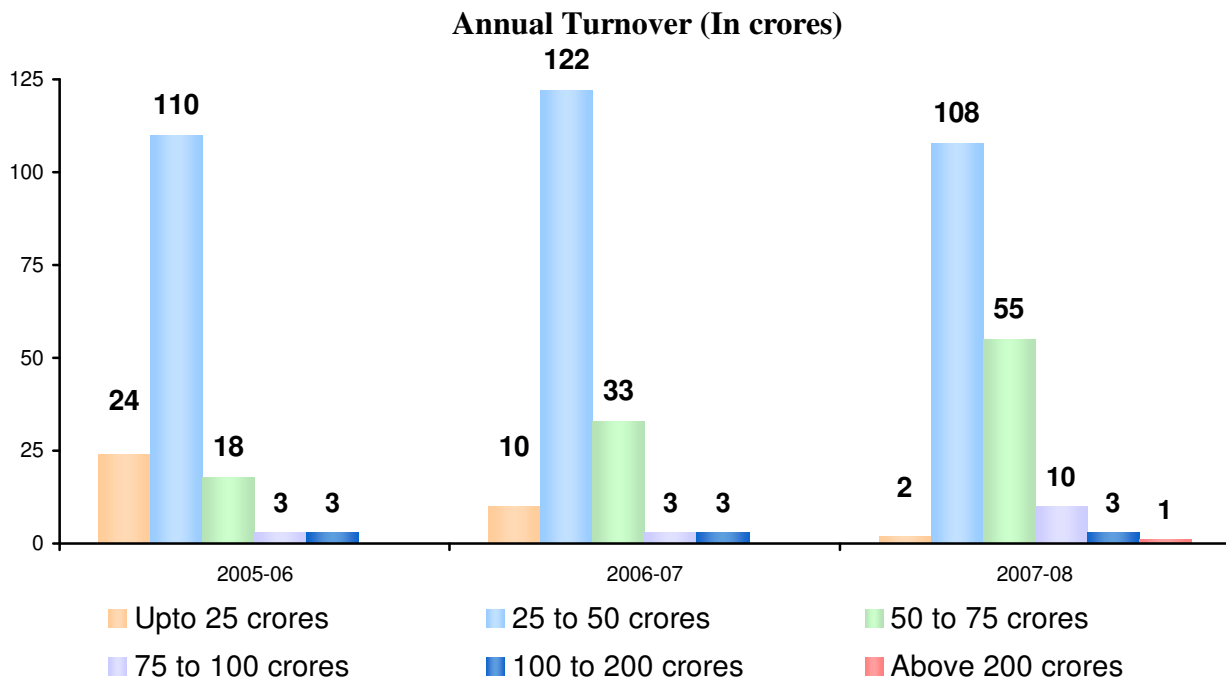


Morbi Cluster

SUMMARY OF FINDINGS

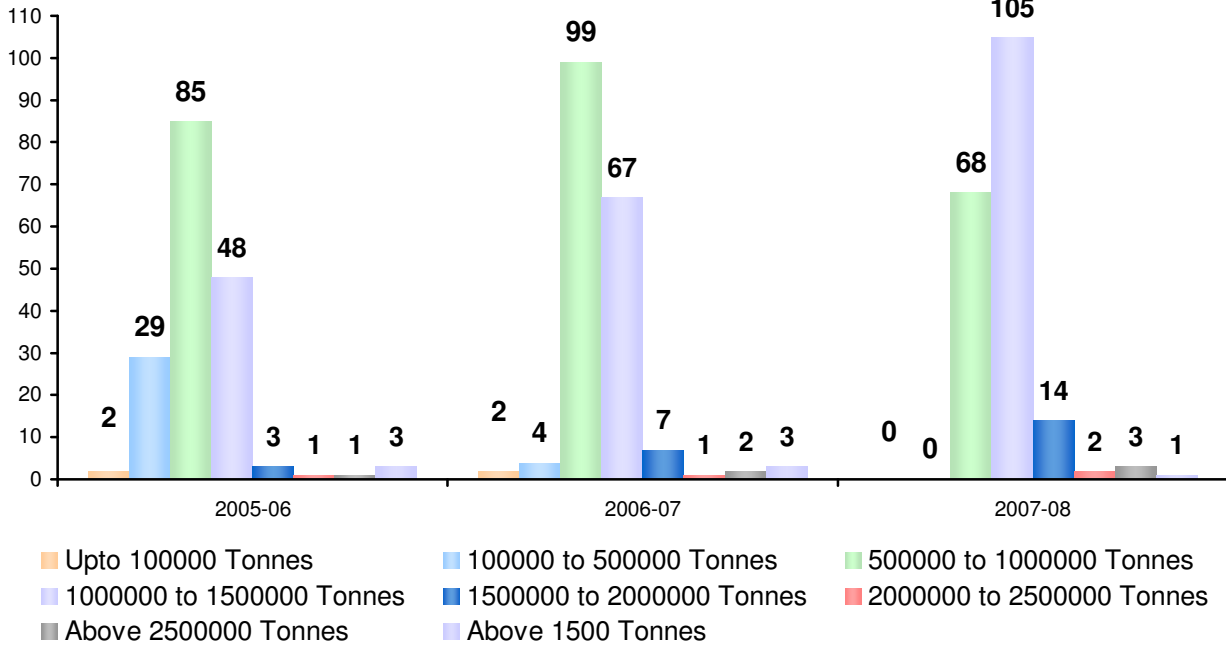
- There are approximately 400 ceramic units in this cluster who are engaged in manufacture of different types of tiles – wall tiles floor tiles & vitrified tiles.

➤ ANNUAL TURNOVER



➤ **PRODUCTION**

Annual Production (In Tonnes)

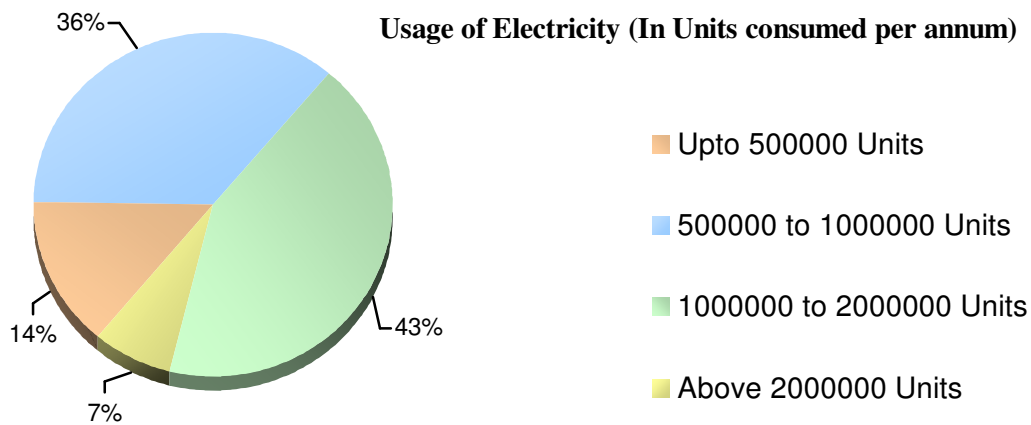


➤ **ENERGY REQUIREMENTS**

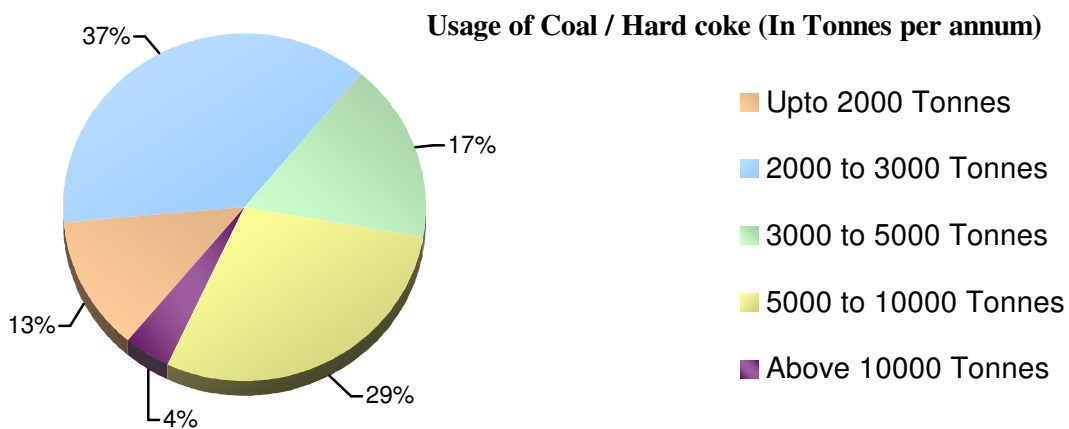
• CUMULATIVE FUEL USAGE

	<i>Qty consumer per annum</i>	<i>Number of Units using the fuel</i>
<i>Electricity</i>	<i>16020000 Units</i>	<i>14</i>
<i>Coal / Hard Coke</i>	<i>102000 Tonnes</i>	<i>24</i>
<i>HSD</i>	<i>6092400 Liters</i>	<i>33</i>
<i>LDO</i>	<i>1500300 Liters</i>	<i>39</i>
<i>LNG</i>	<i>9360900 Kg</i>	<i>76</i>

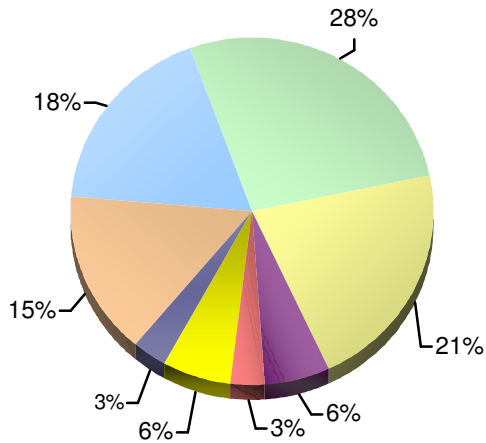
• USAGE OF ELECTRICITY (IN UNITS CONSUMED PER ANNUM)



• USAGE OF COAL / HARD COKE (IN TONNES PER ANNUM)



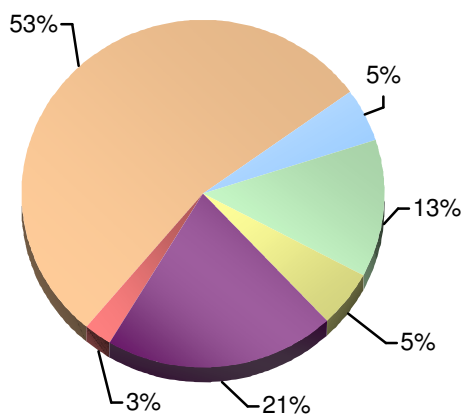
- USAGE OF HSD (IN LITERS PER ANNUM)



Usage of HSD (In Liters per annum)

- Upto 10000 liters
- 10000 to 25000 to liters
- 25000 to 50000 liters
- 50000 to 75000 liters
- 75000 to 100000 liters
- 100000 to 500000 liters
- 500000 to 1500000 liters
- Above 1500000 liters

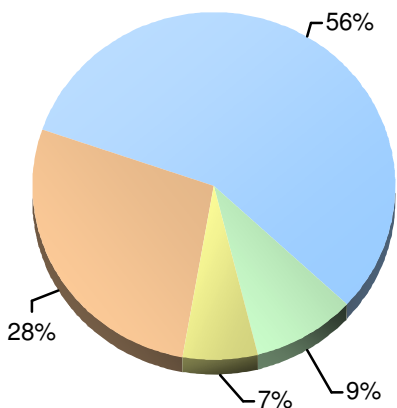
- USAGE OF LDO (IN LITERS PER ANNUM)



Usage of LDO (In Liters per annum)

- Upto 2500 liters
- 2500 to 10000 liters
- 10000 to 50000 liters
- 50000 to 100000 liters
- 100000 to 150000 liters
- Above 150000 liters

- USAGE OF LNG (IN KG PER ANNUM)



Usage of LNG (In Kg per annum)

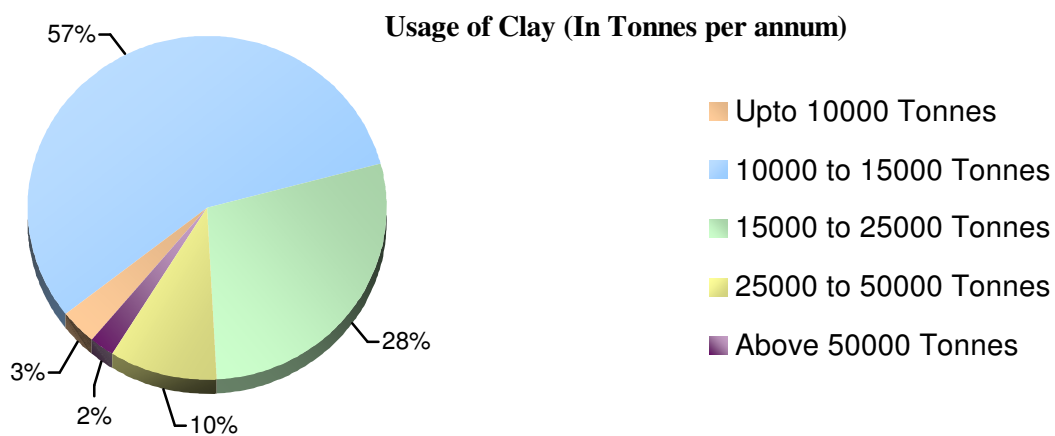
- Upto 100000 Kg
- 100000 to 150000 Kg
- 150000 to 200000 Kg
- Above 200000 Kg

➤ **RAW MATERIAL REQUIREMENT**

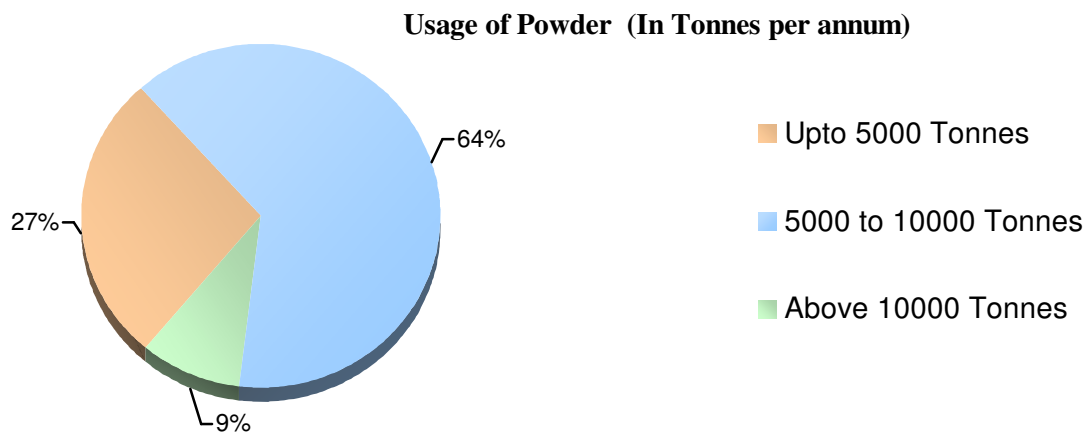
• CUMULATIVE RAW MATERIAL USAGE

	<i>Qty consumed per annum</i>	<i>Number of Units using the raw material</i>
<i>Clay</i>	2622000 Tonnes	92
<i>Powder</i>	70500 Tonnes	11

• USAGE OF CLAY (IN TONNES PER ANNUM)



• USAGE OF POWDER (IN TONNES PER ANNUM)



FIELD OBSERVATIONS

- ✓ Morbi is the heart of Ceramic Industry in India with more than 70% of the market share. The cluster of Ceramic industries in this region is spread over a stretch of 10 Kms on the Morbi – Dhuva Highway. The major areas are on Morbi 8-A, National Highway, Lalpar, Old Ghuntu road, Lakhdirpur road, Dhuva road & Jambudiya area
- ✓ The main products are Vitrified tiles, Floor tiles & Wall tiles.
- ✓ The main reason for setting up ceramic units in Morbi is raw material availability, local clay suitable for ceramic, Labour also available easily.
- ✓ Majority of the units are working since last 10-12 years and since last 7/8 years after several trials have become leading world-class units, which are exporting to number of countries also. All are family business having several units.
- ✓ Majority of the units are working round the clock.
- ✓ Major energy consuming equipment kiln, Press machine, Boil miller, Drier,
- ✓ 30 to 35% Energy/Fuel cost out of total production cost
- ✓ The most important aspect of the entire tile making process is grinding of the sand and biscuit preparation. Sand the most critical part of the entire product, sand composition and mixing is the most essential part for the final quality of the product, which requires vast experience.
- ✓ The tile kilns are fired by natural gas. The industry is now seeking the state government's immediate intervention to make gas available at reasonable prices.
- ✓ About 80 per cent of the units remain closed because during the last 18 months the fuel price has gone up by 120 per cent
- ✓

Electricity

Supplied by Gujarat State Electricity board. All the units are having GRID connection & Power is available 24 hr. & per unit rate Rs. 6.50/-

Piped Natural Gas (PNG)

GSPC Gas Company Limited

Shop No 66–67, Shakti Chambers–Ceramic Market, Near Dariyalal
Weigh Bridge, 8-A National Highway, Morbi – 363642.
Ph-02822- 241200

Till now in Morbi 173 units using gas.

Equipments

- Kiln with Ceramic Rollers from China
- Press machine
- Boil mill –SHAKE MEE –ITALY /CHINA
- Drier

Largely 3/4/ types of kiln are used which are available in different sizes – 75 mtrs/90 mtrs/105 mtrs /110 mtrs. Initially all were imported but now the Manufacturers have copied the design and are fabricating locally.

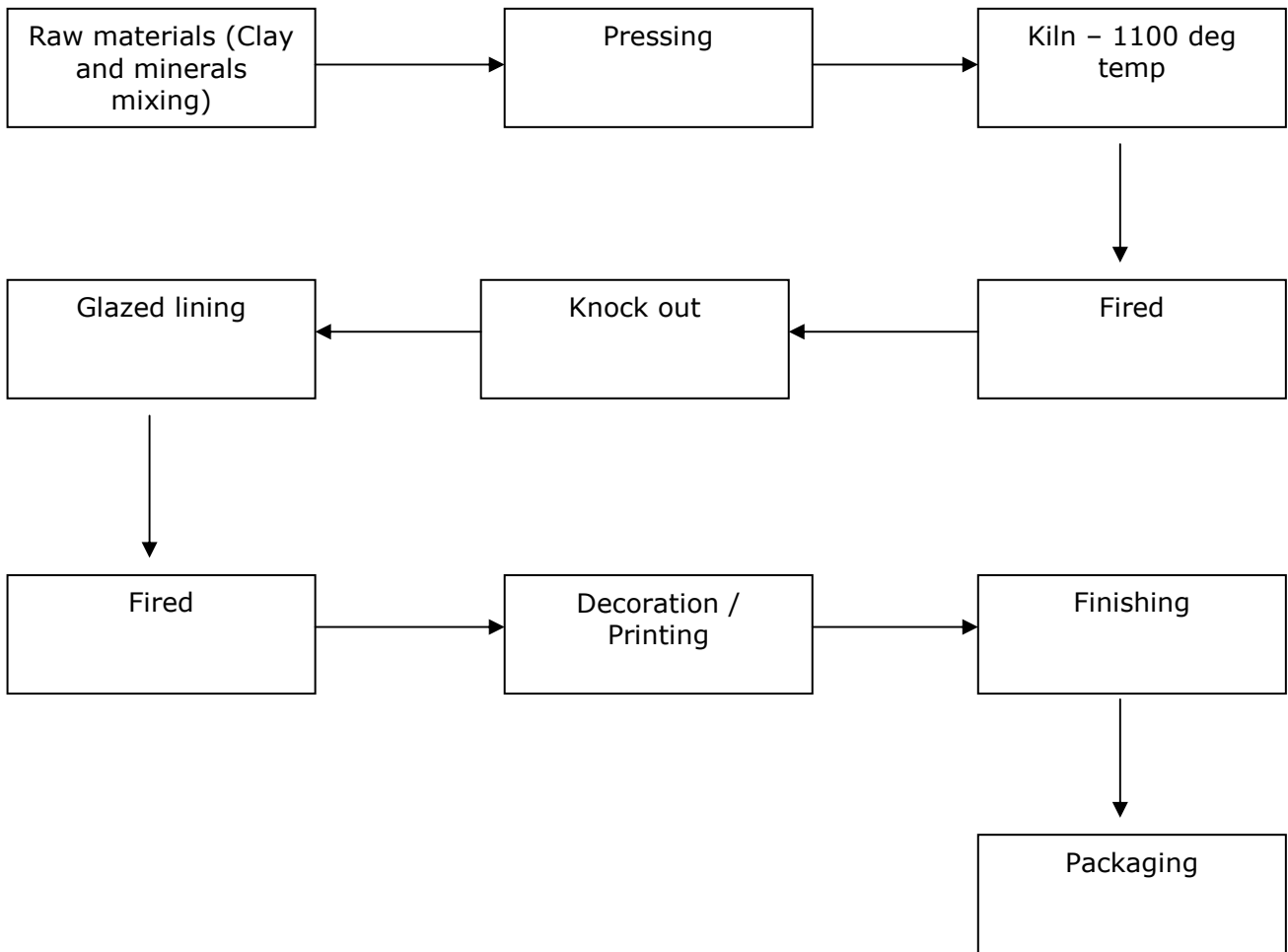
Ceramic rollers are either in 1505 / 1295 numbers per kiln.

The kiln are fired either by gas or local make coal produced from groundnut cake.
The rate of the gas is very high for the units – Rs. 21.45 /scm.

Raw materials

- Primary raw materials required for manufacture of Floor tiles are various types of clay, quartz, calcite / woolastonite, frits& Glazes
- Most of the raw materials are easily available in Gujarat and in the neighboring state of Rajasthan.

Process





Ground nut cakes (Raw materials)



Gas manufacturing machine



After press & cutting sent to Dryer



Dryer machine



Kiln



Kiln



After kiln go for Glazing



Glazing Machine



Colour mixing



Chemical spray machine



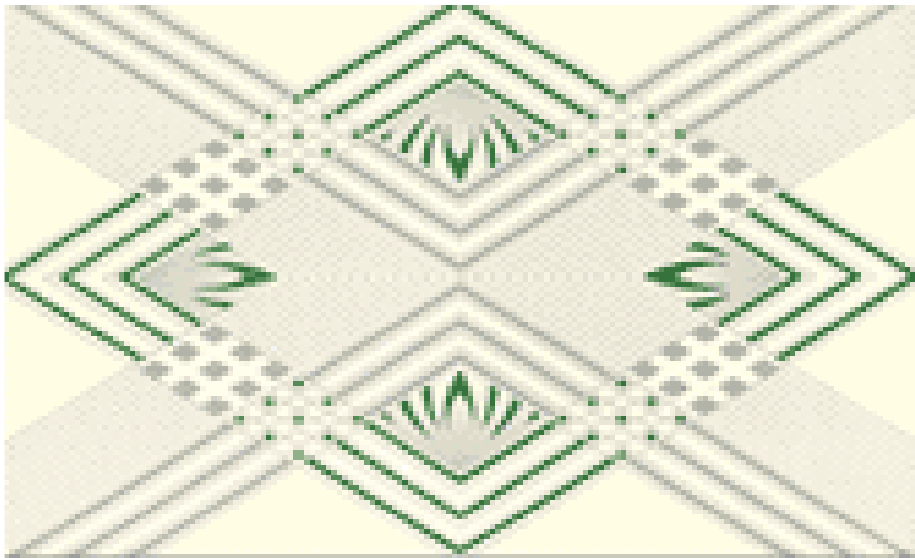
Printing Machine



After Glazing & Printing again heat in Kiln machine



Packaging machine



Finished product

Service provider

Associations

Gujarat Ceramic Floor Tiles Manufacturers' Association
Old Ghuntu road, Morbi-363642, Mr. Girishbhai Pethapara,.

Morbi Sanitary Wares Manufacturers Association
Morbi, Gujarat-363642.

Thangadh Federation of Ceramic Industries
Thangadh, Gujarat, Ph- 02751-222146.

Morbi Dhuva Glaze Tiles Association,
Mr. Veljibhai Patel (President)

Panchal Ceramic Association, Thangadh, Gujarat
Ph-02751-220314,

Mr. Sureshbhai P. Sompura, President

BANKERS

Union Bank of India
Nirmal Nivas, Opp. Gandhi Baug, Subhash Road, Morvi-363641

Dena Bank
Nehru Gate, Morbi-363641

State Bank of Saurashtra
Green chowk, Morbi-363642

Oriental Bank of Commerce
Mangal Murti Complex, Tarajpur, Morbi-363642.

Bank of India
Nr. Vegetable Market
Morbi-363641, Ph-02822-220022