USAID PEEP PROJECT

BUSINESS PLAN
NRSP MICROFINANCE BANK

FEEDLOT FATTENING PROJECT IN SOUTH PUNJAB

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BUSINESS PLAN
NRSP MICROFINANCE BANK
FEEDLOT FATTENING PROJECT IN SOUTH PUNJAB

PUNJAB ENABLING ENVIRONMENT PROJECT (PEEP)

CONTRACT NO. AID-391-C-14-00002

Contents

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This Business Plan is limited to the scope set out in the Task Order number KPMG_TAS_IQS_001/01 dated 12 February 2016 (“the Task Order”). There may be other issues of interest to the Client and/or NRSP-MFB which may not be included in this Business Plan.

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1. Executive Summary

Name of Project	Feedlot Fattening Project In South Punjab
Implementing Agency	NRSP Microfinance Bank "The Bank"
Total Investment Amount	PKR 100 Million.
Initial Lending Targets	Two Hundred (200) small farmers with an average loan size of PKR 500,000.
Project Background:	NRSP Microfinance Bank Limited was selected as a recipient under PEEP TAS program by the PEEP management, to improve microenterprise-lending program for small and medium sized enterprise development in livestock fattening sector, by developing a detailed, well researched and holistic business plan for individual farmers' as well as small and medium enterprises. NRSP Microfinance bank aims to develop a value chain network of small livestock fattening farmers. This proposed activity mainly focuses on micro-entrepreneurs, with a strong emphasis on women as a target beneficiaries.
Key Activities performed	Following key activities were performed for development of this document: ▪ A comprehensive study of the Rules & Regulations including Prudential Regulation by SBP, Federal and Provincial laws and legislations) applicable in Pakistan, that may affect the project in a positive or negative mode; identifying any restrictions that may apply on the Bank, customers or value-chain partners, was carried out. ▪ An in depth breakdown of the key aspects that will make up the product development and its implementing strategies was conducted. The risks that may arise during the course of the loan period were identified and analyzed to evaluate how they shall be tackled. Furthermore, a well-designed field visit framework to ensure compliance of policies by the customers throughout their loan period was developed. ▪ Thorough research on suitable value-chain partners that may play their supporting role providing ample assistance to the customers was carried out. ▪ A multifaceted finance model was developed which highlights the financial projections over a span of five years; use of theoretical methodology i.e. NPV, IRR and MIRR to review the sustainability of the project, was developed by analyzing existing financial structure of NRSP-MFB as well as identified additional requirements for the project.
Project Snapshot:	NRSP MFB aims to introduce four months financing plan with an annual mark-up rate of 28% flat rate. 80% of initial project investment shall be financed by debt financing, whereas, 20% of full amount shall be funded by equity.

	Bahawalpur and Sahiwal districts are the most suitable districts for implementation of the pilot phase of the project.
Project Returns	IRR for the project is calculated at 34.6%. This IRR is calculated based on the assumption that 98% of total funds will be utilized with three relending cycles per year.
Project NPV	The NPV for the project has been carried out by identifying the free cash flows to equity and discounting the cash flows at the weighted average cost of capital (WACC) at 8.8% which results in an NPV of PKR 134.9 million.
Project deliverables	This business plan encompasses the following sections: **Policy and regulatory framework:** The laws and regulations that encircle the bank, its customers, the value chain partners and for the products have been carefully compiled to ensure compliance with all relevant conventions. The impacts, positive or negative, have been discussed to highlight the key aspects that the Bank has to administer to safeguard proper performance. Furthermore, it deals with the minimum capital requirements, code of corporate governance requirements and adequate planning requirements as stated by law. Furthermore, it showcases resourceful guidelines for the farmers including necessary feed for the animals, restrictions, any licenses that may apply. **Industry analysis report:** This section provides a comprehensive overview of agricultural industry in Pakistan, primarily focusing on livestock sub-sector, emphasizing on market trends, per capita consumption and demand resulting in an assorted analysis of the sector. Livestock sectors contributes 11.8% to the Pakistan's GDP, Pakistan ranks 18th in the world for production of halal meat and 9th in beef producing countries In terms of exports, Pakistan ranks 22nd in the world export of Halal meat, with more than half of Pakistan's meat exports consist of beef. Whereas about 80% of Pakistan's Halal meat exports go to the Middle East and Gulf countries, major destinations being Saudi Arabia and the UAE. Asia- Pacific region, North-Africa and the Far East can be the potential markets for Pakistani meat Beef contributes almost 53% of total meat production in the country. Whereas mutton and poultry meat encompasses 18% and 29% of the total meat production respectively. Pakistan can play pivotal role in this growing market, it has more

than 160 million quality livestock including 71 million Cattles & Buffalos and 89 million goats & sheep.

SWOT analysis:

This sections delivers a comprehensive analysis of the NRSP MFBL's Strengths, Weaknesses, Opportunities and Threats (SWOT) vis-a-vis the envisaged project. Following are the key points which may strengthen / hinder the implementation of the proposed project:

- NRSP MFBL has an effective system of management and an integrated connection with the public which ensures their proficient cumulative recovery rate of 99.6% (2014).
- Livestock is an integral part of the agricultural system of Pakistan and serves as supplementary income source for small farm holders (source of 80% of meat animals). This reflects towards a strong customer base for agricultural financing.
- A well maintained CAR of 21.29% ensures that the bank can still offer a reasonable amount of loan facility, without the injection of further equity.
- Slaughtering and meat handling facilities are outdated, inadequate and un-hygienic.
- Lack of genetically enhanced and stable beef breeds in Pakistan.
- Non-availability of feed (green forages) in rural areas of southern Punjab during May-April and June-August
- NRSP Bank have a vast network of 67 branches across 25 districts through this network it can exploited the project.
- Floods & disease outbreaks may adversely impact the supply chain and farming systems.
- Lack of awareness and education in rural areas of Punjab.

Product development report

In order to ensure the success of project an effective management of available resources would be required to maximize the project profits. This can be achieved by evaluating the appropriate farmers for the project, establishing a formal strategy for loan disbursement and loan recovery to minimize loan defaults.

Moreover, to reduce the expected losses, farmers should strictly follow the animal selection criteria to avoid loss of animals subject to fatal diseases.

The farmers can improve their profits by procuring the best breed of animals or opting the right product mix as offered by the bank i.e. Sahiwali cattle, Nili Ravi buffalo, Beetle goat or Lohi sheep, as evident on the basis of detailed analysis as provided above.

Project implementation strategies

The success of project is dependent upon evaluation, formulation and implementation of appropriate strategies.

The most suitable strategy for the project is establishing a dedicated team for management of this project by identification and targeting the cadre of most suitable farmers to minimize the project losses.

In addition to these, bank should ensure provision and monitoring of field visit facilities to the farmers to mitigate the potential financial losses of bank and farmers.

Hence, stringent measures should be adopted for the compliance with the regulatory requirements and formal policies and procedures for the achievement of desired objectives as suggested by designed strategies of the organization.

Potential value-chain partners

The business is influenced by the environment in which it operates and the success of business is dependent upon its ability to respond to changing business environment. Value chain partners are the significant component of micro-environment. In order to seize business opportunities, bank must identify its major value chain partners who will considerably contribute in the project profits.

Few of the major contributories of the animal fattening project are as follow: A Input Suppliers: (including International Markets; Local Markets; Animal Feed manufacturers and retailers; Health and Vaccinations.
B- Aggregators / Wholesalers / Retailers (Rural area aggregators and urban area aggregators
C- Processors (Slaughter house / abattoirs; and Meat processors).
D- End Market - Consumer
E- Supporting markets (including Veterinarians; Farm Designing, Construction & Installation providers; Farm Equipment's & Machinery suppliers; Educational/ Research/ Training Institutes; Insurance Companies;
And Punjab Animal Registration & Identification System)

Risks and mitigation strategies:

This sections summarizes risk and its mitigations strategies, that may hamper the implementation of the project from both banks and farmers perspective. Few major risk includes: Risk of default, inefficient value chain, and inappropriate procurement of animal, insufficient technical expertise and loss of animals due to natural disaster.

Financial projections/feasibility plan:

The financial projections report showcase the methodologies i.e. NPV and IRR used to determine certain outcomes of the project. Following key assumptions were taken:

- The bank has ascertained 80% of project cost i.e. PKR 80 million will be injected through debt financing. Remaining 20% will be financed through equity.

	▪ The inflation rate has been realized at a steady rate of 7%. ▪ Specific provision for potential loss of 1% of the project cost has been realized by computing an average of NRSP MFBL's previous two years' specific provision. ▪ General provision for potential loss of 1% of the project cost has been realized by computing an average of NRSP MFBL's previous two years' general provision. ▪ Write-offs have been provisioned at 1% of the project cost. ▪ It is assumed, for the project the subsequent list of capital expenditures are necessary: a) two motor bikes, b) 1 car, c) 3 laptops and d) 2 weighing scales. The section also highlights key interpretations of the results and it consolidates a sensitivity analysis based on the variations that could result in deviations. The sensitivity analysis confirms that the Bank must ensure firm observance of the given targets to achieve the maximum potential of this project

2. INTRODUCTION AND BACKGROUND

2.1. Scope of work

KPMG Taseer Hadi & Co., Chartered Accountants (“KPMGTH”), entered into Contract for Consultant’s Services (“Subcontractor”) with Chemonics International Inc. to provide technical assistance (Transaction Advisory Services in particular) for Punjab Enabling Environment Project (PEEP). Punjab Enabling Environment Project is a USAID funded project, aimed to support the Government of Punjab in improving busied environment for livestock, dairy and horticulture subsector.

NRSP Microfinance Bank Limited was selected as a beneficiary under PEEP TAS program by the PEEP management, to improve microenterprise-lending program for small and medium sized enterprise development in livestock fattening sector, by developing a detailed, well researched and holistic business plan for individual farmers’ as well as small and medium enterprises.

NRSP Microfinance bank intends to develop a value chain network of small livestock fattening farmers. This proposed activity mainly focuses on micro-entrepreneurs, with a strong emphasis on women as a target beneficiaries.

KPMGTH has worked closely with PEEP and NRSP-MFB to evaluate the dynamics of the value chain of livestock fattening sector. NRSP Bank proposes to invest PKR 100 million in small livestock enterprise loans. These loans will approximately reach out to 200 small farmers with an average loan size of PKR 500,000. Through this investment, better income-generation opportunities will be created directly for 200 small farmers and indirect opportunities for approximately 800 people in livestock sector e.g. animal vendors, feed sellers, veterinary doctors, meat processing agencies etc.

Rural areas of Punjab is the targeted location for this project, since NRSP-MFB’s has strong network of branches in Punjab.

Silent features of this project include:

- NRSP-MFB’s field team will identify farmers who will be willing to purchase animals for fattening and reselling after a certain number of months. Loans will be disbursed on individual basis. Whereas farmers will be responsible to arrange a proper space /shade for keeping animal. They will also be liable for feeding the animal.
- Tenor of loan will be 4 months as per bank policy.
- The bank will help the farmer in purchase and sale of animals at reasonable prices with the help of its value chain partners. Where, farmers will be liable to follow the instruction of Livestock Doctor/Technician with regard to animal health, feeding and preventive vaccination.
- The animals would be tagged for monitoring purposes and necessary vaccination and first aid support as per normal animal husbandry practices would be provided for rapid weight gain. The animal health and weight of the animal would be monitored with the help of value chain partner during the period so as to achieve the target of weight gain during the loan tenure.
- Farmers are required to sell the animal preferably to the identified value chain partners under linkage arrangements.
- Farmers will be liable for repayment of loan to the bank with interest.

2.2. Project Deliverables

Project deliverables comprise of a holistic business plan encompassing the following sections:

- SWOT analysis
- Policy and regulatory framework
- Industry analysis report
- Product development report
- Project implementation strategies
- List of potential value-chain partners
- Risks and mitigation strategies
- Financial projections/feasibility plan

2.3. Purpose of this document

This document constitutes the holistic business plan required under the Task Order by PEEP. The document will aid in constructing a suitable basis for a smooth execution of the project in the desired areas with the identification of hurdles that may hinder the operational performance and how these hurdles can be mitigated and the regulatory environment in which the product shall be put into the market.

A detailed analysis of the means with which the product would be introduced into the industry and what factors must be catered for. Furthermore, this report also provides detailed financial projections and their interpretations as well as their impacts.

2.4. Key activities performed for development of this Business Plan

A comprehensive study of the State Bank of Pakistan (SBP) regulations, Federal and Provincial laws and regulations that may affect the project in a positive or negative mode; identifying any restrictions that may apply on the Bank, customers or value-chain partners, was carried out.

An in depth breakdown of the key aspects that will make up the product development and its implementing strategies was conducted. The risks that may arise during the course of the loan period were identified and analyzed to evaluate how they shall be tackled. Furthermore, a well-designed field visit framework to ensure compliance of policies by the customers throughout their loan period was developed.

Thorough research of suitable value-chain partners that will play their supporting role providing ample assistance to the customers was carried out.

A multifaceted finance model was developed which highlights the financial projections over a span of five years; use of theoretical methodology i.e. NPV, IRR and MIRR to review the sustainability of the project, was developed by analyzing existing financial structure of NRSP-MFB as well as identified additional requirements for the project.

2.5. Limitations of this Business Plan

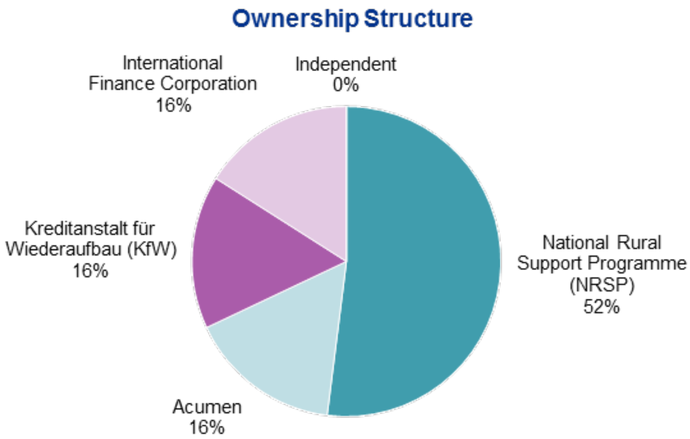
The business plan is based solely on the procedures performed and identified in section 2.4 of this report. In order to obtain detailed understanding of all the segments of the project; thorough research and critical assessment of available information was conducted. However, this report is limited to results/ conclusions obtained in accordance with our scope of work included in our contract with Chemonics International. Please refer to “Disclaimer” section of this report for details of limitations of this business plan.

3. INTRODUCTION TO NRSP MICROFINANCE BANK LIMITED

NRSP Microfinance Bank Limited (NRSP-MFB) is a public limited company incorporated in Pakistan on 22 October 2008 under the company's ordinance 1984 and has been licensed by the State Bank of Pakistan to operate as a nationwide microfinance bank under the Microfinance Ordinance 2001. NRSP-MFB commenced its operations as a national level microfinance bank on 28 February 2011, with its Headquarter in Bahawalpur. As at 31 December 2015, the paid-up share capital of the bank stands at around PKR 1.5 billion.

3.1. Brief Overview

National Rural Support Programme (NRSP) is the holding company of the bank, which holds 52.06% shares in the bank. Other major shareholders include Kreditanstalt für Wiederaufbau (KfW – Germany) holding 16% equity stakes, International Finance Corporation (IFC) holding 16% equity stakes, Acumen Fund USA holding 11% equity stake and Acumen capital market LLP holding 5% equity stake.



This nation-wide microfinance bank was established to mobilize funds for providing microfinance services to low income people for mitigating poverty through community building and social mobilization with the ultimate objective of poverty alleviation.

Through targeted financial and multi-sectorial products and services based on the evolving needs of the poor, NRSP-MFB enables its clients to strengthen their entrepreneurial base and build financial, physical and human capital to secure their future.

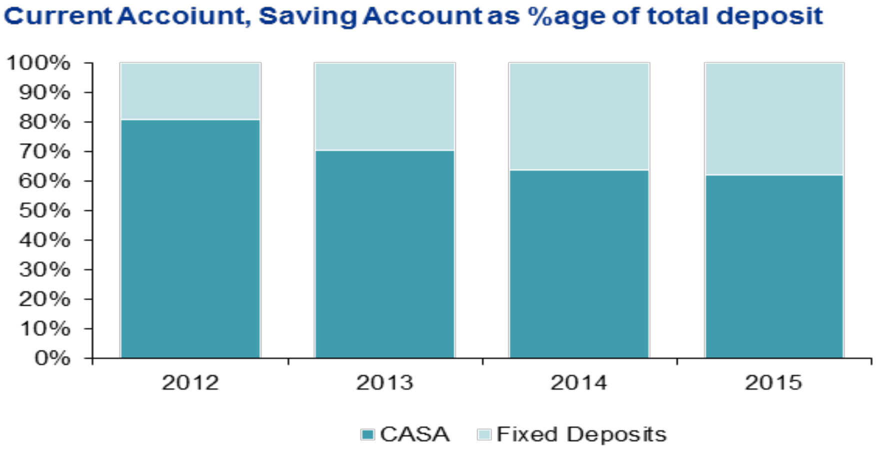
As at 31 December 2015, NRSP-MFB operates through a network of 67 branches (2014: 58 branches) in a total number of 25 districts, offering a range of financial services including Deposits, Micro-Credit and Micro-Insurance to the financially excluded individuals living in both urban and rural areas of Pakistan.

During the past five years, NRSP-MFB has a cumulative disbursement of over PKR 43.9 billion with a Gross Loan Portfolio of PKR 9 billion as of December 2015. According to Microwatch (PMN), NRSP-MFB constitutes around 9.8% of the total market share of the Gross Loan Portfolio of Microfinance banks in Pakistan, as of December 2015.

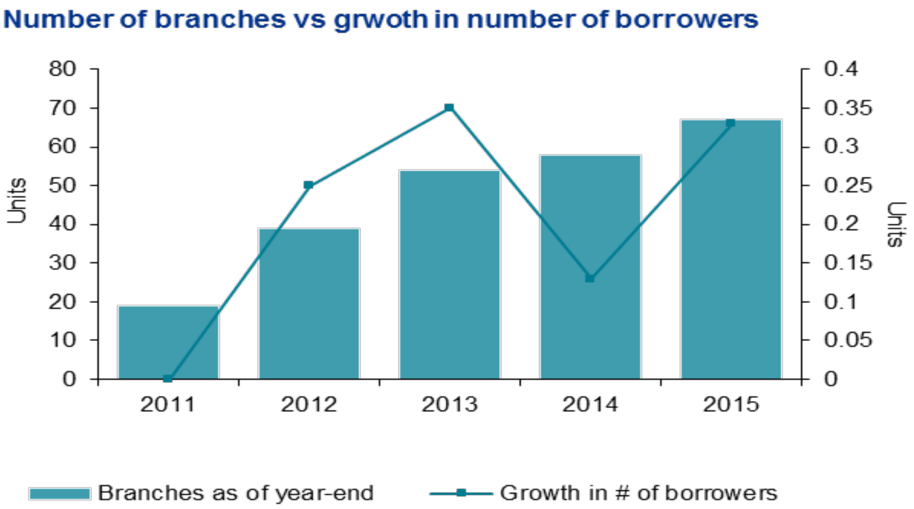
Since 2014, NRSP-MFB continues to maintain rating of A- in long term entity and A2 in short term issued by JCR-VIS.

The capital adequacy ratio (CAR) for the year ended 2015 stood at 21.29% (2014: 21%) maintaining a sufficient reserve to meet the CAR requirements as per the SBP regulations.

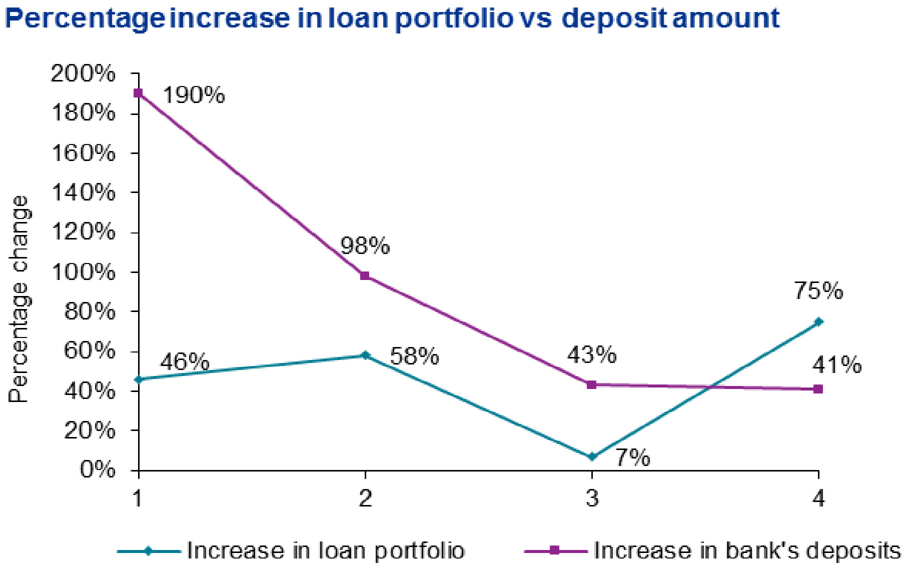
The Bank's customer base represents poor population without or with limited access to financial services from the formal financial sector. The NRSP-MFB provides an effective financial intermediation service to the poor people of Pakistan to encourage their financial inclusion. A vast majority of poor people live in the rural areas of Pakistan, while women constitute more than half of the population living in poverty. Cognizant of the needs of these vulnerable groups, the NRSP-MFB endeavors to provide them with accessible financial services with more than 90% of NRSP-MFB's loans in FY 2014 were disbursed sector and approximately 80% of those loans disbursed owned no land or owned less than 5 acres of agricultural land.



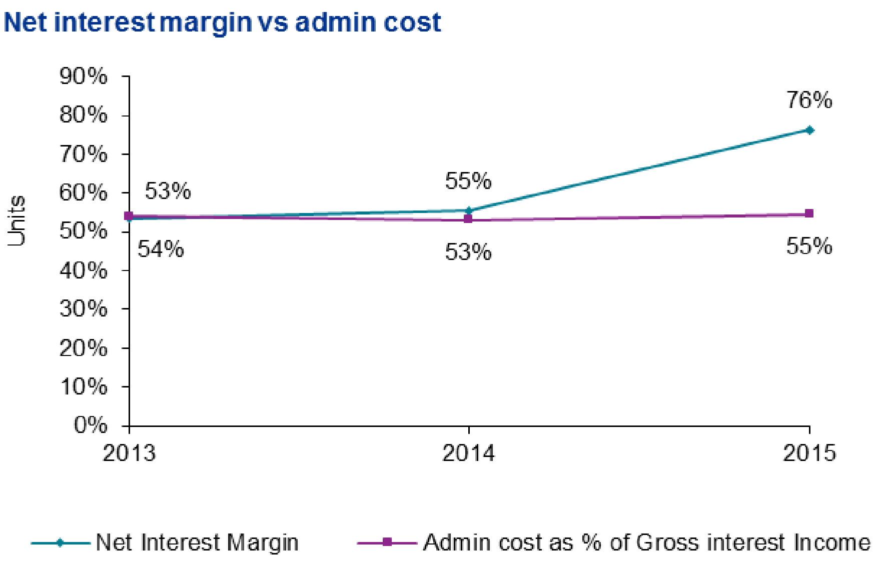
The graph above shows the share of current and saving accounts out of total deposits (including fixed deposits) during the year 2012-2015. Total deposit in Current Account and Saving Accounts represents 62% of the total deposit in FY 2015.



The graph overhead identifies the increase in the number of branches of the Bank, and the aspect of growth in number of borrowers over the years.

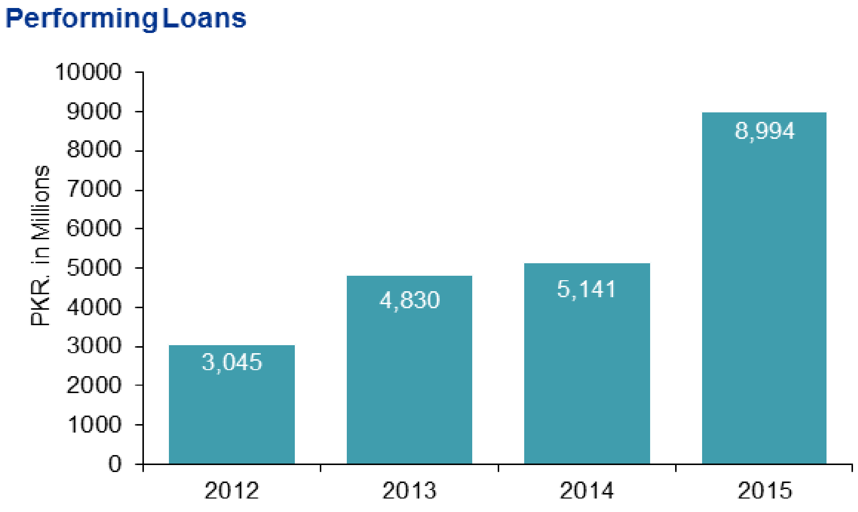


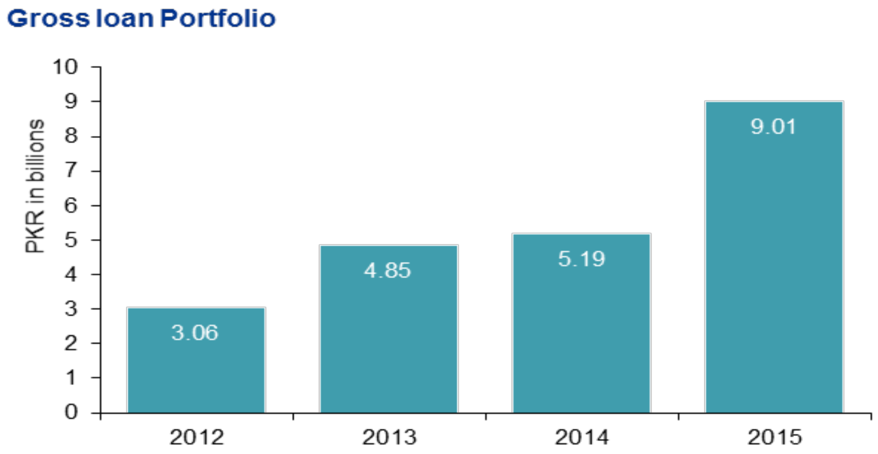
The graph directly above showcases the percentage increase in loan portfolio with an increase of 75% in year 4. Furthermore, it highlights the decreasing trend of deposited amount with a reducing 41% in year 4.



The graph above shows an increasing trend in the net interest margin, increasing up to 76% in 2015. Moreover, a consistent admin cost of around 53-55% of the gross interest income over the period.

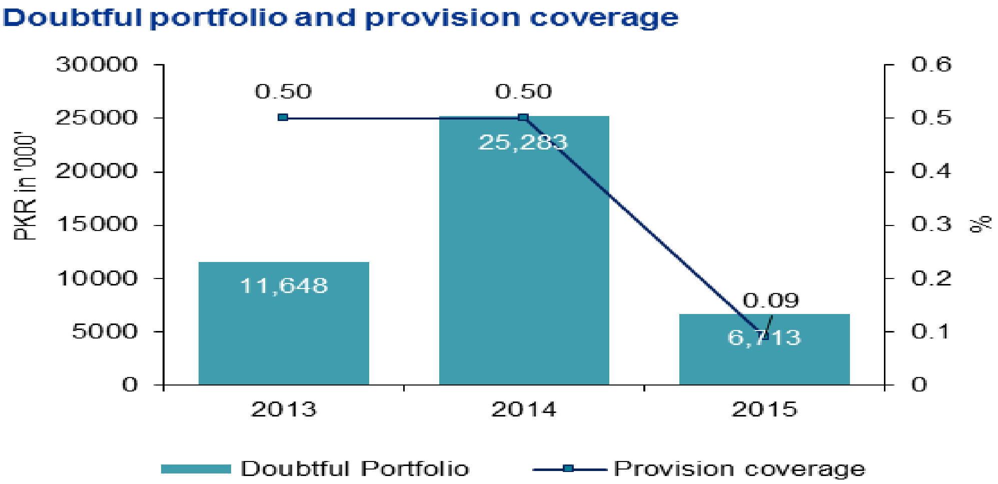
The illustration below identifies the performing loans for NRSP MFB during the years 2012-2015. The highest in the last year at PKR 8,994 million.



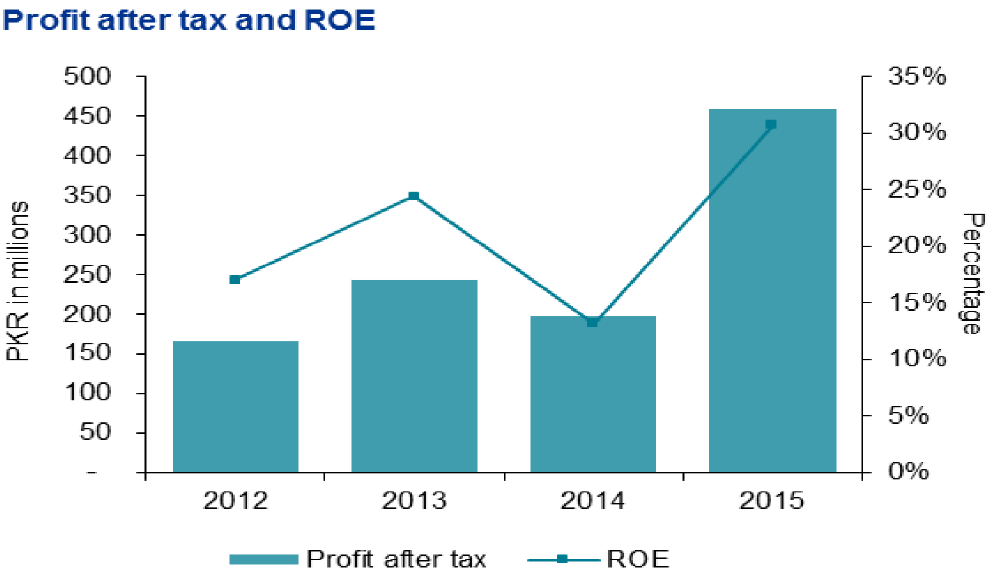


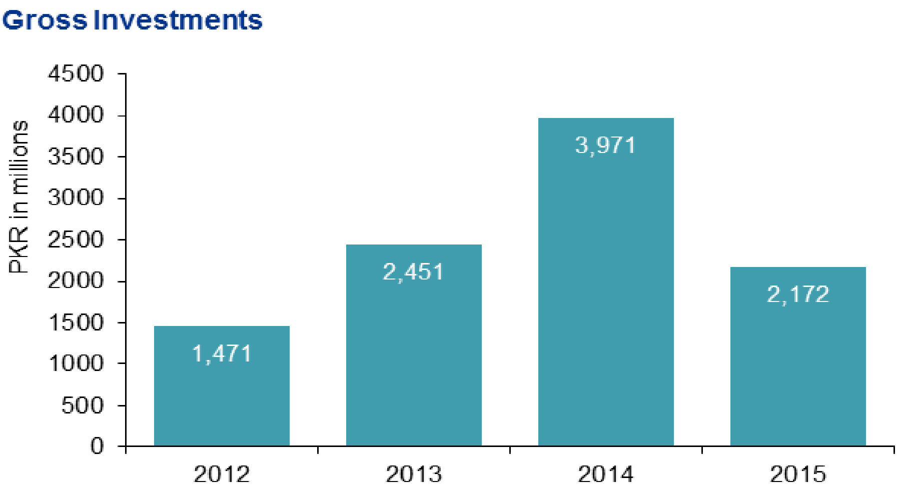
The graph above illustrates the gross loan portfolio of NRSP MFB for the year 2015 at PKR 9.01 billion. (2014: PKR 5.19 billion, 2013: PKR 4.85 billion and 2012: PKR 3.06 billion)

The illustration below highlights the doubtful loan portfolio for the Bank in the preceding 3 years along with the provision coverage for those year. It is worth mentioning that the provision coverage for 2015 was around 9%.



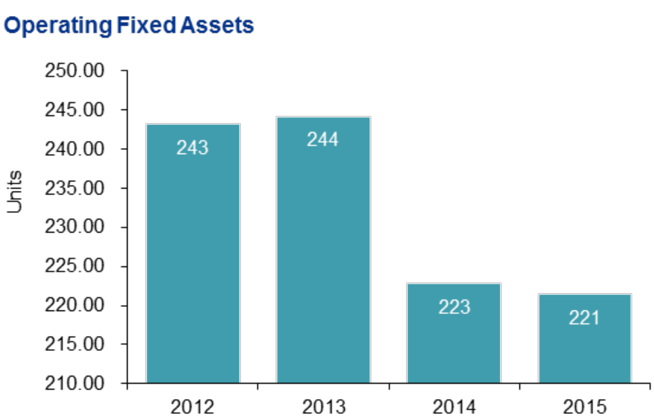
The graph below showcases the profit after tax and the return on equity for the relevant period with the highest achieved net profit in year 2015.

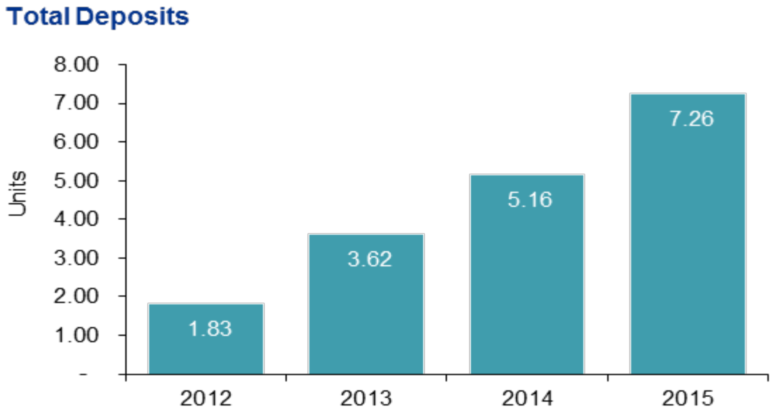




The graph overhead highlights the gross investments for NRSP MFB during the years 2012-15, with the highest in 2014 at PKR 3,971 million.

Similarly, the graph below shows the total deposits in the same period for the Bank, with the highest in 2015 at PKR 7.26 million





The graph overhead highlights the operating fixed assets of the Bank for the years 2012-15, with PKR 243 and 244 million in 2012 and 2013. (2014: PKR 223 million and 2015: PKR 221 million)

3.2. Product Profile

NRSP-MFB offers a wide range of products / services catering to the financial needs of customers. NRSP-MFB product pallet includes:

i. Credit products;
ii. Deposit products;
iii. Micro-insurance, and
iv. ATM / Debit Cards
v. Animal Fattening (Pilot Project)

Credit products

Credit products of NRSP-MFB are delivered to communities through Credit Organizations (COs) which normally consist of 10 to 20 persons. The loan is secured through solidarity group guarantee. The group methodology employed requires the CO to hold regular meetings, demonstrate the ability to save before the first loan is made available, and accident and hospitalization insurance is purchased for the loan. The current credit products available for local communities are mentioned in the table below:

Credit products		
Name of Products	**Financing limit /**	**Description**
Agricultural Loan	Up to PKR 150,000	Agricultural loan provides short term financial facilities to small subsistence-level farmers, cultivating crops, orchards, nurseries and vegetables. The product focuses on providing financial facility to match cash flows patterns of the farmer i.e. providing cash at the time of sowing of crops and repayment of loan after the sale of agriculture output. Financing is available for purchase of agri- inputs and small farming implements/machinery with a group guarantee as collateral.
Enterprise loan	Up to PKR 150,000	Enterprise loan is a loan product for individuals undertaking income generating/ business activities for a variety of purposes. It targets home-based entrepreneurs, especially women, as well as small shops in market areas, undertaking manufacturing, trading or service activities for a duration of 1 year consisting of 12 monthly installments.

Gold loan	Finance against Gold collateral	Gold loan provides working capital to finance activities like agriculture and livestock, enterprises, emergency needs, health or educational needs with gold or gold ornaments as security to pledge with the bank.
Kissan Zarri Taraqiati loan (KZTL)	Up to PKR 150,000	KZTL provides an opportunity for individuals who require funds to finance activities including agriculture, livestock and poultry, health and educational needs and who are able to provide their land as security.
Livestock loan	Up to PKR 150,000	Livestock is an important asset and source of income in the rural areas of Pakistan. Livestock loan is a short to medium term loan, offered to livestock farmers, especially women, for productivity enhancement of existing dairy animals, and animal purchase for rearing and fattening as well as for dairy businesses.
General loan against Salary/ Pension	Up to PKR 150,000	A general purpose loan product to meet social needs e.g. payment of education and health emergency expenses, small housing improvement, and to fulfill other household consumption needs.

Deposit products:

NRSP-MFB is offering various number of deposit products to assist the short and long term requirement of both its micro-borrowers and general public customers. These deposit products are categorized into Current Accounts, Term Deposit Receipts, and Savings Accounts. List of major deposit products are mentioned in the table below:

Deposit products	
Type of product	**Name of product**
Current account	NRSP Behtereen Current Account
Saving account	Asaan Bachat Saving Account Kissan Bachat Account Mahana Bachat Account NRSP-MFBL Tanzeem Bachat Account Regular Savings Plan
Term deposit	NRSP Ziada Munafa Term Deposits

Insurance products

Complementary hospitalization and accidental death Insurance Scheme are also offered by NRSP-MFB. Under this scheme a cover of Rs.15000 each is provided to customers and to his/her spouse for the following instances:

Insurance product

Type of product	Name of product
Micro insurance	Hospitalization
	Death / Disability (earning member only)

ATM / Debit Cards

In collaboration with NCR Corporation, NRSP-MFB offers the productive, ATM (automated teller machines), which enable the bank to connect, interact and transact with customers. The NCR Corporation (formerly National Cash Register) is a US-based computer hardware, software and electronics company.

Animal Fattening – Pilot Project:

The agriculture zone remains to be a vital part of Pakistan's economy. Livestock is crucial sub-component of our agricultural sector which adds to more than half of the production of the sector. Currently Pakistan ranks 18th in the world for production of halal meat and 9th in beef producing countries.

NRSP Microfinance Bank intends to scale up its microenterprise-lending program by investing PKR 100 million in small livestock enterprise loans to 200 small farmers with an average loan size of PKR 500,000.

These small loans will be disbursed to farmers in rural areas of Punjab for purchase of meat-producing animals (i.e. Cattle, Buffaloes, Sheep and Goats) along with creation of linkages of such farmers with meat production plants.

It's pertinent to mention here that as per the Prudential Regulations issued by SBP, Microfinance Banks are restricted from issuing credit facility of more than PKR 150,000 for individuals. In this connection, Management of NRSP MFB aims to apply for SBP's approval to offer loans in excess of PKR 150,000. As per proposed plan, the maximum term of loan would be up 4 months.

4. Regulatory Framework

4.1. Introduction

This segment provides overview of relevant national policies and regulations that have a direct or indirect impact on the proposed project and to evaluate their relevant advantages and disadvantages.

The Microfinance institutions in Pakistan are regulated by the State Bank of Pakistan (SBP), the principal body of all financial institutions operating in Pakistan. However, Pakistan is one of the few countries with a separate legal and regulatory framework for MFBs.

In addition to Microfinance regulations, the State Bank of Pakistan has issued regulations pertaining to agriculture financing, which dictate the key terms for provision of Agricultural Loans including loans for livestock by banks.

Apart from the regulations laid down by SBP, the Bank is required to comply with additional laws and regulations pertaining to livestock, laid down by the Federal and Provincial governments, including regulations issued by specific boards e.g. Livestock & Dairy Development Department.

The following table enlists the various laws and regulations applicable on the microfinance and livestock sector in Pakistan. Laws and regulations pertinent to this project are highlighted below:

Tabulated Summary of Legislation

Name of Law	Implementing authority	Subject	Applicability
Regulations by State Bank of Pakistan			
Prudential Regulations for Microfinance banks	State Bank of Pakistan	Microfinance banks	NRSP bank
Prudential Regulations for Agricultural financing	State Bank of Pakistan	Microfinance banks	NRSP bank
Livestock Sector Legislation - Federal laws			
Price Control & Prevention of Profiteering & Hoarding Act, 1977	Government of Federal	Price Control & Prevention of Profiteering & Hoarding	Supply chain vendors
Drug Act, 1976	Government of Federal	Regulations for Drug Usage	Drug manufacturers
Pakistan Veterinary Medical Council Act, 1996	Government of Federal	Pakistan Veterinary Medical Council	Veterinary practitioners
Agriculture Produce (Grading & Marking) Act, 1937	Government of Federal	Agricultural Produce	Farmers (Hides & Skins)
Cattle Trespass Act, 1871	Government of Federal	Cattle Trespass	Farmers
Dourine Act, 1910	Government of Federal	Animal Health	Farmers
Glander and Farcy Act, 1899	Government of Federal	Animal Health	Farmers
Grazing of Cattle in Protected Forests (Range Lands) Rules, 1978	Government of Federal	Grazing of Animals	Farmers
Pakistan Animal Quarantine (Import and Export of Animals) Ordinance, 1979	Government of Federal	Animal Quarantine	Supply chain vendors
Pakistan Environment Protection Act, 1997	Government of Federal	Environment Protection	Farmer / NRSP Bank
Prevention of Cruelty to Animals Act, 1890	Government of Federal	Animal Cruelty	Farmers
Livestock Sector Legislation - Provincial laws			
Punjab Slaughter Control Act 1963,	Government of Punjab	Slaughter Control	Slaughter houses
Punjab Livestock, Dairy and Poultry Development Board Act 1974,	Government of Punjab	Livestock, Dairy and Poultry Development Board	Livestock, Dairy and Poultry Development Board
Punjab Milk Board, Act, 1963	Government of Punjab	Milk Board	Milk Board
Punjab Livestock Associations and Livestock Association Unions Ordinance, 1979	Government of Punjab	Livestock Association and Unions	Livestock Association and Unions
Punjab Local Government Ordinance, 2001	Government of Punjab	Local Government	Local Government
Punjab Goats (Restriction) Ordinance, 1959	Government of Punjab	Regulations for Goat Farming	Farmers
University of Veterinary and Animal Sciences Lahore Ordinance, 2002	Government of Punjab	Regulations for University of Veterinary and Animal Sciences	Veterinary practitioners
Punjab Animals Compound Feeding Stuff Act, 2002	Government of Punjab	Animal Compound Feed	Farmers
Punjab Food Authority Act, 2011	Government of Punjab	Food Authority Regulations	Punjab Food Authority
Punjab Consumer Protection Act, 2005	Government of Punjab	Consumer Protection	Consumers
Punjab Agricultural Produce Markets Ordinance, 1979	Government of Punjab	Agricultural Produce	Supply chain vendors
Punjab Quality Meat and Slaughter Regulation Act (Draft)	Government of Punjab	Regulations for quality of meat and slaughter of animals	Slaughter houses
Punjab Milk and Meat Safety Act (Draft)	Government of Punjab	Milk and Meat Safety	Consumers
Punjab Animal Health Act (Draft)	Government of Punjab	Animal health	Farmers
Punjab Livestock Breeding Act 2014	Government of Punjab	Fundamental breeding rules	Farmers
Animal Biologic Board Act. (Draft)	Government of Punjab	Regulations for Animal Biologic Board	Regulations for Animal Biologic Board
Punjab Cattle Market Rules (Draft)	Government of Punjab	Cattle market	Cattle market
Punjab Government Rules of Business, 2011	Government of Punjab	Livestock & Dairy Development Department	Livestock & Dairy Development Department

The following paragraphs showcase the principles that the Bank is required to follow:

4.2. Prudential Regulations by SBP

A- Prudential Regulations for MFBs by SBP

Prudential regulations for Microfinance banks dated June 10, 2014 are applicable on all microfinance banks licensed by the State Bank of Pakistan. These guidelines regulate the general operational, governance and business growth of the MFBs. Following are the key regulations:

MFBs are required to maintain a minimum paid up capital (free of losses) of not less than:

I. One billion rupees if licensed to operate at national level.
II. Five hundred million rupees if licensed to operate in a specified province;
III. Four hundred million rupees if licensed to operate in a specified region; and
IV. Three hundred million rupees if licensed to operate in a specified district.

In case of general loans, including loans pertaining to agriculture and livestock sector, MFBs are allowed to issue loan up to PKR 150,000 for any individual with up to PKR 500,000 annual income (net of business expenses).

The MFBs are required to maintain Capital Adequacy Ratio (CAR) equivalent to at least 15% of their risk weighted assets.

Loans to microenterprises should not be issued more than PKR 500,000/-. The MFB may extend the enterprise loan only in the name of micro entrepreneur to ensure traceability and reduce the incidence of multiple borrowing.

It's pertinent of mention here that, the aggregate exposure against the enterprise loans in excess of PKR 150,000/- shall not exceed 40% of the MFB's gross loan portfolio.

Before allowing any credit facility, the MFBs should obtain a credit report from the Credit Information Bureau (CIB) of State Bank of Pakistan, or from any other appropriate Credit Information Bureau of which they are a member. However, if credit facility exceeds PKR 30,000, it will be mandatory for MFBs to obtain credit report from Credit Information Bureau of State Bank of Pakistan.

Impacts

- These regulations requires microfinance banks to maintain adequate cash reserve and liquidity, and to have adequate liquid assets and reserve fund.

- Moreover, these regulations requires that MFBs should have minimum capital requirement and shall commence business unless it has minimum paid up capital.

- These regulations also requires microfinance banks to follow the codes of corporate governance and to take suitable measures to avoid the risk of money laundering, terrorist financing and other related unlawful activities.

Mitigation strategies

- The Bank is advised to maintain adequate cash reserve and liquidity throughout the project phase.
- The minimum capital requirement must be sustained throughout the project period.
- The Bank must maintain its adherence to the code of corporate governance, appropriate measures against money laundering and terrorist financing.

For the comprehensive summary of the applicable regulations, please refer to Annexure A

B- Prudential Regulations for Agricultural Loan by MFBs

These principles dictate the key terms for provision of Agricultural Loans including loans for livestock by MFBs; some key requirements are as follows:

The loans extended for goat/sheep farming, breeding of animals, dairy farming, fishing farms, poultry farms, etc. by banks/DFIs would fall under this category. Livestock financing can be made for working capital as well as for development purposes. As such, these loans are usually short to long term in nature.

The maximum tenure for livestock financing can be five years (including grace period).

Besides generally acceptable securities, the banks/DFIs can accept livestock as a security for livestock financing.

Impacts

- These regulations requires banks to have a comprehensive agricultural policy and should have expeditious processing and communication of decision to borrower.
- Moreover these regulations also require that Banks to maintain a fool proof repayment schedule.
- These regulations require from banks to evaluate performing and non performing portfolio for risk assessment.

Mitigation strategies

- With proper adherence to the plan, the requirements to maintain a comprehensive agricultural policy along with, a secure repayment programme.
- The Bank is advised to formulate risk assessment policies in order to gauge performing and non-performing loans.

For further details, please refer to Annexure – B

4.3. Federal laws & Legislation-

A- Price Control and Prevention of Profiteering and Hoarding Act 1977

This is a federal law which deals with the prices of essential commodities, their hoarding and simulated shortages. The commodities of common use relating to livestock such as **milk, beef, mutton, eggs, poultry feed, meat on hoof**, etc. are among a large number of commodities declared as essential commodities under the Act. The Act empowers the Federal Government to take necessary steps to make these commodities available at reasonable price

The Federal Government may, through the official gazette, fix specific maximum prices of essential commodities and different prices may be fixed for different localities or for different classes or categories of any essential commodities.

No person shall sell or re-sell any essential commodity at a, price higher than the maximum price so fixed. Any person who contravenes any order made under this Act shall be punishable with imprisonment and fine.

The schedule includes products which may affect the project:

I. Beef
II. Mutton
III. Wool
IV. Meat on hoof (getting the entire meat of a slaughtered animal, rather than a part/ package.

B- Agriculture Produce (Grading and Marking) Act, 1937

Agricultural produce includes all produce of agriculture or horticulture and all articles of food or drink wholly or partly manufactured from any such produce, and fleeces and the skins of animals.

The schedule includes the following items which come under the following act, and directly affect the project:

I. Hides and skins;
II. Animal Hair;
III. Bones.

Impact

- Essential commodity should not be sold or resold at a price higher than fixed or maximum price

Mitigation strategies

- The Bank should ensure that the products when procured/ sold; the amounts are reasonable by implementing a policy which empowers the Bank over its customers safeguarding against non-compliance of this Act.

C- Cattle Trespass Act, 1871

Cattle Trespass Act, 1871 includes guidelines for the farmers to ensure that their cattle does not cause any damage to public property or any other loss.

The cultivator or occupier of any land, or any person who has advance cash for the cultivation of the crop or produce on any land, or the vendee or mortgagee of such crop or produce or any part thereof, may seize or cause to be seized any cattle trespassing on such land and doing damage thereto or to any crop or produce thereon, and send them or cause them to be sent within twenty-four hours to the pound established for the village in which the land is situate.

Persons in charge of public roads, pleasure-grounds, plantations, canals, drainage-works, embankments and the like and officers of police, may seize or cause to be seized any cattle doing damage to such roads, grounds, plantations, canals, drainage-works, embankments and the like, or the sides or slopes of such roads, canals, drainage-works or embankments or found straying thereon, and shall send them or cause them to be sent within twenty four-hours, to the nearest pound.

For every head of cattle impounded as aforesaid, the pound-keepers shall levy a fine in accordance with the scale for the time being prescribed by the Provincial Government in this behalf by notification in the official Gazette. Different scales may be prescribed for different local areas. All fines so levied shall be sent to the Magistrate of the District through such officer as the Provincial Government may direct.

The owner of the cattle who claims the cattle, be delivered the cattle on payment of all incurred fines and charges on account of the impounded cattle.

Impact

- This act mainly emphasizes on the control with which the customer must have on his animals as any mischief caused to public or private property can be directly claimed from the farmer.

Mitigation strategies

- In order to facilitate the farmer in this regard, the Bank must instruct its customers through the regular field visits conducting by the veterinary officers to maintain suitable control over the animals.

D- Grazing of Cattle in Protected Forest Rules, 1978

This Act ascertains the presence of Protected Forests and the need for control over grazing in these areas.

Every grazier interested to graze his cattle in the Protected Forests (Range Lands) shall apply to the Authority in Form 'A' for his registration.

On a request in writing by a registered grazier a non-transferable license in Form B' may be issued by the Authorized Officer for a period of three months or part thereof on payment of such grazing fee as tray be prescribed by the Government from time to time.

Form A - Registration forms for graziers

Form B - Grazing permits

Impact

- This Act emphases on obtainment of a license to acquire permission for grazing of animals in protected forests.

- Person should strictly follow the grazing laws and regulation and any infringement of the provision of act may lead to penalties and even cancellation of license.

Mitigation strategies

- The Bank is required to introduce its customers through its help desk to such facilities and the requirements thereon.

E- Prevention of Cruelty to Animals Act, 1890

Prevention of Cruelty to Animals Act, 1890 makes elaborate arrangement for prevention of cruel acts against animals and imposes penalties for various prohibited acts, including killing with unnecessary cruelty, overloading, possessing skin of goat or sheep killed with unnecessary cruelty, employing unfit animals to labour, inciting animals to fight, permitting sick animals at large, etc.

If any person,

I. Overdrives, beats, or otherwise treats any animal so as to subject it to unnecessary pain or suffering, or
II. Blinds, keeps, carries or consigns for carriage any animal in such manner or position as to subject it to unnecessary pain or suffering, or
III. Offers for sale or without reasonable cause has in his possession any live animal which is suffering pain by reason of mutilation, starvation, thirst, over-crowding or other ill-treatment, or
IV. Offers for sale any dead animal which he has reason to believe has been killed in an unnecessarily cruel manner, or
V. Without reasonable cause abandons any animal in circumstances which render it likely that it will suffer pain by reason of starvation or thirst,

he shall be punished, in the case of a first offence, with fine which may extend to fifty rupees, or with imprisonment for a term which may extend to one month and, in the case of second or subsequent offence committed within three years of the previous offence, with fine which may extend to one hundred rupees, or with imprisonment for a term which may extend to three months, or with both.

If any person kills any animal in an unnecessarily cruel manner, he shall be punished with fine which may extend to two hundred rupees, or with imprisonment for a term which may extend to six months, or with both.

If any person:

I. Incites any animal to fight, or
II. Baits any animal, or
III. Aids or abets any such incitement or baiting, he shall be punished with fine which may extend to fifty rupees.

If any person wilfully permits any animal of which he is the owner or is in charge to go at large in any street while the animal is affected with contagious or infectious disease or without reasonable excuse permits any diseased or disabled animal of which he is the owner or is in charge to die in any street, he shall be punished with fine.

Impacts

- Such laws lay on the farmers, a great responsibility to ensure the safety, health and growth of their livestock animals. It requires them to not treat the animals with cruelty or hurt them in any manner, whether it be through physical damage or excess burden.

- The laws preventing animal cruelty, also impose fine and/or imprisonment on the offenders to ensure that no animal undergoes such unkindness.

Mitigation strategies

- The Bank is required to create awareness of this important aspect through exclusive trainings, workshops.

- The veterinary visits can be utilized as a constant reminder of such vital ethics.

4.4. Provincial Laws & Legislations-

A- Punjab Animals Slaughter Control Act, 1963

This is a key enactment which regulates slaughtering animals, their quality and that of their meat. The Act prohibits the slaughter of animals:

I. Termed as useful animals (female animals within specified age or those which are pregnant or fit for breeding) or
II. Outside slaughter house or
III. On Tuesday and Wednesday.

The law is enforced by the Local Government, which regulates the slaughter houses, stock yards and related matters.

Impact

- This law enforces control over the slaughtering mechanism adopted by the slaughter houses, the slaughtering schedules etc.

- Furthermore, it identifies animals which are forbidden by law to not be slaughtered i.e. useful animals

Mitigation strategies

- The Bank while strengthening its ties with the customers through the value chain partners at its disposal can warrant for safeguard against any such non-compliance.

B- Punjab Animals Compound Feed and Feed Stuff Ordinance 2002

The Ordinance highlights key elements for the animal feed to be used for the Animal Fattening Process.

It highlights the macro and micro ingredients, as well as, feed additives to be incorporated in the nutrition of animals.

For further details, please refer to Annexure – C

Impact

- This Act highlights the basic components of the animal feed that may be given to the livestock animals by the farmers.

- The macro and micro nutrients required in the animal feed are explained, as well as, other feed additives.

Mitigation strategies

- The Bank must ensure through the intended field visits that the animals are provided with all basic components of the feed required to ensure optimal growth.

C- Punjab Livestock Breeding Act 2014

The said Act identifies fundamental breeding rules for persons in the field enabling a uniform and systematic approach to the process. Some important aspects for livestock breeding are highlighted as under:

A Breeder's Association shall provide a unique herd book number to each registered animal and the record for every animal in the herd book is available for all interested buyers.

The Act prescribes that every person involved in the provision of breeding services shall, in the prescribed manner, obtain registration from the Registrar.

Impact

- It enlists the preconditions vital for breeding animals, all the dos and don's reflected in the whole cycle.

- It also emphasizes on the maintenance of herd books i.e. the complete history of the offspring to ensure traceability to the parents.

- The act, also requires registration of pure bred animals as sale of such animal is prohibited otherwise.

- This legislation, regulates the businesses involved in breeding of livestock animals.

For further details, please refer to Annexure - D

D- Punjab Goats (Restriction) Ordinance, 1959

This Ordinance focuses on such aspects which inflict restrictions on goat farming especially, grazing.

Government may, by notification, declare that in any specified area, hereinafter referred to as local area it shall be unlawful

I. After twelve months of the publication of the notification, to graze or pasture goats on any land; and
II. After eighteen months of the publication of the notification, to keep goats:

Provided that Government may in any area permit the keeping of goats subject to such conditions as may be prescribed.

Impact

- This Ordinance emphasizes on the responsibilities of the individual/ individuals catering for the livestock animals and their control over them,

- It highlights the restriction of grazing on such specified areas as by the Local Government.

Mitigation strategies

- As mentioned earlier, the Bank can ensure this by creating more awareness to its customers of such restrictions to avoid any such mishaps.

4.5. Taxation

Under tax ordinance 2001, Section 41, if the animal is exclusively or mainly pasture-fed and nonetheless fed with small amounts oil-cake or similar product, farmer are exempt from any income tax liability. On the other hand, if the animals are wholly stall-fed and not pastured upon the land at all, the income generated through the sale of animal or animal produce, will be considered as non-agricultural purpose.

Sale of animals utilized for non-agricultural purposes are treated as sale of fixed asset. Cost of sale of the animals will be the original purchase price of the animal.

Any income generated from the eventual trade of the fattened livestock for the purpose of meat and/or milk is required to be categorized under the head, ‘Income from Business’.

The cost of sale, in case of animal fattening includes the following costs:

I. Purchase cost of livestock; and
II. The total expense required for conducting the animal fattening process.

The following tax rates are applicable in case of business income:

Business Income - tax slab rate		
Category	**Slabs**	**Tax Rates**
Business Individual	PKR 400,000 - PKR 500,000	7% of amount exceeding PKR 400,000
	PKR 500,000 - PKR 750,000	PKR 7,000 + 10% of amount exceeding PKR 500,000
	PKR 750,000 - PKR 1,500,000	PKR 32,000 + 15% of amount exceeding PKR 750,000
	PKR 1,500,000 - PKR 2,500,000	PKR 144,500 + 20% of amount exceeding PKR 1,500,000
	PKR 2,500,000 - PKR 4,000,000	PKR 344,500 + 25% of amount exceeding PKR 2,500,000
	PKR 4,000,000 - PKR 6,000,000	PKR 719,500 + 30% of amount exceeding PKR 4,000,000
	Above PKR 6,000,000	PKR 1,319,500 + 35% of amount exceeding PKR 6,000,000
Partnerships		25% on the total profit
Small Companies	Paid up capital PKR 50 million Employees 250 Annual turnover PKR 250 million	25% on the total profit
Large Companies	Other than small companies	32% on the total profit

5. MARKET ANALYSIS

5.1. Introduction:

The section provides a detailed breakdown of market trends, per capita consumption and demands and projecting future demands; identifying existing practices in market.

5.2. Agriculture sector

The agriculture zone remains to be a vital part of Pakistan's economy. Livestock is crucial sub-component of our agricultural sector which adds to more than half of the production of the sector. It has a vital role in ensuring food security, generating overall economic growth, reducing poverty and the transforming towards economic growth. Increasing population pressure, land fragmentation and changing food habits emphasize to produce more meat and other livestock products.

Farmers focus on raising animals for getting meat and milk products mainly for their own consumption and to get cash income through small-scale sales. There are very few progressive farmers, which are running the business of farming in a specialized manner. The practice of 'nomadic herding' is common, where people migrate along with their animals from one place to another in search of food for their animals.

The socio-economic significance of livestock sector in Pakistan cannot be ignored. At present, as per economic survey of Pakistan 2014-15; livestock is contributing about 56% to the agricultural sector and 11.8% to the GDP. It also plays an important role in the rural economy as supplementing family incomes and generating gainful employment in the rural population, particularly among the landless labourers, small and marginal farmers.

The current meat production system is both traditional, inefficient and overall in poor state. Calves raising is considered un-economical in view of the high cost of production and non-availability of milk-replacer. The survived male calf-crop is generally sold to local traders for butchering. No collective commercial set up has yet in operation for protecting this tender crop for upcoming fattening and replacement operation.

Factors hampering smooth growth include limited awareness in the farmers' communities on modern farming practices, lower productivity per capita, limited outreach of governmental resources & development initiatives, lack of integration between livestock value chain & supply chain, and weak farm-to-market linkages.

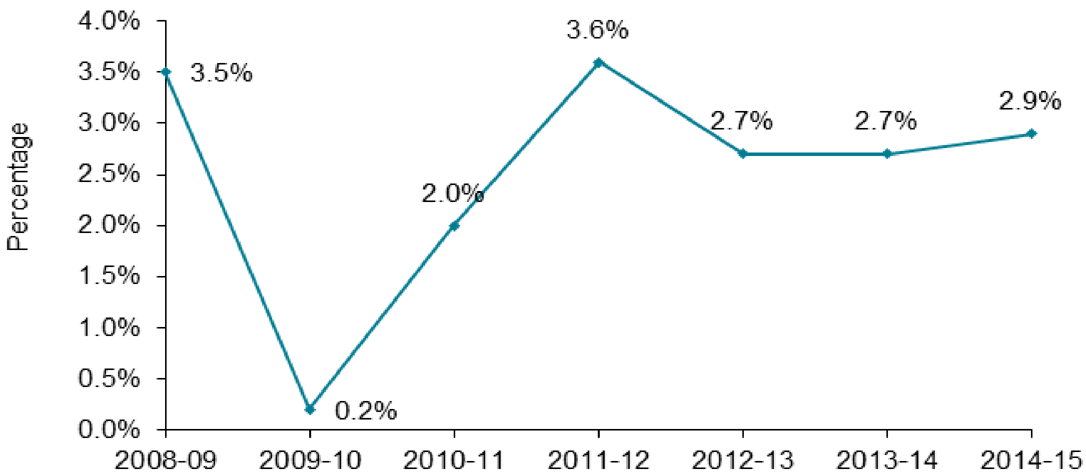
Accelerated agricultural growth directly helps in redistribution of poverty and provides the farmers a required level of nutritious food. Therefore, Government of Pakistan is trying to modernize agriculture sector to increase production which in turn can help in achieving sustainable economic growth.

Agricultural performance in Pakistan remained subdued. Major factors underlying this slow performance include slow rate of technological innovation, limited adoption of progressive farming techniques, problems with quality, quantity and timeliness of input supply, limited investment in construction and maintenance of infrastructure; marketing and trade restrictions, pest and livestock disease problems, and limited amounts of credit for agricultural production, processing and the lack of agriculture-specific financing.

Government is making numerous efforts to expand the agricultural sector by introducing modern practices and scientific techniques to improve the quality and quantity of the yield. Agriculture accounts for 20.9 percent of GDP and 43.5 percent of employment. The sector has direct and indirect linkages with other sectors of the economy and play substantial role in socio-economic development of the country. The agriculture sector has four sub sectors including: crops, livestock, fisheries and forestry.

As per the economic survey, the overall performance of agriculture sector recorded a growth of 2.9 percent in FY 2014-15, compared to the growth of 2.7 percent during last year due to positive growth in all related agriculture sub sectors (crops witnessed a growth of 1.0 percent, Livestock 4.1 percent, Forestry 3.2 percent and Fishing 5.8 percent.)

Performance of agriculture sector - Based on 2005-06



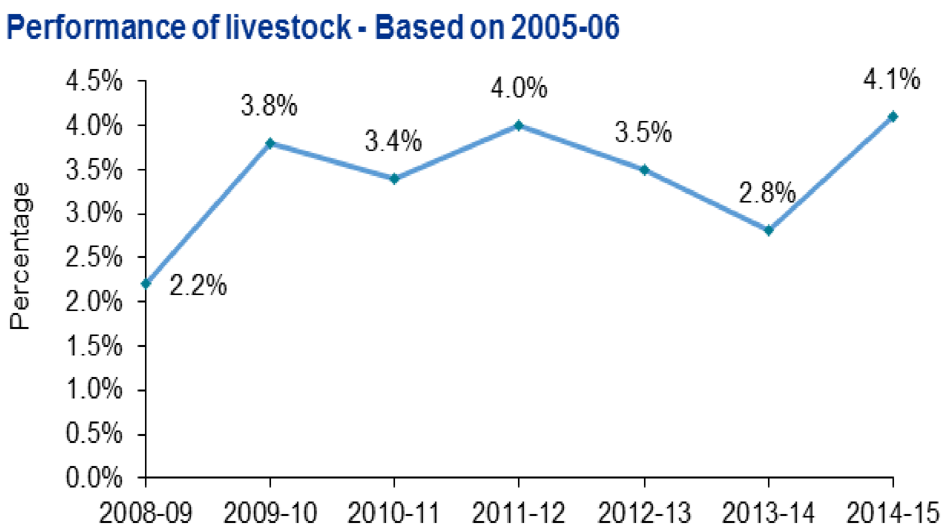
5.3. Livestock – Sub sector

Pakistan is an agricultural country and livestock plays a very vital role in its economy. Livestock sector contributes 11.8% in national GDP. In rural Pakistan, it complements agriculture income by converting crop residues, agriculture by-products and wastes into milk, meat, wool, hair etc.

Livestock consists of cattle, buffalos, sheep, goat, camel, horses, asses, mules and poultry and their products. Livestock performed better in outgoing fiscal year as it recorded a growth of 4.12 percent as compared 2.76 percent last year. Similarly, the production of livestock products, milk, poultry products and other livestock items increased at the rate of 2.95 percent, 3.25 percent, 7.49 percent and 1.28 percent, respectively.

Livestock is an important sector of agriculture and occupies a unique position in the National Agenda of the economic development of the present government. The sector meets the domestic demand of milk, meat and eggs. It also provides net source of foreign earnings. More than 8.0 million rural families are involved in raising livestock. It is central to the livelihood of the rural poor in the country and can play an important role in poverty alleviation and can uplift the socioeconomic conditions of our rural masses.

Gross value addition of livestock has increased from PKR 778.3 billion (2013-14) to PKR 801.3 billion (2014-15), recording an increase of 3.0 percent as compared to previous year. Performance of livestock in Pakistan from 2008 is presented below:



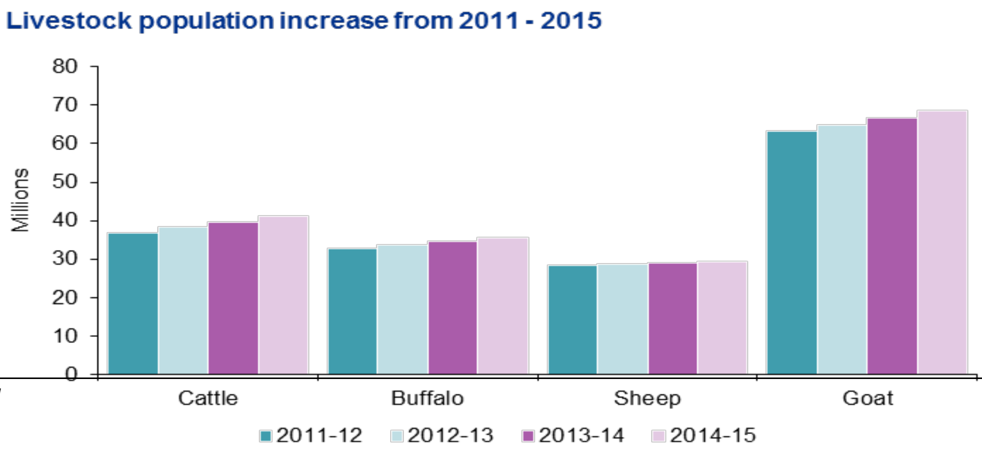
Estimated livestock population of different animals are showcased below. These figures are estimated based on inter census growth rate of Livestock Census 1996 & 2006.

Livestock population – millions				
Species	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Cattle	36.9	38.3	39.7	41.2
Buffalo	32.7	33.7	34.6	35.6
Sheep	28.4	28.8	29.1	29.4
Goat	63.1	64.9	66.6	68.4

Source: Ministry of National Food Security & Research

Goat production went up to 68.4 million in 2014-15 from 66.6 million in 2013-14. Buffalo production jumped to 35.6 million from 34.6 million in 2013-14 and 33.7 million in 2012-13. Cattle production, which was 38.3 million in 2012-13, rose to 39.7 million in 2013-14 and 41.2 million in 2014-15. Population of sheep showed a steady growth from 28.8 in 2012-13 to 29.1 in 2013-14 and later rose to 29.4 in 2014-15.

Escalation in the population of livestock comprising cattle, buffaloes, sheep and goats during last 4 years is summarized below:

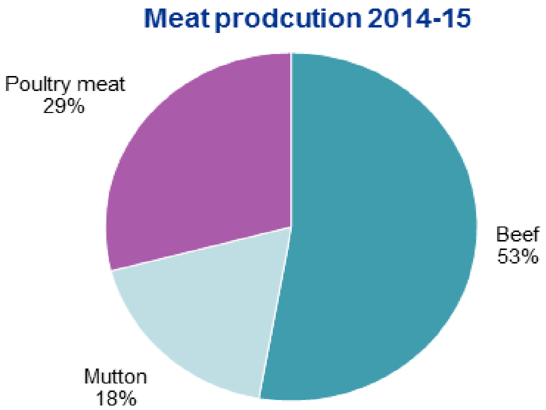


Source: Ministry of National Food Security & Research

For the year 2014-15 total production of red meat stood at 3.6 million tonnes, representing an increase of 5% in comparison with previous year (2013-14: 3.5 million tonnes)

Meat Production				('000 Tonnes)
Species	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Beef	1,769	1,829	1,887	1,951
Mutton	629	643	657	671
Poultry meat	834	907	987	1,074
Total meat	**3,232**	**3,379**	**3,531**	**3,696**

Year on year production of red meat is presented in the table above. Beef contributes almost 53% of total meat production in the country. Whereas mutton and poultry meat encompasses 18% and 29% of the total meat production respectively. It's pertinent to mention here that, these figures of meat production are of red meat and do not include the edible offal's.



A category-wise break-up of meat produced from various animals are mentioned below:

Estimated Meat Production - Breakup							(000 Tonnes)
	2007-08	**2008-09**	**2009-10**	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Beef							
Cattle	756	785	814	845	877	910	944
Buffaloes	787	811	83	861	887	914	938
Camels	5	5	5	5	6	6	6
Total-Beef	**1,548**	**1,601**	**902**	**1,711**	**1,770**	**1,830**	**1,888**
Mutton							
Sheep	212	215	217	220	222	225	228
Goats	366	376	386	396	407	418	429
Total-Mutton	**578**	**591**	**603**	**616**	**629**	**643**	**657**
Poultry Meat	**601**	**651**	**707**	**767**	**834**	**907**	**987**
Total-Meat	**2,727**	**2,843**	**2965**	**3,094**	**3,233**	**3,380**	**3,532**

Apart of meat, other livestock product includes hides, skins, hair, wool, edible offal's, blood, guts. Bones and fat. Estimated production of these products are showcased below:

Estimated production of other Livestock products				
Type of product	**Units**	**2012 - 2013**	**2013 - 2014**	**2014 - 2015**
Hides	000 Nos.	14,410	14,868	15,368
Cattle	000 Nos.	7,258	7,532	7,816
Buffalo	000 Nos.	7,050	7,232	7,447
Skins	000 Nos.	50,713	51,872	53,060
Sheep Skin	000 Nos.	10,873	11,001	11,132
Goat Skin	000 Nos.	24,986	25,664	26,359
Lamb skin	000 Nos.	3,229	3,268	3,306
Kid skin	000 Nos.	11,624	11,939	12,263
Wool	000 Tonnes	44	44	45
Edible Offal's	000 Tonnes	363	373	383

In the current market structure, animal dealers purchase animals from the rural areas and sell them to the animal markets in the urban areas. Butchers purchase these animals from animal markets and slaughter them in the slaughterhouses. Butchers act as meat traders and dominate the meat market both in rural and urban areas.

There is a huge shortage of slaughter animals for meat supply. This shortage is being observed through meat-less days. If the calf-fattening projects are carried out in the country then the domestic demand of beef could be fulfilled.

The animal growth cycle needs a certain period to fill the gap made by slaughtered animals but rapid increase in daily use, change in consumption patterns, use of more meat in food table and economic up lift has increased the demand by many folds resulting in slaughtering of premature animals, poor carcass quality and quantity wise and increase in price. If this practice continued, there would be a huge gap between supply and demand, forcing the import of meat at large scale.

The per capita consumption indicates a growing demand of meat in the years to come. The demand increases especially before occasions like Eid-ul-Fitr and Eid-ul-Azha. That is why the animals in such occasions are sold at a bit higher prices as compared to other days. The proposed business can be started before these occasions or any time throughout the year.

Despite an increase in meat production, the prices have moved upward abnormally. The recent increase in meat prices is attributed to the export of live animals or meat to the Middle East and Afghanistan.

Pakistan is geographically located close to the Middle East and South-East Asia. Both of these regions are deficient in livestock products and depend upon import from other countries. The exports of livestock such as cow, buffalo, sheep and goat are finding their way to the Gulf States & Iran where there is a shortage of good quality meat, hence fetches a high price.

The export of meat from Pakistan is relatively a new segment of country's trade, as the real commercial level export started in not before that. Thus, the export of meat and meat preparation is not so high; but the export growth rate is quite encouraging.

Despite the annual growth in production, there has been hike in meat price particularly due to illegal smuggling of animals to Afghanistan and also due to the fact that the growth rate of production is less than the increase in demand in the domestic market.

Majority of Pakistan's Halal meat exports go to the Middle East and Gulf countries, major destinations being Saudi Arabia and the UAE. The other potential markets for Pakistani meat are the Asia-Pacific region, North-Africa and the Far East.

Since NRSP-MFB's animal fattening project focuses on cattle, buffaloes, sheep and goats, we will not discuss meat production through poultry farming.

According to FAS – USA, Pakistan is the 9th largest producer and consumer of beef in 2014. Ranking of top 10 beef producing countries mentioned below:

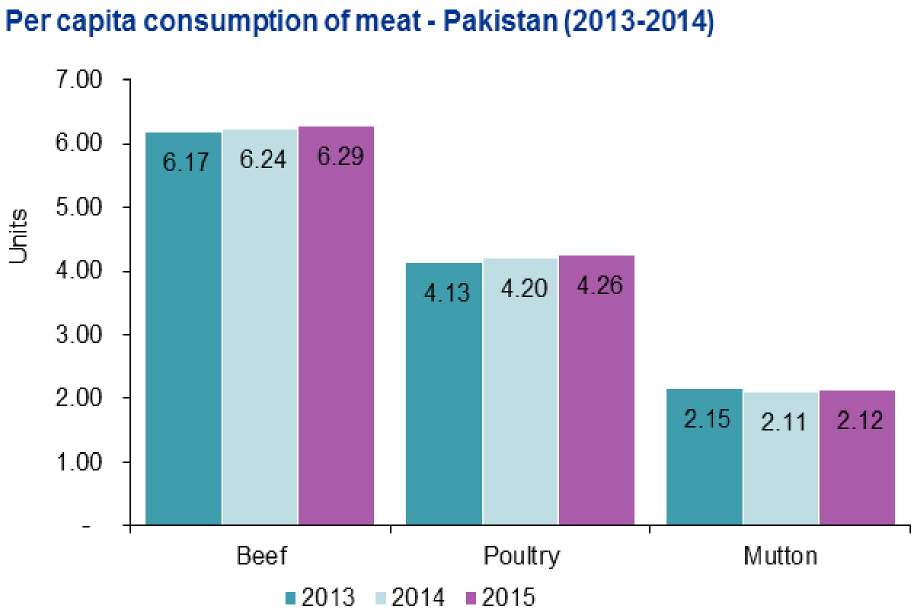
World top 10 Beef Producing Countries			**(Tonnes)**
Rank	**Country**	**2014**	**% of World**
1	United States	11,230,000	19.1%
2	Brazil	9,920,000	16.9%
3	European Union	7,580,000	12.9%
4	China	5,760,000	9.8%
5	India	4,000,000	6.8%
6	Argentina	2,900,000	4.9%
7	Australia	2,240,000	3.8%
8	Mexico	1,820,000	3.1%
9	**Pakistan**	**1,675,000**	**2.9%**
10	Russia	1,380,000	2.3%
	Others	11,185,000	17.6%
	Total World	**59,690,000**	**100.0%**

Source: FAS / USA

In 2015, per capita consumption of meat (Kilograms/capita) in Pakistan assessed to be at 6.29, 4.26 and 2.12 for beef, poultry and mutton respectively (OECD – FAO Agricultural outlook 2015). Comparison of change in per capita consumption of meat over the year is summarized in the graph below.

In comparison with other countries, Pakistan ranked at 24th for per capita beef consumption, 13th for per capita mutton consumption and 37th for poultry meat consumption per capita.

Argentina has the highest per capita consumption of beef, valued at 41.7, followed by Uruguay, Brazil and USA at 37.5, 27 and 23.7 respectively. In the case of per capita consumption of mutton, Australia and Sweden stood at 9.46 and 8.45.



In contrast to the above, as per the agriculture statistics of Pakistan 2013-14 per capita availability of meat stood at 19 kgs, increasing from 18.6 in 2012-13. This escalation can be attributed to high growth of livestock population as compared to growth in human population. Per capita availability of meat for over last four years is summarized in the table below:

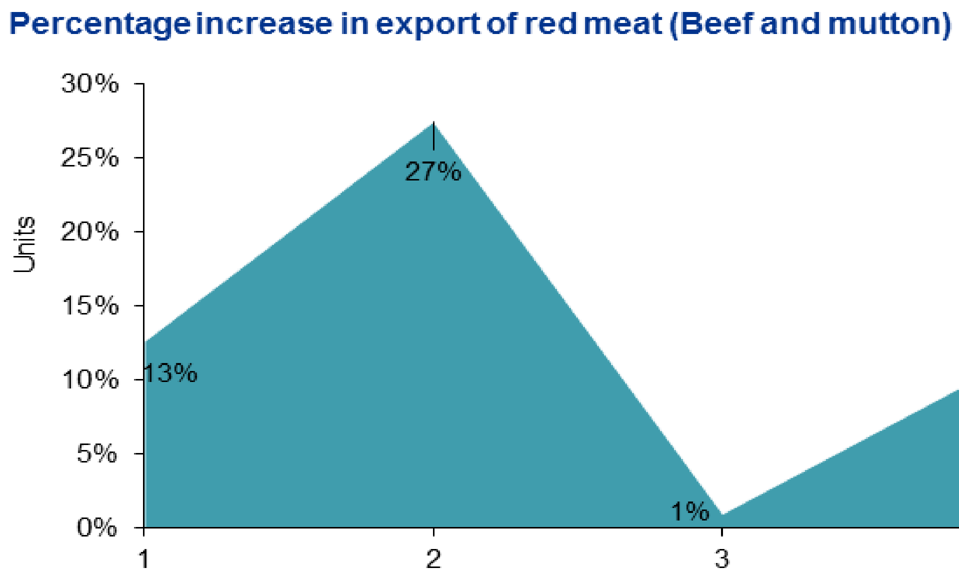
Per Capita Availability Of Meat (July-June)				**(000 tonnes)**
	2010-11	**2011-12**	**2012-13**	**2013-14(P)**
1. Total Production*	2939	3232	3379	3531
2. Per Capita Availability (Kgs/annum)	16.76	18.07	18.60	**19.00**

In terms of exports, Pakistan ranks 22nd in the world export of Halal meat. It's pertinent to mention here that more than half of Pakistan's meat exports consist of beef.

During 2014-15, exports of red meat covering only beef and mutton amounts to USD 214 million, representing an increase of 11% in comparison with previous year (USD 192 million – 2013-14).

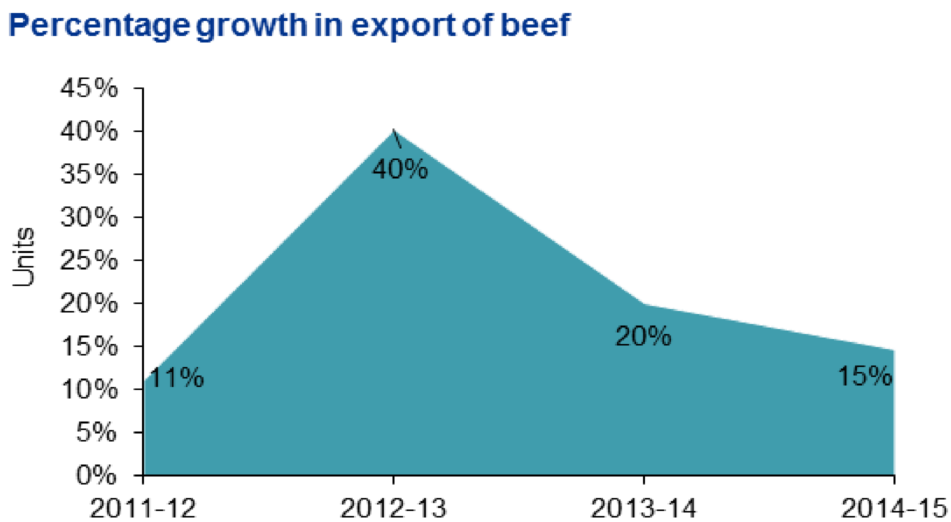
Export of red meat (Beef and mutton)					**(USD '000)**
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Beef	71,414	79,315	111,219	133,519	153,129
Mutton	61,390	70,229	79,401	58,924	61,169
Total export of red meat	**132,804**	**149,544**	**190,620**	**192,443**	**214,298**

Percentage increase in export of red meat over four years is summarized below. It pertinent to mention here that majority of Pakistan's Halal meat exports go to the Middle East and Gulf countries, major destinations being Saudi Arabia and the UAE.



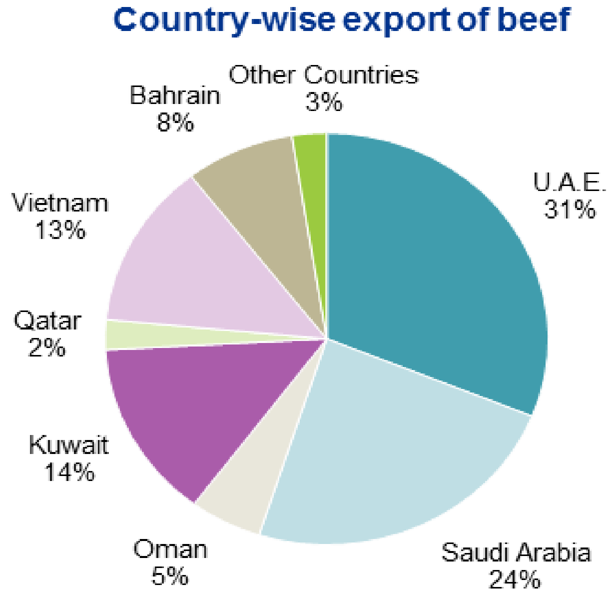
Export of beef from Pakistan increased from US $ 71.4 million in 2011-12 to US $153.1 million in 2014-15, thus showing an average increase of 22% per annum.

Exports of beef increase sharply in 2012-2013, which can be attributed increase in exports to Bahrain, Afghanistan, UAE, Qatar and Saudi Arabia and access to new markets, mainly Vietnam, Hong Kong, Malaysia and Thailand.



Major international markets for Pakistani beef are UAE (31%), Saudi Arabia (24%), Kuwait (14%), Vietnam (13%), Bahrain (8%), Oman (5%), and Qatar (2%). Country-wise export of beef from Pakistan are given in Table below:

Other countries representing only 3% of the total beef exports mainly includes Afghanistan, Hong Kong, Malaysia, Thailand, Germany and Iran.



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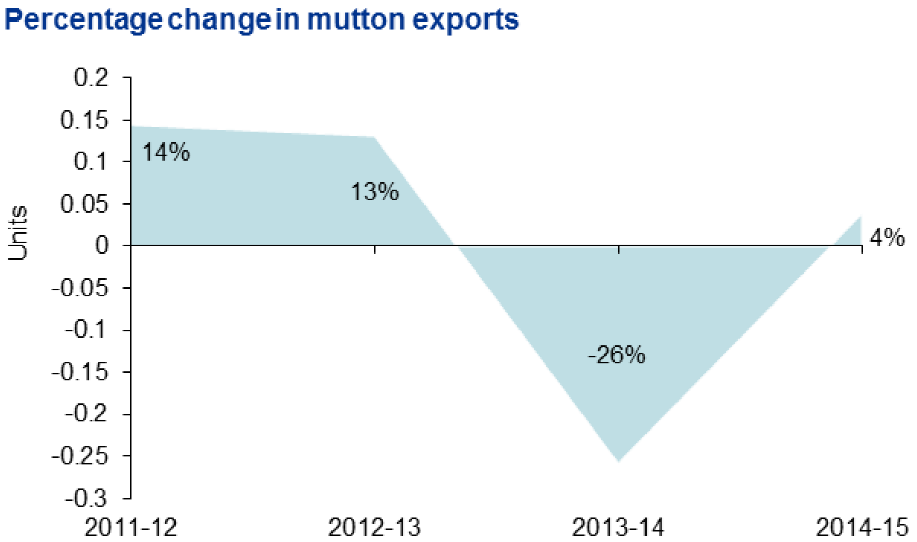
Other countries representing only 3% of the total beef exports mainly includes Afghanistan, Hong Kong, Malaysia, Thailand, Germany and Iran.

Country-wise export of beef					(USD '000)
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**
U.A.E.	30,877	35,097	43,618	41,577	47,669
Saudi Arabia	13,426	13,461	18,135	28,157	36,474
Kuwait	9,625	10,347	15,708	18,502	21,364
Viet Nam	8	44	1,682	8,519	19,924
Bahrain	5,779	6,819	13,234	11,528	12,203
Afghanistan	4,244	488	852	392	966
Hong Kong	1	-	279	278	511
Malaysia	91	81	162	60	470
Spain	-	-	-	-	232
United Kingdom	12	-	10	10	16
China	-	-	-	-	2
Oman	5,070	8,429	10,497	9,980	8,053
Qatar	1,347	1,322	2,622	3,996	3,592
Thailand	-	-	-	1,685	995

Germany	-	-	-	1,298	608
Iran (Islamic R.)	867	3,122	4,212	6,948	30
Japan	-	-	-	23	18
Turkey	-	-	-	57	1
Yemen	-	104	44	38	-
Other Countries	64	1	5	471	1
Thailand	-	-	158	-	-
Australia	-	-	1	-	-
South Afria	3	-	-	-	-
	71,414	**79,315**	**111,219**	**133,519**	**153,129**

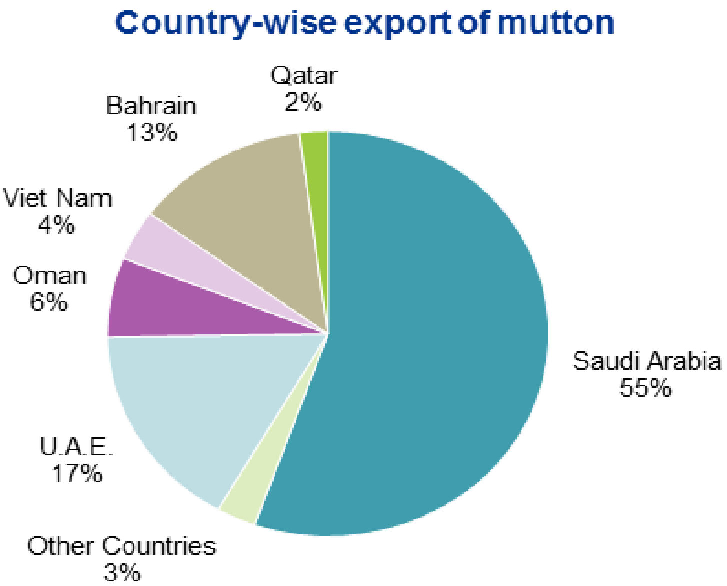
Pakistan exported mutton amounts to US $ 61.1 million in 2014-15. Mutton exports showed a variable trend over last four years. During 2011-12 and 2012-13 export of mutton improved with an average growth of 13%. However in 2013-14, a decline of 26% was observed, mainly due to decrease in exports to Iran (USD 15 million in 2012-13 to USD 0.4 million in 2013-14).



Country-wise export of mutton from Pakistan over last five years are given in Table below:

Country-wise export of mutton					(USD '000)
	2010-11	**2011-12**	**2012-13**	**2013-14**	**2014-15**
Saudi Arabia	25,334.00	25,916.00	32,264.00	30,814.00	32,959.00
U.A.E.	11,669.00	9,543.00	10,161.00	7,674.00	9,768.00
Oman	2,244.00	2,804.00	3,799.00	3,174.00	3,782.00
Viet Nam	-	-	109.00	535.00	2,383.00
Malaysia	-	-	-	255.00	998.00
Thailand	6.00	24.00	-	25.00	491.00
Hong Kong	3.00	-	-	-	58.00
Bahrain	6,973.00	5,435.00	12,883.00	10,166.00	7,628.00
Kuwait	1,543.00	1,736.00	2,774.00	2,483.00	1,685.00
Qatar	1,606.00	1,636.00	1,878.00	1,733.00	1,238.00
Afghanistan	8.00	-	14.00	1,135.00	90.00
Iran (Islamic R.)	11,864.00	23,088.00	15,452.00	403.00	89.00
India	-	-	-	14.00	-
Germany	51.00	-	-	431.00	-
Other Countries	-	10.00	-	82.00	-
Spain	-	37.00	-	-	-
Netherland	10.00	-	-	-	-
United Kingdom	20.00	-	19.00	-	-
Jordan	59.00	-	-	-	-
Singapore	-	-	48.00	-	-
	61,390.00	**70,229.00**	**79,401.00**	**58,924.00**	**61,169.00**

Saudi Arabia is biggest international market for Pakistani Mutton, considering more than half of Pakistan's mutton exports (i.e. 55%) are exported to Saudi Arabia in 2014-15. Other major international markets for Pakistani mutton includes UAE (17%), Vietnam (4%), Bahrain (13%), Oman (6%), and Qatar (2%).

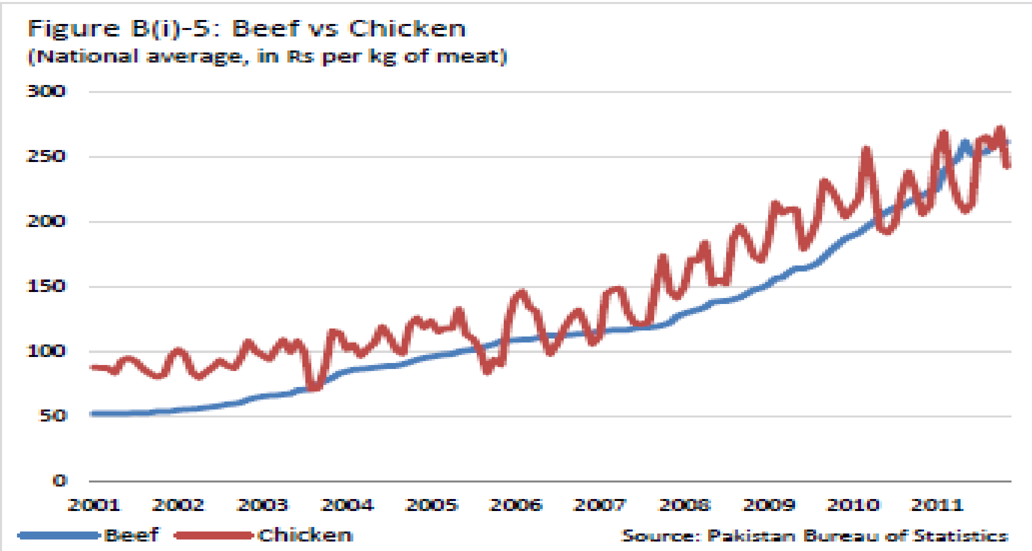


Comparison of beef with chicken

Gallup Pakistan reports that as Pakistanis grow wealthier, they consume more chicken, the exact opposite of the worldwide trend, where wealthier countries consume more beef, and chicken is seen as a poor man's meat. There are historical reasons for this, which help explain why Pakistan is unique in the global context.

Beef has historically been the cheapest form of meat in Pakistan and chicken among the more expensive types of meat. As a result, Pakistanis tend to view beef as an inferior meat product and chicken as a superior product. There is also a greater variety of Pakistani dishes cooked with chicken than with meat.

Over the past three years, however, the prices of beef has risen to slightly higher than the price of chicken meat. This is largely due to a boom in chicken farms across the country. As more Pakistanis can afford chicken, they are moving to it in droves, preferring chicken to any other type of meat.



5.4. Future Prospects

Future demand of meat can be increase by two ways i.e. by consuming or by exporting meat to other countries. As increase in population the demand of meat is also increasing by 2.5% which is not enough.

Pakistan annual production of meet (including beef, mutton and poultry meat) currently stood at 3.7 million tonnes. Out of this, beef production contributes almost 1.9 million tonnes whereas, production of mutton and poultry meat valued at 0.67 million tonnes and 1 million tonnes respectively.

Pakistan total red meat export is 30,000 tonnes per annum (less than 2% of production)

Export of Halal meat from Pakistan	
(Value: US$ 000)	
2008-9	70,926
2009-10	97,029
2010-11	132,804
2011-12	173,818
2012-13	210,881
Source: Trade Development Authority of Pakistan	

According to latest estimates, Halal products have two billion consumers worldwide that are growing at over 20% annually.

Pakistan production cost is below than Australia and matches with Brazil. This also can increase the demand of Pakistan Fattened animals which can eventually increase the exports of the country thus leading to economic growth of country.

Pakistan has also advantage of low cost of sailing and freight charges with will add advantage in term of export to Middle east and Asian Markets.

Pakistan is the only meat surplus country that has two separate herds available for consumption; cattle for exports and buffalo for local consumption.

Pakistan can enhance the halal food exports by formulating and implementing policies in discussion with private sector.

5.5. Agriculture Credit

Introduction

It's an established veracity that agriculture bears a huge potential for sustainable growth and fruitful opportunities for farmers in Pakistan. Therefore, in order to capitalize upon this, State Bank of Pakistan has collaborated with the Government for provision of agricultural credit to farmers to assist them in their endeavour.

SBP Input

Keeping that in view, SBP assigns disbursement targets pertaining to agricultural credit to all the bank engaged in agricultural financing. Disbursement targets for 2014-15 amounts to PKR 500 billion, which is PKR 120 billion higher than last year. (2013-14: PKR 380 billion), Currently 20 commercial banks, 2 specialized banks, 4 Islamic banks and 7 microfinance banks are engaged in provision of production and development loans to farming community for agricultural activities.

Assigned disbursement target for Microfinance banks amounts to PKR 28.2 billion for 2014-15, which comes out to be only 5.6% of the total disbursement target.

The following table shows the different categories of banks that were allocated with the agricultural credit disbursement target and their subsequent achievement. It also highlights the comparison for the period July to March 2013-14 and that of 2014-15.

As of March 2015, a total of PKR 326 million has been disbursed under agriculture credit, out of which 20.7 million has been disbursed by Microfinance banks.

As shown below, the MFBs achieve a decent, 73.6 % of their set target (PKR 20.7 billion out of PKR 28.2 billion) which is 6.3% of the total Flow achieved. Other than that, the commercial banks managed 66.3% of their target, ZTBL (62.4%), DPBs (62.4%), PPCBL (50.9%) and Islamic Banks (162.2%). It’s pertinent to mention that, a total of PKR 174 billion (34.8%) targeted agricultural credit was not disbursed as of March 2015.

Supply of Agricultural Credit by Institutions - billions

Banks	Target 2013-14	2013-14 (July-March)			Target 2014-15	2014-15 (July-March)		
		Flow	% age Achieved	% Share in Total		Flow	% age Achieved	% Share in Total
5 Major Commercial Banks	188	133.5	71	52.2	252.5	167.4	66.3	51.3
ZTBL	69.5	45.9	66	17.9	90	56.2	62.4	17.2
DPBs (15)	90.4	54.2	60	21.2	115.6	72.1	62.4	22.1
PPCBL	10	5.4	54.5	2.1	11.5	5.9	50.9	1.8
MFBs (7)	21.6	16.2	75.1	6.3	28.2	20.7	73.6	6.3
Islamic Banks (4)	0.5	0.5	94.6	0.2	2.3	3.7	162.2	1.1
Total	**380**	**255.7**	**67.3**	**100**	**500**	**326**	**65.2**	**100**

Microfinance Banks

Other than NRSP Microfinance Bank Limited, following are the notable microfinance banks operational in Pakistan.

i. Apna Microfinance Bank Ltd.
ii. FINCA Microfinance Bank
iii. Khushhali Bank Limited
iv. Pak-Oman Microfinance Bank Ltd. (POMFB)
v. Tameer Microfinance Bank Ltd. (TMFB)
vi. The First MicroFinanceBank Ltd
vii. The Punjab Provincial Cooperative Bank Ltd

viii. U Microfinance Bank Limited
ix. Waseela Microfinance Bank

A. Apna Microfinance Bank Ltd. (formerly NMFB)

AMFB is licensed by State Bank of Pakistan as a private commercial microfinance bank under the Microfinance ordinance 2001 to operate in Karachi district in 2005. AMFB focusses in providing financial services to the marginal poor including empowerment of women in rural areas of Pakistan. Its new sponsors changed its name to Apna Microfinance Bank Limited from Network Microfinance bank limited. As of June 2012, it has 696 active borrowers, gross loan portfolio of PKR 28.7 million, 16,838 active savers with value of monies at PKR 130.7 million. *(Website www.apnabank.com.pk/)*

B. FINCA Microfinance Bank

FINCA, earlier, Kashf Microfinance Bank Limited (KMBL) was established in June 2008. Following a decade of success by Kashf Foundation, with a vision to become Pakistan's leading microfinance bank serving all to become a successful, equitable and poverty free Pakistan. FINCA offers a diversified range of financial products and services to low income wage earners as well as the self-employed of Pakistan. It aims to build upon Kashf Foundation's success in Pakistani market to extend outreach by leveraging on the foundation's distribution network. As of June 2012, it has 22,035 active borrowers, gross loan portfolio of PKR 838.3 million, 0.14 million active savers with value of savings at PKR 1.6 billion *(Website: http://www.finca.pk/)*

C. Khushhali Bank Limited

Khushhali Bank Limited was established in the year 2000 and it was a part of the Government's Poverty Reduction Strategy and its Microfinance Sector Development Program (MSDP). Its mandate remains to retail microfinance services and to act as a catalyst in stabilizing the country's microfinance segment. It aims to form a sustainable platform of financial services to the poor accompanied with retail delivery mechanisms. As of June 2012, it has 4,35,353 active borrowers, gross loan portfolio of PKR 518.8 million, 3,39,296 active savers with value of savings at PKR 2.1 billion *(website: www.khushhalibank.com.pk)*

D. Pak-Oman Microfinance Bank Ltd. (POMFB)

Pak Oman Microfinance Bank was inaugurated on May 21, 2006 in Pakistan on a countrywide basis. It has been mutually sponsored by the Sultanate of Oman and the Pak Oman Investment Company. The bank is offering a range of microcredit and micro-savings products and services and aims to become an engine of job creation to the under-privileged segments of Pakistani society. As of June 2012, it has 12,052 active borrowers, gross loan portfolio of PKR 149.6 million, 17,575 active savers with value of savings at PKR 25.6 million *(Website: www.pomicro.com)*

E. Tameer Microfinance Bank Ltd. (TMFB)

TMFB is a private commercial Microfinance bank licensed by the State Bank of Pakistan under the Microfinance Ordnance 2001. It is one of the first nation-wide, private-sector, non-NGO transformed, commercially sustainable micro-finance institutions in Pakistan. It was established in 2005 and targets to provide dedicated services to the economically deprive people and to be demand driven, client centered and responsive to the special needs of customers. As of June 2012, it has 1,44,850 active borrowers, gross loan portfolio of PKR 6.24 billion, 7,40,396 active savers with value of savings at PKR 5.4 billion (Website: www.tameerbank.com)

F. The First MicroFinanceBank Ltd. (FMFB)

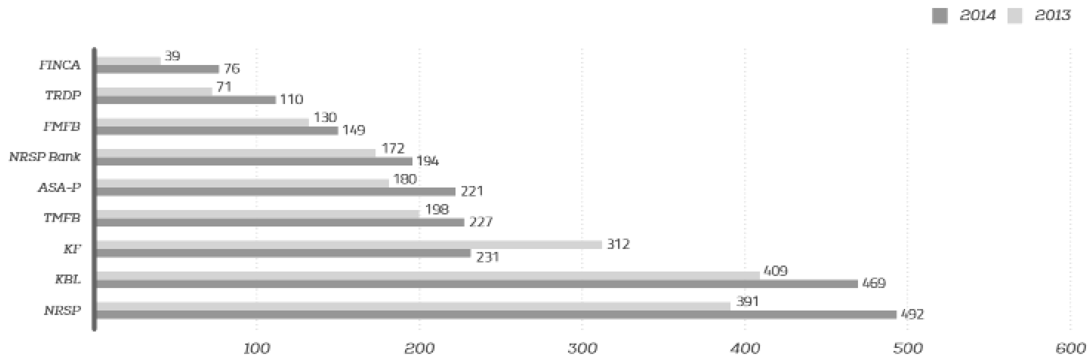
The First Micro Finance Bank was set up in March 2002 by Aga Khan Rural Support Program and the Aga Khan Fund for Economic Development. After its establishment, it has grown into a very viable micro finance institutes in the state. It considers microloans as a means to shoot development as these loans are quite small as compared to normal western financial arrangements, but provide access to capital that was never possible due to economic, cultural, or historical reasons. As of June 2012, it has 1,61,341 active borrowers, gross loan portfolio of PKR 3.4 billion, 2,42,814 active savers with value of savings at PKR 6.3 billion (website: www.mfb.com.pk)

G. U Microfinance Bank Limited

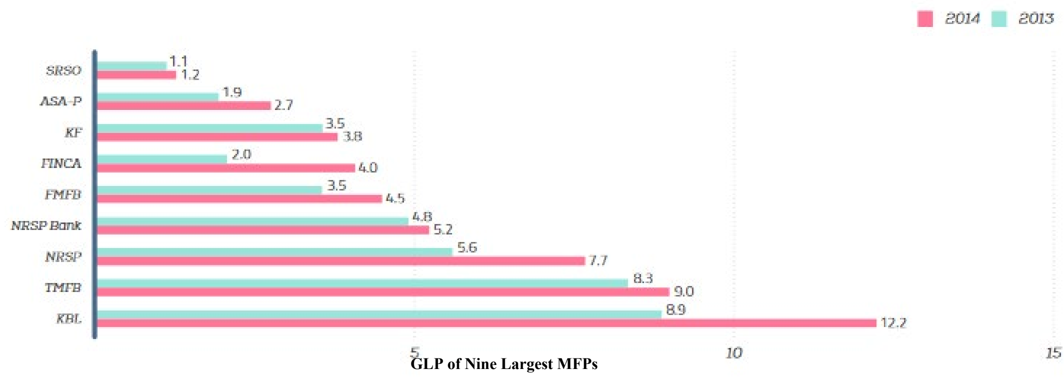
U Microfinance Bank Limited earlier known as Rozgar Microfinance bank Ltd. was incorporated as public ltd. Company On 29th of October 2003 under Company Ordinance 1984. It was the 4th microfinance bank, licensed by State Bank of Pakistan under Microfinance Institutions Ordinance 2001. In August, 2012, Pakistan Telecommunication Company Limited (PTCL) has acquired 100% shareholding of Rozgar Microfinance Bank Limited, after fulfilling required regulatory requirements and change in name from Rozgar Microfinance bank Ltd. To U Microfinance bank Ltd. *(Website: http://www.ubank.com.pk/)*

H. Waseela Microfinance Bank

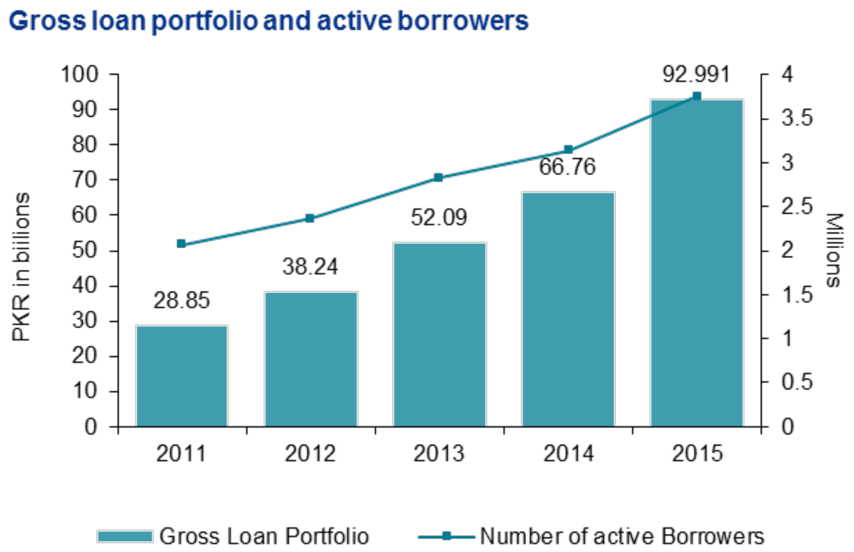
WMBL started operations on May 2, 2012. It was licensed microfinance by State Bank of Pakistan under 'Microfinance Institution Ordinance 2001'. It is having nationwide operating mandate. For the last 3 decades, microfinance has largely been dominated by relatively weak and unsustainable institutions focusing on the traditional micro credit, but with the evolution in branchless banking and impact of technology in the banking sector, a lot more focus is now headed towards the gaining the strategic advantage of covering outreach through mobile banking products. *(Website: http://www.waseelabank.com/*



Active Borrowers of Nine Largest MFPs



GLP of Nine Largest MFPs



Branch comparison of different MFBs in targeted areas of Punjab

Districts Name	Branch Name	NRSP-MFB	Khushali bank	U Microfinance Bank	Waseela MFB	Apna MFB	Finca MFB	Tameer Bank	FMFB	Pak Oman Bank
Bahawalpur	Bahawalpur	✓	✓	✓	✓	✓	✓	×	✓	×
	Yazman	✓	×	×	×	×	×	×	✓	×
	Khairpur Tamewali	✓	✓	×	×	×	×	×	×	×
	Vehari	✓	✓	×	×	×	×	×	✓	×
	Hasilpur	✓	✓	×	×	×	✓	×	×	×
	Mailsi	✓	×	×	×	×	✓	×	✓	×
Rahim Yar Khan	Ahmedpur East	✓	✓	✓	×	×	×	×	✓	×
	Liaqatpur	✓	✓	×	✓	×	✓	×	✓	×
	Khanpur	✓	✓	×	×	×	✓	✓	✓	×
	Khanbela	✓	×	×	×	×	×	×	×	×
	Ali Pur	✓	✓	×	×	×	×	×	×	×
Layyah	Kot Addu	✓	✓	×	✓	×	×	×	×	×
	Jatoi	✓	×	×	×	×	×	×	×	×
	Layyah	✓	✓	✓	✓	✓	×	×	✓	×
	Chowk Azam	✓	✓	×	×	×	×	×	×	×
	Chowk Sarwar	✓	✓	×	×	×	×	×	×	×
	Khan Garh	✓	×	×	×	×	×	×	×	×
	Fatehpur	✓	×	×	×	×	×	×	×	×
Lodhran	Kehror Pacca	✓	✓	×	×	×	✓	×	×	×
	Lodhran	✓	✓	✓	×	✓	✓	×	✓	×
	Dunya pur	✓	✓	✓	×	×	✓	×	×	×
	Jalalpur Pirwala	✓	✓	×	×	×	✓	×	×	×
	Shujabad	✓	✓	×	×	×	✓	×	×	×
Khanewal	Khanewal	✓	✓	×	×	×	✓	×	×	×
	Kabirwala	✓	×	×	×	×	×	×	×	×
	Lar	✓	×	×	×	×	×	×	×	×
	Qadirpur Rawan	✓	✓	×	×	×	×	×	×	×
	Jahanian	✓	×	×	×	×	✓	×	×	×
Pakpattan	Pakpattan	✓	✓	✓	✓	×	✓	✓	✓	×
	Arifwala	✓	✓	×	×	×	×	✓	×	×
	Hawaili Lakha	✓	×	×	×	✓	×	×	×	×
Sahiwal	Chechawatni	✓	✓	×	×	✓	✓	✓	×	×
	Sahiwal	✓	✓	✓	✓	×	✓	✓	✓	×
	Mian Chunnu	✓	✓	×	✓	×	✓	×	×	×
	Burewala	✓	✓	×	✓	✓	✓	×	✓	×
Okara	Okara	✓	✓	×	×	✓	✓	✓	✓	×
	Patoki	✓	✓	×	×	×	✓	✓	✓	×
	Renala Khurd	✓	×	×	×	×	×	×	×	×
Toba Tek Singh	Toba Tek Singh	✓	✓	×	✓	×	✓	×	×	×
	Gojra	✓	✓	×	×	×	×	×	×	×
	Jaranwala	✓	✓	×	×	×	✓	✓	×	×
	Tandlianwala	✓	×	×	×	×	×	×	×	×
Kamalia	Kamalia	✓	×	×	×	×	✓	×	×	×
	Shore Kot	✓	✓	×	×	×	✓	×	×	×
	Jhang	✓	✓	×	✓	×	✓	✓	✓	×

	Pir Mehal	✓	×	×	×	✓	×	×	×	×
	Fortabbas	✓	✓	×	✓	✓	✓	×	×	×
	Chishtian	✓	✓	✓	✓	✓	✓	×	×	×
Bahawalnagar	Bahawalnagar	✓	✓	✓	×	✓	✓	×	✓	×
	Minchanabad	✓	×	×	×	✓	✓	×	×	×
	Haronabad	✓	✓	×	×	✓	✓	×	×	×
	Dharanwala	✓	✓	×	×	✓	×	×	×	×
	Maroot	✓	×	×	×	×	×	×	×	×

5.6. Livestock financing products

A. Livestock financing products offered by MFBs

All these aforementioned microfinance banks are also providing livestock financing products. List of livestock products along with basic features are mentioned in table below.

List of livestock products offered by other MFBs

Name of Bank	Product name	Applicable	Tenure of loan	Repayment options	Loan amount (PKR)	Rates
Khushali Bank	Livestock financing	Individuals	3 to 12 months	EMI, Monthly mark-up and principal at maturity.	50,000 to 150,000	30%
U Microfinance Bank	U livestock loan	Individuals	3 to 12 months	Monthly/ quarterly/ half yearly/ yearly	Unsecured – 20,000 to 50,000 Secured – 30,000 to 150,000	26% 24%
Waseela Micro finance Bank	Waseela livestock loan	Individuals	6 to 18 months	Monthly/ quarterly/ half yearly/ yearly	50,000 to 150,000	29%
Apna Microfinance Bank Ltd.	Apna livestock enterprise	Enterprise only	1 month to 5 years	Monthly	up to 500,000	19% to 24 % flat
FINCA Microfinance Bank	Maal Maweshi Qarza	Individuals	N.A	Monthly	N.A	N.A
Tameer Bank Microfinance Bank	Dairy Animal Financing	Individuals	Up to 24 months	EMI	up to PKR 150,000	N.A
The First Microfinance Bank Ltd.	First Maveshi Sarmaya	Group lending	3 to 36 months	EMI, QMI & Bullet installment	10,000 to 150,000	N.A
Pak-Oman Microfinance Bank Ltd.	Pak Oman Mal Maveshi Qarza (LVS):	Group lending	12 months	Monthly, Semi Annually	10,000 to 30,000	22.67% flat rate
	Pak Oman Dairy Qarza (LVS):	Group lending	12 to 24 months	EMI	20,000 to 120,000	22.67% flat rate

B. Livestock financing offered by specialized banks

The major specialized banks in Pakistan include Zarai Taraqiati Bank Limited and The Punjab Provincial Cooperative Bank. Both of these banks are providing livestock products, which are summarized below

List of livestock products offered by specialized banks

Sr. No.	Name of Bank	Product Name	Tenure	Repayment Schedule	Loan Ticket PKR (min - max)	Rates
1	The Punjab Provincial Cooperative Bank Limited	Livestock farming Goat & Sheep	1 year	- Period of finance 1 year repayable in two installments or whole recovery after 1 year; - Refinancing facility on timely repayment of finance on the same security document.	Up to PKR 200,000	Prevailing Bank Charges
2	The Punjab Provincial Cooperative Bank Limited	Livestock Project Finance	5 years	Repayable in 10 half yearly installments	Up to PKR 500,000	18%
3	Zarai Taraqiati Bank Limited	Scheme for Breeding Stocks	N.A	N.A	Up to PKR 1,500,000	Prevailing Bank Charges
4	Zarai Taraqiati Bank Limited	Rural Development Scheme	5 years	- Poultry Farming: The loan is recoverable within 5 years in half yearly installments commencing one year after 1st disbursement of loan; - Dairy/Livestock Farming: The loan is recoverable within 5 years in half yearly installments commencing six months after 1st disbursement of loan.	Up to PKR 1,500,000	Prevailing Bank Charges

C. Livestock financing products offered by Microfinance institutions

Following are the products offered by the microfinance institutions:

List of livestock products offered by specialized banks

Name of Bank	Product Name	Tenure	Repayment Schedule	Loan Ticket PKR (min - max)	Additional Cost
ASASAH	Livestock loan	1 years	15 days	Up to PKR 30,000-70,000	PKR 100 upto PKR 15,000
MOJAZ Foundation	Livestock Loans for Rearing, fattening, trading and milking	3-18 months	Equal Monthly Installments, Bullet Payment or Balloon Payment	PKR 10,000 to 75,000 depending on the need and cash flow based repayment capacity of the borrower.	1% for amount above PKR 15,000
SAFCO Support Foundation	Live Stock Loan	1 to 12 months	Lump sum / up to 12 installment	PKR 5,000 to 150,000	

D. Livestock financing products offered by commercial bank

Commercial banks are also engaged in the providing financing facilities against livestock. Below mentioned is the list of ten notable commercial banks along with the detail of livestock products offered by each.

Livestock products offered by other major commercial banks in Pakistan	
Name of Bank	**Product name**
Askari bank	Askari Kissan Livestock development Finance
Bank Al-falah	Al-falah Dairy & Livestock Zarie Sahulat
National Bank Of Pakistan	NBP Kisan Dost
Habib Bank Limited	HBL Zarai banking
Standarad Chartered bank	None.
Habib Metropolitan	None.
United bank Limited	Livestock financing
Muslim Commercial bank	Personal loans
Bank Al-Habib limited	None.
Allied Bank Limited	Allied agriculture financing

5.7. Conclusion

The section shows the entire landscape of the agricultural industry in Pakistan, focussing on the livestock sector; emphasizing on market trends, per capita consumption and demand resulting in an assorted analysis of the sector.

It also showcases the comparison of different types of meat available to further evaluate the meat industry in Pakistan. Furthermore, the section also highlights the untapped potential for exports in the concerned industry and the need for this industry to flourish.

6. VALUE CHAIN PARTNERS

6.1. Introduction

This segment highlights the different value chain partners in the process, and their role in the project. It also identifies suitable vendors for each class.

Livestock is an important sector in Pakistan's economy and contributes about 11.8 percent in the GDP of Pakistan. Livestock sector is considered to be a net source of invariable income for rural and middle grade agri-business holders. It is the major economic activity of small and landless farmers, tenants, sedentary, nomadic and transhumance herders for their survival.

Moreover, Pakistan is amongst one of the top consumers of red meat in the world. Pakistan annually produces 1.95 million tonnes of beef and 671,000 tons of mutton out of which an estimated 3% is exported (68000 tonnes).

Following is the list of potential value chain partners that significantly contributes in its growth and development.

A- Input Suppliers:

1) International Markets;
2) Local Markets;
3) Animal Feed manufacturers and retailers;
4) Health and Vaccinations.

B- Aggregators / Wholesalers / Retailers

1) Rural area aggregators
2) Urban area Aggregators

C- Processors

3) Slaughter house / abattoirs;
4) Meat processors.

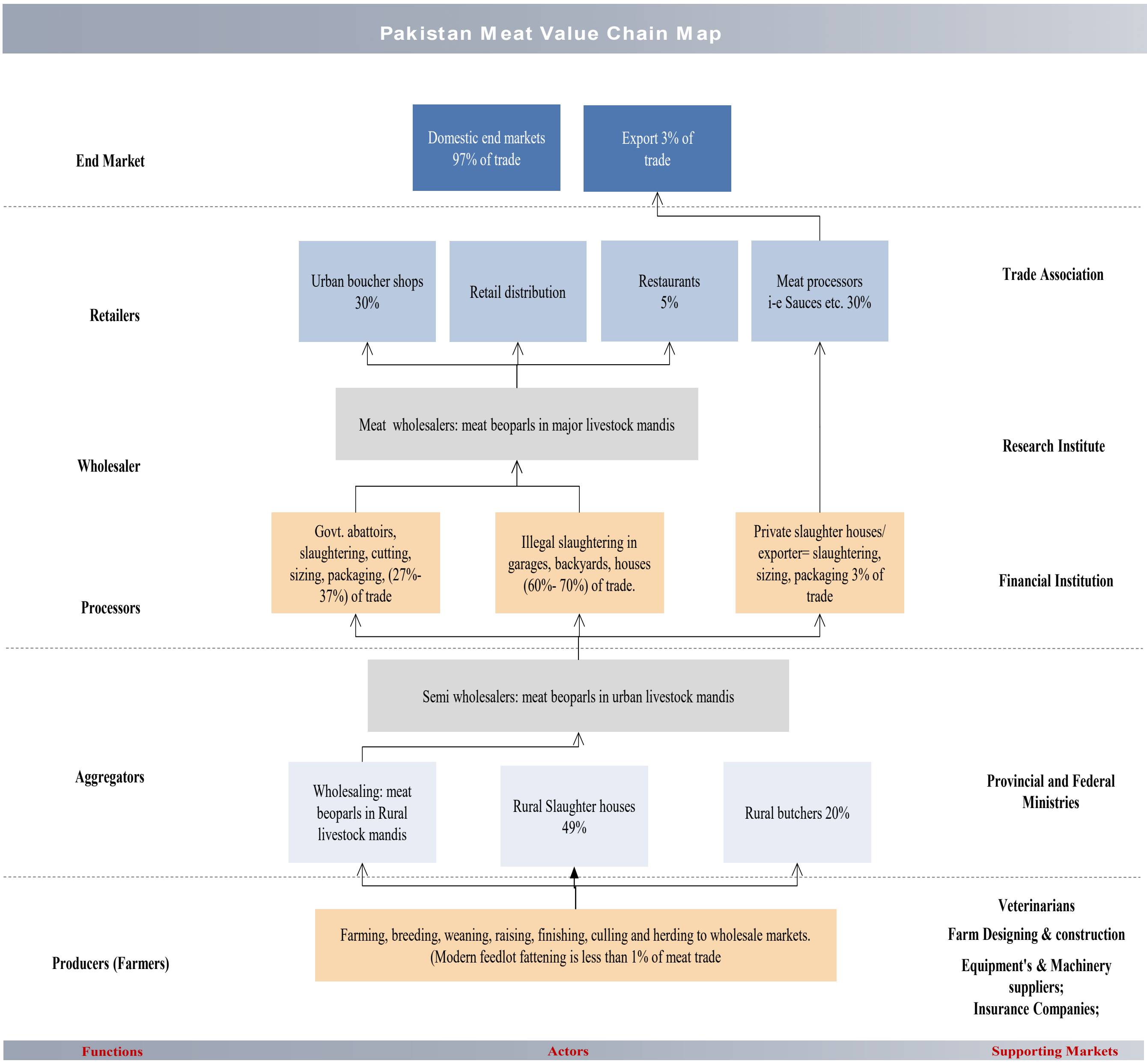
D- End Market - Consumer

E- Supporting markets

1) Veterinarians;
2) Farm Designing, Construction & Installation providers;
3) Farm Equipment's & Machinery suppliers;
4) Educational/ Research/ Training Institutes;
5) Insurance Companies;
6) Punjab Animal Registration & Identification System (PARIS).

6.2. Meat Value Chain - Map

Key partners in Pakistan's meat value chain are summarized below:



6.3. Input Suppliers:

A. International Markets

In 2014, Government of Pakistan lifted ban on import of animals from countries with 'negligible risk' of Bovine Spongiform Encephalopathy (BSE). Bovine Spongiform Encephalopathy (BSE) is commonly known as 'mad cow disease'. The ban was imposed by the government back in 2001 on the import of live animals from mad cow disease-infected countries, including the United Kingdom, Ireland, Belgium, Denmark, Luxembourg, Holland, Spain, Germany, Italy, France, Switzerland, Portugal, Canada and the United States.

This initiative has given local farmers an opportunity to import specialized world renowned breeds for fattening from international animal market enhance the meat productivity with genetically better breed from multiple countries. “Pro Farm Company” is among the leading importer of livestock (Address - Plot No. 52, Block R-1, M. A. Johar Town, Lahore, Pakistan.)

AUSTREX is a trusted global livestock exporter with a strong International reputation. In Pakistan, office is in Lahore i.e. 45-A, Sector XX, Phase-III Khayaban-e-Iqbal, DHA Lahore.

B. Local Markets & Cattle Management Companies

Farmers can procure animals from local calf breeders and livestock mandies located in all districts such as Pattoki, Okara, Bahawalnagar, Lodhran, Vehari, Khanewal, Arifwala, Pakpattan. These local markets / mandies were not regulated by the government and were basically managed by local breeder.

To discourage the prevailing extortion, corruption, role of middlemen and official mafias in the local markets, a comprehensive strategy was devised, for restructuring and reform in operation of Cattle Markets.

Therefore upon the directions of the Chief Minister, nine cattle market management companies have been established in each division of Punjab namely, Bahawalpur, D.G. khan, Multan, Sahiwal, Lahore, Faisalabad, Sargodha, Gujranwala and Rawalpindi. All cattle management companies have constructed separate cattle markets in major districts of its respective divisions.

These companies took over the operations of the existing cattle markets and improve facilities and livestock trading environment in the province. The basic facilities provided by each company are as follow

i. Tent
ii. Fodder Shops
iii. Drinking Water for Human & Animals
iv. Loading/Unloading ramps
v. Cleanliness
vi. Tagging and registration
vii. Veterinarians

C. Animal Feed and Manufacturers

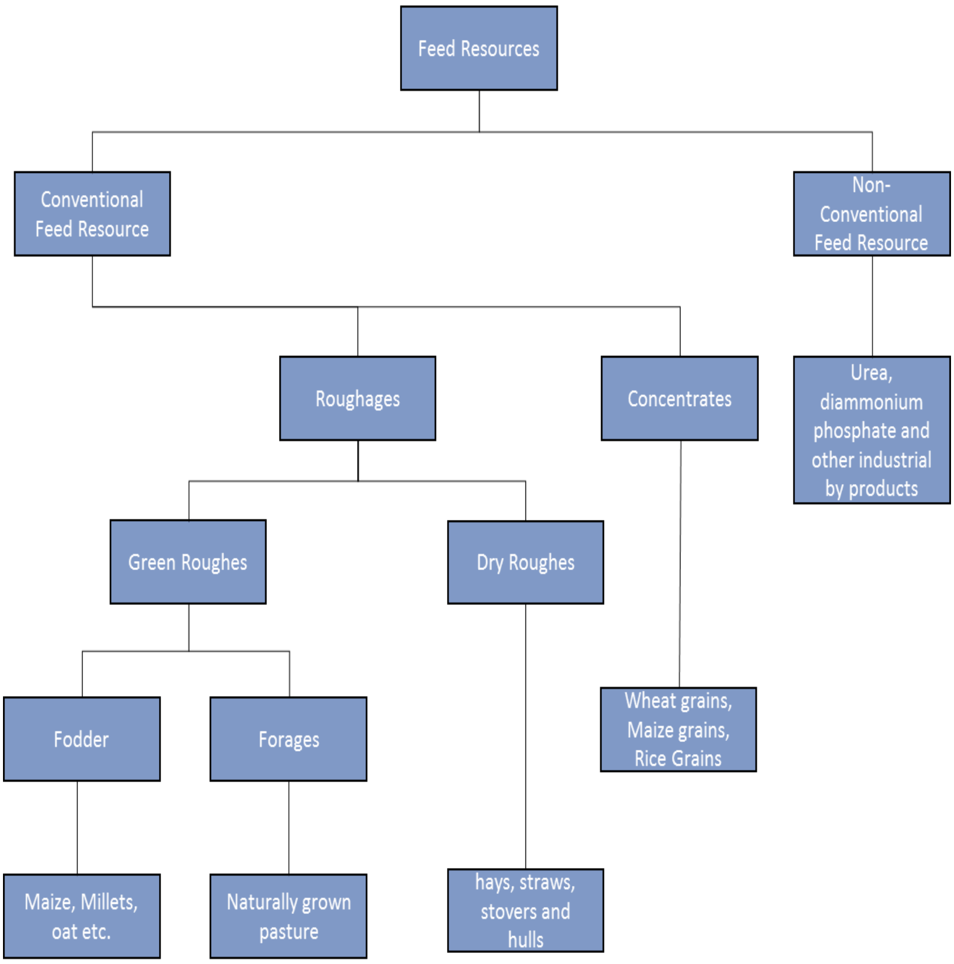
Feed is the essential component in animal fattening. Right type of feed provides the healthy nutrients which aid in animal fattening in a shorter period of time.

There are two types of feed resources; conventional feed resources and non-conventional feed resources.

Conventional feed resources

Conventional feed resources refer to those which are traditionally used for animal Feeding in Pakistan. In Pakistan conventional feed resources include roughages and concentrates. Roughages are further classified as green roughages and dry roughages.

Roughes: Fodders, forages, range grasses, sugar cane tops, and tree leaves are the examples of green roughages. Green roughages are high in moisture content, easily digestible and are commonly used for the feeding of dairy animals. Pasture species which are naturally growing are called forages while those which are cultivated are called fodder.



There are two types of fodders depending upon the amount of protein present. These include leguminous fodder and non-leguminous fodder. Leguminous fodders are higher in nitrogen/protein content because they have the ability to utilize the environmental nitrogen with the help of nitrogen fixing bacteria present in their roots.

On the other hand non leguminous fodder have no such ability so they are low in nitrogen content. Important legume fodders are barseem, lucern, shaftal, soyabean and cowpea. Non leguminous fodders include many cereal fodder crops such as maize, sorghum, millet and oats.

On the basis of growing season green fodders in Pakistan are classified as Rabbi fodders and kharif fodders. Rabbi fodders are grown in November and December and include barseem, oats, barley, mustard/rape seed, lucern and sugar cane etc. Kharif fodders are grown in May-June and include sorghum, millet, mott grass, sadabhar, guar, jantar, sugar beet tops

Dry roughages: include hays, straws, stovers and hulls. Hay is prepared by drying the fodder and then preserving it. In Pakistan farmers mostly prepare hay from lucern, sorgnhum, millet, oats and grasses. Farmers can use hay during the scarcity period of fodder.

When the grain portions of the crops are removed, remaining dried plant material are straws and stovers. They consist mostly of stems and leaves. These may also be termed as crop residues. These are low in protein, high in fibre, less digestible, low in minerals and cannot be consumed in large quantities by the animals. Therefore they are classified as poor or low quality roughages. The commonly available straws and stovers in different areas of Pakistan are wheat straw, rice straw, barley straw, chickpea straw, moth and moung straw, and soya bean straw, maize stovers and sorghum stovers.

Hulls are the outer hard coverings of grains which are obtained as by product during seed processing. Cottonseed hulls are commonly used for livestock feeding in some parts of country. Seeds broken in processing are mixed in with the hulls to increase their nutritive value. Rice hulls are also abundantly available but they are of extremely poor quality.

Concentrates: are high in energy and protein, low in fibre and highly digestible. Being the expensive part of feed these are used mostly in small quantities as supplement. Concentrates are of two types: energy rich concentrates and protein rich concentrates. Protein rich concentrates further differentiated on the basis of their origin as plant origin and animal origin.

Non-conventional feed resources:-

Non-conventional feed resources are those which are not traditionally used for animal feeding but have the potential to be used as feed. Non-conventional feed resources include different agro industrial by products and wastes for example by products of the sugar industry, food and fruit processing industry and cereal industry. Urea and ammonium phosphate and other non-protein nitrogen sources are also the examples of non-conventional feed resources.

Feed Lot

Feedlot means feeding of the animal on a special feed formula of concentrates for a fixed period of time. Feedlots are mainly used for the fattening of the calves for beef production. Standard practice of a feedlot operation is done through feeding calves (age 10-15 months) for 90 days. Feedlot operations are common in countries with formal agricultural economies.

Feed management is one of the most critical factors in meat production. This project will use Total Mixed Rations (TMR), which is based on a mixture of green fodder and supplementary nutrients. Feed tables will be developed and applied for optimization of locally available feed materials to obtain the best nutrient/cost ratio. The daily feed given to the calves will be equal to 3% of their body weight. This feed will include 67% fodder and 33% concentrate mixture. The concentrate mixtures are high protein rations specifically constituted for weight gaining.

These rations will include different grains (corn, wheat, gram etc.) and mineral mixtures. The feasibility is based on an average weight gain of 0.75 kilogram on daily basis. Our local breeds have a natural tendency to gain weight as the trials conducted by the Punjab Livestock department have shown the weight gain daily to be up to 1.1 kg per day

List of consultants		
Name	**Designation**	**Contact#**
Dr. Abdul Rehman	Feedlot Fattening Specialist	0301-4665153
Dr. Daulat Rehman	Feedlot Fattening Officer, Lahore	0333-4493525
Dr Hafiz RizwanUllah	Feedlot Fattening Officer, Sahiwal	0333-4242517
Dr. Muhammad Naeem	Feedlot Fattening Officer, Potohar	0322-5006292
Dr. Rana Ali Irfan	Feedlot Fattening Officer, D.G. Khan	0333-6575527
Dr. Hammad Ali	Feedlot Fattening Officer, Multan	0322-4051781
Dr. Mohsin Iqbal	Feedlot Fattening Officer, Sialkot	0300-6498580
Dr.M.Imran Bhatti	Feedlot Fattening Officer, Sargodha	0300-4781439
Dr Hafiz RizwanUllah	Feedlot Fattening Officer, Sahiwal	0333-4242517

Animal feed mills have been set up around the areas where the livestock are kept in abundance. Few of the major feed mills are as follows:

Feed Resource Suppliers		
S.no	**Feed Suppliers**	**Contact**
1	Hi-Tech Feeds (Pvt.) Ltd	1-A, Shadman Chowk Jail Road, Lahore Phone : +92-42-37564503
2	ICI Pakistan Cattle Feed	63-Mozang Road Lahore Ph: 042-36370042
3	Alhalal Wanda Al-Halal Livestock Concern Company	Super High Way, Jahanian Ph: 065-2002373
4	National Feeds Limited, Lahore	171 Shadman – II Lahore. Ph: 042 37551405-8
5	Punjnad Feeds Pvt. Limited, Okara	331/2-L, Depal Pur Road, Okara. 0442-641392 0442-641397
6	Vanda Pvt. Ltd, Sheikhupura	Lahore Road, Sheikhupura (056) 3506337
7	Chakwal Feeds Pvt. LTD.	Sargodha Road Chakwal, Punjab (0315) 600-0668
8	Al Hafiz Feed Mill, Faisalabad	Shop No. 79, Sabzimandi Ghulam Muhammad Abad, Faisalabad-Pakistan. 0092 41 2699191, 2680807
9	Asia Feeds Pvt. Ltd., Multan	Address: 61-D,‹ Multan Industrial Estate Link Rd, Multan 60000 Phone: 0300 8736292
10	Big Feed (PVT) Ltd.	2-A, Ahmad Block, New Garden Town, Lahore

11	Anmol Vanda	Ph: 042-35835374-35835373 c/o Livestock and Dairy Development Department, Govt. of Punjab, 16-Cooper Road, Lahore Free Landline: 0800-78685, 0800-78686

D. Health and Vaccinations

Similar to human vaccines, animal vaccines are administered to prevent diseases from occurring in animals. Routinely vaccinating animals is often more affordable than paying for the treatment of sick animals, reduces transmission of microorganisms in the animal population, and reduces animal suffering.

Livestock animals, Cattles, Buffaloes, Sheep and Goat are vaccinated to protect against diseases such as Foot & Mouth Disease, Diarrhea, Mad Cow Disease, Hepatic Fascioliasis or Liver Fluke Disease and etc. Common dieses and their vaccinations are summarized in table below. For further details on vaccinations please refer to Annexure:

Common Diseases and Vaccination			
S.No	**Disease**	**Animals**	**Vaccine / Prevention**
1	Foot & Mouth Disease	Sheep, Goat, Buffalo and Cow	FMD (VRI)
2	Black Quarter	Cattle , sheep and Goat	BQ
3	Haemorrhagic Septicemia (HS)	Sheep, Goat, Buffalo and Cow	HS (VRI)
4	Anthrax	Cattle , sheep and Goat	Anthrax
5	Diarrhea		
6	Tuberculosis	Sheep, Goat, Buffalo and Cow	Avian tuberculin
7	Cow Pox and Sheep/Goat Pox	Cow and Sheep/Goat	no specific treatment
8	Mad Cow Disease	Cow	Ban Use of bone meal and meat
9	Enterotoxemia	Sheep, Goat, Buffalo and Cow	Oral antibiotics may be helpful.
10	Hepatic Fascioliasis or Liver Fluke Disease	Sheep, Goat, Buffalo and Cow	Triclabendazole ,Albendazole ,Levamisol
11	Thelaziasis (Eye Worm Disease)	Sheep, Goat, Buffalo and Cow	Ivermectin

6.4. Aggregators, wholesalers & Retailers

Aggregation of live animals involves a twofold process one at the rural areas and the other at major urban markets.

Farmers auction their animals at local markets (mandis), where traders / beoparis participate. These animals are either sold to local butchers for slaughtering or further traded to out-of-town wholesalers for urban markets.

Aggregation coves following key activities:

x. Inspection of livestock at local and major city markets & select for price negotiations.
xi. Procurement of selected livestock on agreed price.
xii. Transportation of livestock designated locations for wholesaling or retailing
xiii. Grooming and feeding of livestock during the further auction of animals to wholesalers & retailers

6.5. Processors - Meat Processing companies and Slaughterhouses

Slaughtering in Pakistan is carried out in two different types of markets namely rural based slaughterhouses targeting the 69% of the rural consumers and urban slaughterhouses targeting the 28% of urban market consumers coupled with 3% at export oriented slaughterhouses.

Almost 30-40% animals are slaughtered, cut, sized and packed for city based retail outlets or meat wholesalers at government slaughter houses / Abattoirs

Private export oriented slaughterhouses account for a mere 3% of the total national trade. It's pertinent to mention here that animals slaughtered exclusively at government abattoirs are allowed to be supplied at domestic markets since private slaughterhouses have the license for exports only and they don't have the mandate to supply the local markets. While the bulk of the illegal slaughtering takes place at garages, backyards and houses.

In the absence of well-documented data pertaining to government and private approved slaughter houses, active number of government slaughterhouses and private abattoirs cannot be stated.

Below are major Meat processing companies and Private abattoirs.

Lahore Meat Company
Mechanical slaughtering lines for beef & mutton, Meat processing Facilities, Value addition through allied products, Supply to Global Halal market, Meat technology institute in collaboration with UVAS, Blood Rendering Plant, Compost Plant, Waste Water Treatment Plant, Cooling system (Chilling & Blast Freezing), Compliance of standards at all tiers of value chain. Its Capacity is 500 beef & 6,000 mutton animals / 8hrs shift and one dedicated municipal shift.

Zenith Associates
Zenith is Leading Meat Exporter of Chilled Meat, exporting quality meat to Middle-East since 1999. Zenith has its own HACCP certified slaughter house for processing of meat. Due to fine quality Zenith has good worth in Middle East.

Saif Enterprises
The Company also aims to modernize Halal meat processing facilities in Pakistan, which currently meet the International Hygienic standards.

Tazij Meats
Tazij Meats is a subsidiary of the Tazij Group, supplying prime quality meats across the globe. It uses the latest technology and production techniques to preserve the nutritional values, tenderness and hygiene. Moreover, the implementation of HACCP and ISO standards help us

to reinforce our quality management processes up to the utmost satisfaction of our international customers.

Meat One

With a vow to supply supreme quality meat, Meat One is the very first of a new, specialized chain of meat stores in Pakistan. Meat One is a subsidiary of the Al Shaheer Corporation, a very successful venture that has been exporting meat to the Middle East and GCC countries since 2008. We presently operate 12 outlets across the city of Karachi, 1 outlet in Lahore and 1 outlet in Islamabad.

6.6. End Market / Consumers

Sixty nine percent of the end consumers are based in the villages and only one percent of Pakistan's meat is exported. Urban retailing accounts for 30% of the urban meat business. Grinding of meat and cutting it according to the markets requirements takes place at retail shops.

As per the survey conducted by Agriculture Credit & Microfinance Department, SBP, Out of total animals, 49% are slaughtered in rural slaughterhouses, 20% are slaughtered illegally in rural butcher shops, 28% are slaughtered in urban slaughter shops and 3% is slaughtered in export oriented private slaughterhouses.

Meat processing companies and slaughter houses		
S.No	**Name**	**Contact**
1	Red Cow Meat Products of Pakistan, 125/ 13-B-1, Township, Lahore	Ph: 042-35112603
2	Punjab Agriculture and Meat Company (PAMCO), 5/8 Shaheen Complex, Egerton Road Lahore	Ph: 042-36370661
3	Zenith Associatesmr. Arif Ghias3.5Km Manga Road Raiwind, Lahore	Ph: 0300-8464607
4	Pakistan Food Productsmuhammad Arfeen Dhedhioffice 314, Continental Trade Center, Clifton, Block 8, Karachi	Ph: 021-35302952
5	Syed Tradersmr. Syed Hasan Raza177-B, Johar Town, Lahore.	Ph: 0300-8401680
6	Al Shayza Internationalmr. Asghar Alih.No.1, St 4, Shadab Colony Road, 18 Km Ferozpur Road, Lahore	Ph: 0302-8490001
7	Abedin Internationalmr. Muhammad Nawaz670 A-Ii, Sector 4, Township, Lahore	Ph: 0333-4214108
8	Tazij Meat & Foodsmr. Abdul Hannan3.5 Km Raiwind Manga Road, Raiwind.	Ph: 0321-9545570
9	Katco Internationalmr. Muhammad Khalid632-B, Satellite Town, Near Rana Iqbal Advocate, Gujranwala.	Ph: 0300 9642067
10	Al Iman Trading Co.Mr. Saith Mehmood231 Small Industrial Estate, Kot Lakhpat, Lahore.	Ph: 0301-4005003
11	Karigar Collectionmr. Muhammad Arif88-A, Main Boulevard, Gulberg, Lahore.	Ph: 0300-4743330
12	Al Shaheer Corpmr. Kamran Khalilisuite G5/5, 3Rdfloor Mansoor Tower, H Block, Shahrah-E-Roomi, Clifton, Karachi.	Ph: 0321-8222696021
13	Akmal Tradersmr. Muhammad Akmal633-G, Gulshan-E-Ravi, Lahore.	Ph: 0300-9447051
14	Al Mairaj Internationalmr. Naeem Jandran4 Manga Road Near Nishat Chonian, Lahore.	Ph: 0321-6433800
15	Kashif Tradersmr. Mubarakh.No. 180, 5A/Ii Rifle Range Road, Iqbal Park, Main Boulevard Dha, Lahore.	Ph: 0300-4289567
16	Snow King Fresh & Frozen Foodsmr. Kaleemd-15, S.I.T.E.	Ph:0300-254929902

	Super Highway, Kda Scheme No 33, Karachi.	
17	Green Meadowsmr. Siddiqueh.No. 201, Q Block Dha, Lahore.	Ph : 0300-8415142
18	Foodexmr. Asif259-H, Block 6, P.E.C.H.S. Karachi	Ph :0300-8290088
19	G.M. Tradingmr. Ghousshop 2, Dawood Pota Road, Karachi	Ph: 0300-8261877
20	Zainab Enterprisesmr. Faheem Anwaroff 205, 2Ndfloor, Mashriq Centre, Gulshan-E-Iqbal, Karachi.	Ph: 0300-8247884
22	Al-Aien Groupmr. Arfeen43/1, Khayaban-E-Halal, Dha Phase 6, Karachi.	Ph: 0333-8206666
23	Anees Associates Pvt Ltdnasib Ahmad Saifi4 Km Raiwind Manga Road, Raiwindi.	Ph: 0333-4379923042-35393510
25	Abdali Tradersmalik Fateh Sher405 Nishter Block, Allama Iqbal Town Lahore.	Ph: 0333-4257813
26	S.M. Enterprisesmr. Shahzad Aslam Ghaurihead Office: 607, Land Mark Plaza, Jail Road, Lahore, Pakistan.	Ph: 92.300.8416739
27	Saif Enterprisesbrigadier Saif-Ullah94H Phase-1 Dha.	Ph : 0321-4741837042-35742562
28	Yousaf Sonsrana Abdul Qayyam.	Ph : 0300-8417201
29	Komal Foodsarif Mustafaroom # 219, 5Th Floor Mega Tower Main Boulevard, Gulberg Lahore.	Ph: 0300-4743330042-35777688-9
30	Taha Corporationasif Sukhera15-K Model Town Lahore.	Ph: 0321-8440011
31	Shafi Foodsumair Haleem51 G.T Road Hide Market Po-Box # 1676 Lahore.	Ph: 0300-8478472
32	Al-Saba Internationalcol Waseem337-B Askari 10 Lahore Cantt.	Ph: 0300-9411723
33	Asia Live-Stock And Meat Co.Saith Mehmood61-A Block Johar Town Lahore.	Ph: 0301-4005003
34	Al-Shayza International Traders, 22-Km, Ferozpur Road, Rohi Nala, Near Comfort Spinning Mills, Lahore Pakistan.	Ph: 92-42-35260553-4
35	Punjab Agriculture And Meat Company, Lmpc 18 Km Multan Road, Lahore.	Phone: 92-42-35971430 - 33, FAX : +92-42-36370665
36	Tazij Meats, Manga Rd, Lahore 44000, Pakistan	Phone: 92 42 35393465
37	Katco International, 632-B, Satellite Town, Near Rana Iqbal Advocate, Gujranwala	Ph:0300 964206

6.7. Supporting Markets / Institutions.

A. Veterinarians

Veterinarians are licensed animal health professionals that are trained to diagnose and treat illnesses that affect livestock species. Large animal practitioners commonly treat cattle, horses, sheep and goats.

The usual routine for a large animal vet includes conducting health exams, giving vaccinations, drawing blood, prescribing medications, cleaning and suturing wounds, taking ultrasounds, taking x-rays, and performing surgeries. Other duties may include monitoring the reproductive health of breeding stock, performing artificial inseminations, assisting with problem births, and conducting pre-purchase exams.

Below is the list of Major veterinary care centres who play important role in livestock industry.

List of veterinary centre		
S.No	**Hospital/Clinic**	**Address**
1	Feline and K9 Hospital (Ahmed Raza Khan)	6-N, Industrial Area, Gulberg 2, Punjab, 546600
2	Outdoor Clinic	University of Veterinary and Animal Sciences campus, Civil Lines, Outfall road, Punjab
3	Lahore Animal Hospital(Dr. Awais)	48 Lalazar Commercial Market, Near Chowk Thoker Niaz Baig, Raiwand Road, Lahore 53700
4	Kamal Poultry Clinic	Tehsil Chowk, Chakwal 48800, Pakistan. Kamal Poultry Clinic
5	Government Veterinary Hospital	Grand Trunk Road, Kharian, Pakistan. Government Veterinary Hospital.
6	Maveshi Hosiptail Chakmaniu	University road Chakmanju Pakistan
7	Civil Veterinary Hospital	Sheikhupura, Pakistan. Civil Veterinary Hospital.

List of Diagnostic Labs				
Dr. Rabia Warda	ADIO	R.Y. Khan	-	0337-7546984
Dr. Saima Manzoor	ADIO	Bahawalnagar	063-9240286	0342-7404050
Dr. M. Sohail	ADIO	Bahawalpur	062-9255358	0345-8581964 0300-9681803
Dr. Jahanzaib	VO (R)	Lodhran	-	0302-7708108
Dr. Sohail Ahmed Khan	ADIO	Multan	061-9200710	0300-6889600
Dr. Asma Hussain	ADIO	Vehari	067-3006344	0306-7939660
Dr. Kashif Siddique	VO (R)	Khanewal	065-9200193	0300-7996078

B. Farm Designing, Construction & Installation

For the efficient management of livestock a well-planned and adequate housing / farm is mandatory. Improper planning and design may results in wastage of resources, outbreak-age of disease, additional labour hours and may even lead to demise of animals. Therefore prior to the construction of a farm, following areas are considered:

i. Proper sanitation facility;
ii. Durability of far;
iii. Natural ventilation;
iv. Mechanical ventilation;
v. Illumination etc.

Major farm construction providers are as follows:

Farm Designing, Construction & Installation		
S. No	**Name**	**Contact**
1	Water Management System Shed Cooling System 217-1-B2, College Road, Town Ship, Punjab	Tel. 0423-5140217 Cell. 0300-9454418
2	Hafiz Attari Construction Works Shed Construction & Installations Village Charrar, DHA, Lahore	Cell. 0321-4015626
3	Dairy Masters Pakistan Shed Designing & Planning Plot No. 602, G Block, Sabzazar Scheme, Multan Road, Punjab	Tell. 042-37072859 Cell. 0303-4444185

C. Farm Equipment's & Machinery

Agricultural equipment is any kind of machinery used on a farm to help with farming. The best-known example of this kind is the Feed manager, fodder chopper, water pump, generators, electrical fixture and etc.

Farm Equipment's & Machinery		
S.No	**Name**	**Contact**
1	Murshid Farm Industries 9th KM Road Sheikhupura, Lahore Pakistan	92-423-5773880
2	Ravi Agric Pvt Ltd 2.5 - km Defence Road, Raiwind Road, Punjab	Tel: +92.423.532.0876-77 Fax: +92.423.532.0257 Web. www.raviagric.com

D. Educational/ Research/ Training Institutes

Educational/Research/Training Institute aims to provide pre-designed and customized skill development programs to enhance the capabilities of all stakeholders in the dairy, livestock, and related agriculture sectors. Few of the major research and training institutes are

i. Punjab Agriculture and Meat Company (PAMCO);
ii. RIPAH college of veterinary sciences, Lahore;
iii. The Islamia University of Bahawalpur, Pakistan;
iv. Baqai Medical University.

Punjab Agriculture and Meat Company (PAMCO)
Punjab Agriculture & Meat Company is a Government of the Punjab owned, non-profit R&D organization, duly incorporated and registered under section 42 of Companies Ordinance, 1984. The company has been aimed at formalizing horticulture and meat sector through

interventions at each tier of value chain i.e. production, processing and marketing (inland & export) under compliance of international quality standards through public / private channels. PAMCO is running following projects

Lahore Meat Processing Complex: PAMCO has established a state of the art meat processing complex for the supply of Halal and hygienic meat for local and export to the globe.

Enhancing Beef Production: PAMCO has carried out various projects to enhance the beef production in Punjab, namely: a). Save the calf, b). Feedlot fattening, c). Cross breeding.

RIPAH College of veterinary sciences, Lahore

The Riphah College of Veterinary Sciences aims at striving toward excellence in teaching, research and professional services to expand knowledge and provide services in veterinary sciences for the development and welfare of animal industry, animal care and food security & Safety.

Furthermore, it aims to provide free consultancy services to poor farmers in villages and encouraging female gender participation in training, farming and veterinary services as well.

The Islamia University of Bahawalpur, Pakistan

Veterinary science is a significant medical branch of learning that offers prevention of diseases, fostering and remedy of medical issues associated with animals. Veterinary science plays a vital role in the protection of animal kingdom, the safeguarding of food sources for human consumption and minimizing the spread of diseases amongst animals and human beings.

Successful graduates can get employment in Livestock & Dairy Development departments in public sector in all the provinces of Pakistan. In this, they can perform their duties in the Veterinary Hospitals, Disease diagnosis laboratories, Breed Improvement, Livestock Farms, Extension services and Research

Baqai Medical University

The main objective of the college is to impart quality education in various Veterinary and Animal Husbandry disciplines. The teaching programs is designed in line with the requirement of Pakistan Veterinary Medical Council and the former UGC, (Higher Education Commission of Pakistan). The academic programs are specifically designed to cater for the needs of Veterinary and Animal Husbandry fields by producing a dual purpose professional graduate a Veterinary Doctor who shall be competent to serve equally in both disciplines of health and production in livestock and poultry enterprises. List of other major educational, research and training institutes are summarized in table below:

Educational/ Research/ Training Institutes		
S.no	**Name**	**Contact**
1	Bahauddin Zakariya University, Multan	Tel. 091-2960109, 9210309
2	Buffalo Research Institute (BRI),Pattoki District Kasur,	Tel. 049-4427087, 049-442708
3	Barani Livestock Production Research Institute,Kheri Murat, Tehsil Fateh Jang,	Tel. 057-2213422, 057-2213422

	District Attock,	
4	College of Veterinary & Animal Sciences, Jhang,	Tel. 042-99211374
5	Faculty of Animal Husbandry,,University of Agriculture, Faisalabad,	Tel. 041-9200195
6	Faculty of Veterinary Science, ,University of Agriculture, Faisalabad	Tel. 041-9200725
7	Faculty of Veterinary Science & Animal Husbandry, ,Sindh Agriculture University, Tondojam,	Tel. 022-2765870
8	Gomal College of Veterinary Sciences, Dera Ismail Khan,	Tel. 0966-9280469
9	KPK Agricultural University, Peshawar,	Tel. 091-9218390
10	Livestock Production Research Institute, ,Bahadarnagar, Okara.	Tel. 0442661181
11	Livestock Services Training Center (LSTC),Bahadurnagar, Okara.	Tel. 0442661393
12	Nuclear Institute for Agriculture and Biology (NIAB), Faisalabad.	Tel. 041-2654210
13	National Institute for Biotechnology and Genetic Engineering, Faisalabad.	Tel. 041-2651475-79
14	Pir Mehr Ali Shah Arid Agricultural University, Rawalpindi.	Tel. 051-9290151-52
15	Punjab Agricultural Research Board,ZTBL Building, 47 - The Mall, Lahore.	Tel. 042-37232744
16	Research Centre for Conservation of Sahiwal Cattle ,3-KM, Toba Road, Livestock Complex, Jhang.	Tel. 047-9200329-330
17	University College of Veterinary and Animal Sciences,The Islamia University, Bahawalpur.	Tel. 062-9255567
18	University of Veterinary & Animal Sciences, Lahore.	Tel. 042-99211374
19	Veterinary Research Institute, Ghazi Road, Lahore Cantt.	Tel. 042-99220140

In addition to the above, number of initiatives have been taken by both federal and provincial government in Pakistan, which includes the following:

Government initiatives for livestock promotion
By the Federal Government • Introduction of Livestock Insurance Scheme for farmers with 10 or more animals. • Import of high quality semen and high yielding cattle breeds approved by the Government • Custom duty waived of on the Import of Calf Milk Replacer and Calf Feed Premix • 642 relief camps and 86 mobile dispensaries are established in affected areas to mitigate losses caused by the floods during the year. **By the Provisional Government** • Establishment of Para Veterinary School at Layyah • Re-structuring & Re-organization of Breeding Services in Punjab • Production / Enhancement of Sheep / Goat in District D.G. Khan & Rajanpur • Conservation, Development & Propagation of Dhanni, Lohani and Dajal Breeds of Cattle in Punjab • Strengthening of Barani Livestock Production Research Institute (BLPRI), Kherimurat, District Attock • Production of high yielding multicut foodder/varieties seed at LPRI, B/nagar District Okara • Establishment of University of Veterinary and Animal Sciences at Bahawalpur

- Poverty alleviation of poor Women through provision of Heifer and Sheep / goats in Punjab
- Establishment of Model Veterinary Hospital at one tehsil of each Division in Punjab
- Establishment of Animal Traceability System in Punjab

Moreover, for the facilitation of the livestock sector following bodies have been established by the government.

Bodies constituted for the facilitation of livestock		
Name of body	**Region**	**Ownership**
Agriculture & Livestock Products Marketing and Grading Department	Federal	Government owned
Animal Quarantine Department	Federal	Government owned
Livestock and Dairy Development Board (LDDB)	Federal	Government owned
Pakistan Agricultural Research Council	Federal	Government owned
Pakistan Agriculture Storage and Services Corporation (PASSCO)	Federal	Registered companies
Punjab Livestock and Dairy Development Board (PLDDB)	Provincial	Autonomous body
Punjab Agriculture & Meat Company (former Lahore Meat Company)	Provincial	Autonomous body
International Halal Conference	Provincial	Autonomous body
Market Committees Provincial Fund Board	Provincial	Autonomous body
Pir Mehr Ali Shah University of Arid Agriculture Rawalpindi	Provincial	Autonomous body
Punjab Agricultural Research Board (PARB)	Provincial	Autonomous body
University of Agriculture Faisalabad	Provincial	Autonomous body
Society for the Prevention to Cruelty to Animals (SPCA)	Provincial	Autonomous body
Punjab Agriculture Research Board	Provincial	Government owned
Sahiwal Cattle Breeders Association	Provincial	Government owned
University College of Veterinary and Animal sciences, Islamia University Bahawalpur	Provincial	Government owned
University of Veterinary and Animal Sciences Lahore	Provincial	Government owned
Veterinary College Jhang	Provincial	Government owned
Veterinary Faculty, Baha Uddin Zakaria University Multan	Provincial	Government owned
Veterinary Faculty, Pir Mehr Ali Shah University of Arid Agriculture Rawalpindi	Provincial	Government owned

E. Insurance Companies

The State Bank of Pakistan, in collaboration with SECP, banks, insurance companies and provincial livestock & dairy departments, has developed a framework for Livestock Insurance for borrowers.

It is aimed at improving access to finance to the livestock & dairy sector by mitigating risk of loss of livestock due to disease, natural calamities & accidents.

Livestock Insurance Scheme will provide an essential risk mitigating tool to encourage banks to enhance flow of credit to this highly potential and underserved sector. The scheme would safeguard the

Interest of farmer borrowers in case of death due to disease, accident, flood, heavy rains and storm of their dairy, milk or fattening animals i.e. buffaloes, cows & bulls. Under the Scheme, banks will obtain insurance of all livestock loans up to PKR 5 million for the purchase of animals.

SBP will request Government of Pakistan to bear the cost of insurance premium of small farmers through budgetary support as is being done under the Government's mandatory Crop Loan Insurance Scheme for five major crops. As per SBP classification, farmers having up to 20 cows/buffaloes and 50 fattening cattle are categorized as small farmers.

Listed below are few insurance companies dealing with livestock insurance policy

i. United Insurance Company of Pakistan, Limited;
ii. Jubilee General Insurance;
iii. Adam Jee Insurance;
iv. Askari General Insurance Company limited.

In addition to aforementioned insurance companies, Pakistan poverty Alleviation Fund (PPAF) has also launched a first-ever indexed and hybrid weather micro-insurance products to facilitate and compensate small farmers in Pakistan. To affected by climate change, fluctuation in the prices of their produce and poor quality of agri-inputs, adding that micro-insurance would prove to be a vital instrument in fight against poverty

F. Punjab Animal Registration & Identification System (PARIS)

Animal identification is always necessary for farmer / owner as well as for state with concern of registration as animal population for further development aspects. In this context, various techniques are devised to track animals by placing identifying marks on or within an animal's body.

Punjab Animal Registration & Identification System (PARIS) is relatively a new system developed by Punjab Livestock Department for registration and tracking of animals.

Currently different types of tags are in practice namely neck tags, tail tags and ear tags. However, ear tags are most commonly used in Pakistan. Ear tagging technology has made significant progress over the last decade and a generation of tamper-resistant and easily readable tags has evolved that would remain in place for the life of the animal.

Key details of animal such as location of birth, district, union council, village and name of the owner are recorded in computer system (Database) and a unique identification codes is assigned to animal. This identification is also engraved on the issued tag. Tags issued by PARIS are and develop designed to cater for three basic criteria i) Affordability, ii) durability and iii) clearly readable from a reasonable distance.

6.8. Conclusion

The business is influenced by the environment in which it operates and the success of business is dependent upon its ability to respond to changing business environment. Value chain partners are the significant component of micro-environment. In order to seize business opportunities, bank must identify its major value chain partners who will considerably contribute in the project profits.

Few of the major contributories of the animal fattening project as discussed above are as follow a) International and local markets, b) animal feed manufactures, c) animal health and vaccination departments, d) slaughter houses, e) meat processing companies and f) government regulators.

7. Product Development Report

7.1. Introduction

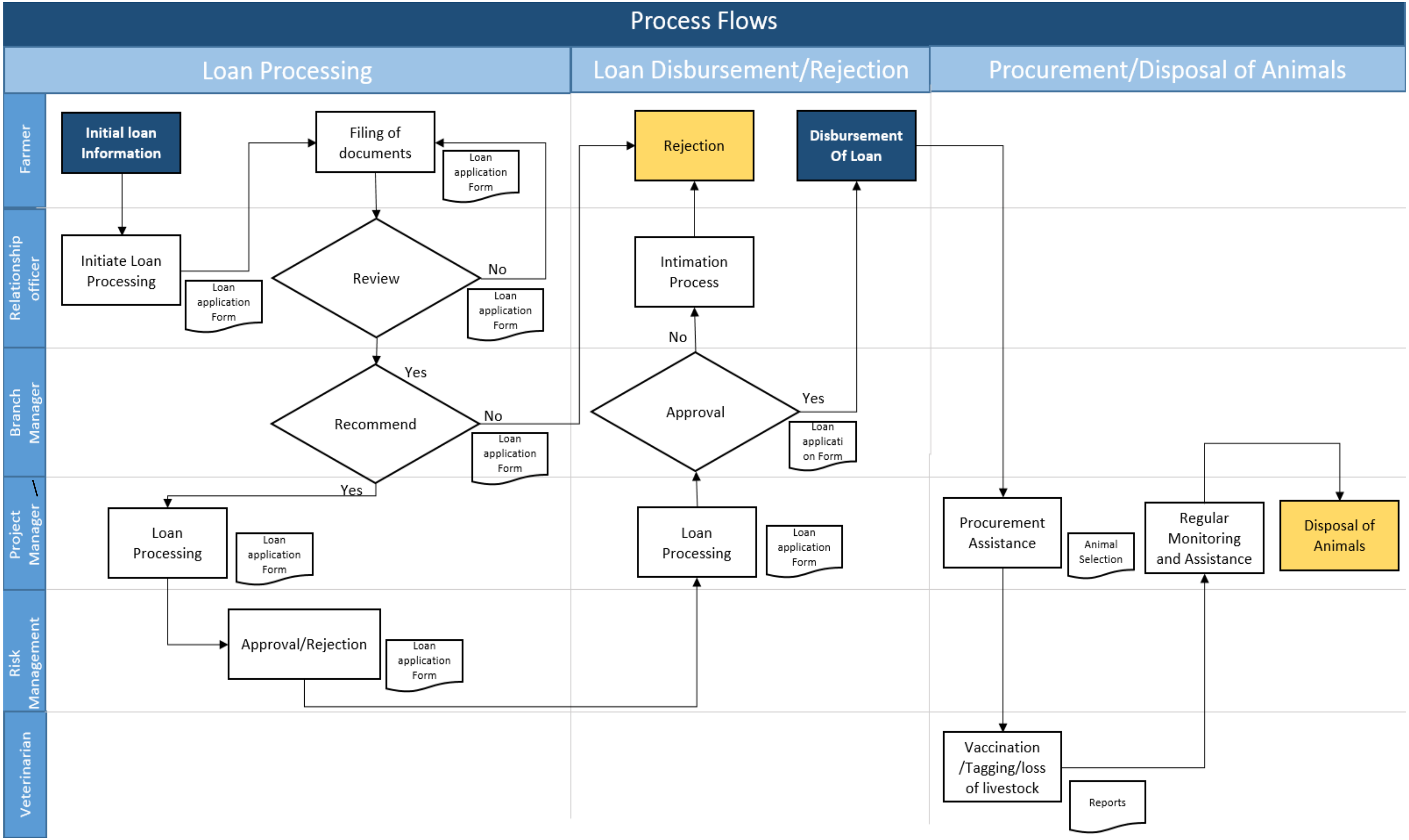
This part gives a detailed product review report containing features, screening criteria, process flows to offer larger livestock loans to farmers in Punjab under Microenterprise Lending.

The National Rural Support Program Microfinance Bank (NRSP-MFBL) intends to invest PKR 100 million in small livestock enterprise loans. These loans will approximately reach out to 200 small farmers with an average loan size of PKR 500,000. This amount can cater the demand of purchase of Sheep, Goat, Buffaloes and Cattles only.

Therefore, based on discussion with rural community it has been decided to provide LS development loans to individuals for purchase of aforementioned animals for fattening process.

By meeting the financial needs of this specific segment, the client may also be saved from the high rates charged by the money lenders when they have to buy an animal to increase their income.

Process Flow
The figure below summarizes the loan processing to disposal of animal process.


Process Flows
Loan Processing
Loan Disbursement/Rejection
Procurement/Disposal of Animals
Farmer
Relationship officer
Branch Manager
Project Manager
Risk Management
Veterinarian
Initial loan Information
Filing of documents
Loan application Form
Initiate Loan Processing
Review
No
Yes
Recommend
Loan Processing
Approval/Rejection
Rejection
Disbursement Of Loan
Intimation Process
Approval
Procurement Assistance
Animal Selection
Regular Monitoring and Assistance
Disposal of Animals
Vaccination /Tagging/loss of livestock
Reports

7.2. Loan products

NRSP-MFBL intends to offer following micro credit loan products:

A. Product I – Cattle
B. Product II – Buffaloes
C. Product III – Sheep
D. Product IV – Goats

Loan amount
As per the plan the bank intends to extend the maximum loan amount of Rs.500,000 (*Subject to approval from State Bank of Pakistan).

Loan eligibility criteria
In order to minimize the loan defaulters and to maximize the efficiency of the Projects following Loan eligibility criteria must be complied with:

I. Client should be an account holder of any NRSP Bank branch.
II. Client should not have any outstanding loan of NRSP Bank.
III. Client must have valid CNIC.
IV. Client can provide security e.g. post-dated cheque, collateral asset etc.
V. Age of the customer should not be more than 60 years.
VI. The loan will not be used for any illegal activity prohibited by state/international laws.
VII. The client must be resident of local district.
VIII. The client must be willing to pay loan processing fees. His/her application fulfils all bank's formalities
IX. Good repayment history of client.
X. Willing to follow bank's legal procedures in case of default.
XI. Client shall not be a defaulter of any bank For purchase of LS fattening he must have existing 2 cattle (cow/buffalo)and land to grow fodder
XII. For purchase of animals he should have existing place of business and experience to sell meat

Credit Process & loan documents
Once the client is established as an eligible for loan, Relationship Officer (RO) must prepare and process the client application form and Branch Manager will review and process it to the Project Manager at head office for approval.

Following documents will be required for approval of each loan:-

I. Loan application form duly filled and signed
II. Customer's CNIC copy
III. Debit Authority Letter
IV. Post-dated cheque equal to loan instalments
V. Report of field staff for evidence of fodder to feed and number of existing animals mentioned under eligibility criteria of client

Branch manager /Credit Manager of designated branches will send all necessary documents of Livestock individual loans along with their recommendations to project manager at head office.

For onward processing. The Project Manager would forward the loan to compliance & risk department for vetting. The turnaround time for disbursement to client or rejection of the loan would be 5 working days. Project Manager would also be responsible to inform the branch about the rejection of the loan.

Loan terms and condition
Loan term will fixed for four months for repayment.

Mark-up Rate
The bank will charge 28% flat per annum mark-up rate on the outstanding loan subject to change with policy amendments through circulars from time to time.

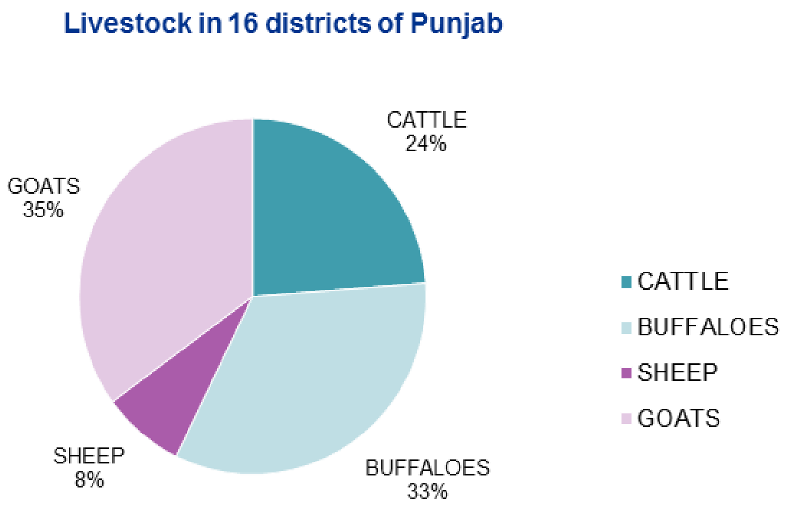
Loan Processing Fee
2% of loan amount or as per current schedule of charges.

Term of Loan
The maximum term of loan would be up 4 months.

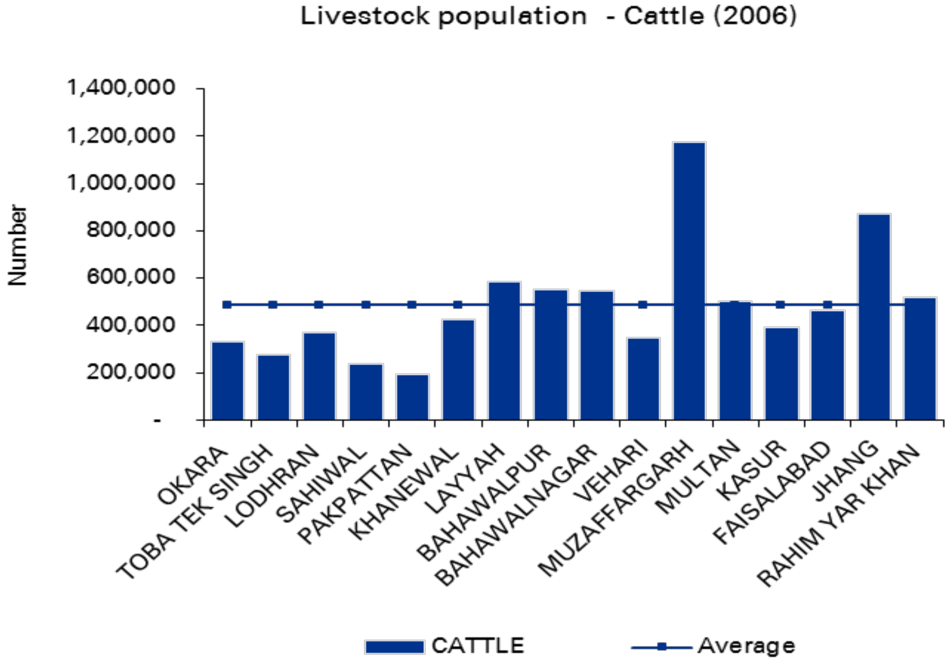
Validation process
The Relationship Officer will be responsible to verify the authenticity of the information provided by the customer by visiting the customer's business place.

Loan Disbursement and Recovery process
The detailed procedure relating to loan disbursement and recovery of funds defined in NRSP current approved manuals will be used.

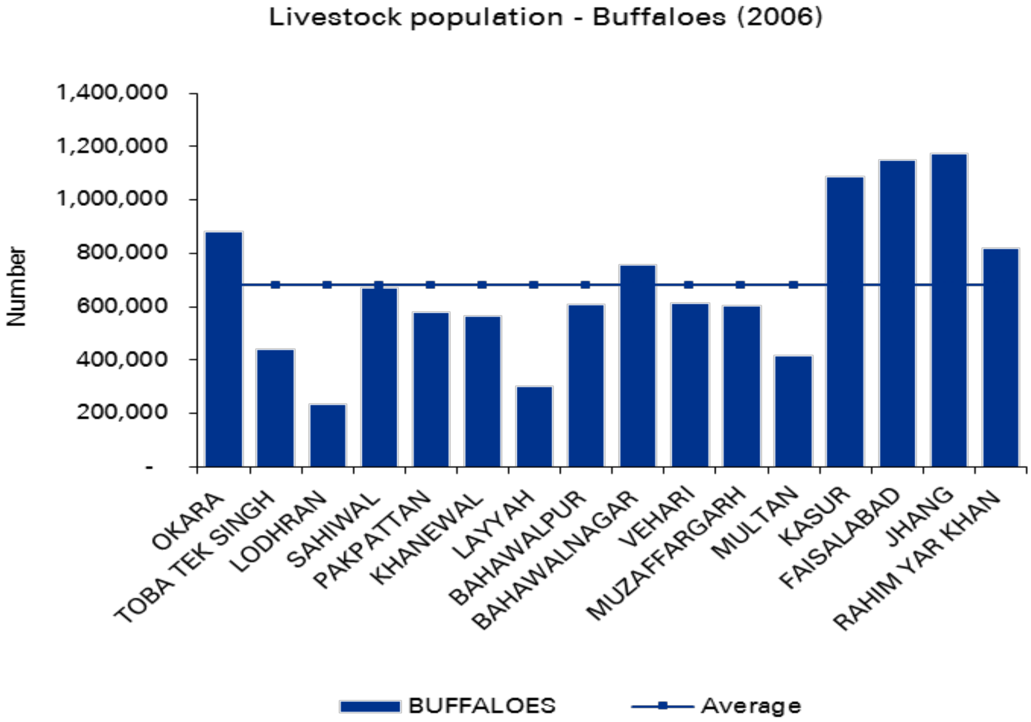
The pie chart below indicates the proportion of all the types of livestock animals as per the Livestock Census 2006. Goats take up a substantial 35% segment, while buffaloes (33%), cattle (24%) and sheep (8%).



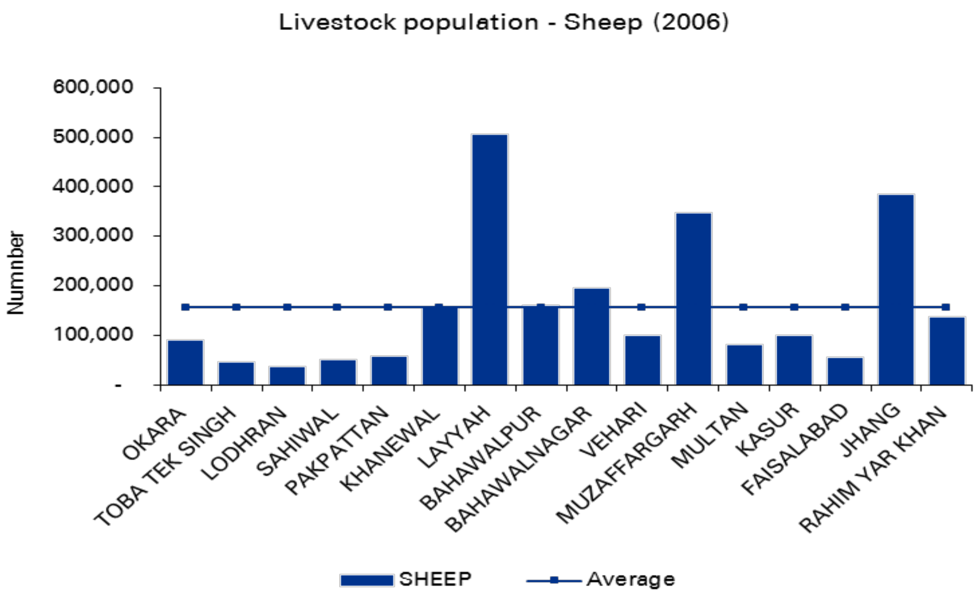
The Census showcases the livestock populations of all the animals based on number in sixteen districts of the Punjab province. The following graph highlights the population of cattle in Punjab as per the 2006 census:



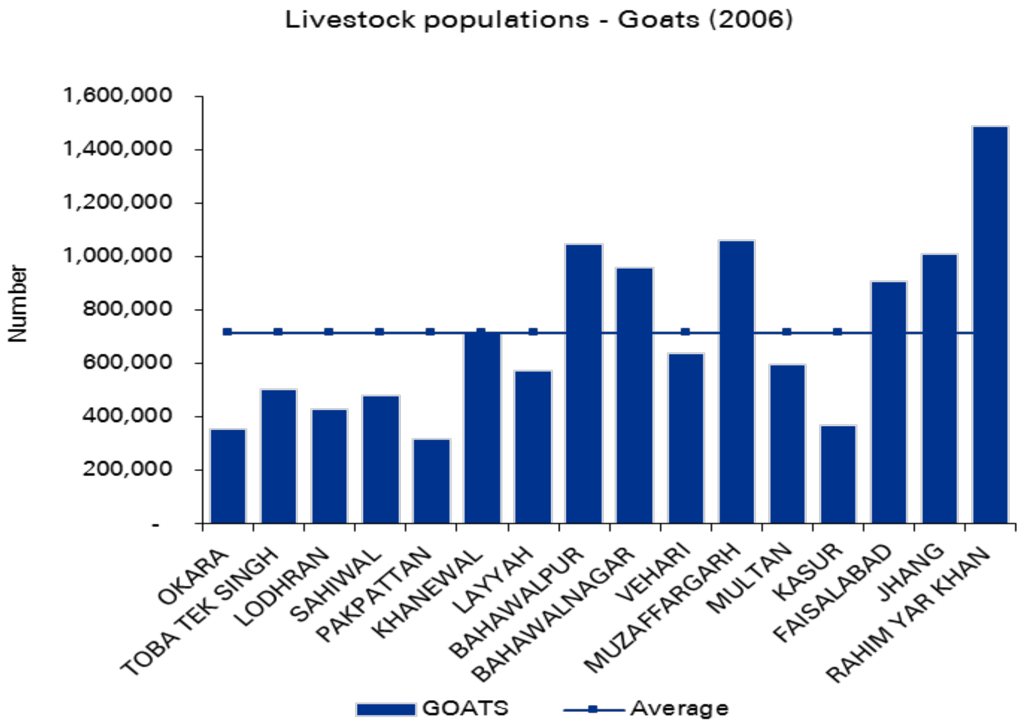
With an average of 484,921 cattle per district, Muzaffargarh and Jhang are the only provinces with a sizeable number greater than the average at 1,172,409 and 872, 819 cattle. However, Pakpattan turned out to be the district with the least number of cattle.



The graph shown above gives a picture of the number of buffaloes in the same sixteen districts. Kasur, Faisalabad and Jhang lead the figures while, Lodhran was the district with the least number of buffaloes. The graph illustrates an average of 681,034 buffaloes per district in Punjab.



The graph above demonstrates the sheep population with an average of 156,497 sheep; with Layyah, Muzzafargarh and Jhang with the highest number in the district. Lodhran and Toba Tek Singh are the districts with the least population of sheep.



The graph above shows the goat population in 16 districts of Punjab with the highest number of goats in Rahim Yar Khan, Bahawalpur and Muzzafargarh. The lowest number could be seen in Pakpattan and Kasur. Furthermore, the illustration also shows an average number of goat population per district i.e. 713,936.

In order to assist the farmers to purchase the best animals and to maximize their profits following criteria for animal selection along with their popular breeds has been developed and identified for cattle/ buffaloes, goat and sheep.

Criteria for the procurement of livestock			
Particulars	**Cattles / Buffaloes**	**Goats**	**Sheep**
Breed	Sahiwal, cholistaniRojhan , Dhani Dajal,and Rojhan	Betal, Deen Panah ,teddy goat,Kajli (Pahari), Nachi	Lohi, Kajli, Cholistani,thalli, Sipli and bauchi
Sex	Male	Male(wether)	Male(wether)
Preferable Age to purchase	12 to 14 Months	8 to 9 months	7 to 9 months
Preferable Weight at Purchase time (Kg)	100 Kg	12 kg to 15 Kg	12 kg to 15 Kg
Mouth	12 months - All the calf teeth are in place	All the teeth are still baby or deciduous teeth	All the teeth are still baby or deciduous teeth
Body Condition	• Big mouth for maximum grazing intake per mouthful and maximum competitiveness within the grazing herd. • Proportioned, balanced build. • Big nostrils and wide muzzle for easy breathing. • Calm temperament - not wild-eyed, skittish, or flighty. • Shiny hair indicates healthy secretion of oils that help resist parasites and indicate good health. • Healthy appearance (hair not shedding out completely in the spring is a clue to poor health even if other less obvious signs are not visible.	• The legs of good looking sheep should be straight and set squarely under the corners of the body. • The legs should not be very close at the hocks or very widely apart or bowed. • Hoofs should be trimmed when necessary to prevent feet and leg problems.	
Health	• Check the body for any lumps, swellings, or other abnormalities. • Check the eyes and nose for crustiness or mucus • Notice whether the coat is dull, dandruffy, or missing patches. • Look for signs of diarrhea. • Pull down the lip and check the gums for anemia. (The gums should be pink.)		

7.3. Criteria / Provisions to be incorporated in loan agreements / documents

The agreement / documents formulated for the issuance loan / facility to borrowers should broadly include the following provisions:

A. Borrowers brief profile (Know Your Customer (KYC) Criteria):

i. Name of the borrower;
ii. Borrower's age;
iii. Father's / husband's name;
iv. ID card / passport number
v. Number of dependents:
    a. Parents,
    b. Wife / husband,
    c. Children,
    d. Others, if any.
vi. Current and permanent address of the borrower covering:
    a. Area,
    b. City,
    c. Province.
vii. Primary business of the borrower;
viii. Years of banking.

B. Internal analysis of Borrower's financial stability:
i. Gross income earned by borrower in one calendar year;
ii. Credit & repayment history:
a. Default check /CIB report status,
b. Outstanding loans / facilities.
iii. Net worth of the borrower including details pertaining to assets owned (land, animals etc.).

C. Collaterals / Securities / Guarantees obtained:
i. Brief particulars of security held against the loan;
ii. Letter of pledge, if any.
iii. Minimum Margin to be maintained (Margin call);
iv. FSV of the collateral;
v. Name and details of valuer (pertaining to the valuation report).

D. Disbursement terms:
i. Detail of account number (Preferably NRSP MFB, in which amount to be disbursed);
ii. Requested loan amount by the borrower;
iii. Approved loan amount;
iv. Drawdown date.

E. Purpose of the loan (Non-Farm Credit)
i. Nature of the business / profession of the borrower;
ii. Experience in livestock / agriculture;
iii. Check eligibility of condition applicable on specific loan products such as:
a. Shed / Farm Size;
b. Weather Conditions;
c. Feed availability for animals;
d. Seed and Fertilizer Availability (Forestry etc.);
e. Vaccination/medicinal/Pesticide facilities for animals/plants;
f. Distance of Farm from the Market;
g. Business Analysis (Livestock/Dairy/Poultry etc.).

F. Payment terms and condition:
i. Grace period allowed;

ii. Markup rate instructions;
iii. Principal repayment terms;
iv. Penalties and consequences.

G. Re-structuring / re-scheduling

i. Date of last rescheduling;
ii. Number of times re-scheduled;
iii. Terms and conditions applicable on re-structuring / re-scheduling.

General term and conditions:

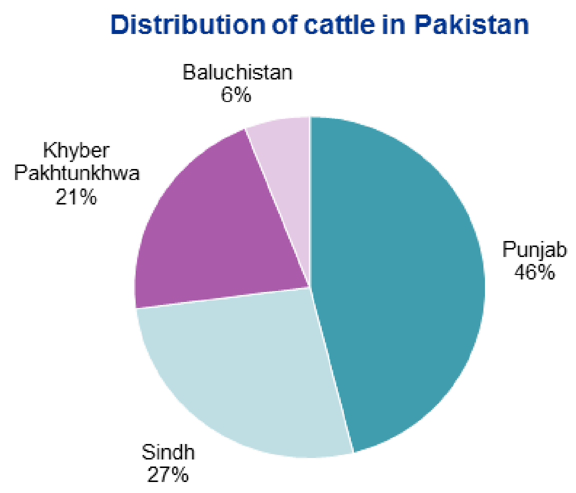
- The applicant shall be a genuine farmer, that is, individual/entities engaged in producing, processing, storage and marketing of farming products and those engaged in cattle, poultry and fish farming.
- The applicant shall not be a defaulter of the banking system.
- The applicant shall be able to produce proper securities / sureties / Guarantees.
- The applicant (individual and /or business entity) shall be a Pakistani/registered in Pakistan.
- The minimum and maximum age of the individual borrower shall be 18 years and 65 years respectively.

7.4. sensitivity analysis

A brief sensitivity analysis have been carried out to identify the most suitable breeds of the cattle, buffaloes, sheep and goats.

A. Product I – Cattle:

The total population of cattle in Pakistan is 20.4 million (Pakistan Livestock Census 1996) and their percentage distribution among provinces are as under:



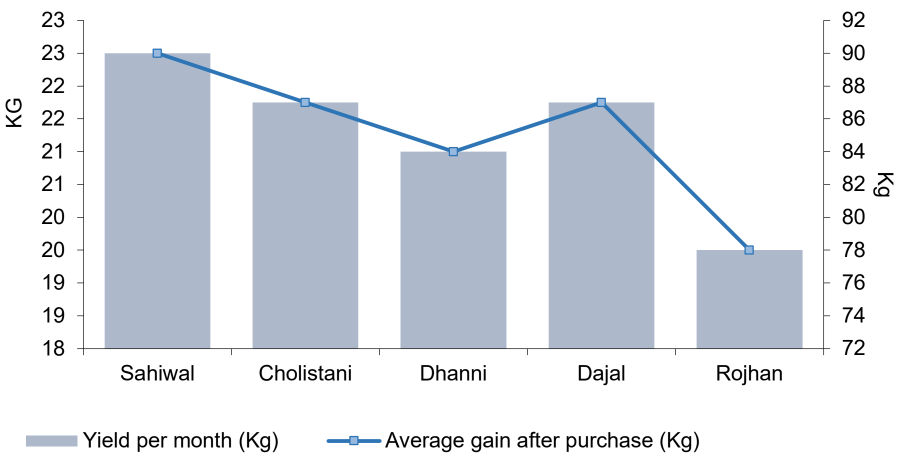
The census shows that Punjab is the main cattle raising province of Pakistan. The different breeds of cattle found in the Punjab province are of following types:

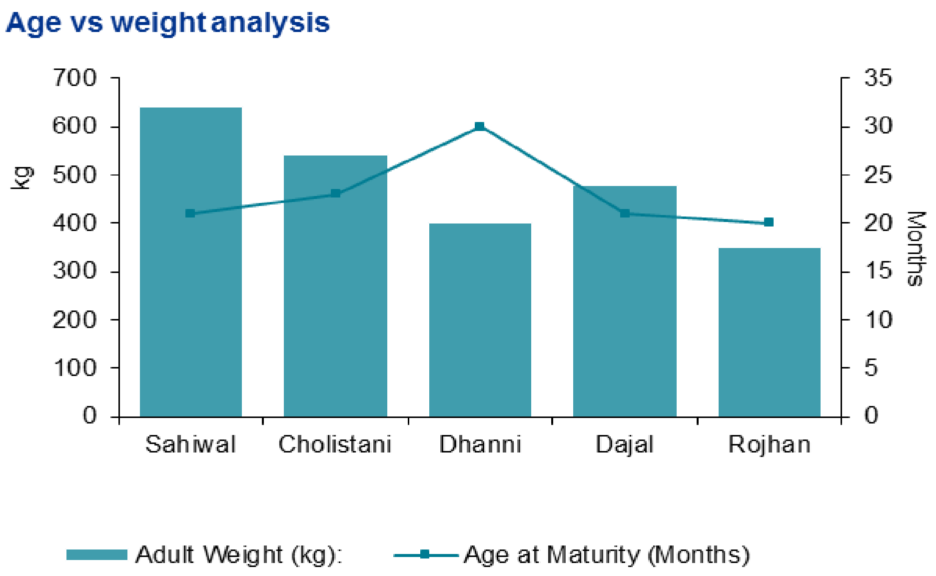
I. Sahiwal
II. Cholistani
III. Dajal
IV. Dhanni
V. Rojhan

Average Comparative Productive parameters of different breed of cattle's.

Average Comparative Productive parameters					
Parameters	**Sahiwal**	**Cholistani**	**Dhanni**	**Dajal**	**Rojhan**
Birth weight (kg):	28	18	23	32	22
Maximum Weight (kg):	640	542	400	480	350
Age at Maturity (Months)	21	23	30	21	20
Yield per month (Kg)	29	23	13	21	16
Average weight at 9-12 months (Kg)	102	86	80	86	70
Average weight at 14.5 months (kg)	192	173	164	173	148
Average gain after purchase (Kg)	90	87	84	87	78

Yield Chart

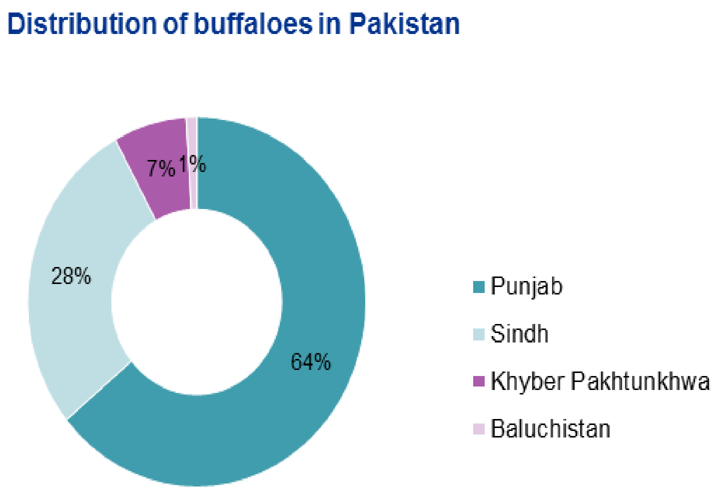




As per the above graph's Sahiwal & Cholistani is the preferred choices closely followed by Dajal. Sahiwal & Dajal matures at the age of 21, however the former weighs 640 & the latter 480 kg at maturity. Cholistani matures at age of 23 with a weight of 542 kg. Yield per month of 29 kg gives competitive edge to Sahiwal over the others.

B. Product II – Buffaloes:

The total population of buffaloes in Pakistan is 20.3 million (Pakistan Livestock Census 1996) and their percent distribution among provinces are as under:



The Punjab province bears mainly one breed of Buffalo called Nili Ravi, which constitutes 76.7 percent of total buffalo population in Pakistan. Productive parameters of Nili Ravi is given in the table below whereas the graph illustrates age to weight analysis.

Parameters	Nili Ravi
Birth weight (kg):	40
Adult weight (kg):	500-700
Average weight (kg):	600
Age at Maturity (Months)	21
Yield per month (Kg)	23
Average weight at 9-12 months (Kg)	120
Average weight at 14.5 months (kg)	210
Average gain after purchase (Kg)	90

Nili Ravi weighs 40 kg at the time of birth & reaches its zenith at the age of 21. It can go up to a maximum of 700 kg with a yield 23 kg per month in normal circumstances.

C. Product III – Sheep:

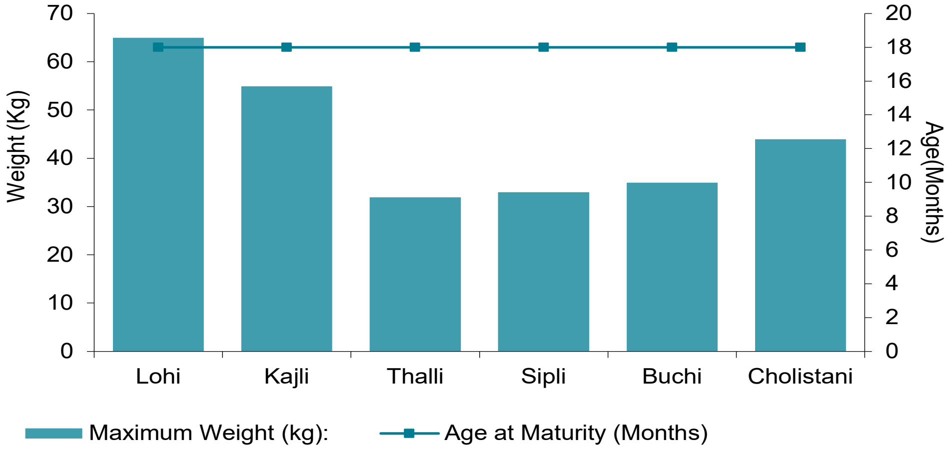
Pakistan has as many as 28 indigenous sheep breeds. These are classified into thin tail and fat tail breeds.

Lohi sheep are one of the most abundant thin tail breeds available in the central districts of Punjab province (Pakistan). The breed exhibits an excellent capacity to adapt to these areas. Lohi is one of the massive and highly productive breeds which comprises some 40% of the Punjab and 15% of the national sheep population. Comparative Productive parameters of different breeds of sheep.

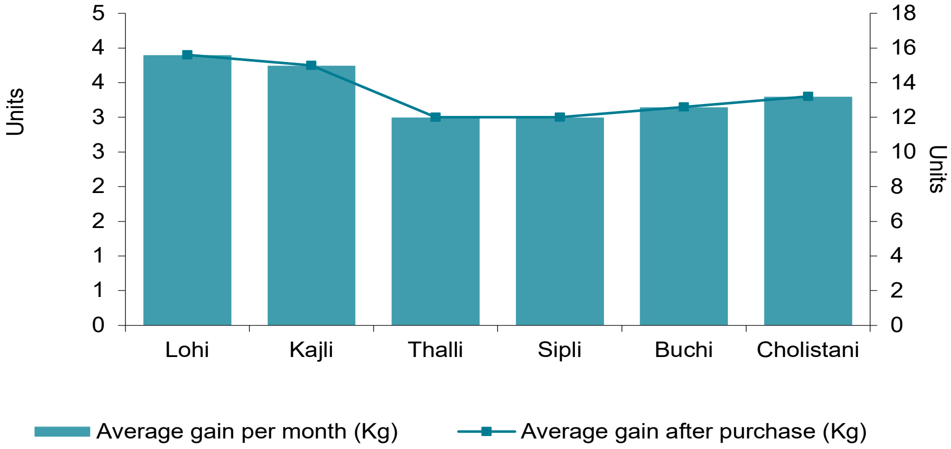
Comparative Productive parameters - Sheep						
Parameters	**Lohi**	**Kajli**	**Thalli**	**Sipli**	**Buchi**	**Cholistani**
Birth weight (kg):	3.6	3.6	2.9	2.9	2.9	3.5
Maximum Weight approx.(kg):	65.0	55.0	32.0	33.0	35.0	44.0
Age at Maturity (Months)	18.0	18.0	18.0	18.0	18.0	18.0
Average gain per month (Kg)	4	4	3	3	3	3
Average weight at 9-12 months (Kg)	25	20	15	15	16	17
Average weight at 14.5 months (kg)	41	35	27	27	29	30
Average gain after purchase (Kg)	16	15	12	12	13	13

Graphs shown below provides a comprehensive analysis of best sheep for the project

Age-Weight analysis-Sheep



Yield Analysis-Sheep



For the given parameters Lohi leads in all of them closely followed by Kajli & Cholistani. Lohi attains the greatest weight of 65 kg at the age of 18 months, with 55 for Kajli & 44 for Cholistani. Monthly yield of Lohi is 3.9 kgs, Kajli 3.8 kgs & Cholistani 3 kgs. Thus the preferred option for the farmer will be Lohi.

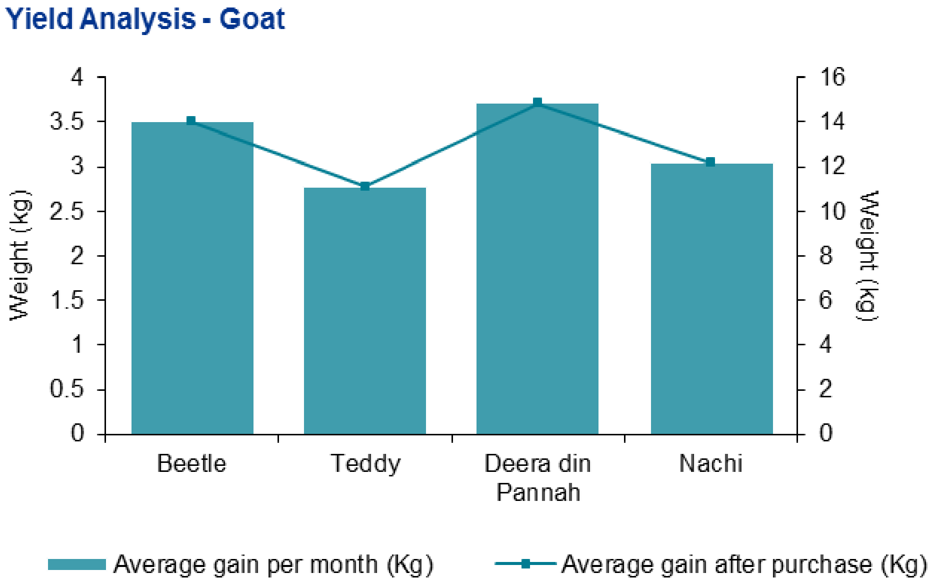
D. Product IV – Goat:

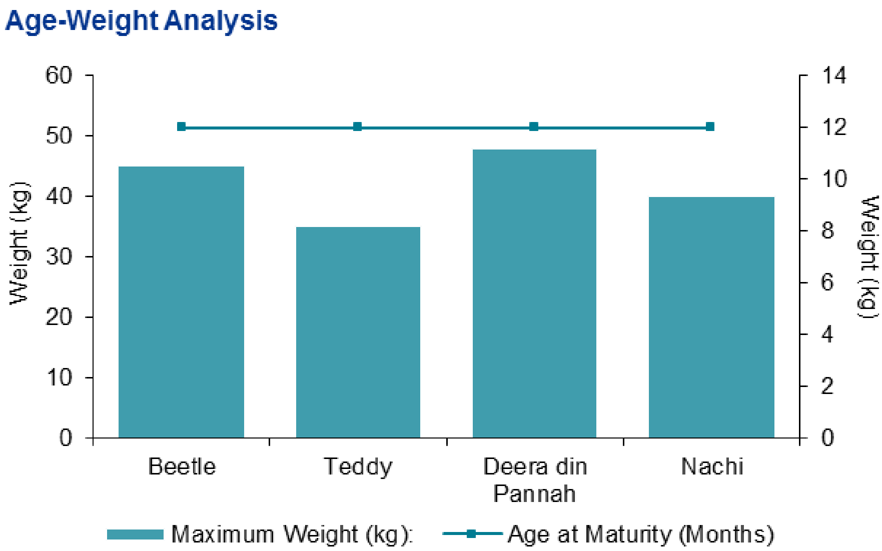
Goat rearing is of great importance in Pakistanis households and plays major role for the sustenance of small and marginal farmers and landless agricultural labourers. There is an increase in goat population at the rate of 6% over the last many years, and present population is 54.70 million heads. Beetal and Teddy are the breeds of goat with their home tract in central Punjab. Teddy goat is famous for its high prolificacy and higher twinning rate while Beetal is regarded as poor man's cow because of its considerably higher milk production than other goat breeds of the country apart from the very fact that its males are specifically preferred for sacrificial purposes.

Comparison of goat breeds with reference to different parameters is depicted below:

Comparison of goat breeds				
Parameters	**Beetle**	**Teddy**	**Deera din Pannah**	**Nachi**
Birth weight (kg):	3	1.7	3.5	3.5
Maximum Weight (kg):	45	35	48	40
Age at Maturity (Months)	12	12	12	12
Average gain per month (Kg)	4	3	4	3
Average weight at 9-12 months (Kg)	37	29	39	32
Average weight at 14.5 months (kg)	51	40	54	44
Average gain after purchase (Kg)	14	11	15	12

To get better perspective of the overall situation refer to the graphs below:





Deera din Pannah & Beetle competes closely in most of the parameters with the former having a slight advantage. Quantitatively, the preferred option is Deera din Pannah, however the proximity to local habitat & its preference among the local population for sacrificial purposes gives Beetal & Teddy a slighter edge over Deera din Pannah. Beetal has the lowest mortality rate as compared to other breeds which makes it the most favorable breed for the project.

7.5. Conclusion:

As discussed above, in order to ensure the success of project an effective management of available resources would be required to maximize the project profits.

This can be achieved by evaluating the appropriate farmers for the project, establishing a formal strategy for loan disbursement and loan recovery to minimize loan defaults. Moreover, to reduce the expected losses, farmers should strictly follow the animal selection criteria to avoid loss of animals subject to fatal diseases.

The farmers can improve their profits by procuring the best breed of animals or opting the right product mix as offered by the bank i.e. Sahiwali cattle, Nili Ravi buffalo, Beetle goat or Lohi sheep, as evident on the basis of detailed analysis as provided above.

8. Project implementation strategies

8.1. Introduction

This section identifies the key methods that assist in an efficient and effective option of strategies to enhance the provision of larger livestock loans.

Agriculture is the bedrock of Pakistan's economy and livestock forms an integral part of the agriculture sector. According to Economic Survey of Pakistan livestock sector contributed 55.1% to agriculture valued added and 11 .6% to the national GDP during 20I0-12 and contributes more than all cash crops put together.

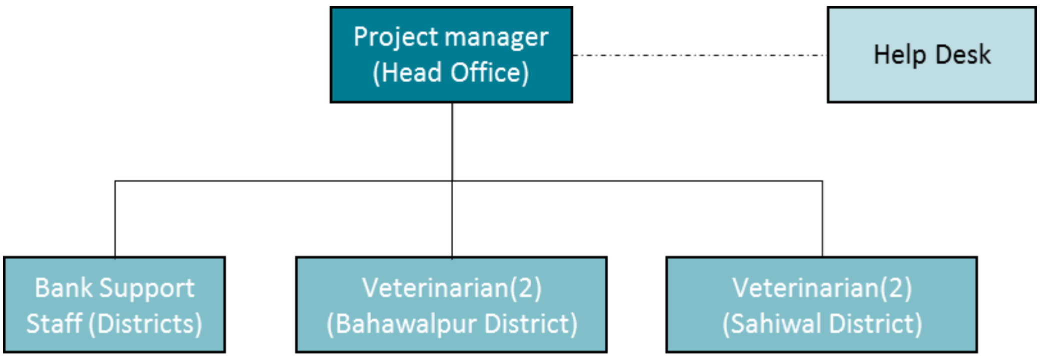
While gross value added of livestock sector surged from 672 billion to 700 billion thereby experiencing 4% growth inspire of the massive damages from floods during the same period.

Livestock sectors gross value added stood at 21 % of the national GDP. An estimated 35 million households draw their livelihoods from the livestock sector. Livestock serves as a major source of instant cash for farmers in times of hardship as it meet the liquidity requirements for hard pressed farmers.

There exists a phenomenal potential in feedlot fattening as Pakistan's existing meat industry is dominated by outdated management practices. Under modern fattening management and feeding regimes a year old buffalo or cattle calf would attain a weight of 200-250 kilograms in contrast to the highly inefficient yields of 100-150 kilograms. Recognized important breeds make up only 30% of the buffalo and cattle populations while the remaining 70% animals is comprised of non- descript breeds that hold untapped potential if cross bred with superior breeds.

8.2. Organogram

In order to ensure efficiency and effectiveness of the project a dedicated team shall be established which shall align the project objectives with the overall strategy of NRSP-MFBL.



Each person in the team will be assigned with the following responsibilities;

A. Project manager

I. Perform Function of helpdesk;

II. Establish linkages between farmers, veterinarians, cattle markets and insurance companies;
III. Preparation of monthly budgets;
IV. Plan activity schedules;
V. Monitoring of veterinarians filed visits;
VI. Ensure proper backups of all documents;
VII. Plan animal and farmer screen and evaluation checklist;
VIII. Processing farmer request for loans.

B. Bank Support Staff

I. Collection of farmers' request
II. Initiation of request
III. Verification of application
IV. Evaluation of farmers
V. Processing the request to Project manager.

C. Veterinarians

I. Monitoring and evaluation
II. Field Visits
III. Animal Tagging
IV. Filling of Checklist for animal screening
V. Identification and processing of animal mortality cases to Project Manager

8.3. Products & product feasibility

NRSP-MFBL is currently offering the micro credit loan for animal fattening in relation to following products:

IX. Product I - Cattle
X. Product II – Buffaloes
XI. Product III – Sheep
XII. Product IV – Goats

Product Feasibility

Farmers' Projections	Calves	Goats/ Sheep	Teddy
Purchase price	300,000	302,400	284,400
Food cost	187,200	172,800	189,600
Vaccination	9,600	21,600	23,700
Overheads	3,200	3,200	2,300
Total cost	**500,000**	**500,000**	**500,000**
Selling price	684,000	681,984	652,224
Mortality	(28,500)	(47,360)	(41,280)
Total revenue	**655,500**	**634,624**	**610,944**
Principal	(500,000)	(500,000)	(500,000)
Mark up	(46,667)	(46,667)	(46,667)
Net	**108,833**	**87,957**	**64,277**

NRSP Microfinance Bank Limited offers loans for four type of products for animal fattening namely includes calves, buffaloes, sheep and goats (Beetle/Teddy). The payment plan offered by the bank consist of complete repayment after four months.

Considering the revenue and cost assumptions as stated in the figure.2 for Cattle, Sheep/Beetle and Teddy they are expected to make highest number of animal sale however, based on profit projections for a single financial plan. Calves have highest profit to farmers after repayment of loan along with marked up interest.

Revenue assumptions			
	Calf	Goats/ Sheep	Teddy
Selling price - PKR	150	320	320
Meat - yeild per day	0.75	0.13	0.115
Animal fattenging cycle	120	120	120
Days in month	30	30	30
Mortility	1	5	5
Cost assumptions			
Purchase price - PKR	125	300	300
Weight at the time of purchase	100	14	12
Food cost	65	20	20
Vaccinations - cost per animal	400	300	300
Overheads - per month	800	800	575

Financing Assumption	
Loan	500,000
Markup	28%
Number of animals per cycle	
Calf	24
Goats/ Sheep	72
Teddy	79

8.4. The effects of Eid festivals

The auspicious occasion of Eid is one aspect that must be discussed when referring to the demand and supply of livestock animals. As it is known the demand of animals especially cattle and goats rises at Eid ul Azha.

The following tables show the Eid effect on the product feasibility of each of the animals' separately:

Farmers' Projections	Calves	Goats/ Sheep	Teddy
Purchase price	256,069	257,507	249,172
Food cost	102,000	105,000	123,000
Vaccination	4,000	10,500	12,300
Overheads	3,200	3,200	2,300
Transportation Cost	64,017	64,377	62,293
Mandi Tax	70,714	59,416	50,935
Total cost	**500,000**	**500,000**	**500,000**
Selling price	707,138	594,161	509,350
Mortality	(70,714)	(84,880)	(62,116)
Total revenue	**636,424**	**509,281**	**447,234**
Principal	(500,000)	(500,000)	(500,000)
Mark up	(46,667)	(46,667)	(46,667)
Net	**89,757**	**(37,386)**	**(99,433)**

As shown in the table above, the net profit PKR 119,550 is fairly reduced for calves if the farmer were to amend their selling cycle to incorporate the effect of Eid. Whereas, for goats and teddy, the net projection turn to loss.

As shown in the tables above, identifying variations due to Eid festivals like elevated food cost, additional travelling cost and mandi tax etc. This in turn effects the net profit earned at the end of the year, along with the internal rate of return. This plan chooses to ignore the Eid effect due to the fact that it only invites reduced profits. Therefore, it is recommended that the farmers must abide by the rules predetermined and not to combine this project with the demand and supply as created by such festivals.

8.5. Suitable farmers for the Project

Nearly 16% of farmers own herd sizes varying between 7-50 animals and it is this group that can be considered bankable as they own sufficient land as collateral besides possessing hard assets whose farm animal value alone is estimated at well between Rs.5- 10 million.

That currently avail agriculture credit and have no issues in securing agriculture loans and are comfortable in dealing with commercial banks procedures. This group has no dependence on the informal sources of finance. While the remaining 84% = (100% less16%) of farmers owning 1-6 animals are dependent on the informal finances i.e. beoparis.

Thus, Loans to 16% of farmers can be considered secured. Although 84% of farmers can be considered unsecured prospective customers but however, with proper collaterals arrangements and farmers evaluation criteria bank can make significant profits by targeting them.

8.6. Mandatory Vaccination Policy

In order to make animal fattening a successful and profitable project for the bank and the farmers, timely animal vaccinations are mandatory to ensure animal health in accordance with the defined guidelines.

This can be achieved by making necessary for the bank authorized veterinarians to provide the animal mandatory vaccinations certificate to project manager after first monitoring and evaluation visit.

8.7. Veterinary field visits

A. Introduction

Optimum performance can be achieved only when the farmer is aided by the bank at every step of the path. The bank needs to ensure that the farmer is provided with the best of supplementary services confirming a long lasting relationship with the customers.

B. Field visits

As it was established earlier that the product will be initiated in 2 districts and a total of 200 farmers are to be targeted; a hundred farmers within each district. With each farmer catering for a sizeable number of animals, the bank must ensure the implementation of the proposed veterinary field visit schedule.

The following table highlights the livestock quantities that can be provided to one customer in a single cycle with the maximum utilization of loanable amount.

Livestock plan			
Sheep	**Goats**		**Calves / Buffaloes**
	Teddy	**Beetal**	
71	78	71	24

C. Field visit framework

The livestock plan as shown in the previous section recognizes a need for a systematic veterinary supervision. In order to cater for this need, a veterinary field visit framework has been created forming a resourceful guideline for the needed supervision required to ensure a smooth flow of the animal fattening phase.

This section mainly focuses on the activities that need to be performed by the veterinary officers on each livestock animal as per the veterinary field visit schedule (provided later in this section).

Tagging

The veterinary officer must ensure that the livestock animals are properly tagged with a unique serial numbers allocated to each animal. This process must be performed subsequent to the purchase of the animal at the first visit.

Health checks

The main purpose of the field visits should be towards the complete health of the livestock animals. The following medical procedures will act as sufficient safeguards to observe, diagnose, and treat any medical ailments and preventing from losses at large.

I. Deworming

The process of 'deworming' is the freeing of the livestock animals from worms that are known to originate adverse effects on the animal's health.

II. Demeanor

The process refers to the observation of the behaviour at large of the animal. The veterinary officer designated must observe any irregularities in the behavioural aspects as such irregularities may signal signs of stress, restlessness or other internal issues.

III. Vaccination and booster vaccination

In order to optimize the productivity of its project, one key element is the health of the livestock animals. Vaccination and booster shots significantly aid in the prevention of illnesses resulting in reduced burdens on the growth.

IV. Capillary refill time
Capillary refill time is one technique used to ensure the cardiovascular wellness and blood supply mechanism of the livestock animal. This method gives a quick idea within a couple of minutes of the mentioned health aspect.

V. Temperature and pulse check
It is advised that the veterinary officer records the core body temperature and evaluates the pulse of the animal on every visit to the premises.

VI. Skin tenting test
The skin tenting test is used to identify any signs of dehydration in the animal. Such a check is based on the fluidity maintained under the skin and would be a useful methodology to quantify the water intake of the animal.

VII. Cow dung check
The animal fattening phase is entirely based on how well the animal responds to growth stimulated mainly by nutrition and supplemented by other growth inducers like hydration and supplementation. To verify how much the animal responds to the nutrition provided by examining the cow dung for its consistency and to see for any undigested remains.

VIII. Other general heath check ups
Other than the ones mentioned earlier, the veterinary officer is required to observe the following:

a. Check hooves for any sign of injury
b. Eye and nasal discharge, if any
c. Skin conditions e.g. rash or redness

Field visit schedule

The underlying table summarizes the explained methodologies and the timeline upon which the veterinary field visit framework is to be implemented:

Field visit schedule								
Activities performed	**Inaugural Visit**	**Regular Visit**						**Final Visit**
	Day 1	**Day 9-11**	**Day 20-22**	**Day 35-37**	**Day 59-61**	**Day 69-71**	**Day 89-91**	**Day 109-111**
Tagging	✓	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Health check								
Deworming	✓	×	×	×	×	×	×	×
Demeanor	×	×	✓	✓	✓	✓	✓	✓
Vaccination	✓	✓	×	✓	×	×	×	×
Booster vaccination	×	×	✓	×	✓	×	×	×

Capillary refill time	✓	✓	✓	✓	✓	✓	✓	✓
Skin tenting test	✓	✓	✓	✓	✓	✓	✓	✓
Cow dung check	×	✓	×	×	✓	×	×	✓
Temperature	✓	✓	✓	✓	✓	✓	✓	✓
Pulse check	✓	✓	✓	✓	✓	✓	✓	✓
Hooves check	✓	✓	✓	✓	✓	✓	✓	✓
Eye and nasal discharge	✓	✓	✓	✓	✓	✓	✓	✓
Skin conditions	✓	✓	✓	✓	✓	✓	✓	✓
Weigh in								
Calf/Buffalo	95-105	102 - 112	111-121	122-132	140-150	147-157	162-172	177-187
Goat	13-15	15-17	16-18	18-20	21-24	22-26	25-29	27-31
Sheep/Beetle	11-13	12-14	13-15	15-17	18-20	19-21	21-23	24-27
Sale Facilitation	N/A	N/A	N/A	N/A	N/A	N/A	N/A	✓
Feed monitoring	✓	✓	✓	✓	✓	✓	✓	✓
Reporting to	PM - NRSP							

Vaccination cycle

The vaccination cycle as identified in the field visit schedule is given in detail in the subsequent table:

Vaccination cycle		
Visit #	**Vaccination**	
	Regular	**Booster**
Visit 1	Vaccination against FMD, Aftovaxpur	×
Visit 2	Vaccination against Haemorrhagic septicaemia	×
Visit 3	×	Booster vaccination against FMD
Visit 4	Vaccination against clostridial diseases, Toxipra S7	×
Visit 5	×	Vaccination against clostridial diseases, Toxipra S7
Visit 6	×	×
Visit 7	×	×
Visit 8	×	×

8.8. Additional requirements

Equipment

Four veterinary officers deployed in both the districts are required to be equipped with the following:

I. A suitable means of transportation e.g. motorbike
II. Weighing scale for animals
III. Girth tapes
IV. Thermometer
V. First aid box

8.9. Establishing of Help Desk

A. Introduction

The project manager shall be responsible for the operations at the help desk. It is to be ensured that the Bank is up to date with its customers on all fronts. The concept of a help desk signifies round the clock support to the customers enabling them to utilize time and money as efficiently as possible. This section focuses on how the help desk will provide assistance to the customers and a sound basis for the project manager to maintain useful records.

B. Use of help desk

The help desk can be used for several purposes which in turn assists the customer in providing technical ease in conducting the objective of the loan agreement, as well as, other support activities. The help desk will achieve this by the provision of linkages between the customers and the value-chain partners.

i. Maintenance of database

The project manager is required to maintain a database which will consists of the following information in detail:

1. Name of customer
2. Loan period
3. Number of livestock animals
4. Field visit schedule
5. Vaccination schedule

The above mentioned information collectively forming a database, will assist in identifying the daily visit schedule for the veterinarians in each district and the purpose of the visit to a particular customer. This practice will maintain an effective use of the veterinarian's time for visits.

ii. Veterinary services

As it has been previously established, the veterinarians are required to visit the customers with a total of 120 visits per annum by a veterinarian in a single district. The role of the help desk in this regard would be to create an association of the customer with his designated veterinarian and a pre-planned schedule of the visits to be conducted to verify the contents as of the checklist as mentioned in the previous section.

iii. Purchase of livestock

After the contractual formalities have been completed, the help desk would initiate the procurement process by linking the customer with the most feasible, connected livestock market. Furthermore, the veterinarians would be required to assist the customers while purchasing the livestock animals; making sure the mentioned criteria for procurement of any livestock animal is fulfilled.

iv. Sale of livestock

The database will enable the project manager to highlight customers with maturation of 120 days of the fattening cycle, which will in turn require the help desk to craft a connection between the customer and the slaughter houses connected with the Bank.

v. Field visit Liaison

The database will generate notifications, identifying customers with upcoming field visits, ensuring that the customers are well-informed beforehand regarding the Field visit by the designated veterinarian. This will also act as a corroborative tool to the daily field visit schedule planned; identifying any loopholes that may cause variations.

vi. Other queries

The helpdesk will always be available for the customers, catering for every query raised in the process. Such queries may include:

i. Loss of livestock animal
ii. Mortality
iii. Insurance claim
iv. Health issues
v. Any query regarding loan repayment

8.10. Conclusion

The success of project is dependent upon evaluation, formulation and implementation of appropriate strategies.

Considering the fact, the most suitable strategy for the project is designing and establishing a dedicated team for managing and achieving the project objectives, Identification and targeting the cadre of most suitable farmers to minimize the project losses. In addition to these, bank should ensure provision and monitoring of facilities to the farmers to mitigate the potential financial losses of bank and farmers.

Hence, stringent measures should be adopted for the compliance with the regulatory requirements and formal policies and procedures for the achievement of desired objectives as suggested by designed strategies of the organization.

9. RISK AND MITIGATION STRATEGIES

This section recognizes all such risks that may hinder the performance of the project. Furthermore, a detailed mitigation plan is also supplemented.

Risk faced by Bank

Risk	Mitigation strategies
There is a risk that the customers may default due to the fact that their financial position may not be sustainable.	The risk of default may be alleviated in the following manner: a) Pledge of assets / Livestock b) Customer screening c) Postdated Cheques etc.
Long distances between markets make entire value chain price inefficient.	Risk can be mitigated by ensuring customers are well connected with the value-chain partners through the assistance of the help desk of NRSP-MFB.
Varying climatic conditions may pose risk to the smooth functioning of the product.	Risk can be mitigated by installing early warning systems and other activities that reduce the likelihood of adverse events and the severity of losses.
Non-compliance with the animal selection criteria leading towards inappropriate procurement of animal.	Development of animal selection criteria. Provision of technical assistance and supervision at the time of procurement of animals to ensure animal selection criteria has been followed and best suited animal has been procured.
There is risk that lending decision based on insufficient credit analysis will result in banks not understanding their borrowers full financial conditions.	Risk can be mitigated by assessing the creditworthiness of each and every farmer who has asked for loan facility and should be checked properly in order to assess the financial condition of the farmers, this will help in giving loan to those who are creditworthy and having better financial health to repay.
There is risk that deteriorating market conditions will lead to increased input costs, unstable prices and the banks had no forewarning that borrowers were facing debt repayment problems.	In order to mitigate the risk of no forewarning of borrowers facing the debt repayment problems, banks at their own discretion can accept livestock as an exclusive or partial security for livestock financing.
There is risk that farmers with no prior experience of livestock farming may be selected.	Financial institutions should ensure that before providing loan facility for farming, farmers prior experience in livestock farming should be checked as whether he is capable of managing livestock farming business in order to avoid the risks.

Risk faced by farmers

Risk	Mitigation of risk
Dislocation from markets also creates a risk for poor farmers.	Strategic buying of inputs and selling of outputs can reduce the effects of marketing risk on farm profitability The purchase of certain types of revenue insurance can also reduce marketing risk Farmer can forward contract with an input supplier for future delivery of the input at a specific price thus reducing market risk.
There is risk that farmers do not have sufficient technical expertise for animal fattening project.	Risk can be mitigated by providing timely technical assistance to farmers regarding matters including weather and climate, market prices, regulatory structures, quality standards to obtain maximum benefit in terms of production and income. Further, necessary training courses should be designed build the capacity of the farmers.
Poor infrastructure e.g. irrigation or rural roads also creates risk for poor farmers to get enough benefit from loan facility.	There must an efficient system of transportation, and effective system of irrigation that would help in increasing productivity and hence income.
Weather is also risk for farmer e.g. rainfall or temperature variability or extreme events leads to lower yields, loss of productive assets or income.	Risk can be mitigated by implementing early warning systems in order to reduce the effect adverse natural disasters.
Biological risks like pests,disease, contamination leading to lower yield, increased mortality of the animals resulting in loss of income.	Risk mitigation strategies include ;
There is risk that animal health may deteriorate due to Ignorance of nutrition and health requirements by farmers	Bank should ensure assistance of veterinaries to the farmers at the time of selection of animal. Veterinaries should ensure

There is risk of security e.g. theft.	that standard operating procedures developed for the selection and procurement of animals are being followed. Vaccinations are provided to animals in accordance with the guidelines provided in the relevant section of the business plan. Periodic visits of veterinaries to farmers should be performed for frequent examination of animals to determine their health conditions. Proper focus should be given to the nutrition of the animals. Tagging of animals should be carried out at the time of procurement of animals for their identification in case of mortality for insurance claim. Bank should ensure effective operations of help desk at the very beginning of the project. The sanitation component of biosecurity addresses the issue of the disinfection of people, equipment, animals, and material entering the ranch/farm and the maintained cleanliness of people and equipment. At farmer level, adequate security protocols such as proper boundary walls, sheds with locking facility, hiring services of security guard etc. should be applied to avoid risk of theft. Whereas, at bank level, adequate insurance coverage on the animals/ loan portfolio should be obtained to avoid losses on account of animal theft or mortality.

Risk arising from dual funding	
Risks	**Mitigation of risks**
There is a risk that disbursement targets of the bank are not met.	Project manager with adequate prior experience of managing similar projects should be hired to manage this project. Project manager should develop periodic work plans in line with the targets set in the business plan for efficient implementation of the project and achievement of the targets. Mechanism should be devised for regular monitoring and supervision of the project at the higher management level of the bank. Periodic progress review reports should be developed and disseminated to the relevant higher management for timely and effective decision making.

10. SWOT ANALYSIS

10.1. Introduction

The section shall deliver a comprehensive analysis of the NRSP-MFBL's Strengths, Weaknesses, Opportunities and Threats (SWOT) vis-a-vis the envisaged project.

10.2. Strengths

— NRSP-MFBL has an effective system of management and an integrated connection with the public which ensures their proficient cumulative recovery rate of 99.6% (2014).
— High returns in modem feedlot fattening-14-15% with yields being 60-70 Higher than conventional farming%.
— Pakistan itself remains a huge consumer of meat with a rapidly growing domestic market for meat and meat products thereby ensuring long term profitability and high returns.
— Economical and cheap availability of farm labor, contractual growing, leverage through cold storage and sales in lean period.
— NRSP-MFBL has strong presence in the targeted areas i.e. rural areas of Punjab, operating with a large number of 67 branches covering all major districts of Punjab.
— Livestock is an integral part of the agricultural system of Pakistan and serves as supplementary income source for small farm holders (source of 80% of meat animals). This reflects towards a strong customer base for agricultural financing.
— Huge livestock numbers offer the biggest guarantee for long term growth.
— Rising international demand for Halal meat that stands at 1 trillion US$.
— A well maintained CAR of 21.29% (Audited Financial Statements for FY 2015) ensures that the bank can still offer a reasonable amount of loan facility, without the injection of further equity. (As per SBP's regulatory requirements banks are required to maintain 16% CAR).
— Government is playing a facilitators role and allowing the private sector to serve as a growth engine.
— Livestock is contributing about 56% to the agricultural sector and 11.8% to the GDP, experienced 4% annual growth in 2014-15.
— 35 million rural farmers involved in the livestock industry –SBP.
— Punjab have comparative factor advantages for large ruminants particularly buffaloes as compared to the small ruminants.
— Professionally developed Business Plan based on a valid market research study and feasibility study (conducted by professional organizations) for ensuring the success and sustainable growth.

10.3. Weaknesses

— Majority of domestic consumers are not quality conscious and go for lowest price.
— Poor availability of veterinaries in the rural areas of Punjab medicines are sold at high premium.
— Slaughtering and meat handling facilities are outdated, inadequate and un-hygienic.
— High penetration of informal credit facilities from local trader, which is expensive yet readily available, resulting in to strict competition.

- Farms are fragmented as herd sizes are small i.e. 80% of farmers are small holders having 2-5 animals and possess 0-5 acres and are described as un-bankable as they possess no land of their own. This enhances the risk associated with the livestock lending (lack of collateral for bank against loans).
- Lack of genetically enhanced and stable beef breeds in Pakistan.
- Poor animal husbandry and farm management result in low feed conversion ratios and low returns.
- Non-availability of feed (green forages) in rural areas of southern Punjab during May-April and June-August.
- Ban of export of live animals increases the cost of doing business while allowing the black market to thrive.
- Illegal trade (smuggling) thrives and deprives government of much needed foreign exchange besides denting tax money.
- Absence of credit facilities to majority of SMEs by banks continues to promote growth of the informal sector and hurts govt. objectives for economic growth.
- Lack of drinking water and green feed in some of the targeted areas.

10.4. Opportunities

- NRSP Bank have a vast network of 67 branches across 25 districts through this network it can exploited the project.
- Opportunity to invest in international markets through export, which provides more than three times great earnings & have untapped growth potential.
- Livestock is a continuously growing and striving business, due to continuous increase in population of Pakistan.
- Approval to import genetically enhanced animals from international markets by the government.
- High demand for meat due to growing population.
- Local government wants to encourage local livestock businesses and will support them.
- Exemption from any income tax liability on agriculture business income.
- Introduction of livestock insurance scheme (Credit Guarantee Scheme for Small and Marginalized Farmers) by State Bank of Pakistan, reduces the risk associated with livestock financing
- Modern feedlot fattening farms ensure 70-80% higher returns and accelerate cash flow cycles by 100%. Demand for livestock products is rising with rise in urbanization and economic growth.
- Low income generation in rural areas of Punjab, enhances the demand for lending products.
- SBP in collaboration with Food & Agriculture Organization (FAO) of United Nations arranged a programme on innovative agriculture and Value Chain financing to provide technical assistance to banks. This capacity building programme would enable banks to shift the business dynamics from conventional lending to innovative and globally acceptable value chain financing models.
- The NRSP bank's long term entity rating was A- and short term A-2 by JCR-VIS (April 2015).

10.5. Threats

- Floods & disease outbreaks may adversely impact the supply chain and farming systems.
- Lack of appropriate slaughtering technology coupled with AI services results in lost business opportunities.
- Long distances between rural and urban markets make entire value chain price inefficient.
- Frequent weather changes may hinder animal growth during the fattening phase.
- An epidemic may result in a devastating threat to livestock in the designated regions.
- Various funding initiates by Punjab government in recent year for deprived persons against livestock may impose a threat to bank's product.
- Lack of awareness and education in rural areas of Punjab.
- Cumbersome procedures on part of banks fends off vast majority of farmers from applying for loan facility.
- SBP may not approve NRSP-MFB's request for provision of loans exceeding PKR 150,000.
- The Government's monopoly on price fixing to regulate meat prices serves as a disincentive and eats into profit margins besides discouraging much required new investments into the industry.
- Lack of a coherent policy on exports of live animals is hurting value chain actors at upstream & downstream levels
- Continuation of the ban by Peshawar High Court on export of live animals can hurt exports.
- Poor infrastructure of mandis (animal markets) and slaughter houses makes the whole value chain inefficient.
- Climate change and monsoon floods put livelihood sources i.e. livestock and their feeding systems into jeopardy.
- There may be a strong competition with specialized banks and other MFBs in the designated region providing attractive features e.g. lower interest rate.
- Inability to meet global safety and food standards impede Pakistani producers to diversify its meat exports.
- NRSP-MFB may not have ample resources deployed in the designated regions.
- Political Instability and Law & Order Situation: This may affect the Company's ability (at its infancy stage) to organize resources.

11. Financial Projections

The segment provides a detailed financial model enlisting return on invest period, return on investment ratios, profitability/OSS margin, invest required, estimated operating expenditures, scenario analyses accompanied with financial projections giving out interpretation tools to verify the future success of the project.

11.1. Approach and Methodology

A. Introduction

This financial projections study is a combination of a thorough research of market trends, creation of an optimum product utilization mechanism, sustainability of the project and its product based on the data provided by management, critical assessment of available publications and reasonable assumptions. The purpose of this study is to assist the recipient in an easy implementation of the project. This study includes certain statements, estimates and projections to determine the returns of project by using different methodologies.

B. Methodology

The projected financial statements have been utilized to determine certain outcomes using the following implements in this study:

i. Net present value; and
ii. Internal rate of return;

Each of these methodologies and their applicability have been discussed hereafter.

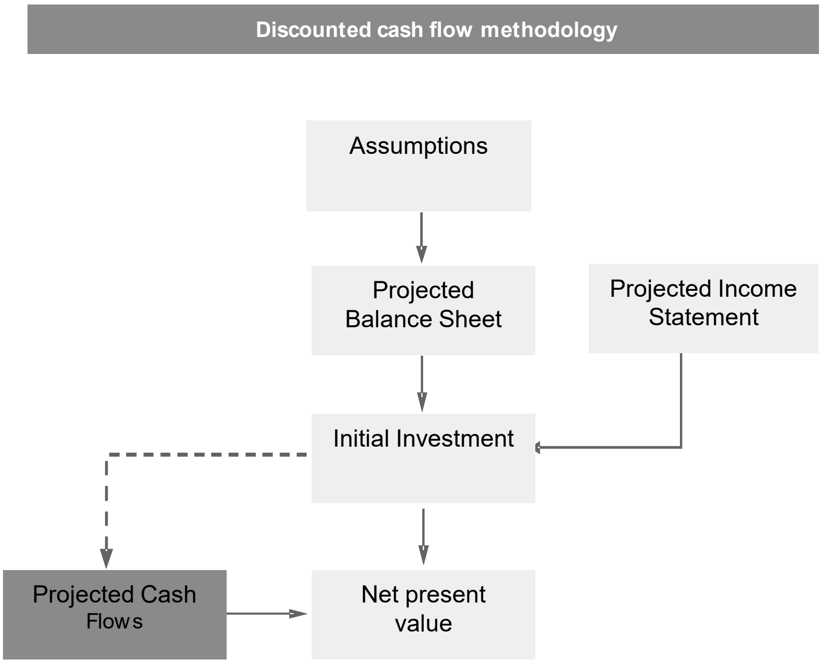
a. Net present value

'Value' is future oriented and accordingly the theoretically, correct manner to assess value is to consider the future earning potential.

Under the NPV computation, forecasted cash flows are discounted back to the present date, generating a net present value for the cash flow stream for the business. A continuing value at the end of the explicit forecast period is then determined and that value is discounted back to the valuation date to produce an overall value to the business.

In this analysis, the forecast period should be of such a length to enable the business to achieve a stabilised level of earnings, or to be reflective of an entire operation cycle for more cyclical industries. This study suggest a five year forecast period to utilize the approach, however this varies by industry or sector.

As mentioned earlier a 'value' is determined by applying the mentioned methodology. This value, being the difference between the present value of the future cash flows from an investment and the amount of investment is known as the net present value (NPV). The following flowchart showcases the mechanism of using this method to compute the NPV of this project:



b. Internal rate of return

The second methodology used in this study is the internal rate of return. The IRR is an easy measure to calculate and provides a simple means by which to compare the worth of various projects under consideration.

IRR represents the rate at which the net present value of all the cash flows of the projected years (both positive and negative) are zero.

Under this approach, IRR can be determined by using free cash flows. Internal rate of return is measured by calculating the interest rate at which the present value of future cash flows equals the required capital investment.

This method concerns itself with the projected cash flows generated by a capital injection and ignores the potential future costs that affects profit.

We used it to evaluate the sustainability of the project. If the IRR of the project exceeds the company's required rate of return, that project is desirable. If IRR falls below the required rate of return, the project may be rejected.

C. Results and interpretation

a. Net present value

The usage of this methodology is based on the expected free cash flows, computed utilizing the projected financial statements, discounted at the required rate of return. A zero net present value represents the project repays original investment plus the required rate of return. A positive net present value means an enhanced return, and a negative net present value means a negative return; meaning the project may not be viable.

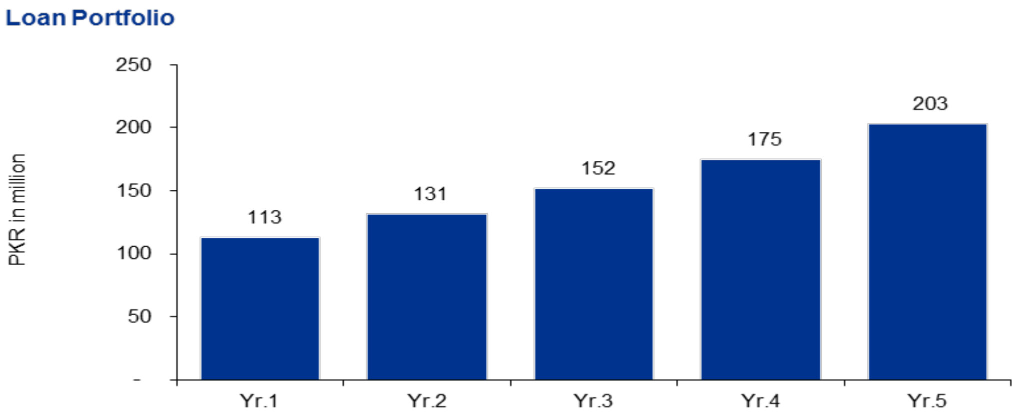
The key assumptions under the financial projections are as follow:

b. Loan portfolio

Loan portfolio & growth assumptions

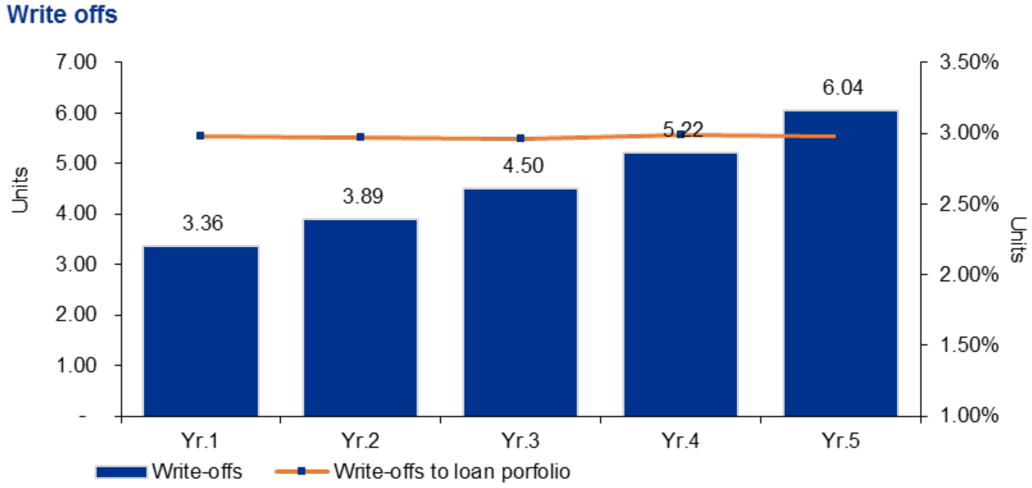
As shown in the graph below, the gross loan portfolio increases over the projected period of five years with an expected growth rate of 16% per annum increasing the loan portfolio to an estimated PKR 189 million at the end of year 5 of operations. This projected loan portfolio is based on the targets set accordingly, and are given below in the section, 'other key assumptions' given below.

The targets as predetermined in the financial model form a basis for these projected amounts of loan portfolios. The graph below shows the loan portfolios with a targeted 98% of utilization of the current loan portfolio of PKR 100 million.



c. Portfolio write-offs

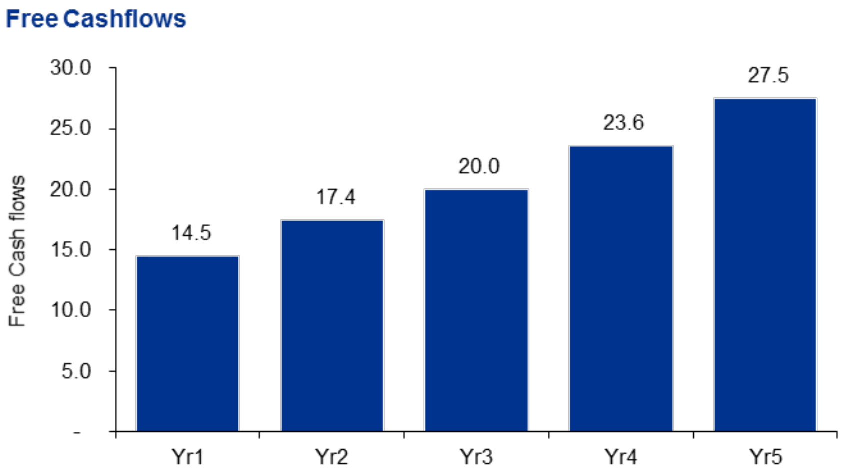
The projected portfolio write-offs increase over the years as shown in the graph below, beginning from PKR 3.36 million in year 1 to PKR 6.04 million in year 5. Furthermore, a steady ratio of write-offs and gross loan portfolio of 2.5% can be seen during the projected period.



d. Free equity cash inflows

Project free cash inflows are projected to gradually increase over the span of years, in year 1 it is expected to be PKR 14.5 million, year 2 (PKR 17.4 million), year 3 (PKR 20 million), year 4 (PKR 23.6 million) and year 5 (PKR 27.5 million) as shown in the graph below.

The effect of increasing cash inflows is being aided by the relending opportunities that would be presented after completion of each four monthly financial plan, ensuring maximum utilization of allocated funds resulting in higher yield over the years.



e. Other key assumptions

The bank has ascertained the project cost to be PKR 100 million of which, 80% will be funded by debt financing and remaining 20% will be injected through equity. With this project cost, the bank chooses to disburse loans to 200 farmers in Bahawalpur and Sahiwal district. Therefore, a maximum amount of PKR 500,000 is predetermined for loan disbursement to an individual customer.

Product utilization targets for each cycle has been set at 98%. The above mentioned loan utilization targets have been shown in the table below.

	Amount PKR	Loan Utilization	Relending Target	Number of Farmers
Cycle - 1	100,000,000	98%	98,000,000	196
Cycle - 2	105,003,733	98%	102,903,659	206
Cycle - 3	109,809,319	98%	107,613,132	215
Cycle - 4	115,303,884	98%	112,997,807	226
Cycle - 5	121,073,383	98%	118,651,916	237
Cycle - 6	127,131,572	98%	124,588,941	249
Cycle - 7	133,492,897	98%	130,823,039	262
Cycle - 8	140,172,526	98%	137,369,075	275
Cycle - 9	147,186,385	98%	144,242,658	288
Cycle - 10	154,551,200	98%	151,460,176	303
Cycle - 11	162,284,529	98%	159,038,839	318
Cycle - 12	170,404,815	98%	166,996,718	334
Cycle - 13	178,931,417	98%	175,352,789	351
Cycle - 14	187,884,668	98%	184,126,975	368
Cycle - 15	197,285,916	98%	193,340,197	387
Cycle - 16	207,157,577	98%	203,014,425	406

This model is entirely based on the element that the Bank is going to relend the sum received as shown above in the table, at the required relending loan utilization targets for the specific quarters.

Loan disbursed are to be charged with a mark-up at a flat rate of 28% per annum.

Repayment of disbursed loan is to be made by the end of 4 months from commencement of the loan perio

Income Tax Ordinance, 2001 states the corporate tax rates applicable on the bank with 32% in year 1, 31% in year 2, and 30% for year 3 and onwards. For a smooth implementation of this project, staff exclusive for this purpose is required.

The veterinary officers deployed in the districts are required to conduct a total of 720 visits per annum, each veterinary will be given motor bike with a fuel allowance of 150 litters per month. Furthermore, a total of 24 visits per year are required with a cost of PKR 2,000 per visit from the project manager.

The necessary team is as follows:

1) A project manager operating from the head office. The appointment would incur an annual cost of PKR 1.2 million with an increment of 10% annually.

2) Veterinary officers deployed in each district; budgeted at PKR 0.6 million per annum per individual with an annual increment of 7%.

3) Loan processing officers; one at each branch with a total cost of PKR 0.6 million per annum accompanied with an annual rise of 7%.

The inflation rate has been realized at a steady rate of 7%.

This financial model is based on investment through 8:2 debt to equity ratio. Mark-up against capital injected through debt financing is taken at KIBOR plus 3%. For the purpose of financial projection, KIBOR is taken at 6.5% for year 1 and 7% for year 2 and onwards.

Specific provision for potential loss of 1% of the project cost has been realized by computing an average of NRSP MFBL's previous two years' specific provision. General provision for potential loss of 1% of the project cost has been realized by computing an average of NRSP MFBL's previous two years' general provision. Write-offs have been provisioned at 2% of the project cost.

It is assumed, for the project the subsequent list of capital expenditures are necessary:

- 2 motor bikes
- 1 car
- 3 laptops
- 2 weighing scales

The items as mentioned earlier shall be depreciated in accordance with the depreciation rate as mentioned in the financial model; based on the requirements of the ITO, 2001.

D. Conclusion

a. NPV calculation results

For the purpose of NPV calculation, a continuing value is calculated at the end of the forecast period assuming a reasonable trend into the indefinite future. The continuing value is then discounted to the present using a discounting factor. We considered the projected financials as reasonable grounds for the calculation.

The NPV for the project has been carried out by identifying the free cash flows to equity and discounting the cash flows at the rate of return at 8.8% which results in an NPV of PKR 136,208,872.

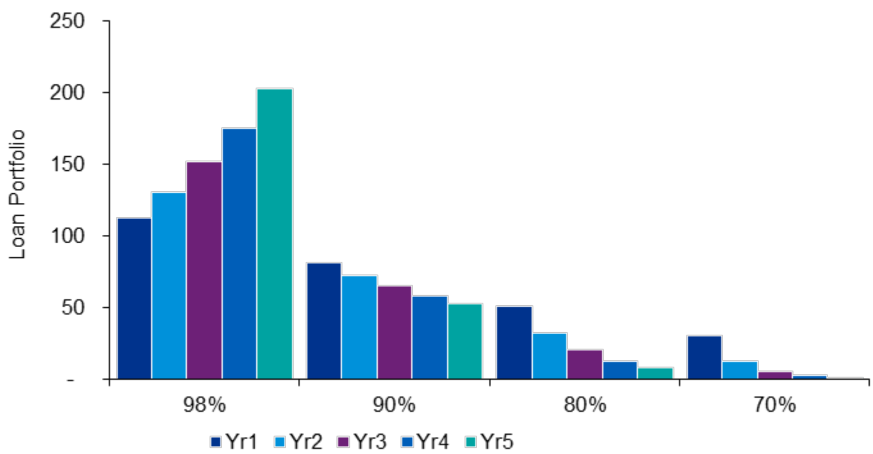
b. IRR calculation results

IRR for the project is 34.8%. As it is greater than required rate of return of the project, so the project is desirable.

c. Effect of fluctuations

Fluctuations in target achievement

The amounts are prone to change due to variation in achievement of the programmed targets. Any variation in the achieved targets will result in fluctuations in the loan portfolio. The graph below highlights the fluctuations that occurs if the target achieved is altered to 90%, 80% and 70%, from a predetermined target of 98% of loan portfolio.



As shown above, the loan portfolios are seen to drop down considerably with reduction in loan utilization percentage. The purpose of identifying such fluctuations is to emphasize on adherence to these predetermined targets. These instabilities can be seen to result in adverse effects to NPV and IRR. Using the above scenario, the mentioned outcomes vary as follows:

Effect of fluctuations		
Quarter 1	**NPV**	**IRR**
Targeted (98%)	136,208,872	34.8%
Achieved (90%)	(70,343,598)	N/a
Achieved (80%)	(150,880,509)	N/a
Achieved (70%)	(172,071,026)	N/a

Fluctuations in write-offs

Fluctuations in write-offs		
Write off provision	**NPV**	**IRR**
1.0%	136,208,872	34.8%
2.5%	28,000,904	16.0%
3.5%	(28,978,682)	-1.2%
5.0%	(96,139,834)	N/a

Apart from any variations in target achievement, significant fluctuations can occur due to deviations in write-offs during the forecasted period. The above scenario highlights the fluctuations that occur in the interpretations with a change in write-off percentage.

The results of the fluctuations clearly show high sensitivity with minor changes in the write-off provision. Currently, the write-off provision is set at 1% and if the write-offs were to increase to 3.5% or more, the net present value is unquestionably undesirable. The same trend can be seen for the IRR.

Fluctuations in cost of capital

A similar sensitivity analysis is conducted of the deviations that occur with change in the cost of capital. The weighted average cost of capital is set at 8.8%, however effect of different values have been illustrated below:

Fluctuations in cost of Capital		
Cost of equity	**NPV**	**IRR**
8.8%	136,208,872	34.8%
10%	96,111,393	30.8%
12%	52,267,433	25.6%
14%	23,860,072	21.3%
16%	4,479,774	17.6%
18%	(9,233,094)	14.3%

As shown in the table above, the NPV and IRR can be seen to drop significantly with an increase in the cost of cost of capital.

Fluctuations caused by change in loan utilization percentage

The following analysis showcases the change that occurs with minute changes made to the loan utilization percentage during the projected period. Drastic changes can be witnessed in the interpretations when the percentages are shifted.

S.No	Quarter	Loan utilization target	NPV	IRR
1	Cycle 1	98%	136,208,872	34.8%
	Cycle 2-16	98%		
2	Cycle 1	93%	(16,497,084)	3.2%
	Cycle 2-16	93%		
3	Cycle 1	88%	(96,023,446)	N/a
	Cycle 2-16	88%		

However, a stringent emphasis has been placed on the austere observance towards the targets set. As shown above, loan utilization target underachieved by 5% and 10%; results in an adverse net present value. The IRR shows a similar trend with negative effect.

E. Projected financial statements

Projected balance sheet

Amount in PKR

	PROJECTED				
	Yr.1	Yr.2	Yr.3	Yr.4	Yr.5
ASSETS					
Cash and balances	539,788	332,692	1,531,045	4,214,751	8,649,227
Investments					
Loan Portfolio	112,997,807	130,823,039	151,460,176	175,352,789	203,014,425
General provision	(1,129,978)	(1,308,230)	(1,514,602)	(1,753,528)	(2,030,144)
Loan loss provision	(6,737,080)	(14,526,832)	(23,545,406)	(33,986,646)	(46,074,976)
Loan Portfolio - Net of provisions	105,130,748	114,987,977	126,400,168	139,612,615	154,909,305
Accrued Mark up	-	-	-	-	-
Fixed Assets	1,206,500	919,500	632,500	385,500	178,500
Total assets	106,877,036	116,240,169	128,563,713	144,212,866	163,737,033
LIABILITIES AND EQUITY					
LIABILITIES					
Deposits					
Borrowings	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000
Other liabilities					
	80,000,000	80,000,000	80,000,000	80,000,000	80,000,000
EQUITY					
Paid-up share capital	20,000,000	20,000,000	20,000,000	20,000,000	20,000,000
Accumulated (Loss)/Profit	6,877,036	16,240,169	28,563,713	44,212,866	63,737,033
	26,877,036	36,240,169	48,563,713	64,212,866	83,737,033
Total shareholders' equity	26,877,036	36,240,169	48,563,713	64,212,866	83,737,033
Total liabilities and equity	106,877,036	116,240,169	128,563,713	144,212,866	163,737,033

Projected profit and loss account

Amount in PKR

	PROJECTED				
	Yr.1	Yr.2	Yr.3	Yr.4	Yr.5
Markup/Return/Interest earned	28,337,226	33,248,942	38,493,912	44,566,268	51,596,530
Loan processing charges	8,430,292	7,481,278	8,661,438	10,027,767	11,609,632
Net Mark-up/Interest Income	36,767,518	40,730,220	47,155,350	54,594,035	63,206,162
Provision against non-performing loans	(3,368,540)	(3,894,876)	(4,509,287)	(5,220,620)	(6,044,165)
General provision	(1,129,978)	(178,252)	(206,371)	(238,926)	(276,616)
Write-offs	(3,368,540)	(3,894,876)	(4,509,287)	(5,220,620)	(6,044,165)
	(7,867,058)	(7,968,004)	(9,224,945)	(10,680,166)	(12,364,946)
Net Markup/Interest Income after provisions	28,900,459	32,762,215	37,930,405	43,913,869	50,841,215
NON MARK-UP/NON-INTEREST INCOME					
Other income					
	-	-	-	-	-
	28,900,459	32,762,215	37,930,405	43,913,869	50,841,215
EXPENSES					
Operational expenses	(8,295,670)	(7,978,539)	(8,919,978)	(9,987,726)	(11,200,154)
Administrative expenses	(2,748,000)	(2,926,920)	(3,118,364)	(3,323,210)	(3,542,395)
Depreciation	(143,500)	(287,000)	(287,000)	(247,000)	(207,000)
	(11,187,170)	(11,192,459)	(12,325,342)	(13,557,936)	(14,949,549)
Interest/ markup expense	(7,600,000)	(8,000,000)	(8,000,000)	(8,000,000)	(8,000,000)
	(18,787,170)	(19,192,459)	(20,325,342)	(21,557,936)	(22,949,549)
PROFIT/ (LOSS) BEFORE TAXATION	10,113,289	13,569,757	17,605,063	22,355,933	27,891,667
Taxation					
Current	3,236,252	4,206,625	5,281,519	6,706,780	8,367,500
	3,236,252	4,206,625	5,281,519	6,706,780	8,367,500
PROFIT/ (LOSS) AFTER TAXATION	6,877,036	9,363,132	12,323,544	15,649,153	19,524,167

Projected cash flow statement

Amount in PKR

	PROJECTED				
	2015	2016	2017	2018	2019
CASH FLOWS FROM OPERATING ACTIVITIES					
Profit/(Loss) before taxation	10,113,289	13,569,757	17,605,063	22,355,933	27,891,667
Adjustments for non-cash charges					
Depreciation	143,500	287,000	287,000	247,000	207,000
Provision/write offs	7,867,058	7,968,004	9,224,945	10,680,166	12,364,946
	8,010,558	8,255,004	9,511,945	10,927,166	12,571,946
	18,123,847	21,824,761	27,117,008	33,283,099	40,463,613
(Increase)/Decrease in operating assets					
Loan portfolio	(112,997,807)	(17,825,233)	(20,637,136)	(23,892,613)	(27,661,637)
Accrued Markup	-	-	-	-	-
	(112,997,807)	(17,825,233)	(20,637,136)	(23,892,613)	(27,661,637)
	(94,873,959)	3,999,528	6,479,872	9,390,486	12,801,976
(Increase)/Decrease in operating liabilities					
Borrowings from financial institutions	80,000,000	-	-	-	-
Income tax paid	(3,236,252)	(4,206,625)	(5,281,519)	(6,706,780)	(8,367,500)
Net cash (outflow)/ inflow from operating activities	(18,110,212)	(207,096)	1,198,353	2,683,706	4,434,476
CASH FLOWS FROM INVESTING ACTIVITIES					
Investments	20,000,000	-	-	-	-
Investments in operating fixed assets	(1,350,000)	-	-	-	-
Net cash outflow from investing activities	18,650,000	-	-	-	-
CASH FLOWS FROM FINANCING ACTIVITIES					
	-	-	-	-	-
	-	-	-	-	-
Grants received	-	-	-	-	-
	-	-	-	-	-
Net (decrease)/ increase in cash and cash equivalents	539,788	(207,096)	1,198,353	2,683,706	4,434,476
Cash and cash equivalents at the beginning of the year	-	539,788	332,692	1,531,045	4,214,751
Cash and cash equivalents at the end of the year	539,788	332,692	1,531,045	4,214,751	8,649,227

11.2. Conclusion:

The financial projections as stated earlier presents the methodologies used to manufacture an analysis based on those projections. NPV, IRR and MIRR were calculated, based on certain reasonable assumptions.

The section also highlights key interpretations of the results and it consolidates a sensitivity analysis based on the variations that could result in deviations. The sensitivity analysis confirms that the Bank must ensure firm observance of the given targets to achieve the maximum potential of this project.

12. ANNEXURE

A. Annexure A: Synopsis of Prudential Regulations by SBP

1. Minimum Capital Requirements

- Microfinance Banks (MFBs) are required to maintain a minimum paid up capital (free of losses) of not less than:
- − One billion rupees if licensed to operate at national level.
- − Five hundred million rupees if licensed to operate in a specified province;
- − Four hundred million rupees if licensed to operate in a specified region; and
- − Three hundred million rupees if licensed to operate in a specified district;
- Further, it is essential for MFBs to maintain Capital Adequacy Ratio (CAR) equivalent to at least 15% of their risk weighted assets.

2. Exposure against Contingent Liabilities

- The contingent liabilities of the MFB for the first three years of its operations are prescribe to not exceed three times of its equity and thereafter not to exceed 5 times of the MFB's equity.

3. Maintenance of Cash Reserve and Liquidity

- **Cash Reserve Requirement:**
- − The MFB is required to maintain a cash reserve equivalent to not less than 5% of its deposits (including demand deposits and time deposits with tenor of less than 1 year) in a current account opened with the State Bank or its agent.
- − Time deposits with tenor of 1 year and above will not require any cash reserve.
- **Statutory Liquidity Requirement:**
- − The MFB must maintain statutory liquidity reserve equivalent to at least 10% of its total demand liabilities and time liabilities with tenor of less than 1 year, in the form of liquid assets.
- − Time liabilities with tenor of 1 year and above will not require any SLR.
- − MFBs are required to submit their CRR and SLR statements along with bi-weekly (fortnightly) statement of affairs to 'Off-Site Supervision & Enforcement Department (OSED) – State Bank' within seven days of the close of the period to which it relates.

4. Statutory Reserve

- The MFB are required to create a reserve fund to which will be credited:
- − An amount equal to at least 20% of its annual profits after taxes till such time the reserve fund equals the paid-up capital of the MFB.
- − Thereafter, a sum not less than 5% of its annual profit after taxes.

5. Maximum Loan Size and Eligibility of Borrowers

- **Housing Loans**

− Maximum Loan size is up to Rs. 500,000/- to a single borrower with annual income (net of business expenses) up to Rs. 600,000/-. However, at least 60% of housing loan portfolio of a MFB is required to be within the loan limit of Rs. 250,000/- or below.

- **General Loans (other than housing loans)**

− The maximum Loan size prescribed for general loans is up to Rs. 150,000/- to a poor person with annual income (net of business expenses) up to PKR 500,000

Loans to Microenterprises

− Loans to microenterprises is required to be up to a maximum of PKR 500,000. The MFB may extend the enterprise loan only in the name of micro entrepreneur to ensure traceability and reduce the incidence of multiple borrowing. The aggregate exposure against the enterprise loans in excess of Rs. 150,000/- is required not exceed 40% of the MFB's gross loan portfolio. MFBs must ensure to have in place appropriate mechanism for monitoring the aggregate exposure limits on enterprise lending.

6. Maximum Exposure of a Borrower from MFBs

- The maximum limits of the borrowers' aggregate exposure is required to not exceed PKR 150,000 for general loans, PKR 500,000 for housing loans, and PKR 500,000 for microenterprise loans. The aggregate exposure of the borrowers who are eligible to avail both general and microenterprise loan shall not exceed PKR 500,000.

7. Credit Report Check

− Before allowing any credit facility, the MFBs shall obtain a credit report from the Credit Information Bureau (CIB) of State Bank of Pakistan, or from any other appropriate Credit Information Bureau of which they are a member. However, if credit facility exceeds Rs. 30,000, it will be mandatory for MFBs to obtain credit report from Credit Information Bureau of State Bank of Pakistan.

8. Classification of Assets and Provisioning Requirements

A. Specific Provisioning

- The outstanding principal and mark-up of the loans and advances, payments against which are overdue for 30 days or more, shall be classified as Non- Performing Loans (NPLs). The unrealized interest / profit / mark-up / service charges on NPLs shall be suspended and credited to interest suspense account.

B. General Provisioning

- The MFB shall maintain a General Provision equivalent to 1.0% of the net outstanding advances (advances net of specific provisions). However, general provision shall not be required in cases where loans have been secured against gold or other cash collateral with appropriate margin.

9. Rescheduling/Restructuring of Loans

- In order to restructure/ reschedule NPLs, MFBs shall have in place a policy duly approved by their Board of Directors (BOD). The policy shall take following into account

− Rescheduling/restructuring is not done to break timeframe or allow un-warranted improvement in classified category of loans/advances.

− A mechanism is in place, to identify and verify the genuineness of circumstances of the concerned borrowers before rescheduling/ restructuring.

− The rescheduled/restructured loans shall remain classified unless serviced regularly for 6 months excluding grace period (if any) or at least 40% of the outstanding amount principal along with accrued mark-up is recovered in cash.

− In cases where rescheduled / restructured loans are not recovered on revised maturity date, they shall be classified directly as 'losses'.

− Envisage steps to provide relief to borrowers adversely affected by natural calamities. MFBs may grant appropriate relaxation either on case-to-case basis or en-block to the borrowers in the affected area.

10. Charging-off Non-Performing Loans (NPLs)

- All NPLs shall be charged off, one month after the loan is classified as "Loss". The intent of 'charge-off' is to clear the balance sheet of MFBs, and this shall in no way extinguish the MFBs' right of recovery of such loans.

11. Classification of Investments and Other Assets

- The MFBs shall categorize their investments into three categories viz. 'Held for Trading', 'Available for Sale' and 'Held to Maturity'.
- The MFB shall classify a security as Held-To-Maturity (HTM) if it has intent and ability to hold such investments till their maturity.
- The securities categorized as 'Held for Trading' shall be disposed of within 90 days from the date of their acquisition.

a) Quoted Securities:

- Government Securities will be valued at PKRV (Reuter Page). Debt securities such as TFC and mutual funds shall be valued at their market value. The difference between the market value and book value will be treated as surplus/deficit.

b) Un-quoted Securities:

- TFCs and mutual funds shall be carried at amortized costs. These securities will be tested for any impairment and classification on the evaluation date on the basis of both objective and subjective criteria (aging of default, future payment capacity, project/company's financial condition, business conditions etc.).

c) Treatment of Surplus/Deficit:

- The measurement of surplus/deficit shall be done on portfolio basis. The surplus/deficit arising as a result of revaluation of 'Held for Trading' securities shall be taken into Profit & Loss Account. The surplus/deficit on revaluation of 'Available for Sale' category shall be taken to "Surplus/Deficit on Revaluation of Securities" through statement of comprehensive income. Impairment in the value of 'Available for Sale' securities will be provided for by charging it to the Profit and Loss Account.

12. Investments of Funds:

- MFBs may invest their surplus funds in Government Securities, 'A' rated debt securities like TFCs and units of those mutual funds which maintain their investment portfolio in fixed income securities or money market instruments.

13. Payment of Dividends

- MFBs shall not pay any dividends on their shares until:

− They meet the MCR and CAR as laid down by the State Bank from time to time;

− All the provisions/appropriations laid down in MFI Ordinance 2001 and the Prudential Regulations for Microfinance Banks have been made.

CORPORATE GOVERNANCE

1. Size and Composition of the Board

- The board shall have:

− Minimum of seven members.

− Not more than 25% of the members from the same family.

− At least 2 independent members.

− No more than 25% of the members as paid executives of the MFB.

− Chairman who is not the CEO of the MFB.

2. Remuneration to Directors

- MFBs may determine a 'reasonable fee' but not exceeding Rs. 25,000 per meeting. However, if a MFB intends to pay above the prescribed ceiling of Rs. 25,000, it would require prior permission from SBP.

3. Responsibilities of the Board of Directors

4. Fit and Proper Test

5. Restriction on Certain Types of Transactions

- The MFBs shall not:

− Allow any facility for speculative purposes.

- Take any exposure on its sponsors, directors or employees including their spouses, parents, and children. The rule shall not apply on deposit services offered by the MFB and loans given to employees under staff loan policy of the MFB.
- Offer preferable treatment to the deposit accounts of its sponsors, directors or employees including their spouses, parents, and children.
- Enter into leasing, renting and sale/purchase of any kind with their directors, officers, employees or such persons who either individually or in concert with family members beneficially owns 5% or more of the equity of the MFB. This restriction does not apply in case of purchase of vehicles, laptops, mobile phone devices and iPads by the paid directors, officers or employees of the MFBs which remained in their own use, provided such sale is covered under the employees service rules duly approved by the Board of Directors of the MFB and is effected by the MFB at least at book value at the date of such transaction.
- Hold, deal or trade in real estate except for use of MFB itself.

6. Internal Audit

- The MFBs shall have an Internal Audit Department manned preferably by professionals/persons having prior audit experience in MFBs/Banks/Financial Institutions. However, Head of Internal Audit may report administratively to the President/CEO.

7. Policy Frameworks

- The MFBs shall formulate policies for all functional areas of operations including but not restricted to risk management, micro-credit, deposit operations, investments, internal audit, human resources, and rescheduling / restructuring / write-off of loans / advances etc.

8. Guidelines on Internal Controls and Risk Management

- The MFBs shall follow at minimum the instructions and standards given in the guidelines on i) Risk Management ii) Internal Controls iii) IT Security and iv) Business Continuity Management.

9. Credit Rating

- The MFBs shall get themselves rated by any of the rating agencies on the approved panel of State Bank of Pakistan or any international microfinance rating agency, with prior approval of SBP, within three years of grant of license by State Bank of Pakistan to operate as MFB or within one year of commencement of deposit mobilization services whichever is earlier.
- The credit rating shall be an ongoing process and updated on a regular basis from year to year within four months of the close of financial year after the first rating as stated in the first paragraph. The rating report shall be submitted to Agricultural Credit & Microfinance Department, and Offsite Surveillance and Enforcement Departments of State Bank of Pakistan within 7 days of notification of the latest rating. The rating shall also be disclosed to the public within 15 days of the notification of the latest rating by the rating agency.

10. Declaration of Fidelity and Secrecy

- Every member, director, auditor and staff member of the microfinance bank shall, before entering upon his office and performance of duties, make a declaration of fidelity and secrecy in the form as prescribed.

11. Contributions and Donations for Charitable, Social, Educational and Public Welfare Purposes

- MFBs shall strictly observe the following rules in the matter of making any donation/contribution for charitable, social, educational or public welfare purposes:

− The MFBs shall develop policy/guidelines duly approved by their Board of Directors for making donations/contributions.

− The total donations/contributions made by the MFBs during the year shall not exceed such amount as approved by their Board of Directors. MFBs making these donations/contributions shall already have met provisioning and capital adequacy requirements.

− All donations or contributions to be made during the year must be specifically approved by the Board of Directors on pre or post facto basis.

− MFBs shall expressly disclose in their annual audited financial statements the total donation/contribution made during the year along with names of donees, to whom total donations/ contributions during the year were made in excess of Rs 100,000/. In case of donations where any director or his family members have interest in the donee, the names of such directors, their interest in the donee and the names and addresses of all donees, shall also be given.

MONEY LAUNDERING, TERRORIST FINANCING AND OTHER UNLAWFUL ACTIVITIES

To safeguard Microfinance Banks (MFBs) from the threat of Money Laundering, Terrorist Financing and other related unlawful activities, the following minimum standards are required to be followed by all the MFBs. Microfinance banks are free to take additional measures as per risk involved in line with Financial Action Task Force (FATF) recommendations. MFBs shall ensure to develop and implement following policies within six months of issuance of these regulations.

1. Customer Due Diligence (CDD)

- **Know Your Customer/ Customer Due Diligence Policy:**

All MFBs shall formulate a comprehensive KYC/CDD policy duly approved by their Board of Directors. The policy shall be communicated down the line to relevant officers / staff. Copies of the KYC/CDD policy shall be submitted to the Agricultural Credit and Microfinance Department (AC&MFD) of the State Bank of Pakistan. Any change in policy shall also be conveyed to SBP within seven (07) days of its approval from the Board of Directors.

- **Systems, Controls and Procedures:**

MFBs shall put in place systems, controls and procedures for combating money laundering and terrorist financing.

- **Identity of Individual Customers**
- **Documents Required for Other than Individual Accounts**
- **Verification of the Identity**
- **Micro-Saving Accounts:**

These are privileged savings accounts offered only to low income and poor persons who are traditionally excluded from formal financial system. These accounts can be opened after establishing identity of customer only, and upon approval of the branch manager. Balance limits for such accounts shall, however, not exceed Rs. 100,000.

- **Identification and Verification of Beneficial Owner**
- **Anonymous Accounts:**

MFBs shall not allow opening of anonymous or numbered accounts or accounts in the names of fictitious persons.

- **Purpose of Account / Relationship**
- **On-Going Customer Due Diligence**
- **Enhanced Due Diligence**

It is possible that certain customers/transactions may pose high risk to MFBs. The high risk factors must be defined in the KYC/CDD policy which may include the description of such customers, products, transaction channels and geographic elements. In particular, following shall also be considered for enhanced due diligence;

− Having suspicion of money laundering or terrorist financing.

− Customers belong to countries where KYC and money laundering regulations are lax, or those with links to offshore tax haven.

− Customers are in cash based businesses and deal in high-value items and where customers have high net worth with no clearly identifiable source of income, etc.

− MFBs have reason to believe that the customer has been refused banking facilities by another bank / DFI / MFB.

− While establishing business relationship with politically exposed persons (PEPs), their family members and close associates.

− While establishing business with Non-Governmental Organizations (NGOs) / Not-for-Profit Organizations (NPOs) and Charities.

− Opening of correspondent banks' accounts, and taking appropriate measures to obtain all relevant information about the correspondent bank.

- The customer resides in a country which does not comply with FATF Recommendations.

- **Walk in Customer**
- **Government Accounts**
- **Public Awareness Campaign on Requirement of CNIC**
- **New Technology**
- **Non-Satisfactory KYC / CDD:**

2. Record Retention

- The records of transactions and identification data should be maintained by MFBs in systematic manner with exactness of period of preservation.

3. Reporting of Currency/Cash Transactions (CTR)

- All MFBs shall adhere to the provision of Currency/Cash Transactions Report under the Anti-Money Laundering Act, 2010 and report currency/cash transactions to the Director General of the Financial Monitoring Unit (FMU). The Currency/Cash Transactions Guidance Notes and Reporting Form are available on the official website of FMU.

4. Reporting of Suspicious Transactions (STR)

- If an MFB suspects or have reasonable grounds to suspect that funds are the proceeds of a criminal activity, or are related to terrorist financing, it shall report within seven days its suspicions to the Director General, Financial Monitoring Unit (FMU). The report should be on the format prescribed by FMU.
- MFBs, their Directors, Officers and Employees are strictly prohibited from disclosing (tipping-off) the fact that an STR or related information is being filled with the FMU.

5. Implementation of obligations under UNSC Resolutions

- MFBs shall ensure strict compliance of legal and regulatory requirements including freezing actions and prohibition of dealing with designated persons and entities as per the Statutory Notifications issued by Federal Government from time to time under United Nations (Security Council) Act, 1948 to apply certain measures for giving effect to the decisions of the relevant United Nations Security Council resolutions, and, notifications issued under Anti-Terrorism Act, 1997.

OPERATIONS

1. Cash Payments outside the Authorized Place of Business

- The MFBs shall not undertake any business of cash payments at any place other than the authorized place of business. However, this rule shall not apply in case of mobile banking and branchless banking where permission has been obtained from the State Bank.

2. Reconciliation/Settlement of Account Entries

- The entries booked in the Inter-Branch Accounts and/or Suspense Account must be reconciled/cleared and taken to the proper heads of accounts within a period of 30 days from the date entry is made in the aforementioned accounts.

3. Deposits

- MFBs shall develop appropriate products for attracting deposits and encouraging savings, especially small savings from low-income groups. MFBs shall ensure to meet requirements stipulated for deposit operations within six months of issuance of these regulations.

A. Basic /Micro Savings Account

− In order to mobilize savings especially from low income individuals, all MFBs shall offer a basic or micro savings account.

B. Opening of Deposit Accounts

− MFBs shall entertain all requests to open deposit accounts by persons who meet the requirements laid out in these Prudential Regulations, other instructions issued by the State Bank, and MFBs' own policies.

− MFBs must apprise potential depositors with the different types of accounts and options available to them.

C. Service Charges and Minimum Balance Requirements

For all types of profit and loss deposit accounts (except those with added services):

− MFBs shall not levy service charges for their deposit services.

− There shall be no minimum balance requirements. However, MFBs may require an initial balance not exceeding Rs. 100/- to open an account.

D. Statement of Account

− MFBs shall provide at least half yearly statements of account for all accounts having an average daily balance of Rs. 10,000/- and above. MFBs may issue statements of account either through surface mail (registered or courier) or other appropriate means.

4. Consumer Protection

- MFBs are required to implement following provisions within six months of issuance of these regulations.

A. Financial Literacy

− Since the customers of MFBs often lack awareness about their rights and obligations, each MFB shall therefore develop a mandatory basic financial literacy program for them. The program at minimum shall cover charges/fees, interest rate calculation, repayment schedules, customers’ obligations and other terms and conditions of all financial services (loan, deposit, insurance, payments etc.) that MFB offers. In addition, the program will also educate customers about how to lodge a complaint and track the resolution of complaints.

B. Transparency and Disclosure

- The MFBs shall lay out detailed terms and conditions which must:

− Encompass the repayment schedule, if establishing a lending relationship, which discloses the period and amounts to be paid as principal, mark-up, and fees. The schedule must clearly disclose the Annualized Percentage Rate (APR).

− Be drawn up in English and Urdu or any other regional language considered to be appropriate in view of clients' ability to understand.

  − Be displayed at a prominent place such as the entrances or windows of branches.

  − Include details of potential factors that may induce changes in fees and service charges.

  − Be read-out, copied and provided to customers after they are signed.

  − Not be discriminatory on the basis of gender.

C. Complaint Redressal Cell

− Each MFB shall establish a customer complaint cell with effective internal processes for logging, acknowledging, assessing, and taking timely action in response to complaints received from customers.

− MFBs shall define timelines for the resolution of complaints. Moreover, management shall make a quarterly review of the complaints processed (outstanding and settled) by the cell.

D. Collection Practices

− Each MFB shall develop a code for debt collection practices duly approved by its BoD

5. Submission of Quarterly Returns

- The MFBs shall submit their quarterly data online on prescribed Quarterly Data File Structure (DFS) under Reporting Chart of Accounts (RCOA) through Data Acquisition (DAP) Portal maintained at State Bank of Pakistan as per laid down instructions

6. Window Dressing

- MFBs shall refrain from adopting any measures or practices whereby they would either artificially or temporarily show an ostensibly different position of MFBs' accounts as given in their financial statements. Particular care shall be taken in disclosing their deposits, minimum capital requirement, non-performing loans/assets, provisioning, profit, inter-branch and inter-bank accounts, etc.

7. Permission Regarding Receipt of Grants

- MFBs shall ensure obtaining prior permission from SBP before receiving any type of grants. Any such requests and /or clarifications shall be addressed to Director, Agricultural Credit and Microfinance Department, State Bank of Pakistan, Karachi

8. Reporting to Credit Information Bureau (CIB)

- MFBs shall:

Provide factual and accurate data to SBP on the format prescribed from time to time and submit to SBP on a monthly basis but not later than 10th of every month following the month to which the CIB data relates.

Sign an agreement with SBP on the prescribed format, in order to avail online facility to obtain credit worthiness reports.

Submit CIB data of their borrowers on the prescribed formats online through their authorized persons.

Invariably report in writing to CIB the subsequent clearance of over dues/defaults within three working days from the date of such repayment/settlement.

Reflect the detail of re-payment/settlement of over dues/defaults made subsequent to the reporting date in the CIB report by way of following notes in the remarks column of the CIB report on the basis of a written letter from the concerned MFB confirming that the over dues/defaults amount has been cleared by the borrower on a specific date: "The "MFB's Name" has subsequently reported clearance of over dues/defaults of Rs. …… on …… (Date)."

Share their customers' data with private CIB(s) subject to development of comprehensive customer protection and confidentiality guidelines duly approved by their Board of Directors. Further, express customer consent is mandatory for sharing customer data with other institutions/ CIB and the duty of maintaining confidentiality will remain with the Microfinance Bank.

B. Annexure B: Synopsis of Prudential Regulations for Agricultural Loan by SBP

General Regulations

1. Comprehensive Agriculture financing policy

- Banks/DFIs are required to prepare a comprehensive agriculture financing policy duly approved by their Board of Directors. The agricultural policy may be part of the overall credit policy of a bank/DFI.

2. Expeditious processing and communication of decision to borrower

- Banks/DFIs are required to ensure that the decision for grant/ decline of credit must be conveyed to the borrower in writing within 10 working days of receipt of application.

3. Exposure limits

- **Single Person/ Group Limit**

Exposure Limit as a % of Bank's/DFI's Equity				
	For single person		For group	
Effective date	Total outstanding (fund and non-fund based) exposure limit	Fund based outstanding limit	Total outstanding (fund and non-fund based) exposure limit	Fund based outstanding limit
31-12-2012	30	20	30	25
31-12-2013	25	25	25	25
31-12-2014	20	20	25	25
31-12-2015	15	15	20	20

Related party exposure limit:

Exposure Limit as a % of Bank's/DFI's Equity to its Related Party		
Effective Date	For Single Related Party	For Related Group
31-12-2013	7.50%	15%
31-12-2014	5%	10%

4. Maximum unsecured financing

- Banks/DFIs are not required to provide unsecured/clean financing facility in any form, of a sum exceeding Rs 1.0 million (Rupees one million only) to any one person.
- Further, at the time of granting a clean facility, banks/DFIs are expected to obtain a written declaration that any such facility obtained by the borrower from other banks/DFIs and the facility to be obtained from the bank/DFIs in question does not exceed the prescribed limit of Rs. 1.0 million in aggregate.

5. Repayment schedule and relaxation to agricultural borrowers

- The banks/DFIs are allowed to grant relaxation up to one year in repayment schedule, to their borrowers who have been adversely affected due to certain uncontrollable factors such as weather, unavailability of water.
- Further, banks are encouraged to immediately stop recovery, suspend/defer mark-up accruals, and may waive off outstanding markup or principal where the chances of recovery are not possible due to heavy natural calamities.
- Mark-up accrued during the relaxation period might not be credited to income account but kept in memorandum account.

6. Proper utilization of loan

- Where the agricultural loans have been extended for specified purposes, the banks/DFIs are encouraged to ensure that the loans have been utilized for the intended purposes. To ensure that, banks/DFIs may make direct payments to the suppliers.

7. Credit Analysis and other conditions

- **Credit Report**

– Banks/DFIs could give due weightage to the credit report relating to the borrower and his group obtained from Credit Information Bureau (CIB) of State Bank of Pakistan. CIB report could not be older than three months at the time of approval of credit limits.

- **Borrower Basic Fact Sheet (BBFS)**

– Before extending any financing facility, banks/DFIs are required to obtain information from the borrower as outlined in the BBFS. Banks/DFIs are also required to make the BBFS a part of their loan application form.

- **Repayment Capacity of the Borrower**

– While extending agricultural financing, the banks/DFIs are encouraged to take into account the total indebtedness of the borrower and his disposable income. The banks/DFIs are required to ensure that the total financing to a borrower, in relation to his repayment capacity, does not exceed the reasonable limits as laid down in approved policies of the banks/DFIs.

8. Cash recovery outside the banks authorized place of business

- To facilitate the recovery efforts, banks/DFIs are allowed to undertake cash collection/recovery at places other than their authorized places of business. However, strict controls are required to be implemented to mitigate security risks and avoid frauds and misappropriation.
- Bar on adjustment lending to avoid classification or meet indicative targets
- Banks/DFIs can avoid to undertake any sort of adjustment lending (adjusting the existing loan with a fresh loan) to avoid classification or meet allocated targets for agriculture financing.

10. Guarantees

- All guarantees issued by the banks/DFIs will be fully secured.

11. Classification and provisioning of loans and finances

- Banks/DFIs could possibly evaluate performing and non-performing portfolio for risk assessment and where considered necessary, any loan account including performing account, could be classified and the category of classification determined on the basis of time based criteria could be further downgraded.
- The rescheduling/restructuring of non-performing loans will not change the status of classification of a loan/advance etc. unless;

− the terms and conditions of rescheduling/ restructuring are fully met for a period of at least one year from the date of such rescheduling/restructuring and;

− At least 10% of the outstanding amount is recovered in cash.

- Further, the unrealized mark-up on such loans (declassified after rescheduling/restructuring) may not be taken to income account unless at least 50% of the amount is realized in cash. However, this may not impact the de-classification of this account if all above mentioned criteria (Point (a) and (b)) are met.
- **Status of Classification to State Bank:**

– Accordingly, banks / DFIs are encouraged to ensure that status of classification, as well as provisioning, is not changed in relevant reports to the State Bank of Pakistan merely because a loan has been rescheduled or restructured. However, while reporting to the Credit Information Bureau (CIB) of State Bank of Pakistan, such loans / advances may be shown as “Rescheduled / Restructured” instead of “Default”.

- **Subsequent Default**

– Where a borrower subsequently defaults after the declassification of rescheduled / restructured loan, the loan will again be classified in the same category it was in at the time of rescheduling/restructuring and the unrealized markup on such loans taken to income account shall also be reversed.

- **Treatment of Fresh loans:**

– All fresh loans granted by the banks/DFIs to a party after rescheduling/ restructuring of its existing facilities may be monitored separately.

– Banks/DFIs may possibly review, at least on a quarterly basis, the collectability of their loans/advances portfolio. Shortfall in provisioning, as a result of quarterly assessment will be provided for immediately in their books of accounts by the banks/DFIs on quarterly basis.

Specific Regulations

- **Financing for Livestock**

– The loans extended for goat/sheep farming, breeding of animals, dairy farming, fishing farms, poultry farms, etc. by banks/DFIs would fall under this category. Livestock financing can be made for working capital as well as for development purposes. As such, these loans are usually short to long term in nature.

15. Tenure

- The maximum tenure for livestock financing would be five years (including grace period).

16. Security

- Besides generally acceptable securities, the banks/DFIs can accept livestock as a security for livestock financing

17. Periodic inspection and verification

- In all cases where livestock has been accepted as sole security, Banks/DFIs are required to conduct periodic inspections, at-least twice a year by a qualified and appropriately trained person, who may be an official from the bank or an independent person.

18. Classification and provisioning

- The financing requirement of livestock sector is of both short-term (working capital) as well as of long term loans, therefore, the loans to this sector are categorized under both the working capital and the development or long term loans. Thus, the loans for livestock will be classified as per their loan category in accordance with Annexure II.

C. Annexure C: Synopsis of Punjab Animals Compound Feed and Feed Stuff Ordinance 2002

Section 3

1. Feed stuffs or feed ingredients to be used in compound feed

- The feed stuffs or feed ingredients to be used in the manufacture of compound feed for poultry and livestock may include the following:

  a) Macro-ingredients

  - cereals or coarse grains
  - vegetable protein sources
  - animal protein sources
  - industrial and agricultural products or by-products

  b) Micro-ingredients

  - Vitamins
  - Mineral compounds or salts
  - Amino acids

  c) Feed additives

  - Coccidiostats, antioxidants, enzymes, anti-fungal or antitoxin products etc.
  - Premixes; and
  - Drugs.

Section 7 - Quality Control

- All compound feeds and feed stuffs shall conform to the specifications and standards as prescribed.
- The manufacturers of any compound feed shall ensure that a label containing the following particulars is displayed on the feed bag or packing used
  - The name under which the article is sold
  - Date of manufacture; and
  - Nutritive composition of compound feed.

Section 11 - Appointment of Inspectors

- Government may appoint Inspectors in respect of all or any compound feed and feed stuff, and an Inspector so appointed shall have jurisdiction in such area as the Government may notify.

Annexure D: Synopsis of Livestock Breeding Act 2014

Section 17 - Maintenance of herd books

- An entry in the herd book shall be made only if it relates to an offspring of an animal already registered in the herd book or when it is certified by a recognized expert to be an animal of that breed in accordance with parameters laid down by the Registrar.
- A breeders association shall provide a unique herd book number to each registered animal.
- A breeders association shall ensure that the records of every animal entered in the herd book are available for search to any buyer on payment of an approved fee.

Section 18 - Prohibition on sale of unregistered animals

- The Government may prohibit, at any time after five years of the opening of a herd book of an approved breeders association, by notification, the sale of pure bred animals of that breed for breeding unless registered in the herd book of that breed.
- Where a notification has been issued under subsection (1), no person shall sell or offer or advertise for sale a pure bred animal of a particular breed unless it is registered in a herd book of that breed.

Section 21 - Registration of businesses

- Every person involved in the provision of breeding services shall, in the prescribed manner, obtain registration from the Registrar.