Stock-Taking and Gap Analysis Study of Financial Products for Pastoral Areas and Linking Pastoralists to Financial Service Providers

Final Report, September, 2016

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IGAD Centre for Pastoral Areas and Livestock Development (ICPALD)

Regional Pastoral Livelihoods Resilience Project (RPLRP)

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List of Abbreviations

3Ws	Who, What and Where
ASAL	Arid and Semi Arid Land
ATM	Automated Teller Machine
BMI	Business Monitor International
BoM	Board of Management
CBE	Commercial Bank of Ethiopia
CBK	Central Bank of Kenya
CCK	Communication Commission of Kenya
CLMC	County Livestock Marketing Council
CPPs	Country Programming Papers
EKUPI	Ethiopia, Kenya, and Uganda Pastoral Integration
ETF	Exchange Traded Fund
FAAB	Farming As aBusiness
FCB	First Community Bank
FDS	Financial Deepening Sector
FGD	Focus Group Discussion
FI	Financial Institution
GHoA)	Greater Horn of Africa
DTM	Deposit Taking Micro-finance
GSMA	Global System Mobile Association
HSNP	Hunger Safety Net Programme
IBI	Index Based Insurance
IBLI	Insurance Based Livestock Index
ICPALD	IGAD Centre of Pastoral and Livestock Development
IDDRSI	IGAD Drought, Disaster Resilience and Sustainability Initiative
IGAs	Income Generating Activities
IGA	Income Generating Activity
IGAD	Intergovernmental Authority on Development

ILRI	International Livestock Research Institute
KCB	Kenya Commercial Bank
KII	Key Informant Interviews
KLIP	Kenya Livestock Insurance Program
KWFT	Kenya Women Finance Trust
LMA	Livestock Marketing Association
MENA	Middle East and North Africa
MFI	Micro Financial Institution
LMI	Livestock Mortality Insurance
MoLF	Ministry of Livestock and Fisheries
MOU	Memorandum of Understanding
MVNO	Mobile Virtual Network Operator
NBE	National Bank of Ethiopia
NDVI	Normalized Differentiated Vegetation Index
NGO	Non Governmental Organization
NSE	Nairobi Stock Exchange
OIB	Oromia International Bank
OSFA	One-Size-for-All
PDA	Personal Digital Assistance
PFM	Public Finance Management
POS	Point Of Sale
PIN	Personal Identification Number
PRIME	Pastoral Areas Resilience Improvement through Market Expansion Project
PSACCO	Pastoral Savings and Credit Cooperative Organization
RAM	Rapid Appraisal Method
RCC	Risk Contingent Credit
RECs	Regional Economic Communities
REI	Regional Economic Integration
RLF	Revolving Loan Fund
RPLRP	Regional Pastoral Livelihoods Resilience Project
RPP	Regional Programming Paper
SACCOs	Savings and Credit Cooperative Organization
SDMF	Strategic Design Model Framework
TIA	Takful Insurance of Africa

ToT	Training of Trainers
TP	Tangaza Pesa
USAID	United States Agency for International Development
VCAS	Value Chain Automation Service
VSLAs	Village Savings and Lending Associations
WB	World Bank
WBI	Weather Based Insurance

Acknowledgement

This study on Stock-Taking and Gap-Analysis of Financial Products for Pastoral Areas and Linking Pastoralists to Financial Service Providers was made possible through the financial support of the World Bank (WB) for the Regional Pastoral Livelihoods Resilience Project (RPLRP) activities.

The study report was compiled by Dr. Caren A. Ouma, a freelance consultant, and is the outcome of a survey whose objective was to identify, profile and document all the potential and existing financial services available to pastoralists and recommend possible options based on the gap analysis to link pastoralists to financial providers.The assignment involved field work.

The Inter-governmental Authority on Development (IGAD) wishes to thank the following individuals, groups and institutions that made this study possible. We appreciate the many stakeholders who participated in the data collection phase and provided invaluable information on financial services extended to pastoralists, including financial gaps thereof.

We acknowledge the Intergovernmental Authority on Development (IGAD) RPLRP coordinator, Dr. Dereje T. Wakjira, together with Dr. Osman Babikir who reviewed the initial draft report, the logistics officer, Mr. Ahmed Mohamud, and Mr. Maquenet Wondi who facilitated the needed finances. All the three worked diligently together to ensure that the field work was carried out effectively.

In Ethiopia, Mr. Wondimagegnehu Shibru worked tirelesslyto ensure the consultant was introduced to relevant stakeholders and key informants in Jigjiga and Semera. In this context, we recognize theefforts of Mr. Abdurasak who made timely appointments with various stakeholders in Ethiopia and Somali. In Afar Region (Semera), it could have not been possible to collect information without the RPLRP officers who offered to accompany the consultant to various stakeholders' offices and pastoralist groups. In this regard, the following people are appreciated; Yassin Ahmed, Abas Mohammed Sedick, and Ebrahim Assen.

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This report was reviewed and validated by a workshop organized by the RLPRP Project Coordinator which took place in Entebbe, Uganda, on 14th and 15th October, 2016. The workshop was organized by ICPALD-RLPRP project coordinators. Their participation and comments which helped to validate this report are highly appreciated.

Executive Summary

1.	**Introduction and background information**	*The Intergovernmental Authority on Development (IGAD) in the Greater Horn of Africa (GHoA) is a Regional organization with the mission to assist and complement the efforts of the Member States to achieve, through increased cooperation, food security and environmental protection; promotion and maintenance of peace and security and humanitarian affairs; and, economic cooperation and integration.IGAD had secured financial support from the World Bank to execute a Regional project calledRegional Pastoral Livelihoods Resilience Project (RPLRP). The project is being undertaken in three IGAD Member States of Ethiopia, Kenya and Uganda under the general coordination of IGAD, within the framework of the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI) and in alignment with the Regional Programming Paper (RPP) and the respective Country Programming Papers (CPPs). It has five main components which are the same across the three countries and IGAD. The five project components (PC) are: PC1, Natural Resources Management: PC2, Market Access and Trade: PC3, Livelihoods Support: PC4, Pastoral Risk Management: PC5, Project Management and Institutional Support.*
2.	**Objective of the consultancy**	*The overall objective of the assignment was to undertake a survey to identify, profile and document all the potential existing available financial services for pastoralists and recommend possible options based on the gap analysis to link pastoralists to financial providers. Specifically:* - *Identify and document financing models available in support of pastoralists in the project operational areas in Ethiopia, Kenya and Uganda, with a view of analyzing gaps, as well as to assess thesustainability of such financing models;* - *Review and analyze the various strengths and weaknesses for each model;* - *Identify the challenges that hinder pastoralists from getting financial support;* - *Analyze trends, challenges and prospects with regard to the provision of financial services for pastoralists and recommend possible ways to overcome such challenges and realize the prospects;* - *Identify measures aimed at creating an enabling regulatory environment that focuses on creation of linkages for pastoralists with financial service provision;* - *Provide best practiceand experiences regarding linking pastoralists with financial providers from other RECs;* - *Identify successfuland failed models and the justifications for each; and* - *Identify possible pre-conditions for successful and sustainable financing models.*
3.	**Methodology**	*The research design for this survey was descriptive in nature and was intended to bring out variables relevant to the more specific aspects in order to measure the extent of the provision of financial products to pastoralists. Theoretical and conceptual framework were undertaken to guide data collection. Under the theoretical framework, literature review was done to establish facts about options for financial products that can be provided by financial institutions, based on previous research findings. The information from literature review assisted in the development of tools for conducting key informant interviews (KIIs) and Focus Group Discussions (FGDs)in the field. In order to ensureexhaustive data collection, Market and Value Chain Analysis for financial service inclusion was used in the development of the tools. Under the conceptual framework, supply and demand of financial products were postulated. The supply side targeted the financial service providers and key informants while the demand side targeted the pastoralistbeneficiaries. A participatory approach involving consultation with the project team members within the three countries was used. Inorder to guide the whole process in a step by step manner, the Strategic Design Model Framework (SDMF) was used. The population and sample size were determined after thorough literature review and consultation with the RPLRP coordinator and team leaders within the three countries and selected key informants. The data collected wasanalyzed usingdescriptive statistics based on the consensus of the FGD and key informants opinion. The analysis was done according to the more specific structured set of questions that addressed the TOR.*

4.	**Findings-current financial products, gaps, and models in Ethiopia**	*From both the supply-side and demand-side respondents,the following financial products and gaps were confirmed to exist in Ethiopia:* ***1. Savings financial products:*** *Findings within the region confirmed that savings services were provided by financial institutions. However, most financial institutions fail to mobilize savings within the rural areas where herders live and marketplaces where theysell their livestock to traders. Moreover, most financial institutions provide savings services without suitable tailor-made financial products to mobile herdersin search of pasture and water.* ***2. Credit financial products****: It was established that there are credit facilities extended to the customers of financial institutions. However, most financial institutions provide credit facilities without following the Islamic Law (Sharia Law), and yet some of the pastoralists are Muslims who strictly follow the Sharia Law. Therefore, financial institutions available are not attractive tolivestock herders and tradersbecause they charge* ***interest on credit,****contrary to the prescription of Sharia Law.* ***3. Credit Cards financial products:*** *Credit cards are widely used by non-Muslim pastoralist playersin the livestock upper value chain. The [Muslim]herders are not aware about the use of credit cards.* ***4. Debit Cards financial products:*** *Debit cards are widely used by non-Muslim pastoralists in the upper livestock value chain. The [Muslim] herders are not aware about the use of credit cards because a majority of them do not even have bank or savings accounts.* ***5. Automated Teller Machines (ATMS):*** *The findings discovered that ATMs are found in town centres within pastoralist areas. However, users of ATMs are the upper side of the livestock value chain and not the herders.* ***6. Insurance financial products:*** *Insurance services for the herders were discovered to be under trial within the project region. However, interaction with the herders revealed that, they did not know about the presence of such insurance services.* ***7. Stock Market as a financial product:*** *It was discovered that the pastoralists, especially the upper side of livestock value chain such as the exporters and slaughter house operators could enjoy saving their money in stock markets and receive dividends and capital appreciation. This was not discovered among the herders.* ***8. Treasury or Debt instruments****: It was discovered that the pastoralists especially, the upper side of livestock value chain such as exporters, ranchers and slaughter house operators could enjoy saving their money in treasury bills and receive dividends and capital appreciation. This was not discovered among the herders.* ***9. Wealth Management****: The field work discovered that banks and micro finance institutions engage in high-level professional services that combine financial and investment advice, accounting and tax services, retirement planning and legal or estate planning for one set fee.* ***10. Informal financial services:*** *This involves the provision of informal financial servicesto the pastoralists by friends, family members and informal groups. The findings established that the provision of informal financial services was very common amongst the herders and low amongst the players in the upper side of livestock value chain. These services should be strengthened to become formal associations.* ***11. Mobile banking:*** *The findings established that mobile banking can be used for deposits and withdrawals using mobile phones. Deposits and withdrawals can also be done through mobile phones to and from the banks respectively. Further, it was discovered that there is limited use of mobile banking amongst the herders but, high usage by the players in the upper side of livestock value chain.*

		12. Internet Banking: *This kind of financial service remained dormant among all the pastoralists interviewed. The key informants also confirmed that internet banking was not offered to the pastoralists.* ***13. Agent banking:*** *It was discovered that agent banking had tried to venture within the pastoral areas but, because of poor road infrastructure and poor mobile phone network within the rural pastoral areas, and high insecurity in such areas asMoroto to Amudat areas in Uganda, Turkana-Lokiriama, Marsabit and West Pokot in Kenya, and Semera region in Ethiopia.* ***14. Foreign Exchange:*** *Foreign exchange services are found within town areas in the project region, offered by commercial banks and foreign exchange bureaus. However, only the upper livestock value chain actors, but not the lower livestock value chain actorsuse Forex services.* ***15. Common Currency:*** *It was found out that there was no common currency within cross border markets which can assist in smooth transactions among the livestock value chain actors. However, there is a prospect within the region through the initiative of Africa Union to have a common Currency within selected Regional Economic Integrations.* **Financial Models found in Ethiopia Pastoral Areas:** ***1.****Commercial banks Model which offers such products savings, van-based mobile banking, loan provision, ATMs, interest-free banking, and mobile banking through HelloCash and SendWave as well as remittances.* ***2.****Micro-Finance Institutions Model which offers products such as savings services, loan products, remittances, fund management, and agent network.* ***3.****Co-operative/SACCO Model whoseFinancial products include Savings and Loans.* ***4.****Informal Associations/Village Savings and Lending Associations/ Family, Friends and sale of own livestock Model which offers savings and loan products.* ***5.****Insurance Model is being considered but not yet implemented. It offers savings through payment of premiums and reimbursement in case of loss of insured assets.* ***6.****Grants from various stakeholders Model offers Free financial support or Revolving Loan Fund.*
5.	**Challenges that hinder pastoralists from getting financial support in Ethiopia**	Hindrances: Poor infrastructure, security and network problems; Financial institutions fear the risk of loan repayment defaultby pastoralists, but especially the herders; Pastoralists' negative attitude towards the formation of SACCOs, a model which is favoured by financial institutions for purposes of advancing credit; High employee turnover because of hardship within pastoralist rural areas where herders live; Financial products are only provided in highland areas because of high rate of repayment and low rate of default; High financial illiteracy among pastoralists to the extent that they cannot keep simple records of financial transactions; Lack of appropriate technical knowledgeon how to fatten their livestock and how to determine the appropriate time to sell their livestock for high returns which can enable themservice their loans comfortably; Cultural attachment to livestock, therefore cannot sell livestock to repay loans advanced to them; Geographical barriers and poor terrain coupled with far distances, therefore, financial institutions find it difficult to reach the unbankable pastoralists;

		Communal ownership of land by the pastoralists, hence the difficulty to have collateral to secure loans from financial institutions; Requirement for financial services to comply with Sharia Law, yet financial institutions are business entities hence expected to be unbiased towards all customers; *1. Pastoralists do not trust financial service providers for fear of exploitation;* *2. Lack of government incentives to enablefinancial service providers extend better terms to pastoralists;* *3. Lack of reliable information makes it difficult for financial institutions to assess the creditworthiness of pastoralists;* *4. Failure by the legal and judicial system to expedite the settlement of disputes and complaints for pastoralists;* *5. Lack of adequate capacity (human capital and expertise) within financial institutions to satisfy thefinancial products needs of pastoralists;* *6. Stiff competitionfaced by formalfinancial institutionsfrominformal financial services.*
6.	**Findings-current financial products, gaps, and models in Kenya**	*The financial products and gaps that exist in Kenya are the same with those in Ethiopia.* *The findings also established that the following models are found in Kenyan pastoral areas:* *1. Commercial banks model (Products offered under this model are savings, safe boxes, loans provision, ATMs, interest free banking, and mobile banking through M-PESA);* *2. Micro-Finance Institutions model (Products offered under this model are savings services, loan products, transfer, insurance, M-PESA services, and agent network);* *3. Co-operative/SACCO model (Financial products offered by Cooperatives include Savings and loan financial products);* *4. Informal Associations/VSLA/ Family,Friends and Sale of own livestock model (Financial products offered are savings and loan products);* *5. Insurance model being considered but not yet implemented (Savings in terms of premium and reimbursement in case of loss of what is insured);* *6. Grants from various stakeholders model (Financial product offered are Free financial support or Revolving Loan Fund).*
7.	**Challenges that hinder pastoralists from getting financial support in Kenya**	*The factors that hinder pastoralists from getting financial support in Kenya are similar to that of Ethiopia.*
8.	**Findings-current financial products, gaps, and models in Uganda**	*The financial products and gaps in Uganda are the same as those found in Ethiopia. The only difference is that in Ethiopia there is mobile banking through HelloCash and Sendwave. In Uganda, this is still being considered through MTN in partnership with Telecom.* *However, additional specific needs for pastoralists in Uganda which are similar to cases in Ethiopia and Kenya are presented below based on interaction with stakeholders during the project sensitization meeting in Kotido and other key informants' opinions.*

		1. Mobile banking and agency services are lacking within the region; *2. Insurance services both for herders and cattle is lacking. There are no insurance companies around. The trial by ILRI is not known to the pastoralists;* *3. Finance is required for value addition in order for livestock and livestock products to fetch high prices in the market;* *4. Credits for livestock reproduction centres in order to provide alternative breeds to the locals;* *5. Credits for the establishment of processing industries;* *6. Credits for development of the upper side of the livestock value chain such us domestic and export marketing;* *7. Innovative distribution mechanisms for financial services (branchless banking) which should encompass mobile money (mobile phone-based payment services) as well as agent banking (banking transactions through third parties) should be introduced within the pastoral regions.* *8. Finance needed to purchase tsetse fly control kits;* *9. Money is needed for intense trainings on disease control;* *10. Transport needed to reach hard to reach areas for surveillance. Lack of community roads hinders extension of veterinary services to the villages;* *11. There are few cattle dips. For example, in the whole of Amudat district, only one cattle dip is functioning;* *12. Cold chains to control livestock vaccines and meat* *13. Short term agricultural loans for farmers because the community has embarked on crop farming as alternative livelihood;* *14. Capital is needed to establish a leather tanneryfor raw hides and skins.* *The current financial models in Uganda are the same as in Kenya.*
9.	**Challenges that hinder pastoralists from getting financial support in Uganda**	*The challenges that hinder pastoralists from getting financial support in Uganda are similarthose in Ethiopia. Moreover in Uganda, mobile banking services have not been made possible because MTN is still in the process of drawing up an MOU with Telecom.*
10.	**Conclusions**	*The financing models in support of pastoralists in the project operational areas in Kenya, Uganda and Ethiopia) are commercial banks, MFIs, SACCOs, grants, insurance, VSLAs, Family and Friends contributions as well as sale of livestock to get profit to buy additional livestock. Each model has strengths and weaknesses. For the sustainability of each model,it is important to implement the suggested solutions. However, the Cooperatives/SACCO model was found to be the most sustainable in providing financial services to pastoralists. Therefore, the recommended financial model in this document is the pro-poor model which should be used to empower pastoralists. The Cooperatives/SACCO model is mostly successful and preferred by financial institutions within pastoral areas and therefore it should be promoted. On the other hand, the most failed models include commercial banks and grants models. There are several financial gaps and challenges within the region which should be addressed in order for financial products to reach pastoralists.*

<table>
<tr>
<td>11.</td>
<td>Recommendations for Ethiopia</td>
<td>
A. It is recommended that financial institutions should bridge the financial gaps for pastoralists and herders. The financial gaps exist in the form of:
<table>
<tr>
<th>Recommended for immediate attention for all actors in livestock value chain which still remain as gaps in financial service provision</th>
<th>Recommended for long term attention for herders, but immediate attention for actors in the upper side of the value chain</th>
</tr>
<tr>
<td>Savings financial products
Credit financial products
Mobile banking
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<td>Stock Market as a financial product
Treasury or Debt instruments
Wealth Management
Credit Cards financial products
Debit Cards financial products
Automated Teller Machines (ATMS)</td>
</tr>
</table>
B. Recommendations for strengthening each financial model in order for them to become sustainable should be implemented.
C. Apart from bridging the identified financial gaps and implementing the suggested ways in which each financial model should be strengthened in order for them to become sustainable, the following are additionalrecommendations for Ethiopia:
1. The government should incentivise financial service providers to offer affordable financial services to pastoralists. Such incentives should includetax waivers for financial products exclusivelyextended to pastoralists.
2. Sensitize government officers to effectively promote and support cooperatives.
3. Improve infrastructure upto village areas to assist financial service providers to reach pastoralists.
4. Capacity building in business management to enable pastoralists to develop knowledge and skills in financial management.
5. MFIs and SACCOs should be allowed to be involved in Revolving Loan Fund.
6. Financial support from any development partner should cover the upper side of livestock value chain as well as take a multi-sectoral response approach.
7. Mapping 3Ws in order to establish thefinancial support extended to pastoralists in order to avoid duplication of efforts.
8. Financial support to train pastoralists about Certification of their livestock products, with specific focus on slaughter houses, exporters and butchers.
9. Development partners to assist in purchasing crop production inputs for pastoralists who have shown interest in crop production.
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</table>

12.	**Recommendations for Kenya**	*Apart from bridging the financial gaps and implementing suggested ways in which each financial model should be strengthened in order to become sustainable, the following are additional recommendations for Kenya:* *1. There is need to develop County Cooperatives Act and/or Policy to assist in strengthening cooperatives in pastoral areas at County level.* *2. Carry out intense sensitization about financial products.* *3. Improve infrastructure such as roads and communication network in pastoralists' areas.* *4. Harmonise market days for cross border areas in order to make it easier for financial service providers to mobilize huge savings within the markets.* *5. Create alternativecollateral securities for pastoralists, such as guarantors.* *6. Ease market access outside the local market for better prices.* *7. Update of 3Ws to establish financial support provision already extended to pastoralists.* *8. Mobilise financial grants support to cover the upper side of the livestock value chain.* *9. Mobilise financial support for capacity building on business management.* *10. There should be financial support for improved infrastructure.* *11. Establishment of Trade agreement between Kenya and Uganda.*
13.	**Recommendations for Uganda**	*Apart from bridging the financial gaps and implementing suggested ways in which each financial model should be strengthened to become sustainable, the recommendations for Uganda aresimilar to Kenya.*
14.	**Suggestions for further study**	*1. A study should be carried out to establish how pastoralists would perceive Risk Contingent Credit (RCC) as a weather index insurance cover for their livestock and livestock products within the project region . The specific concern is farmers' financial understanding of how RCC pays indemnities and relates to loan repayment, sensitivities to interest rate premiums and potential errors arising from spatial basis risk.* *2. Research should be conducted aimed at prioritizing financial support within each region involving community voice. Community participation in prioritizing financial assistance should be the key step to assisting pastoralists so that there is ownership about the whole process of financial product delivery.* *3. Research should be done on areas of combined financial participation by the three Countries. The aim is to establish what each country should be able to participate in and magnitude of support required from each country based on economic benefit perceived.* *4. Research should be conducted to make recommendations on how to harmonize policies affecting the delivery of financial products topastoralists. Such policies should be similar policies forpastoralists across counties because of their mobility.*

01

Introduction

Pastoralists range from agro-pastoralists, who are largely sedentary, combining livestock and crop production, to trans-humant who maintain a home base and a migratorysatellite herd in search for water and pasture, depending on the harshness of the environment as need arises. Agro-pastoralists are settled pastoralists who cultivate sufficient areas to feed their families from their own crop production. Both pastoral and agro-pastoral systems exist in the drylands, often engaging in similar opportunistic strategies to address similar constraints imposed by the risky environments that they share. While livestock is the valued property, their herds are on average smaller than other pastoral systems, possibly because they no longer solely rely on livestock, and depend on a finite grazing area around their village which can be reached within a day.

A financial institution (FI) is a company engaged in the business of dealing with monetary transactions such as deposits, loans, investments and currency exchange. Financial institutions encompass a broad range of business operations within the financial services sector, including banks, trust companies, insurance companies, and brokerage firms or investment dealers. Virtually everyone living in a developed economy has an ongoing or at least periodic need for the services of financial institutions.

According to the World Bank Making Finance Work for Africa, 2011, financial institutions offer a wide range of products and services for individual and commercial clients. The specific services offered vary widely between different types of financial institutions. There are generally four types of financial institutions:

1. Banks and similar business entities, such as thrifts or credit unions, offer the most commonly recognized and frequently used financial services such as: checking and savings accounts, certificates of deposit (CDs), home mortgages, and other types of loans for retail and commercial customers. Through means such as credit cards, wire transfers, letters of credit and currency exchange, banks act as payment agents, facilitating financial transactions between consumers and businesses or between companies.
2. Investment banks specialize in providing services designed to facilitate business operations, such as capital expenditure financing and equity offerings. They also commonly offer brokerage services for investors, act as market makers for trading exchanges, and manage mergers, acquisitions and other corporate restructurings.
3. Insurance companies are among the most familiar non-bank financial institutions. Providing insurance, whether for individuals or corporations, is one of the oldest form of financial services. Protection of assets such as livestock and protection against financial risk, secured through insurance products, is an essential service that facilitates individual and corporate

investments that fuel economic growth. The insurance market in Africa is under-developed. Apart from South Africa, Namibia and Mauritius, all other countries have very low penetration ratios. This is mainly because most Africans are still too poor to afford insurance. However, growth prospects are substantial, thanks to rising incomes, increased participation by foreign companies, and more innovative insurance products.

4. Investment companies and brokerages such as Stock Exchange (for example in Kenya the Nairobi Stock Exchange-NSE), mutual funds,Exchange-Traded Fund (ETF)/Exchange Bureaus and investments, specialize in providing investment services that include wealth management and financial advisory services. They also provide access to investment products that may range from stocks and bonds all the way to lesser-known alternative investments, such as hedge funds and private equity investments.

Pastoralists require financial services which can help them manage their finance-related problems in a well-organized manner and therefore eliminate the worry in their lives. Given below are the various types of financial services which pastoralists can expect to get from financial institutions:

1. **Savings services:** This is done by commercial banks and deposit taking micro finance institutions. A commercial bank can provide various financial services such as accepting deposits and issuing loans. Commercial bank customers can take advantage of a range of investment products that commercial banks offer, like savings accounts and certificates of deposits. Under this type of financial service, pastoralists can deposit their money andearn return in the form of interest, aswell as obtain loans by paying interest to the bank periodically. The accounts which can be opened for customers may vary from one financial institution to another, such as; Current Accounts, Savings Accounts, Fixed Deposit Accounts, Foreign Currency Accounts, Children Accounts, and Student Accounts, among others.
2. **Loans/Credit:** Loans are provided by financial institutions where pastoralists may have financial deficits. Loans normally attract interest therefore, when applying for a loan, applicants need to understand that repayments to the lending financial institution will exceed the principal amount loaned due tothe interest charged. Loans issued by financial institutions vary in nature, ranging from business loans to auto and mortgageloans.
3. **Credit Cards:** This is a vehicle to access financial services offered by financial institutions to customers with bank accounts. A credit card allows account holders to borrow money from his bank directly and/orpurchase goods and services as long as the money is paid within allowable period under stated credit terms. Normally, penalties are charged when the allowable grace periodlapses. The money is then recovered through their bank accounts under agreed terms. Below is an exhibit of credit and debit cards.

4. **Debit Cards:** This is a card which can be used instead of cash when making purchases. The user only spends money available in their bank account. In such acase,a debit cardholder does not need to withdraw money from the bank in order to do purchases but uses the card in the place of the cash available in their bank account. Debit cards havewidely replaced the use of cheques and cash when making transactions. Debit cards can also be used at ATMs. Below is an exhibit of a debit card

5. **Automated Teller Machines (ATMs):** This is a PIN based service which enablesthe holdertowithdraw money from their bank accounts at a cash dispensing machine by entering a Personal Identification Number (PIN). Below is an ATM machine where both credit and debit cards are used. ATM machines are electronically connected to banksthrough the use of internet and telephone services.

6. **Insurance services:** Insurance services are as many as any risk that can be perceived, ranging from life, home, vehicle, travel, theft, weather, accident, medicalcrop andlivestock coversamong others. By using this type of financial service, pastoralists get peace of mind as one can buy life, fire, health or generalinsurance policies or insure their cropsand livestockagainst drought, which ensures that pastoralists get their money back in the event of any mishap.
7. **Stock Market:** In this case, pastoralists can invest their funds into the stock market where they can get dividends and also capital appreciation if they make right investment decisions. Return from equity markets are much greater than that of fixed deposits parked in banks. This option can be used by pastoralists when they sell or addtheir livestock in future.
8. **Treasury or Debt instruments:** Under this financial service, pastoralists can invest money into government bonds/treasury bills and also debt instruments of private and public firms.

9. **Wealth Management:** There are many wealth management firms which offer advisory services on how to diversify one's investmentportfolioby usingsuch vehiclesas commodity assets, derivatives and money marketsin order to generatereturns for their clients. Pastoralists can also take advantage of such services for their livestock and livestock products.

10. **Microfinance in the IGAD Region:** Microfinance is defined as the supply of financial services to low-income people who would normally not have access to formal financial services. It covers a broad range of financial services such as savings, loans, money transfers, insurance, among others. Providing the poor with access to financial services exposes them to economic opportunities. Banks in developing countries typically serve no more than 20 percent of the population, leaving the rest, among them pastoralists, to semi-formal and informal financial alternatives.

11. **Informal financial services:** Informal financial alternatives include loans from family and friends, money-lenders and traders. Such informal credits are often limited in the amounts loaned, are rigidly administered, and involve very high interest rates. The provision of sustainable economic opportunities at the grass root level, especially the provision of required financial services at competitive rates, is offered through microfinance institutions.

12. **Mobile banking:** When customers access banking services via the mobile phone, they can initiate transactions. Banks in conjunction with mobile providers normally provide mobile banking services. This includes M-PESA money services in Kenya and HelloCash in Ethiopia, besides others within the region.

13. **Agent banking:** This is the delivery of financial services outside conventional bank branches, often using non-bank retail agents as well as reliance on technology such as card readers, Point Of Sale (POS) terminal or mobile phones for realtime transaction. Agents process clients' transactions on behalf of the financial institution. Agents are contracted by licensed deposit taking microfinance (DTM) institutions or mobile money operators to provide a range of financial services to customers. Agent banking provides an avenue for financial inclusion to the underserved such as pastoralists in remote rural areas.

14. **Foreign Exchange:** Foreign exchange is the conversion of one currency to another.A foreign currency exchange rate is the price of buying the currency of one country using the currency of another. Foreign exchange is one of the services offered by financial institutions. With the presence of banks offering foreign exchange bureaus within border points, the Kenya

Shilling could easily be exchange with the Ethiopian Birr at the Moyale border, and also into Uganda shilling at the Moroto border area. .

15. **Common Currency:** A common currency involves two or more countries sharing the same currency. In suchan arrangement, it would be expected that Ethiopia, Kenya and Uganda would have a common currency which would eliminate the challenge of exchange rates. This would make trade amongst pastoralists smooth and easier at the border points. For this to happen, it will be important for countries to form economic unions and integrations.

The researcher used the table below to establish pastoralists' access, usage and quality of the above financial products.

Table 1: Access, Usage and quality of financial products

Access	Availability of formal regulated financial services, physical proximity and affordability
Usage	Actual usage of financial products, regularity, frequency and duration of time used
Quality	Products well tailored to clients' needs. Appropriate segmentation to develop the product for all income levels

Source: Adapted from Alliance for Financial Inclusion Data Working Group (2011).

1.1 Background to IGAD/RPLRP

The Intergovernmental Authority on Development (IGAD) in the Greater Horn of Africa (GHoA) is a Regional organization with the mission to assist and complement the efforts of Member States to achieve, through increased cooperation, food security and environmental protection, the promotion and maintenance of peace, security, humanitarian affairs economic cooperation and integration.

As part of its wider drought resilience building initiative in the Horn of Africa, IGAD has secured financial support from the World Bank to execute a Regional project called Regional Pastoral Livelihoods Resilience Project (RPLRP). The project is being undertaken in three IGAD Member States namelyKenya, Ethiopia and Uganda, under the general coordination of IGAD, within the framework of the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI), and in alignment with the Regional Programming Paper (RPP) and the respective Country Programming Papers (CPPs).

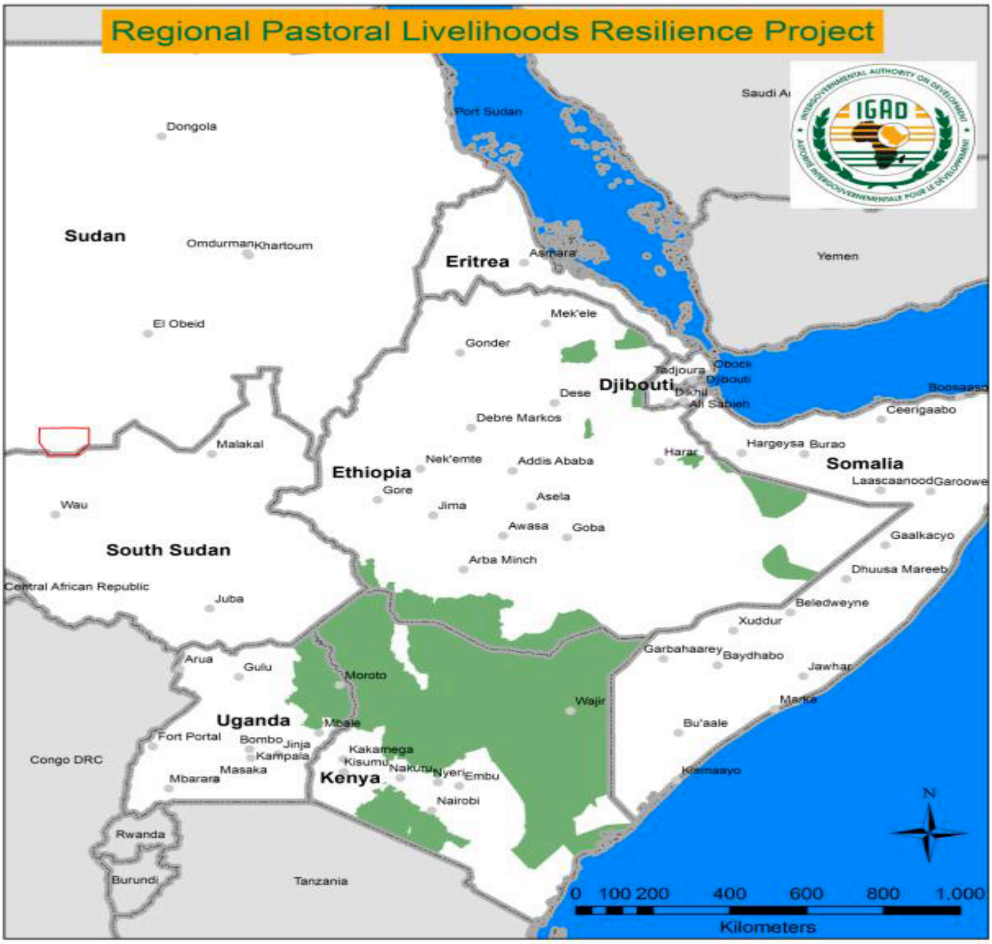
The Project objectives are to enhance livelihood resilience of pastoral and agro-pastoral communities in cross-border drought prone areas of selected countries to improve their capacity and to respond promptly and effectively to an eligible crisis or emergency. The IGAD RPLRP focuses on harmonizing Regional polices, scaling up good practices across the countries, and facilitating discussions on issues related to cross-border activities. The parallel RPLRP projects in the three countries converge at IGAD level, giving the project a regional context.

The program has five main components which are similar across the three countries and IGAD. The five project components (PC) are: PC1, Natural Resources Management: aims at enhancing sustainable management and secures access tonatural resources (water and pasture) by pastoral and agro-pastoral communities,with trans-boundary significance. PC2, Market Access and Trade: aims at improving market access ofpastoralists and agro-pastoralists to intra-regional and international markets for livestock and livestock products. PC3, Livelihood Support: aims at enhancing the livelihoods of pastoralists and agro-pastoralist communities. PC4, Pastoral Risk Management: aims at enhancing drought-related hazards and preparedness, prevention and response at the national and regional levels. PC5, Project Management and Institutional Support: focuses on all aspects related to overall project management, including monitoring, safeguards and mitigation measures identified in the different frameworks disclosed, and institutional strengthening at national and Regional levels for drought resilience. Under Component 2 and Sub component 2.2 of the IGAD RPLRP, the project is expected to support livestock value chain and improvement of livestock mobility and trade. One of the expected outputs under this sub-component is regional trade policies, standards harmonization and simplification. Thus, IGAD RPLRP engaged a competent individual consultant to conduct a review of cross-border trade policies and bilateral trade agreements with emphasis on livestock trade; and identify challenges to implementation of IGAD's minimum integration plan. The project is being undertaken in three IGAD Member States of Kenya, Ethiopia and Uganda under the general coordination of IGAD, within the framework of the IGAD Drought Disaster Resilience and Sustainability Initiative (IDDRSI) and in alignment with the Regional Programming Paper (RPP) and the respective Country Programming Papers (CPPs). The project region is presented in the map below.

1.2 Objective of the Study

The general objective of the task was to undertake a stock takingstudy and gap-analysis of financial products for pastoral areas. Specifically, the study aimed at identifying and documenting the financing models that support pastoralists and agro-pastoralists in the project operational areas, including identifying strengths and weaknesses of each model. In addition, challenges and hindrances for pastoralists'and agro-pastoralists'access to financial products were also to be identified and a suitable modelto deliver financial products to the pastoralists suggested.

Figure 1: RPLRP Projet Region



02

Methodology

2.1 Overall Methodology

In carrying out this task, the consultant employed the process of participatory approach. The approach was interactive, facilitative, collaborative and all-inclusive. Through this approach, the consultant worked closely with the client, key informants, partners, collaborators and beneficiaries of the financial stock-taking component. Specifically, close consultations were kept with IGAD RPLRP Coordinator and Technical Supervisor of ICPALD, Head of Drylands Development and Climate Change Adaptation, the RPLRP National Team Leaders of Ethiopia, Kenya and Uganda, and line Ministries, NGOs and INGOs in Ethiopia, Kenya, and Uganda . This approach yielded better results in terms of the quality of data input and relevance of conclusions reached. The approach promoted ownership of the process of the consultancy services and its outcome by the partners, collaborators, stakeholders and beneficiaries by getting their participation, commitment, indulgences and support at all times during the exercise. It was therefore, the overarching goal of the consultancy which influenced the choice of this overall methodology and methods.

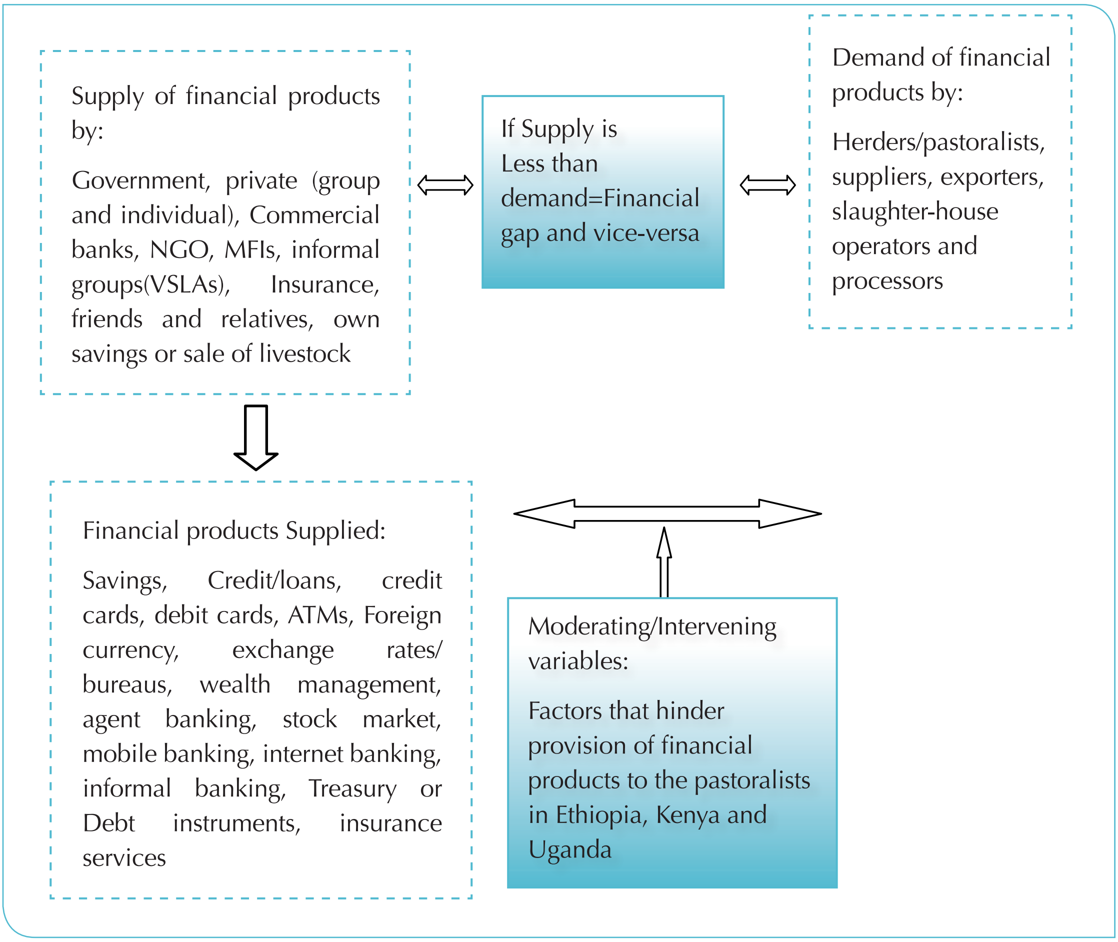
According to World Bank's Making Finance Work for Africa (2011), financial institutions offer a wide range of financial products which also vary from one financial institution to another. These financial institutions offer financial products based on the needs of their respective potential clients. Pastoral areas in Africa are still underserved financially (World Bank, 2010). This means that pastoralists need financial products in order to manage their economic activities.

2.2 Conceptual Framework for the Task

In order to undertake a stock-take of financial services and suggest possible linkagesbetween pastoralists and financial service providers within the three IGAD countries, the consultant evaluated all the possible providers of financial services within the target region of Ethiopia, Kenya, and Uganda. This formed the supply side of the research which included; Government, private (group and individual), commercial banks, NGO, MFIs, informal groups such as Village Savings and Lending Associations (VSLAs), friends and relatives, own savings or sale of livestock. The demand side of the research looked at the users or consumers of financial services who included; herders/pastoralists, suppliers, exporters, slaughterhouse operators and processors.

The idea was to establish a matching principle between financial service suppliers and the demand of financial services. Financial services were to be established within each of the targeted IGAD Member States. Exhaustive discussions, conclusions and recommendations were to be made andbest practices incorporated with the beneficiaries and key informants. Figure 2 below demonstrates the conceptual framework for supply and demand matching principle for financial needs within pastoral areas.If the supply of financial products by financial institutions is less than demand, it creates a financial gap and if supply is greater than demand, there is no financial gap but abundance of financial products extended to pastoralists. The moderating/intervening variables are the factors that hinder the provision of financial products to pastoralists in Ethiopia, Kenya and Uganda.

Figure 2: Conceptual framework for Supply and demand

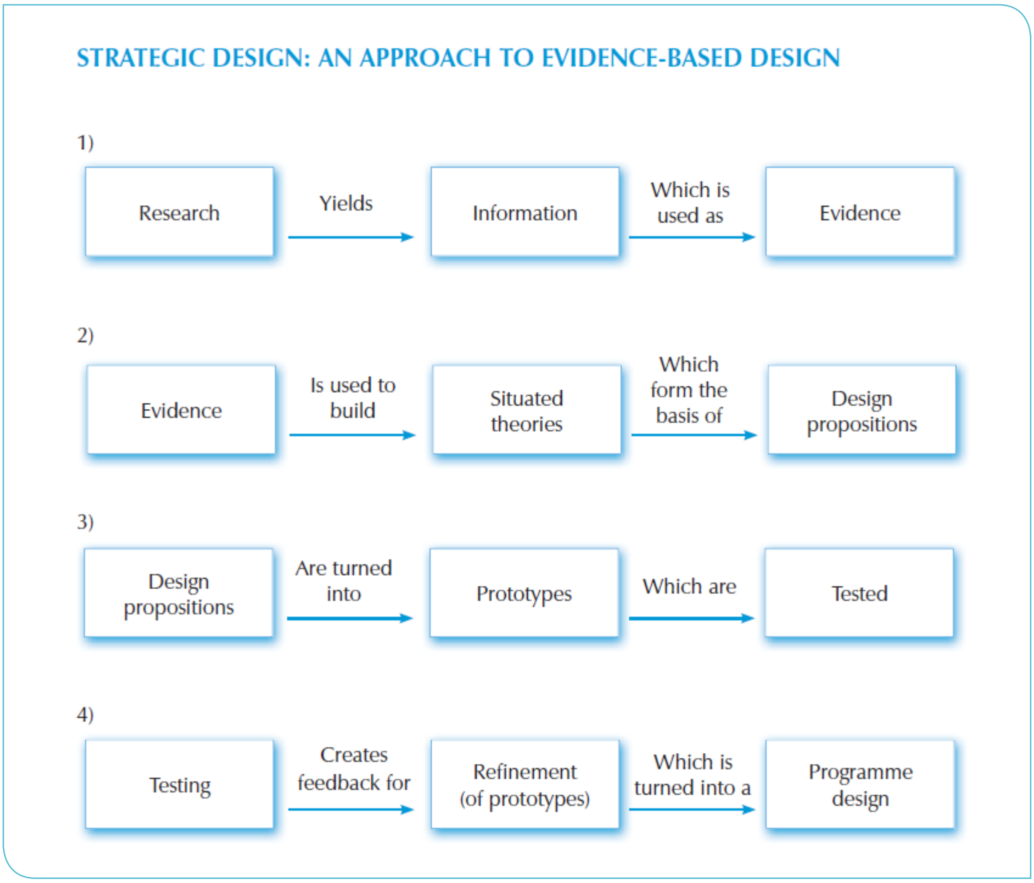


Source: Author (2016)

2.3 Financial Services Stock-Taking exercise

The framework for the stock taking study used the Strategic Design Model Framework for Evidence-Based Programme/Project design (Rudnick, 2012). However, the model only guided the research upto design proposition in order to establish suitable financial models for pastoralists. Prototypes and other steps can be developed immediately after the acceptance ofthis research. An overview of how the model steps guided the study and can guide the implementation of findings thereafter is presented below.

Figure 3: Strategic Design: An approach to evidence -based design



Step1:

The first step of this study framework involved literature review of secondary data by the consultant. The review yielded information which is presented in thisstudy report. The yielded information was to be treated just as "information" and not evidence until proven through field research. Evidence is information that is used to support or refute a hypothesis, theory or Claim (Rudnick, 2012). Therefore, the field based study produced evidence supporting or refuting information yielded and also, filled in the missing knowledge gaps about financial services within the IGAD targeted countries.

Step 2:

The evidence produced from the field study assisted in building situated theories that are actions that if implemented, result in achieving desired goals-that is, establishing financial services and gaps. These postulated theories would be alive to existing local realities to develop plans based on the evidence collected in step 1 to ensure higher chances of their success rate within the targeted IGAD countries.

It was also imperative to explain Steps 3 and 4 in spite of their being outside the scope of the terms of reference for this study. This would be critical if the client would wish to take a step further to implement programmes/projects that would assist pastoralist communities to access financial services based on findings of the study.

Step 3:

The design propositions would then be turned into prototypes. Prototypes are basic frames and can be permutated into different forms. Prototypes would be then tested on a pilot basis with pastoralist communities. Here, the client may want to test the use of the suggested financial services model based on the gaps identified in this report. This would only be done if the client can work with financial service providers to sensitize pastoralists to adoptsuch financial services.

Step 4:

Feedback from testing would be used to improve the prototypes which are then used to design the programme/project that is rolled out. Iterations are performed between prototype and testing until a perfect design is attained. For example, if financial gaps are found, financial service providers should offer solutions that benefit pastoralists while taking into consideration the unique needs of the customers when determining the eligibility criteria. The implementation should be done in a manner that will yield profitable results to the pastoral community.

In summary, in the stock taking exercise, the plan was to carry out an investigation that would provide empirical evidence on the variables of identified financial services in the targeted IGAD Countries. Standardized data was used from the target population through purposive sampling method during the field study.

2.4 Data collection tools and techniques

Three main data collection techniques used were:

1. Literature review/desk study
2. Key informant interviews (KII)
3. Focus group discussions (FGD) and community group discussions

Literature Review/Desk Study:

As a first step, the consultant acquired from the client secondary sources withrelevant information about financial products currently being extended to pastoralists(including savings, mobile banking, credit/loans and remittances), challenges such as illiteracy, culturalpractices, and migration, etc) that hindered pastoralists from accessing financial services. A second round of literature review was conducted in order to develop the Inception Report and tools forfield data collection. A third round of literature review was carried out to assist in the interpretation and discussion of field study findings. This was about financial institutions and the financial services they offer to pastoralists as well as demand side information from herders/pastoralists, suppliers, exporters, slaughterhouse operators and processors. The literature reviewed helped to collect information and enlist participants in Key Informant Interviews (KIIs), Focus Group Discussions (FGDs) and Community Group Discussions (CGDs);supply and demand side of financial products, and cchallenges that hinder pastoralists from accessing financial services.

Key Informant Interviews (KIIs):

KIIs within the three countries were conducted and involved RPLRP project team leaders and coordinators, Ministry officials such as cooperatives and agriculture, and local leaders. This was intendedto triangulate information gathered in step 1 and 2 of the strategic design model about the various demand and supply side respondents to be visited. Information gathered from key informants was to help make judgment on information from supply and demand side respondents. In addition, the KIIs also provided valuable information about current issues regarding the provision of financial services to pastoralists. Therefore, the KIIs provided supply anddemand side information of financial products, currentand proposed financial models as well as challenges that hinder pastoralists from getting financial support.

Focus Group Discussions (FGDs) and Community Group Discussions (CGDs):

These wereconducted during field visits to collect supply and demand side information onfinancial services, gaps, models and challenges within the targeted cross-border areas. .

In Kenya,piloting took place on the first day of the field visitand involved interviews with selected respondents. This helped to determinevalidity and reliability of data collection tools, and introduce the consultant to the more critical aspects of financial services and gaps among pastoralist communities. Further, it helped to conceptualize the research planning,respondents to the questionnaire, and timing of activities set out in the detailed workplan.

2.4 Market and Value Chain Analysis for financial service inclusion

In order to establish financial services provided to pastoralists, the analysis took an exploratory cross-sectional approach applying various data collection methodologies that included literature review, and use of structured and unstructured data collection tools across the livestock value chain,with the aim of determining the required financial services along the value chain. Schematically, for example, the core processes and activities across the livestock value chain is presented below. The question was, "What financial services are provided to pastoralists across the value chain?"

Figure 4: Livestock value chain approach by Legese G.

2.5 Population and sample of the study

In order to reach a distinct conclusion and make inferences, purposive sampling was applied on the total population of financial service providers and pastoralists within the three IGAD countries (Ethiopia, Kenya, and Uganda), based on the level of perceived information on financial services. For pastoralists, the consultant met individual and organized groups within the three countries for Focus Group Discussions.

This was based on the financial institutions with established branches or offering mobile banking services within the project areas and pastoralists who could provide information about their financial needs.

This sampling method was relevant for this study because it relied on experience, ingenuity and /or previous research and findings to deliberately obtain units of analysis in such a way that the sample selected would be regarded as being representative of the relevant population to provide adequate information about existing financial products. In addition, this sampling technique was chosen because the respondents were considered to hold positions and roles that would be critical and crucial about stock taking of financial services. This was representative as the samples arrived at were considered homogenous based on the variables relevant for the stock taking exercise. Inferences for results on data collected were made possible for replication within IGAD cross border areas where information was not be readily available.

The population and sample were reached after a thorough literature review and consultation with RPLRP project teams within the three countries and key selected informants. This provided the specific key financial institutions which were currently / had intention to offer financial services to the pastoralists and pastoralists who could be visited. The table below shows the various categories of respondents and regions visited. The information gathered provided data about the financial services provided to the pastoralists and financial gaps.

Table 2: Sample of respondents and regions sampled

Country	Regions Visited	Key Informants	Respondents (Supply Side)	Respondents (Demand Side)	Markets Visited
Ethiopia	Ethiopia Somali region-Jijiga area, Afar region-Semera area and Addis Ababa	RPLRP project team leaders and coordinators, Ministry officials such as cooperatives and agriculture, and local leaders.	MFIs, Commercial banks and NGOs, SACCOs, PSACCOs, Government Line Ministries	Individuals/ FGD of Herders/ pastoralists, suppliers, exporters, slaughter house operators, and processors	

Kenya	Turkana, West Pokot, Marsabit, and Moyale regions	RPLRP project team leaders and coordinators, Ministry officials such as cooperatives and agriculture, and local leaders.	MFIs, Commercial banks and NGOs, Faith based organizations, SACCOs, PSACCOs, Government Line Ministries	Individuals/ FGD of Herders/ pastoralists, suppliers, exporters, slaughter house operators, and processors	Merile, Moyale and Kishaunet Markets
Uganda	Karamoja Northern and Southern regions	RPLRP project team leaders and coordinators, Ministry officials such as cooperatives and agriculture, and local leaders.	MFIs, Commercial banks and NGOs, SACCOs, PSACCOs, Government Bureaus/Line Ministries	Individuals/ FGD of Herders/ pastoralists, suppliers, exporters, slaughter house operators, and processors	Kotido Livestock market

Note: Name of respondents and number documented under appendix section

The project covered the following areas in Ethiopia;Ethiopia Somali region, Jijiga area and Afar region. Also included is theSemera area which formed representation of the project operating areas in six districts namely; Aware, Shekosh, Moyale, Dhuhun, Shilabo, and Warder. In Semera area, a FGD with 15 members of Midra SACCO 15 memberswas conducted. The members included traders, suppliers, herders, Butchers, small scale entrepreneurs. Another FGD was conducted with 16 members from Semera Consumer Co-operative. They comprised of16 memberstraders, suppliers, herders, and smallscale entrepreneurs. In Jijiga and Semera areaa total of 15 Key informants were contacted, 15 from different institutions such as Government offices, projects, Commercial Banks, MFIs, NGOs, exporters and slaughter houses.

In Kenya, the findings were based on data collected from cross border RPLRP areas of Marsabit and stretching all the way to Moyale, Turkana, and West Pokot regions. These were considered to be representative enough for other project Counties such as Wajir, Mandera, Baringo, Laikipia, Samburu, Isiolo, Garissa, Tana River, Lamu, Kajiado, and Narok. In Moyale town of Marsabit County, for example, a Community Discussion was held with 52 people comprising of herders, traders, suppliers, exporters, slaughterhouse operators, butchers, small scale traders, and VSLA representatives. In Lokiriama Location of Turkana County, a FDG was conducted with six people which included butchers, traders, herders, trekkers, and suppliers. While in West Pokot County, Konyao Location another FGD was conducted with 12 people who were butchers, traders, herders, trekkers, and suppliers. The Key informants in Turkana, West Pokot, and Marsabit, had a total of 26 people from different institutions such as Government offices, project officers, Commercial Banks, MFIs, NGOs, and slaughter houses. Those who were involved were Government Officers, slaughter house operators, andexporters. Finally, three3 livestock markets namely; Merile, Moyale and Kishaunet were visited and traders and herders interviewed.

In Uganda, findings were limited to Northern Karamoja areas of Abim, Kotido Kaabong, and Southern Karamoja areas of Napak, Amudat, Nakapiripirit, Moroto. Kotido, Amudat and Moroto. The areas visited were representative enough of other project regions. Specifially, 19 key informants were contacted in Abim, Kotido, Moroto, Amudat, and Nakapiripirit. The people who werecontacted were 19 Government officers, project officers, traders, suppliers, slaughter house operators and exporters. Also included were Commercial Banks, MFIs, NGOs and SACCOs. In Kotido. a stakeholders meeting was held with 23 members such as Government Officers, project officers, slaughter house operators, exporters, and members of SACCOs, Commercial Banks, MFIs, and NGOs.

2.6 Data Analysis Method and Procedure

The data analyzed wasqualitative in nature. The analysis was done using a specific set of structured questions that addressed the TOR. Cross checking and tabulation of information from various respondents was done for each of the two categories of supply and demand sides. This was done in order to establish financial gaps of checklists in order to come up with what could provide suitable and adequate responses to the Terms of Reference.

03

Findings

3.1 Introduction

This section presents a summary of reviewed literature and findings based on field work conducted in Ethiopia, Kenya and Uganda. The summary of literature reviewed consisted offinancial products in Africa, especially in the perspective of Sub-saharan Africa and the project region. On the other hand, the fieldwork identified financial products, models, challengesand hindrances encountered by pastoralists in accessing financial products, and the posible solutions to the same.

3.2 Literature

3.2.1 Literature review-Africa

Overview

Banks and other deposit-taking institutions such as cooperatives dominate the financial sector in Sub-Saharan Africa, with regulated microfinance institutions increasingly playing an important role in expanding access to financial services to low-income earners. Nearly 59 percent of the adult population saved money in the year 2014, with 16 percent of these doing so at a formal financial institution. Conversely, approximately 41percent of the total credit is commonly obtained from family or friends, while about 6 percent comes from formal financial institutions (Gateway, 2014).

In Sub-Sahara African countries such as Ethiopia, Kenya and Uganda, the number of adults with a bank account grew from 24 percent in 2011 to 34 percent in 2014. The region leads the world in the number of mobile money accounts. While just about 2 percent of adults worldwide have a mobile money account, 12 percent of the population in Sub-Saharan Africa has an account. In Ethiopia, about 22 percent of adults had bank accounts while none of the adult population aged 15 years and above had no mobile bank account in 2014. However, formal savings and formal borrowings stood at 14 percent and 7 percent respectively, Kenya had 42 percent of account holders in 2011 which grew to 75 percent by 2014. At the same time, mobile bank account holders constituted 58 percent of the adult population, while formal savings and formal borrowings stood at 30 percent and 15 percent respectively. Uganda had 20 percent account holders in 2011 and this stood at 44 percent in 2014. However, the accounts at financial institutions stood at 28 percent while mobile bank account holders were 58 percent of the adult population. Formal savings and borrowings stood at 17 percent and 16 percent respectively (Global Findex Data, 2014). The findings imply that there is very high percentage of informal savings and borrowings resulting into formal financial gaps in terms of savings and borrowings.

Credit Facilities

Pastoralists require credit facilities as one of the financial services or products offered. This is crucial because they can use it to expand their stock and engage in livestock value chain activities as well as alternative livelihoods. Over the years, the provision of credit had been confined to the brick and mortar banking institutions. Habane (2012) & Al-Jabi (2012) noted that the primary way of distributing loans and other credit facilities were through the brick and mortar system adopted by commercial banks and other financial institutions. Nevertheless, this model was criticised for being ineffective because some of the banks' branches are located in urban centres, leading to financial exclusion especially amongst the rural population. However, banks tried to overcome these challenges by using mobile banks that were mounted on vehicles but this system still faced its own challenges due to increased costs and low uptake by customers (Al-Jabi, 2012).

Online and mobile banking

Other financial products which can be of benefit to pastoralists have also been developed by the financial institutions. For example, the advent of information technology has brought to the fore new ways of doing things and also new business models. According to AL-Jabi (2012), the development of information technology has brought to light new ways of doing things such as online banking, e-commerce and mobile banking. These innovations in the financial sector have enhanced financial inclusion, reduced transaction costs of banking and improved efficiency in the banking sector (Anyasi & Otubu, 2009). This implies that pastoralists in remote areas can immensely benefit from the application of information technology.

According to the World Bank (2010), mobile banking is defined as the provision of banking services through the use of mobile devices such as mobile phones, credit and debit cards. It is an innovation that merges telecommunication service providers and financial service providers (World Bank, 2010). Zutt (2010) defines mobile banking as the provision of electronic money accounts accessible through the mobile phone and other hand held gadgets. Undoubtedly, mobile banking has had a very positive effect on many organization's performance. Scholars such as Anyasi and Otubu (2009), Tiwari et al., (2015), Ching et al. (2011) and the World Bank (2010) have identified various benefits of mobile banking such as efficiency in the discharge of bank services, easy access to financial services, increased financial inclusion and improved profitability in the banking sector.

According to Global System Mobile Association (GSMA), mobile banking has also led to the growth of innovations in the financial services. Products such as mobile insurance, mobile savings and mobile credit are some of the innovations growing out of mobile banking (GSMA, 2014). Mobile insurance refers to the use of mobile phones to provide micro insurance products and services to the market, while mobile savings refers to the provision of savings products and services through the use of mobile phones. Mobile credit on the other hand, refers to the provision of credit services and loans to clientsin the market through the use of mobile phones (GSMA, 2014).

According to Business Monitor International (BMI), Kenyan companies seem to be more innovative in mobile banking than those in other African countries. For example, Kenyans can pay premiums via their mobile phones through platforms like M-PESA and Airtel Money. Another innovative product launched in 2009 was Kilimo Salama, where farmers can use mobile applications to insure their investments such as fertilisers and seeds againstsevere weather conditions. The Kilimo

Salama project is a partnership between the Syngenta Foundation for Sustainable Agriculture, UAP Insurance, and the telecoms operator Safaricom. It offers farmers protection against extreme weather such as drought and excessive rain even for plots as small as one acre. Pay-outs are based on how severe the insured event is, which in turn is measured by the nearest weather stations. These weather stations are part of the reason why this project is so innovative. It uses solar power and computerised gauges to send out data on rainfall levels, sunlight and temperature every 15 minutes. Every farmer who is insuredunder this program is linked to the nearest weather station. Each of the insured member should not be more than 20 kilometres away from a station. If the insurance company detects that the weather has been terribly bad in a specific region, then all farmers linked to that weather station in that region gets a pay-out without necessarily filling a claim. This saves costs for all the parties involved, particularly the insurer.

Rather than pay a premium directly to the insurance company, UAP, farmers make a contribution of about 5percent of their outputs as part of their payments to the insurance scheme. Their stockists then register and capture their insurance details and the farmer then gets an SMS notification. Since most Kenyans have access to mobile phones, this system works well. Furthermore, if there is a pay-out, then the farmers receive an M-PESA payment (that is, a mobile money transfer) on their mobile phones. This significantly reduces the cost for the insurance company, as it eliminates costs such as that of sending experts to the farms to get details of crop estimates, especially considering that the farms are small and farmers would not be able to afford extensive crop coverage.

Mobile credit

Around the world, mobile credit has grown in developing nations as opposed to the developed nations. In most developed nations, there are established financial credit systems such as credit cards and debit cards through which users can access credit (World Bank, 2014). Consequently, the growth of mobile credit in these economies is at a slower pace than in most developing nations. In Africa, there has been an exponential growth in the mobile credit business, with most countries adopting mobile credit to enhance achievement of economic goals as well as enhancing access to credit (World Bank, 2014; GSMA, 2014).

According to a report by GSMA (2014), mobile credit has grown very fast in most economies around the world. It was estimated that by the year 2014, 61 percent of the world's developing nations already had access to mobile credit. This included countries in Latin America, Asia, Europe, Middle East and the majority being in Africa. In the year 2014, there were 255 mobile credit service providers in 89 markets.

Sub Saharan Africa, contributes majority of the mobile credit services in the world. The World Bank (2014) &GSMA (2014) noted that a majority of the mobile credit activation accounts were in sub Saharan African with a total proportion of 53 percent. Nevertheless, countries in Latin America, East Asia, South Asia and Pacific nations all contributed a significant proportion of mobile credit activations in the world.

In Africa, there has been immense growth in mobile credit. According to the GSMA report (2014) and Financial Deepening Sector (FDS, 2014) report, most countries in Africa have mobile credit. In some markets such as Kenya, there has been phenomenal growth in mobile credit while in others the growth has been stifled. Nevertheless, there has been an overall growth in credit access by the population resulting from growth in mobile credit. Some of the countries with robust micro credit facilities and services include Uganda, Tanzania, Rwanda, Democratic Republic of Congo, South Africa, Namibia, Zimbabwe, Zambia, Madagascar, Nigeria, Ghana, Niger, Cameroon and Egypt.

E-Banking

In a study titled E-Banking: A case study of Askari Commercial Bank in Pakistan, Oye, Shakil & Iahad (2011) noted that the use of technology in banking had the effect of enhancing customer acquisition and customer reach in the banking sector. According to the study, the use of mobile and electronic banking led to the access of customers in areas that cannot be considered viable for establishing a new bank. In addition, Oye, Shakil & Iahad (2011) argued that the infusion of technology in service delivery in the banking sector levelled the playing ground for small and large commercial banks. Smaller banks can leverage on technology to reach out to a large number of customers unlike large banks which have extensive branch networks. This is especially true in Kenya where CBA, which is a mid-sized commercial bank in Kenya, is ranked as the largest bank by customer numbers. This is due to the delivery of services through the mobile phone in their hugely successful product M-shwari. In addition, smaller banks such as Chase Bank have leveraged on technology to reach out to the unbanked population in Kenya outwitting large banks which still focus on opening new branches to reach out new customers.

Luka & Frank (2012) in their study about "the impacts of ICT on banks: a case study of the Nigerian Banking Industry" noted that the infusion of technology in service delivery amongst Nigerian banks led to an increase in customer numbers. This was attributed to the ease of access to banking services and products by customers. In addition, banks that had adopted internet banking and mobile banking ensured that customers did not have to visit banking halls which was time consuming especially when opening new bank accounts or applying for loans. All the customer had to do was log in through the internet or the mobile phone. This has the benefit of increasing customer access levels for commercial banks in Nigeria. Furthermore, bank customers in Nigeria felt more secure and convenient to access banking services through technology as opposed to banking halls. This has been attributed to the fact that the largest bank in Kenya is a medium size bank which has leveraged on technology for financial services delivery.

Economic integration

Economic integration is an arrangement between different economic regions, marked by the reduction or elimination of trade barriers and the coordination of monetary and fiscal policies. There are many cases of economic integration in the world and trade benefits have been realized from such integrations. Below are examples:

i) **Arab Monetary Union (AMU):** the member countries are Algeria, Libya, Mauritania, Morocco, and Tunisia.

ii) **Common Market for Eastern and Southern Africa (COMESA):** This is an African Union's plan for an African-wide monetary integration which relies on the prior creation of monetary unions for existing regional economic communities. The members include Angola, Burundi, Comoros, Democratic Republic of Congo, Djibouti, Egypt, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Namibia, Rwanda, Seychelles, South Sudan, Swaziland, Uganda, Zambia, and Zimbabwe.

iii) **Economic Community of Central African States (ECCAS):** The member states are Burundi, Cameroon, Central African Republic, Chad, Democratic Republic of Congo, Equatorial Guinea, Gabon, Rwanda, and São Tomé and Príncipe.

iv) **Economic Community of West African States (ECOWAS):** The member states areBenin, Burkina Faso, Cape Verde, Côte d'Ivoire, The Gambia, Ghana, Guinea, Guinea-Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

v) **Southern African Development Community (SADC):** The member states areAngola, Botswana, Democratic Republic of Congo, Lesotho, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Swaziland, Tanzania, Zambia, and Zimbabwe. This will require the creation of a regional central bank which can be a vehicle for solving credibility problems that bedevil existing central banks.

vi) **East Africa Community (EAC):** It has established a 24 hour opening of border points within the region. It focuses on opening and creating more one stop border points in such places as Malaba, Katuna, Namanga, Busia, Gasenyi/Nemba and Isebania border points. In addition, a project on integration of financial markets has been initiated and modalities on transferability of workers' social security benefits are being negotiated.

vii) **Asia Pacific Economic Cooperation (APEC):** This is a forum of 21 Pacific Rim member economies that promote free trade throughout the Asia Pacific region. These are countries that border the Pacific Ocean such as Australia, Cambodia, China, Hong Kong, Indonesia, Laos, Malaysia, New Zealand, Papua New Guinea, the Philippines, Singapore, South Korea, Taiwan, Thailand, and Vietnam. Other countries which joined later are Bangladesh, Pakistan, Sri Lanka, Macau, Mongolia, Laos, Cambodia, Costa Rica, Colombia, Panama and Ecuador. The benefits are bringing the region closer together, reducing trade barriers and smoothing out differences in regulations to boost trade.

viii) **ASEAN Community:** It is a regional organization comprising of 10 South East Asian States. The members include; Indonesia, Singapore, Malaysia, Philippines, Thailand, Brunei, Cambodia, Laos, Myanmar and Vietnam. This integration has promoted intergovernmental cooperation and facilitates economic integration among its members. The achievements so far are; physical connectivity in terms of land, maritime and air infrastructure development, institutional connectivity in terms of transport facilitation, free flow of goods, services, investment, skilled labour and human development, social connectivity through education, culture, welfare, youth, women, rural development, and operationalization of ASEAN community.

ix) **Common Monetary Area (CMA) members:** It includes countries such as; Lesotho, Namibia, South Africa and Swaziland.

x) **Economic and Monetary Community for Central Africa (CAEMC):** members include Cameroon, Central African Republic, Chad, Republic of Congo, Equatorial Guinea and Gabon.

xi) **West African Economic and Monetary Union (WAEMU):** members are Benin, Burkina Faso, Côte d'Ivoire, Guinea-Bissau, Mali, Niger, Senegal and Togo.

3.2.2 Literature Review-Project Region

Savings and credit

Commercial banks and Micro Finance Institutions (MFIs) are believed to be pioneers in introducing modern financial services in pastoralist areas. Despite the fast growth of a number of branches in each of the three countries, their geographical distribution is uneven. Pastoral areas have negligible shares. The prime operational areas of the commercial banks are found in cities and major towns. Cash savings is one of the financial services provided to the pastoralists by commercial banks and MFIs. This enables herders to smooth uneven income and consumption streams. The income stream for herdersdependshighly on seasonal events like milk or live animal sales, and their demand for cash is also very seasonal. It is, therefore,wise to develop savings mechanisms for herders before further expanding micro-credit schemes. In fact, it is good toensure that mobilization of savings and micro-credit go hand in hand in future. Herders have little experience with banking and usually start from a position of low trust (Barton et al., 2009).

Access to these institutions is often difficult, since herders are remotely located away from conventional banks. This occurs especially during seasonal migrations. Alternatively, harsh weather may make movement impossible at just the moment when access to savings is most urgently needed (Gemtessa et al., 2001). For the same reason, the cost of making a deposit or a withdrawal may be very high in terms of herders' time. In addition, real interest rates for herders' savings must compete against the next best alternative, which is to save (invest) in live animals. Animal herds, especially small stock, may grow between15-30 percent per year, although it may be subjected to higher risk. If attractive savings packages can be provided to herders, it may result in several advantages for micro-finance institutions.

Mobilizing savings gives commercial banks and MFIs a broader and more secure base, and permits them to expand their outreach. Experience shows that the poorest households may prefer to accumulate savings before taking credit as a lower risk strategy. Given the high value of livestock, substantial amounts of capital may be successfully mobilized by a savings strategy targeting herders. For MFIs, deposits from herders may be a less volatile source of funds than government or donors. Mobilizing small-scale savings could also contribute to the sustainability of MFIs by providing cheaper funds than those from the inter-bank market. However, the high transaction costs of dealing with small deposits from herders may limit this advantage.

Attracting deposits from herders may also make commercial banks and MFIs more client-driven and responsive to the particular features of herder's livelihoods. This may also encourage them to develop a more appropriate range of products. However, the involvement of more MFIs in herder's savings mobilization may not be easy. In the first place, MFIs need to develop new ways of working with clients, possibly by involving mobile offices in some cases, and have new products that are linked to herders' seasonal cash flows. Despite this, the macro-economic climate in most countries with substantial herder populations is still not conducive for innovative banking operations, although this is improving (Johnson et al., 2011). Regulatory frameworks do not generally allow micro-credit organizations to take deposits. The management capability of MFIs will most likely need to be improved.

International experience suggests several factors that may encourage successful mobilization of small-scale savings. Economic reforms and financial sector liberalization are critical factors in this case. These are already happening within the three countries. The reputation of the savings institution is also important, since the confidence of those who save will depend on this. Pastoralists and others who save will rely on the reputation of the financial institutions before save their money.

According to Addis Ababa newspaper (December, 2013), the Commercial Bank of Ethiopia has been trying to open branches to reach the unbankable population in the pastoral areas of Ethiopia. The table below shows details of branches which were opened in the year 2013 alone by CBE.

Table 3: Bank branches opened in pastoral areas in Ethiopia

Number	Branch	District	Region	Zone/Woreda	Town
747th	Egela	Mekele	Tigray	Aleferom	Gereshusrenay
748th	Awash Arba	Adama	Afar	Ambibara	Awash Arba
749th	Batiena	Wolayita	SNNP	Hadiya	Hosahina
750th	Gesh	Wolayita	SNNP	S.Omo/Jinka	Jinka
751th	Bulku	Wolayita	SNNP	GamoGofa/Gezie Gofa	Bulku

Commercial banks and micro-credit schemes have grown rapidly in pastoral areas of Kenya and Uganda. However, high interest rates on loans to pastoralists are due to a combination of low levels of deposit, shortage of funds, high lending transaction costs, and a perception by banks that lending to small clients is risky. Most commercial micro-credit schemes target small and established traders and farmers. They are not targeted at herders or the poor for production activities (Amha, 2008). Loan conditions such as short loan duration, high interest rates, and a need for collateral are not attractive to herders. Some institutions are experimenting with innovative products for clients other than farmers, traders and urban entrepreneurs.

The only area where micro-credit has been made available on any scale to herders is restocking after catastrophic losses. Restocking projects have been implemented by many NGOs and some major donors, but rarely if ever so by banks and established MFIs. The unwillingness of banks and most MFIs to lend to herders must be overcome if herder micro-finance is to grow.

The main reasons why formal financial institutions are unwilling to give credit to herders is that there is high transaction costs and high risks. Financial institutions are seen by their managers to incur high transaction costs and high risks if they lend to herders. Herder mobility is also perceived as making sustained contact difficult and expensive and making default on loan repayments easy. One way of reducing costs and risks is involving herders' organizations such as credit and savings co-operatives, which have detailed local knowledge, in the lending operation. Such co-operatives, based perhaps on herders' NGOs, could reduce credit risk and transaction costs, and improve financial performance, through improved trust, peer selection, peer monitoring and peer pressure. Such an arrangement could also make it easier for MFIs to remain in contact with herders (Coppock et al., 2011).

In Ethiopia, strict regulations within the financial sector have deterred mobile banking agents (such as small shops) from operating. In 2014, the USAID project called Pastoralist Areas Resilience Improvement through Market Expansion (PRIME) Project Innovation Investment Fund provided a grant for Somali MFI and the Dutch mobile money company BelCash to pilot an agent-based mobile money service in Somali region which gained Ethiopian government approval to operate. It was anticipated that 50 percent of mobile phone users would have improved access to financial services and that over 3,000 agents would increase their incomes by 25 percent. This initiative was targeting pastoral areas where training to increase financial literacy was also to be done.

A number of recent studies have demonstrated linkages between access to formal and informal financial services and enhanced ability to cope and recover from shocks. It is important to understand how access to a variety of tailored, adapted and culturally appropriate formal financial services can help pastoralists to better cope and adapt to climate-related shocks and other ecological disturbances (Wambugu et al., 2012).

As a result of using financial products and services tailored towards pastoralists' needs, it is anticipated that more will strengthen their livelihoods and secure their assets hence making them less vulnerable to shocks and building household resilience (Aklilu, 2008). Through the use of credit products such as warehouse credit and group loans, pastoralists will have the ability to invest in diversified income generating activities that increase income and spread risk at the household level. At the same time, access to risk-management services such as savings, remittances and insurance products, will help pastoralists to absorb and adapt to shocks without resorting to negative coping strategies.

Ultimately, access to an improved financial services ecosystem builds stronger local economies that bounce back faster in the face of unexpected shocks. Financial institutions are not innovative by nature. Products are generally not flexible and are often developed with the mass market in mind (Owen, 2007). A sustainable and dynamic ecosystem is only possible if a critical mass of customers is reached in order to give incentives, and for financial service providers to offer a broader range of services. It is also assumed that if rural customers become more financially educated and understand product offerings especially through testimonials from peers, they will have the knowledge and willingness to try these services (Kimuyu, 2000).

Access to remittances, formal savings and credit financial products can allow households to secure savings i order to meet basic needs in times of shock or stress. Increased capacity and tools to manage finances allows pastoralists to smoothen unpredictable income and spending. It also enables them to avoid negative coping strategies by enhancing their ability to absorb, adapt and recover faster from shocks as they occur (Mahmoud, 2008).

Gender-sensitive financial educationcan improve the equitable management of household finances, which in turn helps families to better manage resources and risk. It can also make them understand betterhow sound financial management can diversify risks and improve capacity to cope with shocks and stresses. Households where women take a more active role in decision-making and management of assets have been shown to have low poverty levels and are more resilient (Mwobobia, 2012).

Access to credit and targeted savings/remittance products can enable pastoralists to invest in diversified, profitable livelihood strategies, thusincreasing household income and savings, and diversifying risks. Households with increased income and diversified income generation strategies are less vulnerable to individual shocks and more able to cope with income volatility. Economic opportunity builds stronger local economies that bounce back faster when something unexpected happens (Abosede, 2011). Index-based insurance products can also help to protect households against loss, allow them to quickly replace productive assets, and ultimately give them more confidence to invest in pastoral activities (McPeak et al., 2010).

Herders face several types of risk to their livestock. The risks are divided into two main types; individual risks and covariant risks. Individual risks are those affecting households separately, and include accidents, theft, predation, and some diseases (Mkhize, 2012). Covariant risks on the other hand are those which affect all households in certainareas at the same time, and include drought, raids and epizootic diseases. Covariant risks are generally more damaging than individual ones. Individual risks are not difficult to insure against. This is becausethey affect only a small proportion of households at any one time, and quite a small pool of insured people can be adequate to cover the risk. However, covariant risks are much more difficult to insure against. Most households in a given area are likely to have large losses at the same time, so the pool across which insurance is spread must be very large, perhaps as the national economy as a whole or, through international reinsurance which forms parts of the international economy (Mude et al., 2009).

Risks may also be divided into those that are insurable, and those that are uninsurable. Insurable risks are those where the likelihood of an event, and the damage it will cause are known well enough for the insurer to calculate a realistic premium. The premium is also affordableto the herdsmen concerned (Chantarat et al., 2013). Uninsurable risks are those whose occurrence are unlikely and not enough is known about them. Therefore, the potential impact it can cause is difficult to determine and hence makes a realistic premium than what those affected can afford. The difference is not necessarily between individual and covariant risks, since some covariant risks are insured in developed market economies. The issue is whether catastrophic events such as drought are, or are becoming too frequent in a particular herding environment and the damagethey cause that can make even financial instruments like catastrophy bonds unviable (Chantarat et al., 2009).

Islamic Finance

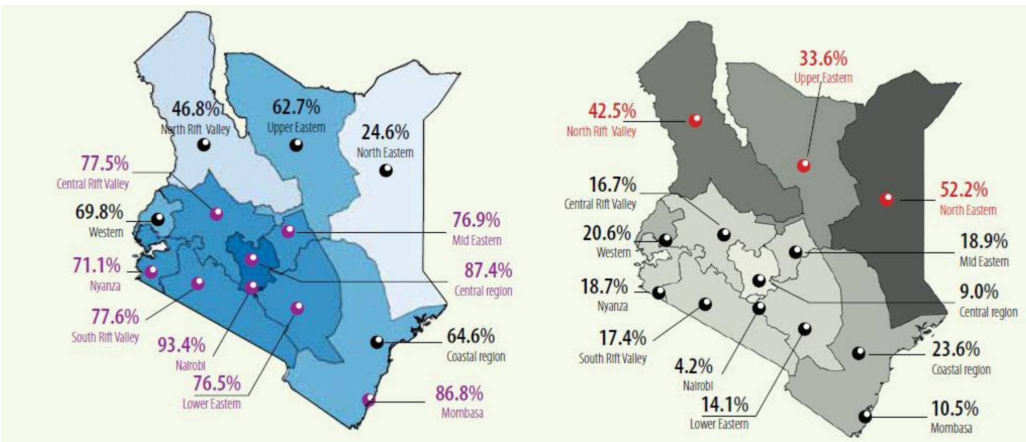
Islamic finance is a huge industry and growing rapidly amongst the pastoralists, yet millions of pastoralists in Ethiopia and throughout the Horn of Africa have not benefited from this growth. This is mostly due to their mobile nature and the limited infrastructure available to serve them in the areas where they live. This poses new challenges that financial service providers must address in order to meet the financing needs of pastoralists and those that prefer Islamic finance in Ethiopia with potential of unmet market demand of 19 million people. New prospects that Islamic finance and insurance experts are considering as Islamic finance continues to expand in Ethiopia and Africa in general are about sensitization on Islamic finance as an asset-based and is fully collateralized. In addition it is also founded on strong ethical precepts. Many financial institutions in the Horn of Africa provide profit-sharing products while simultaneously giving conventional financial products. Consequently,majority of financial institution clients are attracted by the concept of ethical financial products (Microfinance Gateway, 2015).

Financial inclusion

There are 83,725 financial access points in Kenya, out of which 78 percent are mobile bank agencies, 13 percent bank agencies, 2 percent represent financial access points for traditional commercial and mortgage branches, and 1 percent represents insurance service providers, foreign exchange bureaus, SACCOs and stand-alone ATMs. Other financial access points are post offices, micro financial institutions, micro financial banks, hire purchase, leasing, pension providers, capital markets providers, and development finance services (CBK & FSD, 2016).

Financial inclusion in Kenya is currently valued at 17.4 percent. Regional inclusion however differs across regions in the country. However, formal inclusion is over 60 percent in most regions. Nairobi region has the highest form of inclusion at 93.4 percent compared to 4.2 percent exclusion. Mombasa and central regions are the second with the highest levels of inclusion with each having 86.8 percent and 87.4 percent respectively. Their respective exclusion rates are 9.0 percent for central and 10.5 percent for Mombasa. The regions with the least inclusion and the highest exclusion are northern parts of the country. North Rift Valley (Turkana County) has 46.8 percent inclusion compared to 42.5 percent exclusion. The upper Eastern region of Marsabit and Isiolo counties ha the highest inclusion in the region compared to 33.6 percent exclusion. The area with least inclusion is North Eastern region (Mandera, Wajir and Garissa counties). The level of inclusion is 24.6 percent compared to 52.2 percent exclusion which is the highest in the country (FSD, 2016).

Figure 5: Financial inclusion and exclusion in Kenya -Source FSD (Feb, 2016).



The cost of capital in commercial banks and other financial services range between 8 percent to 27 percent of personal business and corporate loans (CBK, 2016). According to the released weighted average lending rates per loan category and maturity, in the year 2016, the weighted average lending rate was 18.25 percent and 18.06 percent in the months of January and February. The bank regulator also noted that banks levy fees and charges such as administration, processing, valuation, legal and commitment fees among others (Ngugi, 2016). This means that individual banks' total cost of credit will eventually be higher than the published interest rate.

Savings in formal institutions

From the FinAccess survey, savings in formal institutions have remained minimal in the pastoral region. The use of Savings and Credit Cooperatives (SACCOs) has decreased, while the use of Rotating Savings and Credit Associations (ROSCAs) has remained between 5-7 percent. Account opening services are mainly offered at the bank branch level during promotions organized in remote centres and, in some isolated cases, with the banking agents (FinAccess Survey, 2013).

Credit services

Credit services can be extended to the pastoralists but beneficiaries usually lack the requisite collateral to secure a loan from formal financial institutions. Despite this, many traders can access credit from banks and micro-finance institutions. Beneficiaries and communities in general access credit from the shopkeepers in the form of food or can receive money from relatives, friends and local leaders. The informal credit is entirely based on trust and personal acquaintance. However, the incentive to repay any debt is extremely high since this record determines a person's access to credit in the future.

Payment systems

This can offer clients the potential to access payment services at multiple points countrywide. Payment systems are financial products which can be operated through bank branches and agencies, as well as mobile payment solutions. There are bank branches and two mobile systems; M-PESA operated by Safaricom, and Tangaza, which can operate using any mobile number.

In Kenya, payment systems operate through two main platforms; mobile phone-based payments supported by agencies, and bank accounts which are supported through bank branches and bank agencies. According to the Communication Authority of Kenya (2016), mobile agency services are offered by Safaricom (Mpesa), Airtel (Airtel money), Orange (orange money), Finserve (Equitel Money), Mobikash and Tangaza. The report positions M-PESA as the leading mobile money transfer service. On the other hand, Kenya has 35,789 agents contracted by 16 commercial banks (Ngige, 2015). Although there are many financial service providers in the country, pastoral areas face financial exclusion. According to the World Bank (2015), the reasons for exclusion include; long distance travels, burdensome requirements involved in opening a financial account, high account operation costs (ledger fees, minimum balance), and low financial literacy.

Customers of commercial banks in many cases can also make mobile phone-based payments through linkages created by their commercial bank with one or more of the mobile network operators. Over the last five years, the growth of M-PESA , combined with the launch of agency banking both for banks, and for regulated deposit-taking microfinance institutions, has revolutionized payments in Kenya. Today more than 18 million Kenyans access mobile payment services mainly through M-PESA or one of the other providers. There are more than 45,000 mobile payment agents countrywide, and more than 12,000 bank agents. The payment system continues to develop. Since May 2012, deposit-taking microfinance programmes were created to conduct agency transactions through their marketing offices as well as third party agents. This allows them to transact deposits and withdrawals through many outlets that are approved by the Central Bank of Kenya.

According to a field study by Hunger Safety Net Programme (HSNP) in 2013, the payment revolution in Kenya has been slow to penetrate the arid lands. However, there is increased evidence to suggest that the payments revolution is beginning to influence the arid lands significantly. Safaricom has increased its signal coverage for mobile phone network to the extent that most market centres, have connectivity, save for few remote pastoral areas. With this increased connectivity, mobile phone ownership and the number of mobile money agents have continued to grow significantly. Following the introduction of Equity Bank presence in the north, banking systems have evolved rapidlyover the last five years, and in particular through the establishment of banking agencies.

Bank agencies

Wherever there is a bank branch, there is potential to support bank agents. Typically, this is achieved by having a bank at the centre of a so-called hub and spoke pattern which is usually within a radius in which agents operate. While a number of financial institutions have agencies in the north, most agencies belong to KCB and Equity banks. In the year 2013, KCB operated around 4,000 bank agents from its network of branches. To manage this, it had 160 agency supervisors based within its branch network, with each supervisor handling 20 or more agents. Agency supervisors are managed at regional level by a three-person team across five regions. However, connectivity which is usually provided by the mobile network poses a major constraint for bank agencies. Therefore, the quality of the signal is a key concern. Most banks require at least a GPRS signal to operate real time data traffic, but GSM, which is the lowest level of signal, can only support voice and SMS.

Offline Agents provide another possibility for financial products to be extended to pastoralists without relying on network services. In Kenya, both Equity Bank and KCB had proposed to use offline agents in more remote parts of Kenya. In this case, expected payments could be loaded onto the offline Point Of Sale (POS) device by the bank. The agent hence conducts transactions offline. Customers can make withdrawals against these payments using their chip-based cards. Experiences with offline agents have mostly been positive, though there are a number of challenges such as:

- **Offloading balances:** It is necessary to regularly bring the offline POS machines online to download data. This can be done by having the agent move the POS machine to an area with signal coverage, or by having the bank visit the agent in a van equipped with VSAT connectivity. Once the POS terminal is connected, completed transactions can be downloaded and newly authorized transactions can be uploaded. In the case of cash transfers, this can imply that the offline POS terminal needs to be connected online at least once per payment cycle.
- **Reconciling balances:** With offline POS devices, there can be a reconciliation process to perform. Reconciliation issues can arise when transactions are performed twice, or when amounts are transferred to the wrong account.
- **Biometric mismatches:** Typically with offline systems, customer identification is ensured through biometric information held on the chip embedded within a smart card. If the original registration of the biometric information was faulty, then there will be a biometric mismatch and the customer will not be able to withdraw. To control this problem, a number of solutions are available, for example, the registration of a larger number of finger print impressions, or using a processwhich can be used to recapture biometric information, if required.

Safaricom's M-PESA

The M-PESA money transfer product works through any mobile phone handset using a Safaricom SIM toolkit, and software loaded onto the SIM card. M-PESA provides simple menus which guide the user to input the nature and amount of the transaction, and the telephone number to transaction with on the receiving end. The sender's PIN number is entered, and a transaction receipt is generated upon hitting the 'send' button. M-PESA is by far the most ubiquitous provider of payment services in Kenya, including the arid lands. It operates anywhere that has a Safaricom mobile signal. According to research conducted by Hunger Safety Nets Programme in 2013, most rural pastoral areas in northern Kenya and particularly in Turkana have very poor signal coverage. However, signal coverage appears to be rapidly improving in North Eastern Province.

Tangaza Pesa

Tangaza Pesa (TP) is a brand name for a Mobile Virtual Network Operator (MVNO) business, licensed by the Communication Authority of Kenya (CAK) and Central Bank of Kenya (CBK) to Mobile Pay Limited, a fully Kenyan owned company. It offers services in Mobile Money Transfers, voice calls, internet and data in the Kenyan market on multiple channels. One of Tangaza Pesa's market solutions is Value Chain Automation Service (TP-VCAS). Specific to Agricultural Value Chain Financing services, the platform enables prospective farmers seeking financing to securely register with the Financiers (KYC requirements), apply for loans and credit, receive loan disbursements, and make repayments from the comfort of their mobile phones. The service is available across all networks.

Tangaza is the second largest mobile payments provider in Kenya after M-PESA, but it is still quite small in comparison to M-PESA. It has approximately 170,000 registered customers and a reported 800 agents. Despite having serious limitations in terms of network and agents in the arid lands, Tangaza has considerable coverage because its technical solution is different from other service providers. It offers ways for users to access their mobile payment accounts even without a PIN, or without conventional identification. Tangaza users can be clients of any mobile network, and whereas they need to be registered and have a phone number registered to a network, they do not actually need to possess a phone to access the services. Tangaza agents are equipped with a Personal Digital Assistant (PDA) which has a built-in camera. The PDA is connected to a biometric reader, number pad and printer. When users are being registered on the system, the agent captures their biometrics, national identity card number, takes photographs and then issues a PIN number. When a transaction is made, an agent can access all forms of identification. Multiple finger prints are captured upon registration. The national identity card number is cross-checked against the national database. When a client conducts a transaction, the normal practice is for both PIN and biometric data to be used to authenticate a transaction. However, when a PIN transaction fails due to the system's security level, an agent can handle a PIN replacement transaction easily using the customer's photograph and biometric details. In addition to the SMS receipts generated by the transaction, unlike transactions on the mobile networks, a physical receipt is printed which the customer can keep. Tangaza issues ATM cards which can be linked to the customer's Tangaza account. This then enables customers to access services through ATM networks connected to Tangaza, at a fee.

Automated Teller Machines (ATMs)

Geographical location or physical access is among the barriers that prevent small firms and poor households in many developing countries from using financial services. While some services may be accessible over the phone or via the internet, others require clients to visit a branch or use an ATM. The number of branches and ATM points per square kilometre or per capita is used as a proxy for geographic and demographic penetration of financial institutions. These measurements are used to indicate the availability of financial service providers within a specified area and the average number of people who can be served per given branch. Increase in the number of branches and ATMs within a locality positively impacts the financial service providers by increasing the number of users. It also enhances monetization of the economic activities. According to the World Bank report on ATM bench marking, ATMs are central to the access of cash and enhancing the banking experience. In some markets, their role has evolved to play a complementary role to the branch mobile and internet banking.

As highlighted by the World Bank 2014 report on ATM crime and fraud management, ATM fraud and crime are having an impact on the industry. This is not only in terms of losses incurred, but also in terms of increased effort fromATM operators in respect of capital investment and resources used to preventthe fraud. This has resulted in an increase in fraud prevention measures implemented throughout estates. There isalso overall increase in the costs related to the total operating costs. However, installation of alarms using CCTV coverage and transaction encryption measures / MACing are the three top fraud prevention measures being implemented. In this case the three most frequently implemented measures are; installation of alarm systems, using anti-cash trapping physical prevention measures, and applying anti-skimming jamming measures.

Insurance financial products

Agricultural risks affecting livestock and limited access to credit are not only serious impediments to agricultural productivity, but also remain two of the main sources of potential poverty traps in developing countries. To a large extent, these uncertainties are attributable to credit constraints facing Kenyan farmers. Lack of credit constrains optimal input use, limits marketing opportunities, and contributes to disinvestment and poverty traps. While rural bank branches have grown by 81 percent over the last five years, banks are still averse to lending in the agricultural sector. Uninsured risks and lack of access to credit force farmers to adopt low-risk, low-return activities, resulting in wide-spread and persistent poverty (Apurba Shee Calum G. Turvey Joshua Woodard, 2015).

Pastoralists can recover their lost assets and recuperate faster from economic effects of severe weather. Financial service providers should diversify and deliver affordable and appropriate products and services for pastoral societies to achieve this. Looking at the relevance of rural markets, financial service providers will continue to develop, adapt and market products tailored to rural areas and low-income clients in pastoral areas. Their agent network is expected to continue growing in order to reach more rural and distant locations, and also provide more vulnerable communities with access to financial services. Secondary research and field primary research with agro-pastoralist communities and multiple private sector actors, including formal financial institutions and mobile network operators, highlighted a number of systemic socio-economic, ecological and market barriers to securing agro-pastoralists' capital, and developing profitable income-generating activities in the face of drought (Mude et al., 2010). Human beings have evolved to focus on the short term, to discount the future, to fear loss more than they value gain, to experience paralysis when too many choices are given, to stick with the default option, and to make poor decisions when under stress. Although pastoralists can possess substantial financial capital in the form of livestock, often the banking systems in Africa do not classify livestock as insurable, and therefore, pastoralists are excluded from formal credit systems. In some countries there are progressive, alternative credit systems developed by private or government-owned banks that are tailored to the pastoral context.

In Ethiopia, for example, pastoralists are among populations most vulnerable to shocks and stresses in the world. The majority of Ethiopia's 1.5 million pastoralists suffer from recurring and often overlapping shocks from droughts, fluctuations in food and input prices, and livestock diseases. Financial services play a key role in mitigating shocks, while strengthening pastoralists' household- and community-level resilience. However, according to Findex data (2014), Ethiopia is one of the world's most financially exclusive countries where less than 18 percent of the population has an account with a financial institution. In 2014, only 14 percent had a savings account while a mere 7.4 percent could access credit at a financial institution. Insurance, leasing and mobile money products reach less than one percent. These numbers are even lower for pastoralists who are physically mobile for months, lack traditional collateral and formal identification, and traditionally prefer Islamic-compliant financial products rather than conventional interest-bearing credit.

In Kenya, settled pastoralists are gradually becoming integrated into the cash economy, and cash is beginning to play a more important part in risk-management strategies. Cash transfers through mobile phone services called SafariBIMA are already being used by an insurance company to receive and pay out on insurance policies.SafariBIMA, is a product of Kenya Orient Insurance. At the international level, financial institutions are increasingly looking to spread their risk by investing in new areas. This is potentially relevant to pastoralists in Marsabit. Innovations in weather-based derivatives and other hedging instruments are providing this opportunity. For the first time, national and international private-sector organisations are the potential key actors in pastoralist risk management in Kenya.

The following are some of the insurance product options available to pastoralists:

i. Index Based Livestock Insurance (IBLI)

The alternative to individual livestock insurance is a form of Index-Based Insurance (IBI). Index-based insurance works through insurance contracts written against specific events such as rainfall below a specific threshold or livestock mortality above a specified level in a particular area; insurance is then sold in standard units (Say Kshs 1,000 or 10,000), with a standard contract in the form of a certificate for each unit sold. The premium would be the same in each area, say in each district, and all buyers of certificates would receive the same indemnity per certificate if the insured event occurs (Mc Peak et al., 2010).

Index Based Livestock Insurance (IBLI) has been heralded as a potential weapon in the armoury against climate change. Initial pilots have ranged from national-level famine insurance for Ethiopian farmers, to private–public partnerships insurance for Mongolian herders, and also to private-sector weather insurance for Indian farmers. Mobile pastoralism is increasingly recognised as the most viable management system for fragile, arid and semi-arid lands (Nori et al., 2008; Little et al., 2008). Yet due to limitations on the mobility, insecurity, limited land access, climate change, and changing social norms, many pastoralists are abandoning their transhumant way of life. Despite this, index-based insurance which is based on an index that describes area-averaged risk experience rather than individual household experience, could potentially be viable.

Index-based insurance differs from traditional insurance in that it is used to protect against shared rather than individual risk, for example, risk associated with weather fluctuations, disease outbreaks, or price shocks. Users pay a regular insurance premium and receive pay-outs when an index linked to poor agricultural production outcomes (for example, rainfall below average) crosses an agreed trigger point. Because the pay-out depends on an outcome that cannot be influenced by insurers or policy holders, the contract has a relatively simple and transparent structure. Index-based insurance can be delivered through a range of products to cover a wide array of risks. Delivery can be through the private sector (banks or insurance companies) or through the public sector using national insurance models. Clients could be individuals, organisations or even governments which want to lessen their risk of exposure. In a pilot study in Malawi, small farmers and banks purchased weather insurance to protect loans for improved groundnut varieties. The insurance, designed to cover loan repayments in the event of rainfall failure, was payable directly to the banks. Having this insurance meant that banks were prepared to lend to small farmers who had formerly been perceived to be too risky (Bryla and Syroka2007: 7). In Mongolia, insurance companies and government had worked together to provide a layered social-security and insurance product. Government insures losses at the 'disaster level', with insurance companies providing the option for livestock owners to 'top up' the insurance to cover less extreme losses (World Bank 2005: 49–51). In Ethiopia, the World Food Programme (WFP) purchased a national-level insurance contract to cover the cost of relief efforts in the event of a famine. Smaller regular payments were made up-front in the form of premiums such that if rains should fail, substantial indemnity payments would quickly be available to government and response agencies to provide the necessary relief (World Bank 2005: 43–6). All these examples demonstrate a change in mind set: proactively preparing for climate-related risk, rather than waiting for it to happen and then seeking help. This is what makes index-based insurance such an exciting product.

Index insurance can fit so well with a wider micro-finance strategy institutionalised through herder associations or NGOs. Such groups might wish to buy index insurance on behalf of the whole group, or to facilitate individual members within the group who wish to buy. Index insurance, by providing protection against major risks, can be a good companion to micro-credit.

Commercial banks and insurance companies are extremely interested in index based insurance. However, the high technical entry barrier for data review, improvement in collection methods such as digitalisation, and model development are constraints to private-sector development of this product. An additional constraint is that insurance companies have no links with or experience of working with pastoral communities in Northern Kenya. These high initial costs create a strong 'first-mover disadvantage'. It is unlikely that any individual insurance company would be motivated to develop an IBLI product without some technical and logistical support. International re-insurers and hedge markets have been showing an interest in entering new sectors such as weather insurance, even though it is unclear what the impact of the current recession will have on this sector (Harriet et al., 2011).

ii. Weather Based Insurance (WBI)

Innovations in weather-based derivatives and other hedging instruments are providing this opportunity. For the first time, national and international private-sector organisations are potentially key actors in pastoralist risk management in Kenya. Weather-based insurance may operate in the same way, except that a specified weather event such as rainfall below a certain threshold, may be the trigger for payment of an indemnity. The only requirement for this may be accurate district rainfall data

iii. Livestock Mortality Insurance (LMI)

Livestock mortality insurance is a form of index insurance. The average death rate for all animals except those born in the current year would be the basic loss indicator. Animals born during the year would be excluded because of their high loss rate and difficulties in getting accurate data. Herders (or anyone else) could buy standard insurance certificates against higher than average levels of mortality in the district concerned. District mortality rates above a chosen level, for example, the mortality rate occurring on average once every five years or less, may trigger payment of an indemnity to all who had bought standard insurance certificates, regardless of their own personal loss. This scheme is feasible in Mongolia where accurate and detailed livestock mortality data are available, but may be difficult in countries without such good data.

The advantage of using mortality rates or weather as the index to trigger indemnity payment is that the data are readily available and simple to use, and that good behaviour is rewarded. All herders in the affected area who have bought insurance certificates receive an indemnity. But herders who have lower mortality rates than their neighbours receive an insurance indemnity based on the average of the district, and are thus rewarded for their skill or hard work. There is little opportunity for adverse selection or moral hazard. Administrative costs are low, since there is a single standard contract to write, and rainfall data are already available with a long historical data set. Index insurance would be simple for the private sector to run and could be a stepping stone to targeted individual insurance contracts to cover more precise risks to individuals.

iv. Risk Contingent Credit

One innovative credit mechanism that could not only enhance farmers' access to credit but also help them manage risks is Risk-Contingent Credit. RCC is a general term for any credit instrument that embeds within its structure a contingent claim or insurance which, when triggered, transfers part or all of the borrower's liability to the lender or integrator/counterparty (Shee &Turvey, 2012). Because RCC balances both financial risk and business risk it addresses many problems regarding credit in developing countries including the relaxation of credit constraints, mobilizing farmers' abilities to improve productivity and increase household income, reducing credit risk, maintaining liquidity balancing, removing or reducing collateral risk and risk rationing, and reducing loan default. When properly employed, RCC structures can incentivise banks to increase the supply of credit to small farmers. Even in regions that have access to credit, there is a significant number of farm households that "risk-ration" themselves out of the credit market for fear of losing collateral and livelihoods when natural or economic adversity hits (Boucher et al., 2008; Verteramo-Chiu et al., 2014).

As a target for rural credit policy, RCC is a pro-growth inclusive advancement of conventional credit products, and one which can ultimately impact credit demand and supply in a socially optimal way. A study conducted by Apurba Shee Calum G. Turvey Joshua Woodard in 2015 in Kenya to assess the uptake of potential of RCC in pastoral and dairy farm communities in Kenya by using a participatory game played in a series of focus groups?? revealed that RCC was useful in pastoral communities. This was done in the spirit of McPeak et al. (2010) who describes how "games" were used to educate pastoralists in Kenya's index-based livestock insurance scheme (Chantarat et al., 2013). By engaging farmers in open discussions, specific aspects of risk including the source, seasonality, frequency, duration, intensity, and consequences under which it can be established. These attributes can ultimately be part of the RCC design.

The idea of RCC first appeared in a description of programmes in the Philippines, Sri Lanka, and India in which farmers pledged a portion of any crop insurance indemnities to cover loan losses (Adams &Vogel, 1986). This was based on an honour system with only an indirect linkage to credit. Jin and Turvey (2002) developed a number of RCC loan structures for operating loans, farm mortgages, and bonds based on weather index insurance. Skees and Barnett (2006) introduced the idea of a meso-level insurance in which lenders acquired index insurance against perils that were highly correlated with loan losses. They describe a World Bank project in Malawi that linked index insurance to production loans and suggested that index insurance could also be linked to commercial loans. Other examples include insurance against El-Niño-related risks in Peru, the Indian MFI BASIX's purchase of rainfall insurance in 2004 and 2006 to offset loan losses against drought and flood perils; and the use of index-based livestock insurance in Mongolia. Linkages to farmer producers under a meso-scheme are designed to make indemnity payments based on actual losses (Skees & Barnett, 2006).

At the micro-level, Shee and Turvey (2012) showed how risk-contingent instruments can be priced in practice using simulated field data. They concluded that an imbedded price option for pulse crops in India provided downside risk protection for pulse farmers. Turvey et al. (2012) apply RCC to price risk protection for New York dairy farms, and Chantarat et al. (2007, 2008) adapt the model to pre-empt rainfall-related famine risk in Kenya. Carter (2011) examined the impacts of linked credit on financial market deepening and its impacts on farm households, concluding that linked credit capitalized the adoption of new technology. In Randomized Control Trials (RCT), Giné and Yang (2009) investigated adoption of an operating loan in Malawi in which the payoff was determined by rainfall, and Karlan et al. (2011) investigated the adoption of price-contingent credit in Ghana.

The demand for RCC appears to be promising, but research is still in its infancy. For example, a field research (unpublished) conducted by one of the authors in 2009 indicated that 57 percent of Chinese farmers would be moderately interested or very interested in RCC type structures. In 2010 this dropped to 50 percent. Likewise, in a 2011 survey of Mexican grain and oilseed farmers, similar questions showed that 51 percent of participants would be interested in such a product. These are in line with the 17 percent uptake rates found by Giné and Yang (2009) in Malawi. It should be noted however, that Giné and Yang's (2009) RCC was tied to loans for the adoption of new technology and only 33 percent of farmers offered conventional loans chose to accept it. A very important insight by Giné and Yang (2009) that requires much more study is the sensitivity of loan demand to the additional risk premium in interest rates. Using the option pricing theory, Shee and Turvey (2012) showed that the range of risk premiums relative to a 12 percent base ranged from 1.83 to 25.6 percent for different pulse crops in different Indian markets depending upon historical price volatility. Moreover, simulated results of representative farms for pulse crop farmers in India by Shee and Turvey (2012) indicated that risk-contingent (price) credit can substantially improve minimum incomes, as well as lead to decreased risk in crop revenues, while increasing beneficial positive revenue skewness.

Accordingly, ILRI (2012) explains the advantages of RCC as follows:

a) A common argument for the stagnant agricultural development in sub-Saharan Africa is that the absence of credit leads to inefficient use of inputs, suboptimal production, lower food supply and higher priced food products. Improved access to credit and downside risk management through RCC can alleviate many of these constraints in the short run and encourage technology adoption and growth in the long term.

b) Since RCC embeds an insurance component that mitigates risks in agriculture and supports production in times of negative shocks, it can promote resilience among farmers.

c) With the insurance component embedded in the credit product, lenders may reduce or eliminate collateral requirements, thus increasing demand by poor and risk rationed smallholder farmers. It also eliminates the drawbacks of standalone index insurance products by not requiring the farmers who may be liquidity constrained to pay upfront premium.

d) Because the credit is interlinked with the price and/or quantity risks of the product produced by the farmer, loan default risk can be reduced significantly.

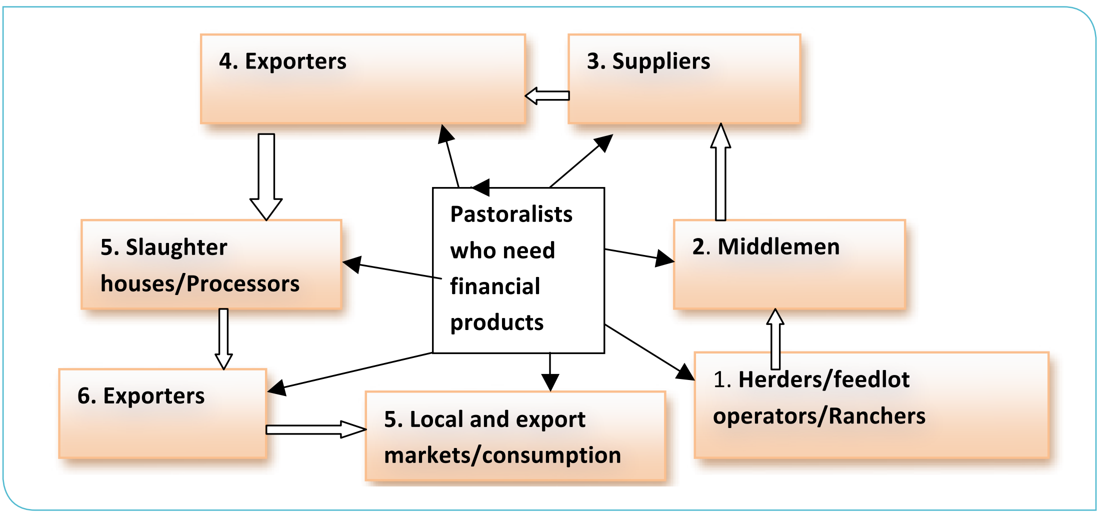
3.3 FIELDWORK FINDING

3.3.0 Introduction to financial products and model within the RPLRP areas

The findings on financial service provision within the three countries revealed that the services are offered without specific consideration to the livestock value chain (input supply, production, processing, trading and consumption).

The herders/pastoralists are the owners of livestock. The middlemen are the go-between the herders and the suppliers. They know the pastoralists very well. The suppliers are normally contracted by the exporters to look for the livestock. They are only paid money by the exporters after they have brought the livestock from the middlemen. Exporters hand over the livestock to the slaughter houses for processing and quality assurance. The slaughter house operators then hand over the meat to exporters who handle transportation. The exporter knows the market where the livestock product should be consumed. All these players need financial products to do their businesses smoothly.

Figure 6: Players in livestock value chain.



The findings about financial products delivered and used by the pastoralists along the value chain indicated that most financial usage is directed to cater for input supply and production purposes. All the stakeholders visited and interviewed indicated that the pastoralists/herders receive financial products for use in stock breeding, veterinary services, feeds, water tanks and boreholes, housing, raring and fattening, and construction of slaughter houses. Suppliers, exporters, feedlot operators, slaughterhouse operators/processors receive and use financial products to fulfill financial needs on the upper side of the livestock value chain such as; transportation, collection, distribution to consumers, slaughter house equipment, chilling, packaging, and domestic and export requirements. The table below corroborates this finding.

Table 4: Financial products and providers along the value chain

Financial products along the Value chain Market and value chain activities	**Financial product**	**Examples of financial service providers in the pastoralist regions**	**Countries**
Input Supply financial product			
1. Stock Breeding	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives, and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
2. Veterinary services	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives, and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
3. Feeds	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
4. Water	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
5. Housing	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	
Production financial product			
1. Raring	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
2. Fattening	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas

Trading financial product			
1. Collection	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
2. Transportation	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
3. Distribution to consumers(wholesalers and retailers)	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
Processing financial product			
1. Slaughter houses	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
2. Chilling	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
3. Packaging	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
Domestic consumption/ export financial product	-	-	-
1. Domestic consumption:	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas
2. Export to other countries:	Loans, grants, mobile banking, and savings services	Government, NGOs, MFIs, Groups/VSLAs, Cooperatives and commercial banks	Ethiopia, Kenya, and Uganda pastoral areas

Source: Fieldwork findings (2016).

It was noted that, there were six major current financial models which can be used within the three countries to support the pastoralists. These are:

1. Commercial banks model.
2. Micro-Financial Institutions model.
3. Co-operative/SACCO model.
4. Informal Associations/VSLA/ Family, Friends and sale of own livestock model.
5. Insurance model (Kenya only).
6. Formal and informal grants from various stakeholders model.

3.3.1 Fieldwork findings in Ethiopia

3.3.1 Types of financial products offered to pastoralists - Supply side information

The supply side information represents opinions of key informants interviewed including personnel working in banks, MFIs, NGOs, and Government project officers. Banking and Micro finance institutions were confirmed by all those interviewed to be present in the pastoralist areas. The respondents also confirmed that informal banking and mobile banking was also available within the pastoralist areas. There was no Internet Banking, Agent banking, Foreign Exchange, Common Currency, Stock Market as a financial product, Treasury or Debt instruments, Wealth Management, Credit Cards financial products, Debit Cards financial products, Automated Teller Machines (ATMs), and Insurance financial products. For the latter, even though supply side information revealed that ILRI had piloted a product on insurance services, this was, however, not known by the demand side interviewed. The implication of this finding is that there exists gaps for insurance financial products for livestock, treasury, and wealth management amongst pastoralists in Ethiopia.

3.3.2 Financial products offered to pastoralists-demand side information

The demand side information on types of financial products offered to pastoralists in Ethiopia included the Midra pastoralists SACCO and Semera consumer cooperative shop. Participants in Focus Group Discussions (FGD) mainly consisted of traders and herders. The information offered was cross-checked and a consensus drawn about the types of financial products found within the pastoralist areas. These included banking, MFIs, informal banking and mobile banking which mainly offered savings and credit facilities. They confirmed that there was no insurance, stock market, Treasury or Debt instruments, Wealth Management, Credit Cards financial products, Debit Cards, and Automated Teller Machines (ATMs) as financial products within pastoralist areas in Ethiopia. The findings confirmed that there are financial product gaps in form of the various financial products not found within the pastoral areas as well as the unfavourable conditions the financial institutions wanted fulfilled by the pastoralists. The photo below shows discussion with Semera consumer cooperative shop Focus Group Discussions.

Investigations conducted through FGDs also revealed that banking and mobile banking (hellocash) financial products within the region were patronized by traders and not herders. MFIs also used hellocash and had penetrated rural pastoral areas. The most preferred type of financial product was informal banking through formation of Village Savings and Lending Associations (VSLAs). These financial products are widely used in Aware, Shekosh, Moyale, Dhuhun, Shilabo and Warder. In addition, the information was also found relevant to the RPLRP Districts of Ethiopia's Afar region namely Afambo, Teru, Abala, Semurobi and Yallo. Pastoralists have however not patronized them as widely as traders.

3.3.3 Financial products offered by commercial banks in Ethiopia

It was established that there are many commercial banks which are found in the pastoral towns within the project Districts. For example, in Jijiga alone, there are 15 commercial banks; two are public/government institutions while the rest are privately owned. There are no commercial banks found in the rural pastoral areas. Most of the financial products which commercial banks offer do not purely target pastoralists but are also available to other customers including employees within the towns of Aware, Shekosh, Moyale, Dhuhun, Shilabo, Warder, Afambo, Teru, Abala, Semurobi and Yallo. However, these commercial banks do not provide specialized financial products to the pastoralists/herders. They only target employees within the region and non-pastoralist traders. They prefer clients who can offer collateral security against loans. There are various commercial banks emerging with innovative financial products for the pastoralists of which awareness should be enhanced. Some of these are discussed below:

a) **Savings services:** Commercial banks allow an array of savings services, however, these are not tailor made to the pastoralists. They operate on the principle of "One-Size-Fits-All" (OSFA), meaning there are no specific financial products tailored to suit the needs of pastoralists. It could have been better if the commercial banks offered mobile and agent banking services to the pastoralists where there are no established branches. This is already being practiced in Kenya by Equity Bank and Kenya Commercial Bank, although the uptake is low.

b) **Van based mobile banking products:** Banks travel to market places, public areas and water points using vans to register new savings accounts. The Commercial Bank of Ethiopia (CBE) had introduced van-based mobile banking in certain places where bank branches could not be opened to serve the public. According to a newspaper report of August 06/2016 in Addis Ababa, Commercial Bank of Ethiopia had deposited over 288 billion Birr by the end of June 2016, thus registering 45.3 billion Birr growth over the previous year. This was partly due to the introduction of van based mobile banking. However, areas affected by insecurity and poor road infrastructure were not reached by the van banking services. The insecurity is a characteristic of most RPLRP areas. Moreover, it is considered costly to hire security to escort the banking van to the pastoralist areas. Dire Multi-Purpose Cooperative has also extended van banking services to farmers since 2013. This cooperative is located in Dire Dawa which is in the Eastern part of Ethiopia.

c) **Loan provision as a financial product:** It was established that commercial banks offer loans to pastoralist traders based on OSFA principle. However, it is very difficult for pastoralists to receive loans from commercial banks since commercial banks are not willing to take pastoralists property, mostly their livestock, as collateral. Oromia International Bank

(OIB), Commercial Bank of Ethiopia (CBE), and Buna International Bank (BIB) have been encouraging institutional guarantee which is considered as a means to bypass the collateral hurdles and such experiences. This is possible if pastoralists register formal associations in order to access financial services from the commercial banks.

d) **Mobile banking product:** Ethiopia was among the last countries in Africa to establish mobile banking service. The National Bank of Ethiopia (NBE) allowed mobile banking in 2012 through Directive No. FIS /01/2012. Mobile banking is being used to make local money transfers and payments and has increased access and efficiency of banking service delivery. For example, the helloCash financial product has reached pastoralists through agents. The banks which are operating the helloCash are Oromia Cooperative Bank and Lion International Bank. The photos below shows helloCash advertisements in the Jijiga region.

The pastoralist areas within the project region can only benefit from this form of mobile banking if bank agents are operating. This notwithstanding, limitations such as poor network and infrastructure, lack of awareness and the restrictive policy of NBE on technology providers exist. For example, NBE caps agency transactions at a maximum of Biir 25,000 per day while withdrawals by pastoralists cannot exceed Birr 6,000 per day. These conditions are not favourable, because they hinder pastoralists from easily accessing financial services, and especially if they require to transact huge sums of money.

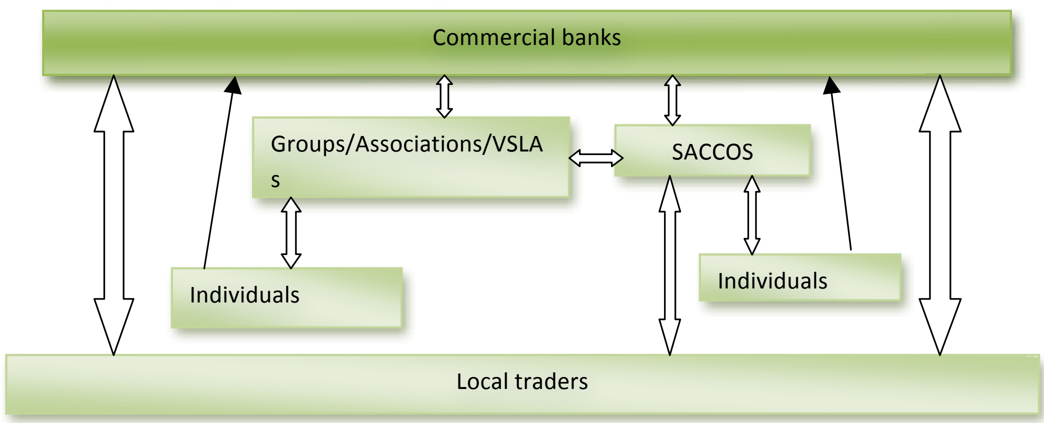
e) **ATM banking service:** The towns visited which included Jijiga and Semera were found to have ATM services, but these were not being utilized by the herders because the ATM service requires that a person should have opened an account with the commercial bank. The herders who are also traders are the ones who are currently benefiting from this innovation.

f) **Interest free banking service:** So far three commercial banks namely; CBE, OIB, and United Bank, have begun to offer this service to the pastoralists. It comprises of different Sharia-compliant products which are acceptable to the pastoralists, especially where majority of whom are Muslims. However, only a small amount of deposit has been mobilized and hence there is still a large gap on financing. Limiting factors include; double taxation in Murabah financing service, lack of knowledgeable staff, and dispute resolution system (new for Judges), still less convincing for some. The consistency of the service with Islamic law is a step torward bringing Muslim pastoralists into the commercial bank industry.

3.3.4 The current commercial banks model in Ethiopia

The field work mission established that commercial banks mainly offer savings and loan products to the pastoralists who are traders and herders. However, they also allow savings from any group/ individuals who can open an account with the required amount of money. Despite this, when it comes to loans, commercial banks are reluctant to offer loans to individual pastoralists, especially herders. This is because of the risk of default anticipated by these commercial banks simply due to the migratory nature of the pastoralists and lack of acceptable security such as title deeds and logbooks. This is in addition to the belief that commercial banks should provide grant money just like the government and other development partners like NGOs. Commercial banks do not accept livestock as security for loans, yet it is the main investment which pastoralists possess. However, it was established that individuals can form their groups/associations/VSLAs/SACCOs and get loans from commercial banks if only these entities can provide the required security for the loans which is institutional guarantee. This is accepted by a few banks against collateral, title deeds, and log books. Loans from SACCOs/VSLAs can also be secured if traders and individuals can fulfill the loan policies set forth within these institutions. The model below shows that these entities can save with commercial banks and get loans from them. Local traders who are entrepreneurs can also save their money with the commercial banks and get loans directly from them as well. The findings also established that a few individual herders also save with commercial banks but hardly get loans because of lack of acceptable security for the loans. This is presented in the model below.

Figure 7: Current commercial bank model in Ethiopia.



Source: Fieldwork findings (2016).

3.3.5 Strengths and weaknesses of commercial bank model in Ethiopia

The table below presents the strengths and weaknesses of the current commercial banks financial products provision model.

Table 5: Strengths and weaknesses of Commercial Bank model in Ethiopia

	Strengths of the commercial banks model	Weaknesses of the commercial bank model	Suggested recommendations for sustainability of the commercial banks model
1.	Banks are already established within some pastoral towns such as Jijiga and Semera. They are trusted and cannot disappear with the pastoralists' savings.	Collateral security requirement is a hindrance for the pastoralists to get financial loans from commercial banks.	Commercial banks should accept pastoralists' livestock as security for bank loans. This can be possible if administrative chiefs within Weredas can have an agreement with the banks and vet the loan applications to provide recommendations.
2.	Interest rates by private commercial banks and MFIs are almost equal at 13 percent. On the other hand, CBE interest rates stand at 9 percent. Therefore, the commercial banks are equally competitive in the delivery of financial services.	Out of 93 Weredas/Districts of Ethiopia/Somali region few districts have commercial banks. For example, only 12 Weredas have CBE branches. The ones which serve most pastoralists are found at the border points and there are only two branches in Moyale and Warde. A distant region of Semera area also has got few bank branches. This means that the pastoral areas have few commercial banks to provide financial products.	Banks should open branches to pastoral areas/towns. This can only be possible if there is good road infrastructure and enhanced security. Alternatively, the use of van banking and mobile banking are options which can be explored by the banks.
3.	There are groups already existing to work with, therefore, there should be less effort in the formation of groups within the pastoral areas.	Commercial banks do not train pastoralists about financial management. This can enhance their financial literacy especially on how to use financial services particularly loans.	Training on financial management should be one of the strategies/activities which commercial banks should initiate to the pastoralists in order to market their financial products to pastoralists.
4.	The commercial banks have formal and well established structures in terms of qualified staff and are recognized as legal institutions.	There is no specialized products for pastoralists to patronize.	Commercial banks should introduce tailor made financial products to the pastoralists. The use of OSFA is not beneficial to pastoralists. There should be consideration for financial products differentiation and market segmentation for the pastoralists.
5.		The commercial banks do not consider socio-cultural status of the pastoralists such as their mobile nature.	Same as the suggested solution in number 4 above.

6.		During times of drought, commercial banks do not have room for resilience.There is no financial product that considers resilient situations.	Same as the suggested solution in number 4 above.
7.		The groups are already formed with different objectives within the pastoral community hence divergent goals exist within the group members.	Commercial banks should initiate efforts to sensitize the pastoral community to form groups for purposes of securing loans. There should be groups which should be specifically formed to access the commercial banks financial products. This should be complemented with training on financial literacy.

Source: Fieldwork findings (2016)

3.3.6 Financial products offered by MFIs model in Ethiopia

The findings established that the most prominent MFI operating within the project districts in Somali-Ethiopia-Jijiga area is the Somali Micro Finance Institution (SMI). It was established in 2011 and has opened branches in all the districts except Dhuhun. The SMIhas a total of 24 branches within Ethiopia with 12 satellite branches. Its clients are businesses with viable prospects. The businesses can be owned by individuals, SACCOs, and Groups/VSLAs. The conditions for individual, businesses or groups to qualify for any service is that the person or members should have attained the age of 18 years and above, must have lived within the pastoral region for at least two years and free from any criminal activity.

In the Afar region of Semera area, the Micro Finance Institution (MFI) is dominating financial service delivery to pastoralists. This institution provides grants to the cooperatives, groups and associations within the region. The grants are disseminated to individual pastoralists. The rate of repayment for all the loans advanced to the pastoralists by the SMFI stands at 99.2 percent. This is considered to be successful and a positive prospect according to the SMFI manager in Jijiga, in August 2016.

The SMFI has good practices which should be emulated in other pastoral regions. These include absorbing fresh graduates from universities. The graduates are trained for 4 months before they are posted to the regional branches where they come from. This philosophy increases chances of acceptance by pastoralists. They are posted as loan officers, accountants, field officers or cash managers. However, there is no bonding after training and the trainees can opt to go somewhere else to secure employment. In addition, SMFI ensures that 2 percent of the operating costs is always allocated for training required by NBE.

In Afar region of Semera area, the SMFI has initiated soft loans of 2,500 Birr to serveas working capital for pastoralists with a repayment of Birr 50 per month. The soft loan is intended for use in general purposes in livestock value chain, including setting up Income Generating Activities (IGAs).

The findings established that some of the financial products offered by SMFI to the pastoralists within the project area and beyond are:

a) **Savings products:** These comprise of Al-Wadiah (trust savings), Al-Qardi Hassan (Custodian savings which is free of charge savings), Mudaraba savings (Sharing profits savings), compulsory savings which is borrower specific, voluntary savings which is for borrowers and non-borrower clients, passbook savings, safe box savings, mobile savings where there is door to door savings mobilization services. All these savings are compliant to the Sharia Law.

b) **Loan products:** Examples are Murabaha sale which is cost plus markup sale; Ijarahh which is leasing contract and mudaraba loan. Other loans include; agricultural loan, the environmental loan, the vulnerable group loan, Small and Medium Enterprise loan, and the commercial loan.

c) **Remittances transfer:** This entails electronic transfer of money from consumers to people and businesses in foreign countries. These companies include many money transmitters, banks and credit unions, and possibly other types of financial services companies. This is done by MFIs and commercial banks within the region but pastoralists do not enjoy this financial product.

d) **Mobile banking services:** Currently, there are three types of mobile banking services offered by SMFI. These are Hellocash, Sendwave, and money transfer by agents such as Dahabshiil. All these use mobile servicesprovided by telecom.All that one needs to do is to deposit money in a bank and transactions can be done using these mobile banking services where money is transferred through mobile phones. All these services require good mobile network to operate in the rural pastoralist areas. This has been a challenge. The banks that have partnered in this mobile phone service provision with telecom are Oromia Cooperative Bank, Lion International Bank and Dahabshiil. Dahabshiil is a money transfer agent where pastoralists may simply be required to register with one of the agents, present the amount needed to be sent and the money will be ready for collection by the recipient. For this innovation to work amongst the pastoralists, awareness creation and good network should be strengthened.

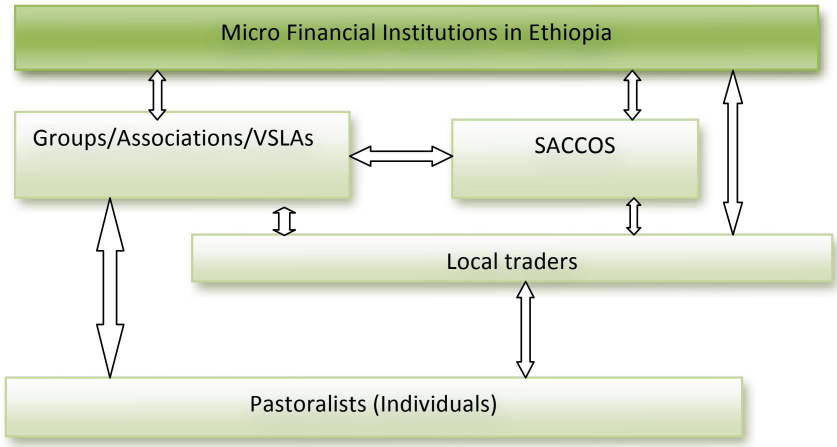
e) **Agent Network:** This operates on the principle of Know Your Customer (KYC) and the SMFI currently has 600 agents in Ethiopia Somali region. Their agents collect cash. So far, the agents collect money from remote areas and remit the same to MFI. The agents who are used by SMI are well known to the area residents and therefore, it is not difficult for them to collect cash from their acquaintances. This requires good road network and assured security within the project regions.

3.3.7 MFIs financial provision model in Ethiopia

The findings established that the pastoralists can get finance from local traders who act as agents of MFI. In the case of Hellocash from the MFI, it is a requirement that the pastoralists deposit some money with the local traders and before a transaction is done either in cash or in kind. Sometimes, they can get drugs for their livestock. In the second case, pastoralists can save with the group and get loans from their groups. This is based on informal village level associations. The group loans are not secured by collateral but by guarantors and peer group members.

Cooperatives are formed by associations and traders. The cooperatives can receive loans from MFIs. Local pastoralist traders can form their SACCOs and groups where they can receive financial products. It was found out that the local traders were also lending pastoralists/herders money. Individual pastoralists may also become local traders and get their funds from their businesses. The MFI model is presented in the figure below.

Figure 8: Current MFIs model in Ethiopia.



Source: Fieldwork findings (2016).

3.3.8 Strengths and weaknesses of the MFI model in Ethiopia

The MFIs in Ethiopia have more strengths than weaknesses. The suggested solutions on the weaknesses are shown in the Table 6 below. If the weaknesses and challenges can be overcome, then MFIs could provide a stable financial option for pastoralists.

Table 6: Strengths and weaknesses of the MFI model in Ethiopia

Strengths of the MFI model	Weaknesses of the MFI model	Suggested recommendations to the weaknesses for sustainability
Local traders are found within close proximity to the pastoralist.	SACCOs are not strong within the region. Therefore, associations and groups which form SACCOs may not be strong for financial services to be channeled through SACCOs.	The line Ministries and all development partners should sensitize the community about the importance of SACCOs within the PRLRP areas.
Apart from the local trader, pastoralistscan also get alternative financial resources from group associations, hence provision for loan options.	Sometimes pastoralists cross borders. There is a risk of disappearing with loans or the loans may not be paid on time once they have crossed the border.	Guarantor-ship amongst the pastoral community should be promoted to mitigate this mobility problem. Local administrations should also be involved to assist in vetting the loan applicants.

Local trader can easily identify what pastoralists need and hence advance loans to the pastoralists. Local traders should be in close consultation with the pastoralists.	The wealth that pastoralists own which in the form of livestock should not be taken as collateral by the banks and MFIs.	It is important to consider Livestock as a security because it is an asset to pastoralists. However, this can only happen if livestock owned is not communal and an agreement should be made between the pastoralists and the financial institution so that in case of default the livestock can be sold. The challenge with this suggestion connotes that there should be ready market for pastoralists and MFIs to sell the livestock.
The MFIs have scheduled community sensitization meetings every month about the financial products being offered.	Pastoralists are subjected to pay additional service charge (double charge)to traders if they default to repay the loan that had been advanced to them by the traders. This makes the loan provided to bevery expensive.	It is important for pastoralist to avoid securing loans from the traders as it becomes expensive to them. In the long run, the pastoralists should be sensitized on how to become entrepreneurs in order to get loans directly from the MFIs and NGOs. In the short run, pastoralists are in a better position getting financial services from their VSLAs and SACCOs.
MFIs do not entertain individual loans and this practice is a strength as the groups become collectively responsible for the loans advanced to the group.		
The screening process done by line bureaus after proper feasibility study.		
MFIs create job opportunities for the community within the branches established in the rural towns, therefore, it is highly preferred by the community.		
They train the MFI staff.		
They are found in most Weredas/Districts		
Provision of specialized services suitable for the pastoralists such as Hellocash.		
MFIs consider local situations and customize financial product to suit the pastoralists' needs.		

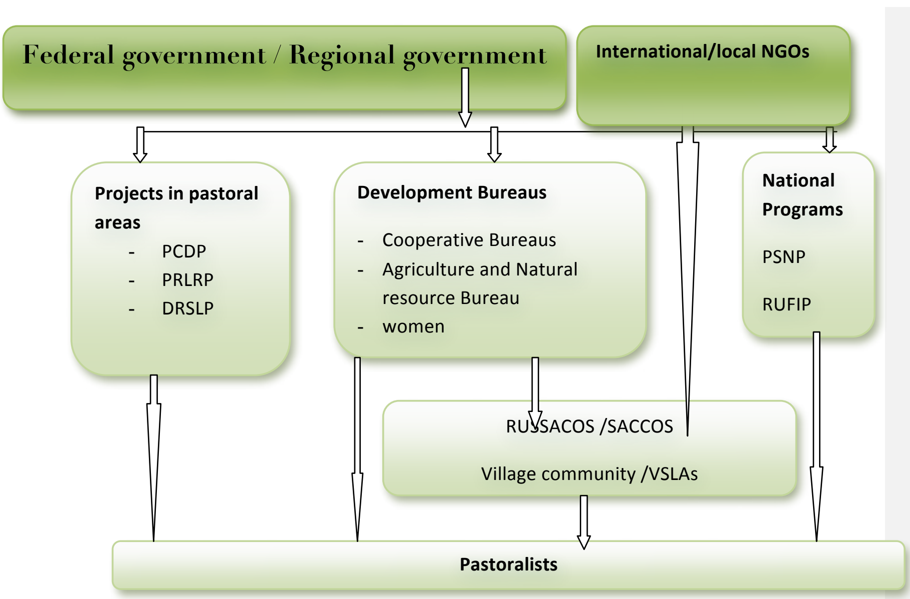
Source: Fieldwork findings (2016).

3.3.9 Federal government / Regional government/NGOs financial grants provision model

It was established that grants are mainly offered by government institutions and NGOs within the region. Some of the NGOs offering grants to pastoralists include MercyCorps, Save the Children, FAO, etc. However, the NGOs are not allowed to operate Revolving Loan Funds (RLFs) in accordance with the new NGO amendment law of NBE 626/2009. Grants provided to the pastoral groups/associations/SACCOs/PSACCOs can be used as RLF by such associations. The federal and regional government provides financial support to pastoralists through its major national programmes, such as Pastoralists Safety Net Program (PSNP) and Rural Financial Intermediary Programme (RUFIP).

The government projects include the Pastoralists Community Development Project (PCDP), Regional Pastoralists Livestock Resilience Project (PRLRP) and Drought Resilience Sustainable Livelihood project (DRSLP). In addition, financial products are also provided to the pastoralists through development oriented bureaus such as cooperatives, agriculture and natural resource development bureaus, livestock and fisheries development bureaus, and women affairs bureaus. Figure 9 below depicts the model.

Figure 9: Federal government/Regional government financial grant provision model.



Source: Fieldwork findings (2016).

3.3.10 Strengths and weaknesses of the grant model in Ethiopia

The financial grant provision model in Ethiopia was discovered to have several strengths and weaknesses. It was revealed during the field work that the grant model was not sustainable amongst the pastoralists. This was because after the withdrawal of the grant, the projects could not be sustained by the community. The Table 7 below presents the strengths and weaknesses of the grant model.

Table 7: Strengths and weaknesses of the grant model for the pastoralists in Ethiopia

	Strength	Weakness	Suggested recommendations to the weaknesses for sustainability
1.	The federal and regional governments had allocated huge amount of money for pastoral areas development.	The government support was not sustainable because it varied based on the yearly budgets for the pastoralists.	Development for pastoralists' areas should be pegged on strategic plans with clear strategic objectives by the federal and regional governments.
2.	There are huge national programnes and projects by various stakeholders targeting pastoral areas development.	In some cases management of financial allocations has no clear Monitoring and Evaluation (M&E) mechanisms to establish efficiency and effectiveness about the utilization of funds.	For each programme and project, there should be clear M&E and reporting mechanisms about progress of all the development activities within the pastoral areas. Deviations from the intended results should be corrected promptly.
3.	There are a number of regulations and guidelines that support the line Ministries and bureaus to perform the assigned activities in Ethiopia for grants to be disbursed to pastoralists.	Grants cannot address the vast majority of pastoralists who are living in marginalised areas. This has created a dependency syndrome. It has become very difficult for any development partner to introduce any assistance without grant.	There should be grant programmes which are directed to serve a majority of the total population of pastoralists and not only few of them to benefit from such grants in order for the impact of such an initiative to be significant. In addition, grants should only be used as a boost or startup capital for identified entrepreneurial ventures. Grants should be provided with a view to help the pastoralists establish their economic independence. Training should be done on economic activities related to the objective of the grant prior to the provision of the grant.
4.	In some cases regular M&E are done, lessons learnt and recommendations made on further development interventions.	Sometimes the grants on the provision of inputs and financial support is not timely.	A study ought to have been conducted always to allow grant support to be delivered to the beneficiaries at the right time when they are ready to receive such grants.

	Grants assist pastoralists to add stock to the existing stock. This is a boost to their livestock asset.	The demand for the grant highly exceeded the supply.	Sensitization to all stakeholders to have coordinated effort to support pastoralists should be done by the federal and regional governments
		Grants are provided with conditions to be fulfilled by the beneficiaries such as formation of groups which can be formed without proper common bond. Therefore, after the withdrawal of the grant, the groups are also dissolved.	Thorough scrutiny should be done to establish whether the formed groups have some common bond and objectives which mesh with grant objectives as well as economic activities prior to the disbursement of grants.

Source: Fieldwork findings (2016)

3.3.11 Financial product gaps to the pastoralists in Ethiopia

Interviews with several stakeholders in Ethiopia confirmed the following financial gaps amongst the pastoralists which require support.

3.3.11a Savings financial products

Findings within the region confirmed that there were savings services provided by the financial institutions. However, most financial institutions fail to mobilize savings within the rural areas where herders live and livestock market places where herders and traders sell their livestock. Moreover, most financial institutions provide savings services without suitable tailor-made financial products to the herders who are mobile in search of pasture and water.

3.3.11b Credit financial products

It was established that there are credit facilities extended to customers of financial institutions. However, most financial institutions provide credit facilities without following the Islamic Law (Sharia Law), and yet some of the pastoralists are Muslims who strictly follow the Sharia Law. Therefore, they do not find financial institutions which charge interest on credit attractive to them. In addition, the herders and some traders cannot fulfill the financial institutions' credit requirements such as collateral as security for loans. The interest rates charged by commercial banks on loans are very high and not affordable to the pastoralists.

3.3.11c Credit Cards financial products

Credit cards are used widely by non-Muslim pastoralists and by players in the livestock upper value chain. The card is used in town centres where banks have established branches. The herders are not aware about the use of credit cards. Moreover, the herders need education about the use of credit cards if they are to benefit from this financial product.

3.3.11d Debit Cards financial products

Debit cards are used widely by non-Muslim pastoralists and mostly by the upper value chain players. The card is used in town centres where banks have established branches. The herders are not aware about the use of debit cards because a majority of them neither have bank accounts nor any savings with the banks. The herders also need to be educated on the use of debit cards.

3.3.11e Automated Teller Machines (ATMs)

The findings discovered that the ATMs are found in town centres within pastoralists' areas. However, users of the ATMs are p;ayers in the livestock upper value chain and not the herders. It was also discovered the ATMs are established within secure places/buildings with security surveillance.

3.3.11f Insurance financial products

Insurance services for the herders were discovered to be under trial within the project region. However, interaction with the herders revealed that they did not know about the presence of such insurance services. Some financial institutions have insured their loans which are extended to the pastoralists' associations. For example, in Uganda, UAP insurance has a cover for loans extended to pastoralists' associations by Centenary Bank. Insurance services are also needed to cater for pastoralists'livestock during seasons of drought, theft and diseases.

3.3.11g Stock Market as a financial product

It was discovered that the pastoralists, especially the upper side of livestock value chain such as the exporters and slaughter house operators, could enjoy saving their money in stock markets and receive dividends and capital appreciation. This was not discovered among the herders.

3.3.11h Treasury or debt instruments

It was discovered that the pastoralists, especially the upper side of livestock value chain such as the exporters, ranchers and slaughterhouse operators, can enjoy saving their money in treasury bills and receive dividends and capital appreciation. This was not discovered among the herders.

3.3.11i Wealth Management

The field work discovered that banks and micro finance institutions engage in such services which involve a high-level of professional services that combine financial and investment advice, accounting and tax services, retirement planning and legal or estate planning for one set fee.

3.3.11j Informal financial services

This involves provision of financial services to pastoralists by friends, family members and informal groups. The findings established that the provision of informal financial services was very common amongst the herders and low amongst players in the upper side of livestock value chain.

3.3.1k Mobile Banking

Mobile banking can be the most suitable means of delivering banking products to pastoralists in remote areas where road infrastructure is poor. However, mobile phone banking requires good network from telephone service providers. This is still a challenge which should be addressed. The findings established that mobile banking can be applied for deposits and withdrawals using mobile phones. Deposits and withdrawals can also be done through mobile phones to and from the banks respectively. Furthermore, it was discovered that there is limited use of mobile banking amongst the herders, but there is high usage by the players on the upper side of livestock value chain.

3.3.11l Internet Banking

This kind of financial service remained dormant among all the pastoralists/herders interviewed. The key informants also confirmed that internet banking was not offered to pastoralists/herders. Furthermore, internet banking requires high skill and knowledge to operate. A majority of the herders are illiterate and also live far away from internet services. The banks where such services are found are located in town centres where there is high population but far away from the herders. The exporters and the processors/slaughter house operators can easily use internet banking for transferring and receiving money.

3.3.11m Agent banking

Commercial banks are already using agent banking and reaching some remote areas. However, this should be intensified because the rural hardship areas are still left without knowledge of banking services. One of the respondents from the demand-side in Semera area had this to say; "We have never seen any person from any bank talking to us about what they do…" It was also noted that bank agents had unsuccessfully tried to venture into the pastoral areas, because of poor infrastructure such as road network and mobile phone network within the pastoral rural areas. and also due to insecurity especially in regions such as Moroto to Amudat area in Uganda, Turkana-Lokiriama, Marsabit, West Pokot in Kenya, and Semera region in Ethiopia.

3.3.11n Foreign Exchange

Foreign exchange services are found in the urban centres of the project region. Examples are commercial banks and foreign exchange bureaus. Only the upper livestock value chain actors could benefit from this financial service and not the lower livestock value chain actors such as herders. There are no foreign exchange bureaus between the border points and livestock market places. As a result, different currencies such the Ethiopian Birr, the Kenya Shilling, and the Uganda Shilling as are used. This can be solved if there is a regional integration and a common currency established for the three countries. There will be no need of exchanging currencies in the market places. For this to happen, there is need toestablish a common central bank managed by the three countries. While this may be attained in the future for Kenya and Uganda through the East African Community, Ethiopia is not signatory to the EAC integration process.

3.3.11o Common currency

It was found out that there was no common currency within the cross border markets which could assist in smooth transactions among the livestock value chain actors. However, there is a prospect within the region through the initiative of Africa Union to have a common currency within selected Regional Economic Integrations. This needs to draw lessons learnt from advanced regional economic blocs such as the European Union which has established the Euro as acommon currency (). They will also need to determine the strengths and weaknesses of the same.

3.3.12 Gaps which require financial support in pastoral areas

3.3.12a Financial support on the upper side of livestock value chain

Interviews with slaughter house operators, suppliers and exporters revealed that there is financial support gap on the upper side of the value chain. Most development partners tend to concentrate on the input supply side, including production, which is the lower side of the livestock value chain. There is lack of financial support on the upper side of the livestock and livestock products value chain which include processing and trading both local and export consumptions. Most financial support is concentrated on the input supply and production value chain sections. In order for the pastoralists to improve their standard of living, support throughout the livestock value chain is needed. In this way, the pastoralists can attract export markets with their livestock products and fetch better prices. Financial support is required in form of trading, collection, transportation, distribution, processing, for example, slaughtering, chilling packaging, domestic and export consumption of livestock and livestock products.

3.3.12b Modern market construction

Pastoralists need modern markets where they can sell their livestock. There is need to construct modern markets with adequate necessary facilities such as proper fortified fencing for security, market offices and water troughs. Such markets should be constructed in places which are accessible to the pastoralists. Therefore, good roads leading to such areas should be constructed. Best practice in this regard is witnessed in Kenya where construction of a good tarmac road from Isiolo passing through Marsabit to Moyale is almost completed. As a result, the Merile livestock market between Isiolo and Marsabit will be easily accessible. This will open up the Moyale livestock market which is almost complete with modern facilities.

3.3.12c Massive awareness creation about available financial services

Most pastoralists are not aware about financial services provided by financial institutions. This is because awareness creation about such services has not been carried out by the financial institutions and other stakeholders. There should be partnership driven initiatives to create awareness about financial products offered to the pastoralists.

3.3.12d Startup capital support

Pastoralists lack startup capital to initiate alternative livelihood Income Generating Activities (IGAs) activities such as small shops, beauty salons, local handicraft making, among other businesses. Development partners should, therefore, support entrepreneurial minded pastoralists who have engaged in other alternative livelihoods as economic activities by providing working capital.

3.3.12e Entrepreneurial mindset capacity building

There is need for capacity building to educate pastoralists about entrepreneurship, financeand business management. This is because some pastoralists have moved to the city and other urban centers. They are currently engaging in alternative livelihood activities, especially in businesses which are not related to pastoral life. Therefore, there is need to have them trained on how to manage their business ventures.

3.3.12f Financial support to establish Regional Economic Integration

Pastoralists in Ethiopia, Kenya and Uganda share more or less the same kind of livelihood. There is need for financial support aimed at the establishment of Regional Economic Integration (REI) with a view of harmonizing support to the pastoralistsand hence enhancing their livelihoods. This will also bring regional economic integration in neighboring countries. The support areas can include harmonization of health, food and infrastructure such as road network, telecommunication network, and security among others. Ethiopia, Kenya, and Uganda Pastoral Integration (EKUPI) can bring about harmony between the countries as well as other neighboring countries. It will also enhance the standard of living of the pastoralists.

3.3.12g Financial support to the pastoralists on upper level value chain

The upper side of the value chain includes export traders, feedlot operators, slaughter house operators, ranchers, suppliers, and middlemen. The financial gaps affecting them and remarks on them are given in Table 8 below:

Table 8: Financial support on upper level value chain in Ethiopia

Financial needs	Remarks
1. Financial support in form of affordable credit to purchase land Land is the major bottleneck in feedlot operation and live animal export sector. Most feedlots are found in areas which are not conducive for operation. However, they are also found in major cities. For example, in Ethiopia, they are found in Addis Ababa, Adama, Mojo and regional government capital cities. Cognizant of the problem recently is that the federal and regional governments tried to allocate 5 hectaresof land for individual feedlot owners around Adma and Mojo towns. However, this was not sufficient compared to the demand. Because of this, the majority of the feedlots are found both in urban centres (towns) and on the outskirts of towns.	It should be understood that keeping animals in urban human settlements zones has unprecedented consequences, especially considering zoonotic disease. It is strongly advisable to provide financial products such as affordable credit to assist in the purchase of land for feedlots away from towns. So availing and allocating farming landto feedlots outside urban centres should be a mandatory priority.
2.Affordable credit to construct roads leading to the feedlots In Ethiopia, for example, the federal and Oromia regional government constructed roads leading to feedlotsin Adama and Mojo towns. This is not adequate. Several roads leading to other feedlots should also be constructed.	When the land is available for feedlots and exporters it is important to fulfill all the basic infrastructure in order to make it more effective and efficient.
3. Affordable credit to provide water and electricity to the feedlots. Most of the feedlots within the three countries do not have access to potable water and electricity. There is serious shortage of water. They rely on water supplied by tankersor trucks. There is no developed water infrastructure in and around the feedlots. Most feedlots use generator as a source of power. The regional government in Ethiopia expects that water services and hydro power infrastructure development should be done by private feedlot owners.	When affordable credit is made available to the feedlot owners and exporters, it is important to look at the entire basic infrastructure for such operations within the three countries.

Financial needs	Remarks
This is yet to happen.	
4. Affordable credit to the feedlot operators to construct quarantine In Ethiopia, live animal exports are done through Djibouti using the privately owned quarantine called Abdu Yasir Quarantine. This quarantine has many problems to enable effective livestock transaction.	Provision of affordable credit to construct quarantine. For example, in Ethiopia, it is necessary to construct a live animal quarantine near the port within Ethiopia

3.3.13 Hindrances on provision of financial services to the pastoralists in Ethiopia

The findings established the following hindrances on financial provision to the pastoralists in Ethiopia:

3.3.13a Poor infrastructure and network problem

This affects the establishment of branches in pastoral areas thus hindering banks agents mobility and mobile banking services. In addition, there is no mobile network coverage in some areas, therefore mobile banking and agent network cannot function is such areas.

3.3.13b Fear of the risks of non-repayment of loans advanced to pastoralists

Generally, loan facilities to the pastoralists are still very inadequate because financial institutions fear the risk of non-repayment of loans. This is because they do not accept livestock from the pastoralists as security. The pastoralists are constantly mobile in search of pasture and water, therefore, keeping track of their areas of habitation becomes difficult for the financial service providers. The problem gets worse when it comes to agent network system. The agents find it difficult to track the movement of pastoralists in order to serve them with financial products. Therefore, the providers of financial products are afraid of the mobile nature of the pastoralists.

3.3.13c Pastoralists' negative attitude towards formation of SACCOs

SACCOs are legally formed institutions and are recognized by financial service providers. However, most pastoralists have not embraced the SACCO concept. In addition, cooperatives have inadequate staff to engage in active sensitization of pastoralists to join or form SACCOs. This is also compounded by inadequate means of transportation to reach the pastoralists rural areas.

3.3.13d High employee turnover within pastoral areas

Commercial banks and MFIs cite high employee turnover within the pastoralists' areas. The employees deployed in such areas fail to meet the targets set for them due to the nature of work and the hardship encountered. Consequently, they leave the commercial banks and MFIs because they cannot cope.

3.3.13e Financial products are provided in highland areas

Most financial service providers concentrate their activities in the highland areas and not the low land areas. This is due to their mandate on financial service delivery which is based on high expectation of loan repayments. Loan repayment is viewed as being higher in highland areas than in the low land areas. The employees have got targets to meet and they would prefer to work with areas where they can easily achieve or exceed their targets.

3.3.13f Pastoralists' financialliteracy

Pastoralists have limited knowledge on financial management. They do not know how to keep books of accounts on their operations and cannot recall financial transactions. This makes it difficult for the financial service providers to establish their credit worthiness. Table 9 below demonstrates various categories of challenges that are experienced bypastoralists as confirmed by the financial service providers and key informants.

Table 9: Challenges of illiteracy amongst the pastoralists

Category of illiteracy	Challenges
Financial skills	Poor budgeting skills for cash and production projections. Poor savings culture. Non-conceptualized model of how cash flows into and out of the business. Poor inventory management. Poor negotiation skills for discounts, bargains, credit terms etc. Business premises and inventory not insured. Informal credit sourcing from friends and advances from relatives. Informal banking practices.
Business skills	Poor customer relations. Low market intelligence oncustomer's base and competitors. Poor and unprofessional oral and written business language that lacks business etiquette. Inadequate or no record keeping. Ignorance of one's rights, responsibilities and legal requirements.
Meat processing skills	Undifferentiated meat cuts. Inappropriate tools. Failure to capture whole value of animal. Little product knowledge.

3.3.13g Lack of knowledge on suitable market

Pastoralists are blamed by many stakeholders to prefer taking loans to fatten their animals but not willing to sell their livestock profitably at the right time. They are only willing to sell their livestock during the drought season when the animals are almost dying. In this case, the pastoralists receive poor market prices which cannot enable them to repay their loans. Therefore, the pastoralists become bankrupt after selling their animals.

3.3.13h Cultural attachment to livestock

The pastoralists only know herding as their business and, therefore, value no other business. For example, when there is a problem such as livestock disease outbreak, there is no alternative livelihood which they can turn to in order to repay the loans secured from financial institutions. In some areas of Semera, there is not even appropriate land to graze the livestock. Land along the river banks where the pastoralists could get pasture was taken by the government to grow sugarcane. An informant in the FGD had this to say:

> *"The government took our land near the river beds in Semera area to plant sugarcane. The government promised us that for every 100 kilogrammes of sugarcane, we would be paid between Birr. 50 to 100. This was about three years ago, but we have not been compensated since then. This is coupled by the fact that we are not allowed to graze our livestock within theland which is now government land. This is a financial hindrance to us because we depend on our livestock as the main source of income and even depend on it to repay loans advanced to us by our groups"*

3.3.13i Geographical barriers and poor terrain coupled with long distances

These conditions make it difficult for commercial banks and MFIs to reach pastoralists in rural areas. In fact, in some areas, people have to use donkeys to reach such places because of poor terrain. The pastoralists are also sparsely populated and spread over a wide geographical area.

3.3.13j Communal land ownershipby the pastoralists

Land is owned by the clan or community yet loans are requested by individual pastoralists. Therefore, it is difficult for the community/clan to accept land title deeds to be offered as security for loans if requested by the financial service providers.

3.3.13k Inaccessible credit services

Most value chain players cannot access formal credit services. This is perceived to be caused by several factors among them the high cost of capital andlack of collateral required by financial institutions. Low financial literacy on the part of credit seekers is another major challenge since most lack awareness on availability of credit products and terms. Most people also seek for alternative sources of credit such as borrowing from shylocks, ROSCAS, ASCAS, and Chama. The alternative sources lack any form of control and are not state regulated, leading to adverse effects such as loss of property.

3.3.14 Enabling regulatory measures for financial services in Ethiopia

Some of the enabling regulatory measures in Ethiopia are:

a) Regulation of Mobile and Agent Banking Services Directives No. FIS /01/2012: This regulation specifies that the maximum balance available in a mobile account of any person with a financial institution at any time shall not exceed Birr 25,000. Daily mobile banking transactions that involve debiting of an account by a person with a financial institution shall not exceed Birr 6,000. A financial institution shall enter into a written contract with third party service providers such as technology service providers and telecom companies and such contracts shall clearly define the roles and responsibilities of each party in the provision of mobile and agent banking services. User awareness on their information security, including how to secure Personal Identification Number (PIN) and other security features should be provided.

b) The NBE 626/2009 also specifies various regulations for an enabling environment. This regulation governs commercial banking services and the MFIs operations in Ethiopia. There are 21 regulations which the commercial banks and MFIs must adhere to.

c) Customers Due Diligence of Banks Directives No. SBB/46/2010: Financial institutions shall ensure their agents fully comply with the requirements of "Prevention and Suppression of Money Laundering and the Financing of Terrorism Proclamation Number 657/2009". Further, it specifies agent contracts, agent management, agent contract termination, notification and publication of list of agents and locations, relocation, transfer and closure of agent premises, customer protection, reporting requirements, and minimum provisions to be specified under financial institution-agent contract. The effective date of these regulations was the 1st day of January 2013.

d) Banking Business Directive No. SBB/3/95 Contribution in kind: Contributions in kind are financial services which pastoralists receive from various financial institutions. Contributions in kind should be valued by professional valuers approved by the National Bank of Ethiopia. Capital contributions in kind shall not be considered for the purposes of fulfilling minimum required capital and shall not exceed 25 percent of paid up capital in excess of minimum required capital.

3.3.15 Recommendations for Ethiopia

A. It is recommended that financial institutions should bridge the financial gaps for pastoralists as explained in sections 4.3.11 and 4.3.12. The financial gaps are in form of the following financial products:

Recommended for immediate attention for all the actors of livestock value chain actors about these financial products which still are pose as gaps to the pastoralists/herders.	Recommended for long term attention for the herders, but immediate attention for actors on the upper side of the value chain
Savings financial products.	Stock Market as a financial product.
Credit financial products.	Treasury or Debt instruments.
Mobile banking.	Wealth Management.
Internet Banking.	Credit Cards financial products.
Agent banking.	Debit Cards financial products.
Foreign Exchange.	Automated Teller Machines (ATMS).
Common Currency.	
Informal financial services.	
Insurance financial products.	

B. It is also recommended that the suggested recommendations in which each financial model should be strengthened to become sustainable should be implemented.

C. Other recommendations for Ethiopia include:

i. **Better signal coverage for mobile banking:** From the literature review and field work findings, the study has shown how adequate mobile phone signal coverage has spurred an explosive development in the supply and use of financial products. These investments are typically done by private companies. However, local authorities can encourage private sector investments by offering to supply facilitating conditions such as providing security for physical installations among others.

ii. **Provision of incentives to the financial service providers in pastoral areas:** Taking into consideration the various hindrances in the provision of financial services to the pastoralists, the governments should offer incentives to the financial service providers to offer their services to the pastoralists on affordable terms. Such incentives should include taxation waivers on financial products purely offered to the pastoralists.

iii. **Promoting savings associations:** The premise that the poor are better placed to engage with markets through group structures holds true. This has been demonstrated by the numerous savings group members in Marsabit in Kenya and Kotido in Uganda. The savings groups have managed to mobilize high levels of savings/capital that may not be possible to do as an individual. As previously noted, this has enabled many to invest in income generating activities which are critical to improving their financial viability. The existence and the value of other group structures is also important as they can support the accumulation of non-financial capital such as irrigated land, water sources and greenhouses which can also enable increased production.

iv. **Intensifying and sensitizingon financial products:** Sensitization on the availability of financial services should be done by all the stakeholders including the Government, NGOs, Banks and International Bodies in order for the pastoralists to take advantage of the many financial products offered by commercial banks and other financial institutions.

v. **Promoting cooperative development in pastoral areas:** Government officers should be sensitizedto enable them to effectively promote and support cooperatives. This is because cooperatives are formal associations favoured by financial institutions for credit extension to the pastoralists. Financial support is needed to sensitize government officials at federal, regional and district levels about the importance of cooperatives to the pastoralists. The findings established that cooperatives are considered to be engaging in minor activities and thus provided with minimum budget allocation and yet the importance of cooperative for small income earners cannot be underrated.

vi. **Improving infrastructurein pastoral areas:** Financial institutions cannot penetrate rural areas where pastoralists/herders are found if there is no good infrastructurein the village areas. These should include good road networks, electrification, and network services. Mobile network is needed to enhance mobile banking, electrification or solar technology for cooling meat, milk water among other things. In addition, commercial banks are currentlyusing their agent network model, but there is a challenge of poor roads and mobile network connection. It is therefore, recommended that if the financial services are to reach the pastoralists, then the mobile service providers and the financial services providers should partner to deliver such services. Electrification also plays a tremendous role in market development. Counties and cities can contribute to and strengthen their markets by directly financing electrification projects or by encouraging and accommodating private sector investments in the area. In addition, cities and counties should consider strengthening market infrastructure, for example, by providing adequate stalls or offering secure storage, maybe at a fee, in order to reduce costs incurred by traders due to wastage or theft.

vii. **MFIs and SACCOs be part of the Revolving Loan Fund (RLF):** The government is the only stakeholder providing RLF through government support projects. The government should create equal opportunity to all stakeholders to provide RLF to SACCOs, VSLAs, and individual pastoralists. The RLF should create more access to financial services tailored for pastoralists. A good best practice can be observed in Kenya where most financial grants delivered to the famers, including pastoralists by NGOs and government projects, are in the form of RLF amongst the groups/VSLAs.

viii. **Increasing the number of branches in pastoral areas:** The increased presence of formal banks in the pastoral areas is another factor that will contribute to strengthening financial products extension to the pastoralists. This is because more traders will have access to formal credit, and thus, allow them to increase their supply. Furthermore, increased competition among banks can contribute to the reduction of bank charges, and thus make the use of their services more attractive.

ix. **Alternativesfor collateral security for pastoralists:** Collateral security required by the commercial banks cannot work for the pastoralists. One of the positive prospects on this issue is that there is already a planned discussion between the county governments in Kenya, Chamber of Commerce in Uganda, and Chamber of Commerce in Ethiopia to discuss the issue of collateral security amongst the pastoralists. A possible solution for this is to engage local leaders such as chiefs so as to vet the pastoralists who request for loans and in case of default the pastoralists can be traced by the community administrators even if they cross the borders.

x. **Financial grants from any development partner should cover upper side of livestock value chain as well as to take a multi-sectoral response approach:** Any financial support should not be aimed at only the lower side of the value chain, but should also target the upper side of the value chain needs, such as trading, processing and consumption. Support should focus on food, health, nutrition, sanitation, water and education for pastoralists. This should support the intention of the Human Requirements Document (HRD) for 2016 which calls for a multi-sectoral response in Ethiopia.

xi. **Encouraging Income-Generating Activities (IGAs):** When pastoralists engage in IGAs, the financial institutions may find them attractive for credit extensions. This can be made possible if the pastoralists engage in IGA so that they can comfortably repay their credits. Savings groups should facilitate many pastoralists to engage in IGAs. The critical gap here is the individuals' ability to take both onand offfrom IGAs. That is, from a subsistence level to a more growth or business orientated enterprise. Another problem is that many IGAs are facilitated by NGOs so that the idea, the capital and the training are all extrinsically provided. This lack of intrinsic motivation, as well as long-term follow-up and support, means many 'livelihood' projects will fail. The formation of small and medium enterprises is almost non-existent. It is advisable that, external promotion of IGAs should be avoided and should not be the starting point. Instead, support is required to build the confidence and intrinsic motivation of individuals or communities to develop a business idea or a commercial approach to agricultural production.

xii. **Improving existing livestock markets:** There should be financial provision to improve the condition of the livestock market. They should be equipped with modern facilities such as offices, washrooms, feeding troughs and well caged market structure. This enables pastoralists to have a conducive trading environment. Other equipment that should be added are weighing scales, pregnancy test kits, and kits to test health conditions of the livestock. Even though these are just recommendations, if implemented they can go along way tomarket the pastoralists. This in turn can make them become attractive to the financial service providers especially if market places allow them to trade in their livestock and have profitable engagement.

xiii. **Capacity building in business management:** There should be an increase in financial support in areas of business management. This can be done by offering business knowledge training for pastoralists who have changed to become traders. There are very many pastoralists who have relocated to urban centers and are engaging in IGAs. These pastoralists no longer need support to improve livestock management but rather need entrepreneurial knowledge. As such, they can then qualify for loans from MFIs and commercial banks to support their businesses. Pastoralists should also be trained on Farming as a Business (FAAB) in order to change the mindset that the livestock they own can sometimes be sold during wet seasons to earn higher prices. Consequently, during the dry seasons, they can use the money to stock more livestock at cheaper prices. This would allow them to add the number of stock. The financial institutions would therefore find them attractive and even accept livestock as security against loans. As a result, they can qualify for loans from MFIs and commercial banks as businessmen as opposed to pastoralists.

xiv. **Certified training:** Certified training should be offered to the pastoralists turned businessmenon the different kinds of business that they engage in. Areas of certified training should include financial literacy.The certifying bodies can train them on various standards and and procedures for business production. Once the pastoralists become certified, their produce can be recognized and accepted in a wide geographical area. This is applicable to the actors in the upper side of livestock value chain. They include; the slaughterhouse operators, exporters and butchers. Again, this would enable them to become more attractive to financial service providers.

xv. **Purchasing crop production inputs for pastoralists:** During the field work, it was discovered that a number of pastoralists and agro pastoralists voluntarily settled on major river basins where crop production is sustainable. Attention should be focused towards covering the high financial costs to purchase crop production inputs and hence boost production levels.

xvi. **Ratifying trade agreement between Ethiopia, Kenya and Uganda:** There should be a trading agreement between Kenya and Uganda to solve the issue of police harassment at the borders especially, from the Kenya police. There is already a positive prospect being pursued in terms ofhandling cases of police harassment where the Chamber of Commerce in both countries together with CLMC and County government are involved. It aims at developing a strategy that ensures sustainable cross border trade in the region. For example, it is going to be done in such a way that there is going to be an establishment of quarantine in border areas where there is illegal livestock trade. This will ensure that there is no livestock smuggled to neighboring countries through the borders.

xvii. **Harmonizing market days across borders:** There is need to harmonize market days because currently, the livestock market days in Ethiopia and Kenya clash. However, there is good progress in regards to this which should be hastened. Under RPLRP, traders in the three countries of Ethiopia, Kenya and Uganda are planning to meet to discuss this problem and agree to harmonize trading days.

xviii. **Access to market outside the local market for better prices:** In this regard there should be consideration of value addition to livestock and livestock products. For example,value addition to hides and skins where market for such products is readily available especially China. Contract farming can assist pastoralists to secure such markets. Through this, the pastoralists will be able to repay their loans, and various financial institutions including banks would find pastoralists attractive for lending.

xix. **Mapping 3Ws:** Currently, all efforts are being made in such a manner that there is no establishment of the 3Ws mapping. Coordination amongst the development partners and other stakeholders who are involved in providing financial support to the pastoralists should be encouraged. There should be an established impact and sustainability of financial support provided to pastoralists to ensure non-duplication of efforts, and hence increase competitiveness in the delivery of financial support to the pastoralists.

3.4. Findings in Kenya

3.4.1 Types of financial products offered to pastoralists-supply side

Findings on the supply side indicates that banks, MFIs, informal banking, and mobile banking are all found in the pastoralists' areas in Kenya. This was confirmed by all those interviewed. It was also revealed that insurance firms were present within the pastoralist areas, but few of the pastoralists were aware about the insurance services. There were no stock market, treasury or debt instruments, wealth management, credit and debit cards financial products, and ATMs financial products in the pastoralist regions in Kenya. The implication of this finding is that there are financial product gaps amongst pastoralists in Kenya. Investigations with some key informants revealed that livestock insurance pilots had been done in areas suchas Isiolo, Marsabit and Moyale. This was done by the Government of Kenya through International Livestock Research Institute (ILRI). The picture below depicts an interview with one of the key informants who is the chairman of Eco-Pillar SACCO (at the centre dressed in black) in Lodwar town, Turkana county.He confirmed the above mentioned financial gaps.

3.3.2 Types of financial products offered to pastoralists-demand side information

Findings by the pastoralists indicated that financial products found within the pastoralists areas were banking, MFIs, informal banking and mobile banking. They further confirmed that there was no insurance, stock market, treasury or debt instruments, wealth management, credit cards debit cards and ATMs financial products in the pastoralists regions in Kenya. The findings, therefore, connoted that there are financial product gaps in form of insurance, stock market, treasury and wealth management. This was contrary to information from the supply side on insurance services where key informants confirmed that livestock insurance services had been piloted by the government. This finding therefore implies that if livestock insurance had been piloted, it is not known to most pastoralists within the project areas.

Investigations also revealed that banking and mobile banking financial products such as M-PESA were utilized by the traders and to a small extent by the herders within the region. The favoured type of financial product was informal banking which is done through Village Savings and Lending Associations (VSLAs). Developments in mobile-phone services, which is now used for cash transfers, has enabled pastoralists to receive money from relatives or contacts in the cities.

3.4.3 Financial products offered to pastoralists by commercial banks in Kenya

Major commercial banks which offer financial products to pastoralists and have established branches in pastoralist regions/towns include Equity Bank, Cooperative Bank of Kenya, Kenya Commercial Bank and National Bank of Kenya. They are established in regions such as Lodwar, Marsabit and West Pokot. The field work findings revealed that some of the financial products offered by the commercial banks operating in the pastoralists regions include; checking and savings accounts, retirement accounts, mortgages, credit cards, alternative investments such as mutual funds and other securities, financial management, safe deposit services (using a box inside a vault in a bank to keep important papers or valuables), and various types of consumer loans. Despite all these types of services being offered by the commercial banks within the pastoral regions, the findings established that there were only three types of commercial bank services that pastoralists had patronized. The adoption rate of the servicesis very low and the pastoralists still have difficulty accessing such financial products. The photo below depicts pastoralists lining up to access bank services from KCB Marshabit town. The pastoralists had travelled the previous day from distant areas like Moyale. The photo was taken early in the morning. The inside of the bank was packed with pastoralists as well. Some of those interviewed indicated that they had spent their night in Marshabit town in order to access bank services early in the morning. A key informantin Marsabit revealed that the amount of savings/loan which brings them all that far was a paltry amount ranging from Kshs 3,000 to Kshs10,000.

Savings as a service is one of the products offered by commercial banks to pastoralists. This is in terms of hard cash or cheque deposits or withdrawals. However, most of the pastoralists are not aware thatsuch services exist. This is coupled with the challenge of proximity of the commercial banks. Many commercial banks are very far from the pastoralists. Moreover, the pastoralists only handle cash during days when they sell their herds in the markets where commercial banks are situated, which are far away from the herders.In addition, the banks have not provided special savings products to the pastoralists and have made little effort to reach pastoralists in the remote areas.

Credit and loan facilities are available from the commercial banks. However, the pastoralists are very skepticalwhen it comes to securing loans from the commercial banks. The banks are also not very keen to market the loan products to the pastoralists. This can be attributed to the fact that the pastoralists lackcollateral security and also the difficulty in following the loan defaulters due to the nomadic nature of the pastoralists. They keep on moving from one place to another and hence it is very difficult for the commercial banks to track the pastoralists when they default on loan repayment. For instance, in 2014, a local chief from Konyao West Pokot region had 20 pastoralists who wanted loans from Cooperative Bank of Kenya. However, the bank declined the loan request because the pastoralists lacked title deeds and allotment letters for their percels of land.

Mobile banking through the use of M-PESA is also available in pastoralist areas. Mobile banking is the act of undertaking financial transactions on a mobile device such as a cell phone or a tablet. The commercial banks offer this kind of service without any specialized consideration to the low level of literacy amongst the pastoralists. There is no effort to educate pastoralists on the use of mobile banking and M-PESA banking services. The banks cite cases of high cost of training the pastoralists on the use of mobile banking and M-PESA services as a deterrent. Most of the key informants from the banks who were interviewed felt that it is the Government which should do something about the low level of literacy amongst pastoralist communities. In the pastoralist areas where banks have existing branches, they are still far from the pastoralists and thus mobile banking and M-PESA have become powerful tool to allow them access financial services.

Use of Safe boxes This is a kind of savings service found in some pastoralist rural areas of Turkana County. These are used where there are no banks, but the communities have formed various VSLAS to mobilize their savings and use safe boxes as banks. The security of the contents of these safe boxes comprises of three securing padlocks whose keys are kept by three different people. To access the contents, the three have to be together. This is mostly common in Lokiriama sub-county where the nearest banks are in Lodwar town which is over 100 kilometres and there is poor road network. Mobile network is also a problem and bank agents have not reached the area. This type of safe custody is very insecure to the group members.

The findings also revealed that there was lack of collateral security that the financial institutions could rely on to mitigate risks of loan defaults. Banks and MFIs cited lack of collateral as one reason of not lending to herders and traders within the pastoralists' project regions. Experiments were done to have a solution to this problem. There are two main approaches which are being used by the commercial banks and MFIs to overcome the problem of collateral security. They mostly apply the case of restocking schemes and use of guarantors. These are explained below.

i. **Restocking schemes:** In this case, there is no explicit group sanction, but a general sense that the group to which the restocked herder belongs will press the restocked herder to repay on time. This can work because the other households waiting to be restocked will depend on the restocked herder to repay the loan in order to access theirs. The very high repayment rates for restocking in countries like Ethiopia suggest that this is a viable alternative to collateral. Such a system could be made more systematic if herder's associations or NGOs undertook a formal role in credit provision, providing a group undertaking, and applying peer pressure to repay. It is also possible to find alternative forms of collateral. The number of animals stocked as collateral must not be more than half the total herd size of the group concerned.

ii. **Guarantors can also be used as security amongst the herders groups:** All members of the community group managing the loan also have to sign the agreement. By signing the agreement, the members are acting as the guarantors to the herder. Thisimplies that in case the herder does not repay the credit, they are also responsible for settling the repayment defaulted. Some NGOs such as ADESO has adopted the use of guarantors as security when advancing loans to the groups.

Some of the commercial banks which have opened branches within the pastoralist regions include Kenya Commercial Bank, Equity Bank Limited, Co-operative Bank of Kenya Limited, and First Community Bank (FCB). Out of these commercial banks, it is only the FCB which follows Sharia compliant financial products, and has won recognition as the best Islamic Banker in East Africa.

The distance between one commercial bank outlets and the other is far apart. For example, in Kenya, there are few commercial banks in Isiolo town where pastoralists dwell and thenearest banks are in Marsabit town which is around 270 kilometres away. The other closest region is Moyale town which is also close to 250 kilometers from Marsabit town. Although poor road conditions and insecurity have been cited as major challenges in the establishment of commercial banks in various towns, these conditions are improving in Kenya. It is, therefore, imperative that banks should be encouraged to establish as many branches as possible. Research can be done to establish the income levels and population to warrant the establishment of commercial banks.

3.4.4 Commercial banks financial products delivery model in Kenya

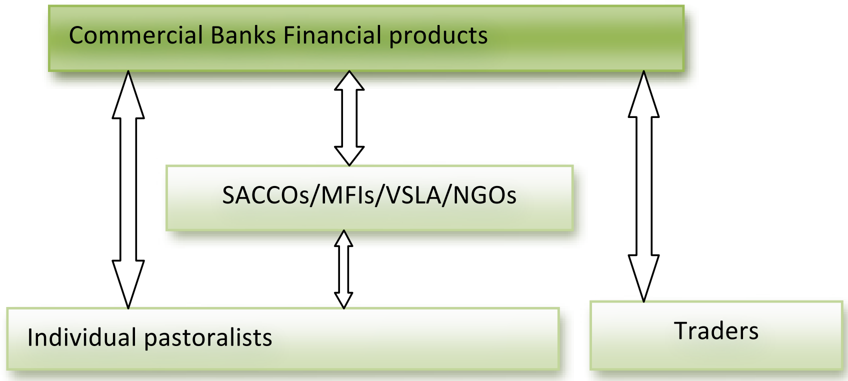
The findings revealed that, the model used by the commercial banks in the provision of financial products to pastoralists is not done directly but through cooperatives, MFIs, VSLAs and NGOs which have opened accounts with the banks. The services offered range from savings services, credit/loan services, mobile banking through M-PESA and agent network services to the pastoralists by the intermediaries of these commercial banks.

Individual pastoralists and traders can receive commercial banking products directly if they qualify. Banks can deliver such financial products to the individuals and traders through M-PESA and agent network. It is, however, confirmed that they have challenges of poor infrastructure and high level of illiteracy amongst the pastoralists as well as network problems. In Lokiriama location, Turkana County, six herders confirmed through FGD that they had never seen bank agents. The excerpt is presented below:

"We just keep our money in our boxes which have three padlocks and the three keys for the box are kept by three different members of our group. The M-PESA agent is only one in this location and italways has no float. There is also network problem all the time".

The Figure 10 below depicts the model being used in Kenya.

Figure 10: Services offered by commercial banks and MFIs to the pastoralists.



Source: Fieldwork findings (2016).

3.4.5 Strengths and weaknesses of the commercial banks model in Kenya

There were strengths and weaknesses of the commercial banks model in Kenya. The table below presents the strengths and weaknesses.

Table 10: Strengths and weaknesses of the commercial banks model in Kenya

	Strengths	Weaknesses	Suggestions and recommendations for sustainability of the commercial bank model
1.	Have opened branches within the pastoralist towns and are able to still open up more branches based on availability of good road network, security and population with adequate purchasing power.	In order to lend to the pastoralists, commercial banks need collateral as security. Pastoralists land is communal and cannot be used as collateral. In some cases, the banks require logbooks for vehicles and motorbikes (case of Lodwar).	Commercial banks should consider guarantor-ship and livestock value as security just like MFIs and SACCOs have done. One way to assure banks about the repayment when pastoralists move from one place to another is to have administrative chiefs to vet the herders and in case of default the chiefs can have mechanisms for follow up. This was confirmed by chiefs who participated in FGD in Lokiriama Location in Turkana County and Konyao Location in West Pokot County.
2.	Had started to operate agent and M-PESA banking services in the pastoralist areas.	Commercial banks do not have preferential treatment for the pastoralists. No tailor-made financial products to the pastoralists which take into account their unique characteristics.	The commercial banks should have product differentiation and also preferential treatmentfor the pastoralists. For example, KCB has an account which does not deduct interest on savings and is suitable for pastoralists, but pastoralists are not aware of this product. Other commercial banks within the project areas should emulate KCB. Also,awareness on such financial products should be created among the pastoralists.

3.	Has a lot of clients from the pastoralist areas (See photos in appendix 7 depicting pastoralists lining up at KCB Bank in Marsabit town while waiting for banking services).	They are profit oriented and do not consider non-profitable ventures even in the marginalized areas. *(Mr. David Nakusi Lopeyok, a producer in Lodwar shared his experience: "I deposited Kshs13,000 in Equity Bankbut when I came back after a year, the money was not there")*.The reason given was that the money catered for bank service charges.	Government should come up with an Act of Commercial Banks' Corporate Social Responsibility (CBCSR) to serve marginalized areas. This should be considered as a mandatory philanthropic approach. Banks should provide products which are suitable to pastoralists.
4.	Commercial banks had more experience in serving a wide range of clients.	Does not consider socio-cultural factors such as Sharia Laws which prohibits all interests charged and profits earned yet most pastoralists are Muslims.	All commercial banks should adopt the Sharia Law in regions where they have opened branches especially where there are Muslims. For example, in Marsabit and Moyale regions. The only bank which has complied to the Sharia laws is First Community Bank (FCB) which has a branch in Moyale.
5.		High interest rates charged by banks is a deterrent to pastoralists whentaking up financial products.	Need for banks to charge low interest rates to encourage pastoralists who may need loan services from the banks. This is because, the loan products do not go directly to the herders/traders, but pass through SACCOs/VSLAs hence attract double interest charges.
6.		Lack of awareness by the pastoralists on the services offered.	Banks should aim at creating enough awareness among the pastoralists on financial products.

Source: Fieldwork findings (2016).

3.4.6 Financial products offered by MFIs in Kenya

i. **Savings services:** Only deposit taking MFIs registered under the Microfinance Act 2006 and Microfinance Regulations 2008, and are currently 13 in number, can legally mobilize deposits from members of the public. Consequently, NGOs operating MFIs cannot offer savings as an independent product, thus, it is only banks that offer savings products.

ii. **Loan products:** Loans are provided by all MFIs to pastoralists through their SACCOs and VSLAs. Some of the loans they provide include; biogas loan, renewable energy loan, business loan, water tank loan, consumer loan, asset financing loan, SME loan, emergency loan, among others.

iii. **Transfers:** To avoid carrying cash for purchasing goods or for giving relatives, the customers of many MFIsare able to conduct transfers. This obviates the need to travel long distances to hand over the money and the risk associated with cash payments. For example, Caritas Microfinance Limited and Kenya Women Finance Trust (KWFT) Bank are already offering this service.

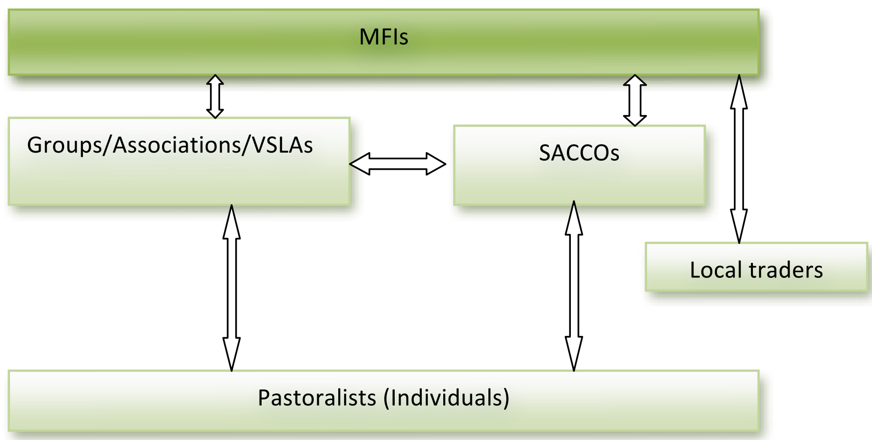
iv. **Insurance:** Some MFIsalso offer a form of insurance called "micro insurances" where the client's own account may be considered as insurance. For example, SMEP, Uwezo and Rafiki Microfinance banks are already considering this insurance undertaking. However, most herders/traders are not aware of insurance services.

v. **M-PESA services:** This is a financial product which is already being offered in some pastoralist regions in the project area. However, there are challenges such as network problem and limited float with this service. Pastoralists handle a lot of money but sometimes the float which a client can deposit at the scanty M-PESA shops found in the areacannot exceed Kshs 20,000 in a day. In addition, network is a problem affecting access to M-PESA services.

3.4.7 MFIs financial provision model in Kenya

Pastoralists can save and receive credit from their groups/associations/VSLAs and SACCOs. The groups/associations/VSLAs and SACCOs can save and receive loans from MFIs. Pastoralist traders can also save and receive loans directly from MFIs. In the case of M-PESA services from MFIs such as KWFT, it is a requirement that the pastoralists should deposit money with the MFIs and this can betransacted in cash money or in kind. However, the money in cash or kind is not directly delivered to the individual pastoralist, but the groups/associations/VSLAs or SACCOs. The MFI model is presented in the Figure 11 below.

Figure11: Current MFIs model in Kenya.



Source: Fieldwork findings (2016).

3.4.8 Strengths and weaknesses of the MFI model in Kenya

The MFIs in Kenya have several strengths as opposed to their weaknesses as shown in the Table 11 below.

Table 11: Strengths and weaknesses of the MFI model in Kenya

Strengths of the MFI model	Weaknesses of the MFI model	Suggested solutions for sustainability of the MFI model.
Local traders are found in close proximity to the pastoralist.	VSLAs are not registered into SACCOs and they are not legal entities.	The concerned ministries and all their development partners should sensitize pastoralists on the importance of SACCOs in the PRLRP areas and help transform their VSLAs into SACCOs.
Apart from the local trader, the pastoralist can get financial resources from the group association as an alternative, hence provision of loan options.	Sometimes pastoralists cross the borders hence the risk of disappearing with the loans or delay in repaying the loans while they are across the borders.	The guarantor-ship amongst the pastoral community should be encouraged to mitigate this mobility problem and consider administration such as the chiefs to vet loan applicants.
The local trader can easily receive loans from the MFIs.	The wealth of pastoralists which is livestock owned cannot be taken as collateral by the MFIs.	It is important to consider livestock as one of the security because it is an asset. However, this can only happen if livestock owned is not communal and an agreement is made between the pastoralists and the financial institution that in case of default the livestock can be sold. The challenge with this suggestion connotes that there should be ready market for livestock.
Most MFIs in the project area have scheduled community sensitization meetings every month on financial products being offered.	Pastoralists are subjected to pay additional service charge when they get loans from their VSLAs or SACCOs.	In the short run, the pastoralists are in a better position getting financial services from their VSLAs and SACCOs if these institutions are strong financially and do not get loans from the MFIs.
MFIs do not entertain individual loans and this practice is a strength as groups become collectively responsible for the loans advanced to the group.		
The screening process done by line bureaus after proper feasibility study.		
MFIs create job opportunities for the communities and therefore, highly preferred by the community.		
They train the MFIs staff who are capable of delivering information on financial serviceto pastoralist		
They are found in most Counties in Kenya		

Source: Fieldwork findings (2016).

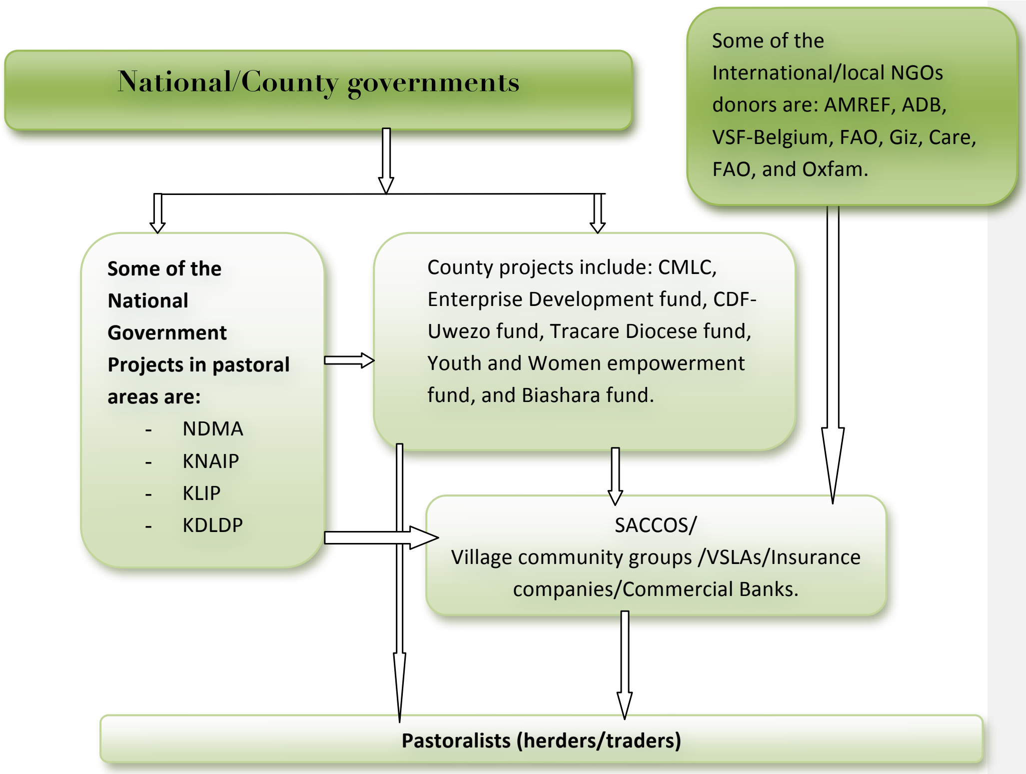
3.4.9 National government/county government and NGOs financial grant provision model

The national and county governments in this case, provide financial support to pastoralists through major national programmes such as Kenya National Agricultural Insurance Programme (KNAIP) and Kenya Livestock Insurance Programme (KLIP).

The government has the initiative to assist pastoralists through its various departments. For example, The Ministry of Trade, Industry and Enterprise Development provides trade loans to Micro and Small Enterprises (MSEs) through a Revolving Loan Fund (RLF). This has been done in the 14 ASAL counties in Kenya. The first application is allotted Kshs 50,000. After full repayment, the person qualifies for Kshs 100,000, then Kshs 200,000 upto Kshs 300,000. This fund is extended to all MSEs as long as the enterprise is legally registered. There are few pastoralists who benefit from this loan because most do not have legally registered enterprises. The loan attracts an interest of 8 percent per annum on reducing balance basis. However, the impact of these loans is not significant as implied by pastoralists interviewed at Merile Market in Marsabit County. They claimed that they were not aware of any government loan support.

Plans are underway within Marsabit County to establish Livestock Enterprise Development Fund (LEDF) to replace the trade loan. This fund is expected to look at county specific needs. This fund facility is already tailored for livestock keepers, small scale livestock traders, livestock led industry based investors and any other livestock based economic driven business opportunities in the county. Even though the disbursement has not yet started, demand is already high and the take-off seed capital of Kshs 500 Million is inadequate. The purposes of the fund is meant forlivestock trade loan, working capital loan, credit to support MSEs trade in livestock and livestock products, livestock based community investment funds, restocking and destocking fund, credit to support fodder development and conservation, and purchase of productivity enhancing inputs. This initiative should be emulated by other counties where pastoralists are found (Republic of Kenya County Government of Marsabit, July, 2016). Figure 12 below depicts the grant model.

Figure 12: National/County governments financial grant provision model



Source: Fieldwork findings (2016)

The government has also come up with Kenya Livestock Insurance Project (KLIP) through both the national and county government. This is a potential financial service to the pastoralists which is still underway. The insurance scheme will be a financial instrument which beneficiaries may use to purchase feeds or move herds to places with feed and water. The insurance product will contribute to the increase in the availability of feed during drought, protect livestock asset from death caused by malnutrition, and stimulate fodder production and feed marketing. The pilot project is implemented in three counties in northern Kenya namely; Marsabit, Turkana and Wajir. The product is similar to the new product supplied by IBLI/APA to clients in Marsabit County. The major difference is the payout period and target of using the pay to buy feeds for feeding livestock at the onset of a drought.

The current demand for the IBLI/APA product is low among the livestock owners. The new product is promoted by the national and county governments and targets to protect 1,500 households holding 5 TLUs in Marsabit County. The national government will be the policy holder of the product and will negotiate affordable premium rates with the insurance companies through a tender process. In the event of a drought or severe dry season, the national government will compel the insurance company to make payouts to the beneficiaries at the rate of KES 14,000 per TLU (Moses Lengarite, Director of Livestock Production; June, 2016).

3.4.10 Strengths and weaknesses of the grant model for the pastoralists in Kenya

Kenya has a similar situation as Ethiopia in terms of strengths and weaknesses of the grant provision model (See Table 7). The financial grant provision model in Kenya was discovered to have some strengths and weaknesses. It was revealed during the field work that the grant model was not sustainable amongst the pastoralists. This was because after the withdrawal of the grant, the projects could not be sustained by the community/herders/traders.

3.4.11 Insurance financial products offered to the pastoralists in Kenya

There are very many potential insurance financial products which are on pilot test to be offered to the pastoralists in Kenya, yet pastoralists are not aware of these insurance services. Some of these are:

Index Based Livestock Insurance (IBLI): Index insurance is a variation of the traditional insurance. It is based on the notion; 'Do not insure individual losses, instead insure some "index" measure that is strongly correlated with individual losses' such as rainfall, remotely sensed vegetation index, area average yield, and area average herd mortality loss. IBLI uses satellite imagery to measure the conditions of grazing lands which is then fed into an algorithm that predicts livestock losses. Predictions beyond the 15 percent level trigger indemnity payments.This is a product which has been launched in Northern Kenya and Southern Ethiopia through the initiative of ILRI. Areas currently covered are Marsabit, Wajir and Isiolo in Kenya. APA insurance is underwriting in Isiolo and Marsabit with support from World Vision and CARE. Takaful Insurance of Africa underwriting is in Wajir with support from Mercy Corps. The government of Kenya and the World Bank is also supporting this initiative. There is information that this initiative is quickly spreading to other ASAL areas in Kenya. In Ethiopia, this initiative is found in Borana Zone of South Ethiopia and OIC is the underwriter in Ethiopia. For both Kenya and Ethiopia, there is a deliberate effort to engage the Public Private Partnership (PPP).

This is a good initiative for pastoralist communities. However, it requires an objectively verifiable index which should be available at low costs in real time and free from manipulation. Sustainability of such initiative is the key issue within these countries. International experience shows that agricultural insurance programmes that have scaled up, have strong public and private sector pillars as part of overall agriculture risk management strategy. Research showing positive social and economic impacts provide some justification for public support.

There are men's trading groups which were originally set up by the government and have federated into the national Kenya Livestock Marketing Council (KLMC) which has begun to act as a powerful lobby group for pastoralist interests. The KLMC is capable ofnegotiating bank credit to enable pastoralist traders to bring animals to the slaughter-houses in Nairobi, Kenya.

Even though IBLI has been incorporated in the Kenyan Livestock Insurance Programme (KLIP) for Kenya's pastoralists, there are several challenges aforementioned that must be tackled. In addition, critical to the success of the KLIP will be capacity building across the various key actors in the Livestock value chain and a comprehensive extension and sensitization campaign. Key characteristics of the Kenyan and Ethiopian IBLI cases are presented in Table 12 below.

Table 12: Key characteristics of the Kenyan and Ethiopian IBLI cases

Kenya	Ethiopia
• Market-mediated insurance product; first pilot project introduced in 2010 in Marsabit County. • Protection against livestock deaths resulting from drought, and especially the scarcity of water and pasture. • IBLI uses livestock mortality data collected in Kenya for slightly over a decade as opposed to the livestock insurance product in Mongolia, where 100 years of livestock mortality data are available. The Kenyan case lacks such data to calculate basis risk.	• Market-mediated insurance product;introduced in 2012 after lessons were learnt in the Kenyan pilot as a replication and scaling-up opportunity. • Protection against livestock deaths resulting from drought, especially the scarcity of water and pasture. • No historical livestock mortality data are available to calculate basis risk. A deviation from the cumulative historical trend of vegetation growth in relation to the NDVI is used to prepare the insurance contract

Source: Fieldwork findings (2016)

Livestock Mortality Insurance (LMI): Livestock Mortality Insurance (LMI) is a form of index insurance where the average death rate for all animals except those born in the current year would be the basic loss indicator. Animals born during the year would be excluded because of their high loss rate and difficulties in getting accurate data. Herders (or anyone else) could buy standard insurance certificates against higher than average levels of mortality in the district concerned. District mortality rates above a chosen level, for example, the mortality rate occurring on average once every five years or less, would trigger payment of an indemnity to all who had bought standard insurance certificates, regardless of their own personal loss.

The LMI covers against losses due to accidental death, diseases of terminal nature, emergency slaughter on advice of a recognized veterinary surgeon and theft of livestock in raising units or paddocks. Livestock covered include dairy cattle, beef cattle, poultry, pigs, sheep and goats. This is an insurance product offered by Jubilee Insurance in Kenya. However, fieldwork findings established that majority of the pastoralists do not know about the existence of this insurance product. Moreover, there was no mention of the name Jubilee Insurance as a service provider for such insurance services.

Weather-Based Insurance (WBI): It operates the same way as IBI, except that a specified weather event, such as rainfall below a certain threshold, would be the trigger for payment of an indemnity. The only requirement for this would be accurate district rainfall data. The advantage of using mortality rates or weather as the index to trigger indemnity payment is that the data are readily available and simple to use, and that good behaviour is rewarded. All herders in the affected area who have bought insurance certificates receive an indemnity. But herders who have lower mortality rates than their neighbours receive an insurance indemnity based on the average of the district, and are thus rewarded for their skill or hard work. There is little opportunity for adverse selection or moral hazard. Administrative costs are low, since there is a single standard contract to write, and rainfall data are already available with a long historical data set. Index insurance would be simple for the private sector to run and could be a stepping stone to targeted individual insurance contracts to cover more precise risks to individuals.

The findings established that other opportunities for livestock insurance cover in Kenya include livestock disease outbreak, and theft while the animals are on transit to markets amongst the livestock traders.

A trader found in Merile market in Kenya had this to say:

> *"We buy live animals here inMerile market and then transport them to Meru town. However, we do not have insurance cover and should there be an accident or theft along the way to Meru town, which is about 250 kilometers from Merile market, we will be at a loss".*

3.4.12 Financial product gaps for the pastoralists in Kenya

Kenya shares similar financial product gaps with Ethiopia(See sections 4.3.11 and 4.3.12 on financial product gaps in Ethiopia which are similar to the Kenyan situation). The photos below depict sellers and buyers (traders) counting money in Merile market after selling Camel and one of the herders in the next photo walking away with money after selling shoats. These photos depict lack of financial institutions around the markets to mobilize such funds and risk in handling the huge sums of money in the market places.

3.4.12a Financial products gaps on the upper side of the value chain

Meat processing value chain involves slaughtering, processing and manufacturing and finally large retail selling. Slaughtering involves sacrificing the animal and turning it into a carcass. Processing involves turning carcasses into primary and secondary cuts of meat, packaging and distribution functions. Manufacturing involves adding value to cut meats and other by-products to transform them into more derivative products for consumption. Large retail marketing involves selling of meat in large volumes to major outlets such as retailers and other end consumers.

i. **Transporters financial gaps**

- lack of refrigerators and cold facilities
- long distance animal trekking up to the market places and also animal fatigue (e.g. Moyale to Mombasa)

Most value chain actors expressed hardship in getting means to transport animals, meat and other livestock products. Live animal traders either truck or trek their animals from ranches and grazing zones to butcher points. Some of the challenges and risks encountered include lack of or bad credit in terms of loans, theft by customers or cattle rustlers, perpetual harassment by police, many charges levied by the county governments in form of taxes and levies, impassable roads especially in the interior areas of the primary market level, fatigue and death of animals and high cost of transport due to inflated fuel costs. Most of the animal carcasses are transported to selling points using unrefrigerated meat boxes. These are drawn to the markets using donkey carts, wheelbarrows, bicycles, motorcycles and motor vehicles for those who are able to. The photo below represents traders and herders community in a discussion on financial gapsat Kishaunet Livestock Market in West Pokot County.

ii. **Slaughterhouses operators, processors and manufacturers' financial gaps**

- lack of stunning equipment
- lack of value addition on carcass
- poor waste management practices
- inefficient and obsolete equipment

Slaughterhouses can be classified in several ways, for example; byownership (public orprivate); by size (large scale, medium or small scale); intended consumers (domestic or export); equipment used (ultramodern, modern, or old); or based on the production capacity (slaughterhouse, slaughter slab or abattoirs). A slaughterhouse has the least capacity with ability to carry out only basic slaughter activities. Abattoirs have highest capacity including chilling and freezing facilities.

Slaughterhouses are mostly concentrated near the meat terminal markets, especially in Nairobi. There are other major and ultramodern slaughterhouses being put up in other parts of the country including, Isiolo, Garissa and West Pokot. The major activities carried out in slaughtering is sacrificing the animal and skinning it to get carcasses as the main product also blood, raw hides and skins and offals as by-products. There are currently 374 licensed slaughter houses and abattoirs where??. About 60 percent of those are slaughter slabs and around 150 of abattoirs are in operation. Kenya has six export standard meat processors and there are two manufacturers operating at full capacity. Most facilities are privately owned and operated. The national government still owns Kenya Meat Commission (KMC), the largest meat processor and exporter by capacity in Eastern Africa. County governments still run most of slaughterhouses, abattoirs and slaughter slabs.

Processing and manufacturing activities are concerned with adding value to carcass and offals to create more utility for desired consumers. The major distinction between processing and manufacturing is that in processing no additional ingredients are added but the carcass is cut, deboned, frozen, chilled and so on in order to get diversified meat products. Manufacturing on the other hand involves further processing of primal and secondary cuts to create more utility for consumers. The manufacturer's activities include canning, cooking, adding additives, packaging and branding among others. The last process is carried before meat and meat products are marketed and distributed to wholesalers, retailers, hotels, restaurants or end market consumers.

Kenya has several processors and manufacturers who produce for both domestic and export markets. The major processors are also manufacturers, and in some cases own slaughterhouses like the KMC. Other major players are Choice Meats, QMP, Alpha Fine Foods and Soko Sawa Limited. According to yellowpageskenya.com, meat1.com, there are approximately 100 licensed processors and manufacturers of meat in Kenya. Most processors are currently lacking in modern equipment for slaughter, meat value addition, capture of fifth quarter and waste management. Processors distribution is seen to be affected by proximity to the market with major ones being in Mombasa and Nairobi. Another determining factor is infrastructure development.

iii. Butchers financial gaps

These can be summarized as:

- lack of cold room facilities and refrigerators
- under exploitation of the whole animal carcass
- lack of sophisticated and a diversified cutting equipment
- Absence of live animal weighing machines

3.4.13 Hindrances to provision of financial services to pastoralists in Kenya

The factors that hinder pastoralists from getting financial products in Kenya are similar to the factors that hinder pastoralistsin Ethiopia (See section 4.3.13 about the financial product gaps in Ethiopia which are also the same in Kenya). The only difference between Ethiopia and Kenya is that in Ethiopia, the government took the pastoralists land near the river beds to plant sugarcane in Semera area. The government promised the locals that for every 100 kilogrammes of sugarcane harvested, they would be paid between Birr 50 to Biir 100. This was about three years ago yet they have not been compensated. This was confirmed by the FGD help in the area. This is coupled with the fact that they are not allowed to graze their livestock within the government land. This is a financial hindrance because pastoralists depend on their livestock as the main source of income even to repay loans advanced to them. In Kenya, there is human and wildlife conflict. Some wild animals such as crocodiles, hyenas, and baboons kill pastoralists' livestock and make it difficult for them to honour their financial obligations. Otherwise, other factors remain the same between the two countries.

3.4.14 Enabling regulatory measures in Kenya

a) The recent amendment of the Banking Bill in Kenya which provides mechanism for regulation of interest rates for banks and financial institutions through the introduction of ceilings. The Bill sought to amend the Banking Act by introducing a new Section 31(a) that requires banks or financial institutions to disclose all charges and terms of a loan to a borrower.

b) The Public Financial Management Act 2012 was signed into law on July 23rd 2012. The PFM reforms in Kenya were aimed at making public financial management more efficient, effective, participatory and transparent resulting in improved accountability and better service delivery.

c) Public Finance Management Act Chapter 412© Revised Edition 2015 spells out how grants should be utilized from national government up to county government. Pastoralists receive grants from government and other development partners. The utilization of such grants is detailed in this Act.

d) Kenya's Community Land Bill could herald a new and improved approach to securing the rights of pastoralists to land, grazing and water. Devolving the governance of these resources to the local level could provide pastoralists with greater influence over decisions affecting their livelihoods. This way, the pastoralists can be attractive to financial products from financial institutions.

e) Establishment of ranches in the pastoralist communities was under the Kenya Reforms Agenda. However, under the dispensation of the current constitution, the fieldwork mission established that such ranches do not exist. The reforms agenda clearly spells out how such ranches can be made operational and managed.

f) Marsabit County Livestock Enterprises Development Fund (MC-LDF) of 2015, a Bill which should be passed eventhough the amount of Kshs 500 Million implicated in this Policy is very small. The objectives of the policy are to increase financial opportunities through availability of low interest rate loans to the livestock sector, to establish Marsabit County Livestock Loan Service Provider, to strengthen the livestock value chains, and to enhance the competitiveness and commercialization of the livestock sector.

g) The SACCO Society Regulatory Authority (SASRA) has put stringent conditions within the deposit taking SACCOs on how members' deposits should be managed. This has been aimed at protecting the depositors' funds.

h) Permit for livestock movement in each and every county to ensure that livestock is free from diseases such as foot and mouth. The permit also acts as proof of ownership. This ensures thatlivestock is not stolen and ensures freedom of movement, grazing and when livestock needs to be moved to be sold within and across borders.

3.4.16 Recommendations for Kenya

The recommendations for Kenya are the same as in Ethiopia. However, an additional recommendation which should be emphasized in Kenya is the need to develop County Cooperative Act/Policy. The Cooperative Societies Act Cap 490 should not be applied uniformly for all the counties because the counties are different in terms of specific priority needs. Therefore, the commissioners in the 47 counties in Kenya should be given the mandate to register, deregister, manage and audit the cooperatives within their counties. In addition, there is need for the government to ensure that human beings and wildlife conflict is eradicated.

3.5. Findings in Uganda

3.5.1 Financial products offered to pastoralists supply and demand side

The findings in Uganda established that, banking, MFIs, informal banking, and mobile banking are found in the pastoralist areas.There is no internet banking, agent banking, foreign exchange, common currency, insurance financial products (Even thoughthe supply side information revealed that there was a pilot on insurance services which had been initiated by ILRI. However, this was not known by the demand side interviewed), stock market as a financial product, treasury or debt instruments, wealth management,credit and debit cards financial products and ATMs. The implication of this finding is that, there are financial product gaps in terms of insurance to some extent for livestock, treasury, insurance, and wealth management amongst the pastoralists in Uganda.

3.5.2 Financial products offered by commercial banks and MFIs model in Uganda

Financial products offered to pastoralists in Uganda are the same asin Ethiopia. The only difference is that, in Ethiopia, there is mobile banking through HelloCash and Sendwave. In Uganda, this is still being considered through MTN in partnership with Telecom.

The fieldwork findings in Uganda established that financial products which are majorly the provided by commercial banks and MFIs are the same. This was based on the information gathered from some of the banks and MFIs interviewed.The banks in the Karamoja region are mainly Stanbic Bank and Centenary Bank. They offer an array of financial products which include; micro business loans, salary loans, home improvement loans, agricultural loans and mobile banking services such as the CenteMobile service among others. The findings revealed that Centenary Bank is preferred over Stanbic Bank because it is regarded as a rural bank and also does not have a lot of bureaucratic procedures in loan disbursement as in the case of Stanbic Bank.

Centenary and Stanbic Banks' lending conditions

The conditions required to be fulfilled by the loan applicant at Centenary Bank include signature of the local council chairman, guarantors, filled up application form, photo of the applicant, and ID card of the applicant. However, there is a strong need for Centenary Bank to undertake massive advertisement targeting pastoralists so that they can patronize the financial products offered.

Stanbic Bank on the other hand, is not preferred by the herders and traders. Some of the lending conditions are that the applicant must provide land as collateral security and they must have a registered business for them to be offered loans. The herders and the traders in this case fear loans from the banks because they know that in case of default, their land maybe taken by the bank. The banks also fear that the pastoralists and traders are very risky to lend money to without proper security in place.

MFI financial products in Uganda

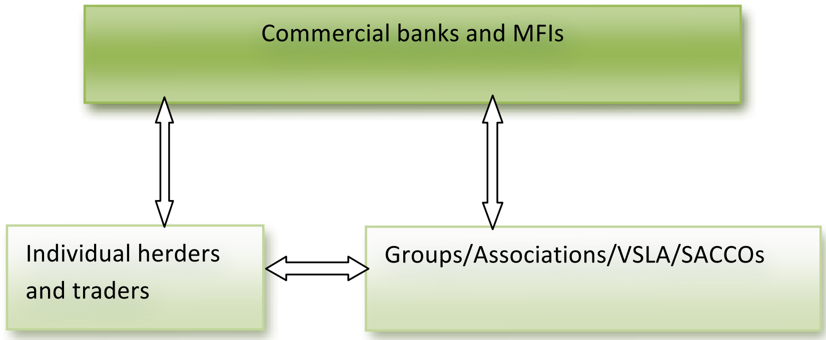
The two known MFIs within the region is the Karamoja Regional Microfinance Support Centre (KRMFC) Limited and Pride Micro Finance Institution. The KRMFC is a common name in Northern Karamoja, but, it is called Microfinance Support Centre Limited in Southern Karamoja. The headquarters of this MFI is in Kampala and the branches are found within all the project regions. It offers loans to the traders who are registered as a company. Individual herders and traders who have not registered their businesses as a company cannot access loans from the MFI. Therefore, the MFI is suitable for the established formal entrepreneurs within the project area. This is not favorable to the pastoralists within the area because majority of them lack business mindset.

The second MFI is Pride Micro Financial Institution which has its office in Mbale. This is very far from the project intervention areas. Pride MFI launched VSLA support in January, 2016 in Abim, Moroto, and Napak Districts. The conditions to support the VSLA groups are: the group must have registered as a CBA, has track record of proper book keeping, has a component of mobilizing savings and lending the members loans, should have evidence of cash flows, should have been active within the last two years from the date of registration, have training on governance, and simple book keeping which must have been done by either Care International, Action Aid and Private Sector Foundation under the Ministry of Finance. The main lending purses is the purchase of cows/restocking. The interest rate is at 9 percent per annum to the VSLA. If the purpose is for on-lending to the VSLA members, then the interest rate is 13 percent per annum but, the VSLA should not exceed 15 percent per annum when lending to the members. The first disbursement of the loan was done in February, 2016 in Moroto. So far the repayment as at end of July 2016 is at 82 percent recovery rate and there are no foreseen defaulters.

3.5.2 Current commercial banks and MFIs financial products delivery model in Uganda

In Uganda, savings are done by individuals and groups/VSLAs directly with the commercial banks and MFI. Loans are also disbursed to the individuals and groups by the financial institutions. The individual members can also save and get loans from their groups/associations/VSLAs/SACCOs. It is recommended that commercial banks and MFIs need to offer favourable financial services to pastoralists by extending savings and credits to the individual herders and traders at lower interest rates. They should also revise their loan policy to favour the unique characteristics of the herders and traders since most of them do not register their activities as enterprise companies.

Figure 13: Current commercial bank and MFIs model in Uganda.



Source: Fieldwork findings (2016).

3.5.3 Strengths and weaknesses of the commercial bank and MFIs model in Uganda

The findings revealed that the current commercial bank and MFIs model has a high failure rate amongst majority of pastoralists, especially the direct link between the individual herders and traders. This is because the conditions which commercial banks and the MFIs require individual herders and traders to fulfill are not conducive to them. Commercial banks and MFIs can sustain their operations within pastoral areas in Uganda if the hindrances and weaknesses are resolved. Otherwise, the model would remain unsustainable. The strengths and weaknesses of the above model are enumerated in Table 13 below.

Table 13: Strengths and weaknesses of the commercial bank and MFIs model

	Strength	Weaknesses	Suggested recommendations for sustainability
	Direct access to financial products.	Pastoralists are not able to offer land as security to secure loans because land is still communally owned.	Commercial banks and MFIs should consider accepting guarantors and livestock as security
	Direct contact with clients which instills a sense of partnership with the pastoralists.	Registration of businesses as a company cuts out individual pastoralists from accessing the loans.	Stakeholders should be intensifying the sensitization and offer training to the pastoralists to register their businesses and have licenses in order to qualify for the loans.
	Short duration taken to disburse loans so long as client has qualified.	Interest rates on loans are too high for the pastoralists.	The government of Uganda should come up with commercial and MFIs Bill to regulate interest rates.

	Promotion of a savings culture by the individual herders and traders before they can qualify for credit.	Sometimes individual herders and traders disappear without repaying their loans.	Guarantor-ship mechanism should be strengthened and well formalized in thegroups' constitution.
	Ability to accept small savings/deposits from pastoralists.	There is no agent and mobile banking within the pastoralist project areas.	Telecom and MTN should partner to offer mobile banking. Field findings established that plan for MoU is underway. Also, Commercial banks should consider agent banking network to reach pastoral areas.
		The commercial banks are very scarce within the pastoralist areas and pastoralists struggle to reach urban centres where the commercial banks are located.	Should open branches in the pastoral areas and provide suitable financial products.
		Long queues and slow service to the pastoralists.	Should improve on service delivery.
		Most of the commercial banks and MFIs do not follow the Sharia Law where Muslim pastoralists are found.	Should provide financial products which are compliant with the Sharia Law.
		Even though there is high level of illiteracy and low education on the part of pastoralists, commercial banks do not have clear strategy of curbing the problem or even offering training to the pastoralists.	Should have education programmes tailored for the pastoralists.

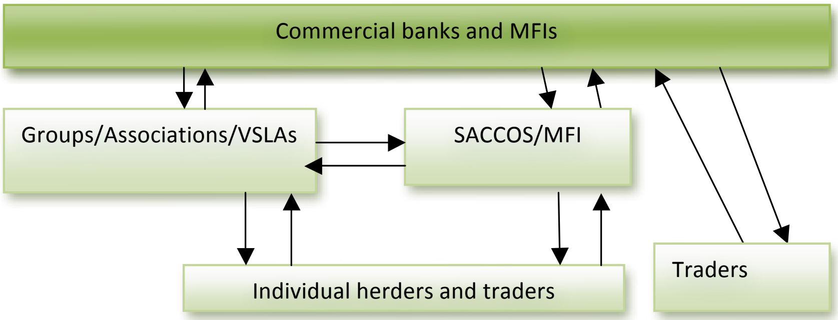
Source: Fieldwork findings (2016)

3.5.4 Proposed commercial bank and MFIs model in Uganda

Interviews with most stakeholders in the region suggested solutions to the weaknesses of the commercial bank and MFI model above. It was proposed by the stakeholders that the weaknesses of the model can be overcome if loans and savings services offered by commercial banks and MFIs are extended to the herders and traders' indirectly through groups/associations and SACCOs in order to realize sustainability. In the proposed model below, the individual herders and traders are encouraged to save with their groups, through Village Savings and Loan Associations (VSLA) or SACCOs and then access loans from their groups or SACCOs.

Alternatively, the individual members who can fulfill the conditions required by commercial banks and MFIs can also save and receive financial services from the institutions. The groups or SACCOs can access loan services from the commercial banks and financial institutions for on-lending to the members at slightly higher interest rates. For example, in theNorthern and Southern Karamoja region, the Microfinance Support Centre Limited currently lends the SACCOs and VSLAs at 4 percent per annum and the members of the SACCOs and VSLAs are lent at 9 percent per annum. The stakeholders interviewed proposed model in the region is presented by the Figure 14 below.

Figure 14: Proposed current commercial bank and MFIs model in Uganda.



Source: Fieldwork findings (2016)

Emerging best practices of the commercial banks and MFIs Model

i. Focus on creating an enabling policy and regulatory environment with clear guidelines for commercial banks to uptake products and provide greater coverage to underserved populations/pastoralists.

ii. Strengthen a culture of savings, while working closely with the beneficiary communities in financial literacy through groups and institutions they trust.

iii. Employ demand-driven mechanisms to increase loan capital, allowing large and small financial institutions to continue expanding their products and services.

iv. Use networks to promote commercial banks products, strengthening their uptake as evidenced in Ethiopia when marketing livestock insurance such as IBLI.

v. Introduce commercial banks mobile banking to the pastoralists with simple mobile technology.

3.5.5 SACCO financial products in Uganda

The findings revealed that SACCOs in Uganda had the objective to encourage its members to save, thereby creating or accumulating capital. The SACCOS then lend to the members at a reasonable rate of interest. The loans are given for provident purposes, that is, to provide for social, economic development and productive needs such as paying school fees, building a house and buying cows, clotheswedding gifts and electronics such as radio sets among others.

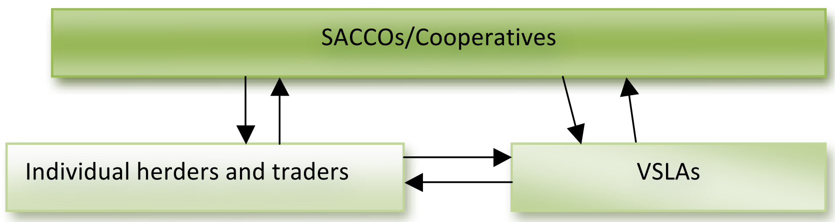
The SACCOs in the region are very few. For example, in Moroto, there are only three active SACCOs namely; Tepeth, Nadunget SACCO and Nadunget Farmers' SACCO. Other SACCOs collapsed because of various reasons ranging from mismanagement to members negative attitude towards savings in SACCOs. In Amudat District, Southern Karamoja region, there is no SACCOs since the ones which had been formed, for example, Karita Sub county SACCO, Pokot SACCO, and Loroo Sub county SACCO had collapsed because of mismanagement.

The financial products provided by the active SACCOs include loans for input supply to livestock farmers, vaccination, and small soft loans extended to the members with guarantors as the only security required. However, SACCOs have specific conditions to be fulfilled before a herder or trader, can qualify for the loan. For example, Kitogogogong' SACCO in Kotido District has conditions that a member must have actively saved with the SACCO for two to three months, compulsory savings of 30 percent of the required loan amount, security or collateral offered, two guarantors who are members, open an account in the SACCO, have a clear purpose for the loan, and must buy individual shares equivalent to USh 25,000 and group shares equivalent to Ush 50,000.

Individual herders and traders can form SACCOs and consequently become SACCO members. However, they must fulfill the conditions specified by the SACCO constitution and Bylaws in order to deposit their shares and receive loans from their SACCOs. The VSLAs can also form SACCOs and become legal entities. In this case savings and loans can be disbursed to the individual herders by the SACCOs. However, it was found out that it was difficult for both the SACCO and the individual members to operate in this manner.

It was further established that it was easier for the individual members to save with their VSLAs and get loans from the VSLAs rather than saving and getting loans directly from the SACCOs. Figure 15 below illustrates the SACCO model.

Figure 15: The current SACCOs Model.



Source: Fieldwork findings (2016).

3.5.6 Strengths and weaknesses of the SACCOsmodel in Uganda

Strengths and weaknesses of the SACCOs Model is summarizedin the Table 14 below.

Table 14: Strengths and weaknesses of the SACCOs model in Uganda

	Strength	Weaknesses	Proposed solutions for the weaknesses for sustainability of the SACCO model
	Currently, pastoralists trust their members with SACCO leadership positions.	Weak governance structures for the existing SACCOs.	Management Board of SACCOs should be trained on good governance so that they can manage SACCOs well. Members should also be trained on their duties and responsibilities.

	Pastoralists mobilize and accumulate their funds for lending to the members.	Negative attitude towards SACCOs because of the SACCOs that collapsed in the region.	Sensitization about the benefits of joining SACCOs should be done in the project areas.
	A sense of belonging and cohesion is established.	Lack of export market linkages for the livestock products by the SACCO Board of Management (BoM).	Development partners should assist in securing markets for the SACCOs and link up with SACCO BoM to secure contract markets.
	Promotion of savings culture by the individual herders and traders.	No processing plant where livestock and livestock products can be value added for SACCOs to become competitive.	Development partners should assist SACCOs to establish processing plants especially near slaughter houses for livestock and livestock products in order to attract export markets.
	Collective education can be provided to the members.	No SACCO regulatory body like SACCO Regulatory Authority (SASRA) in Kenya.	There should be SACCO regulation body or an Act to strengthen good governance of SACCOs.
	Support in form of grants from various stakeholders can be obtained by the herders through their SACCOs.	There is no livestock traders' cooperative for the herders to cater for their unique needs.	Sensitization of livestock traders to form SACCOs is an agenda that should be considered by the development partners and the government.
	Marketing of livestock and livestock products can easily be done through collective effort (SACCOs).	There is no loan which specifically targets cattle traders and herders.	There is need for large loans for traders because banks are not providing the large loans and the SACCOs are pegging the amount of loans on the amount saved. However, for this to be a prospect for SACCOs, there is dire need to sensitize the herders and traders about formation of SACCOs and savings culture.
	Security is the shares and the guarantors in the SACCOs		

3.5.7 Prospects and recommendations for SACCOs in Uganda

a) The Office of the President is currently planning to provide money directly to the SACCOs. This is a good initiative, but can only work effectively if a SACCO Act is formulated to regulate the activities of the existing SACCOs within the region.

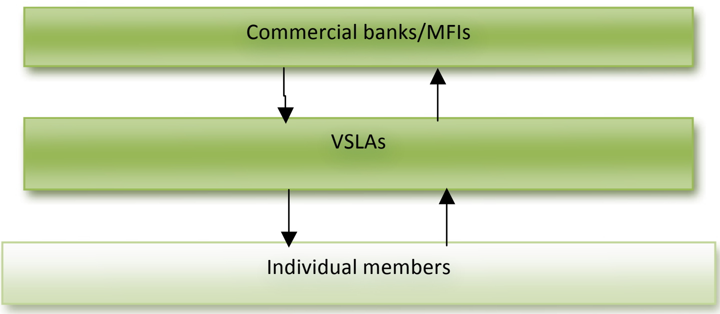
b) The willingness of NGOs and Government bodies to assist in forming SACCOs within the region. It is important for the development partners to first undertake feasibility study on the formation of SACCOs and train the members thoroughly before they start to mobilize their savings. SACCOs in Uganda can be strengthened if their operations are guided by the International Co-operative Alliance Values and Principles.

c) Availability of pasture as compared to the Kenyan and Ethiopian pastoral areas. This means that the animals within the area are healthier than the animals at the border. There is, therefore, ready market for Ugandan animals within the neighboring towns and across the borders. There should be enabling policies across the borders on managing trans-boundary diseases such as Tsetse fly, foot and mouth diseases.

3.5.8 Village Savings and Loan Associations (VSLAs) model in Uganda

This is a group of people who save together and take small loans from those savings. It is not a formal group because it is not registered under any recognized body. The activities of the group run in cycles of one year, after which the accumulated savings and loan profits are distributed back to members. The purpose of a VSLA is to provide simple savings and loan facilities in a community that does not have easy access to formal financial services. The VSLA is favoured by the communities in the region. Many NGOs and other development partners are encouraging the formation of VSLAs. For example, Veterinaires Sans Frontiers-Belgium is currently training the communities to form VSLAs and link the groups to MFIs and commercial banks. The VSLA financial products are only received by members after they have saved with the VSLA. Figure 16 below shows the current model used.

Figure 16: Current VSLA model in Uganda.



Source: Fieldwork findings (2016)

3.5.9 Strengths and weaknesses of the VSLA Model in Uganda

There are several strengths and weaknesses of the VSLA model as presented in the Table 15 below.

	Strengths	Weaknesses	Proposed solutions for the weaknesses for sustainability of the VSLA model
1.	A VSLA is a more transparent, structured and democratic version of the informal savings groups found within the project area.	VSLAs are not formal associations hence conflicts cannot be resolved through formal means. The loan default or conflict cases are difficult to deal with because in some cases there are no constitution governing them.	The government and the development partners should consider sensitizing the VSLAs to register as legal entities in order to be considered attractive by the banks and development partners when channeling financial support to them.

2.	VSLA methodology is a better organized and more accountable system that even the least literate and least influential member of the group can understand and trust.	There is high level of illiteracy even for the officials of the VSLAs. Bookkeeping and simple recording of transactions is a challenge. This makes the VSLAs become unattractive to receive financial support.	Simple training should be directed to members of the VSLAs so that they are able to keep their records and manage their books of accounts.
3.	Groups usually hold annual elections and the roles and responsibilities of the group officials are spelt out.	Members become relaxed to repay because they know that there is nowhere that they can be taken if they default from repaying the loan.	When the VSLAs become legal entities, members automatically become committed to honour their obligations because they know they can be sued in a court of law.
4.	The system is very simple, but the result is powerful. In a VSLA, savings is flexible to all the members especially over a period of time. A member doesn't have to save the same amount as another; and they do not have to save the same amount always.	VSLAs are normally formed because of specific objectives but once the objectives have been achieved some of them are normally disbanded.	When VSLAs are registered under SACCOs, they cannot be disbanded easily if the SACCO is well managed and has in place good governance.
5.	Savings are maintained in a loan fund from which members can borrow in small amounts up to three times their individual savings.		
6.	VSLAs are already mushroomingin the country. The government through the ministries should formalize these associations.		

Source: Fieldwork findings (2016).

3.5.10 Insurance financial products in Uganda

It was established that there is no insurance company providing financial products to the pastoralists in Uganda. The only insurance arrangement is between MFIs and the insurance companies. For example, Pride Micro Finance has an agreement with UAP Insurance that loans such as agricultural loans, restocking loans and trade loans, are disbursed to the herders and traders covered by UAP. In case the traders and herders default in repaying the loan, then the Pride Micro Finance is reimbursed by UAP Insurance at the rate of 1 percent. Pride Micro Finance covers areas of Soroti, Lira, Pader, Gulu and Arwa districts. The field work established that there was need for insurance products to be delivered directly to the pastoralists to cover their livestock during adverse weather conditions, theft and diseases such as Tsetse fly.

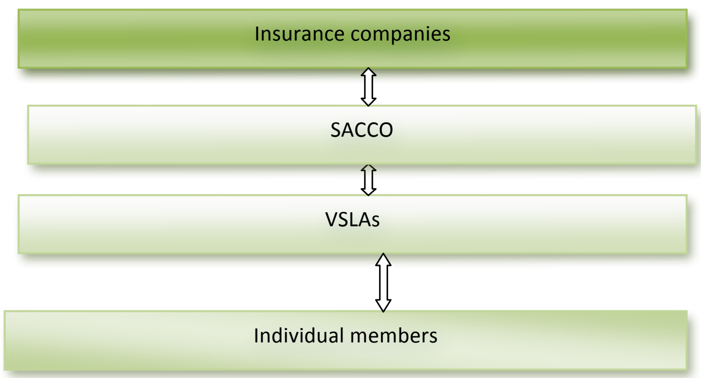
The pilot tests being done in Kenya and Ethiopia on insurance cover for the pastoralists' livestock should also be extended to Uganda. The cover should target both diseases and theft. However, the weather in Uganda seems to be very much okay and there is adequate pasture for the pastoralists throughout the year. This is reinforced by what a key informant in Amudat noted.

"The pastoralists in neighbouring Kenyan come to this region to look for pastures when our pastoralists have already left and moved towards Abim areas and beyond. What is left is good pasture to the Kenyan pastoralists".

3.5.10 Proposed model for insurance service provision in Uganda

Herders and traders can save and receive loans from their VSLA/SACCOs. Members of the VSLAs should be encouraged to form SACCOs in order to receive insurance products from the insurance companies. This can help them to cover for risks such as adverse weather conditions, theft, diseases such as Tsetse fly outbreaks or any other unforeseen misfortune. This insurance model can only work if insurance companies and other stakeholders undertake massive sensitization campaigns on the benefits of insurance to the herders and traders. During the time of field work, the local herders did not even know what insurance is all about, yet it is an import component in their way of life. The proposed model for insurance service provision is presented by Figure 17 below. It depicts how herders and traders can save and receive loans from their VSLA / SACCOs.

Figure 17: Proposed Insurance service provision model in Uganda.



Source: Fieldwork findings (2016)

3.5.11 Mobile and agent banking model in Uganda

The findings indicated that there was no mobile banking within the project region. However, there was a prospect that MTN was to draw up an MOU with commercial banks to start offering Mobile banking. Agent network had failed in the area. For example, in Amudat, there were agents from Stanbic Bank who gave up after trying and the pastoralists did not see them again (Stakeholders meeting information in Kotido district, August, 2016). A proposed model can adapt the Kenyan or the Ethiopian model for mobile and agent banking.

3.5.12Financial gaps for pastoralists in Uganda

The picture below shows evidence of stakeholders' meetingconducted in Kotido where the consultant engaged the participants in a discussion on the supply and demand side of financial products extended to the pastoralists.

Several meetings held with the stakeholders confirmed that Uganda has the same financial gaps as Ethiopia and Kenya. However, additional specific needs for Uganda are listed below based on interaction with several stakeholders.

a) Mobile banking and agent are lacking within the region.

b) Insurance services both for people and cattle is lacking. There are no insurance companies around offer insurance services to the pastoralists.

c) Finance is required for value addition in order for livestock and livestock products to fetch high prices in the market.

d) There is no insurance services to the livestock.

e) Meat processing plants with cold chain factories processing plant are needed.

f) Credits for livestock breeding centres in order to provide alternative breeds to the locals.

g) Credits for the upper side of the livestock value chain such us domestic and export marketing.

h) Innovative distribution mechanisms for financial services through branchless banking. This should encompass mobile money, which is a mobile phone-based payment services, as well as introducing agent banking in the pastoral regions, which entails banking transactions through third parties.

i) Finance needed to purchase Tsetse fly control kits should be given to the community as a community loan.

j) Money is needed for intense trainings on the control of diseases.

k) Transport needed to reach remote areas for surveillance to take place especially where there is no community roads which can enable veterinary officers to reach the villages.

l) There are few cattle deeps. For example, in the whole of Amudat district, there is only one cattle dip which is functioning.

m) Solar or cold chains to control the livestock vaccines and meat.

n) Finance is needed to construct decent abattoirs for the community.

o) Short term agricultural loans for farmers because the community has embarked on crop farming as an alternative livelihood.

p) Leather tanning equipment for hides and skins.

3.5.13 Challenges hindering pastoralists in Uganda from getting financial support

Pastoralists in Uganda have similar challenges as those in Ethiopia and Kenya. However, there are additional and specific challenges that hinder them from getting financial services in Uganda. These are listed below and are based on interaction with stakeholders during the project sensitization meeting in Kotido and also from other key informants' opinion.

a) High level of illiteracy amongst the pastoralists.

b) Sparsely populated areas and financial institutions find such areas unattractive for their businesses.

c) Low income levels among the pastoralists inhibit them from qualifying for hefty loans.

d) The pastoralists' livelihood strategy of being mobile while searching for water and pasture makes it difficult for the financial service providers to establish branches in the pastoralists regions. This means that during drought seasons the pastoralists will have moved and even crossed the borders in search of pasture and water.

e) The groups which have been formed are informal and in case there is a loan default, the financial institutions may find it difficult to sue the members of the VSLAs in a court of law.

f) Poor record keeping of their financial activities such as simple book keeping.

g) Poor road networks to the villages or lack of roads in some places have. They use shortcuts through the bush to access financial services in urban centres.

h) There is no policy on low interest rate given to the pastoralists by the financial service providers. There is also no specialized treatment of the pastoralists taking into consideration their unique characteristics.

i) The pastoralists are misinformedbypoliticians who lie to them that the money disbursed as loans is money from the government and that they should be given such funds free of charge.

j) The handout syndromein the region is deterrence to financial self-independenceon the pastoralists.

k) The herders and traders groups are formed with objectives which are different from the objectives of the financial service providers. This creates aconflict on formulated objectives and thus a challenge.

3.5.14 Emerging trends and best practices in Uganda

a) The Commercial Bank of Africa (CBA) is in the process of collaborating with MTN to offer mobile banking services. Airtel and MSente mobile service providers also have potential to offer mobile banking services in Uganda.

b) A Pastoral policy is not in place, yet a neighboring country like Kenya is already benefiting from the policy by having Livestock Insurance in place. The good practices in Kenya in regard to livestock insurance can be replicated in Uganda.

c) The effort to form VLSAs being taken up by development partners like MercyCorps and Veterinaires Sans Frontiers-Begium are good efforts aimed at organizing and empowering the pastoralists financially.Financial Institutions will find such associations creditworthy because the guarantors are also group members.

d) Training ofbutchers, processors, and slaughter houseoperators on hygiene when handling meat by MercyCorps in Uganda is ongoing. This will make pastoralists more attractive to the financial service providers especially if this leads to high returns on investment.

e) The Provision of Proper Protective Equipment (PPEs) by MercyCorps can make pastrolists to attract creditfrom financial service providers if the provision of PPEs can appeal to customers and make them purchase livetsock products.

f) The Meat Development Bill is being drafted. The main purpose of the Bill is to propose an Act that enables control over livestock and livestock products intended for human consumption, and for slaughterhouses and places where meat is processed. It also provides for import and export control, control on structure and functions of meat development board, and the meat development fund.

3.5.15 Recommendations for Uganda

The recommendations proposed for Uganda are similar to those forEthiopia. The only addition is that, there should be immediate conclusion of MOU between MTN and Telecom to provide mobile banking services to pastoralists within the pastoral areas.

04

Business Opportunities for Youth, Women and Non-Pastoralists

The findings established that there are potential business opportunities and income diversifications for youth, women and non-pastoralists.The following business opportunities are recommended in order to economically empower pastoralists in the region. For example, these can help them to repay loans secured from the banks especially in cases where their livestock cannot be used because of cultural reasons or bad weather conditions.

4.1 Opportunities directly related to livestock Value Chain

a) **Hides, skins and leather investment opportunities:** Findings in the three countries established that the local markets for hides and skins have not been exploited to achieve productivity gains. This can be harnessed especially by youth and women groups. Affordable credit facilities to these people are a necessity for their business startups.

b) **Bone and art crafts:** Livestock bones can be used to make cups, plates, flower pots, earrings, beads and other ornaments. Producers/herders groups can gain economically through the collection of bones from the large numbers of livestock lost or slaughtered during drought emergencies. Slaughterhouses or processors can also benefit significantly from this business venture. Financial support for such business startups and training can assist the youth and women to increase their income levels.

c) **Soap making from livestock fats/oils:** Animal fats can be used to process soap. The skills to do this is lacking amongst the youth and women. Startup capital to purchase the necessary ingredients and equipment is also a challenge. Affordable credit is needed for such ventures. In Kenya, for example, there exists youth and women funds for such entrepreneurial ventures. However, most of the youth and women within the project area are not taking up such opportunities because they lack training to equip them with business mindsets.

d) **Support of irrigation farming and fodder production:** In view of the vast land area among pastoral communitiesin the three countries, the agricultural potential can substantially be enhanced through appropriate irrigation development. For example, in Kenya, River Turkwel and River Kerio can be used for irrigation. Fodder production can also be practiced by youth and women. In Uganda, this is not a problem because the pastoral areas seem to have arable land compared to the Ethiopian and Kenyan side. Fodder can be harvested easily and sold or used by the pastoralists during dry seasons. This can be done in Abim, Kotido, Moroto and Amudat. In Ethiopia, agricultural activities can be undertaken along river banks in Semera area. The picture below shows a section of traders in Lodwar Livestock Market in Turkana County. The women in the picture areengaged in selling fattening feeds to traders in the market.

e) **Tourism and conservation:** Potential for viable tourism exists in Turkana especially with the paleontological discoveries. Community managed lake enclosures can be developed as conservancies especially in Sibiloi. Establishing community-managed camping areas with basic infrastructure can harness this potential. Loyangalani annual tourism festival is a good example of how to promote cultural activities profitably.

f) **Commercial pastoralism:** A shift from subsistence pastoralism with the goal of improving competitiveness and value addition is needed. Small stock marketing is particularly suitable for youth and women. This involves undertaking livestock Farming as a Business (FAAB).

g) **Bee keeping:** This can be practiced especially in the rangelands. It isgood forthe youth and women.

h) **Aquaculture in Rivers:** For example, in Kenyathere is River Turkwel which flows from Mount Elgon in the border of Kenya and Uganda all the way to Lake Turkana. Its source is in West Pokot County on the border of Kenya and Uganda. The Kerio River is another water source found in Turkana County in Kenya. Aquaculture can be practiced along these rivers and can be replicated in other project regions with similar rivers. This activity is well suited for women and youth empowerment.

4.2 Opportunities in other sectors

a) **Animal feed processing:** According to a report by Oxfam (2013), an estimated 40 percent of fish is lost after harvest. These are thrown away or burnt. Commercial animal feed production can be explored from these fish waste products.

b) **Baskets and mats crafts:** Opportunities exist to improve income from items such as baskets and mats, for example through the development of higher quality and higher value craft products through training to improve skills, or through the provision of financing grants to promote these SMEs.

c) **Complementary activities:** Ice making and ice refrigeration which can be a business venture to cool various consumable products.

d) **Ice refrigeration artisan:** Opportunity to develop artisans among the youth and women in fabrication of refrigeration.

e) **Business services:** Petty trade and other household supplies especially by women.

f) **Boat craft and artisan:** Training specific business oriented artisans in boat making and repair to be used in Lake Turkana.

g) **Household items trade:** Food and other small household sales within small towns and by the road sides.

The above opportunities may be modeled on private sector ventures supported through government exemptions on particular market entry requirements, for example, licensing and other waivers.

05

Proposed Sustainable Model

In this study, it is proposed that any provision of financial products to the pastoralists should consider Kurt Lewin's model of group cohesion which is relevant for table banking and economic empowerment of self-help groups such as the pastoralists in order for them to access financial products. According to Kurt and Cartwright (1951), group cohesion is defined as the willingness of individuals to stick together. They believed that without cohesiveness a group cannot exist. It is also proposed that group formations can help pastoralists to access financial products from various financial service providers. While examining the association between group cohesion and group performance in the co-operative movement in Malaysia, Harun and Chin (2015) noted that the degree of cohesiveness defined by task and social cohesion among members governed the success of groups performance.

In Kenya, there are groups that have already been formed by the community and some development partners. However, these groups lack proper organizational development and quite a number of pastoralistsdo not see the need of forming such groups. For example, the photo below shows traders from a women group who visited Merile market to sell their shoats. They saved money which they used to buy them and sell for profit.

A study in Nigeria discovered that group cohesiveness was crucial in the performance of organizations (Banwo, Du & Onokala, 2015). Group cohesion was found to be strong in groups with both good and weak performance, thereby giving an inconclusive result. Milgo (2013) looked into the effect of joint liability on loan lending and repayments among microfinance institutions in Kenya. The study sought to establish the effect of joint liability lending model on repayment of loans among the microfinance institutions in Kenya. It was noted that joint liability positively affected loan repayment. This was ascribed to the social cohesion and better information flow between the borrower group and the lender.

A journal on measuring and modeling women economic empowerment underscores the importance of empowering the poor especially women (Sheikh & Sadaqat, 2015). In their assessment of women economic empowerment in Pakistan, the authors noted that 36 percent of women had lower levels of economic empowerment while only 8 percent were highly empowered. Basoah (2010) noted that women groups in Ghana especially the market women groups, petty traders, salaried workers and artisans, engage in a 'susu' scheme, a form of banking that trades in money and involves regular and periodic collection of fixed amounts of deposits that are made available to the owners after a given period of time or required by borrowers at a preset fee. In addition, it was noted that the scheme actually aided in improving the living standards of the groups and was a major step towards economic emancipation in gaining financial access in an otherwise complex environment.

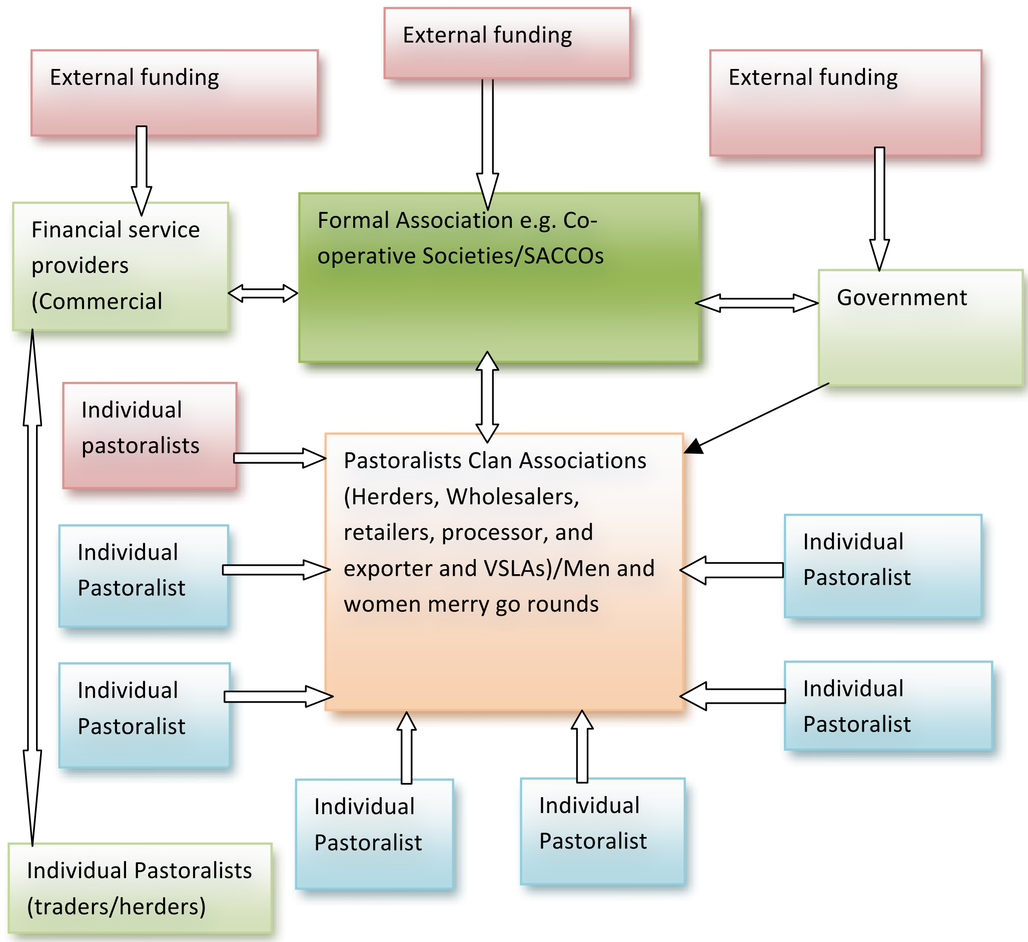
The study in Ghana has been emulated by Kenya Women Finance Trust (KWFT) and African Development Solutions (ADESO) in Kenya, MercyCorps in Ethiopia, the United Nations Food and Agriculture Organization (FAO) and the Danish Refugee Council (DRC)in the region, and other development partners.

A study by ILRI (2014) in Kenya and Ethiopia on sustainable livestock insurance for pastoralists indicated that conventional (individual) insurance is unlikely to work, especially in small scale pastoral/agro-pastoral areas. This is because of very high transaction costs with little financial intermediation among pastoralists. Therefore, associations can help overcome these barriers.

Pastoralists have several aforementioned problems and they become less attractive to the financial service providers. As such, there is limited economic empowerment in these places; an issue that has greatly hampered development in this area. However, there has been renewed interest in searching for financial models that can be used to deliver sustainable financial services to the rural poor in Ethiopia, Kenya and Uganda. This quest has been motivated by the failure of formal and/or centralized financial institutions to reach remote and rural areas (Johnson, Malkamaki, & Wanjau, 2006). Economic disempowerment not only affects development of the affected areas, but also directly deplores the livelihoods of millions of pastoralists in Kenya, Ethiopia and Uganda. These pastoralists are disadvantaged relative to accessibility of financial services from the mainstream institutions. The far reaching implications of economic empowerment necessitates the need to understand the link between table banking, which is common in these areas, and economic development of self-help groups practicing this kind of banking.

The model proposed below has taken into account a critical review of the problems that the pastoralists face when trying to access financial services from various providers and pro-poor considerations. Figure 18 below addresses the pro-poor strategic option strategies for the pastoralists to access financial products. Individual pastoralists can form clan associations then form formal entities such as SACCOs. This can make them become attractive to the financial institutions to lend them financial products. In addition, it can be possible for such entities to lobby and advocate for better financial services from financial service providers. They can also lobby the government to formulate favorable policies and ensure that they are not affected adversely by the policies and regulations in the region.

Figure 18: Proposed model for financial products provision to pastoralists



Source: Fieldwork findings (2016).

06

Financing Strategy to the Pastoralists

Financial service providers have important roles to play in a pastoral life. Existing MFIs have successfully targeted small traders and some urban small enterprises, but has not reached majority of the herders. There is need to have financial products purely designed for pastoralists, especially herders. Key components of such a strategy are:

a) **Participatory approach to identify suitable financial products for the herders:** It involves the design of attractive savings products for herders, before or in combination with any further micro-credit. This requires participatory research with herders to identify savings products of interest to them, and a suitable structure for herders to make deposits either through district branches of the managing institution, or mobile deposits and withdrawal facilities at smaller centres or other convenient places. Key features of all financial products would be: (i) designed with close herder collaboration to reflect herder needs and constraints; (ii) implemented by private sector companies without general subsidies.

b) **Broadening of financial products to the herders:** This should range from restocking to loans for enterprises involved in production and transformation of pastoral products and perhaps linked to savings, designed in close consultation with herders.

c) **Development of alternative collateral:** This can include livestock, or group guarantee.

d) An evaluation of all restocking undertaken so far: This can be done with particular attention to the financial models used and longer-term financial sustainability, with a view to deriving lessons of best practice.

e) **Massive sensitization for index insurance as an alternative to livestock insurance:** Both weather and mortality insurance, used independently and in combination, should be taken up by all pastoralists and evaluated from time to time.

f) **Life Insurance Products (LIP) for pastoralists:** Investigation of the need for money management and financial planning services, including life cycle financial insurance products such as life and health insurance, pensions and accident insurance, by herders.

g) **Development of an appropriate institutional structure for herder micro-finance:** In the first place, this could be herder credit and savings co-operatives, based on several herder associations or NGOs. The CSCs would undertake savings and credit activities of their own, and also act as a primary conduit for larger MFIs offering insurance and leasing facilities. Herder associations or NGOs could be a channel for herders to get information about insurance and also pioneer pilot schemes by taking out index insurance on behalf of their members, hence, providing a cautious introduction to insurance for households which may be sceptical at first. NGOs have detailed information about the needs and situation of herders, and could ensure that insurers are better informed. There may be economies of scale in offering insurance through NGOs, which would reduce the cost.

h) **Provide necessary training to the pastoralists for new activities:** This is especially necessary for the use of financial products delivered by financial providers to the pastoralists.

i) **Design methods to pilot test or simulate different innovative financial products for herders:** This should be done within selected regions with a view of creating multiplier effect in pastoral areas.Simulation or limited pilot testing phase should be followed by extended pilots at national government level through donor projects, with start-up costs subsidised and a business plan detailing the mechanisms and timetable for scaling up to national implementation by private financial providers.

07

Pre-Conditions for the Proposed Financing Model and Strategy

First, the above model can only operate if the financial gaps and challenges hindering pastoralists to access financial products are addressed and recommendations implemented. Secondly, the model can work if there is formation and strengthening of pastoralists' clan associations. There are already some clan associations within the project areas in the three countries. However, there is need to form more clan associations which are to be transformed later into cooperatives/SACCOs.Specific activities for this proposed model to become effective should include, but not limited to the following preconditions:

i. Enabling policies described in the previous sections under each for the pastoralists in regard to access to financial products. Including avoiding impunity as well as corruption in the use of financial grants.

ii. Sensitization, mobilization and organization development both at the clan level and formal levels such as formation of VSLAs and then transforming them into Cooperatives. This can first be done by initiating table banking/guarantee schemes to enable pastoralist groups to mobilize funds for internal lending purposes. This will go a long way in addressing the problem of lack of capital to expand stock.

iii. Training individual pastoralists to become TOTs. Training should aim at those pastoralists who are already receptive to the idea of transforming their cultural behaviour and attitude into other economic ventures as well as those who have accepted to inculcate a savings culture. These people can include community leaders such as chiefs and other local administrators who can then be modeled to become the village trainers. They are the entry for any training or sensitization activities.

iv. Exposure tours to expose pastoralists to other successful pastoralists in order to learn from them. Exposure tours can start locally, regionally and then internationally.

v. Establishment of fully equipped functioning mobile vet services within the pastoral regions. Vet services are inadequate in the region. Pastoralists end up purchasing livestock drugs from unqualified vet practitioners. To stimulate the interest of the pastoralists and for purposes of ownership of the interventions, they should be taken through capacity building about drug administration so that even if vet services are not available, they can be able to purchase drugs and administer to their livestock.

vi. Financial services such as credit facilities to establish ranches. There is plenty of utilized land. Well-furnished ranches can be made possible.

vii. Formation and strengthening of pastoralists' associations. There are some associations already established, but they have very few members. There should be a deliberate initiative drive to recruit additional members to the associations and even form new ones.

viii. Establishment of a properly furnished collection centre points for milk and other livestock by-products in the region.

ix. Establishment of mobile banking services such asM-PESA in the case of Kenya and HelloCash in the case of Ethiopia in the Market centres and unlimited networks in pastoral areas.

08

Conclusions

The financing models for pastoralists in the project operational areas of Kenya, Uganda, and Ethiopiaare supported by commercial banks,MFIs, SACCOs, grants, insurance,VSLAs and friends contributions as well as proceeds from the sale of livestock in the form of profits to buy additional livestock. There are various strengths and weaknesses. It is important to implement suggested solutions for the sustainability of each model. However, the Cooperatives/SACCO model seems to be the sustainable model for financial provision to the pastoralists.

There are several challenges in the region which should be addressed in order for financial products to reach the pastoralists. The challenges can be addressed by the governments and all other stakeholders with a view to mapping 3Ws in the region so that there is proper planning for interventions. The promotion of mobile banking and interest-free banking can be beneficial especially to offline agents. The suggested solutions for sustainability for each model should be implemented. If the weaknesses and challenges to pastoralists' financial inclusion can be addressed, then the models which are currently being used will become sustainable and the risks will be overcome.

There are good practices which can be emulated within the regions. For example, the use of mobile banking in Ethiopia and Kenya should be emulated by Uganda. So far, mobile banking through the use of mobile phones is used for transactions including deposits to the banks.Withdrawals from the banks can be done as well without physically going to the banking halls. However, pastoralists should have a bank account and consequently bank money in their own accounts. In addition, the pastoralists should be taught how to operate mobile phone transactions.

It was observed that, the Cooperative/SACCO model is mostly successful in the pastoral areas. This is because Cooperatives/SACCOs are legal entities which are favoured by the financial product providers. In case of default, the Cooperative is considered as an entity and not individual. The MFI model has also become successful because most of them start by training VSLAs to become SACCOs before disbursing any financial support to them.

The models which have mostly failed are the commercial banks and grants. For commercial banks, it failed because of several challenges and hindrances experienced by pastoralists to access financial products from the banks.For the grant model, it failed because most of the grants are disbursed to the pastoralists through their VLSAs. Immediately after the withdrawal of such grants, pastoralists normally disband the associations. In some areas, they form associations in order to receive grants. This has created a dependency syndrome.

Pastoral areas can immensely benefit from mobile banking and interest free banking which are key steps to financial inclusion. It is important that stakeholders and financial service providers pursue this effort. In addition, financial illiteracy is the key problem for all types of financial institutions trying to extend financial products to the pastoralists. This should be addressed by all stakeholders.

In most areas, commercial banks do not have products tailored for pastoralists. The MFIs and RUSSACOs are relatively accessible to rural dwellers but still experience low penetration. Most of the areas lack SACCOs/Cooperatives purely for paternalists and those which are formed are weak and, therefore, need the commitment of stakeholders to uplift them.

Rural areas are financially under-served but have ample opportunities to penetrate this new market. In addition, there is an encouraging development in the financial sector because of stiff competition from financial institutions. Most of the new financial products lack innovation and are not designed for the pastoralists, that is, the principle of OSFA is being used by the financial institutions. The pastoralists' needs are unlikely to be accommodated by giving the same product as the other groups of the society.

09

Suggestions for Further Research

On Methodology:

a) A similar study should be conducted to cover all IGAD Countries for comparison purposes and documentation of best practices.

On Findings and recommendations:

a) A comprehensive study should be done to establish the level of pastoralists' financial inclusion by each financial institution.

b) Research to be conducted to establish modalities of coming up with a common currency in the region.

c) A study should be conducted to prioritize financial support in each region involving community voice/participation.Community participation in prioritizing financial assistance should be a key step to assisting pastoralists so that there is ownership of the whole process of financial product delivery.

d) A study should be done on areas of combined financial participation by the three countries. For example, combined effort in regard to livestock markets, roads, water points, among others.

e) A study should also be done to establish how pastoralists would perceive Risk Contingent Credit (RCC) in the project region as an insurance cover for their livestock and livestock products, and as a weather index insurance with basis risk. The specific concern is farmers' financial understanding of how RCC pays indemnities and in relation to loan repayment, sensitivities to the interest rate premiums and potential errors arising from spatial basis risk.

f) Research should be done to come up with recommendations on how to harmonize financial product delivery policies affecting the pastoralists. In this way, there should be policies which are the same to the pastoralists because of their mobile nature in the regions.

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Appendices

Appendix 1: Checklist Tools

Appendix 1a: Tool to financial service providers/Key informants

INTRODUCTION

A. IDENTIFICATION

1.	**Country (Tick appropriately)**	**Ethiopia**		
		Kenya		
		Uganda		
2.	**Date of interview**			

B. FINANCIAL SERVICES AND GAPS

1. In the table below, indicate the financial product provided or and which is supposed to be provided to the pastoralists within the region along the value chain for Cattle within your bank/micro financial institution

Financial products along the Value chain Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
1. Breeding stock					
2. Veterinary services					
3. Feed					
4. Water					
5. Housing					
Others (specify)...					

Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					
Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/ export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

2. In the table below, indicate the financial product provided or and which is supposed to be provided to the pastoralists within the region along the value chain for **Shoats within your bank/micro financial institution**

Financial products along the Value chain Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
6. Breeding stock					
7. Veterinary services					
8. Feed					
9. Water					
10. Housing					
Others (specify)...					

Production financial product:					
3. Raring					
4. Fattening					
Others (specify)...					
Trading financial product:					
4. Collection					
5. Transportation					
6. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					
Processing financial product:					
4. Slaughter					
5. Chilling					
6. Packaging					
Others (specify)...					
Domestic consumption/export financial product:					
12. Domestic consumption:					
13. Export to other countries:					
Others (specify)...					

14. In the table below, indicate the financial product provided or and which is supposed to be provided to the pastoralists within the region along the value chain for **Camel within your bank/micro financial institution**

Financial products along the Value chain Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
1. Breeding stock					
2. Veterinary services					
3. Feed					
4. Water					
5. Housing					
Others (specify)...					

Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					
Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

4. In the table below, indicate the financial product provided or and which is supposed to be provided to the pastoralists within the region along the value chain for **Donkey within your bank/micro financial institution**

Financial products along the Value chain Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
5. Breeding stock					
6. Veterinary services					
7. Feed					
8. Water					
9. Housing					
Others (specify)...					

Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					
Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

5. What are some of the challenges encountered in the provision of financial support to the pastoralists in the Country?
   a) ....
   b) ....
   c) ....
6. Suggest possible solutions to the challenges mentioned above.
   a) ....
   b) ....
   c) ....
4. Is there any other information in regard to this research that you may provide?

THANK YOU VERY MUCH

Appendix 1b: Tool to FGD

INTRODUCTION

A. IDENTIFICATION

1.	**Country (Tick appropriately)**	**Ethiopia**		
		Kenya		
		Uganda		
2.	**Date of interview**			

B. FINANCIAL SERVICES PROVISION AND GAPS

1. In the table below, indicate the financial product provided or and which is supposed to be provided to you within the region along the value chain for Cattle within your bank/micro financial institution

Financial products along the Value chain Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
1. Breeding stock					
2. Veterinary services					
3. Feed					
4. Water					
5. Housing					
Others (specify)...					
Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					

Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/ export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

2 In the table below, indicate the financial product provided or and which is supposed to be provided to you within the region along the value chain for Shoats within your bank/micro financial institution

Financial products along the Value chain / Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
1. Breeding stock					
2. Veterinary services					
3. Feed					
4. Water					
5. Housing					
Others (specify)...					
Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					

Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/ export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

3. In the table below, indicate the financial product provided or and which is supposed to be provided to you within the region along the value chain for Camel within your bank/micro financial institution

Financial products along the Value chain Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
1. Breeding stock					
2. Veterinary services					
3. Feed					
4. Water					
5. Housing					
Others (specify)...					
Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					

Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/ export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

4. In the table below, indicate the financial product provided or and which is supposed to be provided to you within the region along the value chain for Donkey within your bank/micro financial institution

Financial products along the Value chain / Market and value chain activities	**Provided**	**Supposed to be provided**	**Description of the financial product**	**Name of financial service provider**	**Regions where the financial service is/to be provided**
Input Supply financial product:					
1. Breeding stock					
2. Veterinary services					
3. Feed					
4. Water					
5. Housing					
Others (specify)...					
Production financial product:					
1. Raring					
2. Fattening					
Others (specify)...					
Trading financial product:					
1. Collection					
2. Transportation					
3. Distribution to consumers(wholesalers and retailers)					
Others (specify)...					

Processing financial product:					
1. Slaughter					
2. Chilling					
3. Packaging					
Others (specify)...					
Domestic consumption/ export financial product:					
1. Domestic consumption:					
2. Export to other countries:					
Others (specify)...					

5. What are some of the challenges encountered in the provision of financial support to the pastoralists in the Country?
    d) ……………………………………………………………………………………………
    e) ……………………………………………………………………………………………
    f) ……………………………………………………………………………………………
6. Suggest possible solutions to the challenges mentioned above.
2. ……………………………………………………………………………………………
3. ……………………………………………………………………………………………
4. …………………………………………………………………………………………....
7. Is there any other information in regard to this research that you may provide?

THANK YOU VERY MUCH

Appendix 2: Respondents in Ethiopia

	Name	Organization	Position	Telephone Contact	Email Address
1.	Getahun Megersa Furi	Oromia Co-operative Bank-Addis Ababa	Senior Customer Service Officer	+251920740239 +251115157446	gtahunmegersa@gmail.com
2.	Teferi Buta	Oromia Savings and Credit Share Company-Addis Ababa	Manager-Savings and Credit in Oromia and Borana Zones	+251913856266	tefeributa@gmail.com
3.	Mohamed Adbiraham	Somali Microfinance Institution-Jijiga	General Manager	+251915768505	Jele32@gmail.com
4.	Solomon Tsegaye	MercyCorps-Jijiga	Deputy advisor for research	+251910171528	stsegaye@mercycorp.org
5.	Dr. Aden Mohamed	Save the Children-Jijiga	Scientist Fodder Livestock production Advisor	+251921425577	Aden.Mohamed@savethechildresn.org
6.	Abiy Atuafe	Lion International Bank	Bank Manager-Jijiga	025775273736	abiyatuafe@gmail.com
7.	Nekobe Kabede	Commercial bank of Ethiopia (CBE)-Jijiga	Customer service manager	+251915194852	nibisew@gmail.com
8.	Ali Omar	Ethiopian Somali Regional State-Livestock and Pastoralists Bureau-Jijiga	Deputy Bureau Head		
9.	Neima Mohammed	Afar Cooperative Office-Semera area	Head of the cooperative bureau	+251911417967	neimamohammed@yahoo.com
10.	Oumer Nuru	Pastoral Community Development project-Semera area	Regional Livelihood program officer	+25191074169	oumernuru@gmail.com
11.		Midra SACCO –Semera area	Member		

12.	Abdu Geda	Consumer Cooperative society.	Chairman	-	-
13.	Oumer Nuru Mohammed	Pastoral Community Development Project-Afar Regional Project Coordination-Samara area	Regional Rural Livelihood Program Officer	+251 910741649/ +251 965065676/ +251336660269	oumernuru@gmail.com
14.	Fatuma Mohammed	Midra Sacco (15members interviewed in FGD)	Member	+251911033091	-
15.	Mr Amin Abdurkadir	Semera consumer cooperative shop (12 members interviewed in FGD)	Member	+2519112689394	-
16.	Mr Meseret Adugnaw	Ethiopian Livestock Trade Association	General Manager	+251116187120/ +2519122719161	adugnawmeseret@yahoo.com www.elta.com.et
17.	MS. Kibre Mulat	Ethiopian Livestock Exporters Association	The President	+251911237910	

Appendix 3: Respondents of Key Informants and FGD in Kenya

List of Key Informants

	Name	Organization	Position	Telephone Contact	Email Address
1.	Mr. Moses I. Lengarite	County Government of Marsabit, Kenya	Marsabit County Director-Livestock Production	Office : +254 069 2102257 +254 720132418	moslengarire@hotmail.com
2.	Mr. Emmanuel Bule Mio	Ministry of Trade, Industry and Enterprise Development, Marsabit, Kenya	Saku Sub County Trade Office	+254 723279275	Nuelbule2006@yahoo.com
3.	Mr. Francis M. Njogu	Equity Bank Marsabit, Kenya	Assistant Relationship Manager-Credit	+254 721854758	Francis.njogu@equitybank.co.ke

4	Mr. Jarso Mare	ASDSP-Marsabit, Kenya	M&E Manager	+254 727074471	Jarso.jero@yahoo.com
5.	Mr. Fredrick Chege	Co-op Bank Marsabit, Kenya	Operations Manager	+254 724291298	fgichuki@co-opbank.co.ke
6.	Mr. Maurice Onyango	Kenya Women Finance Trust	Operations Manager	+254 713453690	monyango@kwftbank.com
7.	Mr. Haro Okola Guyo	Africa Development Solutions (ADESO)	Technical Adviser NRM)	+254 716898167	hguyo@adesoafrica.org
8.	Mr. Ilkul Joseph Salgi	Africa Development Solutions (ADESO)	Senior Project Officer, Marsabit	+254 725746345	jilkul@adesoafrica.org
9.	Mr. Paul Omala Amonde	KCB -Lodwar	Retail Bank Manager	+254720619029	pomala@kcb.co.ke
10.	Mr. Chris Kibet	Equity Bank-Lodwar	Credit Manager	+254728435082	-
11.	Mr. James Kiyonga	Lomidat Pastoral Multipurpose coop Society	Chairman	+254718789025	Jameskiyonga3@gmail.com
12.	Mr. Benson Lokitela Akol	Ministry of Tourism Trade and Industrialization	County Cooperative Commissioner	+254727007042	Bakol176@gmail.com
13.	Mr. Chegem Romeo	Co-Pillar Cooperative Society-Lodwar	Chairman-Supervisory Committee	+254729919146	chegemromeo@gmail.com
14.	Mr. Evans Manoti	KWFT	Branch manager	+254727972377	enyamcho@kwftbank.com
15.	Ms. Edna Maritim	Anglican Development Services-North Rift Region	Zonal Manager-West Pokot	+254720961879	elreco@africaonline.co.ke
16.	Mr. Evans Yaola	Faulu Kenya	Manager-Kapenguria town	+254770230960	Evans.yaola@faulukenya.com
17.	Dr. Stephen Wamahiu Kimunge	Kenya Market Trust	Livestock End market manager	+254720365376	jkimunge@gmail.com OR jwamahiu@kenyamarkets.org
18.	Ms. Hellen Mutogo	Kenya Market Trust	Management Trainee	+254718615636	lmutogo@kenyamarkets.org
19.	Mr. Samuel Kibicho	Kenya Market Trust	Management Trainee	+254725374818	skibicho@kenyamarkets.org
20.	Mr. Francis W. Kamau	NEEMA Livestock slaughtering Investment Ltd	Operations Manager	+254721589216	www.neemalivestock.co.ke

21.	Mr. Adirahaman	Build In Company Limited-Livestock Exporters	CEO	+254720206308	
22.	Mr. Ali	Top Road Kenya Limited Exporters	CEO	+254728555222	
23.	Mr. Mohammed Yarre	HighStar Internationa Limited Exporters	CEO	+254727853537	
24.	Hamed Osman	Supplier in Kenya	Supplier	+254721775962	
25.	Garma Halake	Supplier in Kenya	Supplier	+254720526282	
26.	Haji Mukta	Supplier in Kenya	Supplier	+254722746676	
	List of Fgd with Traders/Herders in Lodwar Town				
27.	Mr. Peter Lopite	Lolupe	Trader	+254703456936	
28.	Mr. David Nakusi	Nadapal	Trader	+254718789965	
29.	Mr. Nakachalak K. Eregae	Kalotum	Producer/ Herder	+254716761529	
30.	Mr. Epem Juda Emati	Nadapal	Producer/ Herder	+254707258277	
31.	Mr. Ekeno Philip	Lodwar	CLMC-Coordinator in Lodwar	+254727311996	ekenophilip@yahoo.com
32.	Mr. Joseph Losuru	Loima	CMLC-Credit officer	+2547144408393	
33.	Mr. Lawrence Ajele	Lodwar	CPPA-Turkana	+254712227714	lawjele@yahoo.com
	Fgd List of Participants in Lokiriama, Turkana County				
34.	Mr. Philip Loleny Edung	Lokiriama LMA group	Member	+254717859840	-
35.	Mr. Partrick Lowoto	Lokiriama LMA group	Secretary	ID.No. 11513809	-
36.	Mrs. Naleiyo Edung Loilu	Lokiriama LMA group	Treasurer	ID.No 12908420	-
37.	Mr. Ekadeli Ebei	Lokiriama LMA group	Member	-	-
38.	Mr. Tioko L. Sammy	Administration	Acting Chief	+254790815533	summylosuban@gmail.com
39.	Mr. Mark A. Lokwawi	Administration	Assistant Chief	+254707024889	marklokwa@gmail.com

	Fgd List Of Participants in Konyao Division, Kapchok Location Wesk Pokot County				
40.	Philip A. Ywapale	Konyao Division West Pokot	Chief	+254711537939	-
41.	Peter Kanyanamoi	Konyao Division-West Pokot	Assistant Chief	+254712680391	-
42.	Christopher Namertakori	Konyao Division-West Pokot	Trader	-	-
43.	Joseph Mutinda	Konyao Division, West Pokot	Pastor	+254700364343	--
44.	Akasile Lotingingo	Konyao Division, West Pokot	Herder	-	-
45.	Lotwala Lochoke	Konyao Division, West Pokot	Herder	-	-
46.	Christine Kasimiri	Konyao Division, West Pokot	Trader	+254702233450	-
47.	Komole Loparatum	Konyao Division Pokot	Trader	+254707646910	-
48.	Peter Longuranyang	Konyao Division Pokot	Trader	+254718803875	-
49.	Musa Logwee	Konyao Division Pokot	Trader	+254717595710	-
50.	Yahana	Konyao Division Pokot	Trader	+254718555227	-
51.	Joseph	Konyao Division Pokot	Trader	+254706375183	-

Appendix 4: List of participants in Community Meeting-Moyale, Kenya

The list below was composed of a mixture of the herders and traders. They presented their perspectives in regard to financial products provided to them and the gaps thereof.

No	Name	ID No.	Mobile No.
1	Mustafa Abdirahman	21890259	0724445493
2	Ali Julo	26021948	0715630941
3	Molu Halo	0162472	0716705318
4	Ibrahim	27619971	0723914452
5	Abdukali Kanato	24158129	0710370725
6	Hassan Roba	13426949	0710518193
7	Adan Gufu	0070988	0728985650

8	Mohamed Guracha	92577419	0717709163
9	Malicha Wario	12755815	0726069110
10	Galma Kampicha	0069675	0728417124
11	Jarso Tache Halare	12756359	0725206360
12	Halkano Dika	11504054	0721450453
13	Galgallo Suku Bwacha	23819533	0711790344
14	Tari Roba	1997204	0707849576
15	Kanu Mude Keko	9561407	0710595780
16	Abdub Jirmo Rabbe	8734820	0729684911
17	Abduba Chiri Dabajo	0071281	0723621752
18	Kini Golicha Jaldesa	9558793	0713711496
19	Gufu Abgudo Wario	1842532	0708028841
20	Galma Guyo Liban	0624025	0716105202
21	Ibrahim Edin Huka	0598623	0721984405
22	Mohaned Osman		0706647238
23	Boru Galgalo Wajera	7785970	0703997049
24	Biskili Dabaso	2064206	0703922956
25	Gaigalo Ture	9561938	0720591661
26	Halake Guyo	0213246	0712659302
27	Gura Cha Boru	0075208	0728851110
28	Qalicha	7147152	0701174028
29	Abdaraman Abdulhi	0069959	0729236771
30	Hassan Kala	1273735	0727087861
31	Kana Salesa	25929517	0721589498
32	Adan Edin	21667128	0721775003
33	Edin Dima		0725673365
34	Ibro Mohamud Ibro		0710909943
35	Hassan Ibrahim Isack	0072117	0712136323
36	Galma Boye (Chairperson)	0069422	0725673365
37	Edin Dima	12755751	0721926858
38	Ibrahim Mamud	20265509	0723512889
39	Alia Addhllah	0598819	0725384935
40	Kasa Aide	8735480	0722475511
41	Halima Mohamed	23014488	0704399868
42	Halima Dadacha	8734895	0725778210
43	Abdia Ali	12755722	0714928707

44	Arian Abdinoor	9563389	0729733312
45	Amina Hassan	12430497	0720820411
46	Safia Abdi	3351439	0719165293
47	Abdia Adan	7874958	0722837131
48	Abdia Aliow	5078182	0701385290
49	Shakey Abdullah	3453995	0722638082
50	Halima Issack	9558790	0706649930
51	Habiba Ibrahim	11573500	0722131229
52	Abdia Diba		

Appendix 6: List of stakeholders' meeting in Kotido-Southern Karamoja

	Name	Organization	Position	Phone	Email
1.	Lepera David	Kachori sub location	Community Development Officer	+256778046820	Davidlepera.lepera@gmail.com
2.	Orisa Joseph		District Information Officer	+256772579170	diokotido@gmail.com/ orisajoe@yahoo.com
3.	Ondama Emmanuel	Kotido District Local Government (DLG)		+256777187373	ondomaemma@gmail.com
4.	Opio Moses	MercyCorps		+256775226170	Opimoses2@gmail.com
5.	Lemukol Lilly	Kotido Municipality	Senior Community Development Officer	+256772988926/ +256772840026	lilitukuton@yahoo.com
6.	Achilla Bradford	Kotido DLG			achillabradford@gmail.com
7.	Hon. Mathew Akeronsky	District local government	Secretary Works Security and Technical Services	+256774552557	
8.	Janet Oyoj			+256772939038	janetoyok@gmail.com
9.	Obin Benard Eruya			+256785072970	Obin.benard@yahoo.com

10.	Acheng Josephine	Kotido		+256775295595	joseacheng@gmail.com
11.	Francis Baari	Kotido		+256773180356	
12.	Irar Sbina	Kotido DLG	Secretary for Production		
13.	Otim Dennis	Kotido	Sub County Chief	+256772952647	dennisdehat@gmail.com
14.	Egotu Emmanuel	Kotido DLG	Surveyor	+256773350750	eegotu@gmail.com
15.	Auma Florence Toss				aumatoss@gmail.com
16.	Ocheng Bradford	Kotido DLG	Agricultural Officer		bradfordocheng@yahoo.com
17.	Akelo Hellen		SAS Kotido s/c	+25677299600	
18.	Okuda Robert Kennedy	Kotido		+256772356128	rukokuda@yahoo.com
19.	Logiro Peter	Kotido			plogiro@yahoo.com
20.	Ariko Maxwell	Kotido			pmaxwellariko@gmail.com
21.	Titin Dorothy	Kotido	Food security farmer	+256774143114	
22.	Lokol Rebecca	Kotido	Senior Secretary		reblokol@gmail.com
23.	Eric Nalungu	UAP Insurance	Manager, Mbale Branch	+256772464868/ +256702464000	ENalungu@uap.group.com

Appendix 7: Current slaughterhouses contacted in Kenya

Slaughterhouse	Location	Main Species
Choice Meats	Nairobi	Cattle
Dagoretti	Dagoretti, Kiambu	Cattle
Dandora	Njiru, Nairobi	Cattle
Hurlingham	Njiru/Ruai, Nairobi	Cattle
Kakuzi Limited	Thika, Kiambu	Cattle
Kayole	Kayole, Nairobi	Cattle
Keekonyokie	Kiserian, Kajiado	Cattle
Kiamaiko	Kariobangi, Nairobi	Shoats

Kiserian	Kiserian, Kajiado	Shoats
Lomidat Slaughterhouse	Lokichoggio, Turkana	Cattle & sheep
Mara Beef Limited	Narok	Cattle & sheep
Marula Estates Limited	Naivasha, Nakuru	Cattle & sheep
Mlolongo	Athi River, Machakos	Camels
Neema Livestock & Slaughtering Investment Ltd	Nairobi	Cattle, camel, goat & sheep
Ngare Narok Meat Industries Ltd	Rumuruti, Laikipia	Cattle, sheep, goats & camels
Ngong	Ongata Rongai, Kajiado	Cattle
Nyonjoro	Dagoretti, Nairobi	Cattle
Ol Pajeta Ranching Limited	Nanyuki, Laikipia	Nanyuki, laikipia
Olekesasi	Ongata Rongai, Kajiado	Cattle
Quality Meat Packers	Nairobi	Cattle

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