

UNIVERSITY OF NAIROBI

DEPARTMENT OF DIPLOMACY AND INTERNATIONAL STUDIES (DDIS)

**GOVERNANCE AND FOOD SECURITY IN EASTERN AFRICA REGION; A CASE
STUDY OF THE FISHERIES SECTOR IN KENYA**

Rosaline Daisy Karimi Muriuki

Supervisor: Dr. Martin Ouma

**A Research Project Submitted In Partial Fulfillment of the Requirements for the Award of
Master's Degree in International Studies from the Department of Diplomacy and
International Studies, University of Nairobi**

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DECLARATION

I, **Rosaline Daisy Karimi Muriuki**, hereby declare that this research project is my original work and has not been presented for a degree in any other University.

Signature  Date 22ND NOV. 2021

Rosaline Daisy Karimi Muriuki

This project has been submitted for examination with my approval as University

Supervisor;

Signature  Date 25th NOV. 2021.

Dr. Martin Ouma,

Institute of Diplomacy and International studies

University of Nairobi,

DEDICATION

I dedicate this work to God almighty for his mercies and strength during this period. To my loving husband Muriuki Njagagua and my dear children Cynthia, Fiona and Allan for their love, understanding and support during the entire period.

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ABSTRACT

Food security remains a major concern in the global arena more so in the developing countries like those found in the Sub-Saharan Africa. Literature shows that there have been numerous efforts by governments, international organizations as well as from other non-state actors to address the food security challenge. Among the top factors that affect food security is governance. This study, therefore, sought to examine governance and food security in the EA region, a case study of the fisheries sector in Kenya. Specifically, the study assesses the relationship and impact of governance on food security in Kenya, examine the policy framework governing the fisheries sector in Kenya as well as examining the challenges that hinder food security in the fisheries sector in Kenya. The study is anchored on the Keynesian theory that was developed by John Maynard Keynes who postulated that the world is interdependent, and that food security and economic development are linked. The study uses quantitative and qualitative data to achieve the specific objectives therein. The study further adopts descriptive research design to aid in describing the study phenomenon. The data gathered was analyzed by use of SPSS computer program version 24. The policies and legal framework within the fisheries sector play a significant role in achievement of food security in the country. However, the study concluded that the framework and policies are inadequate to regulate and enhance the development of the fisheries sector. It was established that, political interference, poor governance, inadequate funding, insufficient staff in the fisheries department, overlapping mandates among various actors in the sector, inadequate institutional capacity, poor market linkages, lack of technical knowhow, inadequate storage facilities, weak support from non-state actors and corruption are among the threats that hinder attainment of food security within the fisheries sector. Regarding the relationship and impact of governance on food security in the EA region, the study concluded that creating efficient management policies and strict enforcement of fisheries regulations, management of post-harvest losses, building capacity of marine and aquaculture sectors are major issues limiting full development of the fisheries sector. The study recommended that the government through the agencies mandated to manage the fisheries sector should create adequate legal and policy framework that will enhance coordination of food security efforts among all the stakeholders concerned. Also, the capacity of the fisher folk, fisheries department and other agencies should be enhanced to achieve full potential of the fisheries sector. Marine and inland fisheries need to be adequately funded to maximize their contribution to food security. The government should also subsidize inputs to the aquaculture sector, create better market linkages and establish adequate information through more research to minimize post-harvest losses. The study also recommends that the fisheries sector should minimize politics that limit synergy between government agencies and NGOs and other players in the sector. Lastly, in the management of the fisheries resources, the stakeholder's mandates should be made clear to avoid overlapping of roles and inefficiencies and the various stakeholder's capacity to implement food security programs should be enhanced.

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LIST OF ABBREVIATIONS

ARNS-African Regional Nutrition Strategy

AU- IBAR- African Union- Inter African Bureau for Animal Resources

AU-African Union

AU-NEPAD-The African Union new Partnership for Africa Development

BMU-Beach Management Unit

CAADP-Comprehensive Africa Agriculture Development Programme

CA-Competent Authority

CBD-Convention on Biological Diversity

CFS-Committee on world Food Security

CGIAR-Consultative Group on International Agriculture Research

CMFA- Conference of African Ministers of Fisheries and Aquaculture

COFI-Committee of Fisheries

CoK-Constitution of Kenya

CRF-Conduct for Responsible Fisheries

DWFN-Distant Water Fishing Nations

EACFSAP-East African Community Food Security Action Plan

EA-East African

EAPA FSN-Eastern African Parliamentary Alliance for Food Security and Nutrition

EEZ-Economic Exclusive Zone

ESA-Eastern and Southern Africa

EU-European Union

FAO-Food and Agriculture Organization

FAP-Fisheries and Aquaculture policy

FMD-Fisheries Management and Development

HGSF-Home Grown School Feeding

HoA-Horn of Africa

HPPIs-Horizontal Public Policy Inequalities

IAs-International Agencies

IMF-International Monetary Organization

IO's-International Organizations

IOTC-Indian Ocean tuna Commission

ITLOS-International Tribunal of the law of the Sea

IUU-Illegal Unreported and Unregulated

KEBS-Kenya Bureau of Standards

KePHIS-Kenya Plant Health Inspection Services

KFS-Kenya Fisheries Service

KMFRI- Kenya Marine Fisheries Research Institute

LoS-Law of the Sea

LTA-Lake Tanganyika Authority

LVFO-Lake Victoria Fisheries Organisation

MALFC-Ministry of Agriculture, Livestock, Fisheries and Cooperatives

MDGs- Millennium Development Goals

MMWP-Making Markets Work for the Poor

MOEAC&RD- Ministry of East Africa Community and Regional Development

MOLF&C-Ministry of Agriculture Livestock Fisheries& Cooperatives

NEPAD-New Partnership for Africa Development

NFP-National Fisheries Policy

NGO's-Non-Governmental Organizations

NOFP-National Oceans and Fisheries Policy

REFORM- Regional Food Security and Risk Management Programme

RELPA-Regional Enhanced livelihood for Pastoral Areas

RGF-Rockefeller and Gates Foundations

RTFS-Regional Trade in Food Staples

SDF- State Department of Fisheries

SDF&BE-The State Department for Fisheries Aquaculture and Blue Economy

SDGs-Sustainable Development Goals

SPSS-Statistical Package for Social Science

SWIOFC-South West Indian Ocean Fisheries Commission

UN- United Nations

UNCLOS-United Nations Convention on the Law of the Sea

UNFSA-United Nations Fish Stocks Agreement,

UNGA-United Nations General Assembly

UNICP-United Nations Informal Consultative Process

UN-United Nations

USAID-United States of America

WB-World Bank

WFP-World Food Programme

WTO-World Trade Organization

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CHAPTER ONE: INTRODUCTION

1.1 Background of the study

Food security denotes access to nutritious food by all people which guarantees their dietary needs and food preferences for sustaining an active and healthy life. However, due to change in climate change and rise in demand for natural resources coupled by other threats ensuring sustainable global food security has been a challenge. Adequate food security is therefore dependent on a range of issues, among them the governance aspect. Governance is defined as exercise of power in an institutional context with an aim of controlling, directing, and regulating activities that are with public interest.¹ It includes how governments and people conduct themselves in the areas of being accountable and transparent. According to “the world food summit of 1996” Food security refers to “when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life.”² Food is essential to both the security of nations and individuals. However, food insecurity refers to “a situation when people do not have adequate physical, economic, or social access to food”.

In the past century, the focus was on agricultural productivity; FAO was formed in 1945 as a specialized agency of the UN and financed by the various states with a purpose of ensuring humanity’s freedom from hunger. The early policy initially focused on increasing food production in the war-ravaged Europe and later in the developing countries after decolonization.

¹Salih, MA Mohamed. "Governance of Food Security in the 21st Century." In Facing Global Environmental Change, pp. 501-507. Springer, Berlin, Heidelberg, 2009.

²Worldbank. Future of food; Shaping the global food system to deliver improved nutrition. Newyork: WorldBank (2014).

This increase in production included technology transfer, new crop varieties petroleum-based chemicals, use of fertilizers and mechanized production.³

At the onset of the 21st century the world leaders engaged in reducing the number of people ravaged by poverty and hunger by 2015 through the millennium development goals agenda. However, globally there has been rise in number of people affected by hunger since 2014.⁴ Recently in (2015), the UN Sustainable Development Goals (SDGs) called an end to hunger, malnutrition, achieving global food security and promoting nutrition, as well as promoting sustainable agricultural practices.⁵ The global management of food security is implemented by many IO's which have their own objectives and policies creating a fragmented complex regime characterized by rule conflicts.⁶ Some of the organizations are FAO, United Nations WFP whose mandate is to coordinate deliveries of international food aids, WTO which handles trade issues. Their functions in the issues of food governance may sometime overlap creating challenges in implementing food related policies. Some of the decisions on a nation's food security involve many actors, the states, international agencies, civil society, and business. The results of negotiation are influenced by power relations amongst the players and by extension how the countries get to bring understanding for the common interest. However, relations pegged on power are mostly skewed and state's mediation is often insufficient.⁷

The global food price crisis that came about in 2007/08 led to raise in prices of staple food commodities such as rice, wheat and maize and it was considered a risk to the world food

³Margulis, Matias E. "The evolving global governance of food security." Available at SSRN 1823453 (2010).

⁴ FAO, IFAD & WFP. The State of Food Insecurity in the World 2015. Meeting the 2015 international hunger targets: taking stock of uneven progress. Rome, FAO. Available at: <http://www.fao.org/3/ai4646e.pdf> 2015.

⁵FAO. Link between food insecurity and malnutrition. Rome: FAO. (2018).

⁶Margulis, Matias E. "The evolving global governance of food security." Available at SSRN 1823453 (2010).

⁷McKeon, Nora. "Global Governance for World Food Security: A Scorecard Four Years After the Eruption of the "Food Crisis."" Berlin: Heinrich Böll Stiftung (2011).

security it brought to the fore the reality of how the food governance is interdependent making food security a matter of global importance.⁸

Attaining global food security is a big problem in the world today. New causes of food insecurity like climate change, food price volatility and consumerism when combined with perennial causes like bad governance, poverty and inequalities puts pressure on global efforts of reducing the number of people going hungry. This problem is increasingly becoming worse by the day.⁹In reducing poverty and improving development globally, food security has an important task to play¹⁰. Despite there being enough food to feed the entire world populations, over a billion are still affected by hunger.¹¹ The world food production is on the rise therefore, the issue of global food security has changed from focusing on food available to people to how it is accessed by those who need it.¹² Food insecurity is expected to grow with the projected growth in global population.¹³ This situation calls for states to channel efforts aimed at meeting food demands by their people.¹⁴

In many African nations, there has been rise in the number of households led by women. By improving their access to land resources, livestock, educating them, giving them financial service, extension services, technology and rural jobs would increase their productivity and thus

⁸Maye, Damian, and James Kirwan. "Food Security. Royal Geographical Society-Institute of British Geographers Annual Conference, London, UK, 1-3 September 2010." *Journal of Rural Studies* 29 (2013): 1-138.

⁹World Bank. *World development report 2012: Gender equality and development*. World Bank Publications, 2011.

¹⁰Vink, Nick. "Food security and African agriculture." *South African Journal of International Affairs* 19, no. 2 (2012): 157-177.

¹¹Beddington, John R., Mohammed Asaduzzaman, Fernandez A. Bremauntz, Megan E. Clark, Marion Guillou, Molly M. Jahn, Lin Erda et al. "Achieving food security in the face of climate change: Summary for policy makers from the Commission on Sustainable Agriculture and Climate Change." (2011).

¹²Glopolis. *Food Security and Agricultural Trade in Kenya*. Prague: Glopolis, (2013).

¹³Rayfuse, Rosemary Gail, and Nicole Weisfelt, eds. *The challenge of food security: international policy and regulatory frameworks*. Edward Elgar Publishing, 2012.

¹⁴Patel, P. N., G. M. Mbagaya, and B. E. Imo. "Impact of Climate Change on Food and Nutrition Security in Kenya." *International Journal of Current Research* 4, no. 1 (2012): 242-248.

increase agriculture-based output, attain food security, bring economic growth and social welfare.¹⁵ The 2012 World Bank report argues that the failures to be cognizant of women role, the resulting inequities between them and men are a major challenge of agricultural development.¹⁶

The fisheries sub sector is critical in increasing economic growth. The fisheries sector alone give jobs to approximately 155 million people globally and over 98%, in developing nations.¹⁷ The world population is estimated to increase by 36% to 2030, to 8.3 billion. The projected sea food demand will grow to over 180M tones by the year 2030. However, the supply is projected to be at 150-160 tones and thus there is a projected deficit in supply. The few inland fisheries in Africa also play an instrumental role. According to FAO 2011, fish product from small-scale fisheries that are inland in Africa places their focus on mainly their local market.¹⁸

In many of the developing nations we have a vast agricultural sector, but these nations lack the right infrastructure and institutional framework which can supply adequate food to the citizens this has led to constant food and water insecurity. When people are food insecure, they are faced with many challenges which lead to ethnic conflicts, fighting for the scarce resources, religious factions start fighting and in the long run this will lead to destabilization within the region and threaten internal peace and security.¹⁹

¹⁵FAO (Food and Agriculture Organization). "The State of Food and Agriculture, 2010–2011. Women in Agriculture: Closing the Gender Gap for Development." (2011).

¹⁶Worldbank. "Future of food; Shaping the global food system to deliver improved nutrition." Newyork: WorldBank (2014).

¹⁷Fisheries, F. A. O. "Aquaculture Department." The state of world fisheries and aquaculture (2012): 1-153.

¹⁸Ibid, p7.

¹⁹DeFeo, Michael. "Food Insecurity and the Threat to Global Stability and Security in the 21st Century." Inquiries Journal 9, no. 12 (2017).

In addition, in Africa there are many challenges which are a hindrance to achieving food security and eradication of hunger as per the MDGs 2000- 2015 and the now SDGs 2015 – 2030 if no interventions are done then achieving the SDGs will remain a dream. Some of the challenges include climate change, rapid increase in population, land adjudication issues, malnutrition, maritime piracy, conflict due to shared resources, conflict induced famine, border conflicts, political instabilities, among others.²⁰

Fisheries is one major sector that can contribute to ensuring food security, in 2009, FAO reported that, over a billion persons were under-nourished²¹ and over 1.3 billion people are living below US \$1.25 a day per capita ²²fish will provide the much-needed protein source to the population and income for the fisher folk. Marine capture fisheries should play an instrumental role in warranting food security in coastal communities. In many countries the small-scale fisheries are the main source of fish as food while the industrial fisheries will provide foreign exchange. Aquaculture production is gradually increasing as the fish stocks in the capture fisheries are decreasing, there is need therefore to effectively manage the capture fisheries and increase the use of technology in aquaculture production to ensure food security. The right balance between all stakeholders in the fish and fishery products is required for a sustainable fishery.²³

To enhance the role of the fisheries sector in food security the African Union (AU) was tasked by the CMFA to put in place mechanisms to ensure a participatory policy dialogue and the

²⁰Dodo, Mahamat Kabirou. "Understanding Africa's Food Security Challenges." In Food Security in Africa. IntechOpen, 2020.

²¹Pauly, Daniel, and Rainer Froese. "Comments on FAO's State of Fisheries and Aquaculture, or 'SOFIA 2010'." *Marine Policy* 36, no. 3 (2012): 746-752.

²²World Bank. World development report 2012: Gender equality and development. World Bank Publications, 2011.

²³Abgrall, J. F. "Fisheries, food security and trade: governance a key to success." FAO Fisheries Report (FAO) (2003).

management of fisheries and to support in strengthening policy consistency in the national fisheries sectors.²⁴

In Eastern Africa the fisheries subsector provides employment to many people fishermen, fish traders who are mostly women, fish processors, fishing net manufacturers, boat-builders and repairers and the transporters it also earns the country's foreign exchange through fish and fishery products exports. The management and governance of the sector is through the respective fisheries Ministries and Departments which are controlled by various policies and regulations. However, the management of Lake Victoria is by LVFO²⁵ and Lake Tanganyika is by LTA these which have the authority to make decisions on governance of the resources. At the marine fisheries we have the IOTC and the SWIOFC through which the decisions on management are made.²⁶ The challenges of management of the fisheries sector emanate from open access type of fisheries for both the marine and inland capture fisheries, an increase in the number of fishermen since they depend solely on the fish these results in overfishing, utilization of illegal fishing gears and mechanisms resulting in IUU fishing. The other issue is inappropriate and uncoordinated policies on fish trade.²⁷

Where there is no clear fisheries policy, there is little or slow development of the sub sector and with no clear legislations on placements of fisheries departments lead to being recognized politically meaning allocation of important development resources by the government. Misplacements of fisheries departments within not so appropriate ministries results to

²⁴Mwima, H., G. V. Monor, H. G. Mbilinyi, S. Rathacharen, P. B. Omanyi, and K. I. Katonda. "Regional assessment of fisheries issues, challenges and opportunities for Eastern Africa region." African Union. Interafrican Bureau for Animal Resources, Nairobi, Kenya (2012).

²⁵AU-IBAR. Fisheries management and development processes in Lake Victoria-Enhancing regional fisheries management plan. Nairobi: AU-AIBER, (2016).

²⁶Ibid, p5

²⁷Ibid

marginalization of this key sector when it comes to planning.²⁸ In the world development, food security and eradicating poverty have been the focus. However, the key issues have oscillated within change in the global economy, increased population, climate change, technology, and the world economy. Recently, global food security challenges brought out the requirement to; use better policies, economic actions, and social action, address huge demand for consumption, and access to food, as well as nutrition.²⁹

In Kenya, fisheries sub-sector contributes importantly to the economy. The fish sub-sector earnings from fisheries increased from Kshs11.5 billion in 2008 to Kshs12.0 billion in 2009. This can be linked to more fish landing and better local and as well as good prices for exports³⁰ Arguably, Kenya's vision 2030 did not authoritatively single out fisheries as one of the priority sub-sectors. However, it is an important sector as it provides jobs for communities along inland lakes and Indian Ocean.

Focusing on the dietary value of food products, fish is known to be a nutrient rich protein source to the people in need of nutrients as compared to other animal foods. The quantity of fish produced in the year 2010 was triple that of cattle and double that of poultry.³¹ Among core issues in the fisheries sector is absence of influence within the larger fisheries industry and in wider development policies arenas.³² This observation likely elucidates why fisheries departments fails to be a full-fledged ministry. This happens in many nations despite the big

²⁸Davies, S. "Proceedings of the International Workshop on the Fisheries of the Zambezi Basin, Livingstone, Zambia, 31 May-2 June 2004." In Proceedings of the International Workshop on the Fisheries of the Zambezi Basin, Livingstone, Zambia, 31 May-2 June 2004., no. 75. WorldFish Center, 2007.

²⁹Grafton, R. Quentin, Carsten Daugbjerg, and M. Ejaz Qureshi. "Towards food security by 2050." Food Security 7, no. 2 (2015): 179-183.

³⁰Center, WorldFish. "Proceedings of the international workshop on the fisheries of the Zambezi Basin." The WorldFish Center Working Papers (2007).

³¹Ibid, p7

³²Friend, Richard M. "Fishing for Influence: Fisheries Science and Evidence in Water Resources Development in the Mekong Basin." Water Alternatives 2, no. 2 (2009).

fisheries contribution to local economies. Thus, fisheries are mostly run under minute government departments under other ministries mostly agriculture. The study conducted by World Fish that included 6 nations reported that while in some cases fisheries management is under a department in some countries like Malawi and Zambia, the sector is run by proper ministries that are in Namibia and Mozambique. In some cases, the fisheries resources are managed under departments within ministries like Wildlife in Zimbabwe and Botswana. Consequently, countries like Mozambique and Namibia that has full fisheries ministries also has a developed marine fisheries. However, absence of a NFP in Harare has caused underutilization of fisheries resources.³³ This is a great indication as to the importance of proper management of the fisheries resources through use of the right policies.

The governance of the fisheries resources within the eastern Africa region is critical in ensuring increased production and sustainability of the resources.

1.2 Problem statement

The management of food security is characterized by the creation of International Agencies (IAs) and although they have clear objectives and mandates some of the functions overlap. Most of their efforts are directed towards the developing countries with a purpose of alleviating poverty. The literature reviewed indicates that they sometimes target areas which will create market for their processed products which are now sold as imports or raw materials for their factories. This on the other hand leads to export of low value products and the imports of high end processed goods including food commodities like fish. This only increases the burden on developing economies, and they end up relying on what we can call donor funding to manage the resources; and food aid whenever the rains fail.

³³Ibid, p8

In African, more so in Sub Saharan Africa, there exist a higher percentage of undernourished people as compared to other places globally. However, the African continent's fisheries sector is still young and underdeveloped although Africa has over 40 coastal nations. This leads to Africa contributing just 2.5% of fish produced and consumed globally. Most of the fish comes from capture fisheries. However, aquaculture is increasing at a high rate in Africa than in most other continents. Given that the population in the continent will double by the year 2050, the role of fisheries industry in securing food security is poised to receive a lot of attention.³⁴

Fisheries are important in global food security and in reducing poverty levels. The East Africa region and Kenya is well endowed with good fisheries resources lakes, rivers, dams and the Indian Ocean. However, governance and the policies being employed have not enhanced this to the desirable level leading to acute shortage of the fish and fisheries products. It has seen the influx of cheap imports of fish and fishery products which have negatively affected the trade in fish within the region. This study therefore seeks to address this gap by looking at the impact of governance and the effect of inadequate application of the policies and other challenges that hinder the full utilization of the fisheries resources within Kenya.

1.3 Research Objective

1.3.1 Research Questions

The study was seeking to answer the following research questions.

- i. What is the relationship and impact of governance on food security in Eastern Africa?
- ii. What is the policy framework on food security in the fisheries management in Kenya?

³⁴FAO. "Regional Review on Status and Trends in Aquaculture Development in Sub-Saharan Africa". Rome: FAO, (2015).

- iii. What are the challenges that hinder food security in the fisheries sector in Kenya?

1.3.2 Main Objective

To examine governance and food security in the East African Region, a case study of the fisheries sector in Kenya

1.3.3 Specific Objectives

The study was guided by the following research objectives

- i. To assess the relationship and impact of governance on food security in Eastern Africa region.
- ii. To examine the policy framework governing food security in the fisheries sector in Kenya.
- iii. To identify and examine the challenges that hinder food security in the fisheries sector in Kenya.

1.4 Scope of the study

The study was conducted in Kenya within the MOLF&C, MOEAC&RD, SDFA&BE, KFS, KMFRI and any other department involved in formulation of fisheries policy directly or indirectly

1.5 Limitations of the study

This study experienced a few limitations here and there; however, the researcher was keen in circumventing them so as to maintain the validity and reliability of the study. The first limitation of the study was on how to get respondents with factual information regarding governance and food security situation. To address this limitation, the researcher probed deeper into the study phenomenon by gathering adequate information from respondents using an interview schedule.

The other limitation was on the fact that some of the respondents were not very comfortable in discussing critical issues relating to their departments. To counter this challenge, the researcher assured the respondents that confidentiality would be strictly observed.

1.6 Literature Review

This section discusses the theoretical and empirical literature relevant to the study. This was deemed important to help identify the critical knowledge gap in relation to the subject under investigation. It covers both theoretical and empirical literature.

1.6.1 Theoretical literature review

To help examine the key debates by different scholars in the area of food security, the study has considered the theoretical literature review. The theories reviewed are the Post development theory, the Dependency theory, and the Keynesian theory. These theories in one or the other support are related and are applicable to the management of food security in the fisheries sector in Kenya.

The Post development theory was mooted in the 1980's in an effort to scrutinize the development theory and practices that were regarded by Post development scholars as being spread of the Western hegemonic beliefs. The theory postulates that advancement is indicated by thoughts and practices that began post World War II and were aimed at changing the third world to attain same levels with the developed countries.³⁵ Post development scholars observed that to the societies enduring in destitution, improvements can be said to be bringing enablers that would prompt increased wages and other comfort that can lead to improved wellbeing.³⁶ Post

³⁵Kippler, C. (2010). Exploring Post-Development: Politics, the State and Emancipation. The question of alternatives. *POLIS Journal*, 3, 1-38.

³⁶Ahorro, Joseph. (2013). The Waves of Post-Development Theory and a Consideration of the Philippines. *Development in Practice*, 23(1), 123-136.

development scholars however consider these advancements as not appropriate in the developing countries especially when they are led by interfering state organs or when they are applied universally.³⁷

The post development theory is crucial to the study of governance and food security in East Africa as it helps bring forth the reasons why post development researchers consider advancement in Africa to be disappointing. The improvements modeled by the international organizations and the developed world are universal and not country or context specific. To achieve food security the African region needs good governance and appropriate policies and not universal kind of models adopted from the Western World.³⁸

The dependency theory was brought about in the 1950s as people were not satisfied with the modernization theory of development. This theory was put forward in response to World War II general thinking of economic development. Dependency theory asserts that the global economy is split into two perpetually, the core and the periphery. Further, it is implied that there can be no capitalist growth of economies classified under periphery.³⁹ Consequently, Dos Santos' structuralists' model of dependence holds that some nations grow economically on their own volition while the rest can only grow if they are under the core developed nations.⁴⁰ The theory goes on to hold that dependency means that the economic development including food security or otherwise is dictated by growth of core economies.⁴¹

³⁷ Escobar, Arturo. (1995). *The Making and Unmaking of the Third World*. Princeton, NJ: Princeton University Press.

³⁸ Matthews, S. (2004). *Post-Development Theories and the Question of Alternatives: A View from Africa*. *Third World Quarterly* 25(2): 373-384.

³⁹ Bienefeld, Manfred. "Dependency and the newly industrialising countries (NICs): towards a reappraisal." In *Strategies of Economic Development*, pp. 211-229. Palgrave Macmillan, London, 1991.

⁴⁰ Ghosh. "Dependency Theory Revisited." Aldershot: Ashgate (2001).

⁴¹ Ibid

The dependency theory is critical to this study as it aids in understanding the global trade relations between developing nations and the developed nations. This determines how governance and policies regarding food security relate.

1.6.2 Empirical literature review

This section reviews literature along the three specific objectives that guides this study, namely, “to assess the relationship and impact of governance on food security in Eastern Africa region, to examine the policy framework governing the fisheries sector in Kenya and finally to examine the challenges that hinder food security in the fisheries sector in Kenya”.

1.6.2.1 The relationship between food security and governance

Globalization is a “key governance challenge “for the twenty first century⁴², whose forces such as international markets for goods and services, capital and labor, and the formation of new institutions, organizations which can operate across borders easily this may reduce the capacity of sovereign states to govern their affairs as it will be difficult to control its effects. The key aim of governance is to ensure that people have food for a healthy and active life while food security governance is about institutions that are formed to direct control and regulate food related activities. These institutions are legitimate and should be accountable and operate in a transparent manner. Table 1.1 shows the actors in the global governance of food security

Table 1.1: List International Organizations Active in the Global Governance of Food Security

Name	Type	Area
Food and Agriculture Organization of the United	Formal international Organization	Nutrition; Agricultural Production; Agricultural

⁴²FAO, IFAD. "WFP. strengthening the enabling environment for food security and nutrition." Rome: FAO (2014): 2014.

Nations (FAO)		Trade; Food Safety; Human Right to Food; Agriculture and Development; Agriculture and Climate Change
World Food Programme of the United Nations (WFP)	International agency (programbased)	Nutrition
International Fund for Agricultural Development (IFAD)	International financial Institutions	Agriculture and Development
International Food Policy Research Institute (IFPRI)	International agency (researchbased)	Nutrition, Agriculture and Development
World Health Organization (WHO)	Formal international Organization	Nutrition; Food Safety
World Trade Organization (WTO)	Treaty-based international Organization	Agricultural Trade; Food Safety
Office of the High Commissioner for Human Rights (OHCHR)	Treaty-based international Organization	Human Right to Food
Group of Eight (G8)	Informal international Organization	Nutrition; Agricultural Production
UN High Level Task Force on the Global Food Security Crisis (HLTF)	Informal network of formal international organizations	Nutrition; Agricultural Production; Agricultural Trade; Food Safety; Human Right to Food; Agriculture and Development; Agriculture and Climate Change
UN Committee for World Food Security	Formal transnational deliberative body	Nutrition; Agricultural Production; Human Right to Food; Agriculture and

		Development; Agriculture and Climate Change
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Source: (Margulis 2017)

The table shows a list of the key institutions and their area of interest which are charged with making decisions on issues of food security internationally their rules and functions are determined by international fora. These institutions are different in their way of decision making some have executive decision-making bodies like the FAO, and UN Human rights council, the world bank uses the weighted voting done according to the contributions of the member states while WTO decision making is by consent. In other institutions like the Fund Forum of the CGIAR decision makers include international organizations and philanthropic donors like RGF's and while in CFS they include representatives of IO's, NGOs and private sector.⁴³ The functions of these institutions include monitoring, development, social protection, and coordination through which they support activities that address food security. To address challenges of the 21st century the institutions need to enhance cooperation among the different stakeholders in the agri-food chains. However, in executing their mandate they are faced with challenges in policy incoherence, lack of accountability and funding levels there is also competition between the different IAs which creates inefficiency.⁴⁴

The international fisheries governance is by rules and treaties which are bilateral or multilateral and by other non-binding instruments by states which are used for the governance and development of the fishery resources. Key of these are; the 1982 UNCLOS, the 1995 FAO code of CRF, 1995 UNFSA, another agreement which is not directly related to fisheries but has a

⁴³Margulis, Matias E. "The global governance of food security." In Palgrave handbook of inter-organizational relations in world politics, pp. 503-525. Palgrave Macmillan, London, 2017.

⁴⁴FAO, IFAD. "WFP. strengthening the enabling environment for food security and nutrition." Rome: FAO (2014): 2014.

bearing on the fisheries resource is the 1992 CBD. The responsibility of implementing these agreements globally lies with the UNGA, UNICP on the LoS , and the ITLOS) which is tasked with the conflict resolution between states. FAO is mandated by the UN to develop fisheries policies through its COFI.⁴⁵

In Africa, most of the fisheries governance is disorganized and it does not acknowledge the contribution of fisheries to food security. In a joint conference “the African ministers of Agriculture, Rural development, Fisheries and Aquaculture” called for development of fisheries sector and aquaculture initiatives as one of the components that would sustain the CAADP framework.⁴⁶The AU-NEPAD and AU- IBAR have established aquaculture development and intra-African trade as important areas for investment and they also support the implementation of various policies in the priority areas. Governance affects food security given that there has been found some co-relationship between the influences of various policies in a state and food security. This arises from the fact that development of policies within a state department might not be appropriate to reduce food insecurities and the failure of proper recognition by the key ministries and sector in different states leads to major issues being by passed.⁴⁷ This observation explains why fisheries departments do not qualify to be a full-fledged ministry in many African nations despite the high contribution of fisheries to local economies.

In Kenya, the government has made several attempts in achieving national and household food securities. However, the implementation of the policies developed to help reduce food insecurities have resulted to mixed success. The Kenyan government has made efforts to

⁴⁵FAO. “Fisheries and Aquaculture topics, Institutions in the fisheries governance, topics fact sheet, text by Peter Manning.” Rome: FAO fisheries Division (2020).

⁴⁶African Union, 2014. Resolutions of the AU Joint Conference of Ministers of Agriculture, Rural Development, Fisheries and Aquaculture. African Union Conference Center in Addis Ababa, Ethiopia.

⁴⁷Friend, Richard M. "Fishing for Influence: Fisheries Science and Evidence in Water Resources Development in the Mekong Basin." *Water Alternatives* 2, no. 2 (2009).

improve production of food through use of irrigation, latest technology and through using extension services that can guide farmers improve their production methods.⁴⁸

Despite the all the programs and policies crafted by the government to attain food security in Kenya, the country continues to get food deficits. This can be attributed to droughts and occurrences of floods, post-harvest wastages and poor market linkages. To reduce the impact of these causes of food insecurities, the national food policy should provide provisions for food during drought or floods and other natural disaster as well as have a clear post-harvest policy that will govern food storage, accessibility, and availability.⁴⁹

In Kenya the government has made strides in the fisheries sector governance, after the enactment of the constitution of Kenya 2010 the FMD Act of 2016 was developed. However, it has not been fully operationalized as it requires regulations which are yet to be developed. The management of the fisheries sector has been characterized by overlapping mandates and jurisdictions of different institutions making it difficult to focus on the fisheries areas. There has been no single ministry or Government agency to deal with fisheries issues for a long time, but recently the formation of Kenya Fisheries Service is a move in the right direction in the management of the fisheries resources.

1.6.2.2 The impact of governance on food security

Globally, a country's food security indicates their development level and is therefore critical having been named as one of Millennium Development Goals. This issue is rooted on three perspectives: "availability of food, accessibility of food and consumption of food". Availability

⁴⁸ FEWS NET. "Kenya - Food Security Outlook: Wed, 2012-10-31 to Sun, 2013-03-31 | Famine Early Warning Systems Network." Famine Early Warning Systems Network. Accessed October 2, 2020. <https://fews.net/east-africa/kenya/food-security-outlook/october-2012>.

⁴⁹ Ibid pp16

of food involves the supply aspect of food which is governed by production of food, levels of stock and trade. Availability means enough amounts of food consistently. Food accessibility means economically and physically accessing food when required. Therefore, access to food means having enough resources to buy or get the required foods. Having enough supplies of foods at the international or local levels cannot on its own assure households their food security. This makes it a problem that requires more policy-wise attention in as far as income, market, pricing, or expenditures are concerned to solve food insecurity problems.⁵⁰

In Africa, there are several reasons why there is food insecurity which results to failure to meet nutritional requirements. It can however be noted that governance in terms of poor internal economic policies relating to food security. This situation is further complicated by wrong practical policy prescribed by international community among them the International Monetary Organization and World Bank. For instance, the advice to put in place policies aimed at cutting on subsidies to Sub Saharan farmers. The argument was that the market forces will take care of these factors and this complicated an already bad situation of food security.⁵¹

Africa is confronted by challenges such as “chronic hunger, food insecurity and economic crisis”. These are because of various challenges unfavorable climatic conditions, political instability, border conflicts, resource-based conflicts, political corruption, among others. In order to respond to the food security issues the African heads of states in 2003 adopted CAADP through the New NEPDA.⁵² The objectives of CAADP were to improve domestic production and marketing of the products, to facilitate regional trade, and to build household productivity and

⁵⁰ Ibid pp 16

⁵¹ Meredith, Martin. *The fate of Africa: A history of the continent since independence*. Hachette UK, 2011.

⁵² Kanayo, Ogujiuba. "Food Security, Policies and Institutions in Africa: Prospects for a Revolution." *Journal of Economic Cooperation & Development* 33, no. 4 (2012).

assets.⁵³ To achieve the objectives a few programmes were created; RELPA, for the HoA funded by USAID, REFORM which was mainly for capacity building and funded by the EU, MMWP funded by the WB aimed at improving food security in ESA, HGSF Programme which was aimed at using locally produced food to feed school going children it was funded by the World food . CATISA to commercialize growth of cassava and improve food security; and Improved RTFS whose aim is to enable spatial mapping of the regional production and trade and was funded by WB. The AU developed a framework where all members are expected to generate 6 percent growth in the agriculture sector and set 10 percent of their budgets for agricultural sectors. To date not many countries have achieved these targets⁵⁴ also, it is reported that in effort geared towards enhancing food security in the EA region, the countries have formed an EAPA FSN.⁵⁵

In Zimbabwe, it has been postulated that due to poor governance and political policies, the country has moved from being the provider of food in Africa to a famine prone nation. The white settlers were evicted from farming due to poor political policies by the then ruling party. This resulted to low food productivity as the large-scale food production by the European farmers could not be matched. This situation has brought about food insecurities and millions of citizens in Zimbabwe are in dire need of food.⁵⁶

In Ethiopia, there was no democracy during the reins of Haile Selassie and Mengistu Mariam, there was poor governance during the Great Ethiopian famine. The regimes could not declare the

⁵³Bwalya, M. "Comprehensive Africa Agriculture Development Programme (CAADP) to reduce food security emergencies in Africa." Johannesburg: NEPAD Planning and Coordinating Agency (2013).

⁵⁴Kanayo, Ogujiuba. "Food Security, Policies and Institutions in Africa: Prospects for a Revolution." *Journal of Economic Cooperation & Development* 33, no. 4 (2012).

⁵⁵FAO. "Safeguarding the right to food in Eastern Africa through improved legislation." FAO (2019).

⁵⁶Vink, Nick. "Food security and African agriculture." *South African Journal of International Affairs* 19, no. 2 (2012): 157-177.

famine as disastrous or accept to confront the problem head on by seeking for alternatives. The regime also had a bad policy towards international media that barred them from covering the extent of the famine and this further complicated the food insecurity situation in the country.⁵⁷

According to FAO reported that in effort geared toward promoting food security in the EA region, the countries have formed an EAPA FSN. The main role of the newly formed initiative will be to urge the East African governments to improve their legislative polices on food insecurities, hunger and malnutrition. The food security situation can only be improved through countries agreeing to rationales of principle and values as outline by CAADP. This framework is meant to guide the countries in implementing policies necessary in reducing food insecurities in the region. The member states include “Ethiopia, Kenya, Rwanda, South Sudan, Uganda, Tanzania, and Eritrea”.⁵⁸

Governance plays a big role in enhancing the fisheries sector contribution to food security. Among the measures that are being implemented in Kenya includes enhancement of quality standards when processing fish. This measure is aimed at accelerating growth in the fisheries sector through increased demand for locally produced fish. This improvement of the fisheries sector will increase fish available for consumption and thus improved food security.⁵⁹

In Kenya, governance has had an important impact on food security given that the policies put in place regarding food systems have impact on food availability and accessibility. The reforms in economic and trade policies introduced have had a positive effect on market access for food imports and enhanced on the ability to import food and thus reduce food insecurities during

⁵⁷Ibid,p17

⁵⁸FAO. “Safeguarding the right to food in Eastern Africa through improved legislation.” FAO. (2019).

⁵⁹ Ibid

persistent drought. Other interventions such as the dry lands intervention like the Makueni Agricultural project have improved food security significantly.⁶⁰

1.6.2.3 The challenges that hinder food security in the fisheries sector

Main factors that bring food insecurity includes, low incomes, bad governance, poor planning, land degradation, climate changes, conflicts, droughts, and floods. Other noted causes of food insecurity include poor market linkages, poor infrastructure, lack of storage, diseases, and pests for both plants and animals, lack of using modern technology and low funding to the sectors concerned.⁶¹The factors that bring about challenges in food security can be grouped into five categories as shown in table 1.1.⁶²

There are four levels of food security challenges and they are classified according to their severity based on the Famine Early Warning System Network: “(a) zero food insecurity; (b) moderate; (c)severe food insecurity; and (d) acute food insecurity”. Those households without food insecurities have enough and good access to food. Those with moderate food security have enough but can have short term problems accessing food. In severe food insecurity households, there are challenges accessing food and may experience malnutrition.⁶³

Table 1.2: The factors that bring about challenges in food security⁶⁴

Class	Driver
Land uses and management and production	Post-harvest management

⁶⁰Lemba, J.K. 2009. Intervention model for sustainable household food security in the drylands of Kenya: Case study of Makueni district. PhD thesis, Ghent University

⁶¹Kiome, Romano. "Food security in Kenya." Nairobi: Ministry of Agriculture, Kenya (2009).

⁶²FEWS NET. "Kenya - Food Security Outlook: Wed, 2012-10-31 to Sun, 2013-03-31 | Famine Early Warning Systems Network." Famine Early Warning Systems Network. Accessed October 2, 2020. <https://fews.net/east-africa/kenya/food-security-outlook/october-2012>.

⁶³Ehrensperger, Albrecht, Olivia Grimm, and Boniface Kiteme. "Spatial analysis of food insecurity drivers and potential impacts of biofuels cultivation: A contribution to sustainable regional development and national biofuel policies in Kenya, IFSA Symposium." (2012).

⁶⁴FEWS NET. "Kenya - Food Security Outlook: Wed, 2012-10-31 to Sun, 2013-03-31 | Famine Early Warning Systems Network." Famine Early Warning Systems Network. Accessed October 2, 2020. <https://fews.net/east-africa/kenya/food-security-outlook/october-2012>.

systems	<p>Agriculture practices</p> <p>Depending on one crop only</p> <p>Land degradation</p> <p>Water resources management</p> <p>Pests and diseases of livestock and crops</p>
Economic	<p>Employment</p> <p>Cost of living</p> <p>Prices of food</p> <p>Price of inputs (agricultural)</p> <p>Marketing</p> <p>Price of agriculture products</p>
Social political	<p>Policies</p> <p>Extension services</p> <p>Infrastructure</p> <p>Health</p> <p>Education</p>
Social cultural	<p>Traditions</p> <p>Over population</p> <p>Dependency</p> <p>Perceptions</p> <p>Attitudes</p> <p>Conflicts</p>
Ecological	<p>Terrain/soil</p> <p>Water shortage and rain variability</p>

Source: AEhrensperger (2012)

1.6.2.4 The contribution of fisheries sector to food security

Globally, fisheries are a major provider of livelihood to approximately 500 million people⁶⁵ and presents a nutrition source to over 3 billion persons. Fish and fishery products provide a food source and nutrition and dietary security for people in Sub Saharan African nations and South Asia countries. In Sub-Saharan African countries, there is a higher level of malnutrition⁶⁶ which places food security as a major issue to those concerned. To complicate matters, African nations have the worst fish catch statistics worldwide⁶⁷ with inland fisheries bring about 0.33% to the Sub- Saharan African GDP.⁶⁸

In the East African region, the fish comes from the marine, freshwaters inland fisheries as well as aquaculture. Like in the African setting, capture fisheries also dominate in total fish produced. However, the East African fisheries sector still has a low though important contribution when it comes to food security. Prioritization of fisheries sector is thus required if the region is to improve on its food security situation.⁶⁹

The East African region is home to close to 300million people which represents about 25% of the total African population. The region was ranked position two from Southern Asia, as regions with high food insecure populations in 2016.⁷⁰ This situation highlights how fisheries sector can be of great help in alleviating food insecurities in the region as fish provides food as well as

⁶⁵Vadacchino, Lara, Cassandra De Young, and David Brown. The fisheries and aquaculture sector in national adaptation programmes of action: importance, vulnerabilities and priorities. FAO, 2011.

⁶⁶FAO, IFAD. "WFP. strengthening the enabling environment for food security and nutrition." Rome: FAO (2014): 2014.

⁶⁷Fisheries, F. A. O. "Aquaculture Department." The state of world fisheries and aquaculture (2012): 1-153.

⁶⁸de Graaf, G., and L. Garibaldi. "The value of African fisheries, FAO fisheries and aquaculture circular No. 1093. Rome." (2014).

⁶⁹de San, Michel. "EAC Regional Strategy And Implementation Plan For Sustainable Aquaculture Plan-Part." (2013).

⁷⁰FAO. "Link between food insecurity and malnutrition. Rome": FAO (2018).

required nutritional security. It is observed that the region has a low fish consumption per capita compared to the rest of Africa.⁷¹

Food security in Kenya is hindered by several challenges which includes urbanization, land degradation, human conflicts, persistent droughts, abject poverty, floods as well as poor agricultural practices like reliance on rain fed farming. To achieve food security appropriate policy framework, need to be in place to guide production, marketing and storage of food so as to ensure proper and modern methods of food production are used. The use of modern methods and technology will increase production and reduce wastage. In the fisheries sector for instance, implementation of appropriate regulations to avoid overfishing and under size fishing will ensure proper breeding and avoid post catch wastage.⁷²

Fisheries contribute significantly to food security in Kenya given that the sector provides fish protein which is considered dominant in alleviating malnutrition cases in the country. The fisheries sector in Kenya also makes a significant contribution to the total amount of food available for consumption in the country. However, the sector is still considered to be young compared to other countries and the government is increasingly seeking to improve fish production through exploitation of marine fisheries and aquaculture.⁷³

1.6.2.5 Gaps in the literature

From the above literature review this study has established that the relationship and impact of governance on food security in Eastern Africa has not been well documented by other scholars it is also emerging that the policy framework governing food security in the fisheries sector in

⁷¹Béné, Christophe, Manuel Barange, Rohana Subasinghe, Per Pinstrup-Andersen, Gorka Merino, Gro-Ingunn Hemre, and Meryl Williams. "Feeding 9 billion by 2050–Putting fish back on the menu." *Food Security* 7, no. 2 (2015): 261-274.

⁷²Kiome, Romano. "Food security in Kenya." Nairobi: Ministry of Agriculture, Kenya (2009).

⁷³ Ibid pp 9

Kenya has also not been well covered. This study therefore will address those two areas and also identify and examine the challenges that hinder food security in the fisheries sector in Kenya.

1.7 Hypothesis

This study tests the following hypothesis:

H₁: There is a relationship between governance and food security in the fisheries sector in Kenya.

H₀: There is no relationship between governance and food security in the fisheries sector in Kenya.

1.8 Justification of the study

i. Policy justification

This study will inform on the existing policies and form a basis for policy makers to develop other policies for long term use and preservation of the fisheries resources within the Eastern Africa region and Kenya. To the policy makers, also the study provides the contribution of the fisheries sector in the achievement of food security in the region which will aid in planning, governance, and conservation of the fisheries resources. The study will also connect the linkage between management and food security in the region focusing on the fisheries sector.

ii. Academic Justification

The study will build literature in fisheries management and governance and its contribution to food security in the field of humanities and social science. gap that exists in the East African region regarding governance and food security. It will also analyze the role of the international organizations in the achieving food security for effective and better engagement of these institutions. In addition, the study will form a good basis on which scholars can base their future research on the study phenomena.

1.9 Theoretical framework

A theoretical framework can be defined as concepts including their definitions as well as the theory used in a particular study. It helps link the researcher with the existing knowledge as it helps us move from describing study phenomenon to generalizing the study phenomenon's various aspects. The theoretical framework helps understand the concepts and theories regarding to the greater field of knowledge understudy. In this section we look at the theoretical assumptions in the existing literature and how the Keynesian theory provides the principal alternative framework for understanding the relationship between governance and food security in the Eastern Africa region.

The study is anchored on the Keynesian theory that was developed by John Maynard Keynes who postulated that the world is interdependent, and that food security and economic development are linked. Keynes therefore held that to achieve development, countries need to create appropriate frameworks and policies that lead to economic prosperity.⁷⁴

The Keynesian theory holds that norms, multilateral agreements are required to maintain a stable economy in which there will be global peace. To maintain regional peace, nations need to develop policies and frameworks that encourage and create protection for a free regional trade.⁷⁵

The fisheries sector is in need of governments intervention by reducing tax on inputs to increase production and create employment.

Food security is a global and regional challenge that requires concerted efforts in terms of flexibility in institutions that must change according to new situations. Keynes postulated that achieving food security protects all individual countries. This calls for guarantying sustainable

⁷⁴O'Sullivan, Arthur, and Steven M. Sheffrin. 2003. *Economics: principles in action*. Needham, Mass: Prentice Hall.

⁷⁵Keynes, John Maynard. *The Economic Consequences of the Peace*. New Brunswick: Transaction Publishers, 2004). ISBN 0765805294.

food security for all people.⁷⁶ Keynesian theory further proposes liberalization and reduction of price distortions, policies that accord subsidies to farmers and food producers and helping create better market linkages. The theory advocated for situations that reduced state self-interests that take advantage of market forces for short term gains.⁷⁷

The Keynesian theory is important in this study as it helps elucidate how food security is a regional and global problem that should be solved through creating frameworks and policies with a purpose of enhancing access to quality nutritious food for all people. The theory calls liberalization of markets and removal of bottlenecks that create food insecurities. Fiscal policies by a great government can assist in stabilizing output in the business cycle and this will be of importance to the fisheries which is in dire need of policies to enable sustainable exploitation of the resources. It advocates for the government intervention in a predominant private sector economy which will be very effective in managing the fisheries sector which is dominated by the multinationals who are in need of fish as raw material and can easily exploit the local community and the small fisher folk and traders.⁷⁸

The Keynesian theory advocated for policies that lead to liberalization of markets, subsidizing of food production. The theory further advocated for achievement of food security that will protect all individuals in a country. Keynes's theory held that working towards a common objective is mutually beneficial to everyone. Generally, Keynes theory focused on international cooperation, peace, and the link between creating incentives for helping all as well as regulating international

⁷⁶McWilliams, Wayne C. and Harry Piotrowski. *The World since 1945: A history of International Relations*. Colorado: Lynne Rienner Publishers, Inc., 2009.

⁷⁷Food and Agriculture Organization of the United Nations. "Trade Reforms and Food Security: Conceptualizing the Linkages," Food and Agricultural Organization Corporate Document Repository, under "document & report,"2011 <http://www.fao.org/docrep/005/y4671e/y4671e06.htm>

⁷⁸ Keynes, J M (1971–89): *The collected writings of John Maynard Keynes*, 30 Volumes, General editors Donald E Moggridge and Elizabeth S Johnson, London: Macmillan and New York: Cambridge University Press for the Royal Economic Society.

trade. The theory further states that international institutions must adopt good practices over time, and it was to develop the blueprints used by the Bretton Woods institutions.⁷⁹

The critics of the Keynesian theory argue that Keynes advocated for individualism and protection of local economies and this will discourage private investors who are critical in driving the economy, and at the same time calling for international cooperation and agreements. These agreements were meant to be mutually beneficial and were to be used to eradicate common problems like food insecurities for the greater good for all. On the other hand, scholars argue that policies relating to protecting local economies were to be adopted before a country gains economic prosperity.⁸⁰

The Keynesian theory helps understand how governance including frameworks and policies relating to food sub sector are interlinked to food security. Having enough food for all citizens is an important agenda both nationally and internationally as indicated by Millennium Development Goals.⁸¹

1.10 Study Methodology

This section covers the research design adopted which include; “the study area, the target population, sampling, instruments of data collection, methods and techniques used in data analysis”.

1.10.1 Research Design

The study applied pragmatic design that has incorporated a mixture of both qualitative and quantitative designs and adopted a case study approach which gives an opportunity for in-depth

⁷⁹O'Sullivan, Arthur, and Steven M. Sheffrin. 2003. *Economics: principles in action*. Needham, Mass: Prentice Hall.

⁸⁰Hazlitt, Henry. *The Critics of Keynesian Economics*. New York: The Foundation for Economic Education, Inc., 1995.

⁸¹ Ibid Hazlitt

of understanding of the phenomenon under study which is governance in the fisheries sector and its contribution to food security without manipulating the variables therein.⁸² This research design was advantageous as it allowed sourcing of primary and secondary data.⁸³

1.10.2 Study Area

The study was conducted in Nairobi County, which is the capital city of Kenya. The study area was appropriate as it hosts most of the ministries and relevant departments where respondents were drawn from. The County has a population of about 3million and houses most of government offices responsible for Agriculture, Fisheries, and ministry of East African Community.

1.10.3 Target Population

The target populations were officers from the MOLF&C, MOEAC&RD, SDFA&BE, KFS, KMFRI and any other department involved in formulation of fisheries policy directly or indirectly as indicated on table 1.3below

1.10.4 Study sample size and sampling

The targeted populations totaled to 112managers and officers from the relevant departments and were selected through simple random sampling which avoids biasness as every member of the population stands a chance of being selected. The study utilized the Yamane (1967), to establish the sample size as enumerated below.

$$n = \frac{N}{1+N(e)^2}$$

⁸²Newby, Peter. Research methods for education. Pearson Education, 2014.

⁸³Creswell, John W., and J. David Creswell. Research design: Qualitative, quantitative, and mixed methods approaches. Sage publications, 2017.

Where: n= Sample size, N= Population size e= Level of Precision (0.005).

$$n = \frac{98}{1 + 98(0.05)^2}$$

$$n = 112$$

Table 1.3: Target Population, Sample and Sampling Procedure

NO	Target population	Sample	Sampling procedure
1	Officials from Ministry of Livestock, Fisheries and Cooperatives (MOLF&C)	15	Simple random
2	Officials from Ministry of East Africa Community and Regional Development	15	Purposive
3	Officials from State Department. for Fisheries	20	Stratified
4	Officials from Kenya Fisheries Service	20	Purposive
5	Officials from Kenya Marine Fisheries Research inst.	10	Stratified
7	County Governments officials	32	Simple random
	TOTAL	112	

Source: Researcher, 2020

1.10.5 Instruments for data collection

The study collected both qualitative and quantitative data. Qualitative data was sourced using interview guides and open-ended surveys (see appendix 3) while the quantitative data was gathered through a questionnaire (see appendix 2). Secondary data was sourced from available policy documents, reports and journals, quantitative data was collected by way of conducting interviews to the key informants who were involved in the study. The data collection tools

included both interview schedules and structured questionnaires. According to Kothari ⁸⁴, an interview schedule allows collection of a wide range of data on a study phenomenon as it is not restrictive.⁸⁵

1.10.6 Data Analysis

The data collected from this study was edited, coded and data entry done to come up with a data analysis file. This data was then cleaned of errors before being subjected to descriptive analysis methods that include frequencies, means and standard deviations. Where need be, the relationship between the variables was assessed using inferential analysis techniques like regression and correlation analysis. The study information was presented using charts, tables, and figures. The study used SPSS version 24 to analyze the data collected.

Qualitative data was analyzed using content analysis method.

1.10.7 Ethical considerations

The researcher ensured the following ethics while carrying out the research. Firstly, the researcher sought for an introduction letter from the university to conduct this study. Then consent was sought from all the respondents and organizations involved. Thirdly, respondents were assured that any information obtained herein is for academic purposes only and that it is confidential. No personal information was recorded in the data collection instruments. The respondents were also accorded the right to question or ask anything regarding this study before, during or after the interviews. Therefore, the researcher did not coerce or exploit respondents in this study and there was no mischief.

⁸⁴Kothari, Chakravanti Rajagopalachari. Research methodology: Methods and techniques. New Age International, 2004.

⁸⁵Ibid

1.11 Chapter outline

The study was organized into six chapters as outlined below:

Chapter one: Introduced the topic and the background of the study. It also included the problem statement, justification, research objective and questions, the theoretical framework, a review of literature and the methodology to be used in the study.

Chapter two: sought to investigate the first objective of the study which is to examine the relationship between food security and governance in Africa.

Chapter three: sought to delve into the second study objective. To assess the impact of governance on food security in the East African region

This assessed the challenges in food security in the African and Kenyan perspective.

Chapter four: will investigate the third study objective which is to examine the challenges that hinder food security in the fisheries sector of East African region

Chapter five: provided a discussion, conclusion and recommendations emanating from the study.

2 CHAPTER TWO: THE IMPACT OF GOVERNANCE ON FOOD SECURITY IN EAST AFRICAN REGION

2.1 Introduction

Governance is a key component in as far as food security in the EA region is concerned. The chapter discusses the state of governance in the region, the nexus between governance and food security in the EA region. The chapter also examines the demographic attribute of the study informants. Lastly it presents the key findings on the impact of governance on food security in EA region.

2.2 The Study demographic characteristics

The demographic attributes of the key informants in a study are important in that the information derived helps describe the sample composition based on gender, age and educational information among other characteristics.⁸⁶ This section presents age, gender and educational background of the study respondents.

2.2.1 Age of the respondents

The study's informants were asked to state their age bracket. Their age statistics is as listed on figure 2.1 below.

⁸⁶ Connelly, Lynne. Demographic data in research studies. MLA 8th edition. MedSurg nursing, 2013. Gale

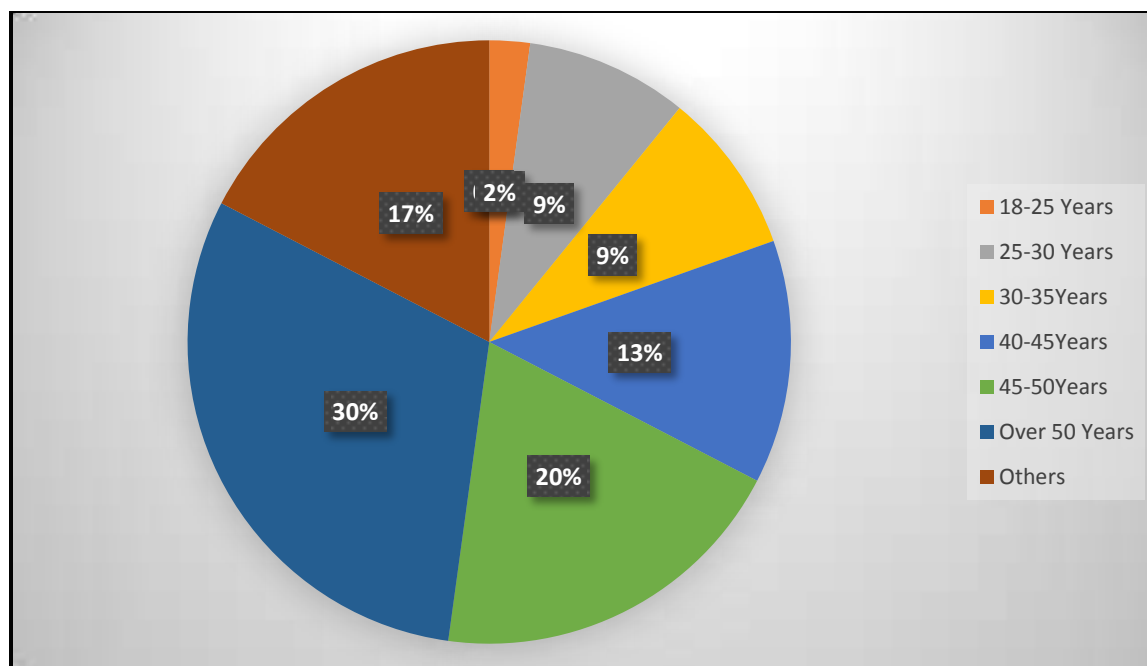


Figure 2.1: Age of the Respondents

Source: Field data, 2021

The findings show that most of the participants (72%) are aged between 35-50 years. This age bracket is very critical for the study since it is the most active group involved largely in most of the activities involving governance in food security in the country.

2.2.2 Gender of the respondents

The study also sought to find out participants gender. Gender was considered important aspect for this study since different groups not only make different contributions in as far as food security issue is concerned, but are also affected differently in as far as food security and administration in the country is concerned. The statistics are as presented in the figure 2.2

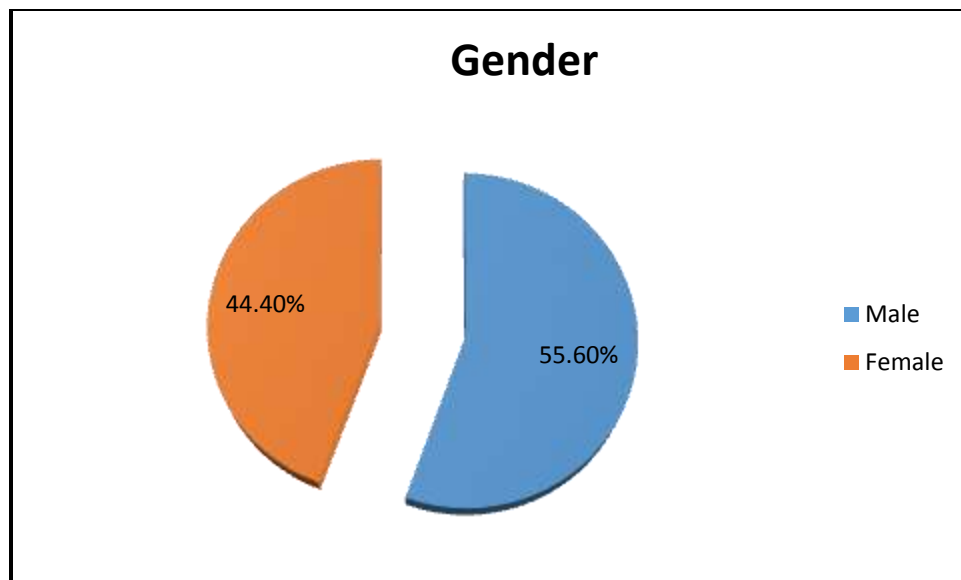


Figure 2.2: Respondent's Gender

Source: Field data, 2021

The study found out that male participants were the majority at 55.6% while the female respondents were 44%. This therefore confirms that the findings are not in any way imbalanced in favor of any one specific gender group. It also indicates that the sector is one that is predominantly male dominated.

2.2.3 Education level

The study sought to know the highest level of education the participants had attained. The results are presented in figure 2.3

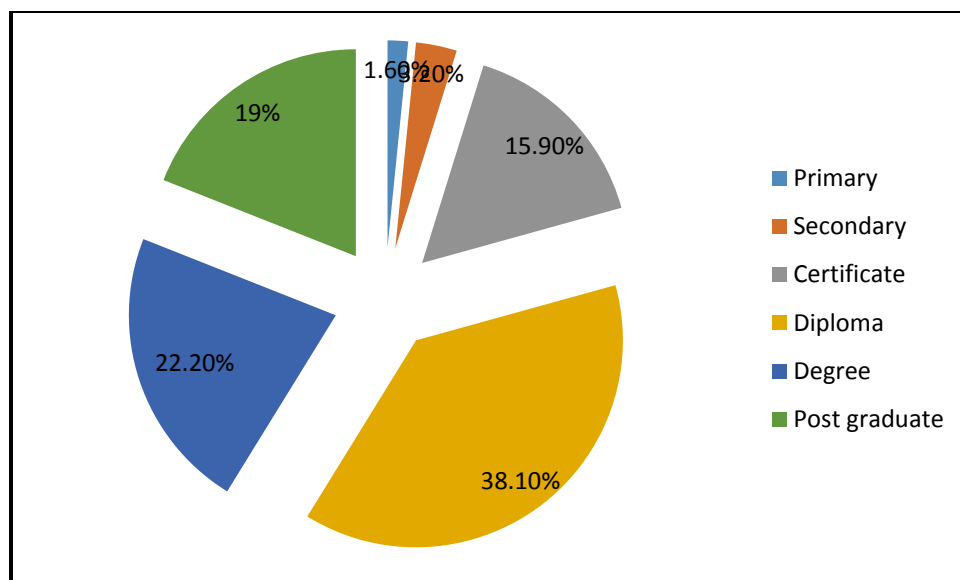


Figure 2.3: Education level.

Source: Field data, 2021

The study found out that most of the informants (41.27%) had attained a university degree level of qualification. Those who have attained diploma were found to be 38.1% while those with at least a certificate were 16%. This therefore made some contribution in terms of the response rate and content since most of the respondents had good enough qualifications that made them to understand and conceptualize the issues that were being discussed in the study.

2.3 Good governance

Good governance is deals with the efficient utilization and use of public resources in a manner that discourages wastage, minimized corrupt tendencies and reduction in inefficiencies by those who hold office. Good governance in food security also involves sustainable policies aimed at ensuring there is reduction in food insecurities.⁸⁷ Globally food security governance is concerned with mechanisms that facilitate debates and discussions of views and coordination of actions to

⁸⁷Mkandawire, R. (2009), A Review of the Comprehensive Africa Agriculture Development

improve food security this leads to improvement of food security at all levels.⁸⁸ In order to respond to food security and governance it is very important to have convergence and consistency between the government, donors and stakeholders with an aim of implementing programmes and policies. The United Nations has set up the CFS to follow up on policies linked to food security and to secure access to food for all.

At the regional level there are organizations whose mandate differ from region to region but should aim at supporting the achievement of food security at the national level by supporting national efforts and representing the region issues at the global level. The Malabo declaration on “Accelerated Agricultural growth and transformation for shared prosperity and improved livelihoods” was adopted in June 2014.⁸⁹ An implementation strategy and road map targeting all actors. It sets to achieve a modified agriculture and long term growth as well as deliver positive outcomes. The AU in an effort to have an effectual multi stakeholder strategy and good governance mechanism for nutrition has initiated the ARNS of 2015- 2025 which stresses on agreement and dedication.⁹⁰

The most important issue on good governance has to do with effective leadership. Leadership offers insights, enlightened ways, and offers visionary views in many human endeavors. Good governance nonetheless is not a government alone responsibility. It encompasses the IO’s, non-state, civil society and the citizens who should hold their government responsible. In developing countries most civil society is comprised of individual or groupings

⁸⁸ FAO (2019) Right to Food

⁸⁹ FAO (2015) Regional Overview of Food Insecurity Africa

⁹⁰ Ibid, FAO

and not a mass of people like you would find in the developed regions. This means that the civil society in the East African region may not have capacity to hold their government responsible.⁹¹

The other governance issue is bureaucracy which exists in less organized societies and disorganized public. In such scenarios, many institutions are less accountable though accountability cannot be said to be totally inexistent. In Kenya, as is the situation in the East African region, good governance is usually in theoretical and public relations messages flaunted by politicians and the ruling class in the region.⁹² Majority of the respondents (75%) who commented on policy frameworks governing food security in the fisheries sector expressly stated that the current policies need to be enhanced in order to improve the contribution of the sector to food security. Other comments regarding the policy framework governing food security within the fisheries sector includes creating awareness of food security to all stakeholders, provision of training, duplication of roles and investing in more research within the sector.

2.4 State of governance in East Africa region

The study observed that in the East African context just like in the entire continent, the CAADP revealed that even though the African agricultural industry is visible at the global level, its mandate of achieving good governance in this critical area is work in progress. There are high expectations that governance in the agricultural sector will improve through institutionalizing proper structures that will aid in improving agricultural planning.⁹³ However, CAADP programs implementations are in early stages given that only half of the African countries have ratified the CAADP processes and integrated them into their agricultural sector. This is in line with the

⁹¹ Maathai, W. (2009). The challenge for Africa; Published in the United Kingdom.

⁹² USAID (2011). Constitutional Devolution in Kenya: Setting an agenda: A report of a study commissioned by the Kenyan civil society strengthening programe oct.2011. A report of a study commissioned by The Kenya Civil Society Strengthening Progr October 17th 2011

⁹³Michael, B. (2011), African Developments: The Comprehensive Africa Agriculture Development Programme (CAADP) as an Opportunity for African Agriculture. Bon: German Development Institute.

Keynesian theoretical perspective upon which this study is premised. The Keynesian theory holds that norms, multilateral agreements are required to maintain a stable economy.

In the East African region, Kenya and Uganda have ratified the CAADP processes in an effort to improve on governance, reforms, policies that encourage more participation by other non-state actors like the civil society as well as the entire agricultural networks.⁹⁴ The East Africa countries have also developed grand socio-economic plans which include components on poverty eradication, food security and nutrition like “the Kenya vision 2030, Uganda vision 2040, and Tanzania vision 2025”.

The study found out that governance affects food security in the EA region. Poor governance, political interference, unstructured governance and lack of political goodwill to develop fisheries sector, inadequate policies to manage implementation of food security programs were cited as the major impediment in achievement of food security in the region. This has been supported by Nyaugito among other scholars when he observed.

“... Governance affects food security because with poor governance there can never be food security and where there is good governance, there is improved food security...”⁹⁵

A study conducted on policy and the impact it has on attainment of food security established that among the challenges facing food security are poor governance and lack of proper coordination by the institutions mandated to oversee implementation of food security

⁹⁴NEPAD (2013), Comprehensive Africa Agriculture Development Programme (CAADP): Coordinating Agriculture and Food Security. Available at <http://www.nepad.org/foodsecurity/agriculture/about>

⁹⁵ Oral Interview, Key informant 2, January 2021

programs. The institutions like the fisheries department are underfunded, have cross purposing roles and lack harmony when coordinating food security programs.⁹⁶

Other studies have posited that there are major efforts made in an effort to stem food insecurities in the region. Naiyoma's study focused on governance and food security in Kenya and posited that the government has instituted governance measures in place aimed at ensuring food production, distribution and accessibility is improved.⁹⁷

The study through the interviews conducted on key informants revealed that there is an enhanced level of capacity development within the fisheries sector. Also, it was established that there are some intervention in governance by the international organizations within the fisheries sector.

The study also observed that corruption in many African countries stifles good governance and negates gains made in an effort to reduce food insecurities. In the East African region, Kenya and Uganda have had cases of corruption in institutions charged with the mandate to manage food security and associated programs. Reports by Transparency International during emergency drought responses, have previously insinuated that there are serious challenges and risks posed by corruption on food security.⁹⁸

In the EA region many countries have experienced issues of bad governance and this has resulted in adoption of improper food policies in the agricultural sector. Due to decades of bad governance, food insecurity has deteriorated in line with weakened economies and national

⁹⁶Nyaugito, H. (2013), —Food Policy and the Impact on Food Securityl, in Ogunrinde, A., Oniang'o, R. and May, J. (eds), Not By Bread Alone: Food Security and Governance; South Africa: Tore Institute for Global Peace and Policy Research

⁹⁷ Tobiko Naiyoma, Food Security as a governance problem, a case study of Kenya, Institute of Diplomacy and International Studies, University of Nairobi.

⁹⁸Transparency International (TI) Kenya (2012), Food Assistance Integrity Study: Analysis of the 2011 Drought Response in Kenya, Transparency International-Kenya.

development. This study has observed that governments in this region seem to be insensitive to the needs affecting the rural areas where agriculture is largely practiced thereby worsening the food insecurity.⁹⁹

In Kenya, governance of key fishery units is under the MALFCM, while the fisheries issues are under the SDF. The FMD Act of 2016 created institutions for better management of the fisheries activities one of them being the Kenya Fisheries Service which has its headquarters in Nairobi. Most of the administrative offices are based in Nairobi although the resources that they manage are in Mombasa and Kisumu areas and other counties involved in aquaculture.¹⁰⁰

These institutions are mandated with the responsibility to manage governance of fisheries resources, monitor, develop, coordinate social protections and ensure food security within the fisheries sub sector. These institutions need to improve cooperation by the various stakeholders so as to overcome food security challenges of the 21st century. Proper governance is required to improve the agricultural food chains so as to reduce food insecurities. Just as was widely observed by most of the respondents on this study, the most common governance issues that challenge attainment of food security in the fisheries sector includes; low funding for food security programs, poor accountability, uncoordinated policies and overlapping mandates by various stakeholders thereby creating overall inefficiencies.¹⁰¹

However, the study observed that there has been good progress in governance within the fisheries sector here in Kenya, after the promulgation of the new constitution in 2010. Fisheries management and Development Act of 2016 has since been developed. Nonetheless, governance

⁹⁹Nzongola-Ntalaja , G. (2011). Good Governance of Public Service: Paper prepared for presentation at the 7th Pan-African Forum on the Modernization of Public Services and State Institutions:

¹⁰⁰ Indian Ocean Commission, 2012 Kenya Fisheries Governance; Programme for the Implementation of a regional Fisheries Strategy for the Eastern and Southern Africa and Indian Ocean Region.

¹⁰¹FAO, IFAD. "WFP. strengthening the enabling environment for food security and nutrition." Rome: FAO (2014): 2014.

in the fisheries sector still faces challenges given that for the FMD Act to be fully operational, a raft of measures and regulations needs to be first established which is yet to be done.¹⁰²

2.5 Impact of governance on food security

At the global and national levels, the issues of food security are not new, yet governance of food production, food systems and the whole agri-food networks continue to face challenges of frequent risks posed by food insecurities. There is continued politicization of the food security phenomena and this makes attainment of food security even more complex than before.¹⁰³

Regarding the role of the fisheries sector in attaining food security, the respondents majorly cited provision of food and nutritional requirement as the main role. Other roles mentioned were building capacity of marine and inland fisheries to produce more fisheries products, enforcement of fisheries regulations and aiding marketing of fisheries produce.

On reducing food insecurity in the fisheries sector, the study also found out that value addition, diminishing of post-harvest losses, eliminating overlapping mandates and roles among the various stakeholders in the sector, strict and efficient governance in fisheries management and increase in funding are some of the ways that can improve food security. Others mentioned ways of improving food security to include, use of sustainable methods of fishing, subsidizing inputs used in aquaculture and investment in technology.

There is a myriad of reasons as to why food insecurity continues to trouble many nations in Africa but prominent among these reasons is governance aspect. There are also bad policies relating to food production, distribution and marketing of food in the African region. Secondly, the solution offered by international community on improving the food security in the region is

¹⁰² Ibid, FAO

¹⁰³ Pinstrup-Andersen, P. (2009). Food security: definition and measurement. Food security, 1(1), 5-7.

somewhat a one size fits all sort of prescription that has not yielded the expected results. These prescriptions are generally backed up by the IMF and the WB and a number of policies are advocated for like reducing subsidies to farmers and leaving prices at the hands of market forces. All these governance issues affect food security.¹⁰⁴

In Africa and more specifically the East African region food insecurities are persistent due to unstable political systems and power struggles. The relationship between people is one key determinant of food security as power relations determines how food is accessed and distributed. Therefore, the interplay between politics, power and food security is very important. In the East African region, power relations have effects on governance of food security issues such as funding for agricultural programs and reforms to improve on level of food security in the region.¹⁰⁵

This study established that food security is also dependent also on how those in power and governance prioritize the use and management of natural resources. Governance and food security is linked by several studies whereby the nations that have high state militarism also have high level of food insecurity especially in developing countries. Governance style therefore correlates to food security and when the style of leadership which is militarism in nature may cause political unrest, civil wars, displacement of citizens and all these negative effects destabilize the food systems and food insecurity becomes worse.¹⁰⁶

The study observed that the East African region suffers from perennial food insecurities due to bad governance which includes adoption of poor food distribution policies which limits

¹⁰⁴Mwaniki, A. *Food Security in Africa: Challenges and issues*. United Nations, 2012.

¹⁰⁵Meredith, Martin. *The fate of Africa: A history of the continent since independence*. Hachette UK, 2011.

¹⁰⁶Messer, E., & Cohen, M. J. (2017). Conflict, food insecurity and globalization. *Food, Culture & Society*, 10(2), 297-315.

how people access food and meet other nutritional and dietary requirements. Governance also plays a key role in the trade policies a country adopts as these will greatly determine the macroeconomic imbalances which in turn have impact on food security. When good governance practices are adopted, the East African region has the potential to do better and produce enough food for its citizens and export the surplus.¹⁰⁷

In Kenya, governance comes with a higher price tag and this impedes development in other sectors of the economy including agriculture and fisheries and thus food security. High recurrent expenditures are a risk to attainment of food security as resources that would have otherwise been directed towards food production are used in paying salaries and wages in the public service. When putting these scenarios into perspective, the cost of governance in Kenya is higher than in the most developed nations like America and Britain. This situation makes it very hard to get enough resources to improve the food security situation especially given that the available resources are also targeted by corrupt government officials.¹⁰⁸

Previous studies have posited that governments have made strides in an effort to stem food insecurities in the East African region. Naiyoma, studied governance and food security in Kenya and posited that the government has instituted governance measures in place aimed at ensuring food production, distribution and accessibility is improved.¹⁰⁹

An investigation into limitations that affect food security through green revolution in Africa found out that instabilities brought about by poor governance in many states in the Sub Saharan Africa are a major hindrance in fight against food insecurity. Due to political

¹⁰⁷FAO (2015) Regional Overview of Food Insecurity Africa

¹⁰⁸ Transparency International (2013), Corruption Perceptions Index

¹⁰⁹ Tobiko Naiyoma, Food Security as a governance problem, a case study of Kenya, Institute of Diplomacy and International Studies, University of Nairobi.

instabilities, food production is destabilized and implementation of food security programs is not done in an adequate manner.¹¹⁰

2.6 Nexus between Food security and governance in East Africa

The study found out that there is legal framework both in Kenya and in the EA region to help govern the fisheries sector. In Kenya, Fisheries Act was majorly cited and in the East African region, EAC FAP and the NOFP were cited as well.

The study established that there are challenges in the enforcement of legal and policy frameworks that help in management of fisheries sector. This is in line with the study's theoretical framework premised on Keynesian theory which holds that to achieve development, countries need to create appropriate frameworks and policies that lead to economic prosperity

It was established that, political interference, poor governance, inadequate funding, insufficient staff in the fisheries department, overlapping mandates among various actors in the sector, poor market linkages and corruption do hinder implementation of legal and policy framework within the fisheries sector. This was clearly stated by one of the respondents:

“... there is a lot of bad politics and lack of good will, we have overlapping mandates with other stakeholders and there is low funding and this hinders governance and enforcement of programs, rules and regulations within the fisheries sector...”¹¹¹

The relationship between governance practices and food security is proportional, meaning good governance brings about food security and bad governance results to food insecurity. Corruption is highly present in poor governance systems and this situation constrains efforts aimed at improving a country's food security. Governance practices determine code of conduct and behavior in public service. This in turn affects management of agricultural resources

¹¹⁰Kijima, Y., Otsuka, K., and Ssreunkuuma, D. (2011). —An inquiry into constraints on a Green revolution in sub-Saharan Africa: The case of NERICA rice in Uganda, |World Development, 39, 1, pp. 77-86.

¹¹¹ Oral Interview, Key informant 4, January, 2021.

and agri-food networks. The decisions made at places of authority should be public centered but in cases where there are other vested interests, the costs of food programs becomes exaggerated and its implementation in attainment of food security suffers laxity and lack of good will.¹¹²

The SDGs have placed the issue of food security among its top objectives to be met globally by 2030. Thus governance of food security is therefore no longer a one region or country affair but a global initiative. The attainment of food security has become critical and governance is playing a key role in this endeavor. Poor governance is related to food insecurity largely due to poor reforms in the agricultural sector, adoption of bad policies and lack of harmony in policies aimed at ensuring there is food security.

Governance of the fisheries resources in most African countries is considered to be disorganized. The importance of fisheries sector in attainment of food security is under appreciated. However, many nations in Africa have now adopted reforms aimed at improving and developing their fisheries sector through the CAADP. This governance initiative will increase the visibility of fisheries sector as an important stakeholder in food security enhancement.¹¹³

2.7 Food systems and food security

Food system denotes the interplay of various stakeholders in food and food products from production, food processing, aggregation, food distribution and food consumption. All these interactions are anchored on three pillars in food security arena; “availability of food, food access and utilization of food”. Stable food systems mean systems that can dietary and

¹¹²Kijima, Y., Otsuka, K., and Ssreunkuuma, D. (2011). —An inquiry into constraints on a Green revolution in sub-Saharan Africa: The case of NERICA rice in Uganda, |World Development, 39, 1, pp. 77-86.

¹¹³African Union, 2014. Resolutions of the AU Joint Conference of Ministers of Agriculture, Rural Development, Fisheries and Aquaculture. African Union Conference Center in Addis Ababa, Ethiopia.

nutritional security for all people in sustainably in terms of social, economic and environmental aspects.¹¹⁴

Food systems are made of sub-systems like farming, input supply, waste management and they interact with other systems like energy, health and therefore any structural or policy change in any of these systems will have an effect on food security. Food systems are complex and require holistic approach that transcends disciplinary and institutional boundaries and they require integration of actions taken by all actors at all levels whether private actors or public officials, they cut across multiple areas of agriculture, trade, health, gender, education among others.

In order to understand food security, we must first understand the interplay between food security and food systems. Food security relies on the capacity to access and use nutritious food always and all these are tenets of food systems. So there is no separation between the issues of food security and food systems. For there to be food security, the food systems in place ought to be well designed to cater for food needs as and when they arise without compromising the nation's social, environmental or economic set up. Due to globalization, food systems include international actors who make it complex to design food systems free of challenges. There are food systems that are thus unregulated and this poses serious food security risks given that not all actors in food systems have public interests at heart.¹¹⁵

In Kenya food systems are complex and devolution of the agriculture sector did not make it easier for coordination. They therefore require a whole of government approach so as to ensure coordination in implementing existing policies. Therefore, there exists multiple actors in the food

¹¹⁴FAO, 2018(FAO, Sustainable food system 2018)

¹¹⁵Godfray, H. C. J., Beddington, J. R., Crute, I. R., Haddad, L., Lawrence, D., Muir, J. F., ... & Toulmin, C. (2010). Food security: the challenge of feeding 9 billion people. *science*, 327(5967), 812-818.

systems who have roles that may not be clear cut and this makes their coordination in tackling food security difficult.¹¹⁶

2.8 Chapter summary and findings

The East African region has had its fair share of food security challenges. The study findings show that governance has been cited as one of the key issues hindering progress towards food security in the region. The governance challenges affecting most East African countries includes poor management of natural resources, lack of clear policies on enhancing food security as well as poor coordination of efforts by relevant stakeholders. Corruption has also been prominently linked to failure to attain food security in the region as it negatively affects access to food, increases food prices, and reduces funds available for agricultural programs, conflict of interests and poor coordination of food security efforts by various stakeholders in the food system. Despite these challenges, many governments have realized the importance of adopting new approaches that includes improving governance on attainment of food security. Literature reviewed shows positive correlation between good governance and attainment of food security and thus many nations including in the East African region are improving their governance so as to uplift the level of food security sustainably.¹¹⁷

¹¹⁶Tobiko Naiyoma, Food Security as a governance problem, a case study of Kenya, Institute of Diplomacy and International Studies, University of Nairobi.pp 34

¹¹⁷FAO, 2018(FAO, Sustainable food system 2018)

CHAPTER THREE: LEGAL AND POLICY FRAMEWORK GOVERNING FISHERIES SECTOR IN KENYA

2.1 Introduction

This chapter examines the legal and policy framework that govern fisheries sector in Kenya. The objectives of the fisheries policy are reviewed as well as the policies governing fisheries sector. The chapter also discusses the nexus between policies and food security within the fisheries sector in Kenya. The chapter concludes with a summarized review of the legal and policy framework managing fisheries sector in Kenya.

2.2 Policy framework governing the fisheries sector in Kenya

Policy framework is a document setting out a number of objectives and processes or procedures that will guide decision making for an organization. In the current study it means the document that sets out the rules and guides how the various actors mandated with ensuring food security within the fisheries sector engage with each other. The policy framework sets out the working parameters and assigns duties and responsibilities to each actor with a view to attainment of the set objectives.¹¹⁸ As indicated in figure 3.1 below, 37% disagreed and 9% strongly disagreed that policy frameworks governing food security in the fisheries sector are adequate to address the complex food security issues in Kenya. These findings are in agreement to previous studies done in relation to food security and policies that govern food security. Mwaniki whose study examined food security in Africa and by reviewing the issues and challenges therein, found out that lack of adequate policies to guide implementation of food security initiatives in Africa are a major impediment that should be addressed so as to reduce food insecurity.¹¹⁹

¹¹⁸FAO. "Safeguarding the right to food in Eastern Africa through improved legislation." FAO. (2019).

¹¹⁹ Mwaniki, A. (2012). "Food security in Africa: Challenges and issues", United Nations, 22 October 2012

According to Naiyoma policies play a key role in attainment of food security in Kenya. Regionally, countries are now coming together and putting policy and legal frameworks in place to guide them fight food insecurities.¹²⁰ Lack of proper framework to guide various actors mandated to ensure food security is attained leads to uncoordinated efforts and inefficiencies that worsen food insecurity. There is therefore need to develop policies that will enhance and boost the contribution of the sector to food security.

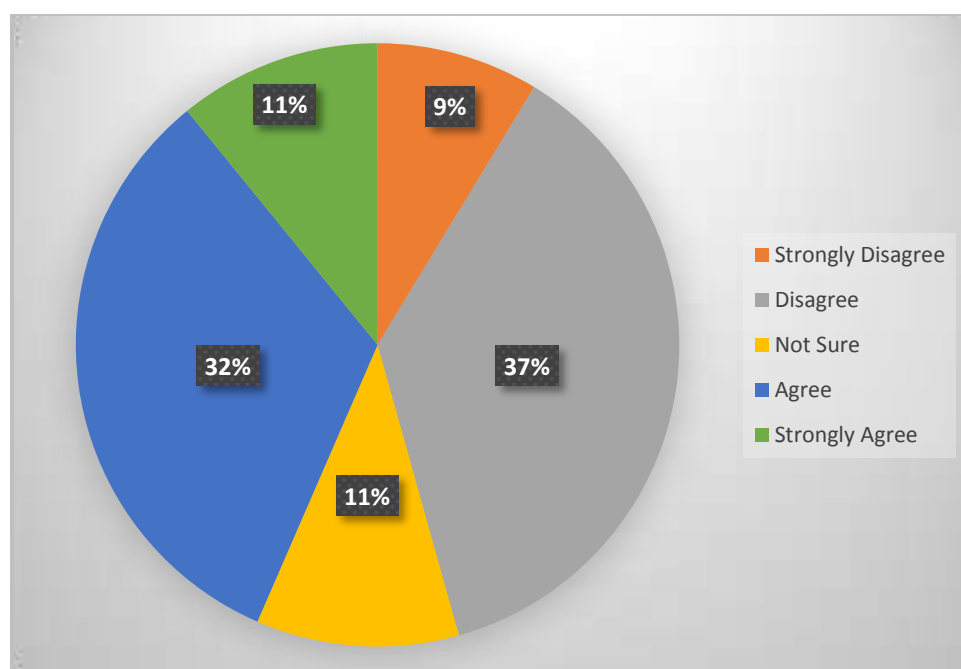


Figure 0.1: The adequacy of fisheries policies in addressing complex food security issues in Kenya

Source: Field data, 2021

2.3 Legal frame work

Legal frame works comprises the legal documents that set the rules, rights and obligations of governments or companies. They include constitution, Acts of parliament, policy documents, regulations and even contracts. The fisheries sector has been guided by an act of parliament Cap

¹²⁰Tobiko Naiyoma, Food Security as a governance problem, a case study of Kenya, Institute of Diplomacy and International Studies, University of Nairobi.

378 of 1989 with the an aim of encouraging development, management, exploitation, utilization and conservation of fisheries and for linked purpose.¹²¹ It has undergone many amendments in an effort to address emerging issue as they arise within the fisheries sector. This Act was not valid after the promulgation of the 2010 CoK which devolved fisheries. It was therefore necessary to develop another Act of parliament in order to factor in devolution and to address issues that were not fully addressed by the previous regulations. This resulted to the enactment of FMD Act of 2016 which aims “to provide for the conservation, management and development of fisheries and other aquatic resources to enhance the livelihood of communities dependent on fishing and to establish the Kenya Fisheries Service and for other connected purposes”.¹²² This study observed that 61.9% of the respondents are not sure while 20.6% disagreed that the current legal framework to regulate fishing sector is adequate. The results are presented in figure 3.3.

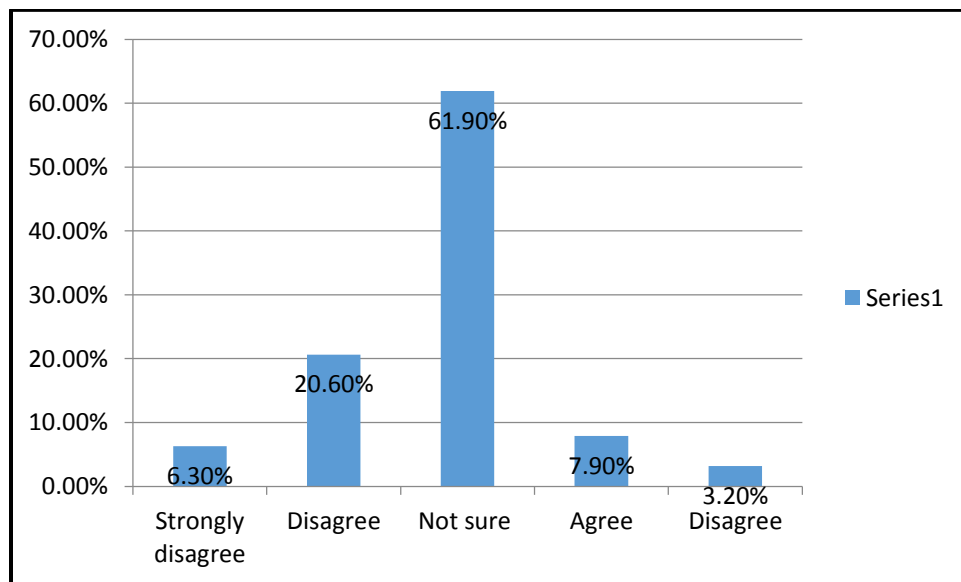


Figure 0.2: Adequacy of the current legal framework to regulate fishing sector

Source: Study data (2021)

¹²¹ The Fisheries Management and Development Act (2016)

¹²² FMD 2016

This therefore indicates that there is a disconnect among the key stakeholders on the provisions on the existing legal frameworks regulating the fishing sector which can be a big setback for the security, proper conservation, and development of the sector.

2.4 Objectives of fisheries sector policy

The Primary goal of the fisheries sector is ensuring there is sustainable production and use of fisheries resources by optimally managing marine and fresh water fisheries in the country. Therefore, the legal framework and policies are aimed at enhancing the fisheries resources in the country.¹²³ The sector makes significant addition to economic growth of the country by providing job opportunities to those involved and makes remarkable contribution to food security.

The current FMD Act of 2016 deals with supporting the implementation of sustainable fishing practices and environmental conservation. These practices are geared at encouraging the utilization of proper methods of fishing, as well as increasing fish consumption in the country. The legal and policy framework aims also at creating food security through increased fish production. Increased income earning from fisheries, increased foreign exchange earnings that are realized from trade of fisheries resources.¹²⁴

The fisheries legal and policy framework has an overall mandate to boost the contribution that the fisheries sector makes to the economy. This contribution includes improved wealth generation, more job opportunities for women and youth involved in the process from fish

¹²³National Oceans and Fisheries Policy, 2008. Ministry of fisheries Development, Nairobi Kenya

¹²⁴The Fisheries Management and Development Act (2016)

production, aggregation, storage and distribution to consumption and disposal. Among the key mandates is also to ensure improved contribution of the fisheries sector to food security.¹²⁵

2.5 Policies Governing Fisheries Sector in Kenya

In reviewing the legal and policy framework that controls the fisheries sector in Kenya, it is apparent that to achieve the objectives set therein, there needs to be adequate provision that will incorporate all laws and policies that can provide adequate governance over all the institutions mandated by law to achieve good governance in the fisheries sector. Governance of fisheries resources through legal and policy framework does not only include the proper management of fisheries resources available but also strategically identify proper infrastructure and capacities required to carry out fisheries sector development. It is also important to aid the various links between national and international policies and regulations while governing fisheries resources.¹²⁶

The study established that among the key issues that are supposed to be addressed in the fisheries sector so as to achieve food security includes provision of infrastructure and facilities necessary to venture into deep sea, crafting of policies that can guide the various agencies to conduct research, acquire technology and expertise to fully develop the fisheries sector. This was clearly stated by one of the key respondents:

“...there is no sufficient policy to provide for inadequate infrastructure, equipment and facilities to venture into the deep sea, cater for sea going expertise, technology and research...”¹²⁷

Governance of fisheries resources within Kenya is carried out by the Fisheries Department and the newly formed KFS as per the FMD Act of 2016. However, they must

¹²⁵The Fisheries Management and Development Act (2016)

¹²⁶ Ibid Fisheries Act.

¹²⁷ Oral Interview, Key informant 3, Jan,2021

cooperate and work together with other institutions that have functions which offer support in food safety and food systems. Some of the institutions are KEBS veterinary services, KePHIS, Ministry of Health and the various County Governments. We also have non state actors that are engaged in the fisheries sector and they include the IA's, private investors, fish farmers, fish processors, fishermen associations like the Beach Management Units (BMU's), and fish traders. For proper coordination between the various agencies mandated to increase food security within the fisheries sector there is need for use of Memorandum of Understanding (MoU) to guide their relationships.¹²⁸

The Wildlife Act is also mandated to manage marine protected areas along the Kenyan Coastline and this mandate is carried out by the Kenya Wildlife Service. They also ensure that there is no exploitation of fisheries resources within the marine reserves and parks. The Wildlife Act also legally mandates the Kenya Wildlife service to limit activities by human beings within the marine reserves. Therefore, no form of exploitation can be carried out within the protected areas. The act therefore is legally mandated to conserve and manage marine protected areas within Kenya.¹²⁹

However, the study found out that enforcing the legal and policy framework that govern the fisheries sector is hampered by lack of funds, cross purposing within the agencies mandated to oversee the enforcement and lack of proper coordination. Similar views were given by one of the key respondents:

“...the difficulties faced with enforcement of legal and policy framework in the fisheries sector is that there is inadequate funds, inadequate staff, conflict of interest, overlapping mandates, lack of adequate inter agency collaboration....”¹³⁰

¹²⁸Tobiko Naiyoma, Food Security as a governance problem, a case study of Kenya, Institute of Diplomacy and International Studies, University of Nairobi pp 34

¹²⁹ The Kenya Wildlife Act

¹³⁰ Oral Interview, Key informant no 3, Jan 2021

Governance of fisheries resources includes creation of Maritime policy that aligns the country's aspirations to be attained by 2030 through comprehensive transformation of marine resources. This includes formulating policies that make economic sense and that would catapult transformation of the fisheries resources contribution to the Kenyan economy. The maritime policy also involves the activities of conserving the flora and fauna for tourism purposes as well as establishing protected regions where fish can multiply without risk of depletion resulting from over exploitation by fishermen folk.¹³¹

The study observed that there also exists the National Oceans and Fisheries policy that also has the mandate to manage living resources. This policy is concerned with building capacity for fishermen in terms of skills and resources to engage in deep fishing activities away from Kenyan inshore waters. This is done through organizing fishermen into groups formally called the BMU that gives them more bargaining powers in the market. The policy also ensures that there are sustainable fishing methods being used to avoid wastage and over exploitation of fisheries resources by fishermen. Also, the marine policy is concerned with consolidating the fishermen through BMUs that will reduce conflict and help them in marketing their catch.

The FMD Act of 2016 does not provide for capacity building of fisher folk as would be the case. The bills do not also cater for the entire ecosystem in managing the fisheries resources. The NOFP of 2008 and Fisheries Management Bill of 2009 do however support developing the fisheries sector to improve on fish Kenya's production.¹³²

2.6 National food and nutrition security policies

The study also sought to establish if there are adequate policies that include all actors and guide all stakeholders to institute changes aimed at increasing food security in the fisheries sector in

¹³¹The Fisheries Management and Development Act (2016)

¹³²National Oceans and Fisheries Policy, 2008. Ministry of fisheries Development, Nairobi Kenya

Kenya. The results established that 44.4% of the participants disagreed and 14% strongly disagreed that there are adequate policies that includes all actors and guides all stakeholders to institute changes aimed at increasing food security in the fisheries sector in Kenya.

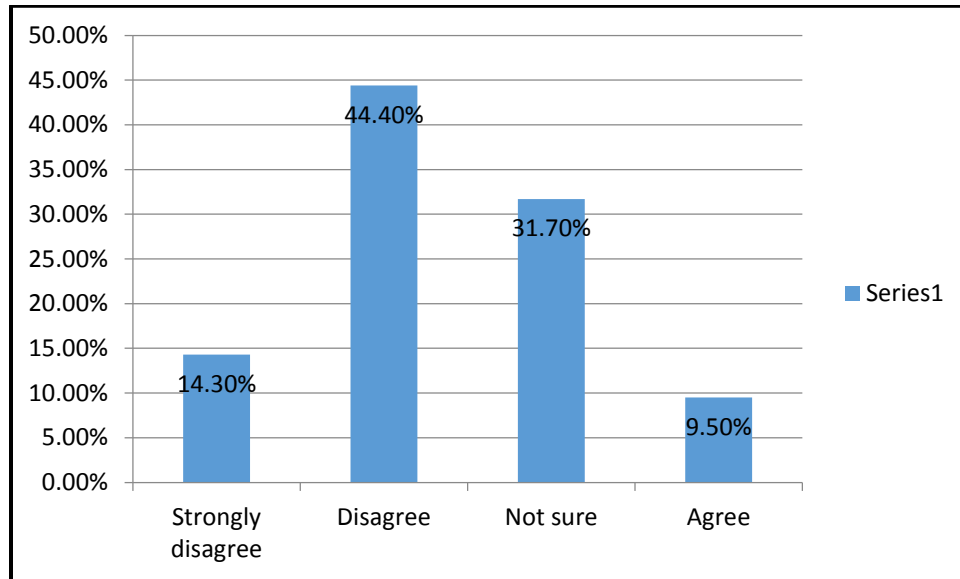


Figure 0.3: National food and nutritional security policies adequacy

Source: Field data, 2021

The findings echo past literature in the East African region, that shows that a number of measures have been initiated in an effort to provide a solution to the perennial food insecurities facing member countries. Among the solutions put forward to this end, there are policies drafted to consolidate the EAC member country effort in the fight against food insecurities. The EACFSAP was developed to help improve the food security situation. This plan seeks to ratify treaties made by the member states as stated in Chapter 18 Article 105. The plan aids in crafting of strategies made regarding NEPAD and CAADP frameworks. Among the strategies here includes the region's policy on climate change that does affect food security as a result of drought and floods.¹³³This is in line with the study's theoretical framework premised on

¹³³East African Community Food Security Action Plan 2011. Arusha: East African Community.

Keynesian theory which holds that to achieve development, countries need to create appropriate frameworks and policies that leads not only to the food security, but to economic prosperity as well

During the 2007 and 2008 international food crisis, a lot of adverse effects ravaged many countries in social and political instability. There were more people under the risk of malnutrition and hunger more so in the developing countries. The food crisis came at a time when food production was high globally signaling a much deeper problem to food security other than in just food production. This showed that food systems must be reevaluated if the food insecurities around the world are to be reduced.¹³⁴

Empirical evidence points to correlation between (HPPIs) and food security. However, the nexus between food security and HPPIs seems to be under examined in the already available literature. The HPPIs is concerned with how the unequal distribution of wealth between various groups defined through their social status like ethnic groups and races determines their food security.¹³⁵

The study established that the fisheries sector should be adequately funded to conduct research so as to gain knowledge no of how to streamline the various policies and legal frameworks that exists within the fisheries sector. This will have a profound effect on how to utilize the competencies of all stakeholders in attainment of food security. These views are echoed by one of the key informants during an oral interview:

¹³⁴Holt Giménez, E., & Shattuck, A. (2011). Food crises, food regimes and food movements: rumblings of reform or tides of transformation? *The Journal of peasant studies*, 38(1), 109-144.

¹³⁵Stewart, F. (2016). Changing Perspectives on Inequality and Development. *Studies in Comparative International Development*, 51(1), 60-80

“... inadequate funding in the fisheries sector in Kenya affects generation of new knowledge through research. It also weakens enforcement of rules and regulations in the sector as well as hindering capacity building of the stakeholders....”¹³⁶

2.7 The nexus between policies and food security within the fisheries sector in Kenya

The study sought to find out if there is a relationship between policy frame work and the attainment of food security within the fisheries sector in Kenya. The results established that 58.7% of the informants affirmed and 30.2% strongly agreed that policy frame work was instrumental in achieving food security in the fisheries sector in Kenya as shown in figure 3.6 below.

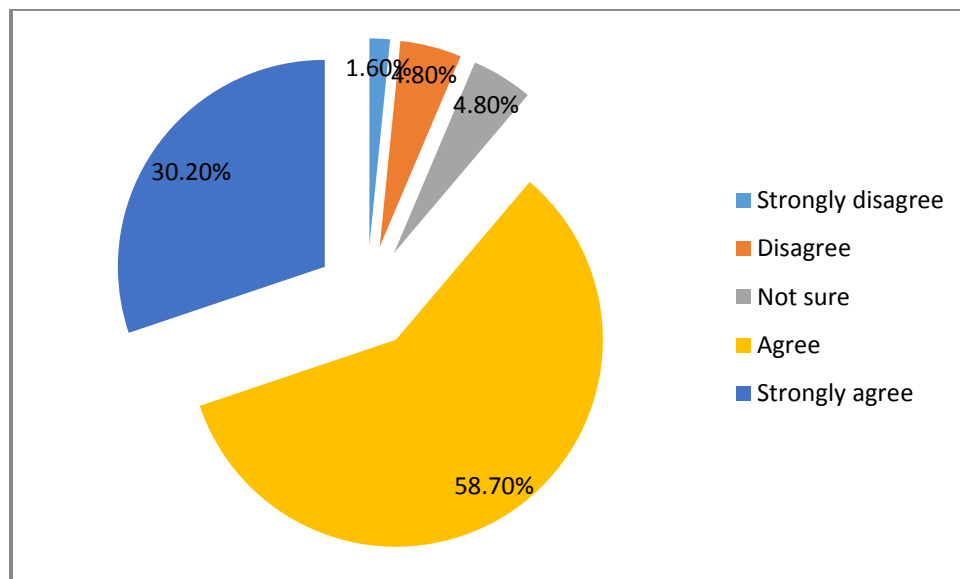


Figure 0.4: The role of Policy framework in the fisheries sector in the attainment of food security in Kenya

Source: Field data, 2021

Existing literature ¹³⁷ points to a number of policies and programs in the African region aimed at improving the continents food security. Government and other stakeholders like CAADP and NEPAD have teamed up their efforts in a bid to reduce instances of food insecurity.

¹³⁶Oral interview, Key informant no 2, Jan 2021

¹³⁷Bwalya, M. "Comprehensive Africa Agriculture Development Programme (CAADP) to reduce food security emergencies in Africa." Johannesburg: NEPAD Planning and Coordinating Agency (2013).

The policies made are aimed at addressing availability of nutritious food to all people at all times. These policies are in agriculture, Health, trade and education and all have an effect on food security and are aimed at using multiple methods to tackle the food insecurity problems. They include strategies of increasing food production, streamlining food aggregation, distribution and consumption.

Many African governments more so in the NEPAD have made active calls and initiatives to address the food security challenge from a policy and strategic perspective. Among these policies and programs is the adoption of CAADP. This policy framework is primarily geared towards increasing food production and improving food security in the continent. The framework is aimed at helping restore economic growth with agricultural sector leading the development through lobbying the governments in the region to increase allocation of their annual budget to a minimum 10% in agriculture.¹³⁸ Therefore, these frameworks (CAADP and NEPAD) points to increased awareness of the importance that exists between policies and attainment of food security in the country and in the region.

In the Kenyan Fisheries sector, literature points to a need to have adequate policies and framework in place that can aid in the agri-food networks and make sure the country uses sustainable and modern ways of production that can help reduce wastage. It was observed that this new method can help increase production and contribute significantly to food security. In the Kenyan case for example literature points out that in the fisheries sub sector, there ought to be adequate regulations to curb and govern over exploitation of fisheries resources by business

¹³⁸Stewart, F. (2016). Changing Perspectives on Inequality and Development. Studies in Comparative International Development, pp 43

community, improve on methods used to breed fish and manage post-harvest processes in reducing wastage of fish produced.¹³⁹

The contribution of the fisheries sector to Kenya's food security cannot be underestimated. It is a major source of nutritional and dietary requirements to the Kenyan population as it provides protein that is known in reducing malnutrition cases nationally. The sector also adds on to the available food for consumption in Kenya. However, efforts should be made to increase its contribution to the country's countries food basket. The government needs to develop a policy framework that will help guide the fisher folk access deep sea fishing by regulating how it's done, providing finance for the acquisition of deep-sea fishing facilities.¹⁴⁰ The policy framework should guarantee long term use of the fisheries resources both from the capture fisheries and aquaculture fisheries and provide for the provision of adequate and safe fish in the market for the consumers.

The study established that even though there exist legal and policy frameworks to manage the food security within the fisheries sector in Kenya, they are not adequate. This can be seen from respondent statements that:

“... there exists FMDA, 2016, Fisheries policy of 2008 and East African Community fisheries and aquaculture policy of 2018. However, there is lack of good will politically to implement the policies, low funding and there is overlapping mandates in the policy frameworks...”¹⁴¹

2.8 Chapter summary

The review of existing literature points to awareness of food insecurity issues in the East African region by both the governments and the other non-state actors. This can be seen from the

¹³⁹Kiome, Romano. "Food security in Kenya." Nairobi: Ministry of Agriculture, Kenya (2009).

¹⁴⁰FAO, IFAD. "WFP. strengthening the enabling environment for food security and nutrition." Rome: FAO (2014) pp 10

¹⁴¹ Oral interview, Key informant no 2, Jan 2021

adoption of common policies in the region and in the African continent. Some of the common frameworks adopted include; The EACFSAP as well as the NEPAD and CAADP frameworks aimed at improving food security in the region. In Kenya, the fisheries sector is governed through the FMD Act of 2016 which has the overall responsibility of improving the food security in the country. Literature points to need for the government and other stakeholders to use a multi-dimensional approach so as to holistically address the food insecurities that continues to put millions of people at risk. This means that the government needs to work together with NGOs and the private sector in crafting policies that can adequately help coordinate efforts from all stakeholders leading to reduced food insecurity. More effective policies that are locally adopted to capture the local context should be applied.

The study finding follows postulations by Keynesian theory that since the world is interdependent, food security and development are thus interlinked. The theory viewed that to have countries develop, there ought to be creation of policies and frameworks that guide other sectors including that of food security. The study established that there exist policies and frameworks in place to guide attainment of food security within the fisheries sector in Kenya. However, these policies are inadequate and thus should be enhanced so as to properly achieve food security.

Chapter key findings

The study has established that even though much has been done in the legal and policy frameworks within the fisheries sector, the policies need to be enhanced so as to improve attainment of food security. There should be adequate frameworks to guide the various actors given the mandate to ensure food security so as to avoid duplication of duties, overlapping of mandates and wastage of resources.

3 CHAPTER FOUR: CHALLENGES THAT HINDER FOOD SECURITY IN THE FISHERIES SECTOR IN KENYA

3.1 Introduction

This chapter reviews the challenges that bring about food insecurity in Kenya in the fisheries sector. The study results on the challenges hindering food security in the fisheries sector are presented. Also, the policy failures that have hindered attainment of food security in the country are presented. Thirdly, the chapter reviews the institutional and structural challenges within the fisheries sector that hinder food security enhancement. The chapter concludes with a summarized review of the challenges limiting eradication of food insecurities by the fisheries sector in Kenya.

3.2 Existence of challenges within the fisheries sector that hinder food security

The study sought to establish if there exist challenges that can hinder food security within the fisheries sector in Kenya. The results are presented in figure 4.1

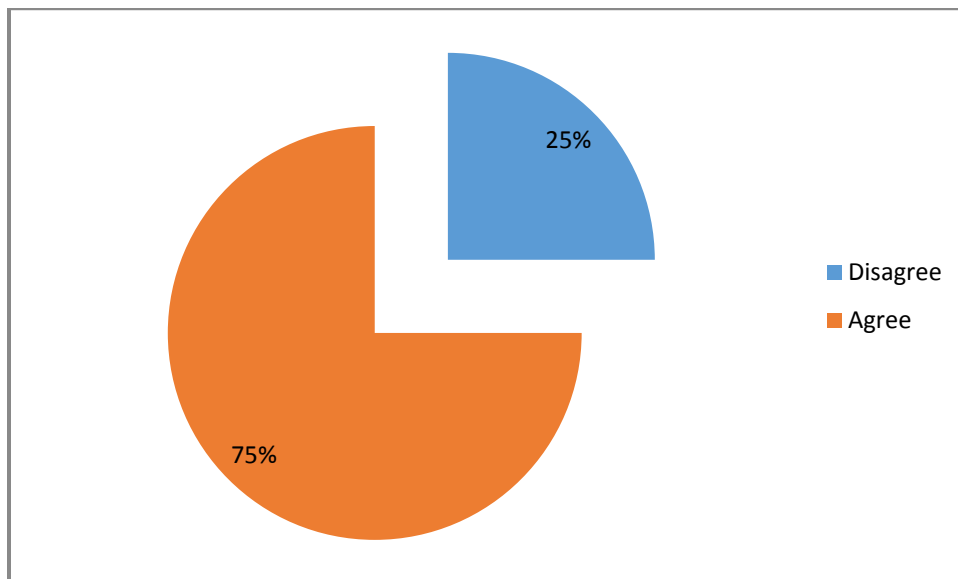


Figure 3.1: Challenges that hinder food security within the fisheries sector in Kenya

Source: Field data, 2021

The study observed that most of the participants (75%) agree to the fact that there are challenges that hamper achievement of food security within the fisheries sector in Kenya some of which are complex political processes between the government and other stakeholders, overlapping mandates within government agencies, inadequate investments in fisheries sector, lack of adherence to fishing guidelines, poor market linkages and post-harvest losses that negatively affect the attainment of food security in Kenya.

The study established that inadequate funding, weak governance, poor implementation of programs, limited research due to low funding, weak enforcement of rules and capacity building within the fisheries sector are some of the key challenges facing the fishing sector in the country. This therefore largely hinders the extension services within the sector.

Regarding the challenges that hinder full exploitation of marine resources, it was established that lack of economic incentives, poor governance, insufficient funding, limited information, offshore insecurity especially near Somalia maritime border, inadequate fishing facilities, expensive fishing gears, over fishing, pollution and poor market linkages are the challenges hindering full exploitation of marine resources.

On the challenges facing aquaculture sector development, the study established that there is inadequate technical know-how, low quality inputs, lack of economic incentives, climate change, costly production costs, inadequate funding, poverty, poor policies to manage the sector as well as social- cultural beliefs that limit fish market as the challenges hindering full development of the aquaculture sector.

There exists unsustainable utilization of fisheries resources in Kenya as one of the challenges faced by the fisheries sector and this limits attainment of food security. This is caused

by over exploitation of the fisheries resources leading to tampering with breeding patterns of the fish, use of outdated fishing methods that end up destroying fish stock and the ecosystem and may lead to destruction of the environment. This unstable use of fisheries resources has led to reduced fish production in inland lakes and also in the inshore fishing sites in the country.¹⁴²

Another challenge hindering attainment of food security within the fisheries sector is lack of adequate resources in terms of financing, infrastructure and fishing facilities. There are poorly constructed fishing ports, landing sites for the fisher folk and when they need to acquire modern fishing gadgets, they are limited by inadequate finances. All these hindrances slow down the growth of the fisheries sector. After fish production there is absence of adequate storage facilities leading to post-harvest losses of fish that would have otherwise contributed to available food for consumption.¹⁴³

Due to inadequate fishing facilities including storage and transport facilities, the sector loses a lot of fish harvest along the fish value chain including harvesting, storage and transport to marketing. This makes the cost of fish production to go up significantly reducing the number of people who can afford to access fish to meet their nutritional and dietary requirements. Lack of enough facilities therefore is a major cause of underutilized fisheries resources in Kenya.¹⁴⁴

There are challenges at the Kenyan Coastline where fishermen face difficulties in accessing landing sites a common occurrence along the Coastal Islands and along the riparian areas due to encroachment by private investors who have built their facilities like hotels on the

¹⁴² National Oceans and Fisheries Policy, 2008. Ministry of fisheries Development, Nairobi Kenya

¹⁴³ Tobiko Naiyoma, Food Security as a governance problem, a case study of Kenya, Institute of Diplomacy and International Studies, University of Nairobi

¹⁴⁴ Nyaugito, H. Food Policy and the Impact on Food Security. South Africa: Tore Institute for Global Peace and Policy Research, 2013

landing sites. The fishermen cannot therefore access properly the landing sites and this challenge limits their fish production and limits the total amount of fish harvested.¹⁴⁵

Kenya lacks the capacity to exploit the EEZ which includes owning fishing vessels with a capacity to fish in the deep sea. Only nations with fishing fleets can exploit fish that are migratory in nature since fishing is done many kilometers offshore and involves modern and equipped fishing fleets that are unavailable locally. DWFN currently are exploiting the country's EEZ where local fishermen cannot venture due to these structural limitations. This limits the fisheries sector fish production and consequently their contribution to food security.¹⁴⁶

Due to shorter shelf life of the fish products, they tend to lose their economic value when not properly handled. To ensure there are minimal losses after production, fish products must be handled with care and hygiene standards observed so as to preserve the fish quality and ensure fish safety for consumption. In complying with these measures, the sector is faced with inadequate storage, handling and transport facilities that may not sometimes assure fish is safe for consumption and this has limited the people's ability to use fish products.¹⁴⁷

3.3 Inadequate policies in the fisheries sector

There exists pertinent policy gaps and shortcomings that continue to limit the fisheries sector contribution to food security. The Fisheries Act needs to be relooked at keenly so as not to have mandates that are conflicting among the government institutions that are tasked with the responsibilities of managing fisheries resources. There is also need to fully operationalize the fisheries FMD Act of 2016 so that the country can localize regional and global treaties and

¹⁴⁵Mwaniki, A. Food Security in Africa: Challenges and issues. United Nations, 2012.

¹⁴⁶ Ibid pp 47, Mwaniki

¹⁴⁷Nyaugito, H. Food Policy and the Impact on Food Security. South Africa: Tore Institute for Global Peace and Policy Research, 2013

agreement into the local laws and this will ease their implementation by the relevant state departments.¹⁴⁸

Lack of adequate fisheries policies hinders significant development of the fisheries sector in Kenya. The available laws and regulations within the sector are inadequate and not clear and this makes placement of the fisheries department questionable. This means that during allocation of resources for development, the fisheries department due to misplacement receives inadequate share that cannot revitalize the sector and thus its contribution to food security remains low. This misplacement in politics is called marginalization and it means during budgetary planning, the sector is overlooked.¹⁴⁹

In the developed economies where fishing contributes significantly to the economy and food security, the fisheries sector is a key player in their development policy arena. Locally due to low contribution of the sector to the economy and food security it tends to be overlooked at the policy level and thus run under other state ministries like agriculture.¹⁵⁰

The fisheries sector licensing in the country's EEZ leads to the utilization of the vast fisheries resources by DWFN who are commercial in nature and care less about sustainable utilization of the resources and they also do not give commensurate benefit to locals who are near the fisheries resources. The conservation initiatives for the environment are not enough to ensure sustainable use of fisheries resources and biodiversity.¹⁵¹

¹⁴⁸Mwaniki, A. Food Security in Africa: Challenges and issues. United Nations, 2012.

¹⁴⁹Davies, S. "Proceedings of the International Workshop on the Fisheries of the Zambezi Basin, Livingstone, Zambia, 31 May-2 June 2004." In Proceedings of the International Workshop on the Fisheries of the Zambezi Basin, Livingstone, Zambia, 31 May-2 June 2004., no. 75. WorldFish Center, 2007.

¹⁵⁰Friend, Richard M. "Fishing for Influence: Fisheries Science and Evidence in Water Resources Development in the Mekong Basin." *Water Alternatives* 2, no. 2(2009).

¹⁵¹ *Ibid*, Friend

The management of the fisheries sector is faced with conflict and cross purposing issues due to many state agencies being mandate with conflicting roles. There is a lot of duplication of tasks and duties within different government agencies and also within the two levels of government leading to either mismanagement or loss of resources that would have otherwise gone into developing the sector and improve its productivity to food security. There are also poor links within the sector to properly disseminate fisheries and research information. Yet this research information within the fisheries sector can help fast track its productivity. There is therefore poor coordination between KEMFRI and the fisheries department as far as research in fisheries is concerned. There also other challenges like lack of enough funding for KEMFRI to do adequate research in this important sector.¹⁵²

The study established that even though there exist policies to guide and regulate the fisheries sector, they should be enhanced through use of more research into how full capacity of the fisheries sector can be realized. These views are similar to observations made by one of the key informant:

“...research institutions should be given the mandate to conduct surveys that can lead to fully development of the fisheries sector so as to increase its productivity and identify the bottlenecks that curtail the sector’s full potential...”¹⁵³

The Fisheries legal framework is in place; however, the enforcement is inadequate. There are institutional and legal support policies, but they are not sufficient to meet expectations when it comes to addressing shortcomings of the fisheries sector in today’s demands that includes local as well as regional and international interests in the sector fisheries.¹⁵⁴

¹⁵²Mwaniki, A. Food Security in Africa: Challenges and issues. United Nations, 2012.

¹⁵³Oral interview, Key informant 7, Jan 2021

¹⁵⁴Indian Ocean Commissi

on, 2012 Kenya Fisheries Governance; Programme for the Implementation of a regional Fisheries Strategy for the Eastern and Southern Africa and Indian Ocean Region.

In review of the policy shortcoming in the fisheries sector in Kenya, there requires a broad legal and policy framework to be developed. This framework will handle modern requirements in the fishing industry and ensure proper coordination by various state agencies tasked with management of fisheries resources. There is also need to have a policy and legal framework that helps in assimilating regional and international agreements related to the fishing sector into the local laws to help in meeting legal and policy requirements as and when they fall due.

3.4 Institutional and structural related challenges hindering food security in Kenya

The study observed that the challenges hindering the attainment of food security in the region includes weak policies that do not capture the whole process of actualizing food security programs from conceptualization to implementation by institutions and actors involved. There are various conflicts of interests within the institutions that oversee government programs on food and nutritional security. There are also political challenges in the implementation of government programs during change of regimes. Different political leaderships come with different priorities as far as attainment of food security is concerned.¹⁵⁵

In many sub Saharan Countries, the mechanisms used by institutions that are mandated to oversee food security programs need to be revitalized. Research and development in these institutions need to be properly funded and done to align interests of these institutions and food security needs. The use of extension officers in helping small scale farmers in management of food production need to be revitalized as they provide critical information to farmers. However, this is not always the case in the country as their use is not well coordinated. Use of appropriate modern technologies and methods by aquaculture farmers need to be encouraged as most small

¹⁵⁵Schwarzwalder, R. (2012), Hunger, Plenty, and Population. Issue Brief IF12I01, Family Research Council, Washington, DC

producers are reliant on out dated methods limiting food production and creating inefficiencies that compound their ability to have enough. Therefore, lack of proper policies to guide small scale producers and use of technology hinders food security.¹⁵⁶

Another challenge facing food security in the country is weak food market with no specific markets for fish and fisheries products. The available food markets within the country are considered thin in that they are not enough to absorb all food produced especially given that storage of fish and fishery products require cold chain facilities in order to ensure safe storage during the seasons with over production. Having a strong local demand for everything produced stimulates more production of food and leads to food security. Food markets therefore are important cog in food security as they ensure food produced is efficiently distributed and accessed by consumers as they need it. The country needs to have proper policies that take consideration of fully developing fish markets as this will stimulate increased production as food producers can count on available local market to dispose their produce. Increasing fish trade opportunities for the producers will attract more people to venture into food production and this will ensure current and future demand for food is met.¹⁵⁷

According to FAO, the challenges affecting food security in the region can be categorized into three areas namely, policy related challenges, production related challenges and consumer related challenges. Formulation and implementation of proper policies is a challenge as there are many actors in food security and coordinating their efforts can be a challenge. Food production levels are low in the East African region due to a myriad of hindrances like climate change, droughts, floods, use of poor farming methods and lack of enough extension services to

¹⁵⁶Ibidi Schwarzwaldner

¹⁵⁷Omiti, J, Ommeh-Natu, H, Ndirangu,L, Laibuni, N and Waiyaki N,. "Exploration of food security situation in the Nile basin region."Journal of Development and Agricultural Economics Vol.3(7) Available online at <http://www.academicjournals.org/JDAE> ISSN 2006-9774 ©2011 Academic Journals, 2011: 273-284.

producers. Policies need to be put in place that ensures trade of food is done appropriately through development of the existing food markets. Policies touching on roles and responsibilities of actors involved in food security need to be properly enhanced to ensure reduction of inefficiencies and wastage of resources. Consumer related challenges involve the government providing subsidies to help the poor access nutritious food, reducing tax on food items and provision of social safety nets to those considered vulnerable.¹⁵⁸

Previous studies have linked food insecurity in the region to climatic changes. In Kenya, the study found out that the government has made efforts in establishing policies to help guard against negative impacts of climate change. However, the implementation of these policies in addressing food security is the problem. This challenges the attainment of food security as good policies are formulated only for implementation phase to be weak thereby negating attainment gains made towards increasing nutritious food available to those who need it.¹⁵⁹

Nyauigito studied food policy and the impact it has on attainment of food security, the study established that among the challenges facing food security phenomena are lack of proper coordination by the institutions mandated to oversee implementation of food security programs. These institutions are underfunded, have cross purposing roles and lack harmony when implementing these food security programs.¹⁶⁰

3.5 Chapter summary

The study found out that the challenges that prevent attainment of food security within the fisheries sector can be classified into three types namely, policy oriented, trade oriented and

¹⁵⁸FAO. Trade Reforms and Food Security: Conceptualizing the Linkages,” Food and Agricultural Organization Corporate Document Repository, under “document & report. Rome: Food and Agriculture Organization, 2011.

¹⁵⁹ Maina, I., Newsham, A. & Okoti, M., 2013. Agriculture and Climate Change in Kenya: Climate Chaos, Policy Dilemmas, Brighton: Future Agricultures.

¹⁶⁰ Nyauigito, H. (2013), —Food Policy and the Impact on Food Security], in Ogunrinde, A., Oniang’o, R. and May, J. (eds), Not By Bread Alone: Food Security and Governance; South Africa: Tore Institute for Global Peace and Policy Research

governance oriented. Policy problems hindering attainment of food security includes lack of adequate policies to regulate fish production, storage, distribution and consumption of fish products. Trade oriented challenges have to do with regulating marketing of fisheries products like availing marketing information to producers and control of import and export of fisheries products. Governance oriented challenges that hinder attainment of food security within the fisheries sector in Kenya includes poor coordination of state and non-state actor's efforts, inefficiencies of programs meant to improve productivity of fisheries sector to food security and poor contribution of the fisheries sector in the wider development policy arena.

The study results show a similar pattern as postulated by the Study's anchor theory which is the Keynesian theory developed by John Maynard Keynes. The theory holds that for the various sectors in the economy to function harmoniously, there should be a legal and policy framework in place to guide how they interact given that these sectors are interlinked. The fisheries sector has various actors like government agencies and departments as well as private and NGO's. These actors cannot function optimally without a guiding framework to avoid challenges like overlapping of mandates and conflicts of interests.

4.5 Key chapter findings

The study found out that there exist challenges that hinder attainment of food security within the fisheries sector in Kenya. The major challenges include inadequate policies to guide the sector, lack of adequate legal framework, poor market linkages and poor coordination between various actors in the fisheries sector.

4 CHAPTER FIVE: SUMMARY< CONCLUSIONS AND RECOMMENDATIONS

4.1 Introduction

The general objective of the study was to investigate governance and food security in Eastern Africa, a case study of the fisheries sector in Kenya. This chapter introduces the study findings, conclusions and recommendations.

4.2 Study Key Findings

The first objective of the study was “to assess the relationship and impact of governance on food security in Eastern African region”. The study established that governance is one of the key issues hindering progress towards food security in the region. The governance challenges affecting most East African countries include poor management of natural resources, lack of clear policies on enhancing food security as well as poor coordination of efforts by relevant stakeholders. Corruption has also been prominently linked to failure to attain food security in the region as it negatively affects access to food, increases food prices, and reduces funds available for agricultural programs, conflict of interests and poor coordination of food security efforts by various stakeholders in the food system.

According to objective two which was to examine the policy framework governing the fisheries sector in Kenya, the study established that even though much has been done in the legal and policy frameworks within the fisheries sector, the policies need to be enhanced so as to improve attainment of food security. There should be adequate frameworks to guide the various actors given the mandate to ensure food security so as to avoid duplication of duties, overlapping of mandates and wastage of resources

Objective three of the study sought to examine the challenges that hinder food security in the fisheries sector in Kenya. The study found out that the main challenges hindering food security

are complex political processes, overlapping mandates among agencies within the fisheries sector, poor funding, inadequate capacity, poor enforcement of regulations and policies as well as poor market linkages and post-harvest losses.

4.3 The Study Conclusion

Regarding the relationship and impact of governance on food security in the EA region, the study concluded that creating efficient management policies and strict enforcement of fisheries regulations, management of post-harvest losses, building capacity of marine and aquaculture sectors are major issues limiting full development of the fisheries sector. The study found out that inadequate funding of fisheries sector, the inadequate role played by the fisheries sector in the wider policy arena leads to inadequate contribution to food security. The study also established that the key role of fisheries sector in food security is provision of food and dietary requirement. Lastly, it was found out that to enhance food security, adequate governance efforts should be channeled towards encouraging use of sustainable fishing methods giving subsidies to aquaculture inputs and investing in new technology in the sector.

The study concluded that food security in Kenya and in the East African region is affected by governance. The policies and legal framework within the fisheries sector do play a great role in achievement of food security in the country. However, the study concluded that this framework and policies are inadequate to regulate and enhance the development of the fisheries sector. Even though there exist policies for exploitation and conservation of marine and inland fisheries, these policies are not adequate. To enhance growth of the fisheries sector's contribution to food security, the government has put in place policies but these too needs to be harmonized with the current sector requirements. In development of the aquaculture, the study concluded that the current policies are inadequate to increase fisheries sector contribution to food security. There

need to be policies that guide post-harvest processing regulate and guide value addition as well as create adequate market linkages. It was also the study's conclusion that the intervention by non-state actors' intervention in the process of fisheries policy development is inadequate. Lastly, policy wise, the study concluded that the efforts within food systems to incorporate fisheries sector in addressing food security challenges are inadequate and that the fisheries policies being used currently are not adequate to solve complex food security issues.

Regarding the challenges that hamper achievement of food security within the fisheries sector, the study concluded that politics between the government and non-state actors within the food systems negatively affects attainment of food security in Kenya. Also, overlapping mandates within the state agencies in the management of fisheries resources creates inefficiencies that hinder food security. It was also established that, inadequate investment in the fisheries sector by various stakeholders, poor adherence to sustainable fishing guidelines and poor market linkages limit the overall contribution of the sector to food security. Other challenges facing the attainment of food security within the fisheries sector includes influx of cheap fish imports that limit market for local fish producers, poor quality inputs for the aquaculture sector, inadequate funding for the sector as well as limited aid by non-state actors like NGOs in responding to challenges facing food security within the fisheries sector. The study also concluded that the demand for fisheries products has increased due to consumer's preference to switch to organic food. It was also concluded that inadequate funding for food security programs within the fisheries sector, inadequate policies and overlapping mandates are the major challenges hindering food security.

4.4 The Study Recommendations

Regarding the relationship and impact of governance on food security in the Eastern African region, the study recommends that the fisheries sector needs to embrace good governance and adopt a bottom-up approach to achieve synergy between government agencies and NGOs and other stakeholders in the sector. Lastly, in the governance of the fisheries resources, the stakeholder's mandates should be made clear to avoid overlapping of roles and inefficiencies and the various stakeholder's capacity to implement food security programs should be enhanced.

On the policy framework governing the fisheries sector in Kenya, the study recommends that; the government through the agencies mandated to manage the fisheries sector should create adequate legal and policy framework that will enhance coordination of food security efforts among all the stakeholders concerned.

On the challenges that hinder food security in the fisheries sector, the study recommends that the capacity of the fisher folk, fisheries department and other agencies should be enhanced to achieve full potential of the fisheries sector. Marine and inland fisheries need to be adequately funded to maximize their contribution to food security. The government should also subsidize inputs to the aquaculture sector, create better market linkages and establish adequate information through more research to minimize post-harvest losses.

There is need to use a whole of government and multiagency approach to respond to the challenges facing the fisheries sector in Kenya to be able to achieve maximum potential from the fisheries' resources while ensuring food and nutrition security for the citizens.

4.5 Areas for Further Study

The following areas may need further research;

The study recommends that more studies that target a larger population to include all players in the fisheries value chain should be conducted to capture the information not captured by the current study.

More research should be conducted to inform why the fisheries sector plays a minimal role in the larger policy development arena given that budgetary allocations follow policy and planning.

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6 APPENDICES

6.1 Appendix 1: Introductory letter



UNIVERSITY OF NAIROBI

College of Humanities and Social Sciences

Institute of Diplomacy and International Studies

Tel : (020)318262

P.O. Box 30197

Fax : 254-2-245566

NAIROBI

Website : www.uonbi.ac.ke

KENYA

Telex : 22095 Varsity Ke Nairobi, Kenya

Email : director-idis@uonbi.ac.ke

JAN. 7TH, 2021

TO

NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY AND INNOVATION
(NACOSTI)

P.O BOX 30623-00100

NAIROBI

REF: RESEARCH PERMIT FOR MS.ROSALINE DAISY KARIMI MURIUKI

REG. NO

I am writing to recommend Ms Rosaline Daisy Karimi Muriuki and to attest to her qualification and suitability for the research permit she is applying for. Daisy is my supervisee and a student at the University of Nairobi, in the Institute of Diplomacy and International Studies pursuing MA in International Studies. She has completed the course work, refined the proposal and now embarking on research project writing entitled. **GOVERNANCE AND FOOD SECURITY IN**

**EASTERN AFRICA REGION; A CASE STUDY OF THE FISHERIES SECTOR IN
KENYA**

We would appreciate your assistance in enabling her attain the research permit and authorization for the study.

If you need further information or clarification, I can be reached at (254) 721-942-138 or by email martin.ouma@uonbi.ac.ke.

Respectfully



Dr. Martin Odhiambo Ouma, Ph. D

6.2 Appendix 2: Questionnaire

To examine governance and food security in the East African Region, a case study of the fisheries sector in Kenya

Kindly answer the questions by ticking appropriately in the space provided. Confidentiality will be adhered to and no personal information will be recorded. All information gathered will be for academic purposes only.

Section A: Demographics

1. In which bracket does your age fall?

18-25 Years [] 25-30 years [] 30-35years [] 35-40years []

40-45 years [] 45-50Years [] over 50years []

2. What is your gender? Male [] Female []

3. Which is your highest education level?

Primary [] Secondary [] Certificate [] Diploma [] Degree [] Post graduate []

Section B: To examine the policy framework governing the fisheries sector in Kenya

In this section, kindly tick against that closely represents your view relating to policy framework governing fisheries sector in Kenya. Key: **SD**= Strongly disagree; **D**=Disagree; **N**=Not sure; **A**=Agree; **SA** Strongly agree.

		S.D	D	N	A	S.A
	1. There is adequate regulatory and legal framework that supports attainment of food security in Kenya					
	2. There is adequate regulatory and legal framework that supports development of fisheries sector in Kenya.					
	3. The policy framework in the Fisheries sector plays an important part in attainment of food security					

4.	There exist adequate policies for the exploitation of marine fisheries					
5.	There are policies for the development of aquaculture fisheries					
6.	There exist policies for the exploitation and conservation of inland fisheries					
7.	The government has policies in place that enhance growth of the fisheries sectors					
8.	There are policies that enhance the processing, value addition and marketing of the fisheries products					
9.	There are adequate policies across fish value chain that include all actors and guides all stakeholders to institute changes aimed at increasing food security in the fisheries sector in Kenya.					
10.	There is sufficient legal framework to ensure conservation of the environment					
11.	There is sufficient legal framework to regulate fishing sector for conservation purposes					
12.	The intervention by non-state actors in the process of fisheries policy framework development is adequate					
13.	There is enough contribution by international organizations, Non-Governmental Organization's in legal and policy formulation					
14.	There are enough efforts within the food systems that incorporate fisheries sector in eliminating food insecurities in Kenya					
15.	The fisheries policies in place are adequate in addressing complex food insecurity issues					

4. Please add any other comment regarding policy frameworks governing fisheries sector in Kenya

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.....

Section C: The Challenges that hinder food security in the fisheries sector of Kenya.

5. In this section, kindly tick against that closely represents your view relating to the challenges hindering food security in the fisheries sector of Kenya. Key: **SD**= Strongly disagree; **D**=Disagree; **N**=Not sure; **A**=Agree; **SA** Strongly agree.

		S.D	D	N	A	S.A
1	There are hindrances and complex political processes between the government and other stakeholders in the food systems and this makes attainment of food security difficult.					
2	There is weak institutional capacity in the State Department of Fisheries in enhancing growth of the fisheries sector					
3	There are overlapping mandates within government agencies in the management of the fish value chain					
3	There are inadequate investments in fisheries sector by various stakeholders					
4	Lack of adequate storage facilities reduces fish available in the market					
5	Poor adherence to fishing guidelines leads to over					

	exploitation of fish resources					
6	There is inadequate support from the government in both the capture and aquaculture fisheries					
7	There are poor market linkages leading to exploitation by middlemen and post-harvest losses in the fish value chain					
8	The influx of cheap imports of fish and fishery product is a cause of low aquaculture development					
9	The poor-quality inputs are a hindrance to aquaculture development					
10	Funding is a major challenge in the development of the fisheries sector in Kenya					
11	International organizations help in addressing challenges hindering food security in the fisheries sector					
12	Changing consumption patterns (switch to organic food) has led to increased demand of fisheries products					
13	There are adequate efforts to build capacity within the fisheries sector in Kenya					

6. Kindly indicate any other comments relating to challenges that hinder food security sector in Kenya

.....
.....

Thank you for taking your time to fill this questionnaire.

6.3 Appendix 3: Interview Schedule

To examine governance and food security in the East African Region, a case study of the fisheries sector in Kenya

1. What role does the fisheries sector play in attainment of food security in Kenya?

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2. What do you think should be done to reduce food insecurity in the fisheries sector in Kenya?

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.....

3. Are there legal and policy frameworks that govern the fisheries sector in Kenya (Please explain)

.....
.....
.....

4. Are the legal and policy frameworks that govern the fisheries sector in East Africa region?

.....
.....
.....

5. What are the challenges in enforcing the legal and policy frameworks that govern the fisheries sector in Kenya?

.....
.....
.....

5. There is enhanced level of capacity development within the fisheries sector in Kenya?

.....
.....
.....

6. There is heightened level of intervention in governance by the international organizations within the fisheries sector in Kenya?

.....
.....
.....

7. There is heightened level of intervention in governance by the international organizations within the fisheries sector in the East Africa region?

.....
.....
.....

8. How does funding affect the development of the fisheries sector in Kenya?

.....
.....
.....

9. What are the challenges in the marine sector that hinder full exploitation of the fisheries resources?

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.....
.....

10. What are the challenges facing the aquaculture sector development in Kenya?

.....
.....
.....

11. What other issues do you think affect the attainment of food security in the fisheries sector in Kenya?

.....
.....
.....

12. What are the challenges that hinder food security in the fisheries sector in Kenya (Please explain)

.....
.....
.....

13. Do you think governance affect food security in the East African region? Please explain






.....
.....
.....

14. How do food systems (Food system is an interaction of multiple activities which comprises of three hierarchically interconnected activities: food production, distribution, and consumption) affect food security in the East African region?

.....
.....
.....

Thank you for your cooperation in answering these questions.

6.4 Appendix 4: Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
RefNo: 824983	Date of Issue: 19/January/2021
RESEARCH LICENSE	
	
This is to Certify that Ms. ROSALINE DAISY KARIMI of University of Nairobi, has been licensed to conduct research in Kitumu, Mombasa, Nairobi, Nakuru on the topic: GOVERNANCE AND FOOD SECURITY IN EASTERN AFRICA REGION; A CASE STUDY OF THE FISHERIES SECTOR IN KENYA for the period ending : 19/January/2022.	
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