EVALUATING SOCIO - ECONOMIC FACTORS THAT INFLUENCE POVERTY REDUCTION AMONG THE FISHER FOLK IN SUBA DISTRICT, KENYA

BY

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ABSTRACT

Poverty is lack of basic amenities or human requirements such as housing, land and other assets. It is an unacceptable human deprivation in terms of economic opportunity, lack of empowerment and security. It is pronounced as a state of being short of clothing, education opportunities and access to health services. Despite the crucial role played by the fisher folk in the social and economic development of the Lake Victoria region, they continue to be poor. The fisher folk in suba district form part of the rural poor. Their entrepreneurial skills, savings and investments levels have remained low. The objectives were to: examine the socio-economic characteristics of the fisher folk; determine the conceptualized causes of poverty among the fisher folk and analyze the economic activities that the fisher folk are engaged in to reduce poverty. The study used a descriptive research. The sample frame was a list obtained from suba county council. There were 65 landing beaches from which a simple random sampling was used to select 15 landing beaches. The population was 900 registered fish traders using 30% of the population the sample size was 270 distributed from 300 fishermen 90 respondents, 500 retailers 150 were selected from 100 wholesalers 30 were selected, 3 key informants and 5 officials from fishery organization making a total of 278.The primary data was collected using questionnaires, focus group discussions. The secondary data was from existing reports, publications and the internet. Quantitative data was analyzed using descriptive statistics such as percentages whereas qualitative was organized and analyzed by creating themes and patterns, then evaluating the usefulness of the information to answer research questions. The major results majority of the fisher folk were between 41-50 years with a life expectancy of 37 years after birth. A total of 56% had no formal education with majority having between 11-15 years of business experience. The main causes of poverty included poor infrastructure, inadequate financial resources and prevalence of HIV/AIDS disease, weak institutional capacity and inappropriate technology. The fisher folk engaged in both fishery and non fishery activities. Majority of the fisher folk had registered a decline in their businesses for the last three years and the study established that only a paltry number were saving and investing from their earnings. The study concluded that poverty is rampant among the fisher folk with each having own experience. The causes of poverty create negative impact and affect the operations of the fisher folk. The study recommends a significant support and formulation of policies, strategies and intervention measures necessary for the growth of the fish industry. The fisher folk should improve their competencies in business, financial, marketing management and handling practices. The Government should rehabilitate and maintain rural infrastructure.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Poverty has its spread all over the developed and developing countries and is found both in the rural and urban areas. Incidence of poverty is much higher in the rural areas but its impact in the urban areas is nonetheless considerable. Incidence of poverty (also referred to as headcount ratio) can be defined as the proportion/percentage of the population who are living in poverty. It is a measure that describes the rate or prevalence of poverty in a certain population groups. Other poverty measures include poverty gap and severity of poverty. Poverty gap presumes that not all people are alike. The index basically differentiates among the poor. It provides information on how far an average poor is away from poverty line. The emphasis of the severity measure is on the status of the poorest of the poor (Foster *et al.,* 2010).

Poverty is lack of basic amenities or human requirements such as housing, land and other assets (Deepa *et al,* 2000). It is pronounced as a state of being short of clothing, education opportunities and access to health services.

Poverty is conceptualized as scarce income, productive assets, and social infrastructure and therefore remains as an inability to achieve a socially acceptable standard of living. It is either in absolute or relative terms. If conceptualized in absolute terms, then the Food Energy Intake measure which is food based is applied, this is a minimum food intake needed for an individual to lead a decent life. People who cannot afford the cost of Food Energy Intake are considered poor. On the other hand, relative concept considers the non food items such as cost of housing

and clothing as the measuring criterion for poverty. People live in poverty if their income and resources (material, cultural and social) are too inadequate to prevent them from having a standard of living which is regarded generally as acceptable by the society (Kenya, Republic of, 2000).

Poverty can be measured both at macro and micro levels in the national economy. At the macro level it is measured by the amount of food available that is to say the food and nutrition insecurity facing a household or nation, basic needs required. At Micro level it is measured by the material deprivation, dependency, assetlessness and poor housing (Wagle, 2008).

Chen and Ravallion (2008) define the poverty thresholds at $1.25 per day and the United Nations (2009) tracks progress toward the poverty target in terms of persons with income below $1.25 per day on purchasing power parities. Poverty line takes into consideration both household income and household consumption expenditure. An individual is classified as "poor" if they have monetary and in-kind income of less than the minimum level of daily subsistence, or have an average per capita income below the poverty line (Teerakul, Villano, Wood and Mounter, 2012). The study indicated that the poor as those living below poverty line (used to distinguish the poor from the non-poor) and is the minimum necessary expenditure required for food, clothing, essential household sundries as well as maintenance of health. A person with income below this line is said to be poor while those above the line are non-poor (Obiero, 2002). Despite the gains that have been made in agriculture, health care and education across the Africa continent, more than 40% of the population in sub –Saharan Africa lives below poverty line where those included in the group are three quarters of the world's poorest people who live on less than 50 US cents a day (FAO, 2006).

According to Weeks, (2004) poverty in developing countries can be viewed as lack of opportunities for decent work and social inclusion and the symptoms of which are poor infrastructure, weak states, weak regulatory capacity of working conditions, political instability, inequality and limited access to resources, and lack of employment diversification. It is intimately related to growth and distribution of income which always change as working people shift among sectors. The poor in a community have to work in several smallholdings in the village and neighbouring areas, since this is part of their survival strategy. Their payments vary in piece-meal and task-based are most common. They grow in frequency and lower the risk faced by the employer.

In Kenya poverty has been defined in terms of the condition in which poor people find themselves. The absolute poverty line in 1994 in the rural and urban areas was Kshs. 980/- and Kshs. 1,490/- per capita per month respectively and was found to be below the international acceptable standards of US $ 1.25 per capita per day. The Poverty headcount ratio at the rural poverty line (% of rural population) was 49.7% (Kenya, Republic of, 2006). The vast majority of poor people live in rural areas (IFAD, 2011).

The distribution of wealth within the provinces, districts, divisions and locations vary considerably where income below the poverty line cuts across all the regions. Central Province, with roughly one million poor people, ranks as the least poor province, with most locations having a poverty incidence of less than 40%. Nairobi has 880,000 people living below the poverty line and the rates range from 32% in Westlands to 77% in Makongeni across locations.

Coast Province has a rural poor population of roughly 909,000 people where two-thirds of the rural poor are found in two districts and poverty gap ranges from 27 to 44%.In Eastern Province of the 2.5 million rural poor in, 64% (1.6 million people) live in four Districts such as Kitui, Machakos, Makueni and Meru North. In Nyanza Province the rural poor population is estimated at 2.4 million and has a very high poverty rates across most Divisions and Locations meaning that the average adult below the poverty line would require an additional Kshs.421 per month to get out of poverty. Rift Valley an estimated poor population of 2.7 million in the rural although several Districts have a relatively low poverty it exhibits that Magadi Division is the poorest in Kajiado District, with 57% and Ngong Division poverty rates ranging from 11 to 64%. Western Province, with an estimated 1.8 million poor people, is fairly uniformly and deeply poor. There are no Divisions or Locations with poverty incidence point estimates of less than 60% and poverty gaps are uniformly high, typically over 35% (Kenya, Republic of, 2010).

Recent analysis of the data from the 2005 to 2006 Kenya Integrated Household Budget Survey (KIHBS) indicates that national absolute poverty declined from 52.3 percent in 1997 to 46.1 percent in 2005 to 2006. While this decline in poverty compares well with other Sub Saharan African countries, it can still be considered high in comparison to neighbouring countries such as Tanzania (about 36%) and Uganda (about 31%), however, overall poverty declined from 52.9% to 49.1%, in rural areas, in 1997 and from 49.2% to 38.8% in urban areas over the same period (Kenya, Republic of, 2009).

1.2 Statement of the Problem

Governments all over the world strive to achieve one fundamental goal of promoting development programmes and enhancing a higher standard of living for their citizens. In developing countries the desire more pronounced because the people are very vulnerable and lack the capacity to create wealth and fend for themselves. Governments help to fight and reduce the levels of vulnerability and poverty among their people. Despite the Government's efforts in allocating financial resources to the fish industry in Kenya, the fisher folk in Suba district continue to be poor. The fish industry immensely contributes to the Kenya's GDP. In 2006, it contributed 0.5 % to the GDP (Kenya, Republic of, 2009),though insignificant, the impact is not adequately felt among the fisher folk in the study area as the income from fisheries is not visibly reflected in their lifestyle.

The communities living around the Lake Victoria region experience both food and absolute poverty where about 67% in the study area live below the poverty line (Kenya, Republic of 2005).The poverty level in the study area is a critical problem because of its long-term implications and consequences which include poor nutrition status, malnutrition and mortality rates. The poverty in the area causes collapse of employment opportunities inhibits social and economic growth of an individual and the community at large. It inflicts marginalization, increased school dropout, child labour, poor nutritional standards and diseases. The problem affects the community at large, the small scale fisher folk, farmers and the Government because of lack of revenue.

1.3 Objective of the Study

The main objective was to evaluate strategies and economic activities initiated by the fisher folk to reduce poverty in Suba district. The specific objectives were: -

1. To examine the socio-economic characteristics of the fisher folk in Suba District;
2. To determine the conceptualized causes of poverty among the fisher folk in Suba District;
3. To analyse economic activities that the fisher folk are engaged in to reduce poverty;

1.4 Research Questions

The following are the research questions which formed the basis of this study:-

1. Does socio-economic characteristics of the fisher folk in Suba district influence poverty reduction?
2. What are the conceptualized causes of poverty among the fisher folk in Suba district?
3. Do the economic activities initiated by the fisher folk in suba district contribute to poverty reduction?

1.5 Scope and Limits of the study

This thesis focused on the fisher folk in Suba district who include the fishermen, retailers, wholesalers and fishery institutions. It covered the various causes of poverty as perceived by the respondents and the economic activities that fisher folk engage in, in an attempt to reduce poverty. The study was restricted to the locals living in Suba district and Nile perch and Tilapia which are the main ccommercially exploited species in the study area and currently valued at approximately US $ 1.50 and US$ 2.50 per kg respectively. Therefore, because of their high market value, the species constitute the largest share of total catch by weight. Dagaa was not chosen because of its seasonality and is prone to fluctuation. The other species like mud fish was ignored because of its low demand due to religious and cultural taboos. The study did not cover fish farming since it is not significantly practiced in the study area and factors areas as methods of

fishing, lake pollution and uncontrolled pollutants into the water were not significant for this study.

1.6 Justification of the Study

Based on the problem stated it is important to carry out this study to address the poverty levels. Since independence in 1963 the Kenya Government has identified problems facing her population as illiteracy, disease and poverty and consequently placed poverty as one of the most critical factors affecting her people. The Government then formulated strategies to reduce it. However, Suba district, the study area, has not yet adequately benefited from those plans. The study area still registered a regional inequality in terms of development and economic growth. There are numerous benefits that can be derived from the study; it outlined how the fisher folk can reduce poverty, provided information to all stakeholders and can assist the Government in formulating and devising policies, strategies, and intervention measures to be undertaken in developing the fish industry. The recommendations can widen the knowledge of all stakeholders and enhance economic growth of the fisher folk in the Lake region. The results can also be used as a basis for planning both at the district and national level, a point of reference for further research on projects and programs necessary for the development of the fisheries sub sector.

CHAPTER TWO

LITERATURE REVIEW

2.1 Overview

This chapter presents related empirical literature on economic significance of fishing. It discusses socio-economic characteristics, causes of poverty, economic activities that the fisher folk in Suba District have to reduce poverty. The review provided an overview on studies and writings previously done and appropriately reviewed the relevant cases to this study. This chapter evaluated the literature, identified the gaps left by the previous studies and discussed a conceptual framework upon which this study is based.

The number of people directly employed in fisheries is estimated at 38 million, of which 90 percent are small-scale fishers. In addition, there are forward linkages (trade, processing, transport, retail, and whole sale generated by supply of fish) and backward linkages (boat building, net making, engine manufacture and repair, supply of services to fishermen and fuel to fishing boats) to support fish activities. About 200 million people are dependent on small-scale fishing in developing countries as fisheries provide their supplementary income. Fisheries are important engines for economic growth and livelihoods and they serve as a safety net to landless poor or in the event of other livelihoods failing. Many small-scale fisher folk live in poverty, as a result of degradation of resources. This understanding of the economic poverty of fishers in developing world captures the situation of small scale fishers, but misses the fact that they may earn more than peers in their communities and that their poverty is multidimensional and related to their vulnerability to a variety of stressors (FAO, 2005).

Fish workers in the small-scale fisheries sector have always been poor and amongst the most marginalized communities. They face exploitation by the merchants and middlemen who have control over fish marketing. They drain away the surplus generated and are indebted. A combination of variability in catch, technology upgrades, over capitalization, rising costs, aggressive fishing and overcrowding has made economics of fishing and fishing related occupations uncertain. Moreover, the distinctive aspect of fisheries is that incomes vary widely on a daily, seasonal and regional basis (Karmakar, Mehta, Ghosh, and Selvaraj, 2009).

2.2 The socio-economic characteristics of the fisher folk in Suba District

According to Oladoja and Adeokun (2009) in the background of poverty, lie socio-economic constraints, which combine with unfavourable environment conditions for a vicious circle of poverty to hinder access to physical capital assets of the fisher folk. The productivity at the fisheries level is reduced; income levels and living standards are generally very poor irrespective of what parameters are used for analysis.

Adeoti, *et al (*2010), found out that fishers are not more than 50 years of age. They are young and middle aged with potential and drive to sustain fish production for many years and are mostly male. The reason for this disproportionate distribution of gender among fishers is because fishing is a tedious task which involves spending long hours on the sea in pursuit of catching fish, hence males are more involved. Overall household size matters almost half the population lives in households composed of at least seven members and about 60 percent of these are poor. Poverty incidence declines with household size only about 14 percent of the poor live in households with fewer than 5 members. Household size and composition has a negative effect on

consumption per adult equivalent, confirming that large households are more likely to be poor. However, the effect is non-linear and the marginal effect declines as households size increases. Surprisingly, a higher share of female adult members is linked to higher consumption levels in urban areas, holding all other factors constant (Ezekwesili, Bruce, Krumm, and Klugman, 2008).

A substantial number of women fish traders and children spend some fraction of their life in single female-headed households, leading many to be concerned about their economic circumstances. Estimating the cause-to-effect relationship between marital dissolution and female economic status are the same factors that increase marital instability. It affects the economic status and labor market outcomes and that divorce causes large declines in economic status (Kelly and Olivier, 2004).

According to Omwega (2009), an analysis made on the wealth status of fisher folk indicated that fishers around the lake owned several assets and items of wealth. Majority of them owned a house; some had a piece of land a few owned a motor vehicle and bicycles. The study revealed that some owned cattle, others owned goats. From observation made apart from these investments the standard of living for the fisher communities is very low, most houses owned were either grass thatched, or semi-permanent and a significant proportion were landless.

The World Bank (2009) established life expectancy is the number of years to be lived by a group of people born in the same year, depending whether or not mortality at each age remains constant in the future. At birth it is a measure of overall quality of life in a country and

summarizes the mortality at all ages. It is also thought of as an indicator to the potential return on investment in human capital and is necessary for the calculation of various actuarial measures. It is the estimated number of years left to live for a person whether at birth or 50 years (Kong, 2009). In Kenya it was 55.3 in 2007 and 56.64 in 2008 an increase of 2.4%. In 2009 it came to 57.86 an increase of 2.19% and in 2010 it reached 58.82 and registered an increase of 1.66% for the total population male and female (World Bank 2009).

2.3 Conceptualized causes of poverty among the fisher folk in Suba District

According to the World Development Movement (2009), poverty is caused by overpopulation, unequal distribution of resources, and inability to access good standards, inadequate education, employment opportunities and environmental degradation. Poverty in Africa is a weapon of mass destruction and manmade disaster. It is attributed to activities that have black spot for humanity, sign of poor basic services, scarce financial resources and low returns from natural wealth. The causes include corruption, poor governance, limited employment opportunities, poor infrastructure, poor resource usage, wars and unending conflicts (Karagara, 2010). In Kenya, it is amplified by a large percentage of the population locked out from accessing social and economical services provision (Dalton, 2005). This aspect is equal to poverty and it emanates from various major underlying causes such as lack of policy consultation, inadequate implementation and inequality of resources. According to Thinguri, (2005) distribution and allocation of resources are due to influence in decision making, creating loopholes of poverty incidences. Lack of accountability, transparency and corruption, creation of bad governance is a core cause of poverty in a country.

2.3.1 Poor Infrastructure

According to Shenggen (2004) infrastructure has multiple links to poverty reduction, as it helps create jobs and raise worker productivity. It saves time and human effort in transporting water, crops, wood, and other commodities. It also improves health and education. Among all types of rural infrastructure, rural transport is probably the most crucial for the livelihoods of the rural poor. It encompasses transport activities at all levels, whether local, regional or national. The study found out that an inefficient infrastructure system can act as a significant constraint to poverty reduction as it raises both the costs and effectiveness.

2.3.2 HIV/AIDS

According to Lennart, (2010) HIV/AIDS are reasons of Rural Poverty in Kenya as it affects income and leaves people much tenderer to poverty. When it strikes it rolls back accomplishments in health and education. It leaves society weakened at every level. Malaria and Water-borne diseases also contribute mightily to the vast daily human sacrifice to problems that are crises. The study found out that poverty has a great deal to do with the dislocation of normal lives, weakening of families, and an-induced consignment of women to commercial sex as a way of making a short living.

For fisher folk, resource degradation is not necessarily the most important cause of their poverty, vulnerability or social exclusion. Indeed, in many cases, the fishery is a 'safety net' that prevents complete immiseration or continues to provide better economic returns than alternative livelihood sources, despite resource declines. The risk of resource degradation or stock collapse may be perceived as low by many fisher folk in comparison to the exposure of their livelihood

systems to other risks. These include ill health or death (particularly from malaria, HIV/AIDS, waterborne diseases, drowning and accidents), theft or loss of fishing gear, lack of secure access to alternative productive assets (such as land) or to a lack of basic human rights. Small-scale fisher folk are often excluded from processes of development planning, either because they are mobile (including unregistered international migrants), living in marginal and remote areas, or simply because their role and contribution (FAO, 2006).

2.3.3 Access to finance

Access to finance has been identified as a major problem experienced by many in attempts to start and sustain business in Kenya. Though it is true that credit in formal banking has grown steadily over the years, the same is not available to the people in the rural areas. Although there are about 532 branches of financial institutions in Kenya their location is heavily biased towards the urban areas and districts with good infrastructures that can fetch good returns, citing high transaction costs and therefore unprofitability (Quach, 2005).

Commercial banks are reluctant to lend to low-income households because they lack adequate or credible credit history and any usable collateral. Further explanation for locking out the bulk of the poor in financial services by commercial banks is the high transaction cost and the perceived high risks (Mwaura, 2008).

While finance has been termed as a major problem, a high majority of the entrepreneurs had never applied for a formal bank loan, due to stringent collateral requirements by banks and the risk involved (Adebimpe, 2011).

Kenya is considered to have a well-developed financial system. The sector comprises a number of commercial banks and non-bank financial institutions; financial sector contributes to poverty

reduction through a growth-enhancing effect up to a certain threshold level of economic development. It is pro-poor but financial instability hurts the poor and dampens the positive effect on poverty reduction (Odhiambo, 2010).

2.3.4 Inappropriate technology

According to Adebimpe (2011) there has also been a proliferation of fishing gears and methods, some of which are developed by the fishermen themselves without observing any standards. Prado *et al* (1991), aver that unrestricted access and use of environmentally damaging fishing methods, particularly beach seining and trawling are the major setbacks to conservation efforts in Lake Victoria. These factors have led to the disappearance of some endemic fish species and a gradual decline in not only the average size or weight of fish caught but also the catch per unit effort. Huge amounts of virtually useless juvenile fish are landed every day. The problem is now a vicious circle. Fishermen adjust to d through increased use of fishing technologies that are very efficient in the short run. These technologies exert so much pressure on the fisheries forcing them to adjust with more efficient but destructive technologies. Capture technology is still underdeveloped in the Kenyan fisheries of Lake Victoria, having only marginally changed since the introduction of synthetic fiber. The technological changes experienced in the harvesting sector include gradual replacement of dugout canoes with planked ones, marginal motorization of the crafts, progressive decline in mesh size, increased specialization or targeting in gillnet fisheries and a gradual shift from the use of traditional fishing techniques. The boats operating on the lake are of Sesse type and Taruma type averaging a length of about 6.9 metres, old, generally poorly designed and rely on the direction of the wind.

2.3.5 Weak institutional capacity

According to Muradian and Mangnus (2009) the main benefit of working with the institutions like cooperatives rather than with multiple individual small producers is lower transaction costs, which include the costs of coordination, establishing and monitoring contracts, quality control of products and collection, sorting and grading practices. Hence, due to these lower costs and economies of scale, cooperatives can have considerable competitive advantages, particularly in sectors that are dominated by small producers. Compared with the development sector, the private sector holds a rather different vision of the entrepreneurship of cooperatives. Private firms want to source products that meet their demands and standards. They look for reliable business partners who can deliver products in specific volumes, at a good price, on schedule, and that meet quality and other specific requirements. Members must organize themselves based on a central business proposition. However, the origins of the cooperative, the physical constraints of product marketing, member attitudes toward changes in the competitive environment, and changes in member attitudes toward the central business proposition uniquely constrain the Institutions.

There are some basic core problems in the system of fisheries governance which impair stakeholder participation thus the problem of the management structure of fisheries. It is very difficult for stakeholders to play a meaningful role in decision-making and policy, given the fact that fisheries management institutions still operate primarily top-down. For instance, meaningful stakeholder participation implies sharing of power as well as responsibility. To add to this lack of meaningful participation resulting from the management structure of fisheries, the management processes can be characterized as only partially open, since crucial information is restricted to key stakeholders, and participation does not guarantee transparency, due to the

general lack of sharing of information between actors Finally, there are differences in the level of stakeholder involvement . These result in part from institutional traditions within but are also a reflection of the struggle management authorities are having with reforming participatory practices (Pita, Chuenpagdee and Pierce, 2012).

2.3.6 Storage facilities and fish prices

Commercial fishing contributes substantially towards rural development and economic empowerment. The gap in fish marketing which had remained open is storage facilities. The lack of the accessibility of an uninterrupted power supply this requires the fishermen to be most efficient fishers to own their own cooling facilities such as cool boxes, gas powered refrigerators, and boats fitted with outboard motors which increase their catching efficiency. This equipment is normally too expensive for an average fisher to buy (Mosepele and Ngwenya, 2010).

2.3.7 Insecurity

According to Omolo, (2012) fisher folk have various constraints in their activities. Contrary to Kenya, the neighbouring countries of Tanzania and Uganda have equipped their security personnel patrolling their side of the lake with sophisticated equipment, speed-boats and round the clock state of alertness. Lack of logistics to support the effective security patrol of the Kenya side of Lake Victoria are some of the impediment to development and major source of insecurity giving leeway to foreign pirates to cross at will and antagonize Kenyan fishermen. The government should work to amend the law governing fishery activities to allow fishermen to hire armed security personnel. Weeks hardly pass without reports of pirates from foreign countries

having seized fishing boats belonging to Kenyan fishermen. Security personnel on the Kenyan side have no means of responding to distress signal by fishermen due to lack of logistics such as speedy-boats and adequate number of security personnel.

2.4 Economic Activities

Udong and Niehof, (2010) established that the fisher folk engage in petty trading, dressmaking, hair dressing, weaving of baskets, farming, providing labor, leasing of market sheds, transport boats, outboard engines and storage facilities in addition to fish trade. However, with the isolated location and limited assets and resources, and fewer opportunities for livelihood generation, the fisher folk is dependent on fishery for livelihood and fish trade is the primary economic activity, providing income for the households. During the planting season over ninety per cent create time to plant cassava and vegetables upland, for household consumption. Other activities are mostly carried out simultaneously with fisheries activities. For example, the middle-aged, large scale fish seller owns a fish store and a dress-making shop near the market and employs others.

According to Erhard and Nguyen (2007) 75% of the fisher folk do not engage in any activity other than fishing. The other remaining proportions engage in various economic activities such as small trading, aquaculture, agriculture and / or boat repairing services. Small trading is regarded as the most preferable activity to be carried out and common in many fisher folk households particularly women who are often left out at home during fishing. They usually choose fish trading as their additional activity. However, goat, poultry and cow rearing as well as

petty trading ensure fairly steady incomes and stabilize consumption especially during periods of crises (Ahmad, 2007)

The fisher folk not only exhibit occupational diversity at any given moment, the majority of the worlds' small-scale fishers have multiple occupations, entry into and out of the fisheries sector is also highly dynamic.The diversified livelihoods of many fisher folk are indicators that they are able to engage in different activities when these are available, but not all diversification is positive and accumulative. The unskilled may find themselves in poverty traps where they diversify into a range of marginal activities in order to piece together a livelihood. Poor endowments of productive, non-labour assets such as land, livestock [or fishing boats] commonly force poorer households to hire themselves out to work in others' fields, herd others' animals or fish on others' boats for low wages. If fisher folk are trapped in fishing, it is often external forces, rather than fisher folks' human capital limitations, that conspire to increase fishery dependence and therefore the risk of overexploitation. In the case of settled farmer-fishers , declining returns from agriculture and livestock-keeping is due to various combinations of unfavourable macro-economic adjustment policies, theft due to declining internal security, and withdrawal of government extension services under market liberalization, is pushing more people into full-time fishing (Freeman, Ellis and Allison, 2004).

The Kenya Government in their study poverty reduction found out that beef cattle and dairy cattle contribute substantially to poverty reduction and that sheep and goats play a key role in households for food security and incomes owing to their short generation intervals, high adaptability and versatile feeding habits. Poultry such as free-ranging indigenous chicken are

becoming increasingly important due to low investment and variable costs involved (Kenya, Republic of, 2009).

The poverty of many fishing communities has conventionally been understood as deriving endogenously because of the inevitable overexploitation and poor returns from open-access resources (people are poor because they are fishers) or exogenously because the influx of the poorest of the poor into fisheries as a last resort (they are fishers because they are poor), A livelihood can be defined as the capabilities, assets and activities required for means of living. The concept of sustainable livelihood seeks to bring together the critical factors, assets and activities that affect the vulnerability or strength of household strategies People can access, build and draw upon five types of capital assets thus human, natural, financial and social (Daw, Adger, Brown, and Badjeck, 2008).

Ronge, *et al,* (2002) in their study on source of markets and customers for businesses reported that most small and medium enterprises have their customers or markets within their locality and noted that this challenge given that they have to compete for the same market. They recommended that it is important for the businesses to look beyond their local catchment area and need to consider markets beyond their national and regional boundaries.

2.5 Conceptual Framework

Figure 1 shows a conceptual framework which depicts the variables that influence poverty reduction by the fisher folk in suba district. It describes a set of broad ideas and principles taken from relevant fields of study and are used to structure a subsequent presentation. It has a potential usefulness as a tool to research and, therefore, assists in making meaningful subsequent findings. It assists in developing awareness, understanding of a situation under scrutiny and

communication. Socio-economic variables are used as independent variables in order to examine the household characteristics of the poor.

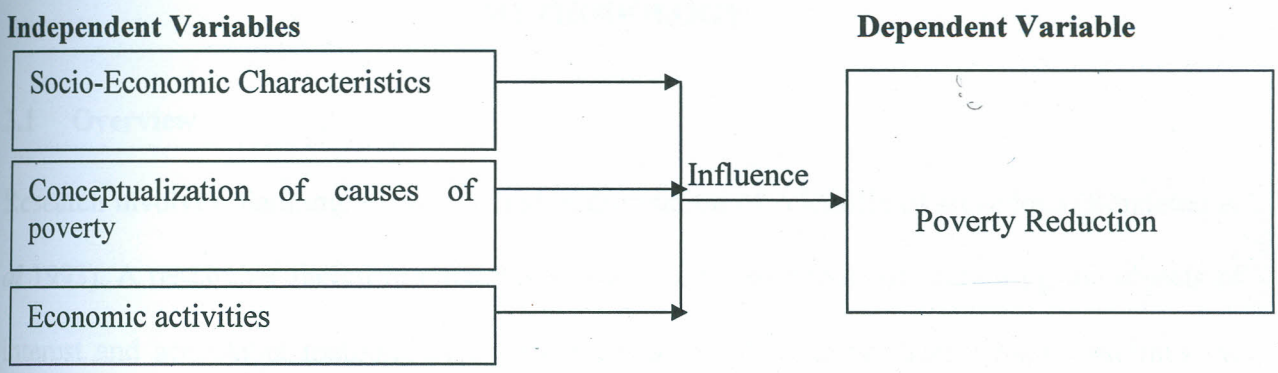


Figure 1: Conceptual Framework **Source: (adapted from Cohen, 2009)**

The study was based on a conceptual framework and it depicts both the independent and dependent Variables. In this study poverty reduction is a dependent variable, where independent variables include the socio-economic characteristics of the fisher folk, conceptualization of causes of poverty and economic activities initiated by the fisher folk in order to reduce poverty.

2.6 Research Gap

Majority of the previous studies concentrated on general poverty but has since made inadequate reference to the fisher folk. The studies have not clearly defined the role of the fisher folk in poverty reduction. They have not adequately indicated how the fisher folk reduce poverty that engulfs them. The previous studies have not adequately identified adopted by the fisher folk to combat poverty.

CHAPTER THREE

METHODOLOGY

3.1 Overview

Research involves planning, execution and interpretation of scientific observations (Singleton *et al* 1993). A researcher therefore must devise ways and instruments of measuring the objects of interest and acceptable methods of selecting cases for observation. This Chapter outlines the research methodology used in this study and addressed the study area, research design, study population, sampling procedures, data collection and data analysis and presentation of results.

3.2 The Study Area

3.2.1 Location

The study was carried out among the fisher folk in Suba district. The district which covers a total area of 1, 810 km^2 is located in Western Kenya along the southern shores of Lake Victoria. It lies within longitudes 34^0 4′ 08" and 34^0 5' 10" and latitudes 0 ^{0} 6' 12" and 0 ^{0} 54' 50" (Figure 2). It is divided into four main administrative divisions namely: - Gwassi, Lambwe, Mbita and Mfang'ano (Figure 3) (Kenya, Republic of, 1986). A number of factors led to the choice of Suba district as the study area. First, it is one of the main fish catchment areas with a large number of fisher folk. Second, the district has fish trade links with the neighbouring countries in the East African region. Third, the area is a main population concentration in Lake Victoria region with an annual population growth rate of 3 % per annum with a substantial share of the country's population increase (Obiero, 2002). Fourth, there is inadequate comparable studies and dearth of information regarding poverty reduction particularly among fisher folk.

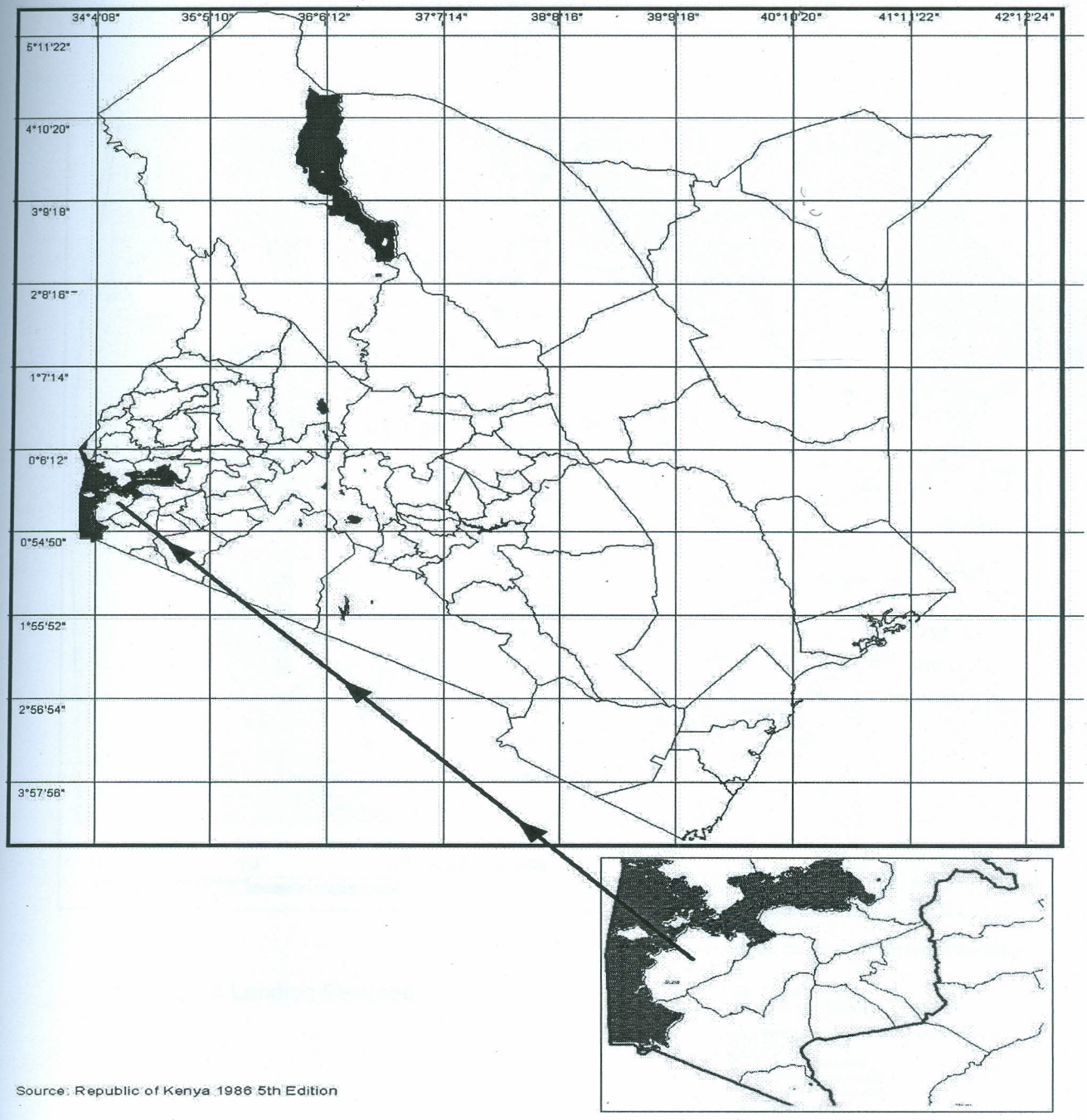
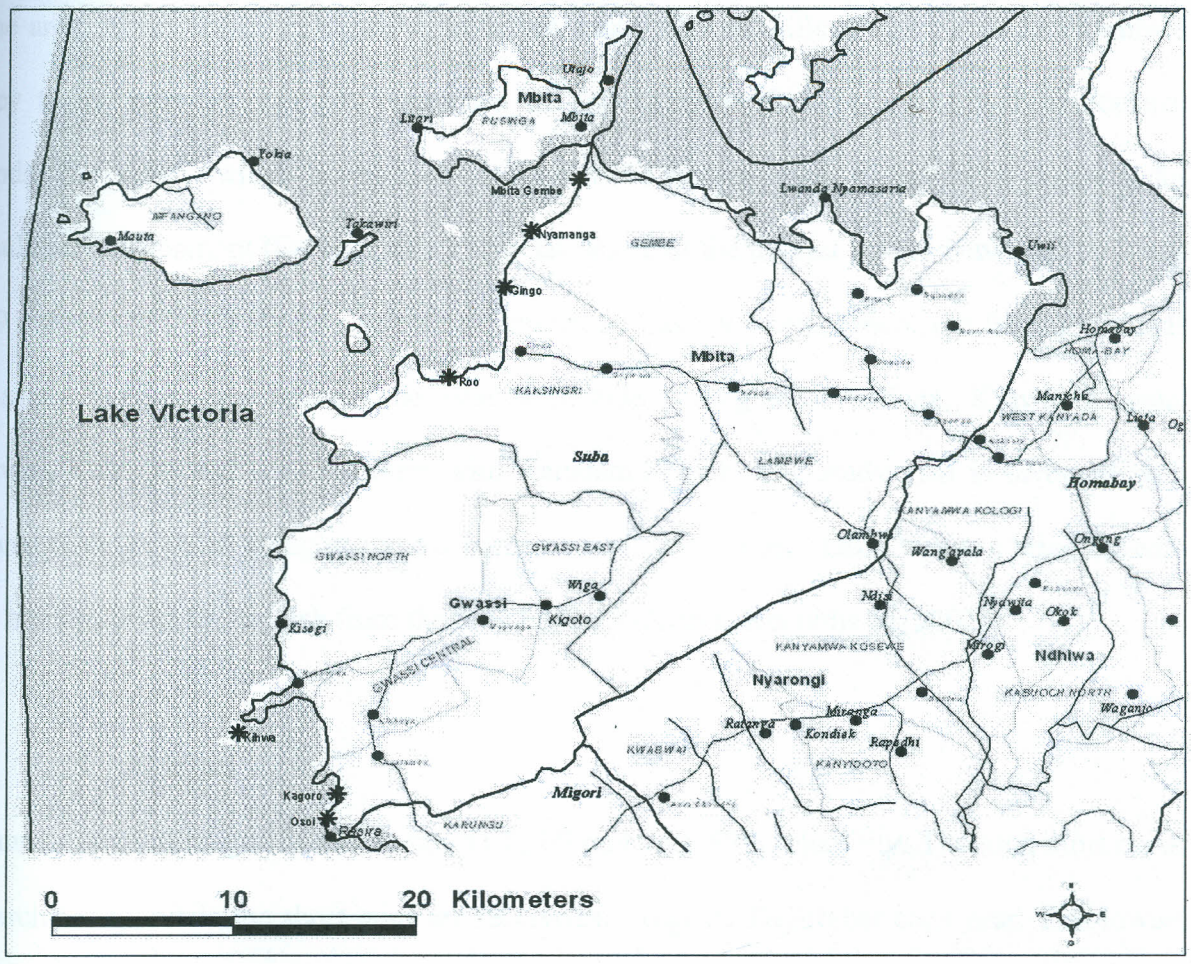


Figure 2: Location of Study Area in Kenya



Source: Survey of Kenya (1986) Fifth Edition

Key: Sampled Landing Beaches

Mauta
Takawiri
Yokia
Litari
Utajo
Mbita Gembe
Uwii
Nyamanga
Sindo
Kagoro
Nyandiwa
Osoi
Gingo
Mbita Rusinga
Lwanda Nyamasaria

Landing Beaches
Towns & Markets
Streams, rivers, or channelized rivers
Roads
District Boundary
Divisional Boundary
Locational Boundary
Lake Victoria

Figure 3: Study Area in Detail

3.2.2 Relief and Drainage

The district lies between 1,125 meters and 2,275 meters above sea level. The main relief features of the area, which include Gwassi hills to the south, Gembe hills to the north and Lambwe Valley to the east are plateaus composed of undulating surfaces characterized by residual uplands. The Valley, which lies at 1,219 meters above the sea level, is flat and is potential for agricultural development (Obiero, 2002). The lakeshore of the district ranges between 1,163 and 1,219 meters high, followed by a lowland known as Lake Victoria, where the fishing grounds and sandy beaches are found. The islands include Mfang'ano, Rusinga, Kihwa, Mageta, Takawiri, Migingo and several others with abundant of fish. The study area is favoured with seasonal rivers such as Wang'apala and Lambwe, which drain into Lake Victoria bringing with them nutrient loads for the fish from the hills Figure 3 (Kenya, Republic of, 2002).

3.2.3 Climate

The annual rainfall ranges from 700 mm to 1,200 mm with 60% reliability. The long rains occur in March / May, while the short rains are received in August / December each year. This lowers productivity of the area in terms of agriculture because of the long spell of drought. The district experiences high temperatures ranging from 17.1^0 C to 34.8^0 C (Kenya, Republic of, 2003), reducing nutrients suitable for fish, drastic reduction of water levels and hence low harvest and reduced income levels.

3.2.4 Land use and economic activities

The study area is popularly referred to as the granary of Southern Nyanza because of its subsistence or food crops like maize, sorghum, finger millet, simsim, cassava, and millet. The cash crops, which include cotton, sugarcane and sunflower, are also predominant in the area

which is simply utilized for their food security and income. The residents also engage in livestock production and fishery related activities as a source of their income. The area is also favoured with a tourism attraction site in a game park along Lambwe Valley with a wide variety of wild animals, which attract both the local and foreign tourists (Kenya, Republic of, 2003).

3.3 Research Design

The study was based on a descriptive research design (Mugenda and Mugenda, 2003). The process entailed data collection to answer questions with the purpose of determining and reporting the findings. A survey was conducted to capture the special characteristics of the subjects using questionnaire, interviews and observation. The design was appropriate because the study sought to describe situation of the population of the target group.

3.4 The Population

According to Mugenda and Mugenda (2003) population refers to an entire group of individuals having common observable characteristics. The population of the study was all the fisher folk in Suba District. There were 65 landing beaches with a target population of 900 registered fisher folk who are engaged in fishing as fishermen who land their harvest in the registered landing beaches, the fish traders basically the retailers procuring fish from the fishermen in 65 landing beaches and wholesalers in Suba district and handled different types of fish namely Nile perch and tilapia respectively as shown in table 3.1.

Table 3.1 Target Population

Category of the fisher folk	Type of Fish handled		
	Nile perch	**Tilapia**	**Total**
Fishermen	170	130	300
Retailers	290	210	500
Wholesalers	70	30	100
Total	**530**	**370**	**900**

3.5 Piloting of the Study

A pilot survey was conducted in the month of April and May 2010 to locate the elements of the study population and identify units of analysis. A unit of analysis can be defined as an entity about whom or which the researcher gathers information. In this study the units of analysis are the fishermen, retailers, wholesalers and fisher folk institution officials. During the survey, the questionnaires were pretested to remove deficiencies and ambiguities. The vague questions were rephrased in order to achieve the required degree of precision and to enhance the validity of the instrument. The survey also assisted in determining the proximity, cost and time needed to carry out the research. It was used to establish procedures, materials and parameters to be used in full study (Bordens and Abbott, 2008).

3.6 Sampling and Sample Size

Based on the pilot study, the study area was stratified into five primary sampling units namely: Mfang'ano, Rusinga, Kasgunga, Kaksingiri and Gwassi. Demarcating the study area into strata facilitated the simple random sampling procedure that gave every unit in the population the same

probability of being included in the sample. Simple random sampling within the strata was used to select sample size. According to Patton (1990), for a descriptive study between 28% and 30% of the accessible population is representative enough for the sample size in order to achieve 95% confidence level in the findings. The sample size was therefore 30% of each category of the fisher folk. In a simple random sample every person has equal chance of being chosen (Bordens & Abbott, 2008).

Table 3.2 Sample Size

Category	Target Population	Sample size (30%)
Fishermen	300	90
Retailers	500	150
Wholesalers	100	30
Co-operatives (census)		05
Government Offices (census)		03
Total	**900**	**278**

The sampling frame was the list of licensed fish traders by Suba County Council. The sampling frame showed that the target population was distributed as shown in table 3.1

3.7 Validity and Reliability

Validity refers to the extent to which an instrument measures what it purports to measure. It has to do with how accurately the data obtained in the study represents the variables of the study. Content validity was ascertained by subjecting the instruments to experts in the school of Environment and Earth Sciences of Maseno University. The exercise ensured that the

measurement scale items adequately cover the entire domain of the issues under investigation. Reliability is a measure of accuracy and response consistency through the application of research instruments (Mugenda and Mugenda 2003). Reliability of the instruments was assessed through test- retest method. Questionnaires were administered to a group of respondents / fisher folk at two different times under similar conditions. The retest period was two weeks after the initial test. The reliability coefficient computed by correlating the scores obtained from the two administrations was found to be 0.96. According to Pyrezak (2002), reliability level of 0.7 and above indicates a high reliability of the research instruments.

3.8 Data Collection Methods

The study is based on both primary and secondary data. In order to generate primary data, structured questionnaires were administered to a sample of 270 respondents by the researcher. The primary data collected for analysis included the socio-economic characteristics such as age, education levels and number of years in business of the fisher folk in Suba district. The other areas were conceptualization of causes of poverty and the e economic activities that the fisher folk initiated in order to reduce poverty amongst them. The secondary sources, on the other hand, yielded information pertaining to the quantities, values and species of fish landed, fish landing beaches and physical features of the study area. The information was obtained from records of institutions involved in the management of fisheries including fishermen co-operative societies; the key informants included the Medical Officer of Health (MOH), District Co-operative Officer (DCO) and the District Fishery Officer (DFO) respectively for their experience on the matter under study. Other data sources included published books, Government publications and the internet. Two follow-up focus group discussions were held in Kagoro and Mbita Rusinga beaches on 11-10 - 2010 and 12 -10 -2010 where fifteen fish traders participated in each of the

discussions respectively. A schedule of interview guide was developed and presented to guide the interviews. The Key issues discussed included conceptualized causes of poverty and economic activities applied to exit poverty. The meeting proceedings were documented analyzed by way of problem identification and pair wise ranking according to severity.

3.9 Data Analysis and presentation of results

In order to facilitate the analysis, the data was coded, compiled, validated and processed. In all quantitative cases the responses in the questionnaire were assigned numerical values and entered into the computer Statistical Program for Social Scientists (SPSS) program. In quantitative analysis, descriptive statistical techniques such as frequency, means and percentage distribution were applied. For qualitative analysis, the data was generated from the open-ended questions and in-depth interviews to the respondents was summarized and analyzed. According to Patton (1990) the advantage of quantitative approach is that it is possible to measure reactions of a great many people to a limited set of questions thus facilitating comparison and statistical aggregation of the data. A qualitative method permits the study of selected issues in depth and detail and contributes to openness and a detail of quality. It is on this basis that in qualitative analysis, the data was summarized and analyzed by creating themes and patterns then evaluated the usefulness of the information to answer research questions. The data were presented in tables and simple percentage distributions, charts and graphs.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

4.1 Overview

This chapter reports study findings by presenting a comprehensive analysis of the socio - economic characteristics of the fisher folk in Suba district. The issues addressed include: variables linked to poverty such as age, gender, marital status, educational attainment, business experience, infant mortality rate, and life expectancy at birth, underweight children who are less than five years of age and family size. It also discusses the causes of poverty among the fisher folk in Suba District the economic activities that the fisher folk are engaged in to reduce poverty.

4.2 Socio - economic characteristics of the fisher folk in Suba District

Table 4.1: Gender distribution of the fisher folk

Gender	Number	Percent
Male	181	67
Female	89	33
Total	**270**	**100**

Table 4.1 shows that fish trade is male dominated business. This indicates that women are not encouraged to go fishing and when probed further the respondents explained that traditional beliefs around the fishing community does not permit the women to do so but engaged in either retailing or wholesaling activity. This also means that fishers are mostly male and is alluded to by Adeoti, *et al* (2010), where they found out that the reason for disproportionate distribution of

gender among fishers is because fishing is a tedious task which involves spending long hours on the sea or ocean in pursuit of catching fish, hence males are more. The study therefore concludes that women are engaged in end-product fishing, artisanal fishing, commercial fishing, and the preservation, marketing and distribution of fish catches. Fishing for sale is regarded as men's activity, and thus there is no effort to investigate the possibilities of the existence of women who do men's fishing or who fish from canoes. The understanding of fishing as commercial or men-only activity negates the role of women in subsistence fishing, and supports a situation of fish exploitation by men.

Table 4.2: The average age of the fisher folk

Age	Frequency	Percent
20 –30	69	26
31- 40	72	27
41- 50	98	36
51 – 60	31	11
Total	**270**	**100**

Table 4.2 indicates that the fisher folk in Suba District are in their active ages capable of improving their economic welfare. They are young and middle aged with potential and drive to sustain fish production for many years. The findings agree with what Adeoti, *et al (*2010), found that the fishers are not more than 50 years of age. They are young and middle- aged with potential and drives to sustain fish production for many years. The study concludes that fish trade being a tedious business needs that age and energy. The study concludes that the fisher folk are

in their energetic and prime ages capable of transforming the fishery sub sector and reduce poverty among the fisher folk.

Table 4.3: The marital status of the fisher folk

Status	Percent
Single	23
Married	41
Widow/Widower	12
Divorced	05

Table 4.3 shows that the married dominate the fishery trade. Marital status is important to gauge stability of economic outcome in a household and it is an indication of economic responsibilities of the respondents in caring for dependants. This is useful in explaining why some households benefit more from economic growth as well as why some households escape from poverty while some others might fall into poverty. The result also indicate that the single were engaged in the fish trade, the implication of this is that it is long-term strategy to alleviate poverty and can achieve a sustained high rate of economic growth that can generate earned incomes for those in the working age bracket. While there were a substantial number of the widows/ widower in the fish trade a paltry number of divorced e same, the implication is that divorce causes large declines in economic status due to short time instability while the divorcee. The married number shows that the marriage institution is cherished an indication of economic responsibilities of the respondents in caring for dependents. Kelly and Olivier, (2004) estimating the cause-to-effect relationship between marital dissolution and economic status established that it affects the economic status and labour market outcomes. The study therefore concludes that most of the

fisher folk were of all status an indication the business is a resort to a source of income and an avenue for people to fend for themselves and move out of the poverty bracket.

Table 4.4: Proportion of income from fish spent on food according to marital status

Marital Status	Men	Income	Expenditure (Percent) on food items
Monogamous	34	100	56
Polygamous	66	100	80

Table 4.4 shows that the fisher folk are comprised of both polygamous and monogamous in the fisher men category. The respondents explained that the cultural belief that a 'man should have many wives' is still widely upheld in the study area. However, they were quick to allude that polygamous marriage widened and perpetuated poverty and depletes assets because they have to spend a little more in order to maintain the wives and children. They asserted that the only positive part was an advantage of a large labour force for fishing activities and marketing. However, the study established that among the male respondents who were married, the polygamous spend more on food items than the monogamous. The expenditure on food alone takes more than half of the income of each category and is more on the polygamous status. Although the polygamous spent almost twice than the monogamous husbands their purchasing power is almost the same. The implication is that food budget depletes income and leaves polygamous who form the larger of the married with inadequate funds to save giving rise to poverty incidences.

Table 4.5: The reasons for purchasing food

Factor	Percent
Inadequate harvest	41
Subsistence farming with no Modern inputs (low yield)	36
Uneconomical portions of Land	23
Total	**100**

Table 4.5 indicates that the fisher folk rely on purchased food due to several reasons. For the purposes of this study they are prioritized according to their severity. The study concludes that poverty reduction among the fisher folk is hampered by failure of the crops that forces them to divert their savings for food and that reliance on purchased food by the fisher folk was mainly due to inadequate harvest from their farms and improper farming implements leading to low yields.

Table 4.6: Household size of the fisher folk

Household size	Frequency	Percent
1- 4	80	30
5-8	145	53
8-10	45	17
Total	**270**	**100**

Table 4.6 shows that a large proportion of the fisher folk had a household size relatively high, the presence of children might suggest vulnerability to poverty. Overall household size matters the results show that more than half the respondents live in households composed of at least seven

members, Although the household size have access to labour from which to diversify economic activities, as well as to balance production and consumption resource demands. The respondents explained that such family size made them to spend more on consumption on such items as food for their households than other necessities like radios and televisions. They reported that such items can be used by as many people as they are in the household, whereas food items have to be shared proportionately. They explained further that large household sizes inhibited savings and investment since they utilize all the resources available to feed themselves. The findings are in agreement with (Ezekwesili, Bruce, Krumm and Klugman, 2008) that household size and composition has a negative effect on consumption per adult equivalent, confirming that large households are more likely to be poor.The study concludes that large family sizes create high expenditures and prevent basic needs affordability of basic needs which is a sign of poverty and the presence of a literate headed household could also suggest that l fisher households are potentially shielded from socio-economic shocks.

Table 4.7: Education levels of the fisher folk

Level of Education	Percent
No formal education	56
Primary	32
Secondary	10
Tertiary	02
Total	**100**

Table 4.7 shows that fisher folk have the basic literacy though majority have no formal education and numeracy skills necessary for local trade. The levels of skill however are inadequate, since

they do not give them a competitive advantage in the national, regional and international trading block. These skills are however a trainable resource, whose capacity can the enhanced. This was alluded to by the study carried out by the United Nations, (2005), which found out that the level of illiteracy perpetuates poverty, inhibits diversification to other income generating activities and is a barrier to prosperity of businesses. It is also a hindrance to proper record keeping and daily financial transactions. Low literacy levels limit the fisher folk from accessing credit, making decisions and acquiring resources that can be used to improve and expand their businesses. The fisher folk cannot participate in any capacity building trainings including the government programs. Since educational attainment plays an important role in poverty reduction, lack of it is a significant factor in explaining the probability why the fisher folk remain and continue to revolve around the poverty circle. The findings are in agreement with Geda, (2001), who found out that education is of paramount importance in reducing poverty and therefore it is important to invest in education. The dissimilarity is that fisher folk generally live in remote and isolated communities and may not take education seriously. The study concluded that relevant training produces positive results in the running of businesses. Those who were not educated reported that their businesses were doing poorly as compared to educated whom their businesses were doing well. The study inferred that there is a negative relationship between lack of education and business performance. The study therefore infers that educational attainment of the household is the most important factor that is associated with not being in poverty but those who had attained primary level of education in were found to be in poverty among the fisher folk because their businesses were doing poorly.

Table 4.8: Experience (number of years) in business by the fisher folk

Years	Percent
0 - 5	19
6 - 10	24
11 - 15	44
Over 15	13
Total	**100**

Table 4.8 shows that apart from the fisher folk who has operated the business in less than 5 years majority have over ten years and above. This is an evidence of business experience a factor which contributes immensely to the growth of small businesses. The longer the years taken the more knowledge and skills are acquired to promote the businesses before lose of interest. This is confirmed by Longenecker *et al.*,(2006) that small scale businesses suffer exhaustion and leading entrepreneurs losing interest in one business venture and look out for other opportunities.

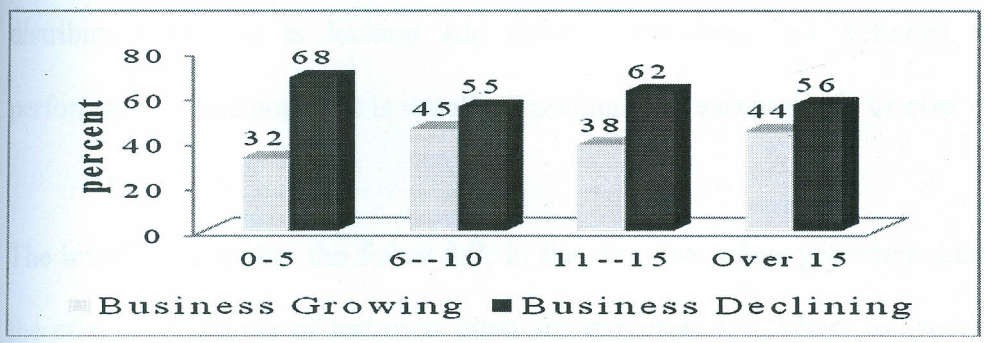


Figure 4.1: Business performance versus length of business operation

Figure 4.1 shows that the performance of the businesses decline even as owner businesses mature their returns seem to decline. Lack of innovation and search for changing customer needs reduces the survival of businesses. It is therefore imperative that businesses proactively innovate

to meet customer demands. Alternatively, this result may be interpreted using the product life cycle where it is true that if the business deals with only one product and as it reaches the decline stage, the business may decline and is likely to fail. The causes of business decline were probed further and the result is as shown in table 4.9.

Table 4.9: Reasons for the decline of the Businesses

Factor	Percent
Decline of fish stock	48
Inadequate Market orientation	24
Cost of transport	12
Cost of fishery products	16
Total	**100**

Table 4.9 shows that decline of fish stock was largely mentioned by the respondents, they cited insufficiency of fish from the fishermen, market orientation which is an essential component of distribution process is lacking and there is no clear link between market and business performance. Transport cost is usually depleting their earnings due to ever increasing charges.

The implication is that the fisher folk in the study area face problems associated with transport the effects conditions of transport cited are important for fishery to grow. The cost of fish and fish products are high, fish being a perishable commodity requires proper handling and storage facility and therefore terms of payment of fishing products is very important at the fishery landing bays. The fishermen and retailers usually become price takers as the cost inhibits the fisher folk to reduce poverty.

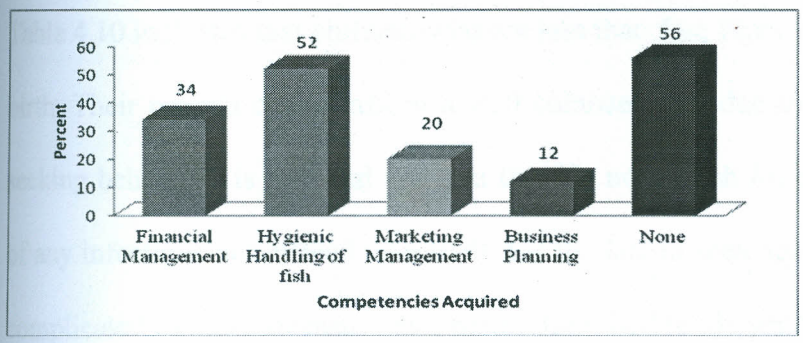


Figure 4.2: Competencies Acquired by the Fisher folk

Figure 4.2 indicates that majority have inadequate business management skills to compete effectively. The competencies are important for such small businesses because one can conclude that relevant training can produce positive results in the running of businesses. This is in agreement with what Bernstein, (2007) found out that nobody doubts that a better-educated workforce is more likely to enjoy higher earnings, though not necessarily sufficient poverty reduction tool. The study therefore concludes that fisher folk require training on marketing management, financial management and business planning as priority area in that order. These competencies will enhance the capacities of the fisher folk to compete and position their products in the market and be assured of sustainable and viable businesses and poor conditions of transport which lead to product damage can be mitigated and the fisher folk will be out of poverty.

Table 4.10: The life expectancy and mortality rate

Factor	N	Percent
Public health facilities operating	39	39
Life expectancy at birth in years	37	23
Infant Mortality		14
Under Weight Children (under 5 years)		24
Total		**100**

Table 4.10 indicates that children who are less than five years of age suffer nutrition insecurity at birth. Their parents cannot afford a well balanced diet due to poverty. The fisher folk's health seeking behaviour is minimal and that they do not search for treatment at an early stage in case of any infections but instead wait until it is too late to seek appropriate medical attention. This is complicated by poor infrastructure particularly bad roads simply because of the agony of going through the bad roads. They therefore opt to stay at home hoping to recover which is never the case and this deteriorates the stamina to operate an income generating activity which can reduce poverty among the fisher folk.

The findings conform to the United Nations (UN) reports conducted by Thalif, (2001) that the percentage of people with life expectancy at birth declined and that more than 200 million people live in countries with an average life expectancy of less than 45 years. In some of the poorest countries of the world, one in five children still fails to reach his or her fifth birthday, mainly owing to infectious diseases related to the environment. The study therefore concludes that this affects the performance of the fisher folk.

4.3. Conceptualization of causes of poverty by the fisher folk in Suba District

Generally the respondents believed that the causes of poverty revolved around many factors but for the purpose of this study only significant ones according to their views and experience are covered. The study established causes of poverty among the fisher folk as shown in table 4.11.

Table 4.11: Conceptualization of causes of poverty by the fisher folk Suba District

Factor	Percent
Inadequate storage facilities and low fish prices	12
Inaccessibility to finance	25
Poor Infrastructure	16
HIV and AIDS	17
Weak Institutions	10
Insecurity	18
Inappropriate technology	02
Total	**100**

The study conducted two focused group discussions in order to identify the major causes of poverty in the study area among the fisher folk. The two separate focus groups were held on separate dates in different beaches which are distant apart. The causes were identified and ranked according to their severity from 1- 7 where 1 is the most severe using pair wise method.

The results were as shown in table 4.12. The study established that the severity of the causes was ranked in separate focused group discussions and the result were the same this coincided and confirmed what the respondents had stated earlier. The study concluded that the causes when not addressed persist and restrain the fisher folk from playing an active role in poverty reduction.

Table: 4.12: Conceptualization of causes of poverty ranked by focused Group discussions

	1. Inadequate Storage Facilities and low fish prices	2.HIV/ AIDS,	3.Poor Infrastructure	4.Inadequate Financial Resources	5. Insecurity	6.Weak Institutional Capacity	7. Inappropriate Technology prices.	TOTAL	RANK
1. Inadequate Storage Facilities and low fish prices								3	4
2. HIV/AIDS	2							5	2
3. Poor Infrastructure	3	2						4	3
4. Inadequate Financial Resources	4	4	4					6	1
5. Insecurity	1	2	3	4				2	5
6. Weak Institutional Capacity	1	2	3	4	5			1	6
7. Inappropriate Technology	1	2	3	4	5	6		0	7

4.3.1 Inaccessibility to financial resources

The study was to determine whether financial resources were available and adequate to conduct the business. The result in Table 4.11 shows that inadequate financial resources are a major handicap out of poverty as was identified by the respondents. It is a constraint in increasing income as it virtually affects their livelihood. The initial capital required to start fishery business is a challenge and the sources of finance for starting their business differed from one trader to

another. The World Development Movement (2009) attributed the causes to poor basic services, scarce financial resources and low returns from natural wealth such as fisheries. The study concurs with this since inability to access finance inhibits the growth of small businesses.

Table 4.13: Sources of Initial Capital

Sources	Percent
Donation from Friends	41
Own Savings	33
Employed as boat crews	15
Non Bank Credit Institution	05
Rotating Savings and Credit Association	04
Bank	02

Table 4.13 shows that while the credit in the banking sector grew, very little reached the fisher folk for start up capital. The respondents cited inability to meet the stringent conditions such collateral and guarantors required by the institutions and this inhibited their admission to almost all forms of credits from financial institutions. The respondents cited that the commercial banks declined to approve loan applications because of their inability to meet the requirements except for the negligible loans with expensive administrative costs and this discouraged them from accessing finance. The findings are in line with the study carried out by the government where the result was that though credit in formal banking has grown steadily over the years, the same is not available to the people in the rural areas and is heavily biased towards the urban areas. The Commercial banks are reluctant to lend to low-income households because they lack adequate or credible credit history and any usable collateral and they perceived high risks (Kenya, Republic of, 2007). The implication is that the fisher folk could not access specific inputs for fishing

because of lack of financial resources. A significant number of the fisher fork sourced their capital start up from their own savings. The implication on this is that in case of any loss then the fisher folk will meet double loss. A paltry number of the fisher folk sourced their start up capital from non bank institutions, banks and rotating savings and credit associations. The implication is that access is conditional and not available to all. Typical situations of high labour mobility limit who fisher folk will entrust their savings to and membership is often restricted. Fisher folk who do qualify for membership do not always receive required services and large lump sums of cash needed are seldom available. Informal finance does not help fisher folk deal with all types of insecurity and risk. It can be reasonably successful in managing income and expenses, or with household-specific risk factors such as loss of earnings through sickness, loss of fishing equipment due to accidents or bad weather, urgent medical expenses, death of income-earners in the family, theft and insecure employment conditions.This shows that majority of the fisher folk did not have access to finance. The study concluded that without sound capital base the fisher folk cannot operate on profit, expand and sustain the small businesses and reduce poverty.

4. 3. 2 Prevalence of HIV/AIDS

Table 4.11 shows that prevalence of HIV/AIDS causes poverty amongst the fisher folk. The respondents cited that, awareness has been created on causes of the HIV /AIDS scourge, however, prevention, care and control of the disease still afflict them. They reported that the pandemic in the lake region impacts negatively on them as it affects their activities and general operations for income. The respondents argued that the disease takes away lives of the members of the family, for instance, the husbands or wives or both leaving behind either widows, widowers or orphans who sometimes become dependent on those who are already

afflicted by the scourge and drains the incomes. The pandemic disrupts life whenever it strikes. It therefore requires health care which is not easily available particularly in the study area where a greater percentage of the population rely more on dispensaries which are not even adequately equipped with appropriate drugs for medical assistance.

According to Mino Aduet Osoi beach on the interview on 22nd May 2010 *"The disease consumes resources from the family members who have to bear the burden of caring for the ill. The family members drain the meagre resources available, thus making them continue in poverty because of such scenarios as high funeral expenses and increased number of orphans, where the grandparents head families and look after the young whereas, the energetic are deceased and blamed it all on the customs such as wife inheritance from the husbands who died of the disease".* Lennart, (2010) conferred to this in study and states that it has a great deal to do with the dislocation of normal lives, loss of their economic backbone, prime age that family savings are rapidly depleted to care for the sick and compensate for the loss of earnings. The study therefore infers that HIV/AIDS depletes their income and leaves the people much tenderer to poverty.

4.3.3 Poor Infrastructure

Table 4.11shows that the fisher folk were in agreement that poor infrastructure is one of the causes of poverty in the study area. They cited poor road network as the main cause of delays in accessing the markets thus traders incur losses. The fisher folk reported that they fail to preserve fish for long hours because of lack of electricity and inadequate cold storage facilities. The public vehicles used are not equipped with storage facilities making the fish delivered to the markets not as fresh as they would be. This is in line with the study conducted by Sheggan (2004) in which the result was that infrastructure has multiple links to poverty reduction, as it

helps create jobs and raise worker productivity for example an inefficient transport system can act as a significant constraint on agriculture in rural areas, both by raising the costs and effectiveness of inputs in the production process and by delaying the sale. Fisher folk are often excluded from access to other employment opportunities, from equitable access to land and from social services such as health and education. They are currently poorly served by roads, markets and other infrastructure. These factors lead to marginalization of fisher folk in development processes, which, in turn, undermines their contribution to the local and national economy.The study therefore infers that poor infrastructure hinders the fisher folk from connecting with their counterparts in other regions in good time in order to find out price and quantity of fish that may be required. The improved rural road links can support access to the markets and electricity can improve cold storage of fish. The study therefore concludes that investments in roads, electricity, telecommunications and other infrastructure services are crucial for stimulating growth in fishery business, food security and poverty reduction.

4.3.4 Inadequate Storage Facilities and Low Fish Prices

The respondents ranked inadequate storage facilities and low fish prices were causes of poverty among the fisher folk in Suba district as shown table 4.12. They realized that improper fish storage often leads to wastage and loses. They reported that fish prices tend to be low in seasons of heavy fish catches caused by such factors as inadequate storage facilities and that pollution affects volume and quality of catch which force them to dispose their catch at throw away prices affecting subsequent fish supply. The implication is that the fisher folk, who are largely small scale, realize low and fluctuating incomes and cannot break even since the cost of doing business depletes their income and this makes them to continue in poverty. This is confirmed by the

government of Kenya in their agricultural sector development strategy that the sub-sector has been unable to realize its full potential due to inadequate supportive infrastructure such as cold storage, and environmental degradation due to invasive weeds such as water hyacinth and exotic species (Republic of Kenya, 2009). This finding is corroborated by Mosepele & Ngwenya, (2010) in their socio-economic survey of commercial fishing and realized that cooling equipments for fish preservation are expensive and could not be afforded by the fisher folk. This implies that the fisher folk cannot improve their standards of living through commercial fishing hence they remain in poverty.

4.3. 5 Insecurity

The study established that the fishermen who go fishing cited insecurity around Lake Victoria as a cause of poverty among the fisher folk in the study area. The fishermen reported that, they are sometimes attacked and harassed in the lake after fishing. The days' catch, boat and money are confiscated by the raiders, robbers and looters who may sometimes inflict physical injury on them and this forces them to take risk to go fishing in such dangerous areas. They are therefore in fear because they do not know when they can be attacked. The implication is that their efforts are frustrated and have to start all over again from nothing and this makes them continue to suffer in poverty. Security threats pose a great challenge to their businesses and to avoid such robberies they opt to reach shallow waters where there is lack of fish stocks. This implies higher cost of doing business as they respond to the security challenges.

4.3.6 Weak Institutional Capacity

Table 4.11 shows that fishery institutions such as co-operatives were dormant. The fisher folk stated that the institutions face financial indebtedness, weak management structures and lack of patronage. It is expected that the fisher folk institutions are strong and practice good

management practices in order to market the members' products on their behalf through collecting marketing, their paying the members promptly. The fisher folk in their quest to reduce poverty formed fishery institutions and opted for co-operative business model. The Marketing Cooperatives with elected committees and membership drawn from the fisher folk were to reduce inequality, promote equitable sharing of the costs by doing collective marketing, benefits and empowering the fisher folk. The deficiency is that majority became inactive and cannot assist the fish traders with lobbying, training and market linkages. The respondents cited that the cooperatives experienced complex governance issues and increased heterogeneity of members' interests. Member commitment is often recognized to be a necessary ingredient in the cooperative success, and while primary cooperatives are built on that commitment, the members left and the cooperatives became dormant. The implication is that they cannot have joint bargaining power, advocacy and practice collective marketing which are a leeway for cost cutting strategy. This is in line with what Bowen, (2009) stated that being a member of an association implies that one is serious about the business they do and this could also help in networking and obtaining of business information. The Beach Management Units also sprang up with elected officials but only operated on commissions. The study concludes that the most important thing is the progress and assistance provided for the development and the fisher folk to institutionalize their organizations which are important in fishing activities.

4.3.7 Inappropriate Technology

Table 4.11 shows that inappropriate technology contributes to poverty among the fisher folk. The respondents cited that they cannot afford the cost of geared boats. The study established that the fishermen use traditional methods / equipment like small canoes which are easily disrupted by

changing weather conditions. They are of old design, small and measuring approximately 6.9 meters which rely on the wind to the direction of their landing beaches. The vessels used are not motorized whereas fishing is a labour intensive activity which requires modern equipment. The study found out that setting of the fishing nets are done in the evenings and pulled out in the mornings. The fishing areas are far away in the deep water zones and in order, to exploit such areas the fishermen require trips of long durations normally taking about 12 hours. It can be deduced that such long journeys require vessels that are equipped with storage spaces and facilities to preserve the harvest but are not readily available in dugout canoes forcing the fishermen to rush to the landing beaches so as to dispose of the fish as fast as possible to avoid any wastage. The majority of the fisher folk interviewed during the study complained of the limitations of the fishing technology at their disposal. This is often perceived as being the root cause of their low earnings from fishing, poor catches and inability to exploit the fisheries resources fully. However, it was not ranked as one of the severe causes of poverty at the focus group discussions due to the fact that the fisher folk could still do with what is available.

4.4. Economic Activities Initiated by the fisher folk

The study established that the fisher folk in Suba District have initiated and engaged in both fishery and non fishery activities. These economic activities are approaches to the utilization of both fisheries and other resources for the sustainability of the fisher folk in the study area. All commercial fishers perceive fishing as a major source of household income, whereas other sources of income-generating activities are perceived as supplementing this major economic activity.

4.4.1 Fishery activities

Table 4.14: Fishery activities carried out by the fisher folk

Activities	Percentage
Fishing	37
Retailing	50
Wholesaling	12

Table 4.14 shows the fishery activities that the fisher folk engaged in. Once the fishermen landed at the lakeshore with the day's harvest, marketing begins. The study established that there are variuos activities which include harvesting and marketing, marketing only, processing and marketing and harvesting, processing and marketing. The fisher folk who do retailing form the majority part than the suppliers who are basically the fishermen. In this scenario the implication is that the retailers who are the middlemen are more than the fish harvesters, this shows that the fisher men do loose as they dispose their catch to the middlemen at exorbitant prices. In fishery activities the volume handled by each category of the fisher folk is as shown in table 4.17

Table 4.15 Quantity of fish handled by a fisher folk on monthly basis

Quantity (Kg)	Fisherman (%)	Retailer (%)	Wholesaler (%)
0 - 1000	16	-	-
1001-3000	50	50	-
3001-5000	22	30	-
5001-10000	12	20	30
10,001 - 15000	-	-	20
15,000 and above	-	-	50
Total	**100**	**100**	**100**

Table 4.14 shows that the volume handled by a fisher man on monthly basis is below that of the retailer and wholesaler respectively. In the same note a retailer also handles below the wholesaler. The study established that large numbers of wholesaler are on the above 15,000 kilogram grid whereas a paltry number of fisher men who are suppliers only fall on the 5001 kilogram grid. The respondents explained that wholesalers do procure from both the retailer and the fisher and therefore handles more of the fish.

The study realized that there was more demand of fish than what the fishers would supply according to the harvest and this was attested to by Ruth Awuor Rangi a retailer at Kagoro beach, 25/12/2010, who stated that *'nowadays there is inadequate supply of fish and we have nothing to eat or even to sell despite the huge number of people in demand of fish, as such we are starving. Actually my customers will be very disappointed with me if I do not remit fish to them in the next two days and I do not know of what to do*?.This shows that the retailers have a deficit and they cannot meet the customers demand, in the event they lose income and if the trend continues their businesses would stall. The challenge is that if decline tendency of fish continues over a period, the poverty-reduction impact through the income growth is weakened.

The wholesalers handle the bulk of the harvest an indicator of exploitation to the fisher men and the retailers. The findings are alluded to by Abila *et al*,(, 2000) who confirmed that the fishers around the lake exploited by the middlemen who have captured the whole market the fish trade is rich but the fisher folk still remain poor. At times the fishermen are forced to sell their fish at a throw away prices. It can be inferred that fishers have a weak bargaining power in their interaction with fish purchasers. The study concludes that the wholesalers exploit the fishermen and the fish traders.

4.4.2 Non fishery activities

The study established that the fisher folk engage in other activities in which small businesses were to a lesser extent for economic purposes and the other were purely for subsistence as shown in table 4.16.

Table 4.16: Non fishery activities by the fisher folk

Activity	Percent
Crop Production	23
Livestock Production	15
Livestock and Crop Production	12
Small Businesses	27
Small businesses and crop production	06
Small businesses, crop and livestock production	03
No other activity	07
Total	**100**

Table 4.16 indicates that the fisher folk do crop production. The respondents reported that they cultivate variety of crops such as maize, millet, cassava, onions, sweet potatoes and groundnuts as perennial crops with generally for subsistence but they practise sales to a lesser extent during the dry season especially when there is a decline in revenue from fish which they sell locally in the market places in small two kilogram tins. The fisher folk engage in livestock production activity which they periodically engage in selling dairy products such as excess milk, meat, hides, skin, and ghee for income. The findings is in agreement with what the Kenya Government reported that beef cattle and dairy cattle contribute substantially to poverty reduction and sheep

and goats play a key role in households for food security and incomes owing to their short generation intervals, high adaptability and versatile feeding habits. The dissimilarity is that the fisher folk in the study area keep indigenous cattle as opposed to dairy one reported by the government. Poultry such as free-ranging indigenous chicken are becoming increasingly important due to low investment and variable costs involved (Kenya, Republic of, 2009). The other fisher folk do small businesses where they reported that they engage in as selling firewood, and paraffin, fishnet repairs, and repair of boats and casual work, mostly taken as petty trading around the landing beaches to raise household subsistence and family welfare. The other respondents reported that they did not engage in any other economic activity. The fishermen interviewed explained that, diverting their attention from the fishing activity and devoting their little time available to other market-oriented jobs may result in income loss. A negligible number of the fisher folk had combined crop, livestock and small businesses and were quick to report that they were only for subsistence. The study concludes that if poverty were to be reduced from the fisher folk then a turnaround is required by the fisher folk so that they produce and earn more in order to fend for themselves. The study established the income from both the fishery and non fishery activities and utilization of the proceeds. The result is as shown in table 4.17.

Table 4.17: Total income of the fisher folk from fish and non fishery activities

	Income per month				
Category	**(A) Sales from fish**	**(B) Other Income**	**(C) Total**	**(D) Expenditure**	**(E)Net income (C-D)**
Fishermen	30,000	2000	32,000	30,000	2,000
Retailers	36,000	4000	40,000	37,500	2,500
Wholesalers	65,000	0000	65,000	49,000	16,000

Table 4.17 shows that the fishermen who are the suppliers earn the least along the fish value chain; they are followed by the retailers in that order. The wholesalers who procure fish from both the two actors in the chain get the bulk of the proceeds and get higher income levels. This is attributed to the fact that the wholesalers procure at a low price and charge at a higher price in the distant markets outside the study area, the wholesalers reported that they have business linkages with processors and other markets. In comparison to the processors who sell one kilogram of fish at Kes 450 then the fishermen and the retailers who are price takers are highly exploited.

In order to ascertain the poverty levels of the fisher folk the study resorted to apply The Foster – Greer – Thorbecke Index (FGT) which is one of the most important poverty indexes which is applied in poverty levels calculations (FAO, 2005) thus

$$FGT = I/N \sum_{z} [z-y]^{\alpha}$$

Table 4.18: Poverty Indexes of the fisher folk

Step 1	step 2	step 3	step 4	steps 5	Step 6
Sort Income Distribution	poverty line $ US 1.25	level α =2	poverty line minus Income and divide by Poverty line (for poor)	raise result to power α	Calculate FGT= 0.0484

Category	Income
Fishermen	2,000
Retailers	2,500
Wholesalers	16,000
Total	38,000
N	270
Mean	103
$	1.03

Category	
Fishermen	0.42
Retailers	0.21

category	
fishermen	0.18
Retailers	0.04
	0.22

$\sum_{z} [z-y]^{\alpha}$

Table 4.18 shows that amongst the fisher folk the fishermen and retailers are poor because they live below the poverty line which is US$1.25 per day. This shows that the majority of the fisher folk is composed of the fisher men and the fish traders are poor. The main reason for this is that there is a very limited linkage among the actors in the chain and are exploited by the middlemen, this finding is in agreement by the findings of Daw, Adger, Brown, and Badjeck, (2008) that poverty of many fishing communities has conventionally been understood as deriving endogenously because of the inevitable overexploitation and poor returns from open-access resources. The study therefore concluded that the wholesalers exploit both the fishermen and fish traders. The study therefore sought to know the proportion of the income that the category of the fisher folk save invests. The result is as shown in figure 4. 4

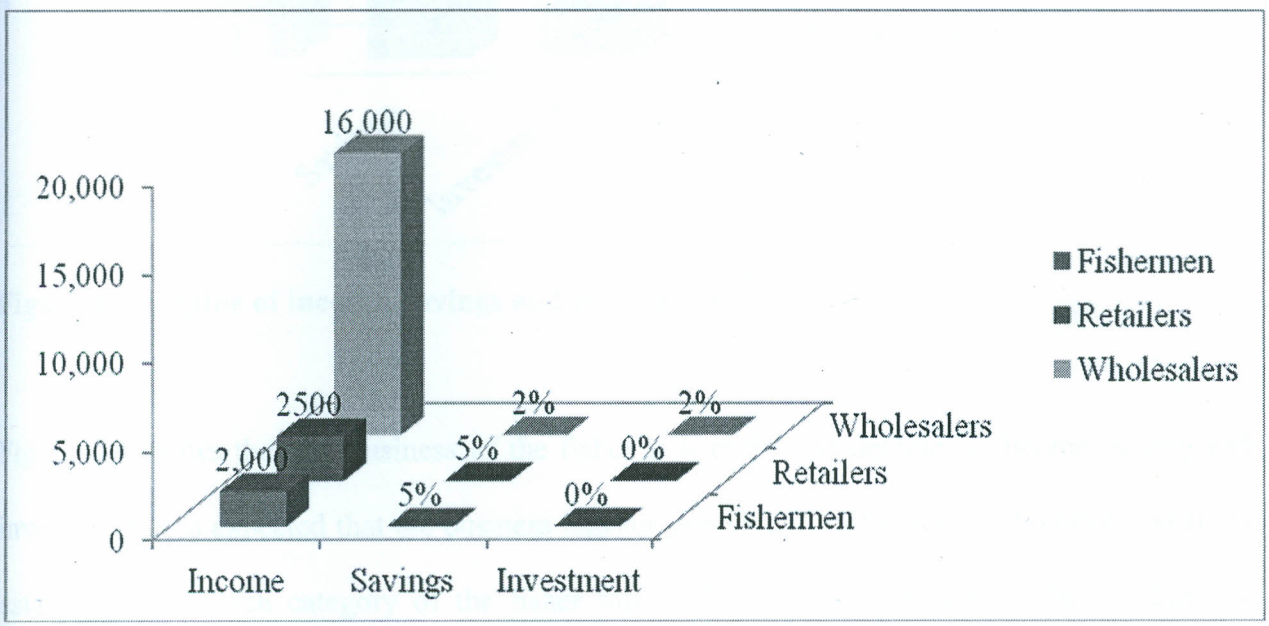


Figure 4.3: Income, Savings and Investment by the fisher folk

Figure 4.3 shows that the fisher folk either save or invest or both from their net income derived both from fishery and non fishery activity. The study established that both the fisher men and retailers only save a portion of their net income but never invest. However wholesalers do save

and invest at a low rate. The normal situation is that the fisher folk who handle the quantity of fish per day need to save and invest but the deficiency is that this takes no preference among the fishermen and retailers making them remain in poverty. The wholesalers even though they save and invest, they continue to do so at the same rate. This implies that the fisher folk neither save nor and invest substantially to reduce poverty amongst them. The study investigated status of the businesses handled by the fisher folk in the study area results are shown in figure 4.5.

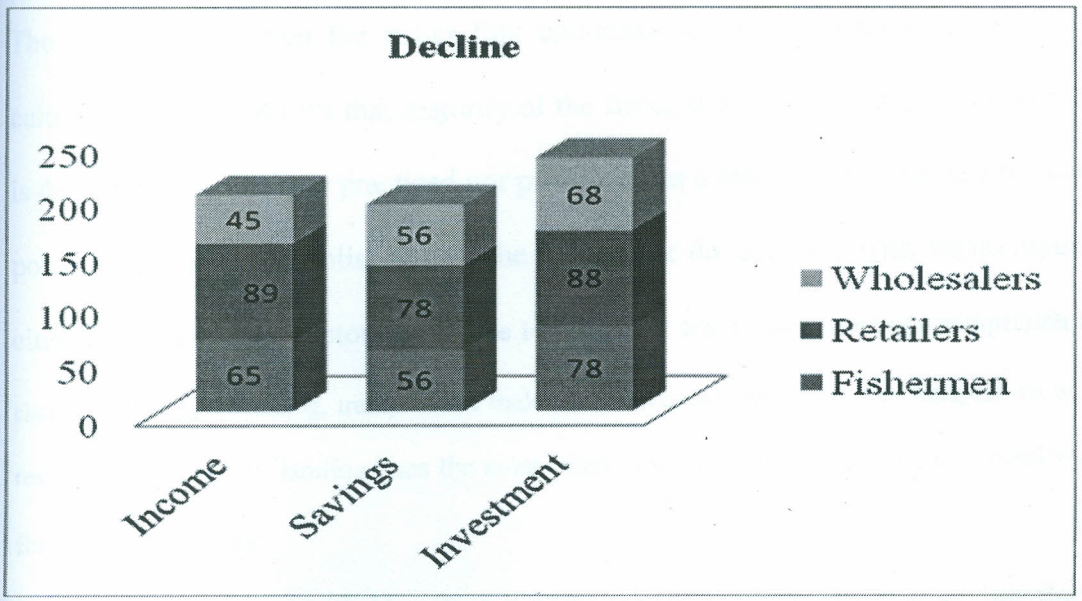


Figure 4.4 decline of income, savings and investment

Figure 4.4 shows that the business of the fisher folk registered decline in income, saving and investment. It is expected that the business register growth and sustainability, however the study established that each category of the fisher folk had a decline and when probed further the respondents cited various reasons for the decline ranging from lack of market research, market access, marketing information to high cost of doing business. Majority of the fishermen and retailers registered the highest decline compared to the wholesalers; they cited a limited coverage of marketing their products mainly consumers in the nearby areas in the local trading centres

whenever they could not reach the wholesalers. The findings were alluded to by Ronge, *et al,* (2002) where they stated that most small and medium enterprises have their customers or markets within their locality. The study concluded that for the income contributed by the fisheries to reduce poverty at levels the fisher folk need to do aggressive marketing and find market linkages for sustainability.

The expectation is that the fisher folk undertake to save continuously by adopting a saving culture. Figure 4.4 shows that majority of the fisher folk in each category do not save the deficit is that savings is neither practiced nor prioritized as a means to build assets resources to reduce poverty. The study established that the fisher folk do not save with varied reason which they cited to include such factors as decline in fish stocks which leads to intense competition along the fishing chain, marketing, processing, transport and trade. This leaves the fisher folk with insignificant amount of financial resource to save. At all landing sites the most often expressed, and most apparent, need was for assistance for the harvest sector.

The findings concurs with Hamilton, (2008) where he found out that saving starts with a plan, knowing how much money is coming in and where does the money go, where would you like it to go then set some savings goals short-term and long-term goals, make sure they're attainable or you will just get discouraged and recommended that savings should be a priority and decide how much to save, then set up an automatic deposit savings account. The implication is that the fish traders continue in poverty for they have nothing to resort to in case of any emergencies or urgent needs.

The result also indicates that investment had declined. It is expected that the fisher folk invest from the earnings from the fish trade. They could invest by having shares in fishery associations and co-operative societies but it not the case. Majority of the fisher folk made no efforts to

invest, the retailers in as much as they did the business and earned registered the highest number compared to fishermen and wholesalers respectively. The wholesalers frequently purchased fish in bulk from both the fishermen and retailers and transported it to other markets, their income levels were encouraging but failed to invest. It is expected that the wholesalers would be in a position to commit their financial resources so as to realize benefits and returns in future. They could purchase shares in either private or public organizations and invest but this is not the case. Hamilton, (2008) alluded .that; there are many investments ideas for small investors that are simple to do such as stocks where the study established that there is no need to have a lot of money in order to get involved with the stock market. The study further indicated that it is usually quite affordable and starts with a few shares and work upwards to larger investments.

The investors just have to be sure and have to do research first and be willing, as stocks tend to be more profitable in the long term and cited Government bonds and securities as investment options for small investors. Many government bonds can be bought at a low to moderate price, and they will give an investor the advantage of interest payments (Hamilton, 2008). The study therefore concluded that investment which is one of the contributing factors to poverty reduction is not practiced by the fisher folk and this makes them not to own assets.

Table 4.19 Determinants of growth of the businesses for the last three years

Determinant	Increased	Stagnated	Decreased
Profitability	47	1 7	36
New Customers	33	47	19
Access to financial resources	36	43	21
Acquisition of new Equipment	17	-	-

Table 4.20 shows that businesses that the fisher folk had registered growth in the last three years as revealed by basic factors of growth. In as much as a factor was mentioned by multiple respondents, the study established that a large number of the fisher folk had registered profit in the last three years. Although majority had reported stagnation and decrease in new customers, quite a significant number of the respondents cited that they had registered new customers.

On the other hand a large number of the fisher folk realized an access to finance compared to those who registered an increase and a decrease respectively. They did very dismally in acquisition of new equipment an indication of decline or the business is stagnant. The inference is that although the profits have been registered due to increased sales volume it is not proportionate to acquisition of new equipment. Acquisition of new customers and equipment is a clear indicator of a business growth. As the businesses grow poverty is reduced among the fisher folk.

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Overview

The Chapter contains the summary of the key findings reported in the preceding chapters. It also discusses conclusions based on the results of the study. The policy implications and recommendations are also reported. It concludes by discussing the possible areas needed for further research.

5.2 Summary

The study examined the socio economic characteristics of the fisher folk in Suba district. The data used included the age, gender, marital status, family size, level of education attained and the competencies they have total of 278 respondents were reached . The results age of the fisher folk have the potential to drive and sustain fish production for many years. Most of the respondents were married a positive indicator to gauge stability of economic outcome in a household. The result also indicate that majority admitted polygamy which they confirmed widened and perpetuated poverty as it depleted their assets because they have to spend a little more in order to maintain the wives and children.

The causes of poverty revolved around many factors inadequate storage facilities and low fish prices mentioned by the majority which force them to dispose their catch at throw away prices. The other factors included prevalence of diseases such as HIV/AIDS poor infrastructure (road network), inadequate financial resources.

The fishery activities included fishery and non fishery activities which included crop and livestock production and small businesses. In terms of business growth the fisher folk had their profitability decreased and had their accessibility to financial resources either stagnated or decreased in the last three years.

5.3 Conclusions

The fisher folk are in prime energetic average age of 41-50 years and have the strength to do the fish trade so as to reduce poverty. The youth entrants have joined the fishery, while older people who have been in the fishery for many years decreased. The married who are polygamous are faced with high expenditures to maintain the large family that they have. Majority of the fisher folk have low level of education making them be blocked from acquiring some capacity building competencies such as financial and marketing management to enhance management of their businesses.

Poverty was still rampant among the fisher folk where each respondent had own experience. The causes of poverty in the study area which are basically prevalence of diseases like HIV/AIDS, poor infrastructure impact negatively and affect the operations of the fisher folk because of stigma of loss of the family and dependants left by the deceased ones.

The economic activities that the fisher folk engage in are viable and can enhance their prosperity and growth. The fisher folk are not well equipped with the necessary business skills. They perform dismally on savings and investment. Majority of them particularly the fishermen and retailers category live below the poverty line. Fisheries contribute to poverty reduction by providing part- or full-time employment and income for many rural households in fishing, fish

stimulates the growth of a cash-based economy as they are harvested and sold on a daily basis most small-scale fishing is best regarded as small enterprise

5.4 Recommendations

The study therefore recommends the following:-

1) The fisher folk should improve their competencies on business, financial and marketing management enable them take advantage of economic growth, access resources and skills required to move out of poverty.

2) The fisher folk be capacitated to revive their fisher folk associations, groups and co-operative societies where each will get a marketing link, this will reduce the unit cost and increase income levels.

3) The Government to rehabilitate and maintain rural infrastructure such as roads, electricity medical facilities and other communication networks in order for the fisher folk access the markets in time.

5.5 Areas of Further Research

In the course of carrying this study we found out that majority of fishers perceive that they are totally exploited and that they have inadequate skills to exercise their bargaining power at the time they interact with the fish purchasers. The fish agents of processing factories dominate the market. It is therefore recommended that a further study be carried out to find out the factors affecting the growth the fisher's enterprises. This will address factors causing unsustainability and over exploitation.

Microfinance initiatives in the fisheries sector are now beginning to respond imaginatively to the needs of the poorest and most vulnerable people in fishing communities. By facilitating

livelihood diversification and working with fishery management stakeholders, they can address concerns for sustainable resource management and extend the reach of MFIs in fisheries. Although there are notable successes, before microfinance can significantly contribute to poverty reduction and fisheries management, there are a number of constraints to be overcome. It is therefore recommended that a further research be conducted on the role of microfinance in the fisheries sector.

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