Chapter 5

Kandla Port

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Chapter 5

Kandla Port

5.1 History:

Kandla port is located on the Gulf of Kutch on the northwestern coast of India some 256 nautical miles southeast of the Port of Karachi in Pakistan and over 430 nautical miles north-northwest of the Port of Mumbai. Located some 90 kilometers from the mouth of the Gulf of Kachchh on the Kandla Creek, the Port of Kandla was opened as a natural deep-water harbor in the 1930s to serve the hinterland of and beyond the state of Gujarat.

The British Royal India Navy first appraised the Kandla stream in 1851 for suitability as a port; however, they did not conduct a detailed survey until 1922. The Port of Kandla was created in 1931 with a single pier. After Indian independence in the late 1940s, the new government selected the Port of Kandla as a promising outlet to the Arabian Sea.

When the Port of Karachi was lost to India, maritime trade in the area shifted to the Port of Mumbai (formerly Bombay). Mumbai’s facilities were soon strained beyond capacity. In early 1948, the Indian government created the West Coast Major Port Development Committee to study the feasibility of building a major seaport to replace the Port of Karachi that went to Pakistan during partitioning. The Committee recommended locating a port at Kandla.

In 1952, Prime Minister Pandit Jawaharlal Nehru laid the foundation stone for the new port on India's northwestern coast. The Port of Kandla was declared a major port in 1955. The Kandla Port Trust was created by law in 1963 to manage the new port.
The Port of Kandla Special Economic Zone (KASEZ) was the first special economic zone to be established in India and in Asia. Established in 1965, the Port of Kandla SEZ is the biggest multiple-product SEZ in the country. Covering over 310 hectares, the special economic zone is just nine kilometers from the Port of Kandla.

Today, the Port of Kandla is India's hub for exporting grains and importing oil. This self-sufficient port is one of the highest-earning ports in the country. Major imports entering the Port of Kandla are petroleum, chemicals, and iron and steel machinery, but it also handles salt, textiles, and grain.

5.2 Geographic Location of Kandla Port

Fig 5.1

Kandla port is situated in the the Kandla Creek and is 90 kms. from the mouth of the Gulf Of Kachch. It is a protected natural harbour. Latitude: 23o 01’ N
Longitude: 70° 13’ E. Kandla port plays a major role in the country's international trade. Having notched up a string of success, it has emerged as a forerunner, and has carved a niche for itself, by its steady growth and economy of operations.

5.3 Hinterland

Hinterland of Kandla Port

Fig: 5.2
5.4 Kandla Port: Mission

The mission of the Kandla port is “To be the most economical modern Major Port, rendering cost effective services to our Customers.”

Kandla Port: Objectives

Kandla port is operating with the main objectives which include:

- To provide our Clientele, efficient and economical Port services. To render value for money and value added services to our Customers, to their utmost satisfaction.
- To create facilities of international standards, and facilitate quicker turnaround of vessels. To maintain peaceful industrial relations by recognizing our work force as an asset and develop them to adopt to the changing Port scenario.
- To participate in social development by contributing our mite to the society at large.
- To be Environment friendly.
Fig 5.3

Organizational Structure

FA&CAO - Financial Advisor and Chief Account Officer
EM - Estate Manager
AEM - Asst Estate Manager
XEN - Executive Engineer
CME - Chief Mechanical Engineer
SAP - System Analysts and Programmer
AO - Accounts Officer
TP&PRO - Trade Promotion and Public Relation Officer
DPO - Data Processing Officer
AXEN - Asst Executive Engineer
AEN - Asst Engineer
CE - Chief Engineer
SE - Superintendent Engineer
DC - Deputy Conservator
TM - Traffic Manager
HM - Harbour Master
HE - Hydraulic Engineer
CME - Chief Mechanical Engineer
SRO - Statistical And Research Officer
CMO - Chief Medical Officer
COM - Chief Operations Manager
CVO - Chief Vigilance Officer
Dy.CVO - Dy. Chief Vigilance Officer
VO - Vigilance Officer

5.5 Kandla Port Trust

Kandla Port Trust was constituted with the mission to be most economical modern major port rendering cost effective services to customer. The main objectives of the trust were (a) to provide efficient and economical port services to its clients with utmost satisfaction (b) to create facilities of international standard and provide quick vessel turnaround (c) to develop peaceful industrial relationship
with workers and develop the labour force to adapt the changing port scenario (d) to participate in social development and (e) environment friendly development.

**Kandla Port: Trustees** (Dec 2016)

Shri Ravi M Parmar, IAS : Chairman  
Shri Alok Singh, IRS : Deputy Chairman  
Shri Rajat Sachar, IES (Rep. Ministry of Shipping)  
Shri P. V. R. Reddy, IRS (Rep. Deptt. of Customs)  
Shri S. B. Mishra, DIG (Rep. Defence Service)  
Comdr. Yagendra Kumar, (Rep. Defence Services)  
Shri Sanjay Goel, IRTS (Rep. Indian Railways)  
Capt. S. K. Shukla, (Rep. MMD)  
Shri M. L. Bellani, (Rep. Labour Trustee)  
Shri Mohan K. Aswani, (Rep. Labour Trustee)  
Shri Lakhwinder Singh, IFS (Rep. Ministry of Environment, Forest and Climate Change)  
Shri Mavjibhai B. Sorathia, (Rep. Other Interest)  
Shri Ranchhodbhai C. Faldu, (Rep. Other Interest)  
Shri Bharatbhai D. Rajgor, (Rep. Other Interest)
### Kandla Port: Key Persons (Dec 2016)

<table>
<thead>
<tr>
<th>Name</th>
<th>Designation</th>
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<tr>
<td>Shri. Ravi M Parmar, IAS</td>
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<td>Shri Alok Singh, IRS</td>
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<td>Shri Shishir Srivastava, IRS</td>
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<td>Secretary</td>
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<td>Shri Mukesh Balani</td>
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<tr>
<td>Shri K.C. Kuncheria</td>
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<td>Shri R. Murugadoss</td>
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<td>Shri T. Shrinivasan</td>
<td>Deputy Conservator</td>
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<tr>
<td>Dr.Mrs.K R Gandhi</td>
<td>Chief Medical Officer</td>
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<tr>
<td>Dr.G.S. Rao</td>
<td>Chief Operation Manager</td>
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5.6 Kandla Port: Performance Overview

The information about the performance of Kandla port during last five year i.e. 2008-09 to 2012-13 is presented in table and figures below.

Table: 5.1

<table>
<thead>
<tr>
<th>Particulars</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
<th>2012-13</th>
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<tbody>
<tr>
<td>Cargo Handled (MMT)</td>
<td>72.33</td>
<td>79.5</td>
<td>81.88</td>
<td>82.5</td>
<td>93.62</td>
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<tr>
<td>No. of Vessels Handled (in NO)</td>
<td>2517</td>
<td>2776</td>
<td>2692</td>
<td>2714</td>
<td>2734</td>
</tr>
<tr>
<td>Operating Income (in Cr)</td>
<td>408.76</td>
<td>449.19</td>
<td>491.91</td>
<td>623.71</td>
<td>780.41</td>
</tr>
<tr>
<td>Operating Exp. (in Cr)</td>
<td>326.46</td>
<td>360.48</td>
<td>382.16</td>
<td>505.98</td>
<td>514.97</td>
</tr>
<tr>
<td>Operating Surplus (in Cr)</td>
<td>82.30</td>
<td>109.75</td>
<td>109.75</td>
<td>117.73</td>
<td>265.44</td>
</tr>
<tr>
<td>Operating Ratio (in %)</td>
<td>79.86 %</td>
<td>77.68 %</td>
<td>77.68 %</td>
<td>81.12 %</td>
<td>65.99 %</td>
</tr>
</tbody>
</table>

Source: Annual Report, Kandla Port Trust 2014

Fig: 5.4

Operating Income and Expenditure

- Operating Income (in Cr)
- Operating Exp. (in Cr)
It can be seen from the data that cargo handled by Kandla port has increased by 29.43 percent from 72.33 MMT during 2008-09 to 96.62 MMT during the year 2012-13. During the same period number of vessels handled has increase by 8.62 percent from 2517 to 2734.

The overview of operating income and expenditure also indicate progressive structure of Kandla Port. The operating income of the port has increased by more than 90 percent during last five year period. The operating income has increased from 408.76 crore during 2008-09 to 780.41 crore during 2013-14 while operating expenditure has increase from 326.46 crore to 514.97 crore during the same period, representing increase of nearly 58 percent.

The difference between operating income and operating expenditure represent operating surplus of the port. Data reveals the fact that operating surplus has been increasing over a period of time. Operating surplus of the port has increased from 82.3 crore during the year 2008-09 to 265.44 crore during the year 2013-14 representing increase of over 222 percent during last five year period.

Operating ratio which represents the proportion of operating expenditure to operating income also registered marked declined over a period of time. Operating ratio of Kandla port has declined from 0.7986 during the year 2008-09 to 0.6599 during the year 2013-14. In terms of percentages, operating ratio of Kandla Port registered as decline of about 17.37 percent during last five year period.

5.7 Infrastructure & Facilities at Kandla Port

For development of any port, availability of infrastructure is key requirement. Infrastructure facilities for the port include storage facilities, container handling facilities, dockyard facilities, terminal facilities, etc. The details about infrastructure facilities of Kandla port are as follow;
• **Storage Facilities:** (a) Twelve Dry Cargo berths are available with Quay Length of 2532 mtrs (b) Six Oil Jetties (c) Total Custom Bonded Port Area inside the custom fencing is 253 hectares. (d) One deep draft mooring and Four Cargo moorings in the inner Harbour area for stream handling

• **Container Handling Facilities:** (a) 545 mtrs. of quay length (b) 4RMQCs (c) 2 Harbour mobile crane (d) 4 RTGC 4 reach stackers, 18 prime movers (e) 40 hectare plot for Container yard (f) 6 Container Freight Stations serving the Port (g) Reefer plug points. (h) Regular Feeder service to JNPT, Mumbai, UAE, Colombo, Bunder Abbas, Muscat, Korea, Cochin, tuticorin, Pipavav, Mangalore (Optional) and other Destinations (i) Most economical handling charges & concessional TAMP tariff for coastal vessels. (j) Nearest Port from Delhi and surrounding areas. (k) Separate Stacking area for dangerous goods. (l) Railway line adjacent to Container Yard.

• **Steel Flooting Dry Dock:** The existing steel floating dry dock caters to the need of the Port Crafts as well as outside organizations and having o capacity to accommodate all vessels of following parameters:- LOA maximum upto 100 mtrs, Breadth maximum upto 17 mtrs, Draft maximum upto 4.5 mtrs, Lift displacement maximum upto 2500 tonnes.

• **Off-Shore Oil Terminal (OOT)-Vadinar:** The Kandla Port Trust had commissioned the Off-shore Oil Terminal facilities at Vadinar in the year 1978 jointly with Indian Oil Corporation, by providing Single Buoy Mooring (SBM) system, having a capacity of 54
MMTPA, which was first of its kind in India. Further, significant quantum of infra structural upgradation has been effected; excellent maritime infrastructure has been created for the 32 MMTPA Essar Oil Refinery at Vadinar. (a) A draft of up to 33 meters at SBMs and Lighterage Point Operations (LPO). (b) Three Nos. of Single Buoy Moorings available. Handling VLCCs having 3,00,000 DWT and more (c) Providing Crude Oil intake for the Refineries of Koyali (Gujarat), Mathura (Uttar Pradesh), Panipat (Haryana) and ESSAR Refinery Jamnagar (Gujarat). (d) 2nd SBM was commissioned during 1998. (e) 3rd SBM at Vadinar for importing crude oil for oil refinery of M/s. Essor Oil Ltd. (f) Simultaneous handling of three VLCC tankers at the SBMs of M/s. IOCL. (f) Vast Crude tankage facility having capacity of 1144000 KL. (g) Two nos. of 50 Tons state-of-art B.R SRP Pull-back tugs are available for smooth and simultaneous shipping operations on the SBMs and product jetty. (h) One Oil & Debris recovery Tug for Oil Pollution control is acquired and stationed at Vadinar. (i) Excellent infrastructure and tranquil waters facilitate trans-shipment operations even during monsoon season at Vadinar.

- **Wharf Cranes:** 12 Wharf Cranes of the following capacities) (a) 2 of 12 Tons (b) 4 of 16 Tons (c) 6 of 25 Tons. The rated capacity of 16 tons cap. Crane is 400 MT/hour, The rated capacity of 25 Tons cap. Crane is 600 MT/hour.

- **Weighbridges:** Nine weighbridges inside the port, which includes (a) Two Weighbridges of 40 MT capacities (b) One Weighbridge of 50 MT capacity. (c) One Weighbridge of 60 MT capacities (d) Two
Weighbridges of SOMT capacity and (e) Three Weighbridges 100 MT capacity.

- **Other Support** Equipment: Other equipments at Kandla port include (a) Easy availability of other support loading equipments such as Forklifts, Tractor, Trailors, Pay-loaders of various capacities (b) Private handling, equipments like Mobile Cranes, Top litters, pay-loaders, Forklifts, Heavy-duty Trailors etc. available on hire at competitive rates.

- **Security** Arrangements: Kandla port is ISPS Compliant. For the Security of ships in the harbour, cargo & the overall security, Port has inducted Central Industrial Security Force (C.I.S.F.) controlled gate entry system, inspection and monitoring has made Kandia Port the "Exclusive High Security Zone". Patrolling by C.I.S.F. by high speed launches in the Kandla Creek has also added to the security of the vessels. Force (CISF), a premier Central Government Industrial Security Agency, possessing special advanced Training and Equipments. CCTV coverage of entire port operational area has been done by port.

- **Pricing Advantage:** (a) Transparent Pricing Policy (b) Lowest Cost per tonne amongst all Major Ports and non major Ports (c) Lowest Vessel related charges, (d) Lowest Wharfage charges (e) Lowest Storage charges.

- **Storage Advantage:** (a) 15 days Free Period for Export Cargo (b) 8 days Free Period for Timber Log Imports (c) 5 days free period for other Import Cargoes (d) At Container Terminal, the free period for
containerized cargo is, for Import, first three days and for Export, first seven days (e) 3 days free period each for Import and Export of Hazardous Cargoes.

- **Road Network Advantage:** Four Lane National Highway No. 8-A extended right up to the Port's Main Gates. Fully developed road network, both in and around the Port area to facilitate faster movement of cargo (a) Inside Cargo Jetty Area-30 Kms (b) Outside Cargo Jetty Area -31 Kms (c) Railway Inside Cargo Jetty Area -13Kms.

- **Flotilla Facilities:** (a) Harbour Tugs of various sizes (b) Three High Speed Pilot Launches (c) One State-of-the-art fully computerized survey launch (d) Two Harbour Tugs of 7.5 tons Bollard Pull (e) Six new FRP Mooring Launches (f) Four General Service Launches (g) One Firefloat (h) One Heave-up-barge for maintenance of Navigational aids (i) Two Pilot & Oil-cum-debris recovery vessels, one at Kandla & one at Vadinar (j) Two new patrolling launches for marine surveillance by CISF

### 5.8 Kandla Port: Strategies

- **(A) Long Term Strategies**
  The long-term strategy of tech port will be adequate infrastructure and competitive tariff.

- Additional infrastructure (a) Deepening the channel to handle vessels up to 14 mtrs. draft. (b) Installation of Eight ELL cranes of 20/25 tons capacity. (c) Deep draft multi-purpose berths at Vadinar. (d) Commissioning of 13th cargo berth. (e) Development of container Terminal on BOT basis.
• Privatization of various port services.
• E-Customer relationship management.
• Entering into long-term contracts with various exporters/importers who assure guaranteed traffic. To provide the required infrastructure and other handling facilities by the port and fix separate tariff of such long-term contracts.
• Offering of the existing infrastructure facilities to various exporters/importers on BOT basis to enhance the traffic.

(B) Medium Term Strategies
• Augmentation of infrastructure facilities for handling bulk, break-bulk, container and liquid cargo.
• Commissioning of 12th cargo berth.
• Deeping of the channel to handle vessels upto 13 mtrs draft.
• Commissioning of two new godown with 4300 MT capacity.

(C) Short Term Strategies
Under the present scenario, the short-term strategy by Kandla Port will be to retain the present cargoes and customers. The growth rate in the present cargoes and organizational growth of the present customers will translate into growth of the Port Of Kandla, therefore, the short term relation is adopted by Kandla Port.
• Lowest cost strategy.
• Retention of cargo based on strength of the port.
• Making the efforts to overcome the weakness and threats
• To adopt a pro-active marketing strategy.
• Augmentation of the existing infrastructural port facilities.
The work relating to extension of customs bounded area for storage of bulk cargo by an area of 76.5 hectares is already under implementation and the total cost of this project is Rs. 15 crores. After commissioning of the scheme there will be addition of 10 lakh tones storage capacity and this scheme is likely to be completed by the year 2002.

It is also planned to provide railway siding facilities in the area at the estimated cost of Rs. 10 crores.

It is planned to undertake dredging to handle vessels upto 12 mtrs. draft and thereby increasing the parcel size of bulk cargo and bigger container vessels.

A 50 tons BP bugs being procured at a cost of Rs. 20 crores for handling ULCCs at Vadinar.

210 meter quay face barge handling facility at bundar basin would be constructed with open stacking area measuring 40000 sq. meters to store the additional cargo of 88000 tons. The estimated cost of the scheme is Rs 18.97 crores and its likely to be completed by March 2003.

Conversion of Samakhiali - Palanpur railway track to broad gauge to reduce the distance by 130 kms. from the hinterland, to be executed through SPV at the cost of Rs.342.96 crores. Kandla Port shall contribute Rs. 51.44 crores to the SPV being 30% equity share holding of the 50% estimated cost of the project to be contributed by promoters.

Modernization and extension of railway network at a cost of Rs.2.00 crores to enable faster movement of cargo from that port.

Four new godowns are being constructed at a cost of Rs. 6.00 crores. The additional storage capacity of 85000 MT would become
available. The new godowns are likely to be completed by March 2002.

- The tenders for 11th cargo berth have been received for Rs. 36 crores. Work order will be awarded to the lowest tenders M/s. NEC Ltd. Vishakhapatnam after receiving clearance from Ministry Of Environment And Forest.

- The scheme relating to procurement of Eight ELL cranes of 16 MT capacity and 25 MT capacity is being implemented at the estimated cost of Rs. 70 crores to be installed and commissioned by October 2004 to October 2005.

5.9 Future Growth Driver: Kandla Port

Kandla port is working on various project for it unstoppable journey towards becoming world class port. Following projects undertaken by Kandla port with work as drivers of its future growth and will help in achieving its objective of creating world class infrastructure facilities and enable port to achieve its throughput target.

- Construction of 12th Cargo Berth and backup area (Additional capacity of 1.00 MMTPA)

- Setting up of state of art container terminal through BOT at 11th and 12th Cargo Berth with back up area of 40 Hectares (Additional capacity of 3.60 MMTPA)

- Setting up of marine terminal by M/S VOTL at Vadinar for M/S Essar Oil Limited (Additional capacity of 12 MMTPA)

- Modification of Bunder Basin for cargo handling (Additional capacity of 0.30 MMTPA)

- Upgradation of infrastructure facilities in newly added customs bonded area of 66 hectare (Additional capacity of 1.50 MMTPA)
• Construction of storage godowns (Additional capacity of 0.20 MMTPA)
• Development of open storage facilities (Additional capacity of 2.00 MMTPA)
• Development and upgradation of road/railway network
• Construction of 13\textsuperscript{th} and 14\textsuperscript{th} cargo berths on BOT basis (Additional capacity of 4.00 MMTPA)
• Procurement of 6 Nos. ELL wharf cranes (Additional capacity of 3.00 MMTPA)