The policy of privatization liberalization and globalization brought up the substantial changes in the structural setup in the various sectors of the economy. Industrial and service sector development resulted in increasing seaborne trade in the economy. Near about 90 per cent of this traffic is handled through sea. The development of minor ports in supporting the major ports is important for the maritime state like Maharashtra. The Government of Maharashtra has initiated action for the development of existing ports and creation of new ports at green field locations so that the industry and trade do not suffer due to lack of port infrastructure.

The Maharashtra State is situated on the West coast of India between the state of Gujarat in the North and Goa in the South. It has a coastline of 720 km., 10 per cent of India’s coastline. There are two major ports handling a lion share of cargo around 48 per cent in the Country. But the development of minor ports has become a need of the day. The minor ports in Maharashtra handled cargo traffic of 20 MTPA; So Government of Maharashtra is prepared a plan for development of these ports. The minor port comes under the jurisdiction of the state governments and Maritime Boards have been established in the respective states in which Maharashtra is one of the important among ocean states. The major ports are run by Central Governments under the Major Port Trust Act 1963.

With the formation of Maharashtra Maritime Board (MMB) Government of Maharashtra has prepared the plan for creation of commercial and captive ports to supplement the existing major ports. It also identifies the location and new sites for the same. Some important projects have been implemented by the Government at the minor ports in Dighi, Rewas Aware, Jaigad, and Vijaydurga. The development of economy through these projects is a costly affair. Therefore, the MMB is looking for adapting a realistic approach for the development of these ports by considering the resources and long duration which are part and parcel of this strategy.
The MMB has considered and prepared a plan towards the development of the region with an ambition of improvement of the performance of existing minor ports in the state as well as creation of new ports for this purpose. The MMB considered the various coastal features that are suitable to the development of these ports in the state. These features explained by MMB are very important to know the background of the port development in this state. A review is taken with this topic to know the approach of the Government.

In many countries privatized ports or terminals are becoming wholly independent from government in pricing, investment, employment and service decisions. They are only regulated in terms of safety, security and environment protection. This trend has revolutionized port development worldwide and led to large inflows of private capital, technology and management talent, thereby improving port performance.

In order to become a world class trader and independent of large foreign transshipment ports such as Singapore, Colombo and Dubai, India will have to move away from general break bulk cargo to large privatized container terminals and ports equipped with appropriate inter-model infrastructure that can efficiently serve Indian containerized foreign trade from door to door.

This chapter accounts for the coastal development of the state. Other than major and minor ports, creeks, rivers and bays also helps to develop the coastal portraits of the state.

3.1 CREEKS RIVERS AND BAYS

The coast of Maharashtra is generally rocky and rugged. Some places near the coast consist of elevated plateau intersected by numerous creeks and navigable rivers situated between steep and lofty hills. The Western Ghats with general elevation of 600 to 900 mt and few peaks as higher than these is a typical feature of Maharashtra coast.

Many of the state ports are in the river estuaries or creeks like Devgad, Vijaydurg, Jaigad, Ratnagiri, Bhagwati Bunder, Dabhal, Murud-Janjira and Revadanda. Littoral drift and sediment load carried by rivers have led to the formation of sandbars across the entrances of many of the harbors. River discharges tidal streams and currents interact strongly during freshets at the estuary mouths of the rivers and caution is necessary while negotiating narrow entrances of the ports.
particularly, where there is a bar at the mouth of the river. Estuaries of rivers, some navigable have muddy banks with mangroves but near the coastline these are fringed with sandy beaches. The important rivers include Manmad, Kundalika, Amba, Vagthane (Vijaydurg Creek), Shastri (Jaigad Creek), Vashishti (Dabhol Creek), Savitri (Bankot Creek), Ulhas, Vaitarna and Damanganga.

The MMB has identified 35 creeks and rivers as having a potential for the construction of new minor ports. A number of captive port facilities constructed in the creeks and bays are typical features along the coast of Maharashtra. A natural availability of shelter in these locations has not been fully utilized. These facilities are usually operated for limited period in non-monsoon seasons because of constraints of coastal shipping or anchoring the vessels for lighter age operations. According to MMB, the facilities have been developed in Dharamtar creek, Rajpuri creek and Pawas bay.

### 3.2 MARTIAL ALONG THE COAST

As compared to northern coast seabed rises more steeply along the stretch of Maharashtra coast. It is important while approaching from sea, the average distance of 10 mt and 20 mt contours is also important. It is given in Table 3.1.

<table>
<thead>
<tr>
<th>Location</th>
<th>Distance of 10 M contour from the shore in Km.</th>
<th>Distance of 20 M contour from the shore in Km.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Redi</td>
<td>0.65</td>
<td>4.25</td>
</tr>
<tr>
<td>Vengurla</td>
<td>2.2</td>
<td>8.5</td>
</tr>
<tr>
<td>Devgad</td>
<td>0.6</td>
<td>4.5</td>
</tr>
<tr>
<td>Vijaydurg</td>
<td>0.90</td>
<td>3.0</td>
</tr>
<tr>
<td>Ganeshgule</td>
<td>0.90</td>
<td>6.0</td>
</tr>
<tr>
<td>Jaygad</td>
<td>0.60</td>
<td>5.5</td>
</tr>
<tr>
<td>Anjanvel</td>
<td>0.75</td>
<td>6.0</td>
</tr>
<tr>
<td>Dabhol</td>
<td>2.5</td>
<td>9.0</td>
</tr>
<tr>
<td>Dighi</td>
<td>1.5</td>
<td>6.0</td>
</tr>
<tr>
<td>Alewadi</td>
<td>6.0</td>
<td>13.5</td>
</tr>
<tr>
<td>Rewas Aware</td>
<td>2.0</td>
<td>6.0</td>
</tr>
</tbody>
</table>

*Source: Maharashtra Maritime Board - Official records*

### 3.3 TIDAL CONDITIONS

The tidal conditions and rain fall also determines sea transport. The study of M.M.B. reveals the fact that semi-diurnal tidal conditions prevail and the tidal range increase as we proceed from south to north along the coast. At Redi, the value of
MHWS tide as 2.20 mt and MLWS tide is 0.70 mt, while at Satpati (south of Alewadi) value of MHWS tide is 4.90 mt and MLWS tide is 1.20 mt.

Rainfall is plenty during the south west monsoon. The speed and runoffs of waterfall in to the creeks and rivers are very strong during the rainy season. During south west monsoon from June to September waves of 4 mt height are experienced offshore. Normally direction of these waves is south west to west with a wave period up to 14 second. During December to March, the maximum wave height is 3 mt from north to northwest and a wave period of 4 to 6 seconds littoral drift along the west coast of India.

3.4 EXISTING PORTS IN MAHARASHTRA

Major Ports

There are two major ports in the state, The Mumbai Port Trust (MbPT) located in Mumbai and Jawaharlal Nehru Port Trust (JNPT) in Raigad district. MbPT is natural deep water harbor of 400 sq km. It is the biggest employer among the major ports in India with 18700 employees. JNPT is the largest container port in India. Both these ports account for largest share of exports-imports and transshipment in the country.

Minor Ports

The minor ports are classified into five groups namely

Bandra group,
Mora group,
Rajpuri group,
Ratnagiri group and
Vengurla group.

As stated earlier the state has 48 minor ports, with 14 operational ports. Most of the ports are mainly fishing ports. The total number of minor ports in the state is:

1) Dahanu
2) Tarapur
3) Nawapur
4) Satapati
5) Kelwa Mahim
6) Amala Datiware
7) Bassein (Vasai)
8) Uttan
9) Manori
10) Varsova
11) Bandra
12) Bhiwandi
13) Kallyan
14) Thane
15) Trombay
16) Ulwa Belapur-Panvel
17) Mora
18) Karanja
19) Mandwa
20) Thal Rewas
21) Alibag
22) Revadanda
23) Borli Mandla
24) Nandgaon
25) Murud Janjira
26) Rajpuri
27) Kumbharu
28) Shrivardhan
29) Mandad
30) Bankot
31) Harnai
32) Kelshi
33) Anjanvel (Dabhol)
34) Palshet
35) Borya
36) Jaigad
37) Varoda
38) Ratnagiri
39) Purnagad
40) Jaitapur
41) Vijaydurg
42) Devgad
43) Achara
44) Malwan
45) Nivti
46) Vengurla
47) Kiranpani
48) Redi

These ports are spread over five districts namely, Mumbai (114 km of coastline) Thane (127 km), Raigad, (122 km) Ratnagiri, (237 km) and Sindhudurg (120 km)

3.5. HINTERLAND AREA OF THE STATE

According to M.M.B. the primary hinterland of ports on Maharashtra coast is mainly the state itself. The secondary hinterland can also cover Gujarat, Madhya Pradesh, Karnataka, Andhra Pradesh and the northern states. An important feature of the Maharashtra coast south of Mumbai is that the Western Ghats (hills) are running parallel to the coast and the hills. The coastal area is hilly. At many locations, there are large tablelands on top and water front at the foot of the hills. The Konkan Railway that runs parallel to the coast can cater to evacuation or entry of traffic linking to ports in a very limited way only due to the reasons such as. The hilly terrain makes links between ports and Konkan Railway difficult. Regions on eastern side of hills are not served by the Konkan Railway.

Development of railway infrastructure to connect the port would be expensive due to requirement of bridges and tunnels. Road networks linking the ports
already exist and can be strengthened further. The existing coastal feature is favorable for developing bulk terminals for raw materials to support industries whose products can be evacuated by roads, pipelines or other means are possible only with huge investment, e.g. the cost of developing railway lines in hilly terrain may be very high. Traffic assessment of commercial ports made by M.M.B. suggests that the traffic that can trigger off through commercial ports in the coast is crude oil and power plant, fuel - LNG and thermal coal. Further there is a prospect of container terminal in the vicinity of Mumbai and JNPT. The possibility of such a development would depend on the realization of large volume of traffic, future developments in container shipping needing deeper waters and a need to supplement the JNPT development.

   The crude oil, LNG and thermal coal import on the coast would result in production of petroleum products and generation of electricity, which can be evacuated into the interior regions through pipelines or transmission towers to support the industries development. The coast is also having many naturally sheltered areas (creeks, bays) that are suitable for captive terminals particularly serving coastal traffic, ship repair and ship breaking yards and tourist resorts.

   The regions on the eastern side of the Western Ghats are well linked to Mumbai and Jawaharlal Nehru ports. There may be a continued preference for general cargo (containerized as well as non-containerized) originating from or destined to these regions to use these ports. The already created infrastructure particularly the rail linkage logically places these ports at an advantage to handle the Maharashtra state sea-borne traffic.

3.6 **NATURAL RESOURCES**

   The Maharashtra state is rich in natural resources. We can take an account of some important resources supporting the trade in the state.

**Forest Resources**

   The area under forests in the state was 63.0 thousand sq. km in the year 2000 which accounted for 20.5 percent of the geographical area of the state. Firewood and *tendu* leaves are main forest products in the state.

**Fisheries**

   With a coastline of about 720 km, rivers of about 3.2 thousand km length and canals of about 12.8 thousand km length the state is having an area very much suitable
for marine fishing. About 1.12 lakh sq. km area is suitable for exploitation of marine fishing. A total area of 3 lakh hectares is available for inland fisheries and another 18.6 thousand hectares area is available for brackish water fisheries. The M.M.B. has estimated the potential marine fish catch of 6.3 lakh tones per year.

**Mineral Resources**

The potential mineral bearing area in the state is about 58,000sq. km. The area confines mainly the districts like Bhandhara, Chandrapur, Nagpur, Yavatmal, Kolhapur, Satara, Thane, Raigad, Ratnagiri and Sindhudurga. The important mineral deposits in the state are iron ore, coal, manganese ore, copper, tungsten ore, limestone, silica, dolomite and feldspars; silica sand in Kolhapur district is having export potential. Coal accounts for 95 per cent of the total value of major minerals extracted in the state.

**Horticulture**

Maharashtra is rich belt for horticulture crops. It’s a major state in contributing the horticulture exports from the country. The climate and soil in the state are suitable for the production of a wide variety of horticulture crops. It has several regions with moderate rainfall and suitable soil patterns. At present Maharashtra exports grapes, oranges and vegetables like okra & onions apart from mangoes. Maharashtra has potential to boost exports further in items like mangoes, grapes, banana, orange, pomegranates and sapota amongst fruits and onion, chillies okra, green peas and capsicum amongst other products where Maharashtra has a competitive edge.

**Human Resources**

The Maharashtra state has a strong Human Resources Development base and a state of art, educational and technical institution for skilled manpower. Technically skilled and qualified manpower is abundantly available in the state.

### 3.7. INDUSTRIAL LOOK OF MAHARASHTRA

Since 1991, the new economic policies pursued by India, have changed the management, technology, financing and the entire environment of the industrial sector, Maharashtra, the leading state on the industrial map of the country has also not remained unchanged by these winds of change. The liberalisation process has initiated integration into global economy and there is an upsurge in the industrial activity in the form of increase in foreign as well as domestic investments. The state's
focus has been consistently on developing a strong industrial sector and not depending on agriculture sector alone.

Since the formation of the state in 1960, the industry in Maharashtra has witnessed tremendous growth. The composition of the organized industrial sector in Maharashtra as observed from the Annual Survey of Industries data has undergone a considerable change in the last four decades. The consumer goods industries were predominant and the net value added by these industries was then about 52 per cent of the total value added by all the industries together in 1960. The relative importance of consumer goods industries has gradually declined with shift towards the capital goods industries.

The emerging investment pattern shows that the state is offering a wide diversified menu of industrial location specializing in different core industries as shown in Table 3.2.

### Table No. 3.2 Locations of the Industries

<table>
<thead>
<tr>
<th>Industry</th>
<th>Districts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Automobile Industry</td>
<td>Pune, Aurangabad</td>
</tr>
<tr>
<td>Petrochemicals, Plastic &amp; rubber industry</td>
<td>Ratnagiri, Pune</td>
</tr>
<tr>
<td>Metals and metal products industry</td>
<td>Raigad, Ratnagiri</td>
</tr>
<tr>
<td>Chemicals industry</td>
<td>Raigad, thane</td>
</tr>
<tr>
<td>Textile Industry</td>
<td>Nagpur, Raigad</td>
</tr>
<tr>
<td>Coal &amp; mineral</td>
<td>chandrapur</td>
</tr>
<tr>
<td>Oil-gas</td>
<td>Ratnagiri, Mumbai</td>
</tr>
</tbody>
</table>

The development of industries results in import of raw material/export of finished cargo.

### 3.8 EXPORT PROMOTION

Due to the presence of port facilities and a strong industrial base, Maharashtra has a huge potential for exports. At present the main products exported from the state are textiles, readymade garments, engineering items, gems and jewelries, drugs and pharmaceuticals, plastic and plastic items. Under the new liberalized regime, export promotion has become an important aspect of the state policies. With this vision Maharashtra set up a separate department of Trade and Commerce. This department
has identified six thrust areas for exports from the state, software, fruits-vegetables and flowers, readymade garments, gems and jewelry, engineering and auto products, chemicals and pharmaceuticals.

3.9. POWER SECTOR IN MAHARASHTRA

Maharashtra State Electricity Board (MSEB) plays the most significant role in generation and distribution of power in the state. Apart from MSEB, there is private sector participation also. Projects under private participation, which are at various stages of negotiations/finalization, are as under:

1) Dabhol power project total capacity of 2184 MW in Ratnagiri district (740 mw of phase i commissioned in May'99 presently run by Ratnagiri Gas and Power Generation Ltd.
2) Naphta based 447 MW power plant at Patalganga in Raigad district power purchase agreement has been implemented.
3) Coal based ( 2x541MW)Bhadrawati power project in chandrapur district in operation.
4) Bhandardara hydro electric project phase i ( Rhabilitation 12MW) in Ahmednagar in operation.

In addition MSEB has granted permission for 68 industries for the generation of captive power. Among the conventional sources of energy Maharashtra has projects based on coal, gas well as hydro projects. The major share (@ 80 per cent) is contributed by coal based projects.

Installed Capacity and Generation

According to the Economic Survey of Maharashtra 1999-2000, the state had installed capacity of 12,248 MW as on 31st March 99.

Road and railway connectivity

The road and rail net work in Maharashtra state is well connected to major cities of India and helps in speedier transport of commodities to and from industrial units.

Road

There are 5 national highways passing through the state and connecting the various parts of the country. Mumbai is connected by NH8 with Gujarat, NH 3 with Madhya Pradesh, NH 4 with Karnataka and Andhra Pradesh and NH 17 with Goa and
Karnataka. Similarly, Pune is also well connected. The present status of the road in the state is given here with:

**Table No. 3.3 Road Length**

<table>
<thead>
<tr>
<th>Roads</th>
<th>Length in km</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Highways</td>
<td>4376</td>
</tr>
<tr>
<td>State Highways</td>
<td>34102</td>
</tr>
<tr>
<td>Main District Roads</td>
<td>49936</td>
</tr>
<tr>
<td>Other District Roads</td>
<td>46897</td>
</tr>
<tr>
<td>Rural Roads</td>
<td>1,06,00</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>2,41,722</strong></td>
</tr>
</tbody>
</table>

*Source: Economic Survey of Maharashtra*

The coastal areas are connected through state highways and other roads to NH 17 that runs parallel to the coast. Similarly, NH 17 is connected to the rest of the state through various crossroads, thus providing communication from coastal areas to interior of the state. The 97.8 per cent of villages in the state are connected with all seasonal roads where as 1.6 per cent are only seasonal in nature.

The proposed expenditure on national highways is Rs 6.11 lakh crores in the 12th Plan. This amount was worth1.21 lakh crores in the 11th Plan. The share of private sector in this proposed investment would be 38 per cent. The road density at present is national-1100 Km. Maharastra-800km.

**Railway**

The all India Railway network is the important rail lines link to Mumbai. The important rail lines are:

- Mumbai- Ahmadabad -Gujarat
- Mumbai-Vadodra-Nagda-Kota-Mathura-Delhi-North
- Mumbai-Manmad-Jalgaon,
- Itarsi-Bhopal-Jhansi-Agra-Delhi-North
- Mumbai - Nagpur - Kolkata
- Mumbai - Itarsi - Allahabad - eastern -up -Bihar- Kolkata
- Mumbai - Pune - Solapur - Wadi - Hyderabad /Bangalore
  Chennai
- Mumbai -Pune- Kolhapur/Miraj- Bangalore
The Present status of length of railway is as below:

Total length in Maharastra is 5984 km 9.2 per cent of the national length. Railway Density at the national level is 19.83 km. It is 19.43 km in Maharastra.

The Konkan Railway was started in March 1990. The length of this railway is 760 Km. It runs between Roha to Manglore. It is a Corporation with 51 per cent equity of Indian Railway. The share of income from goods transport is 70 per cent and from passanger is 30 per cent. From 1951 to 2010 the railway route length increased by 18 per cent and goods transport by 800 per cent and passenger traffic increased by 500 per cent.

Coastal locations in the other regions are not as well linked to even important cities/towns in Maharashra. Thus for any cargo needing evacuation/entry by rail, the advantage of a port near Mumbai is not available at other locations. Due to the hilly terrain in the coastal areas of Maharashra, it would be very expensive to build west to east lines.

Due to Western Ghats it is difficult to provide railway links to most of Maharashra coast. Good rail links exist between Mumbai/ JNPT ports and important locations within the state as well as the rest of India. Therefore there will be a preference for use of ports in the vicinity of Mumbai for cargo requiring railway movement. Hence many of Maharashra state ports are more suitable for raw material imports catering to refineries/power plants rather than exports. Products of such industries can be moved to the hinterland economically by means of transmission lines/ pipelines and by roads.

Traffic forecast

In order to plan the development of new ports or expansion or modernization of existing ports, it is important to know total traffic that can be effectively handled at these ports in future. The M.M.B has made traffic forecast of various ports in the state derived by studying the requirements of commodities involved in the maritime transportation. The 8th Five Year Plan as a base for the projections is adopted by using 1996-97, i.e. end of Eighth five year plan as a base. The projections are made up to the period 2021-22 (end of 13th Five Year Plan). This gives coverage of port development. The intermediate years have been chosen to
coincide with the five-year plans considering the data availability from various government organizations.

### 3.10 COMMODITIES AND GROUPING

The commodities involved in the sea-borne traffic are grouped in the following manner by and large in line with the Report of the Working Group for port Sector for the Ninth Five Year Plan (1997-2002)

- **Liquid bulk** covers: crude oil petroleum product, liquefied petroleum gas (LPG), Liquefied natural gas (LNG)
- **Dry bulk** includes: Thermal coal, Coking coal iron ore Food grains handled in bulk (Basic traffic and transshipment)
- **Fertilizers** covers: Finished fertilizers Raw materials (rock phosphate and sulphur)
- **General cargo** (non-containerized)
- **Other liquids** includes: Fertilizer raw materials (liquid) Edible oil, molasses
- **Other dry bulk** includes: Cement, Clinker, Miscellaneous ores coal in low volumes, Food grains in low volumes
- **Break bulk** covers: all cargo not containerable food grains/cement/fertilizer in bags, machine steel products (coil, flats, and other shapes) scrap steel timber logs containers all cargo containerable.

The table 3.3 explores the traffic achieved at the select non-major ports in Maharashtra and table 3.4 explains the commodity wise traffic in the select non-major ports in the state.

**Table No. 3.4 Traffic Achieved at Select Non-Major Ports-Maharashtra**

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic Handled (in million tons)</th>
<th>Dharamtar</th>
<th>Revdanda</th>
<th>Ulwa-lapur</th>
<th>Ratnagiri</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td></td>
<td>6.66</td>
<td>1.24</td>
<td>0.93</td>
<td>0.52</td>
<td>0.98</td>
<td>10.33</td>
</tr>
<tr>
<td>2004-05</td>
<td></td>
<td>7.73</td>
<td>1.27</td>
<td>1.01</td>
<td>0.62</td>
<td>1.51</td>
<td>12.14</td>
</tr>
<tr>
<td>2005-06</td>
<td></td>
<td>6.27</td>
<td>0.96</td>
<td>1.20</td>
<td>0.65</td>
<td>2.08</td>
<td>11.16</td>
</tr>
<tr>
<td>2006-07</td>
<td></td>
<td>6.80</td>
<td>1.02</td>
<td>1.28</td>
<td>0.66</td>
<td>1.82</td>
<td>11.58</td>
</tr>
<tr>
<td>2007-08</td>
<td></td>
<td>6.32</td>
<td>1.15</td>
<td>1.41</td>
<td>0.72</td>
<td>1.76</td>
<td>11.36</td>
</tr>
<tr>
<td>2008-09</td>
<td></td>
<td>5.09</td>
<td>1.03</td>
<td>1.56</td>
<td>0.73</td>
<td>2.01</td>
<td>10.42</td>
</tr>
<tr>
<td>2009-10</td>
<td></td>
<td>6.84</td>
<td>1.24</td>
<td>1.52</td>
<td>0.70</td>
<td>1.75</td>
<td>12.05</td>
</tr>
</tbody>
</table>
The above table explains the traffic handled by the minor ports of Maharashtra. The Dharamtar port is an important minor port in the state. The cargo handling capacity of the port was 6.66 million tons in the year 2003 which increase to 7.52 million ton in the year 2011-12. The Revdanda port is another minor port having capacity ranges between 0.96 million tons to 1.67 million tons. The Ulwa Belapur port is having capacity of less than two million tons and the Ratnagiri port has the capacity of less the 1 million tons throughout the period. The total cargo handled by all the port in the state increase from 10.33 million tone in the year 2003-04 to 19.95 million tons in the year 2011 - 12. The MMB is implementing new projects in the regions with private sector participation. The cargo handling capacity will further increase if these projects are realized.

The important ports along the costal districts, Mumbai, Thane, Raigad, Ratnagiri and Sindhudurg handled a total cargo of 20 million tons (rounded up) which increased from 10.33 million tons in the year 2011-12. There are other ports which are commissioning newly and the minor ports like Rewas-Aware in Raigad district started its operation, this will certainly lead to increase in the share of minor ports in the state.

Table No. 3.5 Commodity-wise Traffic at Non-Major Ports-Maharashtra

<table>
<thead>
<tr>
<th>Year</th>
<th>Iron ore</th>
<th>Building Material</th>
<th>POL &amp; Products</th>
<th>Coal</th>
<th>Others</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003-04</td>
<td>4.57</td>
<td>1.33</td>
<td>0.19</td>
<td>2.91</td>
<td>1.33</td>
<td>10.33</td>
</tr>
<tr>
<td>2004-05</td>
<td>5.47</td>
<td>1.29</td>
<td>0.32</td>
<td>3.59</td>
<td>1.47</td>
<td>12.14</td>
</tr>
<tr>
<td>2005-06</td>
<td>4.95</td>
<td>1.49</td>
<td>0.23</td>
<td>2.55</td>
<td>1.94</td>
<td>11.16</td>
</tr>
<tr>
<td>2006-07</td>
<td>4.58</td>
<td>1.77</td>
<td>0.58</td>
<td>2.29</td>
<td>2.36</td>
<td>11.58</td>
</tr>
<tr>
<td>2007-08</td>
<td>3.74</td>
<td>2.25</td>
<td>0.40</td>
<td>2.00</td>
<td>2.97</td>
<td>11.36</td>
</tr>
<tr>
<td>2008-09</td>
<td>4.27</td>
<td>2.35</td>
<td>-</td>
<td>1.46</td>
<td>2.34</td>
<td>14.88</td>
</tr>
<tr>
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<td>-</td>
<td>7.59</td>
<td>3.51</td>
<td>19.95</td>
</tr>
</tbody>
</table>

The above table depicts the fact that the iron ore and cargo constitute the major proportion of cargo commodities handled through the minor ports in the state followed by building materials and other cargo. Petroleum and oil lubricants constitute negligible quantum as these cargo require special facilities and are mostly handled major ports in the state.

3.11 CONCLUSIONS

The strategy of port development with private sector involvement is to increase The Strategy of port development with private sector involvement is to increase the productivity of the existing facilities and competition in this sector. The minor ports developed as captive ports and they are closely linked to specific industrial location and are becoming specialist ports handling specific industrial location and are becoming specialist ports handling specific commodities like coal, fertilizers, chemicals, steel, iron ore etc. The changes taking place in restructuring will definitely have a positive effect in this sector.
LOCATINO OF PORTS

- Kelashi
- Dabhol
- Jaygad
- Ratnagiri
- Vijaydurga

MAHARASHTRA

GOA

KARNATAKA