 kg of maize per a year and this is a low level of productivity.

5.1.2 Activities of civil society organizations aimed at modernizing agriculture in Yambio County

The study arrived at an average mean of 2.38 for activities executed by Yambio civil society organizations aimed at modernizing agriculture and this is poor on the Likert Scale; this implied that activities by the CSOs with regard to modernization of agriculture were sub-standard and not effective enough.

In the first place the research discovered that CSOs have constructed only two storage facilities for the farmers in Yambio which had a mean of 2.15 which is equivalent to poor.

An emergency project by National Ministry of Agriculture and Forestry of South Sudan in the year 2013 pointed to lack of marketing system for farmers, so that commercialization of farm produce is negligible and the whole rural economy is neither market-oriented, nor even monetized; and there are lack of marketing facilities, poor infrastructure and transport facilities and lack of appropriate processing technologies for crops and fisheries (Ministry of Agriculture & Forestry 2013).

Respondents from households were asked if CSOs had supported farmers to produce more food on large scale and this question gained a mean of 2.0 from them and this is poor. This finding points to an indication that CSOs in Yambio have not helped the community to transform from subsistent farming to commercial production!

Hitherto, Shrum says that Conventional (modern) agriculture is grounded on the belief that the goal of farming should be to produce as much food/fiber as possible for the least cost (Shrum,

2000). This is rather the opposite in the case of Yambio; farmers produce majorly for home consumption.

Umarani and Subramaniyan add to it that the main objective of modernization of agriculture is the need for increased food production for which, traditional agriculture is transformed by adoption of modern varieties of crops and livestock and external inputs (such as fertilizers, pesticides, antibiotics, credit service and machinery etc.) necessary to make these productive. And the second objective is to minimize soil erosion (Umarani & Subramaniyan, 2000).

Now even when respondents were asked whether CSOs had provided hybrid animals to the farmers; the study came up with a mean of 1.9 from the respondents, which is equivalent to poor.

In the same tune, when the household respondents were asked if CSOs had supplied improved seeds to farmers; the study obtained a response with a mean of 1.8. Further still the researcher asked respondents to know if CSOs had provided Tractor(s) or draft animals to farmers for cultivation; the finding had had a mean of 1.7 which is equivalent of very poor.

Shrum stresses that agricultural modernization should be a process of transforming the agricultural sector into one that is dynamic, technologically advanced, and competitive, yet centered on human resource development, guided by the sound principles of social justice (Shrum, 2000). According to Rahman, nothing else symbolizes modernization of agriculture more than the use of tractors and its accompanying machines in the developing Countries. Infrastructure such as irrigation scheme guarantees year-round good agriculture yields. Draft animals are best in such situations, where the nature of farmlands are small, scattered and odd shaped (Rahman, 1987).

Again, household respondents were asked whether CSOs assist farmers to access credit from the bank to better their agricultural investment and this had a mean of 1.65 equivalents to very poor on the Likert Scale. Moreover, respondents were also asked if CSOs did help to build marketing chain between the producer and the processor/consumer and it had a mean of 1.6 equivalent to very poor.

Yujiro Hayami (Hayami, 1996) says that any economic organization of agriculture that does not provide viable markets cannot optimize agricultural production and the returns to farm people for

their work and entrepreneurial abilities. And for Waldron et al; they hold that if any modern system is to function, large amounts of working capital must be raised through a formal credit system. This working capital is required to make down-payments to farmers on delivery of their products, so as to compete for supply with private traders and companies that buy through spot transactions (Waldron et al., 2011).

In conclusion, the finding on activities of CSOs towards modernizing agriculture had the average mean of 2.38 which is poor on the Likert Scale implying that activities of the CSOs with regard to modernization of agriculture were sub-standard and not effective enough. It also implies that there was limited capacity by CSOs, lack of required expertise on modernization of agriculture and inadequate funding possibilities which contributed to the ineffectiveness of these organizations.

5.1.3 Challenges faced by civil society organizations in modernizing agriculture in Yambio County

An average mean of 3.36 for challenges facing CSOs in modernizing agriculture in Yambio. This is very high on the Likert Scale. These challenges experienced by CSOs partly isolate them from meeting the basics for modernizing agriculture. For instance;

The research found that mechanization of agriculture is capital intensive and Yambio CSOs cannot afford to purchase tractors or irrigation machines for the beneficiary farmers and this had a high mean value of 3.93 in the negative sense and displaying lack of funds.

Further still the field findings revealed that the government of Gbudwe state limits the use of fertilizers and pesticides, and CSOs cannot import these agricultural inputs to the farmers; the mean value was 3.82. This is in line with South Sudan transitional constitution:

The Transitional constitution of the Republic of South Sudan stipulates that every person shall have the right to have the environment protected for the benefit of present and future generations, through reasonable legislative action and other measures that: (a) prevent pollution and ecological degradation; (b) promote conservation; and (c) secure ecologically sustainable development and use of natural resources while promoting rational economic and social development so as to protect the bio-diversity of South Sudan (Ministry of Agriculture & Forestry 2013). It is the constitution interpreted for the prohibition of external inputs like fertilizers and pesticides in Yambio County.

On the other hand, the Ugandan Ministry of agriculture, animal industry and fisheries since 2000 established a strategy for modernizing agriculture sector in the following terms; to foster

“Development and adoption of high-yielding technology through strengthened agricultural research and extension delivery mechanisms! Generation and adoption of appropriate labor-saving technology for expansion of acreage under cultivation. Development of infrastructure such as rural roads, communication links and rural electrification to reduce transaction costs, develop marketing linkages, improve efficiency and provide power for agro-processing. Development of cost effective irrigation and water harvesting technologies including community valley dams to mitigate against the potential impact of drought” (Ministry of agriculture, 2000).

Alnoor says that sometimes CSOs are just reluctant to entangle themselves in the messy World of policy (Ebrahim, 2010). This means that CSOs in Yambio need not to stay away from issues of policy drawing for the good of the community.

Another indicator that lack of continuous funding for CSOs activities by the back donors is a reason why they do not have permanent staff with a mean of 3.18. This means that CSOs in Yambio lack experienced staff therefore they suffer lack of required capacity and expertise at performance.

An informant from a CSO finance department interviewed on 27.3.2018 had this to declare:

“We do not have a smooth funding running for a year or two. We access only a tiny amount of funding coming directly to us; this undermines progress towards truly sustainable development”

Ebrahim argues that CSOs lack adequate funds as a result of no proper accountability (Ebrahim, 2010). Ebrahim adds that governments are hard on SCOs demanding for accountability and good performance and let me put it in his own words; “on the issue of accountability, nonprofit leaders face a steady stream of normative demands from government regulators, taxpayers, and concerned citizens to be more transparent about their fundraising and spending, on how they are governed, and what they have achieved with the resources entrusted to them....and CSOs are under pressure to perform, to demonstrate that -what they do is making a difference.”

Angelika noticed that in Isreal, state funding for non-profit organizations has gone declining in recent years and this makes them to seek funding from outside (Timm, 2001).

Therefore, the research findings on challenges faced by civil society organizations in the process of modernizing agriculture in Yambio County revealed an average mean of 3.36. This is very high on the Likert Scale; this implied that the CSOs in Yambio lack adequate capacity, proficiency, expertise, competence and resources to undertake effective performance for modernizing agriculture.

5.2 Conclusions

The study was concluded in the following terms;

There was insufficient food availability in Yambio and majority of households cannot afford three meals a day because an average household does not cultivate more than a hectare per a year.

CSOs activities for modernizing agriculture in Yambio are highly substandard and ineffective; not providing for mechanization, the supply of veterinary services, improved seeds and livestock, and without helping Farmers access credits and market.

Further still, Yambio Civil society organizations possess limited capacity to fundraise the required money desired for their activities; funds for professional staff retention resulting to weak financial audit reports and not matching up to the set standard by the international donor agencies for funding. This inadequacy suffered by the CSOs extremely compromises their mandate for modernizing agriculture as they cannot effectively ensure for the provisions of the required driving forces; technology, capital and skilled labor.

The government of Gbudwe state limits on the importation and use of fertilizers and pesticides in the State.

Civil society organizations in Yambio are in dire need of capacity building in the areas of fundraising and finance management.

5.3 Recommendations

Small households should operate a farm size more than 1 hectare of land at least as the weighted median threshold of operated land. A farm size is the land operated by the household, intended as the land owned plus the agricultural land rented/borrowed/sharecropped in minus the agricultural land rented/lent/sharecropped out. This is to increase of the yields, increase the intake of more meals and have seeds available for plantation the following season.

CSOs should support mechanization of agriculture as to enhance productivity at low costs and provide improved seeds to ensure quality of produce for commercialized agriculture.

The study submits that civil society organizations in Yambio require improvement in areas of capacity building to fit them for fundraising, professionalism in finance management and expertise in service delivery in terms of community empowerment for modernizing agriculture.

5.4 Areas of further research

Much as the study aimed at covering most of the relevant theme, civil society organizations and modernization of agriculture in Yambio County, Gbudwe State; this is a very broad issue that it cannot easily be exhausted in a single research. Other researches need to be done in this field specifically on the following;

- The strategies for CSOs fundraising in Yambio County
- To investigate the crop mixing suitable for Yambio County as to increase food availability

5.5 Contribution of knowledge

The study contributes to knowledge by highlighting in particular the challenges facing civil society organizations in modernizing agriculture in Yambio County such as low capacity in financial management, lack of expertise and proficiency for CSOs chores.

The findings from the field like low availability of food production in Yambio will act as eye opener to the international donors to help CSOs set prototype in crop productivity in Yambio County.

The CSOs will become aware of the key elements Pertinent for modernization of agriculture such as; mechanization, provision of improved seeds, the provision of agricultural extension, provision of veterinary services, establishing storage facilities and marketing the agricultural products.

REFERENCES

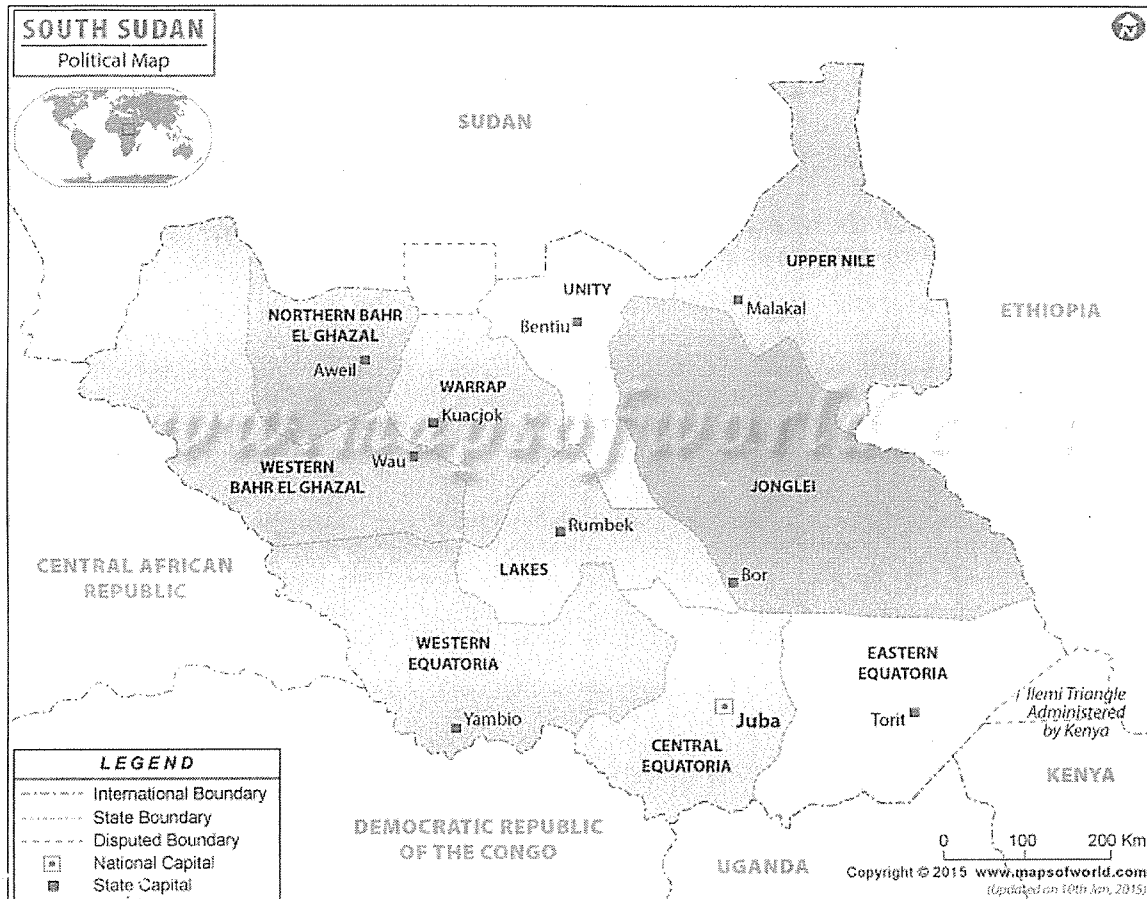
- Acharya, S., & Al, E. (2007). Empowering rural women through a community development approach in Nepal. *Community Development Journal*, 42(1), 34–46.
<https://doi.org/10.1093/cdj/bsi064>
- Aric Rindfleisch, Alan J. Malter, S. G. and C. M. (2008). *Cross-Sectional versus Longitudinal Survey Research: Concepts, Findings, and Guidelines*. USA.
- Aruai, I. C. (2010). *Statistical Yearbook for Southern Sudan*. Juba. Retrieved from
<http://static1.1.sqspcdn.com/static/f/750842/10009929/1293750138733/Statistics+Year+Book+2010+.pdf?token=kbkdvtYFGD0VHebyqlrRD7hWQ4A=>
- Buttrick, J. (1958). A note on professor Solow's growth model, 23(1), 45–62.
<https://doi.org/10.1093/icb/grm009>
- Chandhoke, N. (2007). Civil society. *Development in Practice*, 17(4–5), 607–614.
<https://doi.org/10.1080/09614520701469658>
- Datta, S. R. and K. . (2013). Importance of socio-economic and institutional factors in the use of veterinary services by smallholder dairy farmers in India, 105(5), 580–586.
- Desse, F. (2012). *The Role and Structure of Civil Society Organizations in National and Global Governance Evolution and outlook between now and 2030*.
- Ebrahim, A. (2010). Nonprofit agency challenges. *Journal of Policy Analysis and Management*, 33(4), 1047–1049. <https://doi.org/10.1002/pam>
- Gebre, Y. (2016). Reality Checks : The state of civil society organizations in Ethiopia, 20(2), 2–25. Retrieved from <http://www.jstor.org/stable/90001853>
- Glinski, P. (2011). Twenty Years of Civil Society in Poland ?, 175(175), 271–300. Retrieved from <http://www.jstor.org/stable/41275208>
- Grodache Carl. (2010). Art space, Public space and the link to community development.

- Community Development*, 45(4), 474–493. <https://doi.org/10.1093/cdj/bsp018>
- Hance, W. A. (1955). The Zande scheme in the Anglo-Egyptian Sudan, 31(2), 149–156.
Retrieved from <http://www.jstor.org/stable/142184>
- Hayami, Y. (1996). The peasant in economic modernization, 78(5), 1157–1167. Retrieved from <http://www.jstor.org/stable/1243486>
- Israel D. Glenn. (1992). *Determining sample size: The Evidence of Extension program impact*. Program Evaluation and Organizational Department, IFAS, University of Florida.
- Jacobs, K., & Sumner, D. A. (2002). The food balance sheets of the Food and Agriculture Organization: A review of potential ways to broaden the appropriate uses of the data, (March). Retrieved from [ftp://ksph.kz/Chemistry_Food Safety/TotalDietStudies/FBS_Rev.pdf](ftp://ksph.kz/Chemistry_Food_Safety/TotalDietStudies/FBS_Rev.pdf)
- Kenny, S. (2011). Towards unsettling community development Towards unsettling community development, 46(January 2011). Retrieved from <http://www.jstor.org/stable/44258249>
- Lyson, T. A., & Barham, E. (1998). Civil society and agricultural sustainability. *Social Science Quarterly*, 79(3), 554–567.
- Magadia, J. (1999). Contemporary Civil society in the Philippines, (1999), 253–268.
- Mellor, J. W. (2002). Employment Multipliers from Agricultural growth and poverty reduction, 40(4).
- Ministry of agriculture, animal industry and F. (2000). Plan for modernisation of agriculture: Eradicating poverty in Uganda.
- Mohan, S. (2002). Role and Relevance of civil society Organizations, 63(2), 193–211.
- Pretty, J. N., Thompson, J., & Hinchcliffe, F. (1996). Sustainable agriculture impacts on food production and challenges for food security, (60), 25.

- R. M. Bourke, J. Gibson, A. Quartermain, K. Barclay, B. Allen, J. K. (2009). Food production, consumption and imports. In *Food and Agriculture in Papua New Guinea* (pp. 129–192). ANU Press. Retrieved from <http://www.jstor.org/stable/j.ctt24h987.14%0AJSTOR>
- Rahman, M. (1987). Tractorization of agriculture in Pakistan, *15*(4), 387–392. Retrieved from <http://www.jstor.org/stable/41144035>
- Rauburn, P. (1990). Seeds of despair, *15*(2), 45.
- Rostow, W. W. (1959). The Stages of Economic Growth, *12*(1), 1–16.
- Schlippe, P. de. (1955). Hedge strip farming : A plan for Zandeland, *36*(1), 6–35. Retrieved from <http://www.jstor.org/stable/41716677>
- Schultz, T. W. (1981). Knowledge is power in agriculture, *24*(4), 4–12. Retrieved from <http://www.jstor.org/stable/40719986>
- Shrum, W. (2000). Science and story in development: the emergence of Nongovernmental organizations in agricultural research, *31*(3), 317–332.
<https://doi.org/10.1177/1476127005050030>
- Simonis, U. E. (1974). Community Development in Asia, *7*(4), 443–470. Retrieved from <http://www.jstor.org/stable/43108418>
- Statistics, S. S. N. B. of. (2012). South sudan poverty estimates.
- Timm, A. (2001). Israeli civil society facing new challenges, *17*(1), 47–68. Retrieved from <http://www.jstor.org/stable/41805097>
- Umarani, A. R., & Subramaniyan, K. (2000). Modernization of agriculture-A boon or bane, *79*(11), 45–46. Retrieved from <http://www.jstor.org/stable/24104835>
- Waldron, S., Brown, C., & Longworth, J. (2011). Agriculture modernization and State capacity in China, *66*(66), 119–142. Retrieved from <http://www.jstor.org/stable/41262810%0AThe>

Williams, L. (2004). Culture and community development: Towards new conceptualizations and practice. *Community Development Journal*, 39(4), 345–359.
<https://doi.org/10.1093/cdj/bsh031>

APPENDIX I: MAP OF SOUTH SUDAN



Description: South Sudan Map represents the international boundary, province boundary with their capitals, national capital and other important cities

Source: <https://www.mapsofworld.com/south-sudan/map.html> retrieved on 10.11.2017

APPENDIX II: QUESTIONNAIRE

FACE SHEET: DEMOGRAPHIC CHARACTERISTICS OF THE RESPONDENTS

1. Age:

- a. 20-29 ()
- b. 30-39 ()
- c. 40-49 ()
- d. 50-59 ()
- e. 60 and above ()

2. Sex:

- a. Male ()
- b. Female ()

3. Educational Level attained/hopes to attain:

- a. Did not complete secondary school ()
- b. Certificate ()
- c. Diploma ()
- d. Degree ()
- e. Postgraduate ()

4. Occupation:

- a. Farmer ()
- b. Headman ()

c. Government employee ()

d. Financial dept. ()

e. Programme officer ()

f. Management ()

g. Other –specify ()

5. Category of CSO:

a. Local & INGOs ()

b. Interest groups/HR self-advocates ()

c. Faith based organizations ()

d. Traditional Leaders ()

e. Media ()

6. What intervention areas is CSO focused on?

a. Service delivery (Relief and/or development) ()

b. Lobbying and advocacy for human rights, gender empowerment, child protection & good governance ()

c. Capacity building of CSOs and government agencies ()

B: QUESTIONNAIRE TO ASSESS THE LEVEL OF AGRICULTURAL PRODUCTION IN YAMBIO COUNTY.

The following is a list of household crop production related activities in Yambio County. Please tick **YES** for the ones that apply to your household and **No** for the ones that you do not!

CATEGORY	Yes	No
Your household has three meals a day		
Your household cultivates more than 1 Hectare per a year		
Each member of your household plants crop (maize) in a hectare per a year		
Four member household harvests more than 300 kg of crop (maize) per a year		
Every year your household purchases the seeds you need to plant		
Your household begin to purchase food items from the market by the middle of the year		
Your household income is mainly from the sale of agricultural produce		
Your household owns more than 10 herds of domestic animals		

C: QUESTIONNAIRE TO EXAMINE THE ACTIVITIES OF CIVIL SOCIETY ORGANIZATIONS AIMED AT MODERNIZING AGRICULTURE IN YAMBIO COUNTY

The following items are related to modern agriculture in Yambio County. Please tick the correct number to indicate the extent to which you agree with the following statements about your organization.

Key: 1=strongly disagree; 2=Disagree; 3=Agree; 4=strongly agree

CATEGORY	4	3	2	1
CSOs provide agricultural extension for modernization of agriculture in Yambio County				
CSOs provide training for farmers for modern agriculture in Yambio County				
CSOs train farmers on sustainable agriculture				

CSOs provide veterinary services for farmers in Yambio County				
CSOs provide pesticides, antibiotics, and other treatments for animals and crops in Yambio				
CSOs have supported farmers to irrigate their farms in Yambio				
We do have State Seed Storage Laboratory to support the development of heartier, higher-yielding crops in Yambio				
CSOs have constructed some storage facilities for the farmers in Yambio				
CSOs have supported farmers to produce more food on large scale				
CSOs have provided hybrid animals to the farmers				
CSOs have supplied improved seeds to farmers				
CSOs have provided Tractor(s) or draft animals to farmers for cultivation				
CSOs assisted farmers to access credit from the bank to better their agricultural investment				
CSOs help to build a marketing chain between the producer and the processor/consumer				

D. QUESTIONNAIRE TO ANALYZE THE CHALLENGES FACED BY CIVIL SOCIETY ORGANIZATION IN MODERNIZING AGRICULTURE IN YAMBIO COUNTY

The following are some challenges that CSOs in Yambio face in their effort in the modernization of agriculture programs. Please tick the right number corresponding with each item!

Key: 1= strongly disagree; 2=Disagree; 3=Agree; 4=strongly agree

Scale	4	3	2	1
Mechanization of agriculture is capital intensive, CSOs cannot afford to purchase tractors or irrigation machines				

Mechanization of agriculture is capital intensive, CSOs cannot afford to purchase draft animals for cultivation to the farmers				
CSOs support very poor farmers who may not run any mechanized farm machines; they cannot purchase spare parts, fuel and services of those machines				
CSOs find challenges to find farmers to support because the workforce is weak of sickness and others avoids agriculture for white collar jobs				
Pesticides and fertilizers are among the leading causes of water pollution; and so farmers do not want them				
Your government does not accept the use of fertilizers and pesticides				
CSOs face some crisis in organizational structure and that limits their performance.				
The government limits the operations of CSOs in your area				
CSOs have no network of CSOs for sharing resources and information and jointly voicing your concerns				

Thank you for participating in this survey. Your answers are extremely valuable to the study. I do sincerely appreciate and thank you for your time and contributions

APPENDIX III: INTERVIEW GUIDE FOR CSOs STAFF

1. What is the name of your civil society organization?
2. Which program does your civil society organization support in Yambio County?
3. Does your CSO do any agricultural program? If yes, on what?
4. Does your CSO execute any agricultural extension? If yes, on what aspect?
5. Does your support free veterinary services? If yes, on what?
6. Does your CSO vaccinate animals regularly? If yes, where?
7. Does your CSO support farm spread with any treatment/ pesticides?
8. Does your CSO support farmers in Yambio to irrigate their fields
9. Does your CSO support farmers in Yambio to purchase Tractors or draft animals? If yes, when was that?
10. In Yambio, does your CSO provide farmers with improved seeds? If yes, which seeds
11. Does your CSO face lack of continuous funding for your activities by the back donors?
12. Do farmers have common storage facilities for their produce? If yes, who constructed it?
13. Do farmers in Yambio produce enough food to sale? How many tons? Give example
14. Does your CSO provide farmers with Hybrid animals or local animals? If yes, when?
15. Does your CSO link farmers to have market for their surplus?
16. What are the biggest challenges your CSO face in modernizing agriculture in Yambio?
17. Does your CSO help farmers to access credit from the bank here in Yambio?
18. What is your main source of funding? Is it the western donors? Does your CSO lack the capacity to meet the stringent and complex criteria for its funding
19. Does your CSO lack qualified, experienced, motivated and professional staff
20. Does your CSO have legitimate accountability (good audit report and transparency)

Thank you for participating in this survey. Your answers are extremely valuable to the study. I do sincerely appreciate and thank you for your time and contributions

APPENDIX IV: INTRODUCTION LETTER



KAMPALA
INTERNATIONAL
UNIVERSITY

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dhdinquiries@kiu.ac.ug * Website: <http://www.kiu.ac.ug>

Directorate of Higher Degrees and Research Office of the Director

Our ref. 1161-06176-04071

Thursday 15th March, 2018

Dear Sir/Madam,

**RE: INTRODUCTION LETTER FOR MBORIHENGA IGNATIUS
REG. NO. 1161-06176-04071**

The above mentioned candidate is a student of Kampala International University pursuing a Master's Degree in Development Studies.

He is currently conducting a research for his dissertation titled, *"Civil Society Organizations and Modernization of Agriculture in Yambio, Gbubwe State, South Sudan"*.

Your organization has been identified as a valuable source of information pertaining to the research subject of interest. The purpose of this letter therefore is to request you to kindly cooperate and avail the researcher with the pertinent information he may need. It is our ardent belief that the findings from this research will benefit KIU and your organization.

Any information shared with the researcher will be used for academic purposes only and shall be kept with utmost confidentiality.

I appreciate any assistance rendered to the researcher.

Yours Sincerely,

Dr. Claire M. Mugasa
Director

C.c. DVC, Academic Affairs
Principal CHSS



"Exploring the Heights"

**APPENDIX V: AUTHORIZATION LETTER BY YAMBIO COUNTY
ADMINISTRATION**

Gbudue State
South Sudan
Yambio County
Executive Director's Office

Date: 2nd May, 2018

Subject: To whom it may Concern

Yambio County Authority has the pleasure to share with you that **Mborihenga Ignatius** has been allowed to collect information for his research as requested by Kampala International University (KIU) from our community and civil Society organisation.

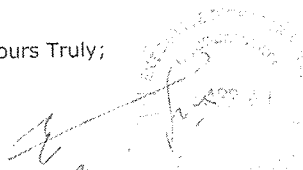
His research title is *civil society organizations and Modernization of Agriculture in Yambio County*.

We have given him his permission after he has brought us a request letter from Kampala International University which was dated Thursday 15th March, 2018.

Any assistance given to him will be highly appreciated.

We wish him success in his academic struggle.

Yours Truly;


Mr. Elianna Joshua Tabura

Executive Director
Yambio County

Cc: File

**APPENDIX VI: GLENN D. ISRAEL TABLE USED FOR DETERMINING SAMPLE
SIZE**

Size of population	Sample size (n) for Precision (e) of:			
	±3%	±5%	±7%	±10%
500	a	222	145	83
600	a	240	152	86
700	a	255	158	88
800	a	267	163	89
900	a	277	166	90
1,000	a	286	169	91
2,000	714	333	185	95
3,000	811	353	191	97
4,000	870	364	194	98
5,000	909	370	196	98
6,000	938	375	197	98
7,000	959	378	198	99
8,000	976	381	199	99
9,000	989	383	200	99
10,000	1,000	383	200	99
15,000	1,034	390	201	99
20,000	1,053	392	204	100
25,000	1,064	394	204	100
50,000	1,087	397	204	100
100,000	1,099	398	204	100
>100,000	1,111	400	204	100
a= Assumption of normal population is poor (Yamane, 1967). The entire population should be sampled.				

Source: Israel (Israel 1992).

APPENDIX VII: LEGEND

Mean Range	Response Mode	Interpretation
1.00 – 1.75	Strongly Disagree	Very Poor
1.76 – 2.50	Disagree	Poor
2.51 – 3.25	Agree	Good
3.26 – 4.00	Strongly Agree	Very Good