# Integrated Farming, Dairy, Energy and Land Development Program (INFADEL)

#### **Overview**

In the next 30 years the population of our planet is estimated to increase by over a third to reach 9-10 billion people. A higher level of dairy and meat consumption per capita is therefore also expected due to rising levels of affluence and the trend towards globalization. The crucial importance of the world's agriculture system has never been as widely recognized as it is today, as the demand for calories from animal products is likely to double in that time.

Meeting the nutritional demands of the food chain as our word's population expands will require significant innovation, investment and legislative support for agricultural production. Sustainability is absolutely fundamental, not only to the success of agricultural organizations, but to the longevity of our global population as a whole in order to tackle this global challenge. Animal husbandry is the art of rearing animals for getting milk, skin, hides and horns and using them on the farms for agricultural purposes. Ox, he-buffalo and camel are used as draught animals in performing activities like ploughing, sowing, thrashing and transporting farm products.

Cow, she-buffaloes and goat provide us milk. Animal husbandry is, thus, an integral part of crop farming and contributes to the nutritional supply of the people. It also enhances the income and provides profession to many others. Thus, it balances development of rural economy.

#### **Introduction**

Bhartiya Pashupalan Nigam Limited has objective to work for the welfare of livestock breeders to make them economically and socially self sufficient. Nigam main objective is to make vacher/animal keeper progressive and offer employment for rural unemployed youth. Nigam's aim is to develop the Indian economy through promotion of Indian animal Husbandry and agriculture in India.

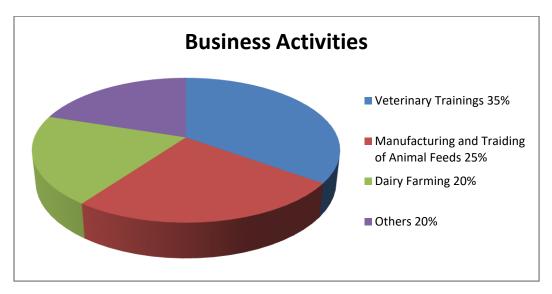
This institution has been set up for the development of Animal Husbandry with the experienced, technically skilled team of various member units. The aim of the BPNL is to bring the milk revolution in the country by self sufficient animal husbandry with the better production and with promotion of artificial insemination, promotion of nutrition, health, disease prevention, animal production and with the purpose to strengthening the finance of cattle feeders. So Nigam is taking care of Cattleheads through improving the health of animals and it has indirect effect on development of Agriculture in India. Nigam is not specially focus on agriculture only.

Nigam's main objectives are as follows-

- To make animal keeper progressive in both economical and social form
- Establish Animal Service Center, with the complete facilities of Artificial Insemination
- To prepare animal husbandry workers while giving training of animal husbandry and animal husbandry management under National Animal Husbandry Udhitita Vikash Mission Project in whole India.
- To establish new business dairy farms, poultry farm, sheep goat farm, pig farm etc. for provide advice and facilities for them.
- Provide the speed of veterinary movement through social awareness and public consciousness
- Establishment of Semen Bank while developing the male breeds of advanced race for artificial insemination and advanced race program.
- To make active contributions through veterinary medicine in National Dairy Development Program
- Promote their productivity through nutrition and healthcare products in animals
- Creating awareness among the people about cruelty and atrocities against animals

Although Nigam is working in whole animal husbandry sector for overall development of Indian economy but the main activities of the nigam are as follows:

- Skill training program for rural unemployed youth and cattleheads.
- Establishment of Pashu Sewa Kendra at panchyat/block level for providing services to animal keepers/cattleheads
- Quality milk production
- Awareness and training program for cattleheads, dairy farmers for improvement of animal health, breed, better nutrition and fodder management etc.
- Marketing of animals feeds and supplements



#### **Business Sector Wise Distribution**

**Veterinary Trainings:** Cattle-heads Skill training program is the mission of providing livelihood resources (self-employment / employment / entrepreneurship) to unemployed youth, women through skill training program. The youth / women trained under this program will provide \*micro veterinary services to the animals at the gram panchayat/block level and also take active participation in the implementation of the schemes run by the central and state government for animal husbandry.

Micro Veterinary Services -

In exercise of the powers conferred under the explanation of the proviso to clause (b) of section 30 of the Indian Veterinary Council Act, 1984, the state government hereby specify the following preliminary veterinary aid as the "Minor Veterinary Services" for the purpose of the said section; namely :-

- 1. To take temperature of animals
- 2. To provide preliminary veterinary aid and give analgesic & antipyretic in case of fever & pain
- 3. To perform the artificial insemination
- 4. To vaccinate animals
- 5. Dressing of wounds
- 6. Castration of male animal by castrator
- 7. Collection of samples
- 8. Spray of animals for control of ectoparasites

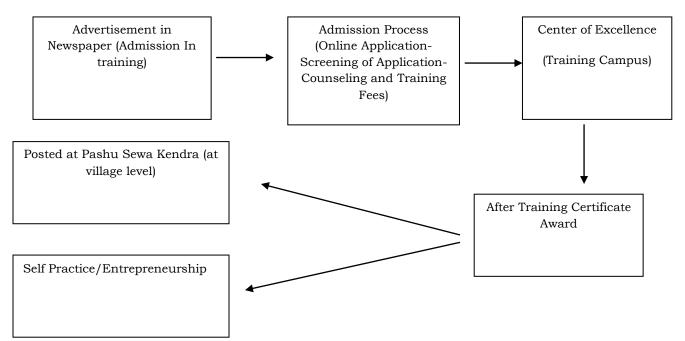
(Source - RAJBH/2000/1717 J. P. C. /3588/02/2003-05, Rajasthan Gazette, Date of Publication- August 28, 2003)

"In the year of 2009 Nigam Started "Ek Gram panchatyat Ek rojagar abhiyan". Since 2009 nigam has been trained more than 6000 candidates named as Animal Health Worker. For more qualitative trainings nigam was got affiliation from Agriculture skill council of India for animal health worker job role in month and year of May 2018. Agriculture Skill Council of India (ASCI)\* is a Section 8 Not for profit concern working under the aegis of Ministry of Skill Development & Entrepreneurship (MSDE) Govt. of India. In the year 2019 BPNL has signed a MOU with RSLDC (Govt. of Rajasthan).

Name of Veterinary Trainings and Their Duration:

S.No.	Name of Training	Duration
1.	Animal Health Worker	6 Month
2.	Veterinary Field Assistant	12 Month
3.	Paravet Cum Artificial Insemination	3 Month
4.	Poultry Farming	12 Days
5.	Goat Farming	10 Days

#### **Training Flow**



## Manufacturing and Trading of Animal Feeds and supplements comprises of following main products:

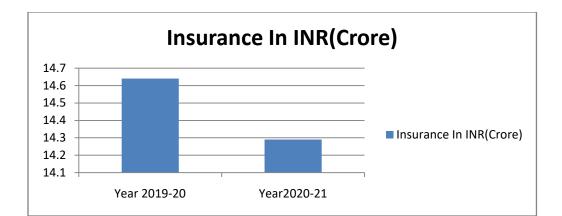


PRODUCT	BENEFITS	DOSAGE	PACK
CHELETED DUDHDHARA (Double Power)	ज्यादा हुए ,शारीरिक थ हडिश्यों का सही विकास, रोग रोधक समता वृद्धि,स्वस्य प्रस्त व स्वस्य बच्चा जेर का समय पर गिरना,मिल्क क्विर व सूखा रोग से बचाव,पशु का सही समय पर ताव में आना,अखाद्य पदार्थ खान पर रोक्रयाम व स्वस्य्य व मजबूत धनों का विकास	100 ml per day	
VET-52	हेपेटर्झीटेस,पीलिया, पूछ में कमी, छेटी लीवर एवं समस्त यकृत रोगों में हर्बन लीवर टॉनिक	30-50 ml per day	
VET ANZYME	अधिक पाचन व ज्यादा हुए प्रत्यादन,शर्तरिक विकास च यकृत सम्बन्धी रोग आदि में आयुर्वरिक औषधि ।	50-100 ml per day	
A.G.MIN FORTE	ज्यादा दुध उत्पादन,धर्म रेग,प्रजनन संबच्धि रोग व खनिज लक्ष्मों को कमी से होने वाले रोगों आदि में सम्पुर्ण खनिज लक्ष्य पुरुष मिनरल मिक्सर	50-100 gm per day	

Special Product: Special Gold Dudh Dhara Syrup is main USP of Bhartiya Pashupalan Animal feed series. It is most saleable and popular product of rural areas of INDIA. Special Gold Dudh Dhara Syrup is the first choice of farmers and Cattleheads for growth of Calcium and milk production in their cattle's.

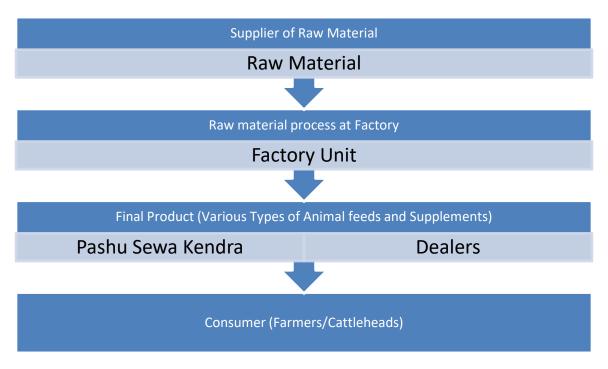
Under "Swasth Pashu, Surakshit Pashupalak Yojna" For purchase of one cane (5ltr.) of Special Gold Dudh Dhara Syrup nigam is issuing one lakh accidental insurance of farmer or cattlheads without any extra cost means free. The insurance (Nagrik Suraksha Policy) is issued by the oriental insurance Co. Ltd. (Govt of India).

#### Year Wise Breakup of Free Accidental Insurance of Cattlheads/Farmers



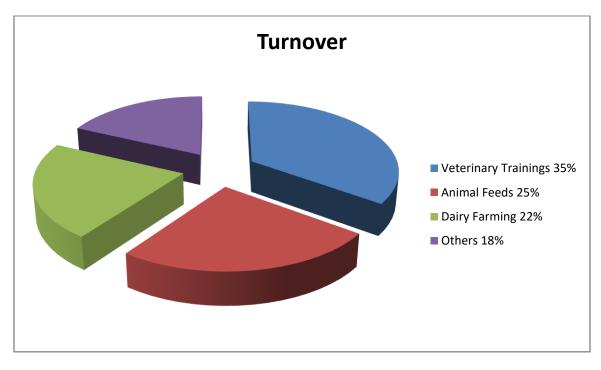


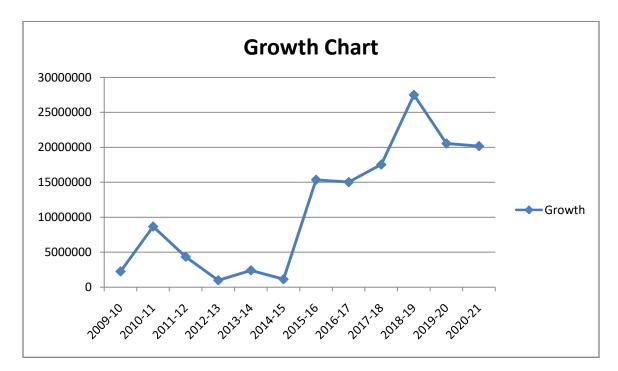
**Business Flow (Manufacturing and Trading of Animal Feeds)** 



#### Others includes following:

Sale of high quality breed semen, first aid treatment facility via ambulances, fodder management, organizing fair at village level for increase awareness among farmers/cattleheads regarding animal husbandry, Sale of milk and other dairy products via dudh dhara Kendra etc.





#### \*Growth is calculated on the base of Company Turnover

#### \*FY 2020-21 Data is Provisional

Graphics shown only for specific purposes. For accurate figures refers our audited financial Statement.

Mobile App SHIVA – Will be launch soon



SHIVA will be an android base mobile application. This will be available on play store with name of BPNL SHIVA. The full form of SHIVA is Search Here INDIAN Veterinary Assistance. It will be user friendly app. A farmer/cattleheads will be easily use this app and benefited with the veterinary assistance for their animals. INFADEL Development Program is one of the most crucial steps to boost Social and Economic Level of Farmer and Cattleheads.

#### **Current Opportunities**

The dairy sector is contributing significantly to the economy. It provides gainful employment and supplementary income to large number of people. Dairy sector contribute significantly on poverty reduction in rural areas as income from milk in the total income of under-privileged family is as high as 75 to 80% during drought and the employment generated is relatively high. It creates market opportunities for the indigenous products through product diversification and innovative marketing. There is a scope in export of the dairy products, export of animals, milk products. In Dairy industry we can utilize the non-conventional resources like solar energy, rain water, agricultural by products and locally available resources.

Poultry farming is most successful in Asia Pacific region and other parts of the world. Poultry farming is the raising of domesticated birds such as chickens, turkeys, ducks, and geese, for the purpose of farming meat or eggs for food. More than 50 billion chickens are raised annually as a source of food, for both their meat and their eggs. Chickens raised for eggs are usually called layers whilst chickens raised for meat are often called broilers. Poultry industry which provides cheap source of animal protein has taken a quantum leap in the last three decades evolving from a near backyard practice to a venture of industrial promotion. Poultry is one of the fastest growing segments of the agricultural sector in India today. While the production of agricultural crops have been rising at a rate of 1.5 to 2 percent per annum that of eggs has been rising at a rate of 8 percent per annum. Poultry egg and meat are important sources of high quality proteins, minerals and vitamins to balance the human diet.

Goat has been described as a poor man's cow (or mini-cow) because of its immense contribution to the poor man's economy. They not only supply nutritious and easily digestible milk to their children but also regular source of additional income for poor and landless or marginal farmers. Returns on capital of up to 50% and recovery of 70% of retail price are possible in goat farming. In rural areas, goat farming plays a vital role in providing gainful employment. Goats are among the main meat-producing animals in India, whose meat (chevon) is one of the choicest meats and has huge domestic demand. Due to its good economic prospects, goat rearing under intensive and semi-intensive system for commercial production has been gaining momentum for the past couple of years. Goats continue to play a significant role in the human nutrition. Their number is increasing more rapidly in comparison with the sheep, especially in the less developed parts of the world, indicating an increased role of this livestock in food production. In the developing countries of the world, during the period 2000-2012 goat milk production was increased significantly. The same thing can be said and for the goat meat and raw skin production.

Statistics show that the market of feed additives is expanding at a 7% rate. This is due to the rise in demand for safe and high quality meat. Consumers want their meat and milk to be free from antibiotics and bacteria. Farmers therefore are striving to keep their animals properly fed and healthy, which provides great opportunity for animal feed production industry.

Global Cattle Feed Market - Increasing and Profitable: More and more people see more opportunity to invest profitably in setting up an animal feed manufacturing company or starting livestock feed manufacturing business. The global cattle feed market is growing due to a high demand for beef and dairy products these days. Care for the cattle is important and people want to see the process improved if possible. The global cattle feed market is expected to undergo some changes. Europe has long been the center for the projects that take place. But new markets are starting to develop in response to the rising demand. Brazil is the fastest growing market, followed by Mexico and Canada in that regard.

Emerging economies all across the world are increasing demand in many ways. India and Japan are rising fast, further increasing demand in Asia these days. Foreign suppliers are working to meet demand rates and set a new standard for the feed industry. Feeding millions of cattle can be a challenge for any country. But there are resources to help the new markets that are emerging. The global cattle feed market can be expected to grow soon. That is in response to many changes all over the world. Farmers face many challenges when caring for cattle, including providing more feed to them. They have to order bulk supplies and distribute feed evenly among many cattle. The global cattle feed market is intended to supplant the older model. That will ensure that global demand is met and farmers have a chance to keep their cattle healthy. The developing world is pushing up demand in a lot of ways. Asia and Latin America are two regions where development has taken place

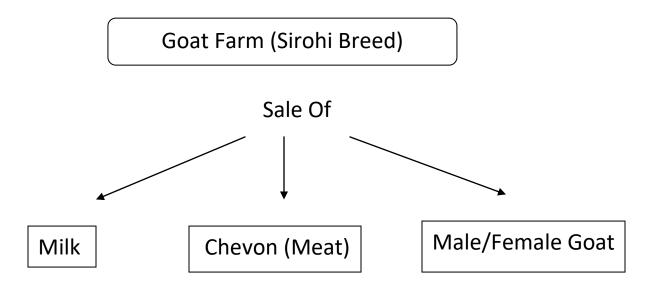
Organic farming relies on ecologically formed practices like cultural and biological pest management and brush aside the use of manmade chemicals in

crop and animal production and also ignores the use of antibiotics and hormones in livestock production. In this process the fundamental and natural components such as soil organism activities, nutrient cycling, and species distribution and competition, are used as farm management tools. The present status of organic farming in INDIA is an emerging uniqueness as it attempts to produce products ranging from edible to organic cotton and fiber etc. This farming focuses on enrichment of soil rather than nurturing the plant and is based on the concept "feed the soil not the plant" and aims for human welfare. It is the combination of tradition, innovation and science to the benefit the quality of life and environment. Indian organic mangoes have high demand in Netherland, UK and Germany, so export will bring good amount of income.

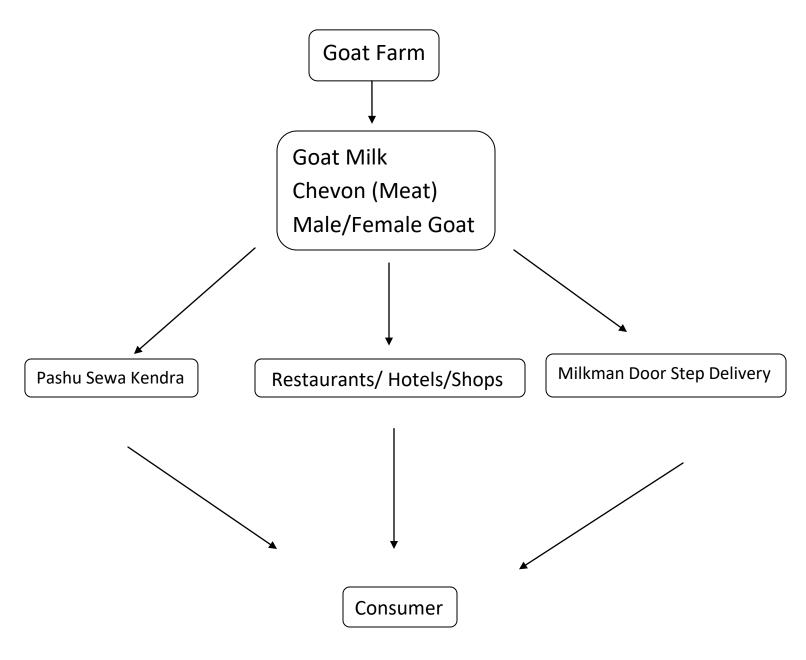
India has become self-sufficient in food grains and achieved a remarkable growth in the production of pulses, oil seeds and fibres to meet the requirements of the country. Although our farming community toiled hard, the small and marginal segment of farmers could not get real benefit of the growth in the economy due to either non availability of adequate storage infrastructure within the vicinity of production areas poor access to the godowns. This situation has forced them to dispose the produce at farm gate at a price determined by the middlemen/merchants/commission agents. Only a handful of influential farmers, who have the infrastructure to overcome the market fluctuations, could derive the benefits. Further, as the small and marginal farmers, who generally remain outside the purview of formal financing institutions depends heavily on the borrowed money from money lenders for the agricultural operations. Not only the borrowings are at an unreasonably high rate of interest but they are forced to sell their produce immediately after the harvest at very low rate. Thus, the farmers lose heavily on their investments. This vicious cycle is recurring year after year making the farmers poorer. The creation of small storage facilities, through construction of grain godowns, having a capacity ranging from 50 MT to 250 MT in villages may be a remedy for the farmers, who not only can store their own produce, but also provide storage space for rentals. To such farmers who store their produce for rents should have access to pledge loan against warehouse receipts from financial institutions.

#### **Goat Farming**

#### **Revenue Flow**

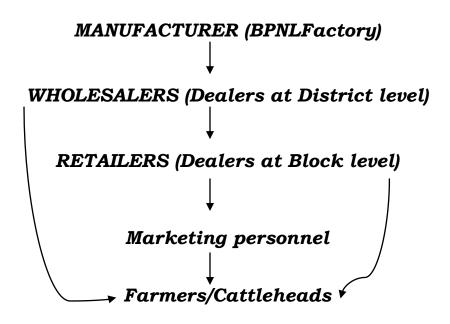


**Process Chain:** 

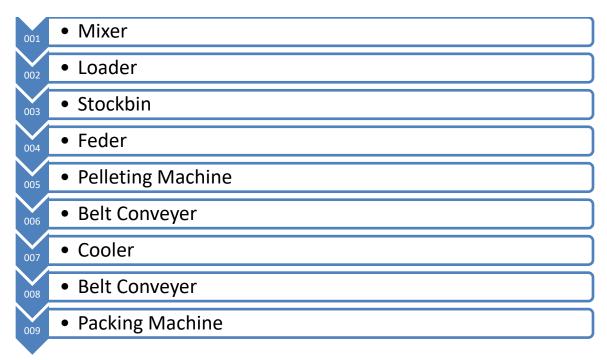


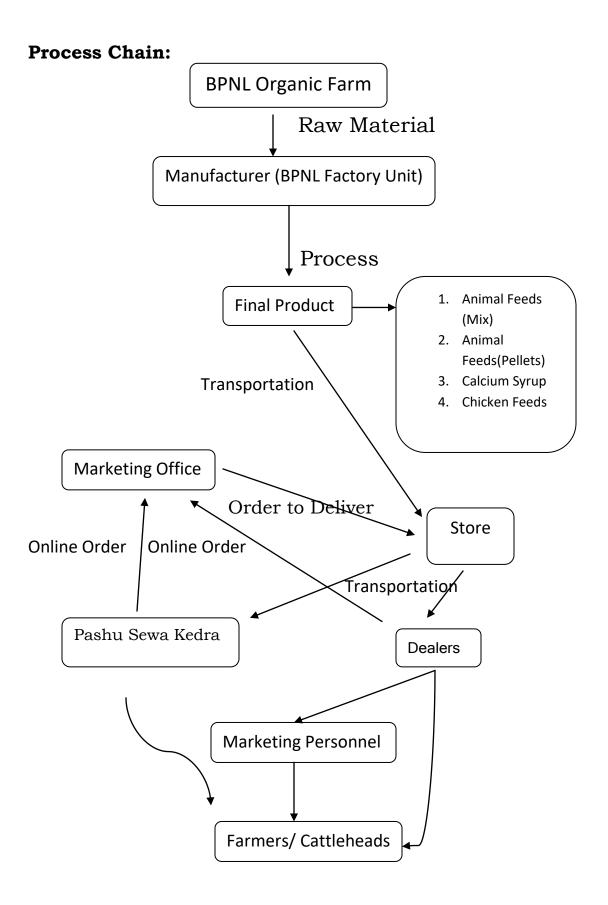
#### Animal feed Unit

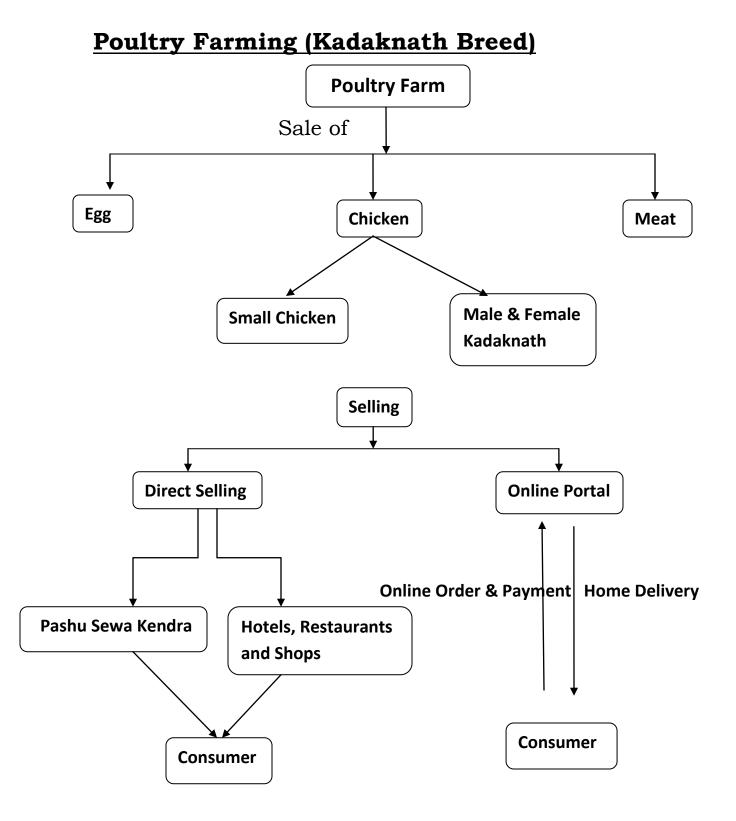
Animal feed marketing system said to comprise of following stakeholders:



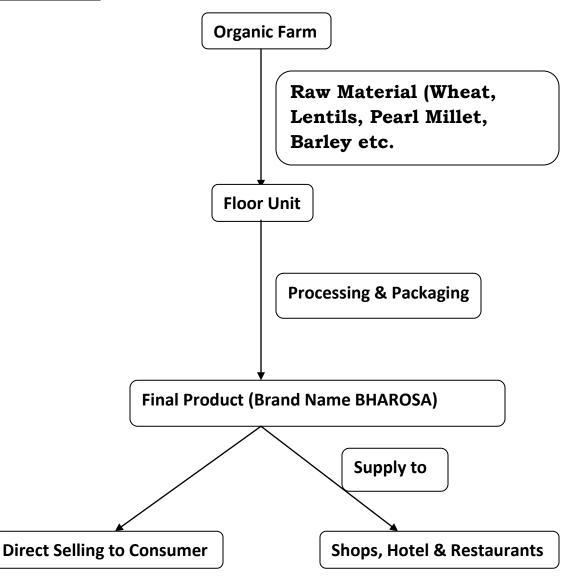
#### **Small Feed Pellet Line**



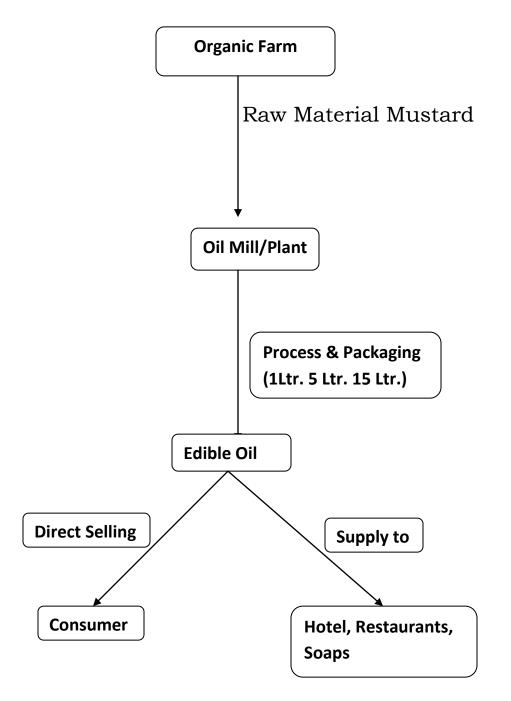




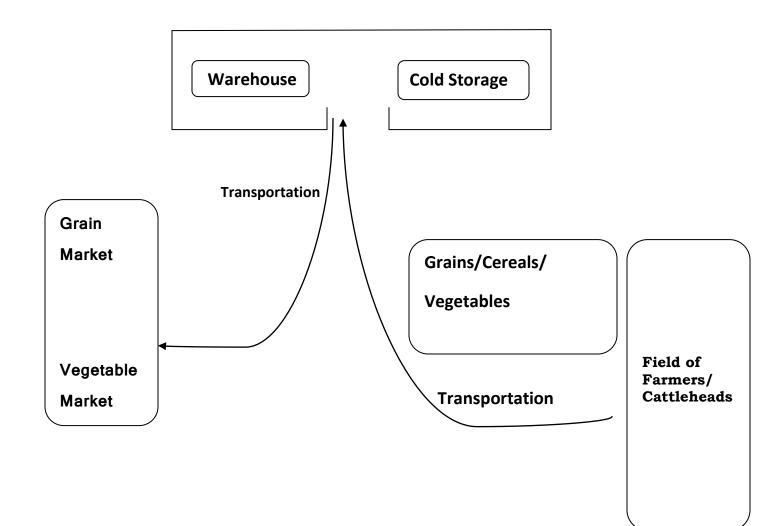




#### Oil Mill / Plant

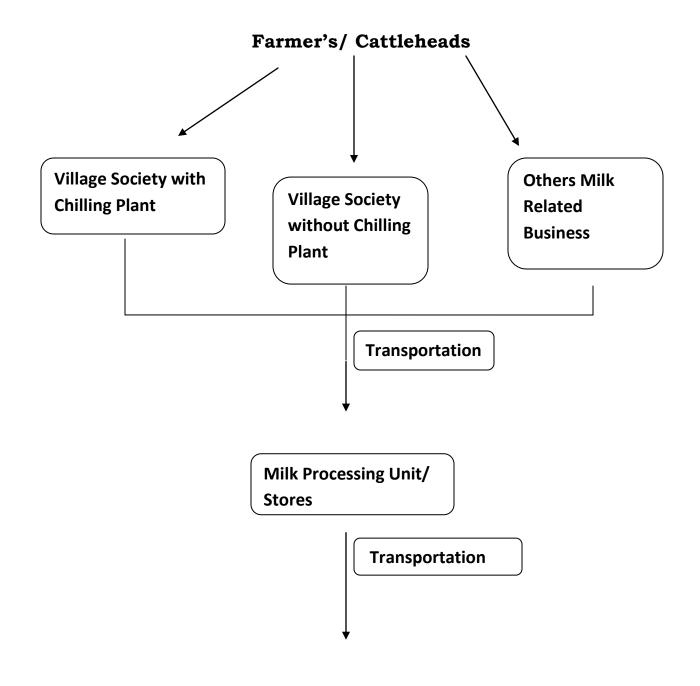


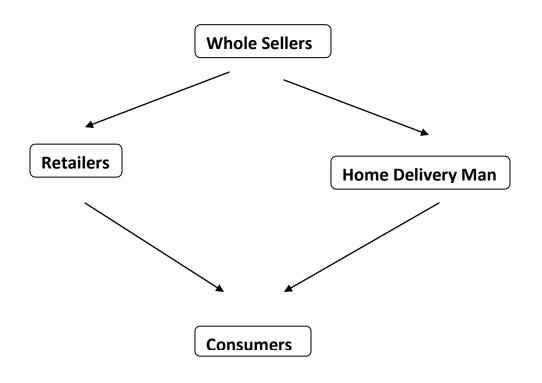
#### Warehouse/Cold Storage



### Milk cooling Pasteurization and packaging Plant

#### Milk Supply Chain





#### **Production Process**

- 1 Collection of Raw milk
- 2 Electronic Milk Test
- 3 Durability test
- 4 Pasteurizing Standardizing = Ready Milk
- **5** Separation Process
- 6 Quality Check
- 7 Packaging Process
- 8 Stores

#### Nutrients in Milk

- Vitamins
- Macronutrients

#### Sources of Milk

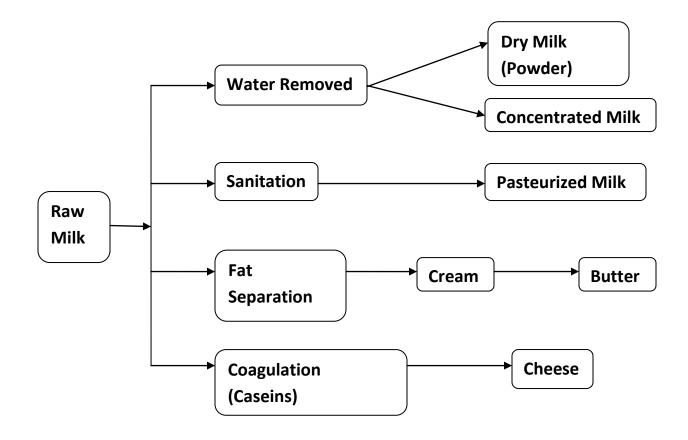
- 1 Cow
- 2 Buffalo
- 3 Goat
- 4 Sheep
- 5 Camels

#### **Transition of Milk Packaging**

- 1. Glass Bottles
- 2. Tetra Packs
- 3. Pouch
- 4. Traditional Steel Containers

#### **Other by Products**

- Cream
- Butter
- Ghee
- Curd
- Yogurt
- Shrikhand
- Cheese
- Lassi



#### Achievements & Roadmap

#### 2020-2021

- 01 : Programme Visualization & Project Design
- 02 : Systematic Analysis And Strategic Solution Based on Research & Study
- 03 : Financial Evaluation And Cash Flow Statement of Programme
- 04 : White Paper and Website Release
- 05 : Design and Finalization of INFADEL Token
- 06 : Block Chain Development
- 07 : Purchase of 187 Acre Land For Programme Development and Formulation

#### 2022-23

- 01: Tender Release, Partnership And Business Development
  - 02: Patent, Copyright And Trademark INFADEL
  - 03 : INFADEL Project Launch
  - 04 : Animal Feed Plant Expansion & Development
  - 05 : Shiva Mobile App launched
  - 06 : Poultry Farm Expansion
  - 07: Goat Farm Expansion And Development
  - 08: Dairy Farm Expansion
  - 09: Veterinary University Documentation based work Initiated
  - 10: Token Sale and IR

#### 2023-2024

Q. 1: Establishment of Milk Chilling, Pasteurization and bottle Packaging Plant

Q 2: Fodder Unit

Q 3: 01 Solar Energy Production: Tender Release and Partnership
| 02 Veterinary University - Documentation & Sanction Work
Completed

Q 4: 01 Integrated Farming – Release and Agreement02 Veterinary University – Architecture Finalization & Work TenderRelease

#### 2024-2025

<u>First Half</u> - 01 – 20 Sale/Service Center – Established

02 - 20 Warehouse/Cold Storage – Established

03 – Veterinary University – Building & Development

<u>Second Half</u> – 01 – Organic Farming – Soil Test and Development

02 – 20 Sale/Vet. Service Center – Established

- 03 20 Warehouse/ Cold storage Established
- 04 Solar Energy Production Development Work | Initiated

#### 2025-2026

- Q 1 10 Ware House/ Cold storage Established
- 10 Sale / Vet. Service Center Established
- | Organic Farming Soil Testing Completed and Development
- Q 2 Milk Plant Product line Expansion & Product Development |
- Fodder Unit Expansion & Development

Q 3 - 20 Warehouse/Cold Storage - Established

| 20 Sale/Vet. Service Center - Established

Solar Energy Production & Partnership

Q 4 - Floor Mill Plant – Establishment & Development

#### 2026-2027

First Half- Edible Oil Mill Plant – Establishment & Development|10 Sale/ Vet. Service Center - Established|10 Warehouse/Cold Storage - Established

<u>Second Half</u> – 20 Warehouse/ Cold Storage - Established | 20 Sale/ Vet. Service Center - Established | Poultry Farming – Development - Layer & Broiler System

#### 2027 - 2028

01 – Veterinary University – Admission and Academic Session | | | Started

#### **Our Associates**

#### **Academic and Training Partner**













#### **Technical Partner**





#### **Investment Partner**



#### Media Partner



#### **Terminology**

- BPNL Bhartiya Pashupalan Nigam Limited
- USP Unique Selling Proposition
- RSLDC Rajasthan State Livelihood Development Corporation
- ASCI Agriculture Skill Council of India
- Govt. Government
- Vet. Veterinary