

Senanu Kwasi Kutor

Assessment of Livelihood Strategies and
Subjective Poverty among the Fisher Folks
of Kpando-Torkor, Ghana

Master's Thesis for the Award of Philosophy
(MPhil) in Development Studies, Specializing in
Geography

Trondheim, May 2014



NTNU – Trondheim
Norwegian University of
Science and Technology

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NTNU – Trondheim
Norwegian University of
Science and Technology

Department of Geography

Faculty of Social Sciences and Technology Management

Norwegian University of Science and Technology (NTNU)

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May, 2014

DEDICATION

I dedicate this thesis to my parent Mr. Francis Kutor and Mrs. Helen Exe for their endless support in all ways.

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Meda akpe na mawu dzifo kple anyigba worla - Thanks be to God who made heaven and earth.

DECLARATION

With the exception of references used, which have been duly cited, I Senanu Kwasi Kutor, do hereby declare that this thesis is the result of my own work under the supervision of Prof. Haakon Lein at the Department of Geography, Norwegian University of Science and Technology (NTNU), Trondheim, during the 2013/2014 academic year. This work has neither been submitted in whole nor in part for any degree in this University or elsewhere.

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Senanu Kwasi Kutor (Student)

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Prof. Haakon Lein (Supervisor)

May 2014

ABSTRACT

The thesis is about the assessment of livelihood strategies and subjective poverty analysis among the Fisher Folks of Kpando-Torkor, Ghana. The specific objectives were to investigate the multidimensionality of poverty among the fisher folks in Kpando-Torkor from subjective perspective, to identify the emerging livelihood pathways in the study area apart from fishing and how are such activities perceived by the fisher folks, to identify the challenges facing the fisher folks and to examine means of assessing information regarding fishing among the fisher folks within the context of SLF.

Mixed mode method of data collection was used in this study. For this study, information was collected using survey, semi structured interview, observation and secondary data. An interview guide was used to encompass the qualitative dimension aspect of it whilst questionnaires were administered taking care of the qualitative aspect. Informants were selected through purposive sampling. Primary data was collected through 80 administered questionnaires and 10 semi structured interviews among the fisher folks of Kpando-Torkor.

Findings revealed that half of the fisher folks of Kpando Torkor perceived themselves as well off whilst the remaining halve perceived themselves as poor. All subjective indicators of food, water, income, housing and health used in this study buttress the poverty status of the fisher folks. Tree planting and Zoil was identified as the emerging livelihood strategies in the area but majority of respondents admitted that the sustainability of the emerging livelihood is not good since the economic prospect is minute as compared to fishing activities. The respondents identified the central government, the local government, close relatives and others (financial institutions, banks, NGOs, Civil Society) as actors responsible to address the challenges they are confronted with in pursuit of their livelihood due to the structure and processes in place.

LIST OF ACRONYMS

AL	Alternative Livelihood
CCRF:	Code of conduct for Responsible Fisheries
CBLMC	Community-Based Lake Management Committees
DFID	Department for International Development
GDP:	Gross Domestic Product
KMA:	Kpando Municipal Assembly
LI	Legislative Instrument
MDG	Millennium Development Goals
NHIS	National Health Insurance Scheme
SLF:	Sustainable Livelihood Framework
SLA:	Sustainable Livelihood Approach
SPA	Specially Protected Areas
SPSS	Statistical Package for the Social Sciences
UN:	United Nation
UNCLOS	United Nations Convention of the Law of the Sea
VLFMS	Volta Lake Fisheries Management System

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CHAPTER ONE: INTRODUCTION

1.1 General Introduction

Fishing contributes to millions of people in terms of food security as well as a source of protein to the rural poor in Africa. The world's fisheries provide more than 2.6 billion people with at least 20% of their average annual per capita protein intake (Allison et al., 2009). In addition, it is also a source of livelihood to many of the rural poor. The fisheries sectors in many African countries including Ghana, Namibia, Senegal and Uganda contribute over six percent to their national gross domestic product. Fish is also an important and inexpensive source of protein, providing at least 50 percent of the essential animal protein and mineral-in-take for 400 million people from the poorest African countries (Amu-Mensa et al, 2013)..

According to FAO, fish is becoming one of the African countries' exports to the world market (Heck et al, 2007) .The export value for that is estimated to reach US\$ 3.27 billion in 2003. This notwithstanding, the economic and social benefits for African fisheries is considered to be at risk. This risk is echoed by (FAO 2002b) as cited in (Heck et al., 2007:212) “many natural fish stocks are fully or over-exploited and show little potential for expanding production”.

In Ghana, most communities along the Volta Basin are fishing communities. The lake serves as important sources of fresh water fish to the country and its sub-regions. Major economic activities in these areas are fishing, processing of fish, selling of fish, farming and trading in household goods. Since 1968, there have been efforts by the Ghana government to develop fisheries in the riparian communities of the Volta Lake (Amu-Mensah et al. (2013). However, increasing competition over the use of water resources and high population growth has elevated pressures on the distribution of these resources and reduction in fisheries production. Despite the significant contribution of the fishing industry towards the economic development of Ghana, the standard of living of the fisher folks is a course for concern.

A plethora of strategies and development pathways were used in addressing poverty across space and time. In the 1950 and 1960s, economic growth was seen as a strategy for reducing poverty and enhancing the quality of life. This period is characterized with the modernization theory as a

pathway to development and poverty reduction. However, the increasing inequality associated with this period has culminated into a new strategy in the provision of health, nutritional and educational services in the 1970s as a matter of public policy. The 1980s also witnessed a new wave of strategy in addressing poverty and inequality. This period saw the introduction of SAP (Structural Adjustment Programme). The focus shifted to improve economic management and to enable a greater role for market forces. Most Sub-Saharan Africa countries embraced this SAP which culminated into several reforms in their economy including free market economy, privatization, deregulation, cut in public expenditure, etc. The ambition of all nations in the United Nations (UN) to address the challenges resulting from advancing globalization resulted in the formulation of the Millennium Development Goals (MDGs) in the year 2000. In the formulation of the MDGs attention has been paid to hunger and poverty as stated in MDG number one, thus to eradicate extreme hunger and poverty. The sub goal of MDG number one is to halve by the year 2015 the proportion of people who suffer from hunger as compared to 1990 (Declaration, 2006). This brings to fore the importance the issues of poverty and its reduction efforts have received in international stage.

In an attempt to understand the livelihood conditions of the rural poor in the contemporary times, sustainable livelihood approach has gained tendency because it is a framework that helps to understand the livelihood of poor people.

“Sustainable livelihood approach has been used in recent times in analyzing poverty and poverty reduction because, while there is the realization that economic growth is necessary for poverty reduction, there is no automatic relationship between the two since it all depends on the capabilities of the poor to take advantage of the growing economic opportunities. Secondly, poverty conceived by the poor is not just a realization of low income but also encompassing illiteracy, bad health, lack of social services, vulnerabilities, etc. Thirdly, the poor themselves know their situation and must therefore be involved in the design of projects and policies intended to benefit them” (Krantz, 2001:10 and 11).

1.2 Problem Statement

The agricultural sector including fishing sector is a pivotal pillar in the economic development of most countries including that of Ghana. Fishing industry in Ghana has contributed to the economic development of Ghana and accounts for more than 3% of the total GDP (Business &

Finance Times, 2005). Despite this contribution to the overall GDP of Ghana, the poorest of the poor are commonly considered to be the fisher folks. It is against this background that the study seeks to explore the multi-dimensional nature and extent of poverty among the fisher folks of Kpando – Torkor. “The multi-dimensional nature of poverty and the relationship between poverty, vulnerability and social exclusion in fishing communities is increasingly acknowledged” (Allison & Horemans, 2006: 758). Understanding and responding to these manifold dimensions of poverty requires a broad and often multi-disciplinary approach. The Sustainable Livelihood Approach (SLA) is valuable in this context as it provides both a set of guiding principles and an analytical framework.

Much has been written on livelihoods and poverty in Ghana from different perspectives. For example, Awumbila and Ardayfio-Schandorf (2008), write extensively on gendered poverty, migration and livelihood strategies of female porters in Accra, Ghana. Here they look at livelihood strategies available to female porters as they move into wage market. Hilson and Banchirigah (2009), look at implementing Alternative Livelihood (AL) projects in mining communities of Ghana. With reference to the study area, Afenyadu (2010), looks at child labour in fisheries and aquaculture from the perspective of Ghanaians. According to Kufogbe et al (2003), cited in (Afenyadu, 2010), there is a phenomenon of permanent migration of children from other parts of Ghana, to pursue fishery livelihoods in fishery communities.

Not much has been written on emerging livelihood strategies and its sustainability in the study area. It is against this background that this thesis sets to investigate livelihood strategies that can be made sustainable in the face of the risk identified and subjective multi-dimensional assessment of poverty among the fisher folks of Kpando Torkor. It aims to add to the literature on livelihoods and poverty especially in the area of subjective poverty analysis.

1.3 Objective of the Study

The overall objective of the study is to investigate the emerging livelihood strategies of the fisher folks within the context of sustainable livelihood framework and to understand the multi-dimensional nature and extent of poverty among the fisher folks of Kpando Torkor from a subjective point of view. It also aims at studying the fishing information accessibility among the fisher folks and challenges confronting the fisher folks of Kpando Torkor.

Specifically, the study aims at the following:

- To assess the multidimensionality of poverty among the fisher folks of Kpando – Torkor from subjective perspective.
- To identify the emerging livelihood pathways in the study area apart from fishing and how are such activities perceived by the fisher folks in terms of economic reward and its sustainability.
- To examine the means of assessing information regarding fishing among the fisher folks.
- To identify the challenges facing the fisher folks and actors to address their challenges.

1.4 Research Questions

- How do local fisher folks perceive their poverty situation?
- What are the emerging livelihood pathways in the study area apart from fishing and how are such activities perceived by the fisher folks?
- What are the modes of assessing information pertaining to fishing and what are the relevancies of the information assessed?
- What are the main challenges facing the fisher folks and actors to address the challenges?

1.5 Motivation for the research

Motivation for the choice of the topic of this study is derived from the lectures and courses I followed during my MPhil program at the Norwegian University of Science and Technology which shaped my thought and my comprehension of human environment nexus which is core to the heart of Geography. I was introduced to numerous concepts, theories and framework which led me to use SLA to analyze the livelihood strategies of the fisher folks of Kpando Torkor and the fact that SLA is a way to improve understanding of the livelihoods of poor people. Growing up in rural Ghana to fishing and a farming community coupled with my interest in poverty and livelihoods issue, I have the urge that I can contribute to knowledge through empirical research that can in a way alter policies in favour of the fisher folks whose voices are left unheard in policy determination and implementation. Therefore I am a story teller from the point of the poor and excluded in society.

1.6 Organization of the Thesis

This thesis is structured into seven chapters. Chapter one provides the introduction to the whole thesis, statement of interest of the research problem, objectives of the study, research problem and motivation for the study. Chapter two provides a short-lived profile of Ghana as well as the study area. The background into the economy and geography of the area is also presented. Chapter three presents the methodological framework of the study. Chapter four focuses on theories and concepts. Chapter five and six focus on empirical data and analysis. Chapter five presents poverty perception and emerging livelihood pathways among the fisher folks of Kpando-Torkor. It discusses in detail the poverty status of the fisher folks using the subjective indicators of income, food and water, housing and health. Fisher folks' perception on the emerging livelihood portfolios in terms of its economic reward and sustainability is also analyzed. Chapter six presents information accessibility and challenges confronting fisher folks of Kpando Torkor. It discusses in details the medium used in accessing information related to fishing, usefulness of the information received, fisher folks' perception on the emerging livelihood portfolios in terms of its economic reward and sustainability, etc. Chapter seven presents the summary, conclusions and recommendations.

CHAPTER TWO: DESCRIPTION OF THE STUDY AREA

2.1 Introduction

This chapter presents a background description of the Kpando Municipality within which lies my research site- Kpando-Torkor. This background information includes a short profile of Ghana, the geography of the area, location and size, climate and vegetation, topography and drainage, population structure, economic and social aspect of the community. Last but not the least is the short history on fishing in Ghana as well as fishery management system in Ghana.

As a common feature of most developing countries, Ghana's development is characterized by a spatial variation in terms of socio economic development where it is generally recognized that there is North- South dichotomy and rural – urban divide when it comes to development in Ghana. The variation between the divide is manifested by high-pitched differences in economic and social life of people living in either side. These differences range from infrastructural development, to access to social amenities among others.

2. 2 Short Profile of Ghana

Ghana is located on the coast of West Africa and shares boundaries with Togo to the East, Cote d'voire to the West, Burkina Faso to the North and Gulf of Guinea to the South. Ghana has ten administrative regions which are divided into 238 geographical and administrative Districts, Municipals and Metropolitan Assemblies. Ghana has an elected president with an independent judiciary and a unicameral legislature: having one legislative chamber. According to the 2010 provisional results of the population and housing census, Ghana has a population of 24,658,823. There is a 30.4 percent increase over the 2000 census population of 18,912,079 (Ghana Statistical Service, 2012). Ghana is located within the tropical equatorial belt and as a result witness high temperature of between 25 and 35 degree Celsius with some variation throughout the year (Mensah et al, 2006).

Ghana is characterized with an agricultural economy contributing for about one third of the gross domestic product (GDP) and more than 60% of the labour force. Ghana is rich in a lot of natural resources comprising gold, bauxite, cocoa, diamonds and recently petroleum oil. It is the world's largest exporter of cocoa, the sixth exporter of diamonds and major exporter of gold and manganese. Ghana has recently discovered oil in a commercial quantity and according to

analysts, if utilized well will benefit the people of Ghana immensely bringing about blessing and not a curse as witnessed in other oil producing countries.

2.3 Geography of Kpando-Tokor

Kpando Municipality is located in the Volta Region of Ghana and it is one of the oldest in the country. The district lies within latitudes $6^{\circ} 20' \text{N}$ and $7^{\circ} 05' \text{N}$, and Longitude $00^{\circ} 17' \text{E}$. It shares boundaries with Biakoye District, Afajato South and South Dayi District to the North, East and South respectively (Kpando Municipal Assembly, 2006). According to Sarpong, Quatey, and Harvey (2005) the district covers a total area of 2000 sq. km. It is believed that almost 40% of the land being submerged by the Volta Lake. Kpando, the Municipal capital, is 90 km from Ho; which serve as the Regional capital for the region. The geographical location of the Kpando Municipality places it at a very strategic position with potential for fast economic development

2.4 Topography and Drainage

2.4.1 Topography

The most conspicuous physical features of the Municipality are the Akwapim- Togo-Atakora ranges which is at the eastern corridor between Ho and Kpando Municipalities. The Municipality is characterized with scattered hills with varied length and height resulting in an undulating feature of the Municipality. Some of the notably hills in the Municipality are Awate, Anfoega, Botoku, etc. The highest point in the Municipality is 381.00 meters and is located along the Volta Lake around Awate and Botoku. The hilly nature of the Municipality generally affects the condition of the road and therefore results in increase in the cost of maintenance. The untarred nature of the roads increases the degree of erosion that affect the condition of these roads and residential buildings during raining seasons. Not only does the topography affect the condition of the road but also the agriculture productivity of the area which impede easy transportation of farm produce (Kpando Municipal Assembly, 2006).

2.4.2 Drainage

The Volta Lake and the River Dayi are the major water bodies that drain the Municipality. There are other streams that can be found in the Municipality but these are perennial. The Volta Lake runs virtually along the whole of the western boundary while the Dayi River is to the east and its basin provides a farming land for the cultivation of food crop and vegetables. The Kpando-Tokor itself being my research site is located along the Volta Lake which serve as a means of livelihood

for the people far and near. The presence of these water bodies are great sources for irrigation farms which can make all year farming possible and thus creating employment opportunities for the people. The lake is also a big potential for the design of a water supply scheme to many communities faced with access to good water. In addition, the lake can boost tourism potential and fishing industries in the area to the benefit of the entire population (Kpando Municipal Assembly, 2006).

2.4.3 Climate and Vegetation

The climatic condition of the Municipality is within the tropical zone, and it is influenced by the South West monsoons wind from the South Atlantic Ocean and the dry Harmattan winds from the Sahara. The Municipality is characterized by two rainy seasons – thus mid-April to early July (major) and from September to November (minor). The average annual rainfall for the Municipality ranges from 900mm to 1,300mm with significant variations. Double maxima rainfall nature of the area makes it possible for the Municipality having a comparative advantage when it comes to food production. It is an opportunity for the farmers in the Municipality to increase their income annually as a result of the two cropping seasons associated with double maximum rainfall which is not the case in other part of the country.

Guinea Savannah Woodland, Deciduous and Thick Forest types is the vegetation associated with the Kpando Municipality. It is believed that the Municipality used to be densely forested in former times but huge forest areas have been destroyed and converted to other forms of land uses. These land uses forms include inappropriate farming practices, bush fires and excessive lumbering. These notwithstanding, there are noticeable reserves in the study area including the Kpando Ranges, Kpando Plantation Forest Reserve, Awate Forest Reserve Tsrukpe, Agate and Reserves (Kpando Municipal Assembly, 2006).

2.4.4 Population Structure

The population structure of the Municipality is similar to the regional structure characteristic of developing country. The population structure is therefore young with about 38.1 % aged between 0-14 and lower than the regional average of 41.1 %. 9.8% of the population is above the age group of 60 years whilst the economically active population of 15 years to 59 years account for 52%. The municipality is characterized by high dependency ratio due to youthful population structure (Kpando Municipal Assembly, 2006).

The maps below show the research area and research Municipality.

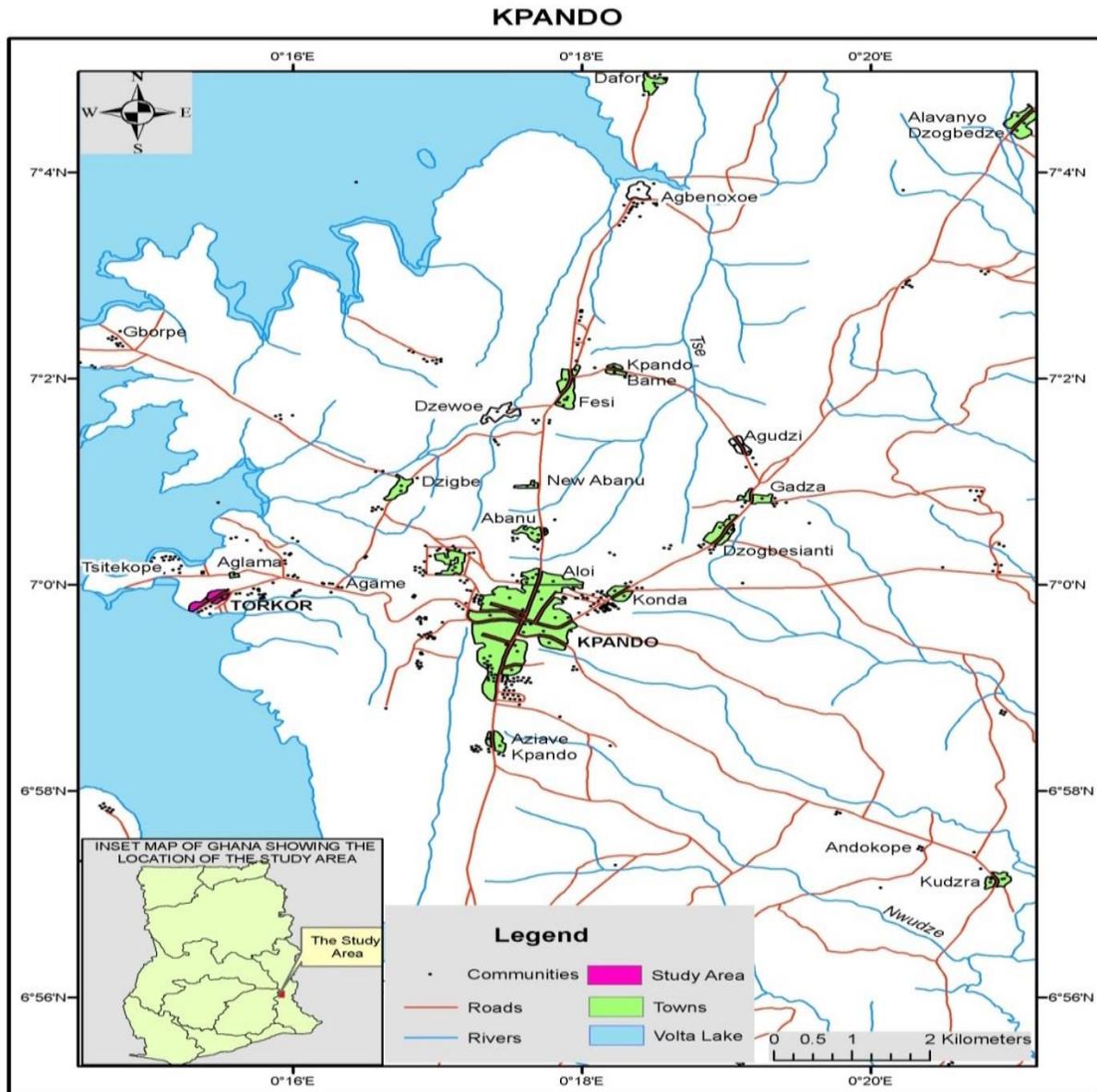


Fig 2.1: Map showing location of Kpando-Torkor

Source: Geography Dept. University of Ghana

2.5 Fishing in Ghana – History

Ghana has a long history as an artisanal fishing country and this can be traced to the 1700s and 1800s when it is believed that the Fante fishers introduced ocean fishing to communities along the coast of the country (Atta-Mills et al,2004). Ghana’s commercial fishing sector did not come to light until the 19th century when there were modifications in the river boats to handle the surfs and the rough seas along the West African Coast (Agbodeka, 1992). The boats enabled easy access to coastal communities across Ghana which culminated into well built in- shore artisanal and commercial fishing by the 20th century. This is the time where there was a preference for marine fish as a source of protein among the coastal population of Ghana. “ By the middle of 20th century, the development of a semi industrial fishing presence in foreign waters had established Ghana as a fishing power throughout West African” (Agbodeka 1992 cited in Mills et al., 2004 : 14).

The Ghanaian fishing companies operating in foreign waters including Senegal, Nigeria, etc thrived well from the 19th century to the early 1960s when many West African countries obtained their political independence. The new governments and their administrations after independence view these Ghanaian companies and their fishers as security risks to their country and many of this companies were expelled from their country (Agbodeka, 1992). This action resulted in the decline of Ghana as a regional fishing hub. This notwithstanding, the government of the newly independent state of Ghana under Dr Kwame Nkrumah recognized the importance of fishing and included the fishing sector in its years development plans. Subsequently, the government and the private industry invested massively in the sector in the 1960s and 1970s and vessels for offshore industrial scale fishing were equipped heavily. It is worth noting that, Ghana set up the State Fishing Corporation as a catalyst to attract national entrepreneurs through the provision of loans in 1961 (Atta-Mills et al., 2004). Throughout the 1970s and 1980s, the fishing sector is continually plagued with financial difficulties. Political instability also prevented the sector from doing well in the 1980s (Agbodeka, 1992).

“Although Ghana achieved some measure of political stability in the 1990s, the poor economic conditions at that time and the prohibitive cost of accessing distant fishing grounds continued to plague the sector. By the 1990s, inshore marine resources had been overexploited which had also contributed to stagnation of the semi-industrial fleet. In both the semi-industrial and

industrial fleets there has been an overall trend of declining catch per unit effort from 1980 to 2001.” (Atta-Mills et al., 2004 : 14).

2.5.1 Fishery management systems in Ghana

The Directorate of Fisheries operating within the Ministry of Food and Agriculture has the overall management of fisheries in Ghana. The management of fishery in Ghana comes under two broad categories of marine fisheries and Lake Volta fisheries. The two management system plan to respond to ecological, socio-economic and institutional issues related to the development of the national fishery. To conform to the global policy environment regarding fishing, the national fisheries management plans draw heavily on the:

- Code of conduct for Responsible Fisheries (CCRF) policy matrix;
- Integrated development strategy models and
- Coastal area management models. (Information on fisheries management in the republic of Ghana, 2004).

2.5.2 Volta Lake fisheries management system (VLFMS)

It is worth describing the management system of Volta Lake fisheries because Volta Lake serves as the source of livelihood for the fisher folks of Kpando Torkor. The lake fisheries management system is structured around six strategic goals, with a set of actions to achieve strategic goal. The table below depicts the diverse strategic goals and the corresponding actions.

Table 2.1: Strategic goals and actions of (VLFMS)

Strategic Goals	Actions
Regulation of fishing mortality	<ul style="list-style-type: none"> • Declaring Specially Protected Areas (SPA) as breeding and nursery areas • Increasing the minimum mesh size to 7.62 cm for all nets • Enforcing fishery regulations on the use of active gear, the exploitation of gravid fish and under-meshed nets
Harmonization and strengthening of the institutional environment for fisheries	<ul style="list-style-type: none"> • Establishment of a coordinating body for fisheries management, development

management, development and research	and research
Establishment of co-management institutions that can manage territorial use rights regimes using local community structures	<ul style="list-style-type: none"> • Provision of a legal framework for Community-Based Lake Management Committees (CBLMCs) • Empowering (CBLMCs) to undertake registration and licensing of fishing vessels • Integrating (CBLMCs) into the fisheries management system.
Improving the socio-economic conditions of lakeside communities	<ul style="list-style-type: none"> • Measures aim to influence population patterns • To preserve and improve infrastructure • Promotion of alternative livelihoods supported by an effective credit system
Sustenance of existing alternative livelihoods within ecological environment	<ul style="list-style-type: none"> • Introducing agroforestry practices • Introduction of ecologically efficient land use system •
Effective implementation of a policy matrix that reflects the Code of Conduct for Responsible Fisheries, coastal area management models, etc	<ul style="list-style-type: none"> • Multi-purpose monitoring capacity integrating (scientific and non-scientific information) • Partnership with local stakeholder groups in managements decisions • Allocation of access and fishing rights at the local community level

Source: FAO (2004)

Aside the above systems of management, there is also the traditional method of managing the fishery sector through the observation of non-fishing days within the week with the purpose of allowing the fisher folks to rest and mend their gears and the imposition of ban on fishing during

certain periods of the year (Okrah, 2013). At the district level, District Assemblies work in collaboration with the district department of Ministry of Food and Agriculture and other administrative bodies for the management of fisheries. In addition, Community Based Fisheries Management Committees and Non-governmental Organisations are partners in the management of fishery resource in Ghana.

Since the ratification of the United Nations Convention of the Law of the Sea (UNCLOS) by Ghana in 1983, five fisheries related laws have been passed to help manage and regulate the sector. These are:

- Fisheries Regulation 1984 LI 1294;
- Maritime Zones (Delimitation) Law, 1986;
- PNDC Law 256 of 1991;
- Fisheries Commission Act of 1993, Act 457; and
- Fisheries Act 625 of 2002.

The above legislations brought in an increasing awareness of the need for conservation, with later ones going to greater lengths to achieve this objective (Kwajosse, 2009 cited in Okrah, 2013).

2.6 Contribution of Fishery sector to the economy of Ghana

The fishery sector contributes significantly to the national economy of Ghana in terms of employment, food security, revenue generation, GDP, poverty reduction and foreign exchange earnings.

2.6.1 Inland Fisheries and Employment

The fishing sector provides employment for many rural and urban people in Ghana. It has been estimated that about ten per cent of the population is involved in this sector from both rural and urban areas (Bank of Ghana, 2008). It is worth noting that both male and female are actively engaged in the sector. The former are involved in fish harvesting whilst the latter are key players in post-harvest activities, undertaking fish processing, fish mongering, storage and trading activities. Bank of Ghana (2008) citing IDAF (1993) estimated that about 300,000 fisher folks

depend on Volta Lake for their livelihood. Out of this number, 80,000 and 20, 000 are fishermen and fish processors/traders respectively.

2.6.2 Inland Fisheries, food security and poverty reduction

Fish is recognized as the most important source of protein in Ghana and is consumed by most people across the length and breadth of Ghana, both the urban rich and the rural poor (Bank of Ghana, 2008). In addition, the role of the fishery sector in contributing to poverty reduction is very important. Many poor and vulnerable people rely on the sector directly or indirectly for their livelihoods.

2.6.3 Inland Fisheries and Foreign exchange earning

Fishery and fishery products have gradually become Ghana's most important foreign exchange earnings. It has been estimated that the fishery sector accounts for over 50 per cent of the earnings from the non-traditional export. In 2006, about 60, 000 metric tons of raw and processed fish were exported earning over 80 million US Dollar for Ghana (Bank of Ghana, 2008).

2.7 Summary

This chapter has provided the reader with background information relating to a short profile on Ghana and the study Municipality. Geography, topography, drainage, climate, vegetation and population structure were some of the characteristics of the study Municipality discussed in this chapter. The second section dwelt on fishing in Ghana with focus on its history, fishing management systems in Ghana and the Volta Lake fisheries management. The last section looked at the contribution of the sector to the economy of Ghana in terms of employment, GDP, poverty reduction and food security.

CHAPTER THREE: METHODOLOGY

3.1 Introduction

This chapter presents the methodology used in conducting this research. It provides details of the participants and means through which the data was collected during the field work, analyzed and presented. Thus, this chapter focuses on the methods used in the field, critical reflection as well as the discussion of some limitation during the course of data collection. The chapter is divided into three sections. The first section discusses the choice to use mixed method of enquiry for this study. The second section introduces the diverse tools that were used during the field work and how they were applied and the third section addresses the issue of validity and reliability and limitations of the field work.

3.2 Choice of Research Methodology

Methodology is the way in which you find out information, it describes how something will be done or was done. The methodology includes the methods, procedures and techniques used to collect and analyze data with the purpose of generating information.

As conceptualized by Kitchin and Tate (2000), methodology of research involves a coherent set of rules and procedure which can be used to investigate a phenomenon or situation. In conducting a geographic research, two broad methodological pathways are available to choose from, thus the qualitative and quantitative. In recent years, scholars have argued for the combination of the two (mixed method) which I used in my study.

3.2.1 Mixed Method Approach

Mixed method is an approach to inquiry that combines both the qualitative and quantitative forms. It involves the philosophical assumptions, the use of qualitative, quantitative approaches and the amalgamation of the two approaches in a study. It is more than merely collecting and analyzing the data from these two sources but go further by using the two approaches in tandem so that the on the whole, the strength of the study is greater than either qualitative or quantitative research (Creswell, 2009). This in my case is very significant since my research focus on livelihood strategies and poverty among the fisher folks of which issues related to poverty has to be looked at from an in depth point of view which is taken care of by the qualitative strand.

The choice of mixed mode design as referred to by Bhattacharjee (2012) are influenced by the appropriateness of this research design in investigating the research problem, the research objectives as well as the philosophical worldview of the researcher. I am inclined to pragmatic world view which comes from the pragmatists. Pragmatism is derived from the work of Peirce, James, Mead and Dewey (Cherryholmes, 1992). Pragmatism is not committed to only one method of philosophy and reality and this applies to mixed methods research in that inquiries draw on the assumptions of both the qualitative and quantitative methods when they engage in their research (Creswell, 2009) In addition, pragmatists' researchers have the freedom of choice in the sense that, they are free to choose the methods, techniques and procedures of research that best meet their needs and purposes. Moreover, pragmatists do not see the world as an absolute unity and in a similar manner, diverse approaches are used in collecting and analyzing data rather than subscribing to one only; being qualitative or quantitative (Creswell, 2009). "Mixed methods research also is an attempt to legitimate the use of multiple approaches in answering research questions, rather than restricting or constraining researchers' choices (i.e., it rejects dogmatism)" (Johnson & Onwuegbuzie, 2004:17)

3.2.2 Types of Data: Secondary and Primary Data

The type of data collected and utilized in any research is of paramount to the research process. This study used both primary and secondary data which were collected from diverse sources. Primary data was the main information for analysis and discussions of this study. The primary was generated from two month of intensive field work in Ghana with specificity to Kpando-Torkor in Kpando Municipality. Primary data was collected from the key informants including the fisher men, fisher mongers, fish traders, residents, chief fisher man and his elders. Bearing in mind the financial constraint and time factor, three main techniques were employed in generating primary data. These techniques were questionnaire administration, interviews and observation.

Secondary data on the other hand comprises of data derived from existing database of organizations and other previous research undertaken by other researchers in the field. Example of the secondary data used included information from FAO, Fisheries Commission Act, information from the Ministry of Fisheries, information from the webpage of Kpando Municipality. Secondary data served as background information to the study or to compliment the primary data.

3.2.3 Data collection and Sampling Techniques

The research using mixed mode design combined both qualitative and quantitative methods in data collection. In so doing used different sampling techniques in that regard. Before describing into details the specific techniques and process of data collection and sampling techniques, details of the informants and sampling methods used were discussed.

3.2.4 Samples and Sampling Techniques

The research informant in the study can be classified into three main groups. These are the fisher folks (fisher men, fisher mongers and fish traders) the traditional authority (Chief fisherman and his elders) and fisher men and fishmongers. The option of using multiple units or groups of respondents provided an avenue for multiple data but also has an overarching merit of comparison.

Table 3.1: Summary of respondents and sampling techniques

Respondents Categories	Sample Size(Units)	Sampling Techniques	Data collection Techniques
Fisher folks	80	Purposive Sampling	Questionnaire
Traditional Authority	1	Purposive Sampling	Semi structured Interview
Fisher folks	9	Purposive Sampling	Semi structured Interview

Source: Fieldwork, 2013

3.2.5 Questionnaire Administration

A set of 80 questionnaires were administered among the fisher folks of the Kpando-Torkor. The fisher folks comprised of the fisher men, the fishmongers and women who are into the trading of fish. The questions captured in the interview ranges from their background with respect to age, sex, main occupation, duration of occupation, emerging livelihood pathways in the study area and their perception. In addition, other segment of the questionnaire focused on the poverty dimension of the fisher folks which use income, housing, health, food and water as subjective indicators. These indicators go beyond the unilateral perspective on poverty which looks at poverty from economic point of view by using multiple indicators.

The table below depicts the breakdown of the sex category of the questionnaires.

Table 3.2 Sex distribution of the respondents

Sex	Frequency	Percent
Male	43	53.8%
Female	37	46.2%
Total	80	100.0%

Source: Fieldwork, 2013

3.2.6 Interviews

Yin (2010), describes interview as data collection techniques that involve integration between interviewers and a participant or interviewee. Regardless of how interview is being conceptualized, the underlying notion is that an interview involves a face to face conversation leading to the gathering of data for a study.

Interview of whatever forms could take the form of structured, semi structured or unstructured. These different forms of interviews are linked to the depth of data one seeks (Robson, 2002). In this research, semi structured interviews were conducted face to face.

3.2.7 Semi structured Interviews with the fishermen and fishmongers

A semi-structured interview is a qualitative method of inquiry that combines a pre-determined set of open questions with the prospect for the interviewer to discover particular themes or responses further. Semi structured involves the formulation of open ended guide questions for interviews which are highly controlled by the interviewer (Kitchen and Tate, 2000). This tool is about listening to what people said and at the same time not being judgmental ones interpretation. And according to Clifford, French, and Valentine (2010), semi structured interview involves talking with people in ways that are self-conscious, orderly and partially structured. This is used for the fishermen and the fisher mongers. An interview guide was formulated prior to the commencement of the field work (See appendices).

3.2.8 Interview with the chief-fisherman

At the community level an in depth interview was held with the traditional chief surrounded by his elders. The rationale for the choice of this category of key informant was informed by the fact that, the traditional chief of the area happens to be the chief fisherman and he is in touch with the political authority as well as his people. It is credence in the Ghanaian setting that the traditional authority and for that matter chiefs epitomize the personification of the hopes and aspirations of their subject in all spheres. Traditional chiefs act in the interest of their people for improvement in the socio economic conditions and I find it prudent to hear their side of their stories as far as my research topic is concerned.

The chief of Kpando-Torkor community gladly accepted to be interviewed for the research. Prior to that, an inquest was made from his household as to what customary demands that needs to be performed because in our cultural settings, one cannot visit a chief on his or own will. Having performed the customary demands, the chief and his elders became available for the interaction. During the initial interaction, the chief and the elders were made aware of the purpose of the visit to their community. A date was later set up for the interview proper.

The interview with the chief and the elders lasted for more than an hour. The interview was conducted in his home. Issues of community life and history of the community started the interview. The interview proper was conducted with an interview guide I had prepared before the visit. The chief was very down to earth and very open and frank to issue. He took his time to express his opinion on issues ranging from the emerging livelihood pathways emerging and whether they can be sustainable or not, fishing regulations, and problems facing fisher folks in the area.



A



B

Figure 3.1: Picture (a) showing the researcher and the chief fisherman whilst photo (b) showing one of the elders

3.2.9 Observation

Observation was used as part of my techniques of data collection. Bearing in mind that mixed mode design being used in my research, observations involve the taking of field notes on behaviour and individuals in the field (Creswell, 2009).

The use of observation in this research provided another dimension for answering the research questions with adequate verifiable data. This is because observation enables the researcher to describe existing situations using the five senses. In addition, observation is also a means of breaking through areas that are difficult in breaking through in the course of the data gathering and this is as a result of my experience on the ground.

Observation was used severally in the field to ascertain the validity of what the respondents told me. This is because I could easily verify the claims of the respondents on the issue of access to information, emerging livelihood pathways, hoarding of pre mixed fuel which has a profound effect on the fishing industry and many other claims raised by the respondents. On the issue of the emerging livelihood activities in the area, the respondents mentioned Zoom lion group, tree planting under the auspices of Asongtaba Cottage Industry as the two main livelihood activities emerging in the area as well as other petty livelihood pathways. I similarly observed this as I have been seeing those employed by the Zoomlion Company called Zoil people; who are in charge of cleaning the shore of the river to keep it clean and tidy. I have seen for myself the people employed by the Asongtaba Cottage Industry. These people are into coconut farming.

Mode of accessing information by the fisher folks is another area where my observation has confirmed what my respondents told me on the field. Most of the respondents said they do not have access to internet, television, newspaper to access information and this is true because I could not find one newspaper vendor to purchase one. On the other hand, accessing information through radio as said by most of the respondents was confirmed by my observation as most fisher folks were at one point or the other listening to radio during my stayed in the field.

The fishermen explained to me the essence role of having reliable access to pre mixed fuel in their fishing expedition. They however complained bitterly about how the reliability they seek is not achieved as a result of hoarding on the part of some recalcitrant members of theirs. These

statements from the fishermen caught my attention and having developed interest in it, I used the strategy of participant observation to confirm their statements.

3.3 Data recording, data Analysis and Presentation

Digital tape recorder was used in this study to record the interviews I had with the respondents and informants. Prior to recording, permission was sought from them which are in line with issue of ethical consideration and with their approval I went forward for the recording. Field note was also employed to write down interesting points in the course of interview that later used in written analysis. The use of field note helped me to remember the expression and their reactions to different issues in the course of the interview.

With regard to the qualitative data which have in depth interpretation of what people said, the data was transcribed and organized in themes. Data was analyzed mainly through an interpretative approach relying on patterns, categories and main themes as basic descriptive units. The data was interpreted by looking at key words, ideas, similarities as well as differences in the responses from the respondents. Through this, I was telling the story and experiences of the respondents as to the comprehension of their poverty status using the indicators from their subjective point of view, their understanding of poverty, their knowledge on emerging livelihood pathways, etc.

SPSS was also employed in analyzing the quantitative data generated on the field. This was used to generate pie charts, bar charts, and frequency tables and cross tabulation tables for diverse areas that were analyzed quantitatively. Basically, the questionnaire administered on the field was analyzed through Statistical Package for the Social Sciences (SPSS).

3.3.1 Evaluation of the Methodology

3.3.2 Validity, Reliability and Trustworthiness

The need for every research to meet the three criteria of validity, reliability and trustworthiness is paramount. These three criteria in my view are the yardstick for evaluating one's methodology used in a research. These concepts however mean different things in qualitative research and quantitative research (Creswell, 2009).

Validity in research is concerned with the legitimacy of the research findings while reliability on the other hands refers to the extent to which the study produces consistent findings on repeated

trials. Validity is achieved in this study by adopting a method called triangulation. Triangulation is defined by Denzin as cited in Jick (1979) as the use of different methodologies in the study of the same phenomenon. Various multiple data collection sources as previously described above as well as adopting multi source approach in data collection. This made it possible to cross check information in order to enhance the credibility of the research.

Trustworthiness is more central to qualitative methods but the fact that I have used qualitative and quantitative method in this study, it is of significance to discuss trustworthiness as well. The underlying presumption of qualitative data is that texts have multiple meanings and its interpretation could be taken out of context and subjective as well (Graneheim & Lundman, 2004). According to Graneheim and Lundman (2004), a discussion of trustworthiness take into account in most literature the concept of credibility, tranferability and confirmability. Credibility as a criterion for trustworthiness pertains to how the methods and procedures employed address the focus of the reseearch (ibid). This is achieved in my study with the use of multiple source of respondents and data collection as described above. Gray (2009) also argues that, the content of interview questions must be linked directly to the research objectives. In ensuring this, interview guides and checklist and questionnaires were prepared beforehand and even though many issues emerged during the process, I make sure every aspect of my interview guide and questionnaire were covered.

Transferability on the other can be related to external validity and relate to the extent to which the findings of the research can be transferred to other settings. The ability to generalize this research to other areas is limited. This stems from the fact that the setting of this research is a rural set up and has a perculiar culture as their inherentt characeristics and cannot be overly generalized to other areas. This notwithstanding, the finding can be useful indicators of the lived experience of the fisher folks in other fishing communities.

Confirmability of the research relates to how to be able to review the entire process, remove personal biases in the analysis and give an opportunity to respondents to verify the conclusions drawn after the research work (Crang & Cook, 2007). Even though member checks is the most widely used means of checking this, the distance and time factor between myself and the informants could not allow me to relate to them back for verification. This nothwithstanding, the back and forth verification of responses on the field during the interview process ensured that

their views were properly recorded. Another ways I achieved comfirmability in the study has to do with relating their responses to personal observation on the field. For instance, when the respondents told me about the emerging jobs and the medium of receiving information related to their activities, I confirmed that through personal observation.

3.3.3 Ethical Consideration

According to Silverman (2011), researchers must be sincere with informants about the aims of the research. I explained to my gatekeeper the aim of my research and helped me along the way. I bear in my mind the key issues as far as ethical consideration are concerned especially confidentiality, informed consent and safety of your respondents.

At the inception of each administration of questionnaire and interview, I began with the introduction of myself and the topic I'm researching on and that, they have the free will to partake and withdraw at any time when so wish. I also assured them that the information given will be treated with the outmost confidentiality. I also asked for consent to take pictures and these were agreed upon at some moments and dissent to at some point and as ethics demand, I have no option than to agree with them. Recording of interviews I had with them was done likewise.

3.3.4 Positionality and Power Relations

The status of an individual is defined as the position he or she occupies in relation to the entire society (England, 1994). Rights and duties come with the position one occupies in society. A careful reflection of a researchers' status on the field is of essence because it can affect the kind of information a researcher will get on the field. For the purpose of this study, my status was that of a student researcher and also an 'insider' in the context of the research site. This is because I'm a native of the region and can equally speak their dialect; the Ewe dialect. With this in their mind, I was considered as one of their own and trust was developed in me. Notwithstanding this, I was equally regarded an 'outsider' when it comes to the specific location in the region because the research sites happens not to be my hometown. In addition, my identity was hidden for a plethora of reasons ranging from financial inducement and also from spiritual perspective knowing very well that, being in Europe for studies is envy to some in our part of the world. Moreover, my status as an 'outsider' was conspicuously noticed when it comes to fishing activities as I couldn't go on fishing when I was asked due to the fear of being drown.

Power relation is produced as a result of the differences in knowledge between the researcher and the respondents and this have to be managed in the research process. Power relation played some role in this research in a galore of ways as envisioned and it was essence on my part to plan and deal with them as advised by (Crang & Cook, 2007). Some of the anticipated interaction that may have power relation entrenched in them were identified and appropriate measures considered before the inception of the fieldwork.

The first of this interaction bringing about power relation has to with the interaction with the indigenous of Kpando-Torkor. As a researcher and not a native of the area and having a kind of knowledge in the subject matter, the probability of me dominating was foreseen. According to England (1994), this type of power relation is characterized as possibly exploitative relationships. Having this in mind, the situation was dealt with by engaging the respondents in a friendlier, down to earth manner in terms of my body language and framing of questions. In addition, I have to submit myself to the level of theirs by sometimes helping them as shown in the picture below.



Figure 3.2: Picture showing researcher preparing food used in setting trap for fish in picture A and a researcher helping a pregnant woman in photo B

3.4.5 Fieldwork Experience and Limitation.

The entire research especially the fieldwork has been an interesting experience and epitomized an essence element in my learning process.

The choice of research topic at the inception was a hectic process since it involved a galore of thoughts and adjustment each time with my supervisor. A number of issues were thoughtfully discussed ranging from the necessity to balance between my interests, resources (time), knowledge base and resources and more importantly what is the contribution of my work to the existing literature.

During the fieldwork itself, the experience was exciting despite the numerous challenges faced on the field. Some of the overarching challenges faced were the reluctance on the part respondents to grant me time for discussion and this have lowered my moral at the initial stage of my fieldwork. Secondly, the respondents were impugning politics to my research. The respondents were reading politics into whatever I was doing. This was as a result of the fact that, the respondents complained of politicians and government on periodic basis carrying such research but nothing has ever happened in their life to improve their life. With this, I have to explain to them that, mine is purely from academics perspective. Thirdly, the respondents asked of financial inducement before granting me their time. This I surmounted by explaining to them that I am a student doing purely academic work. However, at some point some money had to go especially at the chief palace as custom demand.

3.6 Summary

This chapter has provided justifications for the choice of mixed mode design which involve the use of both qualitative and quantitative approach in one study. It has also brought to fore the various data collection methods and sampling techniques used during the field work. In addition, issues of ethical consideration in research were discussed as well as field work experience and limitation.

CHAPTER FOUR: THEORIES AND CONCEPTS

4.1 Introduction

This chapter focuses on theories and concepts that operationalized the study on livelihoods and poverty. In view of that, sustainable livelihood framework and various conceptions and approaches to understanding of poverty are discussed in this chapter.

The chapter is divided into two parts. The first part deals with the Sustainable Livelihood Framework (SLF), emphasizing on how fisher folks are located within the framework with respect to assets, livelihood strategies they pursue. The second aspect deals with the concept of poverty and its approaches.

4.2 Livelihood Approach

Livelihood thinking can be traced to the work of Robert Chambers in the mid-1980s. In realizing that conventional development concepts did not produce the desired effects, Chambers developed the idea of “Sustainable Livelihoods” with the intention to enhance the efficiency of development cooperation (Kollmair & St Gamper, 2002).

The Livelihood approach, otherwise known as the Sustainable Livelihoods (SL) approach is an approach for understanding poverty and livelihoods (DFID 1999). The discourse on Livelihoods is a major area in both social and natural sciences. According to Lund et al. (2008), the literature from the natural sciences primarily focuses on the sustainable use of natural resources to improve people’s livelihoods (Khan 2004; Carney 1988), and those in the social science focuses on improving the livelihoods of the poor people (Ellis, 2000).

Livelihood is defined as "comprising the capabilities (stores, resources, claims and access) and activities required for a means of living: a livelihood is sustainable when it can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets and provide a sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long run" (Chambers & Conway, 1992:6).

Carney (1998) defines livelihood as the “capabilities, assets (including both material and social resources) and activities required for a means of living and a livelihood is sustainable when it can cope with and recover from shocks and stresses and maintain or enhance its capabilities and

assets both now and the future without compromising its resource base” (Carney, 1998:4). It is worth noting that the livelihood asset defined by Carney as both social and material as capital in different forms and when combined together can help in enhancing the well-being of mankind. This includes the natural, financial, social, human and physical capital.

Niehof and Price (2001) cited in Niehof (2004) work define livelihood as a system comprising of the following components:

- Inputs: resources and assets.
- Output: livelihood.
- Purpose: livelihood adequacy for meeting basic needs (Chambers, 1989)
- Activities: livelihood generation and the composition of the livelihood portfolio
- Agency: efforts of households and individuals to achieve livelihood adequacy.
- Quality: degree of vulnerability (or sustainability) of the livelihood produced.
- Environment: context within which the livelihood system functions interfaces with other systems and institutions.
- Locus: the household as the locus of livelihood generation.

According to Niehof (2004), taken all definitions of livelihoods together, one conclusion to draw is that livelihood is a multifaceted concept. Although Niehof and Price (2001) cited in Niehof (2004) provided another dimension on the understanding of livelihood, their notion is not used in the study.

4.2.1 Sustainable Livelihood Framework (SLF)

“The SLF forms the core of the Sustainable Livelihoods Approach and serves as an instrument for the investigation of poor people’s livelihoods, whilst visualizing the main factors of influence. Like all models, the SLF is a simplification and does not represent the full richness and diversity of livelihoods, which can only be understood by qualitative and participatory analysis at the local level (Kollmair & St Gamper, 2002:4). According to Carney (1998), the framework shows the way five factors interact to shape the livelihoods of people and their relative importance. The framework helps researchers to point out to policy maker at the national, regional, micro and macro scale the major constraints people face as they pursue their livelihood. The SLF highlights the asset, vulnerability context, mediating institutions, livelihood

strategies and outcomes showing how all the five dimensions of the SLF relate to influence the overall of individual and wellbeing. The UK Department for International Development (DFID) Sustainable Livelihood Framework is presented below. For the purpose of the thesis, focus is mainly on transforming structures and process, assets and livelihood strategies

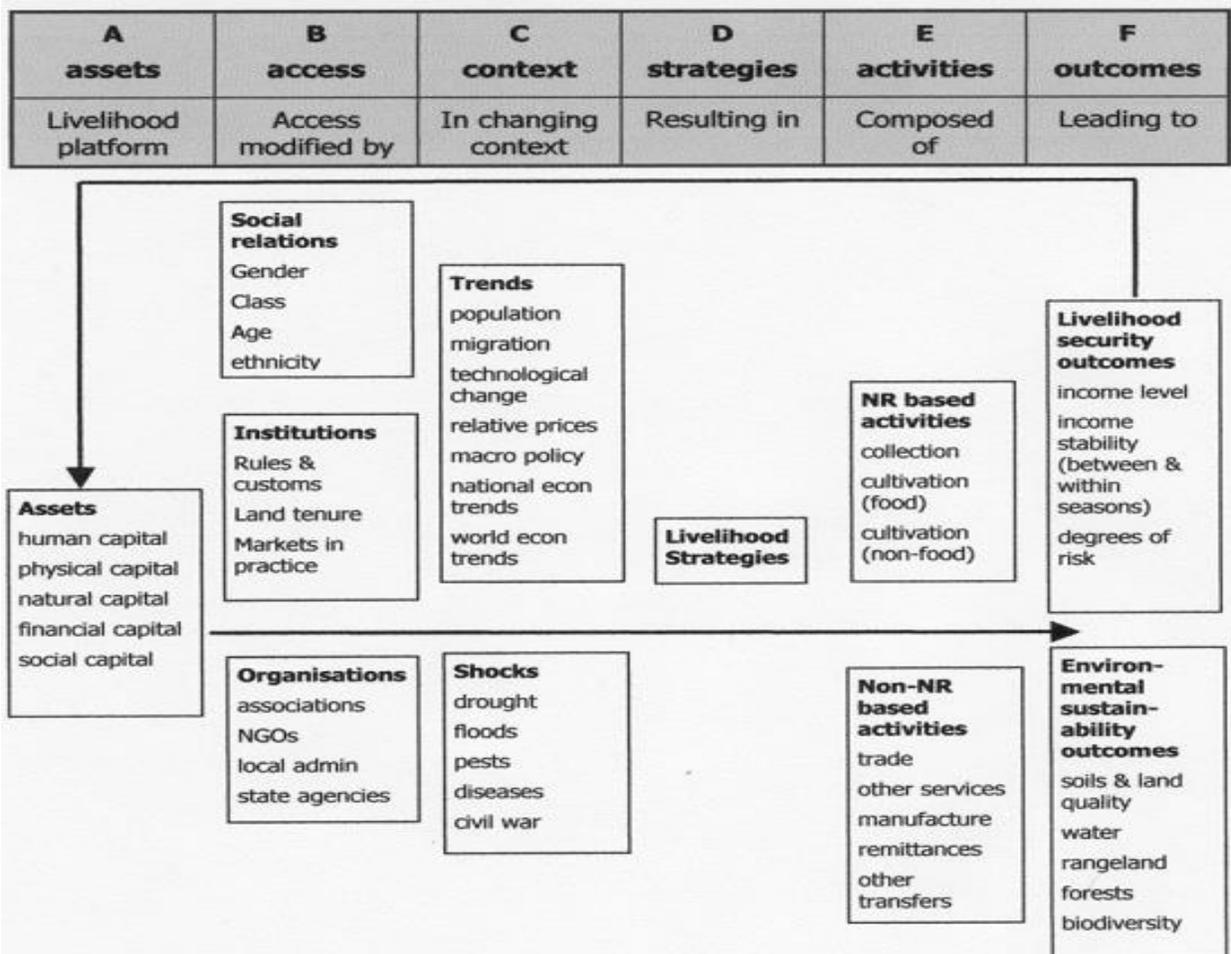


Fig 4.1: Sustainable Livelihood Framework (SLF)

Source: (Ellis, 2000:30)

From the diagram above, at the center of the framework is the asset on which the individuals or households build their livelihoods. These assets are influenced by the vulnerability context which takes the form of shocks, trends, seasonality of which the individual has no control over. The ability of an individual or a particular household to pursue particular livelihood strategies is influenced by the existing structures and processes taking the form of government, private sector,

laws, policies, etc. The kind of livelihood strategies pursued by individuals or households coupled with other dimensions in the SLF determines the livelihood outcome: whether increased wellbeing, more income, reduced vulnerability or the vice versa.

4.2.2 Information in the context of SL

Information and communication in the contemporary literature on SL receive limited attention but is of very important in the framework because they serve as a linkage that sustain the dynamic system (Chapman et al. 2003). “In order to achieve desired livelihood outcomes information must be communicated throughout the framework to inform decision-making at every level” (Chapman et al., 2003:4). The feedback mechanism generated in the framework should make it possible for information to contribute to constant learning process that influences policy design. Again, without information and by extension information accessibility, people who are priority in the SL cannot utilize the asset at their disposal and the need for priority given to information in the SLF. It is against this background that one of my research questions is to investigate information accessibility channels among the fisher folks of Kpando Torkor and the kind of information accessed as well as its usefulness.

4.2.3 Transforming Structures and Processes

Transforming structures and processes are integral component of the SLF. They denote the institutions and organizations (private and public), policies, culture, legislation, etc. that shape livelihoods. They are of central importance as they operate at all levels (multinational, national, regional, individual and household level).

Structures in the SLF denote the institutionalized public and private organizations that influence the life of individual or household in pursuing a particular livelihood or combination of livelihoods through policy implementation, making and enforcement of laws that determine the kind of activities to be pursued which is also regulated by the laws put in place by these institutions and organizations. Both government organizations and private organizations operate at different strata ranging from the national, regional, local and multi-national in the case of private commercial organizations (DfID, 1999). The central government, the District Assembly and traditional institution as a structure, serves as an obstacle and enabler to apply certain strategy as far as fishing is concerned in the study area.

In addition to structures are processes and it is essence to note that the two works in tandem in the sense that structures make processes function. Processes denote the policies, legislation, institutions, culture and power relations which influence the way and manner in which individuals interact and operate with the structure. Processes according to (Kollmair & St Gamper, 2002:8) constitute the “ software determining the way in which structures and individuals operate and interact. There are many types of overlapping and conflicting processes operating at a variety of levels – and like software, they are crucial and complex. Important processes for livelihoods are for instance policies, legislation and institutions, but also culture and power relations”. The structures and processes can be a constraint when they serve as barrier to people assets and also a resource when they enhance people’s access to assets (North, 1990).

4.3 Livelihood Assets

People are at the center stage of livelihood approach and it sought to gain an accurate and realistic understanding of people’s assets and capital is critical to analyzing how they attempt to transform their assets into positive livelihood outcomes (DfID, 1999). Carney (1998), defines assets to include both material and social resource stocks and as such defined assets as capital. Five different types of capitals are identified in the livelihood framework and can be visualized in the form of pentagon

Kollmair and St Gamper (2002), argues that assets are of special interest in empirical research in order to verify if those who are able to get out of the poverty trap started off by a particular capital or with sets of capitals and also if that can be transferred to other livelihood settings. The diagram below shows the asset pentagon.

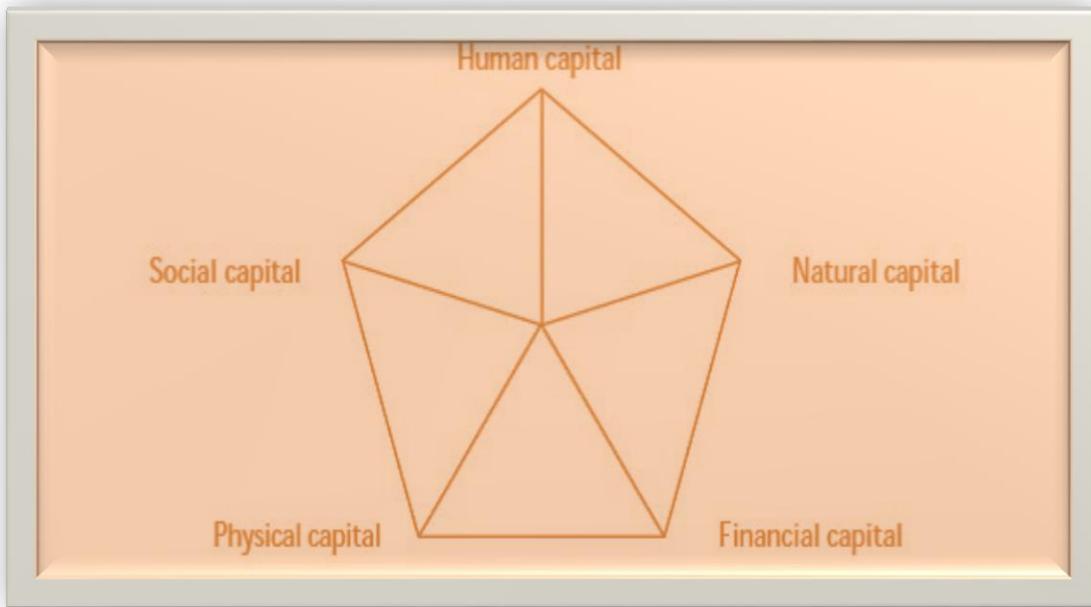


Figure 4.2: Asset pentagon and changes in access to assets

Source: Author’s construct

The asset pentagons above show the strength in each capital that an individual or household can possessed. The asset pentagon is the idea that where the lines meet, represents zero access to assets whilst the outer perimeter represents maximum access to assets (DfID, 1999). It is worth noting that, different asset shaped - pentagon can be drawn for different people or group in a community. One asset may lead to generation of a link of other assets.

4.3.1 Social capital

The mentioning of social capital attracts a plethora of debate as to the exact meaning of social capital. The role of social capital in livelihoods has been recognized in livelihood studies. The contemporary analysis of social capital was produced by Pierre Bourdieu (Portes, 2000). Bourdieu defines social capital as “the aggregate of the actual or potential resources which are linked to possession of a durable network of more or less institutionalized relationships of mutual acquaintance or recognition” (cited in Portes 2000:45). In the context of the SLA, “social capital is taken to mean the social resources upon which people draw in seeking for their livelihood objective” (DfID, 1999:21). In sum, social capital denotes the social network that one has by virtue of a person’s membership of an association, group and even friendship.

4.3.2 Natural Capital

Natural capital forms the basis of all the economic activities. “Natural capital is the term used for the natural resource stocks from which resource flows and services (such as land, water, forests, air quality, erosion protection, biodiversity degree and rate of change, etc.) useful for livelihoods are derived” (Kollmair & St Gamper, 2002:7). Natural capital refers to a set of invaluable environmental goods and services that form the basis of human and non-human life (Adger, 2010). Natural capital is of special importance for those whose livelihoods is dependent on natural resource-based activities, as it is often the case for the poor stakeholders who are into farming, fishing, etc. This particularly applied to the respondents of my research area whose livelihood is dependent on resource based activities. Within the livelihood framework a particularly close relationship exists between natural capital and the vulnerability context because it’s the natural capital that is affected most when the shocks sets in the form of fires, drought, earthquakes, flood, etc.

4.3.3 Physical Capital

Physical capital denotes the basic tangible infrastructure and producer goods needed to support livelihoods. Physical capital manifests themselves in the form of affordable transport, roads, secure shelter and buildings, adequate water supply and sanitation, clean and affordable energy, roads, telecommunications, railway, etc (DfID, 1999). In the context of rural environment, the provision of the physical capital in the form of roads, electricity, water supply, etc. are essence in helping fisher folk to cope with unforeseen challenges. Roads are very important physical asset in linking the urban community to the hinterland, making it possible for the produce (fishes) to be marketed.

4.3.4 Financial Capital

Financial capital is one of the capitals identified under the asset pentagon and its usefulness is widely identified. “Financial capital denotes the financial resources that people use to achieve their livelihood objectives. The definition used here is not economically robust in that it includes flows as well as stocks and it can contribute to consumption as well as production” (DfID, 1999:27). Carney (1998), also added remittances as another component providing individuals and households with diverse livelihood options. There are two main sources of financial capital (DfID, 1999). These are the available stocks and regular inflows of money. The available stocks take the form of savings which do not have liabilities attached. Example includes cash, bank

deposits or liquid assets such as livestock, jewellery as well as financial resources obtained through financial-providing institutions. The regular inflows of money on the other hand comprise the inflows from pensions, or other transfers from the state, and remittances and excluding earned income (DfID, 1999).

4.3.5 Human Capital

In the context of the SLF, human capital is defined as follows: "human capital represents the skills, knowledge, ability to labour and good health that together enable people to pursue different livelihood strategies and achieve their livelihood objectives" (DfID, 1999:19). According to Carney (1998), human capital involves the labour resources available to households, which have both quantitative and qualitative dimensions. The former refer to the number of household members and time available to engage in income earning activities. Qualitative aspects refer to the levels of education and skills and the health status of households. Support to the accumulation of human capital can be both direct and indirect (Frameworks, 2001). In the context of the fisher folks of Kpando-Torkor, they can enhance their human capital by attending training sessions on modern fishing practices, educating their children and more importantly assessing preventive medical care because accessing other four assets is very much dependent on the quality of human capital comprising the skills, education, dexterity, labour, etc.

4.4 Livelihood Strategies

Livelihood strategy is one of the key components of the SLF. "The concept of a livelihood strategy has become central to development practice in recent years. Nonetheless, precise identification of livelihoods in quantitative data has remained methodologically elusive" (Brown et al. 2006:21). Livelihood strategies comprise the range of activities that people pursue in order to achieve their livelihood outcomes which can take the form of improved well-being, improved income, food security, improved standard of living, etc. Scoones (1998) identifies four broad categories of livelihood strategies and these are agricultural intensification, agricultural extensification, livelihood diversification and migration. These four broad categories are seen to encompass the livelihood strategies option available to all and sundry and for that matter rural people.

4.4.1 Agricultural intensification

Agricultural intensification is a livelihood strategies based on the exploitation of natural resources - food crops, cash crops and livestock (Orr & Mwale, 2001). Income from agriculture that is earned from off farm activities in the form of casual labour also falls under this livelihood strategy. Agricultural intensification according to Tiffen et al. (1995) cited in (Carswell, 1997:3) is “increased average inputs of labour or capital on a smallholding, either cultivated land alone, or on cultivated and grazing land, for the purpose of increasing the value of output per hectare”. Carswell identifies three means through which agricultural intensification may occur. These are an increase in the gross output due to expanding inputs without technological change, a shift to more valuable outputs and technical and technological change that raise land productivity (Carswell, 1997). It is worth noting that in practice, agricultural intensification process may occur with the combination of the three means as identified by Carswell.

4.4.2 Agricultural extensification

Agricultural extensification is a livelihood strategy which denotes introducing production into land areas that were previously not used or use less for production. Agricultural extensification put differently as land extensification by Bilsborrow cited in (Shapiro, 1995:223) entails “expansion of agriculture onto new lands, with land being cleared of trees and brush in order to plant crops and raise animals”.

4.4.3 Livelihood diversification

Livelihood diversification is the third recognized livelihood strategy option that has been identified in the literature. Livelihood diversification occurs as rural households engaged in sets of livelihood activities and social support capabilities for their survival and in order to improve their standard of living and achieve desirable livelihood outcomes (Orr & Mwale, 2001). Rural livelihood diversification is defined “as the process by which rural households construct an increasingly diverse portfolio of activities and assets in order to survive and to improve their standard of living” (Ellis, 2000:15). Barrett et al. (2001), define diversification as to be widely understood as a form of self-insurance against risks.

Diversification denotes the expansion of the share of income from other set of activities which are necessarily non-agricultural activities. These non-agricultural activities can be in the form of rural trade and services and also from transfer of income. According to Scoones, “livelihood diversification therefore may involve developing a wide income earning portfolio to cover all

types of shocks or stress jointly or the strategy may involve focusing on developing responses to handle a particular type of common stock or stress through well-developed coping mechanisms” (Scoones, 1998:9)

4.4.4 Migration

Migration is recognized as one of the livelihood strategies following Scoone’s (1998) interpretation of the Sustainable Framework (SF). Migration is identified as important livelihood strategy in the contemporary times. Migration denotes the movement of a resident, individual or a member of the household for varying periods of time in quest of economic prospect. There exists a lot of literature on migration and types of migration identified include seasonal/temporal, circular and permanent migration. Seasonal or temporal migration denotes the type of migration where the movement is temporal is determined by the seasonality whilst permanent migration involves the movement of people from village to town for economic gains and usually for a long period of time as compared to seasonal migration (Orr & Mwale, 2001).

4.5 Poverty

4.5.1 Concept of Poverty

Poverty is a varied, dynamic and complex concept. The understanding of its nature differs across regions (Jansen et al). According to Ravallion (2010) cited in (Jansen et al.), richer countries have higher poverty lines compared to poor countries. The complexity of the concept of poverty lies in lack of consensus on the exact meaning of poverty, experts and academics have suggested many definitions over time, different ways of measuring poverty, types of poverty, etc. Morduch claims that “poverty is most often classified as being either chronic or transitory. The definitions are sample-specific: if a household is poor in every period in the sample, it is chronically poor; otherwise, it is transitorily poor.” (Morduch, 1994:221).

According to Sen cited in Bellù and Liberati (2005), poverty is the lack of capability to function in a given society. World Bank (2001) cited in (Bellù & Liberati, 2005:2) defined poverty as “the lack of, or the inability to achieve, a socially acceptable standard of living”.

4.6 Absolute, Relative and Subjective notion on poverty

Poverty is thought of as either an absolute, relative or subjective concept. Whatever way one looks at it, it is a well-known fact that poverty exist across space and time.

4.6.1 The absolute concept of poverty

Absolute poverty denotes the kind of poverty whereby the individual is deprived of the basic human necessities needed for life. These include food, water, clothing and shelter. Absolute poverty is defined as "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information" (Gordon, 2005:2). According to Njeru (2004:2) "operationalization and measurement of absolute poverty has been based on a number of indicators such as "Level of living index", focusing on such basic needs as nutrition, shelter and health". The concept of absolute poverty has been extensively criticized especially against its assumption of universal applicability. It denotes that there exist minimum basic needs which are applied to all economic and social strata in all societies which in reality not the case.

4.6.2 Relative concept of poverty

The relative analysis of poverty originated as a result of the failure of absolute poverty concept to account for the fact that inequality can cause poverty. Relative concept of poverty denotes how an individual compare his or her standard of living and well-being to other people. A person's wellbeing is not only about avoiding absolute deprivation; it is also about how one compare him or herself to others in society (Jansen et al.). Relative poverty denotes the use of relative standards in both time and place in the valuation of poverty, viewed as an improvement over the concept of absolute standards (Njeru, 2004). According to Njeru (2004), the concept of relative poverty is grounded on the judgments of members of a given society regarding what they presumed to be a reasonably acceptable standards of living and styles of livelihoods.

4.6.3 Subjective concept of poverty

The subjective concept of poverty comes to fore as a ramification of the flaws associated with absolute and relative concept of poverty. According to (Jansen et al.), a significant criticism of both the absolute and relative poverty concepts is that they are determined by the researcher objectively and are concerned with income and consumption levels. With the use of the objective lenses in looking at poverty, it is highly possible that some who will be classified as poor will not be poor and the vice versa. Subjective poverty, according to Vos and Garner (1991) in Jansen et al. work, is based on the notion that the opinions of people concerning their own situations should ultimately be the decisive factor in defining poverty and not the view of a researcher. For

the purpose of this study, the subjective poverty is used to operationalize the poverty dimension of the fisher folks of Kpando Torkor.

4.7 Dimension of poverty – Uni-dimensional versus Multi-dimensional indicator of poverty

The standard of living, and therefore poverty, may be represented by a uni-dimensional indicator (e.g. income) or a multi-dimensional approach (e.g. income, health conditions, family status, housing, food, water, etc.). According to Haughton and Khandker (2009), cited in (Ofori - Danson et al, 2013), there is no single one way of measuring poverty.

Uni- dimensional representation of poverty is the conventional way of looking at poverty. Poverty is defined by income poverty and the standard of living is defined in the space of economic welfare, a narrower concept than well-being. The uni dimensional perspective on poverty calls for what the appropriate single monetary indicator for standard of living and two elements used in that regard are income and expenditure (Bellù and Liberati, 2005). “Total expenditures are often used as an indicator of poverty, as they better reflect the concept of permanent income of an individual” (Bellù and Liberati, 2005:3). The flaws associated with uni dimensionality of poverty have culminated into the multi dimensionality of poverty, which takes into consideration that poverty is not all about lack of income but other equally important factors make one to be considered poor.

In the contemporary epoch, there is the growing concern for the need to analyze poverty from a multidimensional perspective than the conventional way of measuring poverty with focus on income of individual and household. This stems from the fact that having insufficient income does not only make one poor but rather poverty is encompassing phenomenon comprising of different elements. This can be achieved by the use of more qualitative research method which is strongly rooted in the field of sociology and anthropology (Morduch, 1994). There is another school of thought that echoed the use of nonmonetary variables in quantitative analysis to analyze poverty from a multidimensional point of view (McKay & Lawson, 2003). The measurement of multi dimensionality of poverty entails the definition of the indicators that will be used in assessing the multi dimensionality of poverty and how to weigh the identified indicators in order to get a comprehensive nature of poverty. Example of the indicators commonly used under this approach includes income, water quality, health care; housing

condition, access to electricity, etc. “For example, if you have low incomes and good health, are you richer than an ill individual with more income? If you are illiterate, yet in good health and with enough food, are you poor? (Bellù and Liberati, 2005:3). An alternative way of addressing multi dimensionality of poverty is explaining poverty with a set of chosen indicators, leaving the duty of defining how poverty is expounded by which factors to statistical techniques (ibid).

4.8 Summary

This chapter has provided the overview of the various theories, approaches and concepts that guide the study. Sustainable livelihood framework is discussed with emphasis on asset and livelihood strategies component of the framework. Approaches to understanding poverty were also discussed extensively with from absolute, relative and with emphasis on subjective approach to understanding poverty using the lens of multidimensionality approach. The review of the approaches and concepts on help put the discussion on livelihoods and poverty into a context that fits the objective of the study.

CHAPTER 5: POVERTY PERCEPTION AND LIVELIHOOD STRATEGIES AMONG THE FISHER FOLKS OF KPANDO – TORKOR

5.1 Introduction

This chapter investigates the perception of poverty among the fisher folks of Kpando-Torkor using subjective approach to poverty than absolute and relative approach to poverty. It describes the various dimensions of poverty to better understand how fisher folks perceived themselves regarding poverty and exploring, in depth, the contemporary livelihood activities in the area, the emerging livelihood activities in Kpando-Torkor apart from fishing activities and how the fisher folks perceived the emerging livelihood strategies.

5.2 Multi - dimension of poverty among the Fisher Folks

In the context of this study, combined subjective poverty and multi-dimensional approach was used in the study. This is in contrary to the use of unilinear approach to poverty with focus on income alone. In doing so, subjective indicators of income, food, water, health condition and housing were used as subjective indicators from the perspective of the fisher folks in assessing their poverty status. Subjective poverty, according to Vos and Garner (1991) cited in Jansen et al, it is based on the notion that the opinions of people concerning their own situations should ultimately be the decisive factor in defining poverty. This is used to augment the discussion on poverty among the fisher folks of Kpando-Torkor, Ghana.

Before assessing the multidimensionality of poverty among the fisher folks, it is important that I comprehend their understanding of what poverty means to them. Based on what the respondents told me on the field, the poverty status of the fisher folk is categorized as very poor, poor and rich. The reasons assigned for their choice is summarized in the table below.

Table 5.1 Summary of poverty status classification and reasons assigned by respondents

Poverty Status	Reasons Assigned
RICH	<ul style="list-style-type: none"> • Economically fit • Comfortable • Have resources (land, outboard motor, etc.) • Decent living • Business is flourishing
POOR	<ul style="list-style-type: none"> • Little income • No decent living • No financial assistance • Not much profit from the business
VERY POOR	<ul style="list-style-type: none"> • No decent living • No happiness • Business not flourishing • No profit but debt incurred

Source: Interview with the fisher folks

From table 5.1 above, it clearly shows the reasons adduced by respondents on their choice of poverty status. There are no clear differences between those who are poor and the very poor category.

The fisher folks of the Kpando Torkor were assessed using three categories of ‘poor’, ‘very poor’ and ‘rich’ to assess their perception on their poverty level per their fishing livelihood activity they pursue. The ‘poor’ and ‘very poor’ are used to assess the degree of being poor among the fisher folks. The ‘rich’ on the hand is used to assess if there are others who do not find themselves in the above category and the reasons adduced in support of each category. From 80 questionnaires administered, it is clear from the analysis that, no clear majority being poor or rich. This is represented in Fig 5.1 below. From the figure, 31.25%, 21.25% and 47.50% of the respondents administered with questionnaires were very poor, poor and rich respectively.

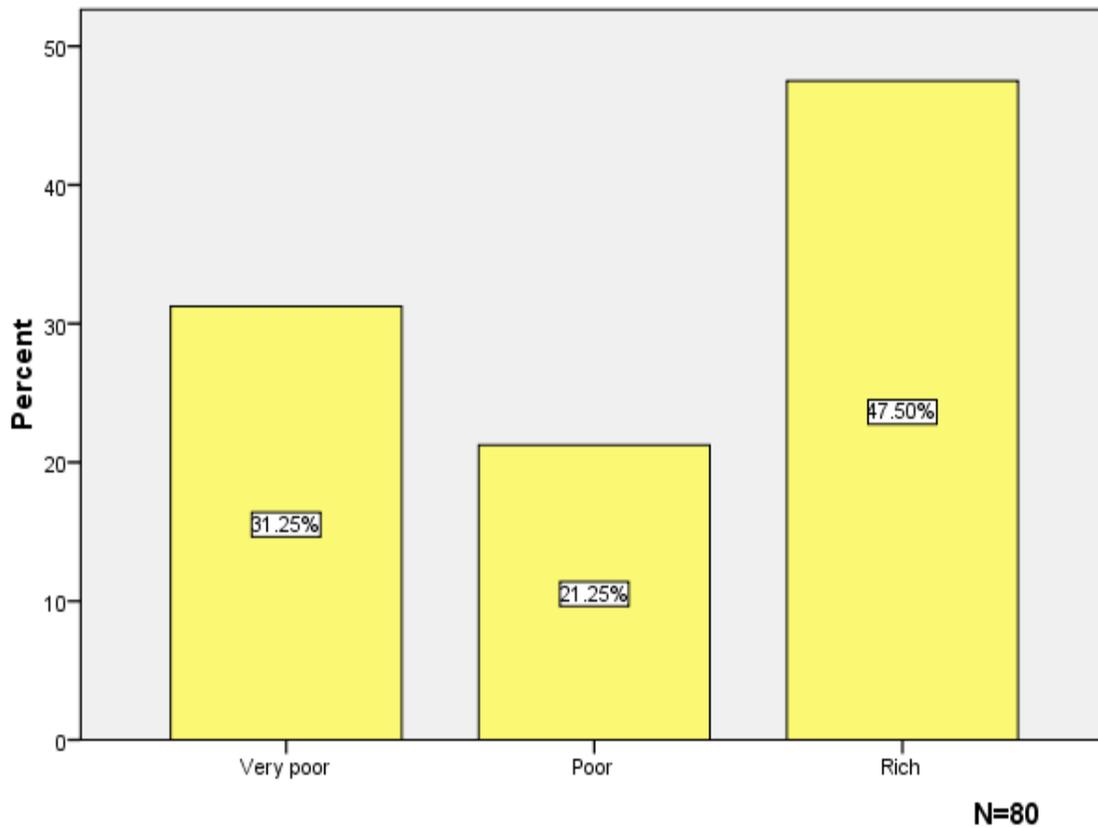


Fig 5.1: Poverty status of the fisher folk

Source: Field Survey, 2013

Fig 5.1 above shows that half of the respondents were rich and poor respectively.

The narration below was from a fishmonger who in the course of the interview said what her poverty status was.

I will tell you my condition or status as far as poverty is concerned. You know why? I retorted no. She continued... In doing so, assistance might come, who knows (laughter). I will classify myself as very poor as far as poverty is concerned from my point of view. I have 3 children and I am a single mother. Whatever I buy, though in a very small quantity due to financial constraint, is what I process for the market and the proceeds is used to cater for myself and my children. I do not receive any assistance from any quarters as other colleagues of ours do: no family support, no government support, etc. Can't you see the quantity of fish I purchase as compared to my

colleagues? This should tell you that I am a very poor fishmonger in the fishing business (Interviewee IX).

The above narration is different from a narration from a fishmonger who classified herself as rich.

By the grace of God, as far as poverty is concerned, I can say with confidence that I am neither poor nor not very poor but rather rich. I have been in this fish mongering business for 5 years now and things are well with me. My husband is a fisherman and I don't find it difficult in buying fishes because priority is given to me before any other fish mongers. Though I buy the fishes from him, you can understand issues concerning husband and wife. And the fact that I buy the fishes in large quantity, the profit I make when I send the smoked fishes to the market is quite significant and the more reason why I think I am rich and not poor. I bought a plot of land from my business and it is encouraging (Interviewee II).

A fisherman, who wants to remain anonymous, classified himself as poor has this to say with regard to his poverty status.

I have been in this fishing industry for quite some years now and looking at myself, son: I won't say am rich neither very poor but I can classify myself as 'poor'. The fact that am able to take care of myself all this while make me not to be very poor and also the fact that I have not reached the desired level I desire to reach disqualifies me being rich. In addition, I am not rich because comparing myself to my other colleague's fishermen; I don't have outboard motors as compared to those who have. I am still using canoe and paddle which also serve as constraining factor on my outcomes. So in brief, I am 'poor' not very poor and not rich either (Interviewee III).

A careful interpretation from the three excerpts above from a fish buyer fish monger and a fisherman portray the different conditions under which these fisher folks operate along the chain hence their poverty status from their perspective as argued by the proponents of subjective poverty.

5.3 Subjective Indicators of Poverty

Since this study operationalizes multidimensionality perspective on poverty, it is important to employ the use of subjective poverty indicators in the analysis of poverty from the perspective of the fisher folks rather than from the perspective of absolute or relative poverty perspective. In that regard, subjective assessment of income level, food and water, housing and health were used.

5.3.1 Income as Poverty Indicator

Income is generally used as an indicator of poverty in many poverty related researches and this is echoed by the World Bank which set the poverty line at \$1.25/day. This is criticized by many as problematic. Income as an indicator of poverty is used in the study with other equally important poverty indicators.

From the 80 respondents administered with questionnaires, 47.50% of the respondents were emphatic that the income they received from their fishing as their livelihood activity is good whilst 45% of the respondents also responded that the income they received is poor. Based on the above explanation, the only conclusion to be drawn is that half of the respondents considered their income level to be poor whilst the other half of the respondents considered their income status to be good.

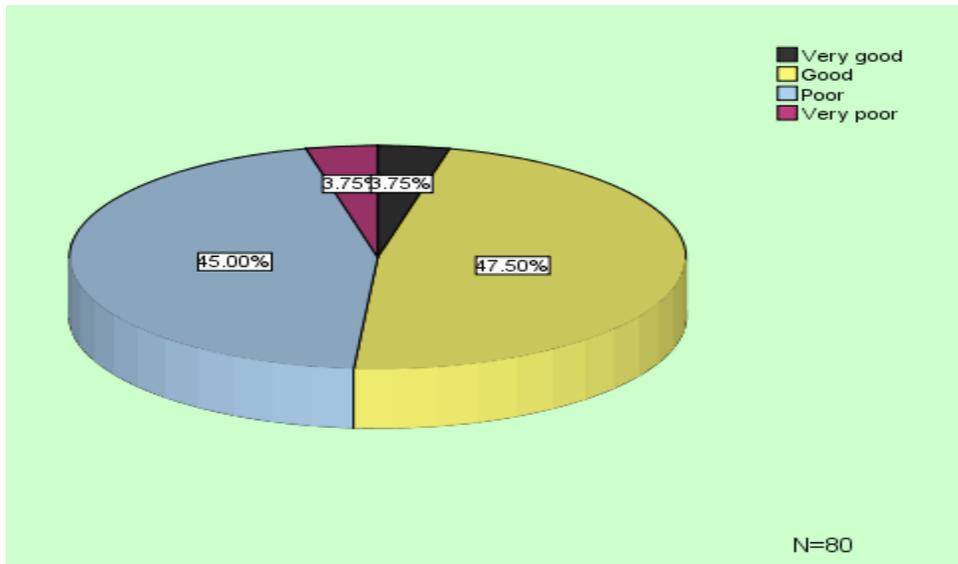


Fig 5.2: Income status of respondents

Source: Field Survey, 2013

5.3.2 Food and Water as Poverty Indicator

Using multi dimension in analyzing poverty, galore of indicators including food and water is generally used and is also used in this study. With the 80 respondents administered with questionnaires, 80% of the respondents agreed that, food and water they consumed is of good quality. According to them, they used pipe borne water in their daily activities including drinking, bathing, washing, etc. 15% of the respondents agreed that the food and water they consumed is very good. 5% of the respondents on the other hand responded that their food and water they consumed is poor. They revealed that they drink water from the Volta River; the same river in which fishing is carried in hence in their opinion considered their water situation as such. This notwithstanding, they believe that there is nothing wrong with this source of accessing drinking water because their forefathers drunk from this source and lived for many years than the current generation. This figure below depicts the condition of food and water used by the fisher folks of Kpando-Torkor.

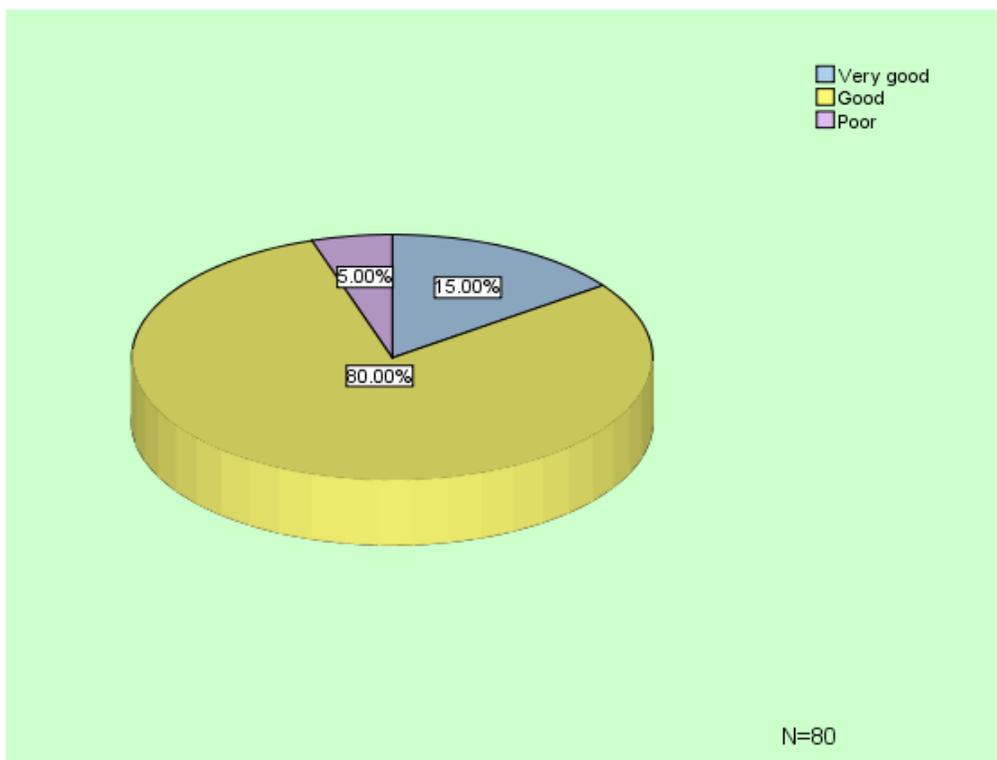


Fig 5.3: Food and Water status of respondents

Source: Field Survey, 2013

This is what one fish trader said concerning the water she drinks from the river:

*I won't lie or deceive you young man. My family and I drink from the river. This is the source of our drinking water as well as water for washing, etc. There is nothing wrong drinking from this river because our forefathers drank from this river and they lived for a long period of time before joining their ancestors. It is not that I cannot afford to purchase pipe borne water - ~~ooooooo~~-, No. There is one pipe borne water at the back of our house but the taste of that pipe borne water cannot be compared to the taste of the river. The water from the river tastes very good, nice and sweet and a lot of people like it. Not only do we use it for drinking but also for washing. So I think there is nothing wrong with that. I retorted, don't you think drinking from this water has a health implication? She responded ... What health implication are you talking about? My son, this water will not make you sick or ill. It will rather make you healthy and strong and it is a gift from God. I told you earlier that our forefathers drank from this water and they lived longer than the current generation. Why didn't they die at younger ages my son? Just think about that (**Interviewee I**).*

5.3.3 Health Status as Subjective Poverty Indicator

It is widely recognized that poverty is a multi-dimensional phenomenon that goes well beyond a lack of material consumption or resources to comprise the psychological pain of being poor, low achievements in education and health, and a sense of vulnerability to external events (Falkingham & Namazie, 2002). It is also in this sense that health condition is used as subjective poverty indicator. From the research, it is clear that most of the respondents and informants are enrolled on the National Health Insurance System (NHIS) which enable the people to go to hospital through the means of paying a premium rather than the 'cash and carry system'. 'Cash and Carry' system makes it obligatory for everybody to pay money immediately before and after treatment in the hospitals/clinics etc. This phenomenon has culminated into the introduction of NHIS in 2003. The NHIS in Ghana was established by the National Health Insurance Act, 2003 (Act 650) and National Health Insurance Regulations, 2004 (L.I. 1809) with the view to improving financial access of Ghanaians, especially the poor and the vulnerable, to quality basic health care services and to limit out-of-pocket payments at the point of service delivery. The scheme allows everybody to make contributions into a fund so that in the event of illness, contributors could be supported by the fund to receive affordable healthcare in the designated health facilities across the country.

According to a fisherman with six years' experience in fishing:

The introduction of National Health Insurance Scheme has helped the people of Ghana especially the poor and marginalized in society. Going to a medical facility to seek a medical attention is not a problem now as it was in the past. You can get up and go to any designated medical facility even if you do not have any money in your pocket, once you are registered with the service provider (NHIS). This has improved my health status and those of many other colleagues of mine in the fishing industry. Thanks to the government of Ghana for such an intervention by introducing the National Health Insurance Scheme (Interviewee VII).

Out of the 80 respondents administered with questionnaires, only 2.5% of the respondents considered their health conditions to be very poor whilst majorities of 72.5% of the respondents were of the view that their health status is good enough and this is attributed to NHIS which came out strongly from the research. A very interesting observation from the figure below is that, 12.5% of the respondents were of the view that their health status was either very good or poor.

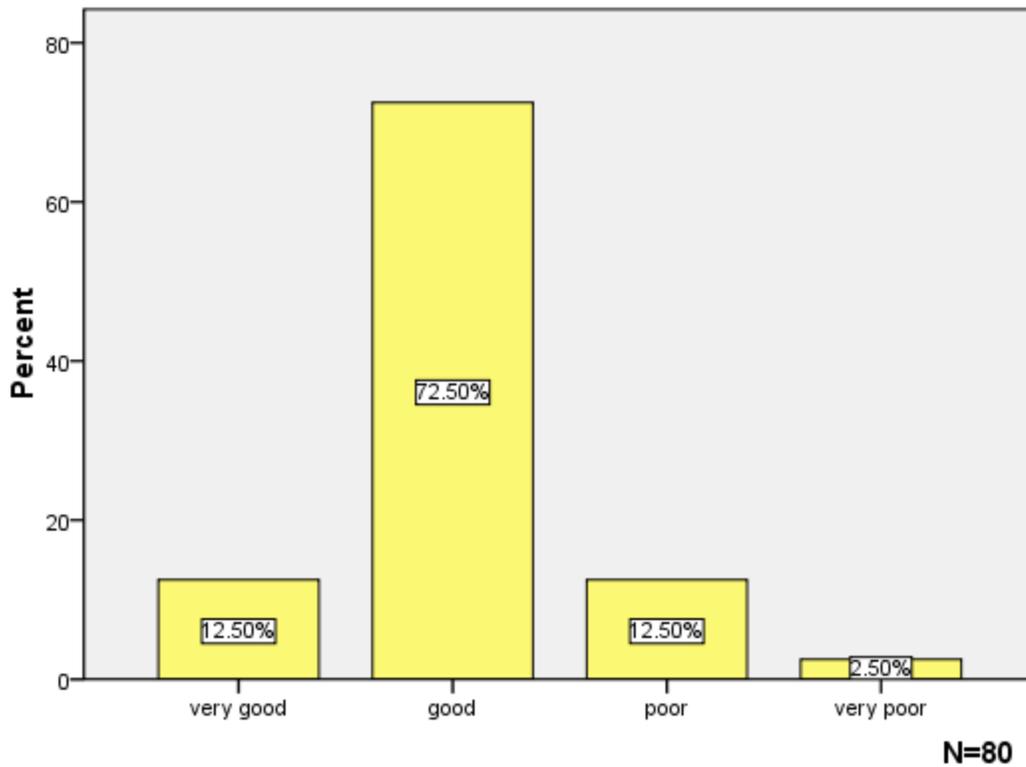


Fig 5.4: Health status of respondents

Source: Field Survey, 2013

7.3.4 Housing Condition as Subjective Poverty Indicator

Adequate housing is one of the effective means to alleviate poverty because shelter is usually the most expensive item for households. It is also a pre-requisite for better health, providing a great amount of saving when one is not sick. It is against this background that housing is used as one of poverty indicators in the study. House ownership was another dimension analyzed in the study. The ownership of the house looks at whether the house is family house, owned house or a rented house. Out of the 80 respondents, 63.75% admitted that their housing conditions were good in terms of what its quality whilst 17.50% and 18.75% of the respondents admitted that their housing condition were very good and poor respectively.

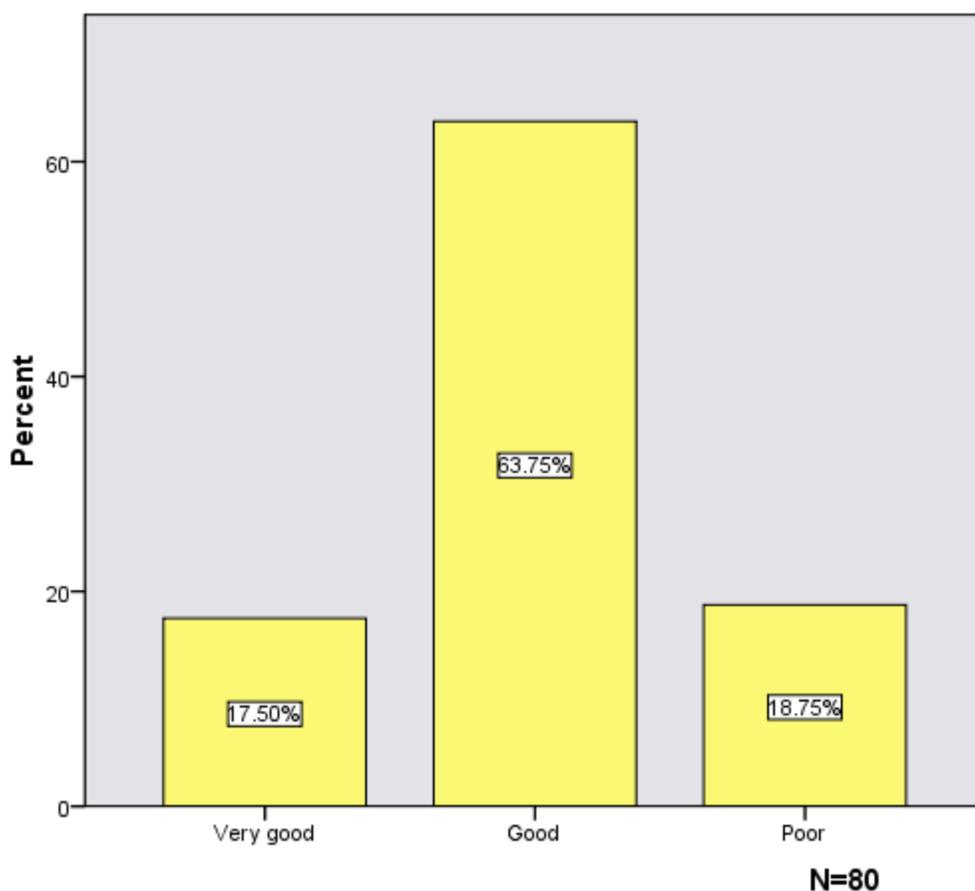


Fig 5.5: Housing status of respondents

Source: Field Survey, 2013

From the figure above and the explanation given, the majority of the respondents admitted that their housing condition is good, followed by very good and poor. But what is missing is that, there is no much information on what account for that. The pie chart below depicts the reason why the majority of the respondents admitted that their housing condition is good. The bar chart below depicts the ownership of houses occupied by the fisher folks of Kpando-Torkor.

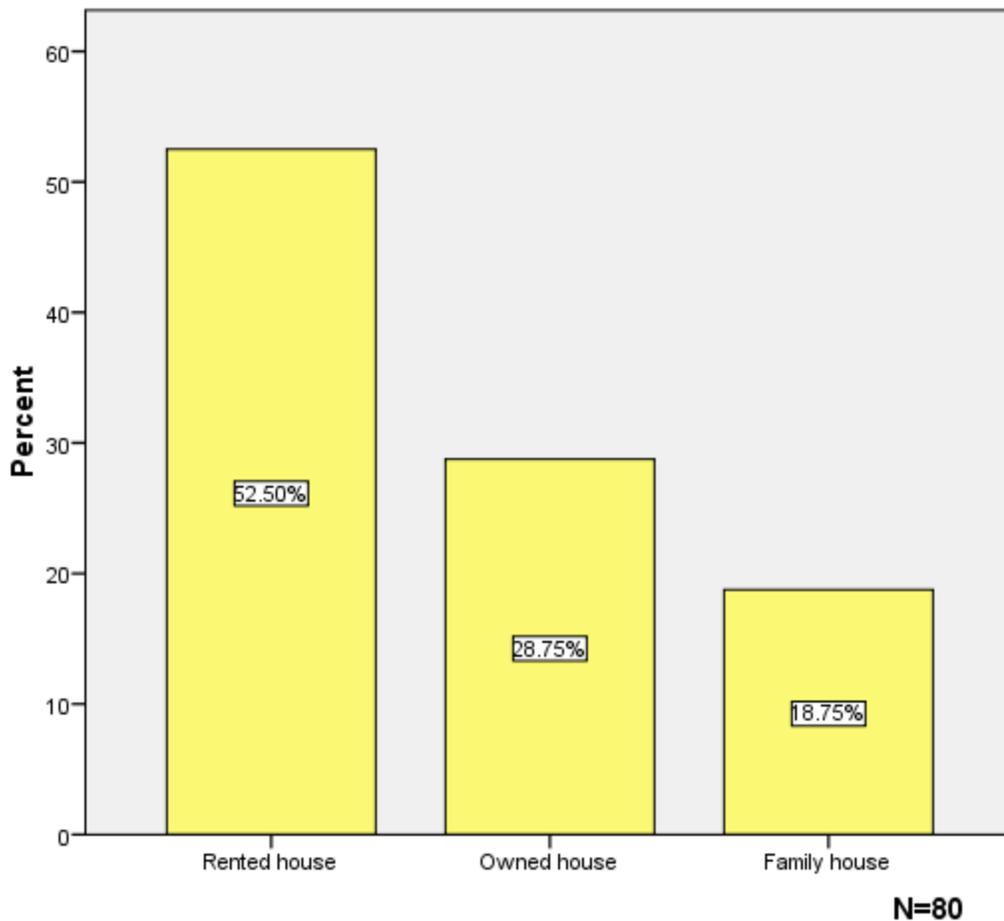


Fig 5.6: House type occupied by the fisher folks
Source: Field Survey, 2013

This is what one fish monger opines concerning her housing condition:

I have been in this fish mongering business for close to thirty years. I started from Keta before joining my husband here who also migrated from Keta to Kpando Torkor to fish. I have been able to buy a plot of land and as I speak I have a three bedroom house built with cement block and roofed with iron sheets in my name all because of fish mongering. But, the fish mongering is not what it used to be because there is a decline in the output of fishes and this affects our business as in the quantity of fishes to process for market. In a nutshell, however it is good. But as you can see, I am no longer actively involved in fishing business because of my age but my daughter is in charge (VIII).

5.4 Main Contemporary Livelihoods in Kpando-Torkor

5.4.1 Fishing as a Livelihood Strategy

Fishing is one of the major contemporary activities in the area. The major activities related to the fishing chain include fish mongering and fish trading. Fishing is mainly done by men whilst women engage in post-harvest activities including selling of the fish, fish mongering, etc. Various fishing equipment and techniques are employed in their fishing business ranging from the use of canoe and paddle, use of outboard motors, netting, etc. Some of the fishermen also employed the use of cage in fishing where a fish feed is prepared as bait in attracting the fishes to the cage.

Fig 5.7 below present a photo of the feed prepared for fishing and the researcher helping in the preparation of the fish feed. The fish feed is prepared by using corn flour (ewor) and also dried coconut chaff (enetsa). The former is bought from the corn millers whilst the latter is purchased from those who prepare coconut oil for sale because the chaff is derived from the dried coconut in the process of making coconut oil. The two are mixed with water and put on fire for close to 45 minutes. Being on fire, cooking stick is used to stir it up as seen in the picture below. The purpose of stirring is to ensure that it is well prepared to attract the fishes. When well cooked, it is poured into a basket in the canoe to cool down as shown in the Fig 5.7 A below for onward transmission to the lake. It is later poured into the cages in which the fishes are locked in when they come in to eat the feed. According to Mr. Azaa, a fisherman of twelve years of fishing experience:

The essence of combining both the corn flour and the coconut chaff is that the latter has a flavour which the former doesn't have and this is what attracts the fishes to the cage. Mr. Azaa further told me that he had a customer who supplied him with the corn flour and coconut chaff that keeps his business running because it is sometimes difficult getting the feed and more reason why most of his colleagues are into cast nets and iron net methods of fishing and not the use of cage and fish feed.



Fig 5.7: Pictures showing fish feed in a canoe and a researcher helping preparing fish feed

Source: Field Survey, 2013

Use of net is another method of fishing in inland fishing in Ghana. It involves the use of nets with all sizes depending on the type of fishes targeted. While there are many types of nets, all rely on the fish getting snared in the net's mesh. Nets are characterized by long, narrow and flat, weighted at the bottom edge and supported at the top edge by floats.

As said earlier on, the women in the fishing chain engage in fish mongering and selling and trading of fish. There are women who serve as middlemen between the fishermen and the fish buyers. These women buy the fish from the fishermen in bulk for onward sale to the fish buyers. This transaction takes place in a designated place under a shade. The buyers of the fish from these women later prepare the fish by way of smoking or frying and for sale in the markets. The difference between the fish mongers and that of fish sellers is that, the fish mongers buy the fish from the fishermen and process the fish by smoking. This is later sent to the market for sale. The fish sellers on the other hand, buy the fish from the fishermen and re-sale the fish to the third partner for preparation and sale at the market. This is evidently portrayed in figure 5.8. Photo A shows the researcher interacting with some of the fish mongers at their oven sites whilst photo B represents some of the fish traders and sellers actively in business.



Fig 5.8: Pictures showing researcher some fish mongers and fish traders

Source: Field Survey, 2013

5.4.2 Farming as a Livelihood Strategy

As part of my personal observation supported by the responses from the respondents, farming is the second major contemporary livelihood strategy in the area. Some of the respondents cultivated food crops in addition to their main livelihood activity which is fishing and its related chain of activities (fish selling and trading and fish mongering). The main food crops they cultivate include okro, maize and cassava. This production is mainly on subsistence basis. Apart from the cultivation of food crop, they also engaged in the rearing of goats and cattle on a very small scale.



Fig 5.9: Pictures showing okro and maize farms

Source: Field Survey, 2013

5.5 Minor Contemporary Livelihood in Kpando-Torkor

5.5.1 Food vending

Food vending is a minor livelihood strategy in the sense that, it is normally done on a very small scale as it pertains to the study area. These food vendors served the fisher folks in the area. Examples of food sold in these vendors include kenkey, banku, rice, etc. The fishermen preferred kenkey and banku than rice. According to one fisherman:

Fishing is a strenuous work and for you to endure, it is important to eat something that is heavy so that it can give you energy as you carry out the fishing activity. Because when you are offshore, you cannot have time to eat hence the need to eat a very heavy food like kenkey, banku or eba. Most of the fishermen prefer kenkey, banku or eba to rice and other food items sold around (Interviewee VII).

5.5.2 Carpentry

Carpentry is another minor livelihood strategy in the study area. But the kind of carpentry work engaged in by the people in the study is boat carpentry or in short making of boats of all kinds for fishing and it is men only who are engaged in this activity.

5.5.3 Mechanics (outboard motor repairers)

Out-board repairers are another minor livelihood strategy in the area. With the use of out-board motor by fisher men in their fishing and coupled with the strong wave of the Volta Lake, there is the need for frequent servicing of their machines and hence out-board repairers. This livelihood strategy covers a significantly small portion of the minor livelihood strategy. Only two shop of out-board repairers are in the study area serving the fishermen.



Fig 5.10: Picture showing an outboard motor

Source: Field Survey, 2013

5.6 Emerging Livelihood Pathways

Per the sustainable livelihood framework with respect to the livelihood strategies section, this section looks at the emerging livelihood strategies and how it conforms to the SLF or how it deviates from it. The respondents administered with questionnaires have divergent views on whether there are emerging livelihood pathways in the area apart from fishing and farming. Majority of the respondent (66.25%) were of the view that there are emerging livelihood strategies in Kpando-Torkor whilst the remaining 33.75% if the respondents were of the view that there are no emerging livelihood strategies in Kpando-Torkor.

5.6.1 Zoil as a Livelihood Strategy

Zoil as its popularly called in Ghana is one of the emerging livelihood strategies in Kpando Torkor. Zoil is a subsidiary of Zoomlion Limited that employs people into beautification of beaches, lake sides, etc. Zoomlion Ghana Limited is a giant in the waste management as well as environmental sanitation business in Ghana and Africa as a whole. The company was formed under the company's Act in January 2006. The company then had few numbers of staff but has now grown over the past seven years. The people employed in the Zoil sector were involved in cleaning of the lake sides with respect to Kpando Torkor. In the picture below, those in yellow top and down are people who were employed in the Zoil sector. This is a form of Public Private Partnership where the government of Ghana goes into an agreement with Zoomlion Company Limited to employed people into the Zoil sector. The government is responsible for the payment of those employed in the sector on behalf of the Zoomlion Company Limited. This type of emerging livelihood is non natural resource based in the sense that it is not directly dependent on the natural resources as dependent on land and the lake for survival.



Fig 5.11: Photo showing people employed in Zoil sector

Source: Field Survey, 2013

5.6.2 Tree planting as Livelihood Strategy

Tree planting is another emerging livelihood pathway in the area in addition to people being employed in the Zoil sector. Coconut tree planting is the type of tree planting in study area. This employment portfolio is created by Asongtaba Cottage Industry. 'Asongtaba' is a term derived

from the Grune speaking ethnic group in the Upper East Region of Ghana, which literally means ‘helping one another’. Certainly, this is the foundation of the self-help spirit and sense of motivation among members of the Asongtaba Cottage Industry and Exchange Programme (ACI&EP) family, which was established in the year 2000 and has since been phenomenal in its accomplishment. ACI&EP is a privately owned organization that is responsible for the provision of youth training and development in specialized and economically critical trade and vocations in Ghana. ACI&EP has in the past run a training programme with the then Ministry of Manpower Youth and Employment (now Ministry of Youth and Sports) under the National Youth Employment Programme (NYEP) of the Ministry.

5.7 Fisher Folks’ Perception on the Emerging Livelihood Pathway

This section addresses the perception of the respondents on the emerging livelihood strategies in the area. It takes a look at the sustainability and economic gains of the emerging livelihood pathways and reasons for such perceptions.

5.7.1 Economic Gains

The perception of the respondents from the study area was sought regarding the emerging livelihood strategies in the area. This was to assess how the respondents felt about such strategies and if it is worth pursuing. From the economic front, most of the respondents were of the view that, the economic gains from the emerging livelihood strategies are not good. According a 46 years old fisherman of 6 years’ experience in fishing;

*The so called emerging jobs in the area are not economically rewarding. This is something I have been wondering why such people are involved in those activities. I won’t blame them anyway because it is poverty that has pushed them to pursue such jobs. Taking tree planting for instance, they are paid less than 150 cedi and even the most worrying and annoying aspect of it is that, they are not paid regularly. This is so called government intervention in this community - **oooooooo**- so for me, the economic prospect of this tree planting as a job avenue is not economically rewarding at all. What I get from a week fishing activity as far as economic gains is concerned far ‘far’ outstrip a month salary gotten by those employed in the tree planting job and there is no way I will consider such option. I am content with my fishing activity
(Interviewee VII)*

I concur with the above narration because, from my personal observation, the economic status of the emerging livelihood strategies is nothing to write home about and is not economically rewarding to pursue such activities. An informal conversation with one employee in the tree planting programme told me that he had not been paid for the past three month and the income being paid is very small.

5.7.2 Sustainability of the emerging livelihood strategies

The sustainability of any livelihood strategy is important in meeting the livelihood outcome of improved well-being; reduce vulnerability, reduced food insecurity, etc. It has been revealed from the study that the sustainability of the emerging livelihood activities including Zoil and tree planting is in doubt. This doubt is raised by those whose livelihood is derived from the emerged livelihood pathway and also those whose livelihood is from fishing activities. The reasons assigned for such doubt on the sustainability of the emerging livelihood pathway is summarized in the table below.

Table 5.2: Summary of reasons adduced by respondents as to why the emerging livelihoods pathways are not sustainable

Actors	Reasons
Respondents whose livelihood is dependent on emerged livelihood pathway	<ul style="list-style-type: none"> • The economic reward from these livelihood pathways is very meager. • Not being paid for a long period of time. • The scale of the programme also raises doubt as it is implemented on a small scale.
Fisher folks	<ul style="list-style-type: none"> • Those employed in the sector are not being paid hence its sustainability will be a problem • The programme is not well thought

	<p>through before its implementation, hence a lot of challenges that will results in its unsustainability.</p>
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Source: Fieldwork, 2013

Currently the government of Ghana has abrogated the contract between some of the service providers who employed the people on behalf of government on alleged corruption and no value for money basis. The Government of Ghana has terminated two contracts signed between the Savannah Accelerated Development Authority (SADA) and Asongtaba Cottage Industries (ACI). The contracts terminated relate to a guinea fowl rearing and processing project and an afforestation and tree growing project. This termination is related to the tree planting as an emerging livelihood strategy in Kpando Torkor because that livelihood strategy portfolio is managed by the Asongtaba Cottage Industries in the study area. This raises a serious concern as to the sustainability of it because the livelihood of those employed by the Asongtaba Cottage Industries under the tree planting project will be affected by the contract cancellation.

5.7.3 Will you leave your current job to pursue the emerging livelihood strategies?

The respondents were asked if they are willing to leave their current livelihood strategies which include fishing, fish mongering, and fish selling and trading to pursue the emerging livelihood strategies in the area. This question was used to gauge the perception of the respondents on the emerging livelihood strategies. Majority of 63.75% categorically stated that they will not quit their current livelihood activity which is fishing to pursue the emerging livelihood pathway of tree planting an Zoil whilst 36.25% of the respondents administered with questionnaire were of the view that they can but they placed caveat on that move by saying that looking at the economic reward of the emerging livelihood strategies, they would rather combine them with their current livelihood activity than to quit absolutely.

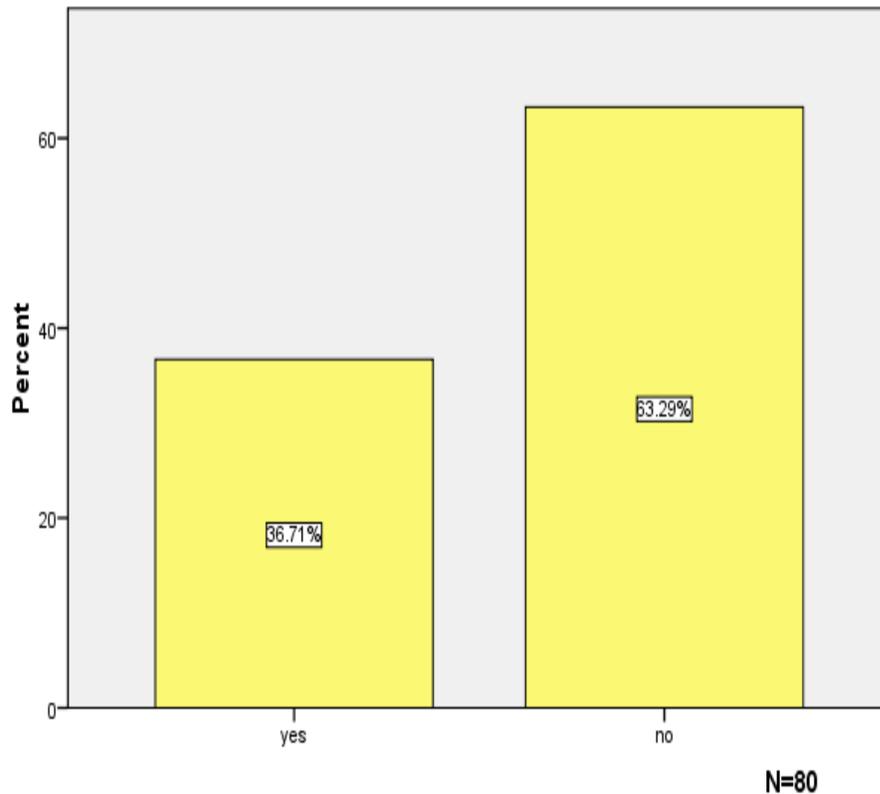


Fig: 5.12 Will you leave current livelihood to pursue the emerging livelihood pathways?

Source: Field Survey, 2013

The view that low return on labour outside fishing keeps fisher folks into fishing sector is supported by data collected on the field where the respondents and informants recognized that there are emerging or emerged livelihood pathways but they will not leave their fishing activity to pursue that because the return that will come with their labour in the pursuit of the emerging or emerged livelihood pathways will be low as compared to their return in the fishing sector.

5.8 Summary

In a nut shell, the study revealed that half of the fisher folks perceived themselves to be poor and rich as far as their poverty status is concerned from their subjective point of view. This came to light through the questionnaire administered as well as the interview conducted. Looking at the multidimensionality of poverty, selected indicators of income, water, food, housing and health

were used in the study. It was evident that half of the fisher folks were not comfortable with their income status whilst another half of the respondents also claimed their income status was good. It also became evident that most of the respondents and informants agreed that their food and water they consumed is of quality level. Some attributed their water quality to the fact that they drank water from the pipe whilst few of the respondents also said they drank from the Lake. The respondents also revealed that their health status is good and this was attributed to National Health Insurance Scheme which enabled them to access health care at all times.

The main livelihood activities in Kpando Municipality are farming and fishing. Despite these two main livelihood activities, the study is concerned with the fisher folks and it was revealed that there are emerging livelihood pathway which comprises of Zoil and tree planting initiatives which is employing people in the area. The perception of the fisher folks on these emerging livelihoods pathway was that, their economic reward is low as compared to their economic return on their labour in fishing activities. In addition, the sustainability of the emerging livelihood pathways identified was in doubt as expressed by the respondents. These perceptions made most of the fisher folks to state categorically that they cannot leave their current livelihood pathway to pursue the emerging livelihood pathway but rather combined the two if need be.

CHAPTER 6: INFORMATION ACCESSIBILITY AND CHALLENGES CONFRONTING THE FISHER FOLKS OF KPANDO – TORKOR IN THE CONTEXT OF SLF

6.1 Introduction

This chapter examines how the fisher folk of Kpando-Torkor have access to information regarding their daily fishing activities, mode of accessing information and the kind of information accessed and the usefulness of the information accessed. Lastly, the challenges confronting the fisher folks in the pursuit of their livelihood and the actors and institutions in their view to help address their challenges are explored in this chapter.

6.2 Access to information channels

Pertiwi et al. (2002) argue that small scale fishermen require information on fish species, available resources in each catching area, fishing season, fish catching technologies. This made information accessibility among fisher folks important. Though information on its own is relevant, the channels of accessing such information are equally important. It is in this vein that the study also aims to access the channels used by the fisher folks to access information related to fishing. This is because; the right kind of information accessed by fisher folks will have a positive impact on their fishing activities. The information channels used in the study include radio, internet, newspaper, television and friends/ relatives.

6.2.1 Newspaper

Newspaper is a means of accessing information in many economic activities but this was not the case of the fisher folks of Kpando-Torkor because it has emerged that they do not accessed information relating to fishing through the newspaper, hence not a medium of accessing information related to fishing by the fisher folks of Kpando-Torkor.

This is what a fisherman said regarding newspaper as a source of information related to fishing.

*I can tell you confidently newspaper is not a channel of assessing information especially due to the nature of our activity. We most at times shared information or accessed through our colleagues who are into the fishing business with me or sometimes through the town hall meeting which often is rare or uncommon. So in general, newspaper is not a medium of assessing information related to fishing (**Interviewee IV**).*

6.2.2 Relatives/ Friends

Relatives/ Friends are another mode of accessing information among the fisher in the study. The study revealed how friends and relative who are into the fishing activity helped one way or the other in the disseminating information. This brings to fore the role of social capital in the life of individual and for that matter the fishing community as they exchange information and ideas related to fishing. This came strongly with one respondent in the course of the administration of the questionnaires and the interview. According to this fishmonger;

*You know I am a fish monger and for me, access to information is very key to those of us in the fish processing industry. I rely heavily on friends and relatives for information when it comes to where to sell products because at times is better to sell in one market than the other. Information to that effect is not through the newspaper or through the radio but through our close relatives and friends who are also in the fishing business. After each market day, I do call my friends and discuss with them about trading activities because we trade in different market. So for me friends and relatives are very important in accessing information for our activity and more reason why you can see us in this cordial atmosphere with one another (**Interviewee IX**).*

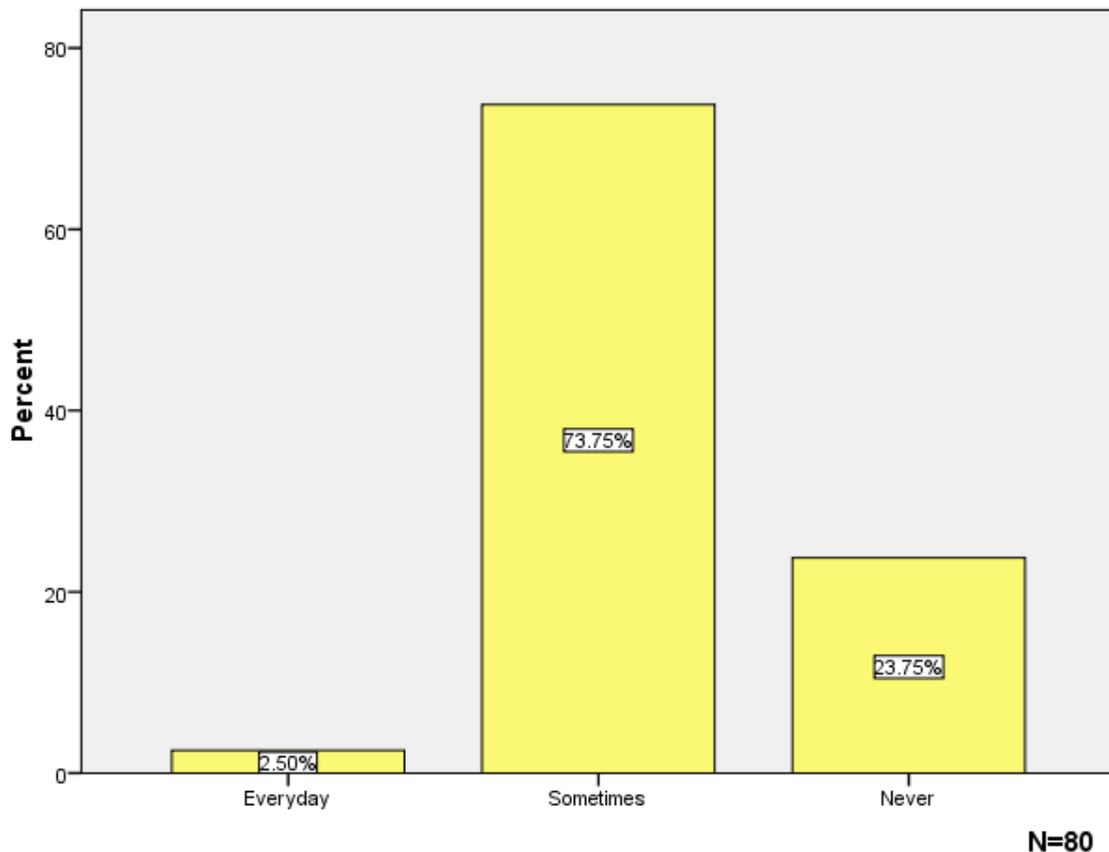


Fig 6.1: Information accessibility through Relatives/Friends

Source: Field work, 2013

Based on the 80 questionnaires administered among the fisher folks, 73.75% of the respondents accessed information through their friends and relatives at sometimes whilst 23.75% of the respondents never accessed information through the above mode.

The use of the electronic media for assessing information was also used in the study. The common equipment used on a day to day basis to access electronic media is television, radio, computer, cell phones and other devices transporting information to and from us by means of electronic involvement. But for the purpose of this study, radio, television and the internet were used. Cell phone was not used in this study because I deemed it as a way of sharing and accessing information through contacts which fall under friends/relative category of assessing information related to fishing.

6.2.3 Television and Internet

The use of television and internet to access information regarding fishing among the fisher folks of Kpando-Torkor is of less significant. The factors accounting for this range from the expensive nature of using these media with special reference to the internet and time factor as well as being used to accessing information through radio.

According to Kofi;

For me the best and efficient mode of accessing information about my activity is through radio and friends. We are used to radio and it is an effective traditional means of accessing information since antiquity. I don't even know what is internet in the first place and accessing information through it is a non-starter. How can I? I have a television in my house but honestly I hardly find time to watch except on Sundays (Interviewee VII).

The above narration is from fisherman who has little education and his education level has a profound on his knowledge base because he said he doesn't know what an internet is. This buttresses the point made earlier that the characteristics of the respondents have an impact on the information and also on data analysis.

6.2.4 Radio

On the other hand, radio is the mostly used medium of assessing information relating to fishing as far as electronic media is concerned. The main reasons assigned is that, use of radio is very portable as it can be carried from one point to the other in the course of their fishery activities. Inexpensive nature as compare to other means of assessing information was highly rated in the study. Almost 92.41% of the respondents admitted that they accessed information through radio whilst only 7.59% of the respondents never assessed information through radio. This made radio as the common medium of accessing information relating to fishing.

6.2.5 Extension Officers and District Information Service Department

It has also emerged during the course of the research that, the extension officers and the information service department also serve as a useful medium of assessing information relating to fishing. This came to light during the interview with the chief fisherman of the area. Generally, the kind of information assessed by the fisher folks through the above medium is largely in connection to fishing laws and regulations as well as the policies of the government to

improve the livelihood conditions of the fisher folks. According to the chief fisher man, over the years, there are town hall meetings where extension officers come to educate the fisher folks on wide range of issues that borders on fishing activities, the right use of fishing net, and avoidance of illegal net in fishing as well as ways of accessing assistance from government pertaining to fishing.

6.3 Information Needs in Fishing

“Information need is an individual or group desire to locate and obtain information to satisfy a conscious or unconscious need” (Okwu, Yahaya, & Obinne, 2011:408). This presupposes that the kind of information accessed is dependent on the information needed (Okwu et al., 2011). The concept of information need was coined by an American information scientist, Taylor. Samson (2006) cited in Okwu et al. (2011) posited that artisanal fishermen need information in eleven areas of fisheries production which are fish harvesting, preservation and smoking methods, marketing, marketing channels, sales improvement, cooperative society management, access to and control of credit, coastal aquaculture and wild collection of fish seeds .

6.3.1 What kinds of information do you assessed in relation to fishing?

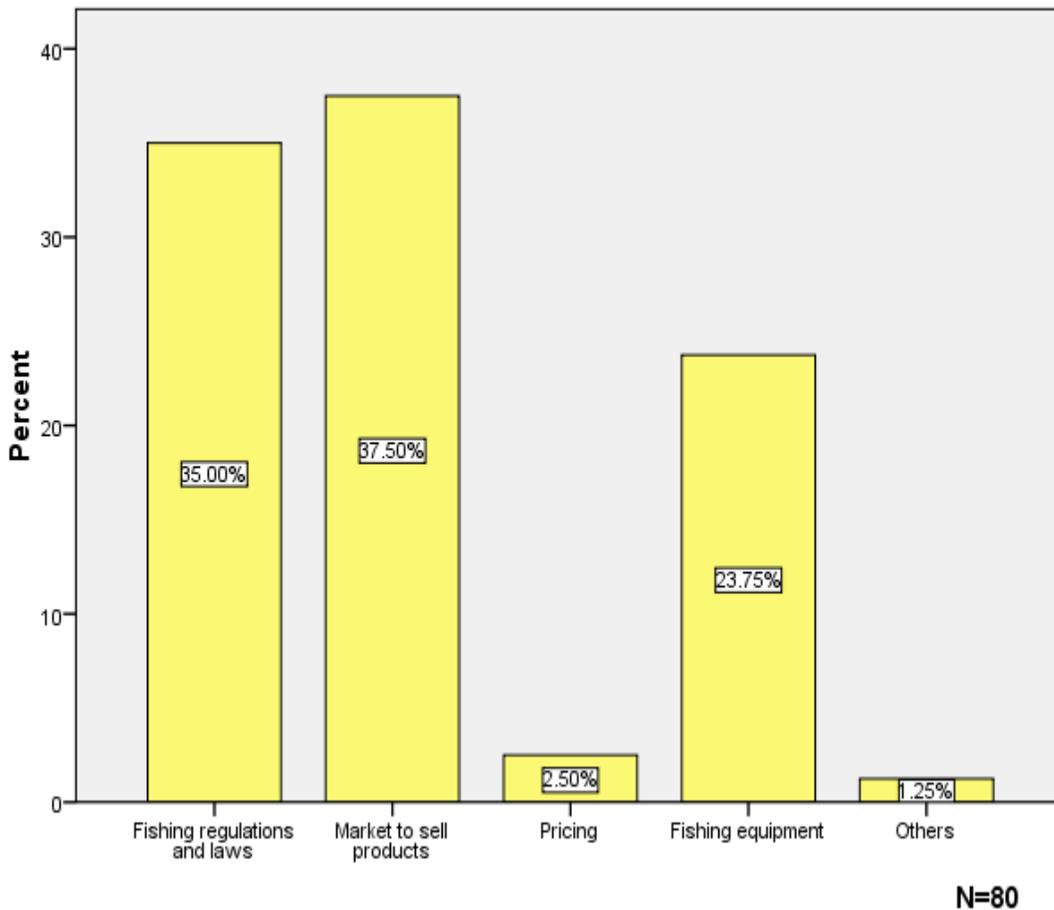


Fig 6.2: Kinds of information accessed by fisher folks
Source: Field work, 2013

The kind of information accessed by the fisher folks as presented in Fig 6.2 is of variance to the information sought for by fisher folks according to Samson (2006). Fishing regulations, market to sell products, pricing, fishing equipment are the main information kind accessed by the fisher folks of Kpando Torkor. From Fig 6.2 above, 35.0% of the respondents' accessed information on fishing regulations and laws whilst 37.5%, 2.5%, and 25% represent information accessed on market to sale product, pricing and fishing equipment respectively.

6.3.2 Usefulness of the information accessed by the fisher folks

Access to information is of no relevance except the information received is of relevance for the purpose of which it is received. The above quote is from a fisherman during the course of data collection. In analyzing the usefulness of information accessed by the fisher folks, Likert scale was employed in the response given by the respondents. The categories of the Likert scale used are strongly agreed, agree, disagree and strongly disagree. 78.75% (comprising both respondents who strongly agree and agree) were of the view that information accessed is useful in their fishing activities whilst 21.25% disagree that the information received is of no relevance to their livelihood activity. Reasons given for the usefulness of the information received are largely analyzed under the kind of information accessed and presented in Fig 6.2 above.

6.4 Challenges facing the fisher folks in their livelihood activity

The fisher folks of Kpando-Torkor in their effort to pursue their livelihood activities have identified some challenges confronting them in their daily fishing activities. The challenges identified by the fisher folks are related to the SLF because some fall under the vulnerability context whilst others fall under asset, structure and process components. The most important of such challenges are elaborated below.

6.4.1 Pricing

Low prices for smoked fish products in the market are one of the challenges identified by fish mongers of Kpando Torkor. This is in conformity with Ellis (2000) Sustainable Livelihood Framework where relative price is identified within the trend component of the vulnerability context. Unfavourable price for the produce is one of the challenges identified by the respondents and informants in the course of the interview and questionnaire administration. This is buttressed by the chief fisherman of the area in an interview. He asserted that - one of the major challenges facing the fisher folks especially the women who are into fish mongering is the unfavourable prices in the market. The unstable nature of prices in the market affects their produce which in turn has negative consequences on their business as they incur losses or sometimes try to break even.

6.4.2 Lack of capital

Accessing financial asset according to the respondents is a major challenge in pursuance of their livelihood. This challenge falls under the asset component of the SLF with respect to financial

capital. This challenge is identified by both sexes. This is what a fishmonger said about lack of capital and how it is a challenge to her livelihood activity.

*I have been in this fish mongering business for 5 years and the major challenge I faced, and I believe other colleagues of mine face as well, is financial constraint. I do not have any means of financial support, I only depend on the windows might I have and this makes it difficult to expand my business. No assistance from government as well as financial institutions and when you attempt seeking financial assistance from the financial institutions, you will be asked of collateral security which is difficult to get. Frankly speaking, it is very difficult to be in this business without strong financial support (**Interviewee V**).*

Kofi a fisherman of 6 years of experience in fishing also has this to say as far as lack of capital is concerned:

*My son, there are other colleagues of mine who are well to do as seen in the fishing equipment they used especially outboard motor. I am still using canoe and paddle, not that I don't like out board motor. But it is a ramification of lack of capital and this is affecting my business because I cannot expand my business as other colleagues who have the financial resources are doing. With enough capital you can buy modern fishing equipment and do away with outmoded techniques of fishing which come with low output (**Interviewee VII**).*

6.4.3 Hoarding of pre mixed fuel

Hoarding of pre mixed fuel is another challenge identified by the fisher folks as far as their fishing activity is concerned. According to the fisher men I interviewed and also administered with questionnaire, the hoarding of the pre mixed fuel is a major challenge because they sometimes get run out of pre mixed fuel which means they cannot go for fishing. The pre mixed fuel is bought in large quantity by some business people in the community under the pretense of fuelling their boat business and later re-sold to the fisher folks at a very exorbitant rate.

According to one fisherman:

Our fishing business is lagging behind mainly because of this pre mixed fuel hoarding from this unscrupulous people in the community who want their self-interest without the general interest of the community. Whenever our pre mixed fuel is finished, the only option is to purchase the pre mixed fuel from those hoarding it at a very exorbitant price or never go for fishing for some days. Though the government has done well in subsidizing the pre mixed fuel, the hoarding of it is a major challenge. Young man, as you can see from afar, those are the queue of gallons for the pre mixed fuel and some of those gallons will be used to purchase the fuel for hoarding (Interviewee VI).



Fig 6.3: Picture A showing crowd of pre mixed fuel buyers whilst photo B showing a queue of containers

Source: Field, 2013

The picture labelled A in Figure 6.3 shows a crowd of people waiting to buy pre mixed fuel whilst picture labelled B shows a queue of yellow and blue gallons that will contain the pre mixed fuel.

6.4.4 High prices of fishing equipment

The prices of fishing equipment used by the fisher folks especially the fishermen is also identified as one of the challenges of the fisher folks in Kpando-Torkor. Example of such

equipment includes the net of different forms and sizes, out board motor, canoe, etc. The prices of this equipment according to the respondents are very expensive especially the out board motor. The high prices of out-board motor results to the incessant dependent on the use of canoe and paddle. This practice does not bring the maximum output in terms of the quantity of fish catch in a single fishing expedition. This is what Kofi with six years working experience in fishing, said regarding high prices of fishing equipment:

Franklinly speaking, high prices of fishing equipment is a major headache to most of us .The use of out-board motor is a very efficient and effective means of conducting fishing activity and the only problem is lack of capital to purchase the out board motor. My experience in using outboard motor for 2 years now after using canoe and paddle for close to 4 years shows that, fishing activity is rewarding with the use of modern techniques and equipment which comprise the use of outboard motor. It makes it possible to access deep lake which those of canoe and paddle couldn't have access to (Interviewee VII).

6.5 Whose responsibility it is in addressing the challenges faced by the fisher folks?

Regarding the numerous challenges faced by the fisher folk of Kpando-Torkor in pursuit of their livelihood, they have also identified some actors who in their view can help in addressing the diverse challenges they are confronted with. Example of the identified actors by the respondents and informants to help in addressing their challenges include the central government, the local government, close relations and others (financial institutions, banks, NGOs, Civil Society).

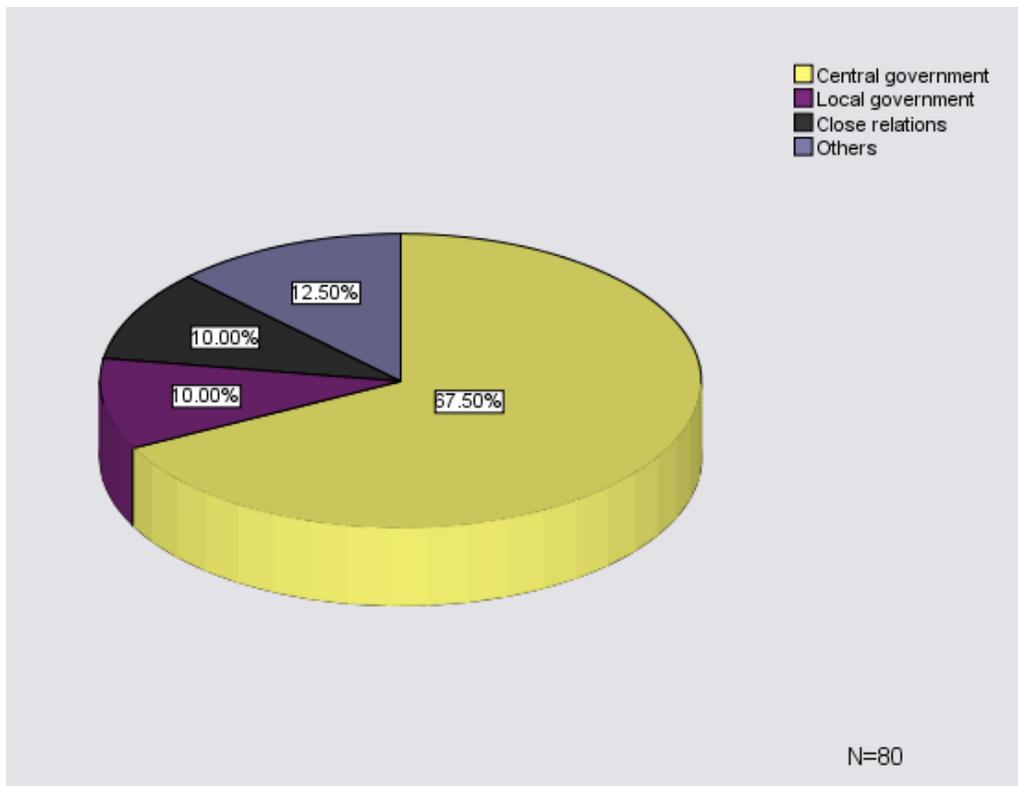


Fig 6.4: Whose responsibility is it to help in addressing the challenges?

Source: Field, 2013

Majority of 67.5% of the respondents noted that it is the role of the Central government to help in addressing the diverse challenges facing them in their livelihood activity. On the other hand, local government and the close relatives were also identified by the respondents as those whose responsibility it is to help in addressing their challenges and these two categories of actors accounted for 10% each. The remaining 12.5% of the respondents were of the view that it is the role of financial institutions, banks, NGOs and Civil Society which constitute the others category. One interesting revelation by the respondents and informants is the premium place on Central government to help them in addressing their challenges. This is not surprising because of the galore of promises made to the populace during the electioneering in their attempt to win their vote.

The reasons assigned for each of the chosen actors in addressing their challenges are represented in the table below.

Table 6.1: Summary of the actors and reasons assigned by the respondents in relation to whose responsibility is it to address their challenges

Actors	Reasons
Central government	<ul style="list-style-type: none"> • Central government controls the purse of the state and must ensure our welfare and wellbeing. • Central government must help them because we pay taxes directly and indirectly to the state, hence their obligatory to help us. • Central government should help to subsidies the inputs into fishing.
Local Government	<ul style="list-style-type: none"> • Our fishing activities help in contributing to the economic development of the local area. •
Close Relatives	<ul style="list-style-type: none"> • Close relatives better understand our plight than any other actor or institution does. •
Others (financial institutions, banks, NGOs, Civil Society)	<ul style="list-style-type: none"> • Is a way of fulfilling their social corporate responsibility when they assist us • Some NGOs make improvement the fisher folks and fishing community their mission, so that must help us in that regard.

Source: Field work, 2013

The chief fisherman argues that Central government is in better position to assist the fisher folks in addressing their challenges. He maintained that, the Central government should create the

enabling environment by providing subsidies on fishing equipment as well as pre mixed fuel. Though the chief fisherman recognized the role of the Central government with regard to the pre mixed fuel, he maintained that the government through the Ministry of Fisheries and Aquaculture Development has to do more as far as the supply of pre mixed fuel is concerned.

6.6 Summary

This chapter discussed information accessibility among the fisher folks with reference to the mode of accessing information related to fishing, the kind of information and the usefulness of the information accessed. It also explores the challenges confronting the fisher folks and whose in their view are obliged to help to address their challenges.

It was revealed in the study that accessing information through radio and friends/relatives was the main source or medium of accessing information though other sources including television internet, newspaper were also analyzed in the study. Majority of the respondents revealed in the study that the information they accessed was very useful. The kind of information accessed has gender dimension in that they men who engaged in fishing accessed information that were related to fishing whilst the fish mongers also accessed information related to post harvest fishing activities including fish mongering. In general terms, information accessed by the fisher folks ranged from fishing rules and regulation, market to sale products, information on pricing and also on fishing equipment.

The fisher folks of Kpando-Torkor have mentioned some challenges confronting them in their fishing activity which according to them was impeding the desired outcomes of improved well-being, improved income and improved standard of living they desired to achieve. The various challenges include financial constraint, unfavourable market, hoarding of pre mixed fuel and exorbitant prices for fishing equipment especially the out board motor. The challenges revealed notwithstanding, the fisher folks were quick to identify some actors that they presumed can helped in addressing their challenges. These actors include the Central government, local government, relatives and others (financial institutions, banks, NGOs, Civil Society).

CHAPTER SEVEN: CONCLUSION AND RECOMMENDATIONS

7.1 Introduction

This chapter presents an overview of the findings of the study. The purpose of this study was to make a contribution to literature on livelihoods and poverty. The study aimed to highlight the emerging livelihoods portfolio in Kpando-Torkor and the perception of the fisher folks of Kpando-Torkor with regard to their economic rewards and sustainability. The study also sought to investigate the multi dimensionality of poverty among the fisher folks by using the subjective concept of poverty with subjective indicators of income, health, food, water and housing. It also aimed at bringing to fore the medium used by the fisher folks in assessing information related to fishing information, information assessed and the kind of information assessed by fisher folks of Kpando Torkor.

Theoretical insights were drawn from the alternative development paradigm with specific reference to the Sustainable Livelihood Framework. Focus was placed on capitals and livelihood strategies. Other concepts and theories used to operationalize the study include the concept of poverty which discusses the relative, absolute and subjective dimension of poverty which is specifically operationalized in this study. The study was conducted in Kpando-Torkor in Kpando Municipality of Ghana with special focus on the fisher folks. The study was conducted using mixed mode approach which implies the combination of qualitative and quantitative method in a study. Primary data were gathered with the use of interviews, observation and administration of questionnaires. Eighty questionnaires and ten interviews were administered and conducted respectively to collect primary data. Secondary data from articles, newspapers, journals and reports were used to complement primary data. In the connection with the objectives of the study, the following findings and conclusions are made.

7.2 Conclusion

The first objective of the study was to assess the multidimensionality of poverty among the fisher folks of Kpando-Torkor from subjective approach. From the 80 respondents administered with questionnaires and supported by the trend that emerged from the interviews, it was evident that half of the respondents considered themselves rich whilst the remaining half considered themselves poor. This is contrary to the long held view that fisher folks are poor people. For instance, Be´ne´ (2003) cited in (Smith, Khoa, and Lorenzen (2005)) describes the condition of

fishers as the endogenous and exogenous origin of poverty. The former is encapsulated by the adage that they are poor because they are fishers whilst the later denotes fisher because he or she is poor.

By the use of subjective indicators of income, health, food, water and housing to assess poverty among the fisher folks from multi-dimensional perspective, it has come to fore strongly that the concept of poverty is a complex concept as iterated by the numerous literatures on poverty. It became evident that half of the respondents perceived their income level to be poor whilst another half considered their income status to be good. It was evident that being poor encompasses more than having enough income or financial capital. They mentioned that they perceived food, water and their health condition as important parameters in assessing poverty because if they are not healthy, they cannot have the strength to pursue their livelihood activities. This is buttressed with the interviews I had when it came out clear that, the introduction of NHIS in 2003 has contributed to their health status significantly since they can go to seek medical attention. Majority of respondents accounting for 72.5% administered with questionnaire admitted that their health status was good as compared to 45% of the respondents administered with questionnaires who admitted that their income status was poor. This goes to support the assertion that poverty is a complex concept and assessment of poverty should involve the use of multidimensional approach than uni-dimensional approach which focuses on income.

The second objective of the study seeks to unravel emerging livelihood pathways in the study area apart from fishing and farming and how they are perceived by the fisher folks in terms of economic reward and sustainability. The main livelihood activities in Kpando Municipality are farming and fishing. The study revealed that there are emerging livelihood pathways which comprise of Zoil and tree planting initiatives that are employing people in the area. These are non-natural based activities as compared to fishing. The perception of the fisher folks regarding these emerging livelihoods pathway was that, their economic reward is low as compared to their economic return in fishing activities. In addition, the sustainability of the emerging livelihood pathways identified was in doubt. These perceptions made most of the fisher folks to state that they cannot leave their current livelihood pathway to pursue the emerging livelihood pathways as a way of diversifying their income portfolio. The option of livelihood diversification is limited to

the fisher folks of Kpando-Torkor because from the study, it was revealed that the economic return on the emerged livelihood portfolios were insignificant.

The third objective of this study was to examine means of assessing information regarding fishing among the fisher folks of Kpando-Torkor. In doing so, possible media of assessing information was analyzed. The aim of this is to improve upon information accessibility channels among the fisher folks in an attempt to access whatever assets type that might be at their disposal. In achieving this, medium of radio, television, internet, friends/ relatives, extension officers and district information service department were used. The findings indicated that radio, relatives/ friends and extension officers and district information service department were the main channels of assessing information regarding fishing. The low cost of radio and its mobile nature made it easier for use by fisher folks as compared to television. The study also revealed that respondents assessed information through friends and relatives who were in the fishing activities. This is where social capital comes in as an asset. Information regarding market prices of fishes, market to sell produce, etc., was shared among women. Majority of the respondents said that the information they accessed was useful. In general terms, information accessed by fisher folks of Kpando-Torkor ranges from fishing rules and regulation, market to sale products, information on pricing and also on fishing equipment.

The last objective of the study seeks to look at the challenges facing the fisher folks and actors they perceive to address their challenges. Some of the challenges confronting the fisher folks fit into the vulnerability context of SLF, especially the relative nature of prices in the market which affect their livelihood strategies and eventually their livelihood outcomes. The study revealed that the major challenges confronting the fisher folks of Kpando-Torkor include lack of capital, low pricing in the market, high prices of fishing equipment notably out board motor and hoarding of pre mixed fuel. What is a challenge to the fishermen is not necessarily a challenge to the fish mongers but the two has a link to affect their livelihood outcomes. For example, high cost of fishing equipment will result in high prices for fish product which the fishermen will pass on to the fish mongers. In another way, the inability to secure an out board motor will results in low return from fishing in terms of catches which will eventually lead to minute quantity of fishes purchased by the fish mongers.

On the issues of the actors, the fisher folks identified four actors which can help in addressing their challenges: namely the Central government, the local government, relatives/ friends and others (financial institutions, banks, NGOs, Civil Society).

7.3 Recommendations

Based on the findings, the following recommendations are made:

- There should be a way to make the emerging livelihood portfolios sustainable and economically rewarding to the fisher folks of Kpando-Torkor. When done, fisher folks will be able to diversify their income portfolios to that of the emerging livelihood option to make more money and by way escaping poverty.
- The fisher folks must be empowered through access to financial capital to diversify their sources of income to reduce over reliance on fishing alone. The potential livelihood diversification portfolio that is worth pursuing includes soap making, traditional textile making, handicrafts, piggery farming, etc.
- The government should improve upon the delivery of pre mixed fuel and help to solve the phenomenon of hoarding which has a negative effect on the fisher folks of Kpando-Torkor. Stricter regulations should be put in place to punish offenders and serve as a deterrent to others.
- The means of assessing information related to fishing among the fisher folks should be improved. The extension officers and the district information service department should intensify their information dissemination and thereby educate the fisher folks on the do and don't relating to fishing and ways that their fishing outputs can be increased.
- The government and for that matter the District Assembly should focus on the provision of infrastructure notably road network, health centers, electricity, etc. The road leading to

the Kpando-Torkor should be improved for easy access to the area. The government should also support formal and informal education to improve literacy level.

- The fisher folks of Kpando-Torkor should organize themselves in cooperative groups and association to be able to access financial capital in the form of soft loans from financial institutions including bank to boost their operation.

REFERENCES

- Adger, W. N. (2010). Social capital, collective action, and adaptation to climate change *Der Klimawandel* (pp. 327-345): Springer.
- Afenyadu, D. (2010). *Child labour in fisheries and aquaculture—a Ghanaian perspective*. Paper presented at the Background paper prepared for the Workshop on Child Labour in Fisheries and Aquaculture in cooperation with the ILO.
- Agbodeka, F. (1992). *An economic history of Ghana from the earliest times*. Accra: Ghana Universities Press.
- Allison, E. H., & Horemans, B. (2006). Putting the principles of the sustainable livelihoods approach into fisheries development policy and practice. *Marine policy*, 30(6), 757-766.
- Allison, E. H., Perry, A. L., Badjeck, M. C., Neil Adger, W., Brown, K., Conway, D., . . . Andrew, N. L. (2009). Vulnerability of national economies to the impacts of climate change on fisheries. *Fish and fisheries*, 10(2), 173-196.
- Amu-Mensah, M. A., Andoh, P. K., & Abban, E. (2013). The nature of economic institution in In-land fishing communities of the Lower Volta. *International Journal of Sociology and Anthropology*, 5(3), 66-77.
- Atta-Mills, J., Alder, J., & Rashid Sumaila, U. (2004). *The decline of a regional fishing nation: the case of Ghana and West Africa*. Paper presented at the Natural Resources Forum.
- Awumbila, M., & Ardayfio-Schandorf, E. (2008). Gendered poverty, migration and livelihood strategies of female porters in Accra, Ghana. *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, 62(3), 171-179.
- Bank of Ghana. (2008). The fishing sub sector and Ghana's Economy. (Online), Available http://www.bog.gov.gh/privatecontent/Research/Sector%20Studies/fisheries_completerp_df.pdf. Accessed on 2nd May, 2014.
- Barrett, C. B., Reardon, T., & Webb, P. (2001). Nonfarm income diversification and household livelihood strategies in rural Africa: concepts, dynamics, and policy implications. *Food Policy*, 26(4), 315-331.
- Bellù, L. G., & Liberati, P. (2005). Impacts of policies on poverty. Absolute poverty lines. 1-22.
- Bhattacharjee, A. (2012). *Social Science Research: principles, methods, and practices*.

- Brown, D. R., Stephens, E. C., Ouma, J. O., Murithi, F. M., & Barrett, C. B. (2006). Livelihood strategies in the rural Kenyan highlands.
- Business and Finance Time (2005), Fisheries sector contributing to GDP (Online), Available: <http://www.ghanaweb.com/GhanaHomePage/business/artikel.php?ID=82664>. Accessed on 24th March, 2014.
- Carney, D. (1998). Implementing the sustainable rural livelihoods approach. *Sustainable rural livelihoods: what contribution can we make*, 3-23.
- Carswell, G. (1997). Agricultural intensification and rural sustainable livelihoods: a 'think piece'.
- Chambers, R., & Conway, G. (1992). *Sustainable rural livelihoods: practical concepts for the 21st century*: Institute of Development Studies (UK).
- Chapman, R., Slaymaker, T., Young, J., & Britain, G. (2003). *Livelihoods approaches to information and communication in support of rural poverty elimination and food security*: Overseas Development Institute London.
- Cherryholmes, C. H. (1992). Notes on pragmatism and scientific realism. *Educational researcher*, 13-17.
- Clifford, N., French, S., & Valentine, G. (2010). *Key methods in geography*: London, Sage.
- Crang, M., & Cook, I. (2007). *Doing ethnographies*. London: Sage.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*: Sage.
- Declaration, U. M. (2006). Millennium Development Goals. *The Elgar Companion to Development Studies*, 382.
- DfID, U. (1999). Sustainable livelihoods guidance sheets. *London: DFID*.
- Ellis, F. (2000). *Rural livelihoods and diversity in developing countries*: Oxford University Press.
- England, K. V. (1994). Getting Personal: Reflexivity, Positionality, and Feminist Research*. *The Professional Geographer*, 46(1), 80-89.
- Falkingham, J., & Namazie, C. (2002). Measuring health and poverty: A review of approaches to identifying the poor. *London: DFID Health Systems Resource Centre*.
- Frameworks, M.-T. E. (2001). Sustainable Livelihoods Guidance Sheets.
- Ghana Statistical Service (2012), Ghana 2010 Population and Housing Census, Ghana.

- Gordon, D. (2005). *Indicators of Poverty & Hunger*. Paper presented at the Expert group meeting on youth development indicators.
- Graneheim, U. H., & Lundman, B. (2004). Qualitative content analysis in nursing research: concepts, procedures and measures to achieve trustworthiness. *Nurse Education Today*, 24(2), 105-112.
- Gray, D. E. (2009). *Doing research in the real world*: London, Sage.
- Heck, S., Béné, C., & Reyes-Gaskin, R. (2007). Investing in African fisheries: building links to the Millennium Development Goals. *Fish and fisheries*, 8(3), 211-226.
- Hilson, G., & Banchirigah, S. M. (2009). Are alternative livelihood projects alleviating poverty in mining communities? Experiences from Ghana. *The Journal of Development Studies*, 45(2), 172-196.
- FAO (2004). Information on fisheries management in the Republic of Ghana (2004), (Online), Available: <http://www.fao.org/fi/oldsite/FCP/en/gha/body.htm>. Accessed on 13th February, 2014.
- Jansen, A., Moses, M., Mujuta, S. C., & Yu, D. (Undated). Multifaceted poverty: Absolute, Relative and Subjective poverty in South Africa
- Jick, T. D. (1979). Mixing qualitative and quantitative methods: Triangulation in action. *Administrative science quarterly*, 24(4), 602-611.
- Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational researcher*, 33(7), 14-26.
- Kitchin, R., & Tate, N. (2000). *Conducting research into human geography: theory, methodology and practice*: Harlow, Prentice Hall.
- Kollmair, M., & St Gamper, J. (2002). The sustainable livelihoods approach. Input Paper for the Integrated Training Course of NCCR North-South Aeschiried, 9–20 September 2002, Switzerland. Accessed September 15, 2012.
- Kpando Municipal Assembly (2006), About this municipality (Online), [Available: http://kpando.ghanadistricts.gov.gh/](http://kpando.ghanadistricts.gov.gh/). Accessed on 21st November, 2013.
- Krantz, L. (2001). The sustainable livelihood approach to poverty reduction. *SIDA. Division for Policy and Socio-Economic Analysis*.

- Lund, R., Dei, L. A., Boakye, K. A., & Opoku-Agyemang, E. (2008). It is all about livelihoods: A study of women working in stone chip production in Cape Coast Municipality, Ghana. *Norsk Geografisk Tidsskrift-Norwegian Journal of Geography*, 62(3), 139-148.
- McKay, A., & Lawson, D. (2003). Assessing the extent and nature of chronic poverty in low income countries: issues and evidence. *World Development*, 31(3), 425-439.
- Mensah, M., Korateng, K., Bortey, A., & Yeboah, D. (2006). The state of world fisheries from a fishworkers perspective: The Ghanaian situation.
- Morduch, J. (1994). Poverty and vulnerability. *The American Economic Review*, 84(2), 221-225.
- Niehof, A. (2004). The significance of diversification for rural livelihood systems. *Food Policy*, 29(4), 321-338.
- Njeru, E. H. (2004). *Bridging the qualitative-quantitative methods of poverty analysis*. Paper presented at the Proceedings of the Qualitative-Quantitative Methods for Poverty Analysis Workshop, March, Kenya Institute for Public Policy Research and Analysis, Nairobi.
- North, D. C. (1990). *Institutions, institutional change and economic performance*: Cambridge, Cambridge university press.
- Ofori-Danson, P. K., Sarpong, D. B., Sumaila, U. R., Nunoo, F. K., & Asiedu, B. (2013). Poverty Measurements in Small-Scale Fisheries of Ghana: A Step Towards Poverty Eradication. *Journal: Current Research Journal of Social Sciences*, 5, 75-90.
- Okrah, M. (2013). *Economic dimensions of inland fisheries of the upper east region of Ghana*.
- Okwu, O., Yahaya, M., & Obinne, C. (2011). Analysis of artisanal fisher folk information needs and accessibility in Benue State, Nigeria. *Asian journal of agricultural sciences*, 3(5), 408-413.
- Orr, A., & Mwale, B. (2001). Adapting to adjustment: smallholder livelihood strategies in Southern Malawi. *World development*, 29(8), 1325-1343.
- Portes, A. (2000). Social capital: Its origins and applications in modern sociology. *LESSER, Eric L. Knowledge and Social Capital*. Boston: Butterworth-Heinemann, 43-67.
- Sarpong, D. B., Quatey, S. N., & Harvey, S. K. (2005). Food And Agriculture Organization Of The United Nations (FAO).
- Scoones, I. (1998). Sustainable rural livelihoods. *A Framework for Analysis*: Institute of Development Studies, Brighton.

- Shapiro, D. (1995). Population growth, changing agricultural practices, and environmental degradation in Zaire. *Population and Environment*, 16(3), 221-236.
- Silverman, D. (2011). *Interpreting qualitative data*: London, Sage.
- Smith, L. E., Khoa, S. N., & Lorenzen, K. (2005). Livelihood functions of inland fisheries: policy implications in developing countries. *Water Policy*, 7(4), 359-383.
- Tiffen, M., Mortimore, M., Gichuki, F., Ahmad, A., Twumasi-Ankrah, K., Gianotten, V., . . . Amde, Y. (1995). More people less erosion: environmental recovery in Kenya. *Journal Of Social Development In Africa*, 10(2), 366-378.
- Vos, K. d., & Garner, T. I. (1991). An evaluation of subjective poverty definitions: comparing results from the US and the Netherlands. *Review of Income and Wealth*, 37(3), 267-285.
- Yin, R. K. (2010). *Qualitative research from start to finish*. New York: Guilford Press.

APPENDICES

Appendix I:

Questionnaire for the Fisher folks of Kpando Torkor

Topic: Assessment of Livelihood Strategies and Subjective Poverty among the Fisher Folks of Kpando-Torkor, Ghana

Senanu Kwasi Kutor

(MPhil in Development Studies specializing in Geography, Norwegian University of Science and Technology)

This questionnaire is strictly confidential. Any response or information given is solely for academic purpose.

Kindly tick or circle the correct option as applies to you.

Section A: Background information of respondents.

1. Sex: (a) Male (b) Female
2. Educational Level: (a) Primary, JSS (b) SSS/ Vocational education (c) Training College (d) University (e) None
3. Marital Status: (a) Married (b) Single (c) Divorced (d) Widowed (e) Separated
4. Number of Children:
5. What is your main occupation? (a) Fishing (b) Fish monger (c) Fish trading/selling
6. Is Kpando area your hometown? (a) Yes (b) No
7. If No, why are you living in Kpando?

Section B: Access to General information concerning fishing

8. How often do you have access to information regarding fishing?

Means	Everyday	Monthly	Sometimes	Never
Radio				
Town hall				
Newspaper				
Relative/ Friends				
Internet				

Television				
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9. What kind of information do you get? (a) Fishing regulations and laws (b) market to sell products (c) pricing (d) fishing equipment (e) other

10. How will you rate the information assessed regarding fishing activity.

Strongly agree	
Agree	
Disagree	
Strongly disagree	

Section C: Emerging livelihood pathways in the study area apart from fishing

11. How long have you been in this occupation?

12. Are there any job opportunities emerging in the area apart from fishing?

(a) Yes (b) No

13. If yes, how will you classify them?

(a) Natural resource based (b) Non-natural resource based (c) Other.....

14. Which emerging livelihood activities fall under either the natural resource or non-natural resource based?

Natural resource based	Non-natural resource based

15. Will you leave your current livelihood activity (fishing) to pursue any of the emerging livelihood activities?

(a) Yes (b) No

16. If No, why?

(a) Stressful (b) Risk/ Hazardous (c) Not economically rewarding (d) Not sustainable (e) Others

Section D: Multi-dimensional of poverty and wealth disparity among the fisher folks

17. How will you classify yourself? (a) Poor (b) Very poor (c) Not poor/ Rich

18. Has your poverty level had do with your livelihood (fishing/fish mongering)?

(a) Yes (b) No

19. If No, what is the main cause of your poverty level?

(a) Lack of education (b) Lack of income (c) Government failure(d) Lack of employment avenues

20. How will you rate your status on the following indicators of poverty?

Rating Criteria	Very good	Good	Poor	Very poor
Income level				
Food and water (Quality)				
Health status				
Housing conditions				

21. Is there disparity in accumulation of wealth among the fisher folks? (a) Yes (b) No

22. If yes, what is the most contributing factor to such disparity? (a) Gender (b) Education

(c) Status (d) Inheritance (e) Other

SECTION E: Challenges facing the fisher folks

23. What are the main challenges facing you in the fishing industry?

a.

b.

24. Are those challenges adversely affecting fishing activities? (a) Yes (b) No

25. What is your main challenge? (a) Financial constraints (b) Inadequate market (c) Lack of collateral security (d) Pearl trawling (e) Other

26. Who in your view can help in addressing the challenges facing the fishing industry?

(a) Central Government (b) Local government (c) Close relations (d) Other

Thank you for your support and cooperation.

Appendix II:

Key Informant Interview Guide

Topic: Assessment of Livelihood Strategies and Subjective Poverty among the Fisher Folks of Kpando-Torkor, Ghana

Senanu Kwasi Kutor

(MPhil in Development Studies specializing in Geography, Norwegian University of Science and Technology)

Background information

1. Name:
2. Sex:
3. What is your position in the community?
4. What is your occupation?
5. Are there any traditional rules regulating fishing in the area?
6. Are they benefitting the fisher folks?
7. What are the reasons for your answer?
8. Are there other livelihood pathways that the fisher folks can pursue apart from fishing?
9. Are they economical and sustainable?
10. What are the reasons for your answer?
11. Is fishing as a livelihood activity worth pursuing?
12. What are the reasons for your answer?
13. What are the challenges facing the fisher folks in pursuit of their livelihood pathway?
14. How can such challenges be addressed?

Any additional issues, comments, suggestions or clarifications?

Thank you for your support and cooperation.

Appendix III:

Individual Interview Guide

Topic: Assessment of Livelihood Strategies and Subjective Poverty among the Fisher Folks of Kpando-Torkor, Ghana

Senanu Kwasi Kutor

(MPhil in Development Studies specializing in Geography, Norwegian University of Science and Technology)

Background information

15. Name:
16. Sex:
17. What is your main occupation?
18. How long have you been in this occupation?

Emerging livelihood pathways in the study area

19. Are there other livelihood pathways apart from fishing and farming?
20. If yes, what are they?
21. What do you think of the emerging livelihood pathways?
22. Are the economic gains better than fishing activities?
23. Do you think it is sustainable?
24. Are you willing to leave your fishing activities to pursue the emerging livelihood pathways?

Multi-dimensional of poverty and disparity in wealth

25. Poverty has been an issue. What is poverty to you?
26. How will you classify yourself? Rich or poor?
27. What influences or determines your choice of being poor or not poor?

28. Is your poverty status related to fishing activity as your livelihood pathway?
29. How do you see the income you gain from your work?
30. Are you comfortable with it?
31. What do you have to tell me about your food, water, housing and your health condition?

Challenges facing the fisher folks

32. In every activity there are challenges. What are some of the challenges faced in pursuing your livelihood activity?
33. How are such challenges affecting your livelihood activity?
34. In your view, what can be done to minimize those challenges?
35. Which actors are supposed to help in addressing your challenges?

Any additional issues, comments, suggestions or clarifications?

Thank you for your support and cooperation.

Appendix III: Interviewee List

- 1. Interviewee I** Fish trader
- 2. Interviewee II**Fish monger
- 3. Interviewee III**Fisherman
- 4. Interviewee IV**Fisherman
- 5. Interviewee V**Fish monger with 5 years' experience
- 6. Interviewee VI**Fisherman
- 7. Interviewee VII**Kofi, Fisherman with 6 years' experience
- 8. Interviewee VIII** Davi, fish monger
- 9. Interviewee IX** Abla, fish monger
- 10. Interviewee X** Chief fisherman

Appendix IV: Some pictures from the fishing community

