

**LIVESTOCK FARMING AND ECONOMIC DEVELOPMENT IN KISMAAYO
DISTRICT JUBBALAND-SOMALIA**

BY

ABSHIR RAAGE SHIRE

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A thesis submitted To the college of higher degree and research

In partial Fulfillment of the requirements for the award of

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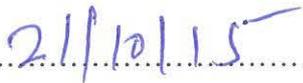
OCTOBER, 2015

DECLARATION A

I **ABSHIR RAAGE**, hereby declare to the best of my knowledge that this dissertation is my original work and has never been submitted to any other institution of higher learning for any academic award

Sign: 

ABSHIR RAAGE SHIRE

Date: 

DECLARATION

We are hereby declare that this thesis has been done and submitted under our supervision as university supervisors

Supervisor 1

DR. WANDIBA AUGUSTINE

Sign: 

Date: 21/10/2015

Supervisor 2

Sign:

Date:

DEDICATION

I dedicate this piece of work to my parents, their great contribution in my academic career.

ACKNOWLEDGEMENTS

Firstly am greatly indebted to my supervisor who has tirelessly perused through this to guide and correct me. I appreciate your effort. I cannot fail to acknowledge my lecturers in the college of higher degrees and research for the knowledge that they passed on to me, without you this would not be an easy task.

I would like to convey my sincere thanks to the management of Kismaayo district and its clients who participated in the interviews and those that helped in filling the questionnaires. Thank you so much, your contribution enabled me to write this research paper.

Lastly, thanks go to my dear mum and the entire family for their tremendous support and encouragement.

May God Bless you all.

ABSTRACT

The study sought to establish a relationship between livestock farming and economic development in Kismaayo district Jubbaland- Somalia. The study objectives were; to (1) Identify the role of livestock on the economic development in Jubbaland-Somalia, (2) to investigate the challenges facing in livestock in Kismaayo District Jubbaland-Somalia,(3) recommend the possible solutions of the problems facing in livestock in Jubbaland-Somalia A cross sectional survey was used in the course of the study. Both qualitative and quantitative data was gathered in order to establish the relationship between the independent and dependent variables, so as to examine the impact of livestock farming on economic development in Kismaayo district, Jubbaland in Somalia. The study comprised of 133 respondents as a target population where by 100 were sampled and these were; 23 District veterinary officers, 45 Livestock farmers and 65 Other local peasants. Simple random approach was used during the study. Purposive sampling was also used to select only respondents for the researcher to attain the purpose of the study. Data was collected from primary and secondary sources using questionnaires and interviews. After collecting data, the researcher organized well-answered questionnaire, data was edited and sorted for the next stage. The data was presented in tables with frequencies and percentages. It was found out that livestock are often one of the most important sources of cash income for poor households. It was further revealed that Livestock utilize feeds with few alternative uses to produce highly nutritious foods for people in small but regular amounts. The study found out that animal diseases continue to constrain livestock productivity and agricultural development. It further discovered that there has been estimated that in Sub-Saharan Africa animal diseases result in annual losses in excess of US\$4 billion, which represent about one fourth of the total value of animal production. It was recommended that improved animal disease control and strategies to expand the availability of trepan-tolerant livestock will contribute to improving livestock production. Support to the development of intensive commercial livestock production enterprises around large coastal cities is advocated.

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CHAPTER ONE

INTRODUCTION

1.0 Introduction

The aim of the study was to examine the relationship between livestock farming and economic development in kismayo district Somalia

Ajala (2004) defines livestock farming as a process of raising of animals for use or for pleasure. In this article, the discussion of livestock includes both beef and dairy cattle, pigs, sheep, goats, horses, mules, asses, buffalo, and camels; the raising of birds commercially for meat or eggs (i.e., chickens, turkeys, ducks, geese, guinea fowl, and squabs) is treated separately.

Anteneh (1985) cites that economic development is the sustained, concerted actions of policy makers and communities that promote the standard of living and economic health of a specific area. Economic development can also be referred to as the quantitative and qualitative changes in the economy.

This chapter presented the background to the study, statement of the problem, the purpose of the study, objectives of the study, research questions and assumptions, scope of the study, significance of the study, the justification of the study and the operational definitions of terms and concepts as applied to suit the context of the study.

1.1 Background information

The background was presented four perspective which is historical perspective, theoretical perspective, conceptual perspective, contextual perspective

1.1.1 Historical Perspective

Baltenweck et al.,(2007) argues that globally, livestock farming is as almost as old as human existence. Since the mid-1980s, farmers have always kept high-yielding, genetically improved animal, crossbred with local cattle) in stalls, feeding the animals daily with fodder cut and carried to them. Development agencies promoted these more 'intensive' livestock systems and

trained local farmers in managing dairy breeds and growing fodder. For instance, Heifer International Somalia, in late 90s and early 2000s implemented a zero- dairy cattle project in Puntland state of Somalia where it introduced over 100 exotic dairy cows to the poor households.

According to a World Bank reports (2005) stated that about a third of the world population poor are mainly concentrated in rural areas, which are predominantly livestock-oriented areas. Therefore in respect to poverty eradication and raising the welfare standards of the population; more focus should be put on agricultural activities. In Somalia, livestock farming is an important fundamental in economic development; it contributes 35% of the gross domestic product (GDP) and constitutes 40% of the export earnings. It's a sector that establishes the industrialization framework through; supplying raw materials for industries, example timber skin and hides for leather making industry.

Lachaba, (2005), argues that recently in Africa, the livestock sector has remained weak and this has largely led to the declining share of its contributions to economic growth and development of the country. It is believed that unstable and often-poor economic policies (of pricing, trade and exchange rate), the relative abundance of the sector have been all important factors responsible for the decline in livestock sector contributions to national economic growth and development. With reference from the dual economy model, he further predicts economic development as a growth process that needs the re-allocation of factors of production from a weak, low-productivity livestock sector to a modern and commercialize industrial sector with higher productivity and more returns.

Tropical and semiarid Africa has been estimated to contain 30,000 plant species. The greatest species diversity is in tropical West Africa. Africa's natural arid or semiarid rangelands are centers of origin and diversity of several forage genera widely used for livestock production. They are also important habitats of wildlife.

Genetic erosion of indigenous germplasm of both forage and livestock species is increasing in the region due to increasing human population and the related extra demands for food, land development and urbanization, as well as climate change. Destruction of rangelands has led to

considerable erosion of indigenous plant and animal biodiversity from this habitat, contributing to desertification in arid and semiarid zones. In addition, controlled breeding and development of livestock breeds with a narrow genetic base to meet the demands of modern production systems have eroded the genetic diversity in livestock.

If genetic erosion continues at the current rate, an estimated 5 to 10 percent of the world's plant species could be lost by 2020. In the closed tropical forests of Africa, 6 to 14 percent of species are in danger of disappearing. Losses in animal genetic diversity are probably occurring at a similar rate.

Lack of accurate information about indigenous genetic resources is a major constraint to their conservation and utilization. The valuable indigenous African genetic resources need to be identified, characterized, utilized and preserved.

According to Garcia et al., (2008), in Somalia, presently the main factors driving changes of Somalia Livestock farming systems are a growing market for milk, increasing population pressure, and the promotion of livestock development by key stakeholders. Most, if not all, of these forces point to the same direction: the intensification of dairy production systems in Somalia. Intensification of dairy production usually anticipates that it is economically and ecologically sustainable. However, in the Somalian case it was not clear what the impacts of such interventions are on the household incomes, food security and social capital of the rural poor.

In Kismaayo district, livestock farming ensures a constant food supply and food security for the population, this ensures that the work force fed with energy to supply labour to industries and other economic sectors with in Jubbaland. This has helps to secure Somalia from food insecurity particularly Kismaayo district thus saves the country funds that would have rather been used in the importing of food from other countries this in turn has a positive effect on the country's balance of payments and there is surplus money to invest in other areas of the economy such as social overheads; roads, hospitals with in the district.

Livestock was the term used to refer (singularly or plurals) to a domesticated animal intentionally reared an agricultural setting to make producing such as food or fiber, or for its

labor. Livestock may be raised for subsistence or for profit. Raising animals (animal husbandry) was an important component of modern agriculture. It had been practiced in many societies, since the transition to farming from hunter-gather lifestyles. The term 'livestock' as used in this article does not include poultry or farmed fish. Pastoralism remains a key driver of economic activity in Jubaland state of Somalia. As per official estimates it contributes to 40 percent of GDP, 60 percent of employment, and about 80 percent of foreign earnings. The total livestock population was more than 17 million. Of this 52 percent were goats followed by sheep (35 percent), camels (11 percent), and cattle (2 percent) (www.fsasomali.org)

Economic development' is a term that economists, politicians, and others have used frequently in the 20th century. The concept, however, has been in existence in the West for centuries. Modernization, Westernization, and especially Industrialization are other terms people have used while discussing economic development. Economic development has a direct relationship with the environment.

Whereas economic development is a policy intervention endeavor with aims of economic and social well-being of people, economic growth is a phenomenon of market productivity and rise in GDP. Consequently, as economist Amartya Sen points out, "economic growth is one aspect of the process of economic development.

1.1.2 Theoretical Perspective

Africa is rich in biodiversity of both plant and animal species. Accounting for 22 percent of the Earth's landmass, the continent holds 48 percent of world's natural pastures, 13 percent of cattle and 25 percent of sheep and goats. Over 95 percent of Africa's ruminant population is indigenous and supports the majority of small-holder rural farmers for whom these genetic resources are critical as a source of food, income and secure form of investment.

Economic development was the process of improving the quality of all human lives. There was equally important aspect of development are: raising people living levels-their income and consumption level of food, medicine service, education etc., though relevant economic growth

process , creating conditions conducive to the growth of people self-esteem through the establishment of social, political and economic system and institutions that promote human dignity and respect; and increasing peoples freedom by the enlarging the range of their choices variables as by increasing varieties of consumer goods and services (UNDP, 2005).

According to Ajala (2004), Livestock plays a vital role in the agricultural and rural economies of the developing world. Not only do they produce food directly, they also provide key inputs to crop agriculture. Most farms in the developing world are too small to justify owning or using a tractor, and the alternatives are animal power or human labor.

Akinwumi and Ikpi (1985), stress that Livestock are often one of the most important sources of cash income for poor households. Ruminants provide milk and poultry provide eggs in small but readily available and regular amounts. Livestock income also goes towards buying things the farmers cannot make for themselves. And that includes paying for school fees, medicine and taxes. Income from cropping is highly seasonal. In contrast, small stock, with their high rates of reproduction and growth, can provide a regular source of income from sales. So can milk and milk its ducts like butter and cheese larger animals such as cattle are a capital reserve, built up in good times to be used when crops are poor or when the family is facing large expenses such as the cost of a wedding or a hospital bill.

Akinwumi (1985) notes that the animals are a crucial link in nutrient cycles, returning nutrients to the soil in forms that plants can readily use. They can bring nutrients from pasture and rangeland and concentrate them on crop land through their manure and urine. The animal manure and urine that people in the developed world see as pollutants are vital fertilizers in the developing world. Few smallholders can afford enough mineral fertilizers. Animals give farmers a reason to plant legumes as pastures and cover crops that protect the soil and restore its structure and fertility. According to a Warnock report (1992) the greatest threat to [the African rangelands] comes from human populations and expansion of cultivation. There is no solid evidence linking livestock to this process.

1.1.3 Conceptual Perspective

Livestock farming, raising of animals for use or for pleasure. In this article, the discussion of livestock includes both beef and dairy cattle, pigs, sheep, goats, asses, buffalo, and camels; the raising of birds commercially for meat or eggs(Collier, P. 2002)

Livestock farming are domesticated animals raised in an agricultural setting to produce commodities such as food, fiber and labor. This article does not discuss poultry or farmed fish, although these, especially poultry, are commonly included within the meaning of "livestock".

Livestock farming are generally raised for profit. Raising animals is a component of modern agriculture. It has been practiced in many cultures since the transition to farming from hunter-gather lifestyles Anteneh (1985).

-The definition of economic development is an increase in living conditions, improvement of the citizens self-esteem needs and free and a just society. He suggests that the most accurate method of measuring economic development is the Human Development Index which takes into account the literacy rates & life expectancy which in-turn has an outright impact on productivity and could lead to Economic Growth. However, economic development can also be measured by taking into account the GDI Professor Michael Todaro(2005)

Economic development can also be referred to as the quantitative and qualitative changes in an existing economy. Economic development involves development of human capital, increasing the literacy ratio, improve important infrastructure, improvement of health and safety and others areas that aims at increasing the general welfare of the citizens.

Economic development can be defined as "a sustained community effort to improve both the local economy and the quality of life by building the area's capacity to adapt to economic change" (Loveridge and Morse). This definition suggests a distinction between economic growth and economic development. Economic growth represents an increase in jobs and income in the community. It refers to the *expansion* of total economic activity in the community. While economic development can involve job and income growth, it also involves sustainable increases in the productivity of individuals, businesses and resources to increase the

overall well being of residents and maintaining or even enhancing the quality of life. Little. (2003).

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According to Anteneh (1985), productive livestock can add value to 'idle' land. Already, in many parts of the world mixed crop-livestock systems are the norm, but the importance of the livestock component has been overlooked. Livestock utilize feeds with few alternative uses to produce highly nutritious foods for people in small but regular amounts. These foods are particularly important for children, and pregnant or lactating women. Livestock provide a range of other benefits including hides and skins, fuel for cooking and appropriate transport for carrying water, goods and people.

1.1.4 Contextual Perspective

According to Chararay, Humbert and Levif J (1992) livestock are one of the few assets owned by poor households and can be crucial in maintaining household survival in times of crisis. Livestock assets can be accumulated in good times and sold when necessary, for example to pay school fees or buy health care. Livestock are both an inflation-proof and productive investment.

Child (2008) argues that livestock are central to farming systems used by the poor, providing draught power and manure often when the purchase of substitutes is impossible. Draught animal power drives crop production in many farming systems. The use of manure is an efficient and sustainable method for maintaining soil quality and water retention.

According to Collier, (2002), livestock allow the poor to capture private benefits from common property resources: they do not require private land holdings. Livestock are often central to major social events and ceremonies. In many African societies, livestock are the basis for traditional social support systems and are an integral part of the African way of life.

The economy of Jubbaland state of Somalia was predominately pastoralist, and livestock export exchange earner. The fishery and frankincense sector constitute other major domestic sources of income was the income from remittance, as well as the Diaspora's contribution to local investment. The service sector, which was run privately, was also vibrant. Other with potential, such as, mining and heavy industry, were under developed (Little, 2003).

Jubbaland (Somali: jubbaland) is a region in north eastern Somalia, centered on Kismaayo (JubadaHosse province), whose leaders declared it an autonomous state in 2000. Jubbaland state of Somalia consist seven provinces (JubadaDhahe, JubadaHosseGedo) (jubolandgui.net) kismaayo (Somali: kismaayo) was a District in northern Somalia, which serves as the nation's main port. Situated on the southern coast of the Indian Ocean it is the capital of the JubadaHosse region in the autonomous jubbaland macro-region. Kismaayo is a District that was booming and experiencing a period of rapid growth in recent years (wikipedia.org).

Livestock production is responsible for 12% of human-related greenhouse gas emissions, primarily coming from land use change and deforestation caused by expansion of agriculture,

as well as methane released by the animals themselves, with a lesser amount coming from manure management and feed production

Economic development Progress in an economy, or the qualitative measure of this economic development usually refers to the adoption of new technologies, transition from agriculture-based to industry-based economy, and general improvement in living standards.

1.2 Problem statement

Garcia et al., (2008) cites that for over 2 decades since mid-1980s, the development agencies and government have promoted livestock intensification production systems in Somalia. The intensification usually anticipates that it is economically and ecologically sustainable like any other agricultural development projects in Somalia, the main aim of livestock farming is to improve on the economic development in Somalia thus improve specifically the welfare of smallholder farmers and local peasants in Jubbaland hence poverty reduction (UNDP, 2008). However, as in many parts of Somalia including Jubbaland, there is limited or no information on the performance of this system in terms of improving economic development through an increase in household incomes and food security as well as enhancing social capital (Collier, P. 2002). Therefore there is limited understanding of the role of Livestock farming in economic development of Somalia in recent times. This study seeks to address this gap by empirically examining the role of livestock farming to economic growth and development in Somalia particularly Kismaayo district in Jubbaland. (Enoma AI, 2001).

1.3.1 Purpose of the Study

The main purpose of the study was to examine the relationship of livestock farming on economic development in Kismaayo district, Jubbaland in Somalia.

1.3.2 Specific Objectives

- i. To identify the role of livestock on the economic development in Jubbaland-Somalia.
- ii. To identify the challenges facing in livestock in Kismaayo District Jubbaland-Somalia.

- iii. To establish the possible solutions of the problems facing in livestock in Jubbaland-Somalia.

1.4 Research Questions

- i. What is the role of livestock on the economic development in Jubbaland-Somalia?
- ii. What are the challenges facing in livestock in Kismaayo District Jubbaland-Somalia?
- iii. What are the possible solutions of the problems facing in livestock in Jubbaland-Somalia?

1.5 Scope of the study

The scope of study was presented on geographical scope, content scope and time scope

1.5.1 Geographical Scope

The study was carried out in Kismaayo District. Longitude 42.5453600, Latitude - 0.3581700°Kismayo is located in Somalia and time zone Africa/Mogadishu. Places in the near are Jamaame, Jilib and Bu`aale

Kismaayo is a district in southern Somalia which serves as the nation`s main port, situated on the southern coast of the Indian Ocean. It is the capital of JubadaDhahe region in the autonomous Jubbaland macro region. This served conveniently as the geographical scope of the study.

1.5.2 Content Scope

The study was carried out with a purpose of; identifying the role of livestock on the economic development in Jubbaland-Somalia, investigating the challenges facing in livestock in Kismaayo District Jubbaland-Somalia and recommending the possible solutions of the problems facing in livestock in Jubbaland-Somalia.

1.5.3 Time Scope

The study covered a period (2009-2014) and the actual data collection took place from July to September 2014 for three months.

1.6 Significance of the study

It is expected that when this study is carried out and accomplished successfully, it will contribute substantial awareness on impact of livestock on the economic development.

The study will also serve as a future data base for further researches that will be carried out as researchers can draw data from the findings which will have narrowed the existing gaps in livestock farming and economic development.

The outcome of the study will also help policy makers to critically examine the various key possibilities of promoting economic development in Somalia with regards to the role of livestock farming.

Local governments will set strategies aiming at investing in live stock farming that will enable effective flow of productive projects with in the area..

Farmers will be in position to acquire great knowledge about live stock farming in the area and the development as well.

The study will be significant to the researcher in fulfilling one of the requirements for award masters degree in project planning and management .

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

The study reviewed literature from various scholars on the major variables of the study which included; the role of livestock on the economic development in Jubbaland-Somalia, the challenges facing livestock in Kismaayo District Jubbaland-Somalia, the possible solutions of the problems facing livestock in Jubbaland-Somalia

2.1 Theoretical Review

Africa is rich in biodiversity of both plant and animal species. Accounting for 22 percent of the Earth's landmass, the continent holds 48 percent of world's natural pastures, 13 percent of cattle and 25 percent of sheep and goats. Over 95 percent of Africa's ruminant population is indigenous and supports the majority of small-holder rural farmers for whom these genetic resources are critical as a source of food, income and secure form of investment.

Economic development is the process of improving the quality of all human lives. There was equally important aspect of development are: raising people living levels-their income and consumption level of food, medicine service, education etc., though relevant economic growth process , creating conditions conducive to the growth of people self-esteem through the establishment of social, political and economic system and institutions that promote human dignity and respect; and increasing peoples freedom by the enlarging the range of their choices variables as by increasing varieties of consumer goods and services (UNDP, 2005).

According to Ajala (2004), Livestock plays a vital role in the agricultural and rural economies of the developing world. Not only do they produce food directly, they also provide key inputs to crop agriculture. Most farms in the developing world are too small to justify owning or using a tractor, and the alternatives are animal power or human labor.

Akinwumi and Ikpi (1985), stress that Livestock are often one of the most important sources of cash income for poor households. Ruminants provide milk and poultry provide eggs in small

but readily available and regular amounts. Livestock income also goes towards buying things the farmers cannot make for themselves. And that includes paying for school fees, medicine and taxes. Income from cropping is highly seasonal. In contrast, small stock, with their high rates of reproduction and growth, can provide a regular source of income from sales. So can milk and milk its ducts like butter and cheese larger animals such as cattle are a capital reserve, built up in good times to be used when crops are poor or when the family is facing large expenses such as the cost of a wedding or a hospital bill.

Akinwumi (1985) notes that the animals are a crucial link in nutrient cycles, returning nutrients to the soil in forms that plants can readily use. They can bring nutrients from pasture and rangeland and concentrate them on crop land through their manure and urine. The animal manure and urine that people in the developed world see as pollutants are vital fertilizers in the developing world. Few smallholders can afford enough mineral fertilizers. Animals give farmers a reason to plant legumes as pastures and cover crops that protect the soil and restore its structure and fertility. According to a Warnock report (1992) the greatest threat to [the African rangelands] comes from human populations and expansion of cultivation. There is no solid evidence linking livestock to this process.

2.2 Conceptual Review

Akinwumi and Ikpi (1985), stress that Livestock are often one of the most important sources of cash income for poor households. Ruminants provide milk and poultry provide eggs in small but readily available and regular amounts. Livestock income also goes towards buying things the farmers cannot make for themselves. And that includes paying for school fees, medicine and taxes. Income from cropping is highly seasonal. In contrast, small stock, with their high rates of reproduction and growth, can provide a regular source of income from sales. So can milk and milk its ducts like butter and cheese larger animals such as cattle are a capital reserve, built up in good times to be used when crops are poor or when the family is facing large expenses such as the cost of a wedding or a hospital bill.

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According to Anteneh (1985), productive livestock can add value to 'idle' land. Already, in many parts of the world mixed crop-livestock systems are the norm, but the importance of the livestock component has been overlooked. Livestock utilize feeds with few alternative uses to produce highly nutritious foods for people in small but regular amounts. These foods are particularly important for children, and pregnant or lactating women. Livestock provide a range of other benefits including hides and skins, fuel for cooking and appropriate transport for carrying water, goods and people.

Fig 2.2 Conceptual Framework Showing livestock farming and economic development

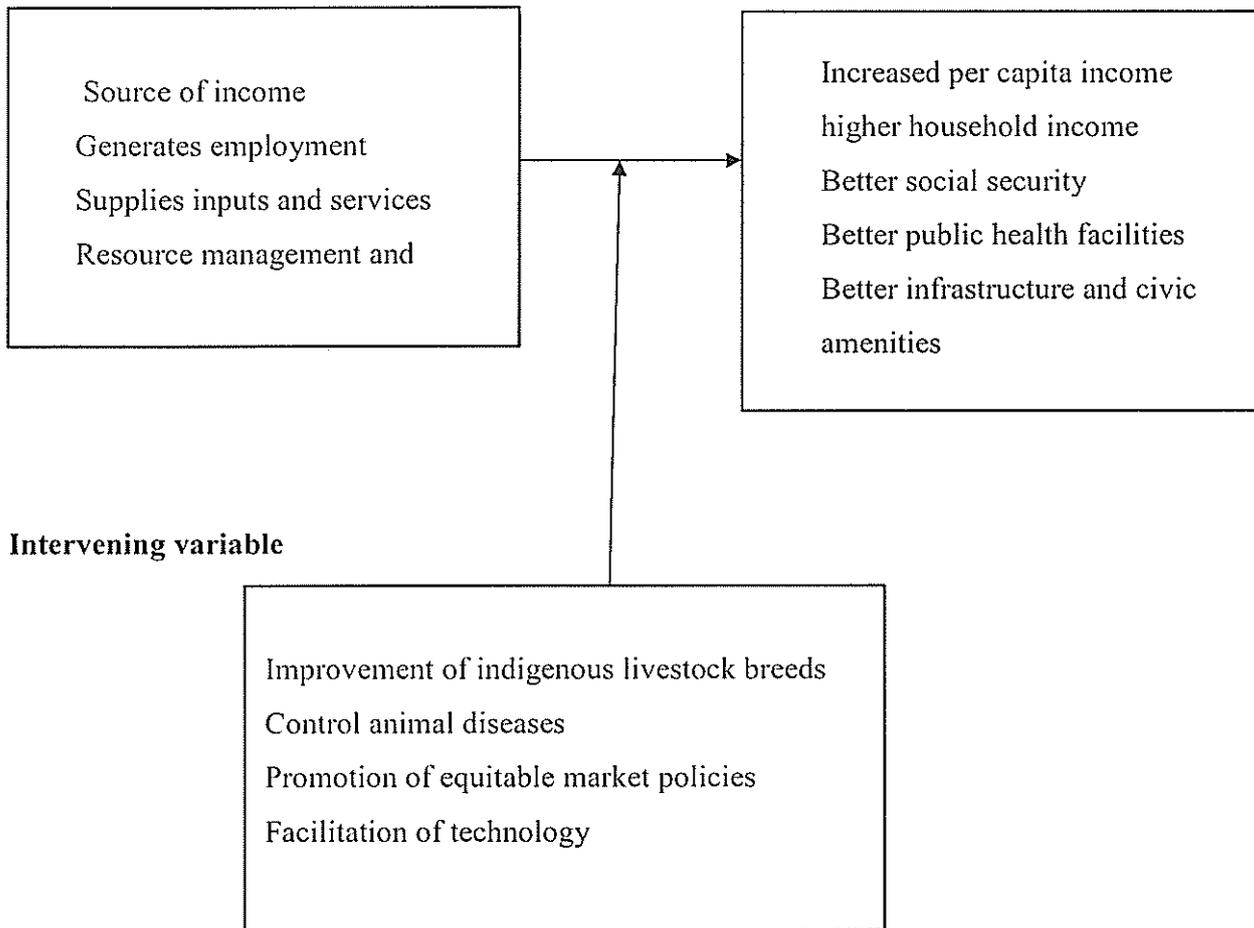
The conceptual framework diagrammatically shows the relationship between the different variables in the study. The independent variable was livestock farming and dependent variable was economic development.

Independent Variable

Dependent Variable

Livestock Farming

Economic Development



The independent variable was perceived as the livestock farming whereas the dependent variable was economic development. The independent variable includes Source of income, Generates employment, Supplies inputs and services, Resource management and dependent variable includes increased per capita income higher household income, Better social security, Better public health facilities, Better infrastructure and civic amenities. Conceptually, economic development is associated with livestock farming, the better the livestock farming, the better and improved economic development.

2.3 Related literature

The related literature was presented according to the objectives

2.3.1 The role of livestock on the economic development in Jubbaland-Somalia

According to Ajala (2004), Livestock plays a vital role in the agricultural and rural economies of the developing world. Not only do they produce food directly, they also provide key inputs to crop agriculture. Most farms in the developing world are too small to justify owning or using a tractor, and the alternatives are animal power or human labor.

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According to Charray, Humbert and Levif (1992) livestock are one of the few assets owned by poor households and can be crucial in maintaining household survival in times of crisis. Livestock assets can be accumulated in good times and sold when necessary, for example to pay school fees or buy health care. Livestock are both an inflation-proof and productive investment.

Child, (2008) argues that livestock are central to farming systems used by the poor, providing draught power and manure often when the purchase of substitutes is impossible. Draught animal power drives crop production in many farming systems. The use of manure is an efficient and sustainable method for maintaining soil quality and water retention.

According to Collier, P. (2002), livestock allow the poor to capture private benefits from common property resources: they do not require private land holdings. Livestock are often central to major social events and ceremonies. In many African societies, livestock are the basis for traditional social support systems and are an integral part of the African way of life.

2.3.2 The challenges facing livestock in Kismaayo District Jubbaland-Somalia

Little, (1992) argues that livestock Production in Jubbaland was influenced by many cross cutting issues and conditions for instance. Environmental conditions e.g., rainfall and forage availability affect livestock Productivity and therefore animals' value. Infrastructural conditions relating to transport, Communications, holding grounds, etc. affect the costs borne by pastoralists and traders in Moving animals from pasture to terminal markets and slaughterhouses. Marketing behaviors at All levels in the channel were also influenced by institutional conditions surrounding the Mechanisms by which parties to an exchange obtain information and arrive at a price, by which Contracts were enforced, by which property rights were protected and physical security ensured, and by which animal disease was prevented or controlled

Datt, & Ravallion, (1998) stresses that there is also feed supply. This constraint is more acutely felt in the drier regions, where the quantity of forage is often insufficient for the numbers of livestock carried, and where the availability of feed is subject to pronounced seasonal patterns. In wetter regions, the problem is more of a qualitative than of a quantitative nature; forages often being of poor-quality, with low energy and protein contents. In both the drier and wetter regions, the feed shortages and nutrient deficiencies are more acute in the dry season. Increases in feed availability at low cost will be the most significant factor, which will determine whether the required 4.2 percent annual growth in animal production is achieved. Not all agro-ecological zones are affected in the same manner. In the arid and highland zones, feed resources are almost completely utilized. In the highland zones, however, opportunities may exist for farmers to raise production through increased use of technology and inputs. Because of the relatively moderate stocking pressure in the semiarid zone and the good feed production potential in the sub humid zone, opportunities exist in these two zones for moderate expansion of cattle populations.

Akinyele (1983) cites that animal diseases continue to constrain livestock productivity and agricultural development. It has been estimated that in Sub-Saharan Africa animal diseases result in annual losses in excess of US\$4 billion, which represent about one fourth of the total value of animal production. The impact of animal diseases stems from direct losses due to mortality and its indirect effects through slow growth, low fertility and decreased work output that result from morbidity. The diseases with the highest impact on smallholder livestock keepers in Sub-Saharan Africa are ecto- and endo-parasites, respiratory complexes, Newcastle disease, trypanosomiasis, contagious bovine pleuro-pneumonia (CBPP), Rift Valley Fever (RVF), and tick-borne diseases such as heart water and theileriosis.

Dorward, Kydd, Morrison, & Urey, (2004) argue that low genetic potential is also a serious constraint especially for milk production. However, the introduction and use of imported stock in breed substitution and crossbreeding programmes with the aim of achieving a more rapid increase in milk and meat productivity, has not always yielded the expected results. In tropical countries, indigenous breeds are often more disease resistant, heat tolerant and have the ability

to efficiently utilize poor quality feed. Therefore, genetic sources of resistance or tolerance to diseases and pests and adaptation to harsh climates need to be both preserved and combined with the capacity to generate higher meat and/or milk outputs.

Eicher, & Witt, (1964) argues that bias towards urban consumers for instance African governments have often given priority considerations to supplying urban consumers with cheap agricultural products, including meat and milk. The resulting economic distortions have contributed to depressing local production and caused inefficient use of scarce human and financial resources. Prices have been kept low in several ways, including through exchange rate policies, import policies, and direct price controls.

Ekpo, & Egwaikhide, (2001) stresses that African governments have often been involved, through parastatal agencies, in production, processing and marketing activities. Such involvement has often stifled private entrepreneurship through excessive regulation and monopolistic behavior of the public-sector such practices has been, however, progressively abandoned since (1994). Parastatal agencies were dismantled and an active private sector started emerging in several countries.

Enoma, (2001) argue that there is also institutional constraints faced as a challenge Over the past decades, National Agricultural Research Systems have increasingly experienced budgetary constraints. The result of these budgetary constraints can be seen as NARS are not generating sufficient new technology to promote agricultural and livestock development, and links with extension services are limited. Budgetary and institutional constraints hamper the provision of effective extension services.

Ajala (2004) cites that extension agencies have been, and still are, more responsive to government bureaucracies than to the needs of the farmers. There is often difficulty in delivering integrated crop-livestock extension services to mixed crop-livestock farmers because extension agents are located in different ministries and respond to different administrative entities. Public, government-operated veterinary services have shown their limitations in providing the comprehensive animal health services needed for livestock development, mostly because of issues related to under-funding. This has led to weak

implementation of programmes for disease surveillance and vaccine production, and control measures for epidemic disease are inadequate. The weak implementation capacities of many government livestock services in Africa have been compounded by decentralization of veterinary services in a number of countries without adequate provision for the co-ordination of the control of major infectious diseases.

Child , (2008) argues that most livestock production is constrained by market access, both for inputs and outputs, being mainly restricted to local and informal markets. Access to the larger national, regional and international markets is limited because of poor infrastructure and increasing technical requirements. The absence of functioning marketing facilities and conservation and processing infrastructure is a major constraint to livestock sector development.

Little, (2003) suggests that in addition to the above, livestock departments are often limited by weak policy-making, sector planning and implementation capacities, resulting from inadequate human resources, the lack of accurate and detailed statistical information, and poor negotiating powers. Furthermore, although technological problems are relatively well understood, there is a lack of institutional capacity to apply appropriate solutions because institutional linkages between research institutions, extension services and veterinary services are extremely weak in many instances, resulting in poor design and delivery of programmes

West (1990) stresses that livelihoods in the arid zone are under growing threat due to recurring droughts and the presence of animal diseases. High production risks due to droughts, diseases and inadequate veterinary services, and increasing degradation of the environment reduce the productivity of livestock in this zone whilst making the livestock owners increasingly vulnerable to shocks. The low potential of the land restricts intensification of livestock production. However, improved market access and improved use of rangeland resources could significantly increase off take and allay many of the problems that new restrictions to the movement of pastoralists, such as rangeland degradation, are creating.

According to Ajala (2004), even though the highlands are the most intensively farmed zone in Africa, there is the potential to increase meat and milk production through improvement of

livestock productivity and modest increases in livestock numbers. Productivity improvement will require the utilization of higher levels of technology and increasing quantities of inputs and services. The unavailability of such technologies and services including fertilizers, year-round feeding systems, high-yielding forages and feed crops, improved breeding stocks, effective veterinary services etc. is the major constraint to livestock development in this zone

2.3.3 The possible solutions of the problems facing livestock in Jubbaland-Somalia

Atinmo .O and Akinyele .O (1983) mentions that strategies to meet the challenge of an annual 4.2 percent growth rate of the livestock subsector will focus on the higher potential regions of Africa that is the semi-arid, sub humid and highland zones, by enhancing the role of livestock in the agricultural intensification process, and promotion of market-based livestock development. In the marginal arid areas, the focus will be the protection of vulnerable livelihoods by arresting the degradation of the rangelands. For the humid zone, efforts will need to be geared towards the protection of the tropical rainforest. Development of these broad strategies will require strengthened policy analysis, planning and implementation capacities, both at national and regional levels, to ensure effective delivery of different programmers identified. As regards prioritization of interventions and programmers, these are likely to be different across sub regions, agro-ecological zones and livestock systems.

Improved animal disease control and strategies to expand the availability of trepan-tolerant livestock will contribute to improving livestock production. Support to the development of intensive commercial livestock production enterprises around large coastal cities is advocated. Such a development should, however, be accompanied by measures to mitigate their environmental repercussions. It is anticipated that the number of intensive commercial dairy, poultry, and pig production operations will increase as demand for meat, milk, and eggs expands. Most of these operations will be located in peri-urban areas, irrespective of agro ecological conditions.

According to Eicher, C& Witt, L (1964) the availability of, and demand for, concentrate feeds and forages will influence the speed at which these operations develop. Such commercial operations will increasingly contribute to the provision of poultry and pig meat and milk in the

near future. Strategies to encourage the development of these systems should focus on feed supply, infrastructure, policy and institutional frameworks and credit. Feed should come from local production, except in coastal areas which are probably better served by imports. Policies encouraging the development of intensive peri-urban systems should also take into account environmental issues and propose ways to mitigate them.

Collier, P. (2002) suggests that in the arid zone, low rainfall precludes significant increases in biomass production and the emphasis will be to sustain production, improve market off take and encourage local processing to increase the value of off take. Practical early warning systems and contingency planning are needed to forecast forage production to assist timely introduction of community-based drought relief. In the semi-arid and sub humid zones, low protein and energy content of feed plus seasonal fluctuations in quality are the critical issues. Research is needed on improved fodder crops, leguminous trees, and forages for pastoral and crop-livestock systems; improving the digestibility of high fiber feeds; development of improved systems of protein nutrition through use of non-protein nitrogen, by-pass protein, and other sources of protein; appropriate use of mineral supplementation to correct dietary mineral deficiencies; improving means of storing forages and fodders for dry season use; and improving nutritive quality of residues and by-products of food crops for use as animal feeds. In the highlands, research may concentrate on overcoming the growing shortage of feedstuffs by developing high-yielding and more nutritious forage, and protein crops and improved production practices. For poultry and pigs, research would focus on the strategies and technologies to produce the coarse grains, root crops, and oilseeds, which are needed for white meat production and to optimize feeding strategies based on agro-industrial by-products.

According to Datt, & Ravallion, (1998), Research for improving animal health will focus on strategic and applied studies to devise better means to control parasitic and vector-borne diseases (e.g. trypanosomiasis, theileriosis, and heart water), including the identification and utilization of sources of genetic resistance to diseases and parasites in livestock, the development of animal health technologies appropriate for African conditions (thermos table vaccines, animal-side diagnostic tests, and slow-release pharmaceuticals), the design of sustainable and appropriate animal health delivery systems; plus the development of management strategies and control measures for diseases of intensification.

Enoma AI, (2001) argues that priority areas in the domain of genetic improvement will include characterizing indigenous African livestock genetic resources, strategic research on the molecular genetics of resistance to diseases and parasites, adaptation to environmental stress (and the identification of genetic markers), and development of technologies for the multiplication, conservation and preservation of genetic resources. In addition to addressing technical constraints, research will be needed to address knowledge gaps about farming systems and livestock management, environmental processes and policy issues relating to the livestock sector and economic development.

Enoma AI, (2001) cites that the quality and effectiveness of institutions responsible for managing and conducting research in Africa will determine their level of impact on livestock development. Agricultural research system comprises international agricultural research centers (IARCs), NARS, the latter being the focal points of the research system. NARS are responsible for identifying researchable problems, conducting research and providing the primary links with extension services, educational institutions, the private sector, NGOs, donors, and international organizations. For a number of reasons, NARS have not been able to generate sufficient new technology to boost agricultural development. Their improvement should be prioritized. Given the magnitude of the identified research agenda, cooperation on a regional basis is essential for conducting the livestock research needed to increase production and productivity of the subsector.

According to Diao, ., Hazell, and Thurlow, (2010), the Consultative Group on International Agricultural Research (CGIAR) centers, such as the International Livestock Research Institute (ILRI) and the International Institute for Tropical Agriculture (IITA), carryout strategic and applied research in Africa, and collaboration between these and the NARS needs to be enhanced.

West (1990) argues that the greatest opportunity for expanding livestock production lies in the medium rainfall region of the semi-arid and sub humid zones, which have a largely under-exploited potential for producing animal feed (pastures, forages, and multi-purpose trees for ruminants and grain, root, and oilseed crops for pigs and poultry). The development strategy requires enhancing the input functions of livestock within the crop-livestock systems so as to expand and increase overall agricultural production and productivity while promoting market-

based livestock development. Rural based livestock production needs to be connected to the growing demand in the urban centers.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter explained the specific research methodology and techniques that the researcher used to generate data. It was therefore an analysis of research design, study population, study area, sample selection and size, data collection methods and techniques, data analysis and procedure.

3.1 Research Design

The study applied an explanatory research design, explanatory research is defined as the initial research into a hypothetical or theoretical idea. To reflect aspects of perception, feelings, experiences, facts and emotional feelings on the role played by livestock farming in economic development. Both quantitative and qualitative approaches were used in data collection by using structured questionnaires and interviews qualitative data while quantitative methods of analysis were used.

3.2 Study Population

The study covered district veterinary officers, livestock farmers and other local peasants who were found available and willing to participate were also given a chance. The study population involved 133 participants where 23 district veterinary officers, 45 livestock farmers and 65 other local peasants who will be found available.

Table 1: Showing Research Population

Type of population	Population Target
District veterinary officers	23
Livestock farmers	45
Other local peasants	65
Total	133

3.3 Study population

The target populations of 133 were selected and it comprise of 23 District veterinary officers, 45 livestock farmers and 65 other local peasants. The rational was that all the above respondents were stake holders. Target population refers to the cumulative elements of study from an environment in which information is gathered from.

3.4 Sample Size

Category	Target Population	Sample size
District veterinary officers	23	22
Livestock farmers	45	23
Other local peasants	65	55
Total	133	100

A sample size of 100 respondents was determined through purposive and random sampling methods. This is so because the nature of data to be generated required different techniques for better understanding of the research problem under investigation. Besides this the approach is also commonly known for achieving higher degree of validity and reliability as well as elimination of biases as per Amin (2005).

The sample size of the study consisted of 100 respondents of the target population.

The Sloven's formula (1978) was used to determine the minimum sample size.

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

Where: n= sample size

N= target population

e= level of significance/marginal error (0.05)

$$\begin{aligned}
 n &= \frac{N}{1 + N(e^2)} \\
 &= \frac{133}{1 + 133(0.0025)} \\
 &= \frac{133}{1 + 0.3325} \\
 &= \frac{133}{1.3325} \\
 &= \mathbf{100 \text{ respondents}}
 \end{aligned}$$

3.4 Sample Procedure

3.4.1 Purposive sample procedure

The livestock farmers were purposely selected because they participate in livestock farming and thus had knowledge about the impact of livestock farming on economic development.

3.4.2 Random sample procedure

The respondents were randomly selected to give each an equal chance of representation. All respondents were assumed to have vital information on livestock farming and economic

development in Kismaayo district. Respondents who were willing to participate were approached.

3.5 Sources of Data

3.5.1 Primary Data

This was obtained through use of self-administered questionnaires and interviews to the respondents.

3.5.2 Secondary Data

This was acquired from text books and other related works of outstanding scholars such as published magazines, written data sources including published and unpublished documents, company reports and internet sources which were all referred to, to provide more information on livestock farming and economic development.

3.6 Research Instruments

Both interviews and questionnaires were used

3.6.1 Interviews

The researcher organized key informant interviews with district veterinary officers when riched the study findings. The researcher therefore had to interact with the respondents, face to face and ask them relevant questions to the study. The method was used purposely because it provided for a systematic flow of information due to the order of questions and it also helped in covering information that would be skipped in the questionnaires.

3.6.2 Questionnaires

Both open and close ended questionnaires were used in the collection of data and these were distributed to the respondents to provide answers. The instrument was purposely selected because it seeks personal views of the respondents and thus will enable the respondents to use their knowledge in providing a wide range of data as they never shy away in any way. This in addition helped to avoid repetition of question.

3.7 Data Processing

The processing of data was done after the collection of data for verification of the information that was gathered and for attainment of completeness, accuracy and uniformity. Data editing involved checking the information for errors, which was an added advantage because it enabled the researcher to delete and eliminate possible errors that were traced which in the end would manipulate the results of the study. Data was analyzed concurrently to avoid duplication thereby guiding the entire study for balanced and critical analysis. The researcher used hypothesis based on the questionnaire and for other items, tabulation pie-charts and percentage and simple statistical methods were used for data presentation, analysis and qualification.

3.8 Data Analysis

The study explained, described, and presented the findings basing on the specific objectives of the study and research questions, where data analysis was initially done through sketchy and generalized summaries of the findings from observation and conclusions in the process of data collection. Data analysis was done using simple statistical percentages and frequencies and thereafter was presented in charts.

3.9 Validity and Reliability

Joppe (2000) defines reliability as the extent to which results are consistent over time and an accurate representation of the total population under study is referred to as reliability and if the results of a study can be reproduced under a similar methodology, then the research instrument is considered to be reliable.

Validity measures whether the research truly measures that which it intended to measure or how truthful the research results are. (Joppe, 2000). The validity of the study will be tested as per the pilot study discussed below. The pre-testing of the both self administered questionnaires and face-to-face interview questionnaires was conducted at two guest houses randomly selected within area.

3.10 Ethical Consideration

The researcher carried out the study with full knowledge and authorisation of the district veterinary committee of Kismayo district. The researcher first of all acquired an introductory letter from the University which he used to eliminate suspicion. The researcher thereafter went ahead to select respondents, and arrange for dates upon which he would deliver questionnaires as well as pick them in addition to making appointments for interviews to be conducted. The researcher was charged with a task of ensuring that he assured the respondents of their confidentiality as this was paramount to research.

3.11 Research Procedures

The researcher carried out field events in a period of three weeks. In the first week, questionnaires were distributed or dispatched to the respondents and later interviews were carried out to obtain data from the respondents.

3.12 Limitations of the study

The main limitation to this study was time frame; the researcher faced a problem with time as the time table was not give enough time to do the research. However this was overcome by developing a personal time plan to follow in order to be in time with the school program.

There may be a problem of bias where by some respondents may not be in position to give clear information about the questions asked in the questionnaires. In this case the researcher will however introduce himself as an academician and the information to be obtained is for academic purpose only.

Some questionnaires may not be interpreted well as some of the respondents may not be in position to read and understand the questions set by the researcher. However, the researcher will hire an interpreter to help in interpreting the questions to the respondents

CHAPTER FOUR

DATA PRESENTATION, INTERPRETATION AND ANALYSIS

4.0 Introduction

This chapter covers the presentation of the findings according to the themes of the study which were; the role of livestock on the economic development in Jubbaland-Somalia, the challenges facing livestock in Kismaayo District Jubbaland-Somalia, the possible solutions of the problems facing livestock in Jubbaland-Somalia and the relationship between livestock farming and economic development in Somalia particularly in Kismaayo district, Jubbaland

4.1 Demographic characteristics of respondents

4.1.1 Gender of Respondents

During the course of this research, 100 of those who responded, 60 respondents were male representing 60% and the 40 of the respondents were female representing therefore 40% of the respondents. This implied that the majority were males due to societal beliefs that men are more hardworking than women thus they mostly engage in livestock farming

Despite the affirmative action by many societies towards gender balance, males still outnumber females in the livestock farming ranks as represented in the table 2 below.

Table 1 showing the gender response

Gender	Frequency	Percentage
Male	60	60%
Female	40	40%
Total	100	100

4.1.2 Marital Status of Respondents

Respondents were further asked to disclose their marital status in an effort to determine the background factors that could aid the researcher in their study of the role of livestock

production in the economic development of Kismaayo District. Their responses were tabulated as seen below in table 3 below.

Table 2 showing marital status of respondents

Marital Status	Frequency	Percentage
Married	40	40%
Single	20	20%
Engaged	30	30%
Divorced	10	10%
Total	100	100

From table 4.3 we can reveal that out of the 100 respondents that were interviewed by the researcher, 30% were dating, where as 20% were still single. Majority 40% were married whereas only 10% were divorced from their marriages. This implied that were married since they had a lot of responsibilities to take care of thus as such as raising school fees for the children and feeding their families thus most of them engaged themselves livestock farming. This helped the researcher determine the influence of the respondents' backgrounds on the outcome of the study.

4.2 Findings on the role of livestock production in economic development

The first objective of the study was to identify the role of livestock production in economic development. To achieve this objective, respondents were asked to mention the role of livestock production in economic development that existed in their community and their responses were tabulated as seen from table below.

Table 3 showing the role of livestock production in economic development

The Role Of Livestock Production In Economic Development	Frequency	Percentage
Livestock allows the poor to capture private benefits	20	20%
Sources of cash income for poor households	35	35%
Livestock produce highly nutritious foods for people	10	10%
Livestock is assets to the poor	25	25%
Productive livestock adds value to 'idle' land	10	10%
Total	100	100%

From table above, it reveals that out of the 100 respondents that aided this study, 20% of them were of the view that the most common role of livestock production in economic development in Kismaayo was that livestock allows the poor to capture private benefits, while majority of the respondents 35% were of the suggestion that livestock production is as source of cash income for poor households was yet another important role of livestock production in economic development of Kismaayo 10% of the study population were of the opinion that livestock produces highly nutritious foods for people for consumption was another role of livestock production while 25% of the respondents were of the argument that livestock is an asset to the poor which helps them to attain loans and other financial assistance while using their animals as collateral. Another 10% of the study informants were of the view that productive livestock adds value to 'idle' land was another role of livestock production in economic development in Kismaayo.

This implied that livestock farming acts as source of cash income for the poor who are the majority and thus helps them to acquire the basic needs for survival. It was also further indicated that livestock farming is an asset to the poor thus improves on their standards of living with in the community.

Table 4 showing Livestock being one of the most practiced types of farming

Livestock being one of the most practiced types of farming	Frequency	Percentage
Yes	75	75%
No	25	25%
Total	100	100%

The table above reveals that 75% of the respondents indicated that livestock farming is one of the most practiced types of farming in Kismaayo district where as the remaining 25% disagreed. One of the respondents suggested that although livestock is commonly practiced in Kismaayo district, there are other forms of farming such as crop growing.

This implied that livestock is one of the most practiced types of farming in Kismaayo District and thus helps a number of the households to improve on the standards of living since they are able to meet their daily needs in life through practicing livestock farming.

Table 5 showing Level of importance of Livestock Production in the economic development

Level of importance of Livestock Production in the economic development	Frequency	Percentage
Very Important	45	45%
Important	25	25%
Fair	05	05%
Little	15	15%
Very little	10	10%
Total	100	100%

According to the table above, 45% agreed that the level of importance of livestock production in economic development is very important, 25% said that it was important, 5% noted that the level of importance of livestock production is little where as 10% of the respondents indicated

that the level of importance of livestock production is very little towards economic development.

This implied that livestock production is very important towards achieving economic developments and thus majority can not afford to live with out it. This is because livestock improves on their incomes thus economic stability.

4.3 Findings on the challenges facing Livestock farming

The second objective of this study was to examine the challenges facing livestock production in Kismaayo Jubaland Somalia. Therefore the 100 respondents were again asked identify the key challenges constraining livestock production in their community and their arguments were tabulated as seen in table 4.7 below.

Table 7 showing the challenges facing livestock production

The Challenges Facing Livestock Production	Frequency	Percentage
Feed supply	15	15%
Excessive regulation	20	20%
Institutional constraints	25	25%
Marketing and processing	30	30%
Policy formulation and planning	10	10%
Total	100	100%

From table above, we can reveal that out of the total 100 respondents only 15% suggested that Feed supply was a major challenge affecting livestock production in the study area. 20% of the study informants were of the argument that another important constraint hindering the development of livestock production in Kismaayo Jubaland was excessive regulation as many farmers and respondents blamed the government for the slow development of the livestock production industry in the study area, yet 25% of the respondents argued that another set of challenges affecting livestock production in Kismaayo were institutional constraints. Majority of the respondents 30% were of the view that another significant challenge affecting the practice of livestock production was marketing and processing while minority of the

respondents 10% were of the suggestion that Policy formulation and planning was yet another factor hindering the expansion of the livestock sector in the study area.

According to the findings in the above table, it implies that poor marketing and processing procedures hinder livestock farming thus affects economic development. It was further indicated that there are institutional constraints that paralyze the course of livestock production and thus there is need for efforts to address this challenge.

Table 7 showing political, social and economic hindrances to the practice of livestock farming

Political, social and economic hindrances to the practice of livestock farming	Frequency	Percentage
Political interference	45	45%
Global economic crisis	25	25%
Cultural norms	30	30%
Total	100	100%

The table above indicates that political interference has been one of the political hindrances to the practice of livestock farming according to 45%, 25% indicated that global economic crisis is responsible for the economic hindrances and 30% of the respondents agreed that cultural norms are also a cause of social challenges towards practice of livestock farming.

This implied that globally, there is always the hindrance of political interference especially in developing countries which is usually fueled by the dictatorship and bureaucratic systems of governments and thus affecting livestock production. It was further found out that global economic crisis can as well destabilize livestock farming through inflated prices of products and livestock farm inputs.

4.4 Findings on the possible solutions to the challenges facing livestock farming

The third of the study was to examine the possible solutions to the challenges facing livestock production. To meet this objective, respondents were asked to identify the prospective and feasible solutions to the challenges facing livestock production in their Community and their arguments were tabulated in table 4.9 below.

Table 8 showing the possible solutions to the challenges facing livestock production

The Possible Solutions To The Challenges Facing Livestock Production	Frequency	Percentages
Controlling animal diseases	10	10%
Facilitation of access to inputs and services	15	15%
Improvement of indigenous livestock breeds	40	40%
Promotion of equitable market policies	20	20%
Development of infrastructure for transportation	15	15%
Total	100	100

From table 4.9 it was evident that out of the total respondents, 10% believed that by Controlling animal diseases, the challenges facing livestock production especially diseases will be controlled and minimized in that regard while 15% of the study respondents were of the opinion that facilitation of access to inputs and services will help address the problems challenging the livestock production industry of Kismaayo Jubbaland Somalia.

Majority of the respondents were of the opinion that improvement of indigenous livestock breeds could help yield more results for livestock producers and as such it is one of the suggested solutions by the respondents. 20% of the study informants were of the opinion that there should be promotion of equitable market policies so that livestock production can have a strong stand on the national and international markets. The rest of the study interviewees 15% were yet of the argument that by the development of infrastructure for transportation of

livestock products will play a vital role in solving some of the challenges facing the livestock production sector of Kismaayo Jubaland Somalia, unemployment would be addressed.

This further implied that a lot has been done concerning the improvement of indigenous livestock breeds so as to improve on livestock farming. It also indicates that the government and other stakeholders has played an important role of ensuring the promotion of equitable market policies to overcome livestock farming challenges.

Table 9 showing the rate the contribution of livestock production

Political, social and economic hindrances to the practice of livestock farming	Frequency	Percentage
Good	55	55%
Fair	15	15%
Poor	30	30%
Total	100	100%

The table above reveals that 55% rated the contributions of livestock production as Good, 15% as Fair and the 30% of the respondents indicated that it was poor.

With the majority rating the contribution of livestock production as good, it implies that this type of farming has played a vital role in terms of promoting the lives of the households. This is because livestock farming has enable a number of households to acquire incomes thus improved standards of living.

Table 10 showing that over grazing and stocking can bring about drought and soil erosion

Over grazing and stocking can bring about drought and soil erosion	Frequency	Percentage
Yes	55	55%
No	45	45%
Total	100	100%

According to the table above, 55% of the respondents agreed that over grazing and stocking can bring about drought and soil erosion where as the remaining 45% disagreed that it does not bring out drought and soil erosion.

This implied that the majority noted that overgrazing and over stocking can bring out drought and soil erosion thus indicating that there is also need to overcome these practices to prevent droughts and soils from being eroded. This further implied that the majority are aware of the consequences of these practices thus take caution not practice them within the community.

CHAPTER FIVE

DISCUSSION OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

5.0 Introduction

This chapter summarizes, concludes and recommends on the study findings presented in the previous chapter.

5.1 Summary of the Findings

From the findings of the study, it was revealed that Livestock play a vital role in the agricultural and rural economies of the developing world. Not only do they produce food directly, they also provide key inputs to crop agriculture. Most farms in the developing world are too small to justify owning or using a tractor, and the alternatives are animal power or human labor.

The study summaries that, livestock are one of the few assets owned by poor households and can be crucial in maintaining household survival in times of crisis. Livestock assets can be accumulated in good times and sold when necessary, e.g. to pay school fees or buy health care. Livestock are both an inflation-proof and productive investment. The study also summaries that Livestock allow the poor to capture private benefits from common property resources: they do not require private land holdings. Livestock are often central to major social events and ceremonies. In many African societies, livestock are the basis for traditional social support systems and are an integral part of the African way of life

5.2 Discussion of the Findings

5.2.1 The role of livestock on the economic development in KismaayoJubbaland-Somalia

It was found out that the majority of the respondents suggested that livestock production is a source of cash income for poor households was yet another important role of livestock production in economic development of Kismaayo. This is because ruminants provide milk and poultry provide eggs in small but readily available and regular amounts. It was revealed that the study informants were of the view that productive livestock adds value to 'idle' land was

another role of livestock production in economic development in Kismaayo. Thus further indicated that mixed crop-livestock systems are the norm, but the importance of the livestock component has been overlooked. This was in agreement with Ajala M.K (2004), who stated that Livestock plays a vital role in the agricultural and rural economies of the developing world. Not only do they produce food directly, they also provide key inputs to crop agriculture. Most farms in the developing world are too small to justify owning or using a tractor, and the alternatives are animal power or human labor. It was further revealed that Livestock utilize feeds with few alternative uses to produce highly nutritious foods for people in small but regular amounts.

5.1.2 The challenges facing livestock in Kismaayo District Jubbaland-Somalia

In recent years, especially in developing countries, it was discovered that livestock Production in Jubbaland was influenced by many cross cutting issues and conditions for instance. Environmental conditions e.g., rainfall and forage availability affect livestock Productivity and therefore animals' value. It was found out that suggested that Feed supply was a major challenge affecting livestock production in the study area. Thus the study indicated that feed supply constraint is more acutely felt in the drier regions, where the quantity of forage is often insufficient for the numbers of livestock carried, and where the availability of feed is subject to pronounced seasonal patterns. The study was revealed that Animal diseases continue to constrain livestock productivity and agricultural development. It further discovered that there has been estimated that in Sub-Saharan Africa animal diseases result in annual losses in excess of US\$4 billion, which represent about one fourth of the total value of animal production. The study also found out that Low genetic potential is also a serious constraint especially for milk production. However, the introduction and use of imported stock in breed substitution and crossbreeding programmers with the aim of achieving a more rapid increase in milk and meat productivity, has not always yielded the expected results.

This was in agreement with Little, (1992) who argued that livestock Production in Jubbaland was influenced by many cross cutting issues and conditions for instance. Environmental conditions e.g., rainfall and forage availability affect livestock Productivity and therefore animals' value. Infrastructural conditions relating to transport, Communications, holding

grounds, etc. affect the costs borne by pastoralists and traders in Moving animals from pasture to terminal markets and slaughterhouses.

5.1.3 The possible solutions of the problems facing livestock in Jubbaland-Somalia

It was also found out that believed that by Controlling animal diseases, the challenges facing livestock production especially diseases will be controlled and minimized and thus expand the availability of trepan-tolerant livestock will contribute to improving livestock production. Support to the development of intensive commercial livestock production enterprises around large coastal cities is advocated.

It was cited in (Ronald, 1987) that in the arid zone, low rainfall precludes significant increases in biomass production and the emphasis will be to sustain production, improve market off take and encourage local processing to increase the value of off take. The study also indicated that improvement of indigenous livestock breeds could help yield more results for livestock producers and as such it is one of the suggested solutions by the respondents. The study also revealed that research for improving animal health will focus on strategic and applied studies to devise better means to control parasitic and vector-borne diseases(e.g. trypanosomiasis, theileriosis, and heart water), including the identification and utilization of sources of genetic resistance to diseases and parasites in livestock, the development of animal health technologies appropriate for African conditions.

It was in agreement with Enoma AI, (2001) who presented his arguments on priority areas in the domain of genetic improvement will include characterizing indigenous African livestock genetic resources, strategic research on the molecular genetics of resistance to diseases and parasites, adaptation to environmental stress (and the identification of genetic markers), and development of technologies for the multiplication, conservation and preservation of genetic resources. In addition to addressing technical constraints, research will be needed to address knowledge gaps about farming systems and livestock management, environmental processes and policy issues relating to the livestock sector and economic development.

5.2 Conclusion of the Findings

According to the study findings, the following conclusions were made;

5.2.1 The role of livestock on the economic development in Jubbaland-Somalia

The study concludes that, livestock are one of the few assets owned by poor households and can be crucial in maintaining household survival in times of crisis. Livestock assets can be accumulated in good times and sold when necessary, e.g. to pay school fees or buy health care. Livestock are both an inflation-proof and productive investment. The study also concludes that Livestock allow the poor to capture private benefits from common property resources: they do not require private land holdings. Livestock are often central to major social events and ceremonies. In many African societies, livestock are the basis for traditional social support systems and are an integral part of the African way of life.

It also concludes that Livestock are central to farming systems used by the poor, providing draught power and manure often when the purchase of substitutes is impossible. Draught animal power drives crop production in many farming systems. The use of manure is an efficient and sustainable method for maintaining soil quality and water retention.

5.2.2 The challenges facing livestock in Kismaayo District Jubbaland-Somalia

The study also concludes that Infrastructural conditions relating to transport, Communications, holding grounds, etc. affect the costs borne by pastoralists and traders in Moving animals from pasture to terminal markets and slaughterhouses. The study further concludes that the impact of animal diseases stems from direct losses due to mortality and its indirect effects through slow growth, low fertility and decreased work output that result from morbidity.

The study further concludes that African governments have often given priority considerations to supplying urban consumers with cheap agricultural products, including meat and milk. The resulting economic distortions have contributed to depressing local. It also concludes that that in tropical countries, indigenous breeds are often more disease resistant, heat tolerant and have the ability to efficiently utilize poor quality feed. Therefore, genetic sources of resistance or tolerance to diseases and pests and adaptation to harsh climates need to be both preserved and

combined with the capacity to generate higher meat and/or milk outputs. production and caused inefficient use of scarce human and financial resources.

5.2.3 The possible solutions of the problems facing livestock in Jubbaland-Somalia

The study concludes that practical early warning systems and contingency planning are needed to forecast forage production to assist timely introduction of community-based drought relief. In the semi-arid and sub humid zones, low protein and energy content of feed plus seasonal fluctuations in quality are the critical issues.

It also concludes that research is needed on improved fodder crops, leguminous trees, and forages for pastoral and crop-livestock systems; improving the digestibility of high fiber feeds; development of improved systems of protein nutrition through use of non-protein nitrogen, bypass protein, and other sources of protein; appropriate use of mineral supplementation to correct dietary mineral deficiencies; improving means of storing forages and fodders for dry season use; and improving nutritive quality of residues and by-products of food crops for use as animal feeds.

5.3 Recommendations

For the humid zone, efforts should be geared towards the protection of the tropical rainforest. Development of these broad strategies should be strengthened in policy analysis, planning and implementation capacities, both at national and regional levels, to ensure effective delivery of different programmers identified.

There should be improved animal disease control and strategies to expand the availability of trepan-tolerant livestock thus this can contribute to improving livestock production. There should be effective support to the development of intensive commercial livestock production enterprises around large coastal cities is advocated.

Research should be carried out on improving the fodder crops, leguminous trees, and forages for pastoral and crop-livestock systems; improving the digestibility of high fiber feeds; development of improved systems of protein nutrition through use of non-protein nitrogen, bypass protein, and other sources of protein; appropriate use of mineral supplementation to correct dietary mineral deficiencies; improving means of storing forages and fodders for dry

season use; and improving nutritive quality of residues and by-products of food crops for use as animal feeds.

Research for improving animal health should focus on strategic and applied studies to devise better means to control parasitic and vector-borne diseases (e.g. trypanosomiasis, theileriosis, and heart water), including the identification and utilization of sources of genetic resistance to diseases and parasites in livestock, the development of animal health technologies appropriate for African conditions (thermos table vaccines, animal-side diagnostic tests, and slow-release pharmaceuticals), the design of sustainable and appropriate animal health delivery systems; plus the development of management strategies and control measures for diseases of intensification.

5.5 Further Research

For the purpose of filling the missing links and gaps left by this researcher, more research and study was called for from other academicians or researchers on the challenges faced by government in developing the livestock production sector in Kismaayo Jubaland.

More research needs to be done on strong sustainability mechanisms to address the production shortfalls in the offspring, boost livestock farming

Efforts should be made to have smaller and geographically concentrated farmers' groups to foster better mobilization and stronger and accountable leadership, reduce the costs of organization, improve accessibility of extension services

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APPENDIX I A

**TRANSMITTAL LETTER
OFFICE OF DEPUTY VICE CHANCELLOR (DVC)
COLLEGE OF HIGHER DEGREES AND RESEARCH**

Dear Sir/Madam

**RE: INTRODUCTION LETTER TO CONDUCT RESEARCH IN YOUR
INSTITUTION**

ABSHIR RAAGE SHIRE is a bonafide student at Kampala International University pursuing a Masters of project planning and management.

He is currently conducting a field research for his thesis entitled, **“Livestock farming and economic development in Kismaayo, Jubbaland in Somalia”** Your institution has been identified as a valuable source of information pertaining to his research project. The purpose of this letter then is to request you to avail him with the pertinent information he may need.

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

Any assistance rendered to him will be highly appreciated.

Yours truly

Deputy Vice Chancellor, CHDR

APPENDIX I B
INTERVIEW GUIDE

Dear Respondent,

I am **ABSHIR RAAGE** , a student of Kampala International University offering Master of Project planning and management carrying out a research study on “**Livestock farming and economic development in Kismaayo, Jubbaland in Somalia**” I’m privileged to have you as my respondent and the information given to me is purely academic and will be treated with confidentiality.

If I ask a question you don't want to answer, just let me know and I will go on to the next question; or you can stop the interview at any time. However, I hope that you will participate in this survey, since your views are important.

Do you want to ask me anything about the study?

May I begin the interview now?

Signature of interviewer:

Date:

Respondent agrees to be interviewed. 1 Respondent does not agree to be interviewed. 2

APPENDIX II

CLEARANCE FROM ETHICS COMMITTEE

Date.....

Candidate's Data

Name.....

Reg No.....

Course.....

Title of study.....

Ethical Review Checklist

The study reviewed considered the following

- Physical safety of human subjects
- Psychological safety
- Privacy
- Written request for author of standardized instruments
- Coding of Questionnaires/Anonymity/Confidentiality
- Permission to conduct the study
- Informed Consent
- Citation/Authors recognized

Results of ethical review

- Approved
- Conditional (to provide the ethics committee with corrections)
- Disapproved/ Resubmit Proposal

Ethics Committee (Name and Signature)

Chairperson.....

Members.....

APPENDIX III

INTFORMED CONSENT

I am giving my consent to be part of the research study of **ABSHIR RAAGE** , that will focus on the barriers to inclusion of children with disabilities from and within schools in Uganda.

I shall be assured of privacy, anonymity and confidentiality and that I will be given the option to refuse to participate and right to withdraw my participation anytime.

I have been informed that the research is voluntary and that the results will be given to me if I ask for it.

Initials:.....

Date.....

APPENDIX IV

QUESTIONNAIRE FOR RESPONDENTS

Dear Respondent;

I am **ABSHIR RAAGE** a student of Kampala International University pursuing a Masters Degree in project planning and management. I am currently undertaking a study on **Livestock farming and economic development in Kismaayo, Jubbaland in Somalia**. I know that you have the rightful information I need to carry out my study and therefore I humbly request you to fill this questionnaire with a human heart as you will also contribute towards my success. Thanks and may God bless you.

SECTION A (Please tick where applicable)

BACKGROUND INFORMATION

1. Age Bracket

18-30 31-40 41-50 51- above

2. Gender

Male Female

3. Marital status

Single Married

4. Education Level

O' Level A' Level Diploma
Degree masters

5. Years of Residency in the study area

1 Year 2 Years 3 Years above 3 years

SECTION B

PART 1: LIVESTOCK FARMING

1. What are the roles of livestock farming in economic development?

- a) Key inputs to crop agriculture
- b) Sources of cash income for poor households
- c) Productive livestock can add value to 'idle' land
- d) Maintains household survival
- e) Provides draught power and manure

2. Is Livestock Production one of the most practiced types of farming in Kismaayo District?

- a. Yes
- b. No

3. How can you rate the level of importance of Livestock Production in the economic development of your area?

- a. Very Important
- b. Important
- c. Fair
- d. Little
- e. Very little

PART 2: THE CHALLENGES FACED BY LIVESTOCK PRODUCTION

4. According to you, what are the common hindrances facing livestock production in Kismaayo District?

- a) Feed supply
- b) Excessive regulation
- c) Institutional constraints
- d) Marketing and processing
- e) Policy formulation and planning

5. What are the political, social and economic hindrances to the practice of livestock farming that you might have encountered or had experience on, in Kismaayo or in the rest of the World?

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PART 3: THE POSSIBLE SOLUTIONS TO THE PROBLEMS FACING LIVESTOCK PRODUCTION

6. What are the possible solutions to the problems facing livestock farming?

- a) Improve animal disease control
- b) The availability of concentrate feeds and forages
- c) Practical early warning systems and contingency planning
- d) Research for improving animal health
- e) Strategic research on the molecular genetics of resistance to diseases and parasites

7. How do you rate the contribution of livestock production to your community?

a. Good

b. Fair

c. Poor

8. Do you concur with the view that over grazing and stocking can bring about drought and soil erosion?

a. Yes

b. No

Thanks for your responses

END

APPENDIX V

TIME FRAME

PERIOD	DATA COLLECTION
Beginning of July to end of July	Proposal Writing, Editing and submission
Beginning of august to Mid september	Collection of Data
End of October to Mid October	Analyzing and Compiling Data collected
End of October to Beginning of November	Typing Setting and Editing
Mid November	Submission of Report

**APPENDIX VI
STUDY BUDGET**

ITEM	PARTICULARS	UNIT	COST PER UNIT (UG SHS)	TOTAL (UG SHS)
Equipment	Ream of papers	1	15,000	15,000
	Pens	1 Box	15600	25,600
Field work and collection of data	Communication	Airtime cards	3 x 5000	25,000
	Transport to and from	10 days	10,000	10,000
	Library fees			12000
Data analysis	Data entry	70	2000	24,000
Research report	Typesetting and	600 @page	Approx 60	36,000
	Printing master copy	Next 2 copies	pages 60	22,000
	Binding		3	34,000
Miscellaneous				500,000
Total				713,600