



सत्यमेव जयते

GOVERNMENT OF GUJARAT

# Establishment of Silos in Gujarat

## Agro and Food Processing Government of Gujarat



# Contents



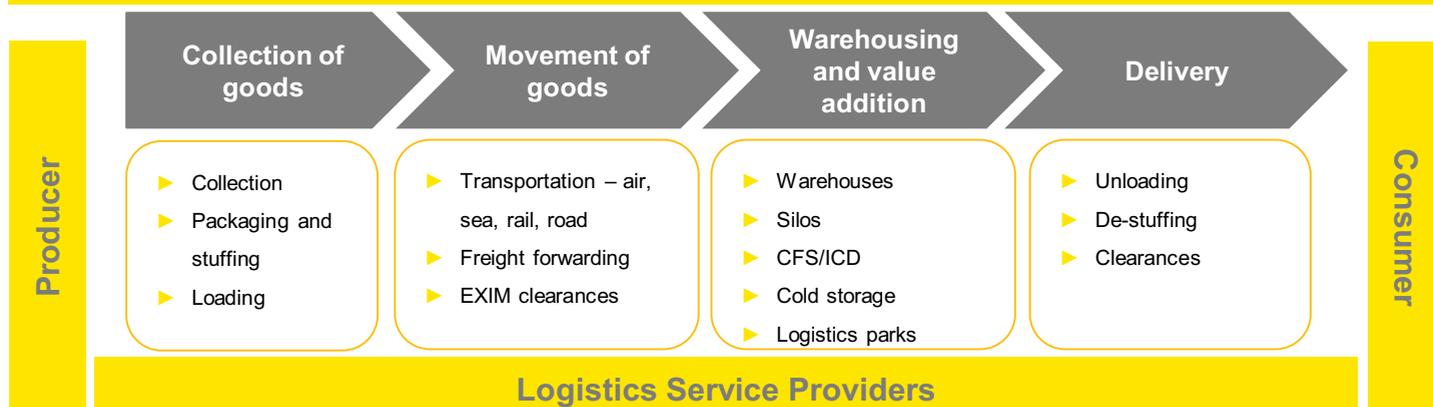
Project Concept	3
Market Potential	6
Gujarat – Competitive Advantage	7
Project Information	9
- Location/ Size	
- Infrastructure Availability/ Connectivity	
- Raw Material/ Manpower	
- Key Players/ Machinery Suppliers	
- Key Considerations	
Project Financials	12
Approvals & Incentives	13
Key Department Contacts	16



## Warehousing Industry

- ▶ The Logistics industry enables effective transportation or timely movement of goods from one place to another. This could be for the purpose of industrial transportation or even private purposes. The industry comprises of the following main segments:
  - ▶ Freight and passenger transportation via road, rail, air and water
  - ▶ Warehousing and cold-storage
- ▶ Warehousing forms a very important link in the overall logistics value chain forming approximately 20% of the total logistics market and has traditionally been used as godowns to store goods from the time of production till the time of consumption.
- ▶ In recent times, warehouses have transformed into collection and storage points for the collection, storage and distribution to the point of consumption/sale for raw materials, intermediate and manufactured goods.
- ▶ The warehousing industry is highly fragmented with small players holding small units distributed across States. 75% of the market is dominated by the unorganized and small scale sector. Agricultural warehousing accounted for approximately 15% of the warehousing market in India in 2014-15 and was estimated to be worth INR 8,500 crore.
- ▶ Of the overall warehousing market, 72-75% of organised warehousing sector is controlled by Government and PSUs such as the Food Corporation of India (FCI), Central Warehousing Corporation (CWC) and State Warehousing Corporations (SWCs).
- ▶ The FCI, CWC and SWC's also run approximately 40% of the agricultural warehouses, with 30% being held by unorganised small godown players in India.

## Logistics supply chain classification



# Project Concept

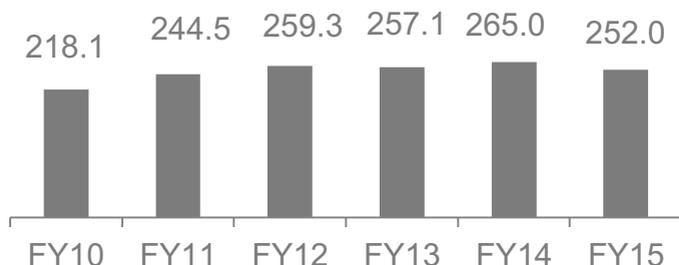
- ▶ A warehouse builder can choose to create a fully constructed godown, a Cover & Plinth (CAP) or a Silo.
- ▶ The conventional covered warehouses, covered godowns and CAPs have some short comings related to shelf life of grains, land requirement and operational cost.
- ▶ Silos are better option for bulk storage of grains due to their various benefits:
  - ▶ *Ground space:* Silos requires less ground space, which is important if space is not available or if its cost is high like at ports. Grain storage in silos is vertical, while the storage of grain in warehouses is horizontal leading to less space being used for the structure.
  - ▶ *Storage conditions:* With Silos, it is easy to maintain optimum storage conditions for the grain, by controlling the temperature, and keep out the insects, mould, birds, which in long term storage facilities could result in an important economic loss.
  - ▶ *Costs:* By using Silos, the costs can be controlled by automating grain transport equipment. The loading as well as the unloading can be completely automated using a SCADA system and at a lower cost. Another advantage is lower assembling costs, as this element is designed specifically for this purpose and weighs less than a storage facility.

## Governments plans to create Silos

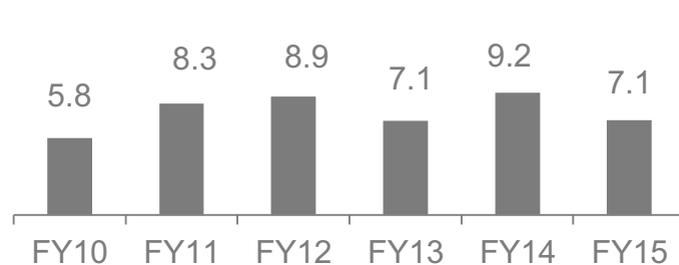
- ▶ The government is targeting to create Silos with a total capacity of around 10 million tonne through private sector participation in the next three years.
- ▶ The food ministry will be creating silos with capacities of 3.5 million tonne each year for the next three years starting April, 2016.
- ▶ The proposed silos will be constructed based on three models — viability gap funding (VGF), without the VGF cover and through the Central Warehousing Corporation/Central Railside Warehousing Corporation/ state government-owned agencies.
  - ▶ Under the VGF plan, silos would be constructed on the FCI land while the corporation would provide guarantee of rentals for 30 years for silo operation for the private sector to recover capital investment and maintenance charges. There is also a provision for 20% VGF from the government as per infrastructure projects norms. All the silos will have the facility of 'railway siding' for easier transportation of grain.
  - ▶ In case of the non-VGF norm, the private sector would create silos on its own land while FCI would provide guarantee of rentals for grain storage for 30 years while silos owned by state government-owned agencies like CWC would be used by FCI for grain storage.
- ▶ In the current fiscal, FCI has entrusted the private players such as Adani Agri Logistics (AAL), LT Overseas and OM Metals for creating one lakh capacity silos after getting VGF nod from the finance ministry.
- ▶ FCI has invited bids for building 27 more silos with a combined grain storage capacity of 13.5 lakh tonne., with each having 50,000 tonne capacity.
- ▶ These will be built in Punjab (7), Haryana (6), Uttar Pradesh (6), West Bengal (4), Bihar (2) and Gujarat (2) by private sector while FCI would provide guarantee of rentals for 30 years for silo operation for the private firms to recover capital investment and maintenance charges. These silos would be used for storing wheat.
- ▶ Silos for wheat have to be built in wheat procuring as well as wheat consuming areas. Major wheat procuring States are Punjab, M.P., Haryana, U.P. & Rajasthan and major wheat consuming states are M.P., U.P., Rajasthan, Delhi, Bihar, W.B., Maharashtra and Gujarat.
- ▶ Regions that constitute major production as well as consumption centres and are also well-connected by rail and road systems, make good warehousing destinations

## Food grain production in India and Gujarat

Total food grain production in India  
(Million Tonnes)



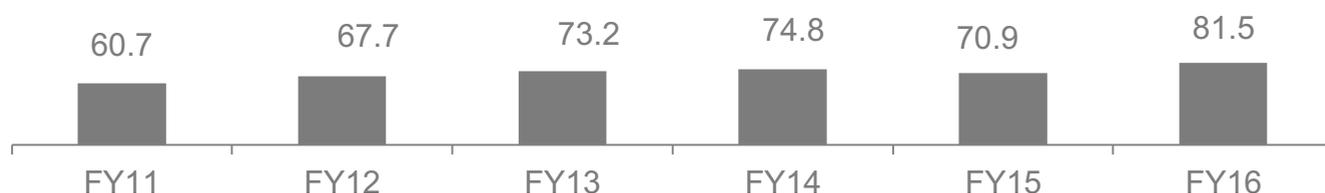
Total food grain production in Gujarat  
(Million Tonnes)



- ▶ Over the last few years India has seen an increase in the production of food grains.
- ▶ Production of food grains in Gujarat has also been on the rise after 2010 but has not been consistent due to lack of proper infrastructure leading to loss of food grains.

## Food storage capacity in India

Food grain storage capacity in India (Million Tonnes)



- ▶ New Godowns are being constructed by FCI mainly through Private Participation under Private Entrepreneurs Guarantee (PEG) Scheme.
- ▶ FCI is also increasing its storage capacity in the form of silos through Public Private Partnership.
- ▶ As on 31 March 2016, private investors had completed the construction of warehouses of 45,000 million tonnes against capacity sanctioned in Gujarat..
- ▶ The increase in the focus of the government to build warehouses under the PEG scheme presents an attractive opportunity for private investors to invest in this sector.

# Gujarat - Competitive Advantage



## Strong push by the Government of Gujarat (GoG) in the agri and food processing sector and related infrastructure and services

- ▶ The Government of Gujarat has sanctioned INR 1,100 lakhs in 2016-17 for providing financial assistance to Agro industries (in addition to INR 2,500 lakhs sanctioned for implementation of Chief Minister's Mission of Food Processing).
  - ▶ The Gujarat government has identified Agro & Food Processing industries as one of its important areas in the Industrial Policy 2016-2021.
  - ▶ It will aim to transform the supply chain infrastructure to enhance the agricultural sector and increase the effectiveness across the entire sector.

### Storage Capacity in Gujarat (Lakh MT) as on 01 Apr 2016

Capacity with FCI	357.89
Storage Capacity Other Agencies	456.95
Total	814.84

### Development of storage facilities

**Gujarat Agro Infrastructure Mega Food Park**

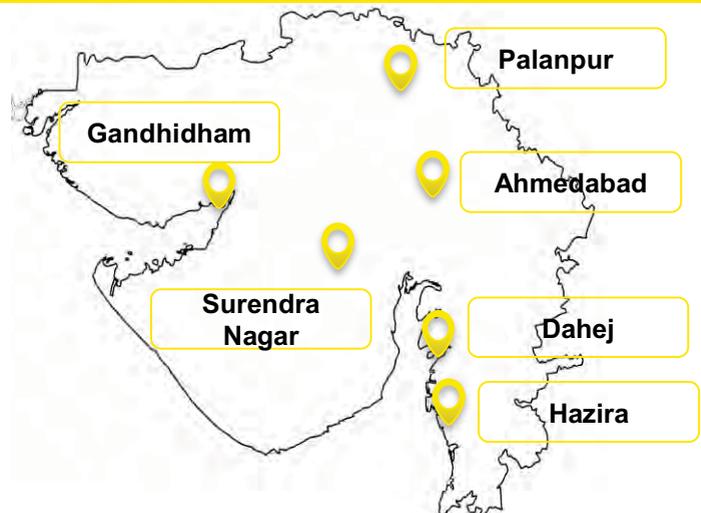
**Mascot Industrial Park**

With plug and play infrastructure.

Additional logistics parks proposed to be set up at Vapi, Ahmedabad Gandhidham

## Proposed locations of freight logistics parks along the Dedicated Freight Corridor (DFC) by Indian Railways

- ▶ Indian Railways has proposed development of Freight Logistic Parks at six locations along the Dedicated Freight Corridor (DFC) to enhance rail based traffic along the DFC.
- ▶ These are being created as part of the development of Western DFC between Delhi and Mumbai.



Source: Agro Business Policy (2016-21)

# Gujarat - Competitive Advantage



## Favourable consumer demographics

- ▶ Gujarat, with 42.6% of its population residing in the urban areas, is among the top three urbanized states in the country (as per Census 2011).



## Ease of Doing Business

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



## Availability of technical man power

- ▶ Skill development industry in the state is well-developed with many technical institutions (786 ITI's and 52 Skill upgradation centres).



## Boost from foreign investment

- ▶ The government is continuously improving infrastructure in Gujarat. As a result, the state has been witnessing significant development, encouraging manufacturers to invest in the state. Gujarat has attracted cumulative FDI worth US\$12 billion from April 2000 to March 2015.
- ▶ Gujarat contributes around 19.1% to India's total exports of goods in 2014-15.



## Flourishing Economy

- ▶ Gujarat contributes 7.2% of the Nation 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.



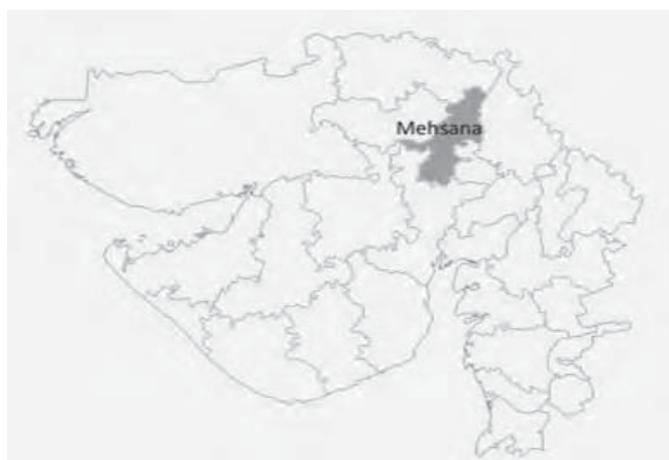
## Strategic location and excellent infrastructure

- ▶ Located on the west coast of India, Gujarat is well connected to the major cities of the world by air and sea routes.

## Project at a Glance

Project Name	Establishment of Silos in Gujarat
Location	Mehsana, North Gujarat
Area	1,300 sq.mt.

## Project site – Mehsana (Gujarat)



9 sub-districts

10 towns

606 villages

9 CD blocks

- ▶ The district is located in the northern part of Gujarat with a geographical spread of 4394 sq.km.
- ▶ It shares border with Banaskantha, Ahmedabad, Patan, Sabarkantha and Gandhinagar districts of Gujarat.
- ▶ Mehsana is divided into nine sub-districts. Among these, industrial development is mainly concentrated in Kadi and Mehsana Taluka, while other regions like Kheralu, Vadnagar and Satlasana still remain backward.
- ▶ The region has 213 agro based units with an investment of INR 6870 lakhs, and having employed 2,758 people in this industry.

## Infrastructure Availability

### Logistics & Connectivity



#### Rail

- The total length of railway lines in the State as on 31st March 2014 was 5,258.49 route kilometres (~9% of India)
- India's first bullet train to run between Mumbai and Ahmedabad by 2023



#### Road

- Out of the total road length of 79,755 kilometres., the length of surfaced roads was 77,725 kilometres. (97.45%) in 2015
- National Highways – 3,884 kilometre
- State Highways – 18,017 kilometre
- IRI (International Roughness Index) for Gujarat is less than 4 meters/kilometre,



#### Air

- 9 operational domestic airports
- 1 International airport – Ahmedabad
- 6 new airstrips are being developed in Ankleshwar, Dahej, Palitana, Ambaji, Morbi and Dwarka



#### Port

- 46 ports along 1,600 kilometre coastline, including 1 major port at Kandla and 45 minor ports
- Gujarat leads in project clearance in coastal areas with a success rate of 93%

### Utilities



#### Water

- An extensive water grid network of 75,000 kilometre for irrigation and drinking
- Currently, the Gujarat Water Supply and Sewerage Board (GWSSB) is providing water to 490 villages in 22 districts



#### Power

- 2nd largest state in terms of installed power capacity after Maharashtra
- Power generation capacity : 29,431.13 MW
- Per capita power consumption was 1,839 units in 2014-15 against the national average of 1010 units

## Manpower and Suppliers

- ▶ Since there isn't any particular project under establishment of silos, an excerpt from setting up of steel grain silos project in Madhya Pradesh has been taken as a reference to estimate the cost.

### Manpower requirement

Responsibility	Number
Business Head	1
Management Executives	2
Lab Technician	1
Assistant Lab Technician	2
Clerks	1
Silo Operators – General	2
Fumigation Expert	1
Weighbridge Operators	2
Electricians - ITI	1
Mechanical – ITI	2
Peons	2
Watch Guards	6
Driver of Emergency Vehicle	1
<b>Total manpower</b>	<b>24</b>

Source: Food Corporation of India

### Plant & Machinery Suppliers

SCAFCO Grain Systems Company
Buhler (India) Pvt. Limited
Osaw Agro Industries Private Limited

### Potential Collaborations

Sri Karthikeya Spinning & Weaving Mills
Adani Agri Logistics
Sudheeksha Warehouse & Construction Company
OM Metala
LT Overseas
Star Agri
National Bulk Handling Corporation
National Collateral Management Services

## Key considerations

- ▶ Logistics parks to be set up in three locations in Gujarat
- ▶ Freight Logistic Parks at six locations along the Dedicated Freight Corridor (DFC) to be set up by Railways in Gujarat
- ▶ Action plan prepared by FCI to set up Silos in six locations in Gujarat
- ▶ Weak infrastructure availability for storage
- ▶ Strong government focus and support
- ▶ Incentives being provided for skill enhancement, reimbursement of VAT, power tariff and electricity duty

## Estimated Project Cost

- ▶ Since there isn't any particular project under establishment of silos, an excerpt from setting up of steel grain silos project in Madhya Pradesh has been taken as a reference to estimate the cost.
- ▶ The project cost is for the development of 50,000 MT capacity of steel grain silo consisting of four bins of 12,500 MT capacity each, to be built on seven acres of land allotted by the State Government to the private developer.

### Cost of construction

Land & Site Development	INR 0.70 Lakhs
Buildings and Civil Works	INR 1,445.63 Lakhs
Plant and Machinery	INR 966.95 Lakhs
Electrical Automation and Other Utilities	INR 287.50 Lakhs
Preliminary & Pre-operative expenses	INR 218.77 Lakhs
Contingency	INR 135.04 Lakhs
<b>Total Block Cost</b>	<b>INR 3,054.58 Lakhs</b>
Margin Money	INR 8.93 Lakhs
<b>Total Capital Cost (TPC)</b>	<b>INR 3,063.52 Lakhs</b>

### Escalation Rates

Receipt and Dispatch Charges	@5.91% based on CAGR of WPI
Storage Charges	@5.91% based on CAGR of WPI
Power Cost	@3% as per industry practice
Manpower Cost	@6% as per industry practice
Administrative Expenses	@5% as per industry practice
Contract Labour	@5% as per industry practice
Fumigation Cost	@5% as per industry practice
Repair and Maintenance	@5% as per industry practice
Insurance on Grain	@5% as per industry practice

Source: Feasibility Report - Setting up of Steel Grain Silo in Sehore, Madhya Pradesh – May 2013

## Approvals Required

- ▶ Industrial approval
  - ▶ Secretariat for Industrial Assistance, Ministry of Commerce and Industry, Government of India, New Delhi.
- ▶ Land for project
  - ▶ Allotment of plot/shed in Industrial Estate from GIDC, or
  - ▶ Allotment of Government land from District Collector
- ▶ Environment clearance
  - ▶ 'No Objection Certificate' from the Gujarat Pollution Control Board
  - ▶ Environmental Clearance (EC) from Ministry of Environment and Forest (MOEF)
- ▶ Construction of Building
  - ▶ Plan Approval in Industrial Estate from GIDC, or
  - ▶ Plan Approval in other area from the Local Authority
- ▶ Arrangement of water
  - ▶ In Industrial Estate from GIDC, or
  - ▶ River/Public Service from the Department of Narmada & Water Resources, GoG
- ▶ Arrangement of power
  - ▶ Power requirement from Gujarat Urja Vikas Nigam Ltd.-Distribution Company or respective agencies

## Government incentives under the Agro Business Policy 2016-2021

### Scheme for Back Ended Interest Subsidy on Term Loan

- ▶ Back ended interest subsidy @7.5% on Term Loan with maximum amount of INR 400 lakhs for a period of 5 years for setting up Infrastructure Project in Agro & Food Processing Sector such as CA Cold Storages, Food Irradiation Processing Plants, Silos, Pack houses, Food Parks, Reefer Vans etc.
  - ▶ 1% additional interest subsidy to SC/ST, physically challenged or women entrepreneurs.
  - ▶ 1% additional interest subsidy to entrepreneurs below 35 years age.

### Skill Enhancement

- ▶ Assistance at the rate of 50% of fee paid, subject to a maximum INR 10,000 per employee on obtaining industry recognized skill certifications from recognized institutions (both Government and Private Institutions).
- ▶ Assistance under this incentive will be subject to an overall ceiling of INR 0.5 lac per year per unit maximum for a period of three years.

### Reimbursement of VAT

- ▶ Eligible Agro and Food Processing units and infrastructure projects will be provided reimbursement of net tax (net of input credits) paid by them under Section-13 of Gujarat Value Added Tax Act against their output tax liability.
- ▶ The reimbursement will be limited to a ceiling of 70% of the eligible fixed capital investment made by the unit

### Incentive on Power Tariff and Electricity Duty

- ▶ Power tariff subsidy at the rate of INR 1 per unit to Agro and Food Processing units and Infrastructure Projects, in the billed amount of the utility as promotional incentive on reimbursement basis for a period of five years with effect from the commencement of commercial production/ rendering services.
- ▶ 100 % reimbursement for electricity duty paid for a period of five years on coterminous basis with power tariff subsidy to Agro and Food Processing units and Infrastructure Projects

### Registration/Stamp Duty Concession

- ▶ 100% reimbursement of Stamp Duty/Registration Fee/Conversion Fee paid for setting up for infrastructure projects in agro and food processing sector
- ▶ 50% reimbursement of Stamp Duty/Registration Fee/Conversion fee paid on sale/lease/transfer of land for The Agro and Food Processing units

## Gujarat Industrial Policy 2015

Government of Gujarat has announced an ambitious Industrial Policy, in January 2015, with the objective of creating a healthy and conducive climate for conducting business and augmenting the industrial development of the state, including agro and food processing.

### Approvals

- Registration of the industrial undertaking
- Industrial Entrepreneur Memorandum or Udyog Aadhar
- Non-agriculture land permission and purchase deed registration
- Consent to Establish from Gujarat Pollution Control Board

### Quantum of incentives

Category of Project Location (Taluka)	% of eligible fixed capital investment entitled for Incentive	% of Net VAT reimbursement to the unit	% of Net VAT to be paid to Government	Incentive period (no. of years)
1	100	90	10	10
2	80	80	20	10
3	70	70	30	10

### Net VAT incentives

Net VAT incentive will be reimbursed to the industrial undertaking in one financial year will not exceed one-tenth of the total amount of eligible incentive.

Classification of the Project	Amount (in INR crore)
Ultra Mega Industrial Unit	500
Mega Industrial Unit	400
Large Industrial Unit	150
Micro, Small or Medium Industrial Unit	50

**National Horticulture Board**

<http://nhb.gov.in/default.aspx>

**Agriculture and Co-operation Department, Government of Gujarat**

<https://agri.gujarat.gov.in/>

**Ministry of Food Processing Industries**

[www.mofpi.nic.in](http://www.mofpi.nic.in)

**Gujarat Industrial Development Corporation**

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

**Packaging Industry Association of India (PIAI)**

<http://piai.org/Default.aspx>

**Industrial Extension Bureau**

[www.indextb.com](http://www.indextb.com)

*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:

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