In this chapter an attempt has been made to analyze the significance of maritime development in these districts during the post reforms periods under the aegis of private sector. The marine development is taking off. The government policy, particularly, national maritime development policy has been supported the growth of port development by promoting the private investment in the infrastructure sector. The MMB as an important agency of Government of Maharashtra has undertaken a dream projects which are in pipeline. Some of them have started their operation. The ports at Deghi, Rewas and Awre in the Raigadh district, JSW port and Angre Port in Ratnagiri and Vijaydurg and Redi in Sindhudurg district are some of the examples. Under this background the benefits and significance of minor ports has been sorted out.

7.1 NATIONAL CONCERN

The benefit of minor port development at any part of country has become a much significant aspect. The developments of minor ports in the coastal region of Maharashtra will definitely expected to accrue the benefits to the nation and stakeholders. It can be seen that with increasing participation of private sector, creation of new ports and capacity addition of existing ports in the study region will contribute the nation's economy as under:

**Global Trade**

Share of non major ports to major port was notable in the year 2012-13. Major ports handle traffic of 545.79MT and non major ports handle 387.87MT. The percentage share of non major ports is 41.45. The share of minor port was 25.01 per cent in 2001-02. The development of minor ports in this region will improve the state’s share there by helping the country to attract maritime trade.
**Burden of Major Ports**

The average turn around the time of MbPT is around 47 days and at JNPT 1.76 days, the average pre berthing time is very high. Also it is 12.30hrs at MbPT and 30.44hrs in JNPT. With the development of minor ports the burden will be received when the capacity through this ports increases and the overall performance of ports will increased.

**Energy Efficiency**

The marine transport is always energy efficient. The table below shows comparative fuel consumption by road and sea. Comparative fuel consumption by road and sea exhibits the energy efficiency for Mumbai - Goa sector.

**Table No. 7.1 Energy Efficiency**

<table>
<thead>
<tr>
<th>Cargo (in tons)</th>
<th>Fuel Consumption (in kl)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Road Transport</td>
</tr>
<tr>
<td>750</td>
<td>14.03</td>
</tr>
<tr>
<td>1000</td>
<td>18.70</td>
</tr>
<tr>
<td>1500</td>
<td>28.05</td>
</tr>
<tr>
<td>3000</td>
<td>56.10</td>
</tr>
</tbody>
</table>


**Environment Friendly**

Sea born trade is environment friendly compared to surface transport. It will be helpful to decrease the road traffic, which again helps to control the air pollution and noise pollution.
Benefits in the form of custom duties and taxes

The development of infrastructure will enable the country to attract increased maritime trade enabling further to improve global trade and business. As a result revenue from custom duties and taxes are also realized. Due to the connectivity of ports, the timely delivery of goods to client will be possible. Corporate income tax is another source of revenue because private companies are using captive jetties and terminals which in turn improve their profile.

7.2 STATE CONCERN

Market oriented and macroeconomic policies of the state government are important. The infrastructure development in the form of port sector development is an important matter of concern to the coastal region like Ratnagiri and Sindhudurg. The overall economy impact will be remarkable and uneconomical thinks of transportation will decline which will help the state economy. Thus, the policy of minor port development in Ratnagiri and Sindhudurg districts will definitely prove contributory.

Improvement in the share of minor ports in the state

In spite of the impressive growth of major ports, the share of non-major ports in Maharashtra is very low. It was 5.15 per cent in the year 2011 and 2012 (total cargo handled by minor ports was 20MT). Out of 387.87MT in the country minor ports where is the share of Gujarat was 66.77 per cent (cargo handled 259 MT). Therefore, the development of minor ports is immense important. Presently, these two districts are handling 7MT of cargo and potential with full-fledged development of the minor ports will be raised to around 100MT in future with the development of the Vijaydurga and Angre ports. The capacity addition will be realized up to the mark. These two new ports are coming up with the expected capacities of around 35MT per annum as per the estimation of MMB. The capacities using existing force at Jaigadh and Redi will also add to this exception. It is clear from these facts. The shares of minor ports in the districts are very significant.

Promotion of industries

The progress in terms of port development also helps for the development of industries in the hinterland area. The government is allowing private companies to built captive jetties and terminals on boost basis. The uplifting of small scale industries is possible through the port connectivity.
Economizing the transport cost

As noted above, the transport cost of cargo handled through water ways is comparatively low. Further, with the development of minor sea ports in these districts, the root of road ways will be shorten for the industries located in the areas like Sangli, Satara, and Kolhapur. It will cheaper export through these ports rather than carrying bulk cargo to the major ports like Mumbai port and JNPT ports, where waiting period is high. A truck handling a bauxite cargo of 10 tons from Kolhapur to Mumbai / JNPT will cost Rs. 14000; whereas the carrying cost of this to Ratnagiri will be Rs.8000. Therefore, saving of Rs. 6000 for each ten tons of cargo is possible. A ship carrying 40000 tons of cargo will save Rs. 2,40,00,000.

In addition the traffic burden at NH.4 will be curtailed, which in turn helps for the traffic management safety on roads and pollution control.

Employment generation

The state economy will get benefited through human resource utilization under these ports. We can observe the progress of Gujarat ports leading to employment generation through maritime development. A comparison will help to know how the port development in these districts will support the state economy for generating employment opportunities. This is shown in the Table 7.2.

Table No. 7.2 Comparison of Employment at Non-Major Ports in Maharashtra and GUJARAT

<table>
<thead>
<tr>
<th>Ports/Years</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gujarat</td>
<td>2662</td>
<td>2048</td>
<td>1816</td>
<td>1265</td>
<td>1743</td>
<td>1718</td>
<td>1650</td>
<td>1590</td>
<td>981</td>
<td>1886</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>173</td>
<td>165</td>
<td>154</td>
<td>154</td>
<td>154</td>
<td>153</td>
<td>130</td>
<td>84</td>
<td>84</td>
<td>158</td>
</tr>
</tbody>
</table>

Source: Report of Ministry of Transport and Shipping- 2012
It can be seen from above table that in Gujarat the increase in the employment over the period from 2003 to 2012 declined from 2662 to 1886. The trend in the level of employment over the years is declining due the labour saving technological innovations. But regarding the employment at minor ports in Maharashtra is challenging. The employment in the Maharashtra minor pots is comparatively very low. And the trends are also negligible. The employment being at lower level also declines over the period. The employment in Gujarat was 1886, whereas in Maharashtra it was only 158 in 2012. The ratio of employment in Maharashtra minor port is only 8.3776 per cent to that of Gujarat. (i. e. employment in Gujarat is 91.6224 per cent more than Maharashtra.). No doubt the Gujarat state have natural advantages of coastal features has a potential to improve the status.

The employment shown in the table is the direct employment of government servants in the port sectors. In real fact the employment in the minor ports is sufficiently more when we consider the actual employment through the private participation in the port activities.

**Hub of ports**

If the port development in the vicinity develops to link internally, we can pick up tremendous benefits from these ports. If the large ports are linked with an in-land water transport than affiances at ports will increase. The hub of small ports connecting each other and linked to the big ports will improve the performance of existing ports as waiting period i. e. turnaround time will be reduced resulting a greater efficiency. In this way the major ports supported by a range of smaller ports handling short sea will help a lot.

The development of inland water transport (IWT) in the coast line of Maharashtra will have greater opportunities for expanding maritime transport. A ship carrying around 90,000 tons of cargo will take 12 hours to reach Mumbai from Ratnagiri. This will save traffic of road transport e.g. to carry 90,000 tons of cargo nearly 6000 to 9000 trucks are required as the maximum capacity per truck is 10 to 15 tons. Therefore, the traffic burden the trucks will be reduced through in-land water transport. The economic benefits are also large. A lorry carrying 40 ft container might be competing with a small container-ship carrying 200 containers or a truck hauling 40 tons of oil along with congested highways compete with a coastal oil tanker carrying 4000 tons of oil by sea. Ships now travel at the speed that trucks can hardly match on congested urban odes and at a function of the cost.
7.3 LOCAL CONCERN

The development of maritime transport through ports in this area result into various benefits to the stakeholders. The JSW Jaigadh port is an important minor port in Ratnagiri district. It has a cargo handling capacity of 8 MTPA as per the official sources this port is employing 800 man power resource in the region. The indirect local employment has also increased through the various activities in the form of hotels, shops, banks and transports. The other ports in the districts like Ratnagiri, Dabhol, Kalshi, Pawas (Ranpar) have created greater employment opportunities in the area. The port related activities like shipyard also added a large number of employments in the region. The Bharti Shipyaed Ltd Company in Ratnagiri and Dabhol together are employing the man power resources of 500 persons. The proposed Angre Port which is under construction will further employ a man power of 200 persons as estimated by the authorities. The Marine Syndicate Limited with its existing small port and with a proposed floating dry dock project is having a projected employment of 250. The Redi Port at Sindhudurg is having direct and indirect employment for around 270 and the other ports in the region which are in the development stage having proposed employment numbering more than 295 are important source of employment generation. Since all these ports are at the operational stages, and the manpower employment is on temporary bases with ups and down cannot be fixed. Therefore, the employment data was officially not received in a specific manner. The permanent employees are very few in number except in JSW Jaigad port.

The benefits of these ports can be generalized in the form of transport related activities. The number of vehicles (trucks and others) has increased. Similarly investments in support services and the banking services have also gone up. The new industries can be started in the region. The government is permuting a captive jetty which helps for development of industries and refineries. The local resources are very much useful from the point of view of exports. The export potential of fish and fish products, Mangos and cashews, kokam are higher. The food processing units can be developed to link with these captive jetties. The market will be expanded for these products which will again lead to increasing employment.
7.4 CONCLUSIONS

If the strategic policy is followed for the development of sea ports, we can realize the number of benefits from this core area of transport with increased maritime transport, and increase economy activities resulting in emergency of number of activities. In the maritime domain port is an important constituent of infrastructure. Number of sub- industries, enterprise and services are promoted through this. Services such as container terminal operators, container repairers, stevedores’ road and rail freight forwarders, warehouse operators, custom agents, dock workers, ship chandlers and lawyers.

The port development supports not only shipping activities but also it stimulates the ship repairs activities, ship building, ship breaking activities maritime machinery and equipment industry, dredging and offshore industry. The port infrastructure also supports fishing and aquaculture industry. In this way increasing maritime activities bring the benefits to the common man directly or indirectly.