



सत्यमेव जयते

GOVERNMENT OF GUJARAT

# Establishment of High-Tech Dairy Farming Unit

## Agro and Food Processing Government of Gujarat



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## The concept

The project aims at establishing a high technology driven dairy unit in the Kutch region given the high potential of raw material availability and demand in the region.

## High tech dairy farming

- ▶ Dairy farming is a class of agriculture for long-term production of milk, which is processed (either on the farm or at a dairy plant) for eventual sale of a dairy product.
- ▶ High tech dairy farming utilizes the modern dairy farming techniques and technologies to increase milk production at farms.
- ▶ In order to cater to the rising demand for dairy products, dairy farmers are innovating by establishing fully automated plants, tagging cows and buffaloes, playing music for better yield and developing mobile apps for managing cattle and milk production.



## Technologies

### Bulk Milk Coolers

- ▶ Bulk milk coolers are used extensively for cooling milk at the collection point, thus maintaining the quality of milk.
- ▶ These are hygienic, easy to use and available in various sizes and configurations like direct expansion, indirect cooling using chiller water.

### RFID

- ▶ RFID tags are used to identify and tag each farm animal and record data. Each cow/buffalo's entire life-cycle is recorded in private data centres and monitored daily.

### Automatic milk collection

- ▶ Automatic milking refers to the extraction of milk from dairy animals without human labour. Milk extraction is only one of many areas in dairy farming that can be automated.
- ▶ Farmers can use semi-automatic or automatic gates to control cow traffic, there are automatic cluster release systems that can be used to remove milking equipment from animals and automatic teat spraying systems are used to clean and disinfect udder.

## Technologies in dairy farming

### Thermal based power backup

- ▶ Many dairy farms have started utilising thermal-battery based technology which cuts down the need for using generator backups at storage facilities.
- ▶ This technology helps keep the milk from spoiling, keeps it chilled at below 4 degrees for more than two hours, even if there is no power.

### IoT

- ▶ Dairy farmers are using RFID tags not only to track the cattle but also transmit the data to improve the productivity of its business, efficiency of the farmers, and milk yield of the cattle.
- ▶ The data is transmitted over the cloud and can be accessed on desktops, while the factory data from the multiple sensors help in plant automation and analytics.
- ▶ The farmers are given updates on their hand-held devices through cellphone apps regarding feeding times, pregnancy cycles, and medicines for their cows



RFID



Automated milking

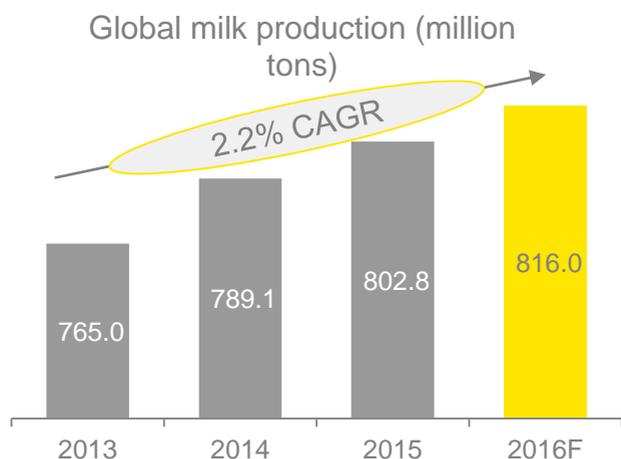


Thermal power systems for cooling chambers



Bulk Milk Coolers

## Global dairy market



Source: Food Outlook - Biannual Report On Global Food Markets," June 2016, FAO

Major dairy products exporting countries (average: 2012-14)

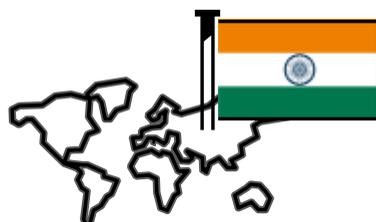
Country	Weight(Thousand tons)
New Zealand	1,326
European Union	383
Argentina	176
Uruguay	65
<b>World</b>	<b>2,488</b>

Source: Food Outlook - Biannual Report On Global Food Markets," June 2016, FAO

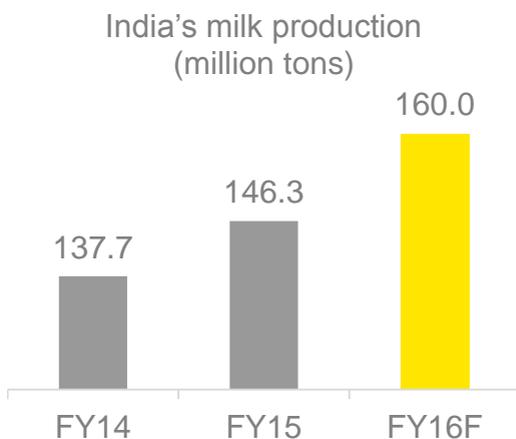
- ▶ The international dairy prices have fallen steeply, after reaching a peak in 2014 due to supply being greater than demand.
- ▶ However, trade is expected to improve in 2016 due to continued expansion of purchases in Asia, including Viet Nam, Bangladesh, Sri Lanka and the Republic of Korea.
- ▶ Demand for milk and milk products in developing countries is growing with rising incomes, population growth, urbanization and changes in diets.

## Indian dairy market - Ranks 1<sup>st</sup> in milk production

**60%** of consumption in India is of fluid milk



**18.5%** of world milk production

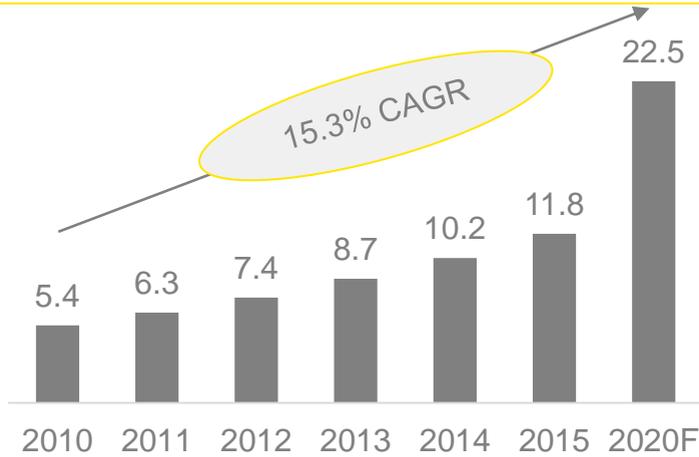


Source: Business Standard

- ▶ The rising demand for fresh and packaged dairy products and ethnic dairy specialties is broadening the base of India's modern dairy sector, which accounts for almost 17 % of India's expenditure on food.
- ▶ Majority of the dairying activity is done by small, marginal farmers and landless labourers. However, the market is shifting towards an organized model due to formalisation of perishable milk products and the growth of value-added dairy products.

## India dairy market

Indian dairy market ( US\$ billion)



Source: Euromonitor

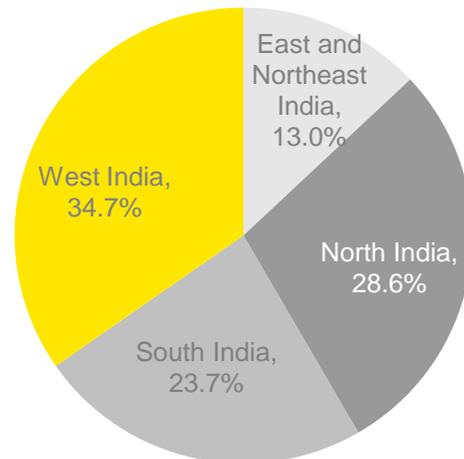
- ▶ The Indian dairy market was valued at USD5.4 billion, in the year 2010, which raised to USD11.8 billion in the year 2015.
- ▶ By the year 2020 the dairy industry market in India is expected to be valued at USD22.5 billion based on the projections and past trends.
- ▶ As per regional market share the West India accounts for the highest, with 34.7% of the total dairy market, which is almost USD4.1 billion. Gujarat contributes highest in the market share.
- ▶ East and Northeast India region has the lowest market share at 13%. Southern region and Northern regions accounts for 23.7% and 28.6% respectively, for market share

Source: Business Standard



Source: National Dairy Development Board

## Region-wise market share for 2015 (%)



1

## Milk procurement prices better in India

- ▶ The Indian dairy farmer got higher prices for their milk produce in 2015-16 in comparison to farmers globally – farmers in New Zealand and Australia getting 20-60% lesser on an average.
- ▶ The primary reason for stable prices in India is the strong foothold of cooperative societies. In Gujarat farmers have been getting 10% more for their milk.
- ▶ Another reason for this is the steady rise in demand for value added dairy products as well as liquid milk in India.

2

## Emergence of large commercial farms

- ▶ Affluent farmers are seeking to establish dairying units on a commercial level, with a big herd size of 30-50 animals and modern machinery.
- ▶ These large commercial farms are required to cope with a growing population, higher incomes, increasing health consciousness, and the consequent explosion in demand for pouch milk and value-added products across the country.
- ▶ Thus, farmers are shifting towards adopting modern dairy farming techniques in order to increase their production.

3

## Amul revolutionized the use of Information Communication Technologies (ICT) in dairy industry

- ▶ GCMMF undertook IT initiatives such as – ERP i to integrate the market related activities, and AMCUS (Automatic Milk Collection Unit Systems) to empower the farmers.
- ▶ In November 2015, Amul announced that it plans to invest INR190 crore to set up a fully automated dairy unit for production of milk and other dairy products.
- ▶ Following the path of Amul, many other players such as Flourish Purefoods, Sarda Farms are using technologies – automatic milking machines, coolers at their farms.

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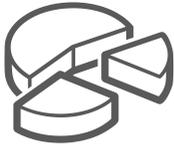
## FDI in dairy sector

- ▶ The Government of India (GoI) has targeted INR100,000 crore investment in the dairy industry from private players, which will include foreign direct investment (FDI).
- ▶ FDI is allowed in most aspects of dairy sector, including machines and equipment.
- ▶ With this increase in investment the share of the organized sector in India will increase leading to increase in adoption of technology in dairy farms.

# Gujarat - Competitive Advantage



## Gujarat – third largest milk producer in India

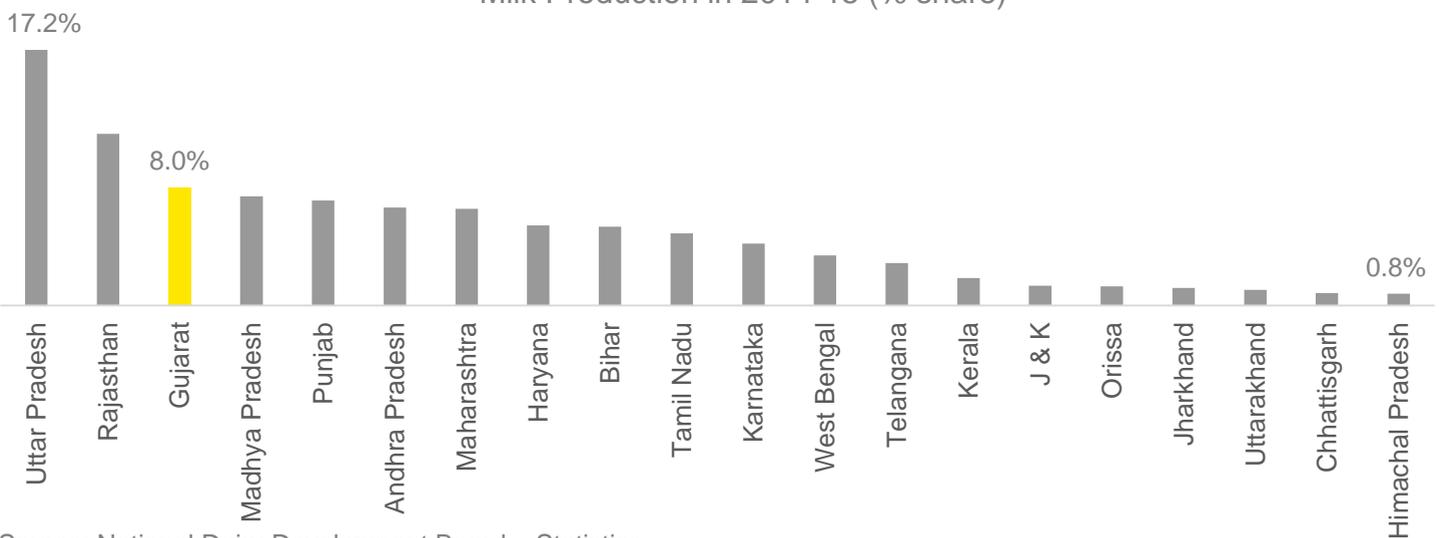


The Animal Husbandry and Dairy sector contributed about **5.1 %** share to the Gross State Domestic Product in 2014-15



NABARD has outlined a credit potential of **INR1358.9** in 2014-15 for dairy development in Gujarat.

Milk Production in 2014-15 (% share)



Source: National Dairy Development Board – Statistics

Gujarat is equipped with –

**18** District Milk Producers' Union

**17,828** Milk Cooperative Societies

**150 lakh litre/day** Milk Production

**34.27 lakh** Members of Milk Cooperative

- ▶ Gujarat has a well established cooperative dairy sector. Gujarat Cooperative Milk Marketing Federation (GCMMF) has been leading in milk production and distribution under the brand name Amul.
- ▶ Only 1/7 and 1/2 of village dairy cooperative societies have Bulk Milk Coolers and Automated Milk Collection Stations respectively (2010-11).
- ▶ Apart from concessional finance from Dairy Entrepreneurship Development Scheme, Agriculture Marketing Infrastructure scheme also provides subsidy for liquid milk handling / marketing schemes.
- ▶ Gujarat also has high yielding indigenous breed of cattle and buffaloes such as Gir & Kankrej, breed of cattle and Jafarabadi, Mehsani, Surti, and Banni breed of buffaloes.

# Gujarat - Competitive Advantage



## Raw material supply



Source: NABARD

Source: Livestock Census 2012

- ▶ Against the requirement of 11.91 million tonnes of green fodder, the supply is 14.48 million tonnes (in terms of dry matter). Conservation of the surplus green fodder during favourable season by hay or soilage making helps in reducing the gap in dry fodder supply.

## Technical training centres

- ▶ Gujarat Livestock Development Board (GLDB) has two training centers - State Frozen Semen Production and Training Institute, Patan and Technical Training Center, Rajkot for manpower development under National Project for Cattle and Buffalo Breeding: Both these training centers train professionals on treatment of infertility, frozen semen technology, breeding soundness of bulls.
- ▶ The state has more training centers –
  - ▶ Sheth M C college of Dairy Science
  - ▶ College of Veterinary Science and Animal Husbandry, A.A.U., Anand
  - ▶ College of Veterinary Science and Animal Husbandry Sardar Krishinagar, Dantiwada
  - ▶ Vanbandhu College of Veterinary Science and Animal Husbandry, NAU , Navsari.

## Other advantages



### Ease of doing business

- ▶ Only state which comply 100% with the environmental procedures. Gujarat fares highly when it comes to setting up a business, allotment of land and obtaining a construction permit.



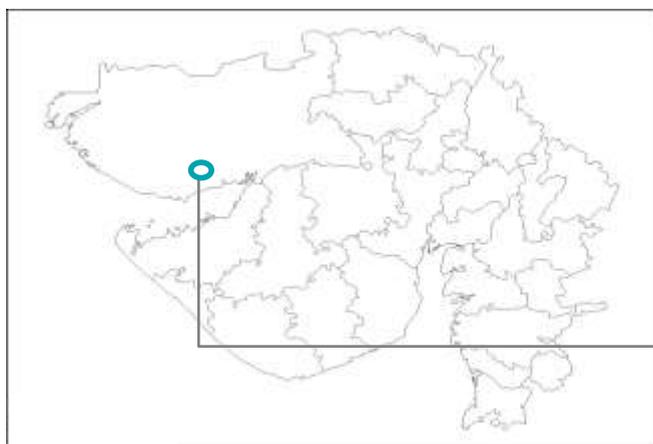
### Flourishing economy

Gujarat contributes 7.2% of the Nation's GDP and shows leadership in many areas of manufacturing and infrastructure sectors. Gujarat's SDP (State Domestic Product) at current price registered a growth of 11% during the year 2014-15.

# Project Information



## Location suggested: Madhapur, Kutch



→ Kutch

- ▶ Kutch district forms part of the Saurashtra region in Gujarat having an area of 45652 sq. kms.
- ▶ It is situated in the South western corner of Gujarat between 22.44° and 24.41° North latitude and 78.89° and 71.45° East longitude.
- ▶ Animal husbandry is predominantly a major livelihood for people in dry and arid Kutch.

## Kutch – third highest milk production in Saurashtra-Kutch region

Average Lactation Yield of cattle in Gujarat (2014-15)	
District	Lactation Yield (litres)
Rajkot	1839.1
Kutch	1420.7
Junagadh	2268.0
Banaskantha	1223.6
Surat	1837.2

District-wise milk production in Gujarat (2014-15)	
District	Lactation Yield (litres)
Junagadh	562.7
Rajkot	546.4
Kutch	459.8
Bhavnagar	457.8
Surendranagar	425.8

### Balanced fodder

Indian Immunologicals Limited (IIL) plans to establish a network of retail outlets in Kutch which will provide balanced cattle feed and essential feed supplements at the farmers doorsteps.

### Saurashtra-Kutch Dairy Project

- ▶ In 2010 National Dairy Development Board (NDDB) had announced its plans to set up a dairy plant in Madhavpura village of Kutch, in order to save costs incurred on transporting chilled milk from cooling units to the Junagadh dairy for further processing and packaging.

### Sarhad dairy

Sarhad Dairy is expanding its reach in Kutch for milk procurement since 2009. The dairy is expanding rapidly and offers various initiatives to children of milk cooperative members including interest free loans to study.

## Infrastructure availability

### Logistics & Connectivity



#### Rail

- ▶ Mumbai is connected to Bhuj by 5 broad gauge stations and two trains.
- ▶ Bhuj-Gandhidham-Kandla-Ahmedabad broad gauge line provides direct connectivity from Kutch to other parts of the country.
- ▶ In July 2015, newly constructed broad-gauge railway-line between Gandhidham in Kutch and Tuna-Tekra Port was inaugurated.



#### Road

- ▶ National Highway 8A connects Kutch with Ahmedabad (91 km), Vadodara (465 km), Rajkot (218 km) and Surat (632 km).
- ▶ Kutch also has good road connectivity with major industrial districts within Gujarat .



#### Air

- ▶ Bhuj is the only operational airport in Kutch.
- ▶ Kandla and Mandvi Mundra air strips are under development.



#### Port

- ▶ Mundra and Kandla ports are linked by broad gauge rail to the Delhi-Mumbai Industrial Corridor.
- ▶ Bhuj is connected to Kandla port (45 km) by a State Highway via Anjar.

### Utilities



#### Water

- ▶ Gujarat has a state-wide “water supply grid” spread across 1,20,769 km that aims to serve 75% of Gujarat’s population.
- ▶ Gujarat Industrial Development Corporation (GIDC) is responsible for ensuring consistent water supply in industrial areas

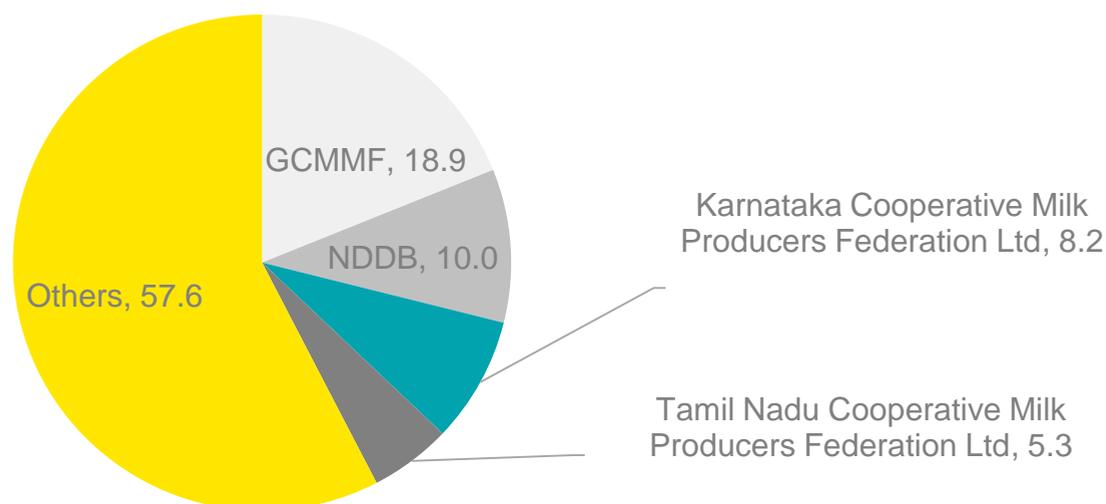


#### Power

- ▶ Gujarat has 24-hour 3-phase uninterrupted power supply throughout the state, with installed power capacity of 29,293 MW(10.38% of India’s overall power capacity)
- ▶ The state has surplus power to the tune of 2000 MW

## Key players in the dairy sector in India

Key players in the dairy sector in India - market share (2015, %)



## Key dairy farmers in India

Company	Presence in Gujarat	Headquarter Location
Vimal Group	Yes	Mehsana
Flourish Purefoods	Yes	Ahmedabad
Sarda Farms	No	Nasik
Bhagyalaxmi Dairy Farm	No	Pune

## Key infrastructure and machinery requirement

Machinery	Infrastructure
Chaff cutter, Silo pit, Milking machine, Feed grinder and mixer, Milking pails/milk cans, Biogas plant, Bulk coolers, Equipment for manufacture of products, Truck/van	Civil structures (Sheds, store room, milk room, office quarters, staff room etc.) Type of housing (Area requirement – Adults, Heifers (1-3 years), Calves (less than 1 year))

# Project Information



## Key machinery suppliers

Name	Description
Stellapps Technologies	Stellapps is India's first dairy technology solutions company, building automation tools integrated with cloud, mobility, and data analytics for dairy farms, cooperatives, and private dairies.
Rockwell Automation	An industry automation solutions provider is providing equipment like evaporators, spray dryers, pasteurizers, boilers, chillers, refrigerators and packaging machines to dairies.
Dairy Tech India	Indian Dairy Equipment Company
Kadam Dairy Equipment Pvt Ltd	N K Dairy Equipments
SSP Pvt Ltd	New Era Daairy Engineer (India) Pvt Ltd

## High Tech Robotics Machinery



**Automatic Calf Feeder**



**Cow Brush**

**Robotic Milking System**



**Automatic Feed Pusher**



## Potential collaboration opportunities

The dairy unit being set up in Kutch can collaborate with the following companies, to supply them milk for further processing::

Collaboration	Location
National Dairy Development Board (NDDB)	Anand, Gujarat
GCMMF (Sarhad Dairy)	Anand, Gujarat
Jain Dairy	Ahmedabad, Gujarat
Vimal Group	Mehsana, Gujarat
Maahi Milk Producer Company	Rajkot, Gujarat (milk procurement operations present in Saurashtra-Kutch region)
Progressive Dairy Farmers Association	Punjab

## Key considerations

1

### Falling milk procurement prices

- ▶ Milk procurement prices have fallen over the last year due as processors have cut down on procurement to reduce the high inventory of milk powder.
- ▶ Dry milk powder inventory has gone up to 1-1.50 lakh tonnes from the usual level of 78,000 tonnes due to weak demand in export markets.
- ▶ Milk procurement prices in the international market have fallen to \$1,700 a ton from \$4,000 since 2015 due to lower demand in China and New Zealand.
- ▶ On the supply side increases in production from key exporters have also placed downward pressure on world prices as low input prices have fuelled additional production in the United States and recent good margins, as well as the removal of milk quotas, has allowed for production growth in the European Union.

2

### Rising fodder costs

- ▶ Due to bad crop seasons in India over the last two years the fodder costs have risen by 20-30%. This has resulted in lower profit margins for dairy farmers.

3

### Managing the supply chain in India

- ▶ Since majority of the dairy products are perishable in nature, a well developed supply chain becomes a pre requisite for this industry.

## Project cost and purpose

- ▶ The purpose of the project is to set up a high tech commercial dairy units and also for extension of the existing dairy units
- ▶ The estimated project cost and revenues for setting up a high tech commercial dairy in Madhapur, Kutch are given below, based on a model scheme proposed by the Haryana government.

## Assumptions

- ▶ Total land requirement for the project is estimated to be 13 acres for setting up a small dairy unit in Madhapur, Kutch. This is based on a sample dairy farm known as the Bhagyalaxmi Dairy Farm which is set up over 26 acres. The land requirement is adjusted on the basis that the proposed dairy is a smaller one.
- ▶ The land cost is taken as per GIDC estimates of land w.e.f. 1<sup>st</sup> April 2016 for Madhapur, Kutch.
- ▶ Madhapur location has been suggested on the basis that NDDDB had set up a dairy plant here, signalling the prospects of a growing dairy culture in the area.
- ▶ No of cattle to be procured for the dairy is 20 milch animals in the initial phase.
- ▶ The costs from the sample project are inflation-adjusted over the period 2009-2016.

## Project cost break-up

Project fixed cost	Cost (INR)
Land cost (Area: 13 acres= 52,609 sq. mt.) Land rate: (INR300/ sq. mt in Madhapur in w.e.f. April 2016)	157,82,700
Cost of 20 indigenous cows / buffaloes @ INR50,000/- per animal excluding transport charges	10,00,000
Cost of animals shed & store cum office	2,56,697
Milking equipment with site	54,385
Cost of animal cooling unit	15,228
Total	13,26,310
<b>Total fixed cost</b>	<b>1,71,09,010</b>

# Project Financials



Project recurring expenses	Cost (INR)
Cost of green fodder (30kg/Day/animal @ 100/- per quintal on average basis)	1,66,744
Cost of dry fodder 10 Kg/day/animal @ Rs. 250/- per quintal	1,98,505
Cost of feed/concentrates 5 kg/day/animal @ Rs. 900/- per quintal	1,46,497
Labour charges @Rs. 3,000/- p.m. for 2 labourers	78,314
Miscellaneous expenses @ Rs. 1,500/- / animal p.a. (as veterinary expenses, electricity & water supply expenses)	32,631
Total	6,22,692
Cost of green fodder 1.5 kg/ day/ calf/ @ 100/- per quintal	83,372
Cost of dry fodder 1 kg/ day/ calf @ Rs. 250/- per quintal	19,851
Total	1,03,223
<b>Total recurring expenditure</b>	<b>7,25,915</b>

## Approvals

- ▶ Registration: Required for Dairy units including milk chilling units equipped to handle or process
  - ▶ Central licensing: Food Safety & Standards (Licensing & Registration of Food Businesses) Regulations 2011 (FSSAI); Schedule I, Regulation 2.1.2(3) – More than 50,000 liters of liquid milk/day or 2500 MT of milk solid per annum
  - ▶ State Licensing : for more than 500 liters milk upto 50,000 liters
- ▶ Foreign investment in dairying requires prior approval from the Secretariat of industrial approvals, Ministry of Industry, as dairying is not included in the list of high priority industries. Automatic approval is provided for up to 51% foreign investment in high priority industries.
- ▶ All dairy manufacturers and processors have to comply with Prevention of Food Adulteration Act, 1954.
- ▶ All dairy units including milk chilling units equipped to handle or process more than 50,000 litres of liquid milk/day or 2500 MT of milk solid per annum fall under the purview of Central Licensing Authority (Designated Officer appointed by the Chief Executive Officer of the Food Authority of India in his capacity of Food Safety Commissioner)
- ▶ All milk producers (who are not member of dairy co operative society)/ milk vendor have to submit 'Form A' for Application for Registration / Renewal of Registration under Food Safety and Standards Act, 2006.

## Conditions of License

Dairy operators obtaining a license shall comply to the following conditions:

- ▶ Ensure Clean-In-Place systems (wherever necessary) for regular cleaning of the machine & equipment
- ▶ Ensure that required temperature is maintained throughout the supply chain from the place of procurement or sourcing till it reaches the end consumer including chilling, transportation, storage etc.
- ▶ Furnish periodic annual return 1st April to 31st March, within 31st May of each year. For manufacture of Milk and Milk Products monthly returns also to be furnished.
- ▶ Employ at least one technical person to supervise the production process.

## Fee for Grant/ Renewal of Licence

- ▶ Fees for License issued by State Licensing Authority:

Manufacturer /Miller

- ▶ (i) Above 1MT per day Production or 10,001 to 50,000 LPD of milk or 501 to 2500 MT of milk solids per annum: INR5000/—
- ▶ (ii) Below 1 MT of Production or 101 to 10,000 LPD of milk or 51 MT to 500 MT of milk solids per annum: INR3000/—

## Incentives from Government of India

- ▶ Government of India is making efforts for strengthening the dairy sector through various Central sector Schemes such as
  - ▶ National Programme for Bovine Breeding and Dairy Development
  - ▶ National Dairy Plan (Phase-I)
  - ▶ Dairy Entrepreneurship Development Scheme

### National Programme for Bovine Breeding and Dairy Development (NPBBDD)

- ▶ NPBBDD was launched by merging four existing schemes i.e. Intensive Dairy Development Programme (IDDP), Strengthening Infrastructure for Quality & Clean Milk Production (SIQ&CMP), Assistant to Cooperatives and National Project for Cattle & Buffalo Breeding with the budget provision of INR1800 crores for implementation during 12th Plan.

### National Dairy Plan Phase-I (NDP-I)

- ▶ NDP-1 was approved to meet the growing demand for milk with a focus to improve milch animal productivity and increase milk production with a total investment of about INR2242 crore to be implemented from 2011-12 to 2016-17.
- ▶ NDP-I will help to meet the projected national demand of 150 million tonnes of milk by 2016-17 from domestic production through productivity enhancement, strengthening and expanding village level infrastructure for milk procurement and provide producers with greater access to markets.
- ▶ The strategy involves improving genetic potential of bovines, producing required number of quality bulls, and superior quality frozen semen and adopting adequate bio-security measures etc.

### Dairy Entrepreneurship Development Scheme (DEDS)

- ▶ DEDS is being implemented by NABARD for the following objectives:
  - ▶ To generate self employment and provide infrastructure for dairy sector
  - ▶ To set up modern dairy farms and infrastructure for production of clean milk
  - ▶ To encourage heifer calf rearing for conservation and development of good breeding stock
  - ▶ To bring structural changes in the unorganized sector
  - ▶ To upgrade traditional technology to handle milk on a commercial scale
  - ▶ To provide value addition to milk through processing and production of milk products
- ▶ There is a budget provision of INR140crore during the year 2016-17.

## Incentives from Government of India

- ▶ **Union Budget 2016-17:** The budget has provided for INR8.5 billion in next few years for spending on the 'Pashudhan Sanjivani', an animal wellness programme and provision of Animal Health Cards ('Nakul Swasthya Patra'). An Advanced breeding technology to be introduced and creation of 'E-Pashudhan Haat', an e market portal for connecting breeders and farmers. Also, a National Genomic Centre for indigenous breeds
- ▶ **Fiscal incentives:**
  - ▶ All dairy products have been exempted from the excise duty except condensed milk not containing sugar.
  - ▶ In 2014, GoI reduced custom duty on food processing machinery from 10% to 6%. Additionally, customs duty on refrigerated vans has been reduced from 20% to 10%.
  - ▶ Excise Duty on Reefer Vans (refrigerated motor vehicles) has been reduced from 16% to 8%.
  - ▶ In order to promote the dairy industry and attract more investment in this sector, the Government has also reduced the excise duty of 16% to zero on dairy processing machineries in 2008.

## Incentives from Government of Gujarat

- ▶ GoG has made a provision of INR75.56 crore for dairy development under the Animal Husbandry department during the financial year 2015-16. This would include infrastructure development, cold chain maintenance, computerization system for village milk society and cattle feed plant establishment.

### Annual Development Plan 2015-16

- ▶ INR25 crore is made to strengthen infrastructures of dairy in the State, for automatic milk collection and installation of the bulk milk cooler.
- ▶ INR33.43 crore towards the assistance upto 50% to the milk producing cooperative societies run by the women for construction of the building and also towards the assistance on purchase of automatic milk collection system and bulk milk cooler.
- ▶ Provision of INR10 crore for giving assistance to establish the cattle feed factory through the dairy unions of the state.
- ▶ Provision of INR16.50 crore for the construction of Bull mother farms for both Kankrej breeding cow as well as Banni buffalo at Bhuj.

### Gauseva-Gauchar Vikas Board

- ▶ The Gauseva-Gauchar Vikas Board (Animal Husbandry and pasture Development Board) has been tasked with an aim to integrate fodder production with animal husbandry activities at village level and optimize the fodder production from underutilized village pastures. With the introduction of Pashu Arogya Mela campaign, the vaccination coverage has gone up from 157 lakh in 2008-09 to 283.27 lakh in 2012-13. This and other disease control services have brought the incidences of disease outbreak down from 161 in 2002-03 to 36 in 2012-13.

### Other schemes

- ▶ During 2013-14, GoG proposed:
  - ▶ To establish 30 veterinary dispensaries and 10 mobile dispensaries and also upgrade 57 dispensaries.
  - ▶ Support for Genome sequencing of Gir cow and Jafrabadi buffalos for propagating the valuable native breeds of Gujarat.
  - ▶ Provide assistance to dairy cooperatives for acquiring automatic milk collection systems, bulk milk coolers.
- ▶ Government of Gujarat (GoG) has planned an expenditure of INR7,221 lakhs during 2014-15 for development of dairy industry in Gujarat

**Department of Animal Husbandry, Dairying and Fisheries**

<http://dahd.nic.in/>

**National Bank for Agriculture and Rural Development**

<https://www.nabard.org/english/home.aspx>

**Gujarat Livestock Development Board**

<https://gldb.gujarat.gov.in/index.htm>

**Food Safety and Standards Authority of India**

<http://www.fssai.gov.in/>

**Agriculture and Co-operation Department**

[www.agri.gujarat.gov.in/index.htm](http://www.agri.gujarat.gov.in/index.htm)

**Gujarat Industrial Development Corporation**

[www.gidc.gov.in/](http://www.gidc.gov.in/)

**Industries Commissionerate**

[www.ic.gujarat.gov.in](http://www.ic.gujarat.gov.in)

*This project profile is based on preliminary study to facilitate prospective entrepreneurs to assess a prima facie scope. It is, however, advisable to get a detailed feasibility study prepared before taking a final investment decision.*

For further details:

**iNDEXTb**  
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