

# **INDIAN PORTS – THE CURRENT SCENARIO**

**ATUL DESHMUKH**



**DEPARTMENT OF ECONOMICS  
UNIVERSITY OF MUMBAI**

**Dr. Vibhooti Shukla Unit in Urban Economics  
& Regional Development**

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ATUL DESHMUKH\*

## Abstract

*This paper has tried to study and compare the efficiency of Major Ports in India. It also tries to make the comparison of Indian Ports to that of the Ports like Singapore and other developed countries ports. Various parameters are taken into consideration while comparing the ports. To derive the conclusion from the comparison of major ports in India, it can be said that JNPT is the only port that has shown positive efficiency for the past five to six years. The cost of handling cargo per tonne has reduced at JNPT port while other ports has shown a continuous rise. Though the total cargo handled by JNPT is not the highest as Vishakhapatnam, Mumbai or Kandla, the traffic handled has shown a continuous rise. About 50% of the Container cargo in the country is handled by JNPT. This paper also compares the major ports in Maharashtra like JNPT and MPT with that of the port of Singapore and calls for major reformation at JNPT and MPT to be at par with the international standards.*

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\* *Atul Deshmukh* is a Research Officer with MEDC and also a Doctoral Scholar in the Department of Economics.

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## **Introduction**

Infrastructure plays a very important role in the economic progress of the nation. No country can think of economic progress & development without the development of efficient infrastructure. Especially in age of globalisation where international goods & commodities are to be transported from one country to the other, efficient infrastructure is the key to the success. Taking into consideration the flow of international goods, international cargo traffic is mainly carried through two modes of transport, by air & sea. 90% of the international cargo is transported through ships.

Maharashtra state and particularly the city of Mumbai – the financial capital of the country is very important from the point of view of trade. 47% of the National Income comes from the city of Mumbai. Mumbai is a natural harbour. It has to be provided with excellent infrastructure facilities especially ports, which handles majority of the bulk goods. By developing large number of efficient ports in Maharashtra as well as India, our country can become the largest international hub to deliver goods from West to the East and vice-versa. Doing so it can provide an essential service, that will benefit the state for further economic development and can also earn substantial revenue for State/Country.

Taking into consideration the importance of this issue at this point of time Maharashtra/India is not having adequate infrastructure facilities. This non – availability of adequate infrastructure facilities is acting as the de – motivating factor to attract investments from both domestic as well as foreign sources. This is resulting into low employment & income, hampering the quality of life of the people. The best way to overcome this problem is to quantify the available strength/space of the ports to handle cargo & the required strength/space to handle cargo. Also the future projected demand for the ports in handling cargo is to be estimated. There is also the requirement to build deep sea ports to reduce the cost of transport.

## **Present Policy for Ports in India**

The Indian Ports Act, 1908 and the Major Port Trusts Act, 1963, govern the major ports. These Acts have enough flexibility to permit private investment in the creation and operation of port facilities. Recently, greater administrative and financial powers to the ports have been delegated. However,

the increased private sector participation in ports implies a gradual change in the role of port authorities towards modernisation and mechanisation.

### **Privatisation Policy**

Private sector participation will be on the basis of open competitive bidding. Evaluation will be made on the basis of criteria laid down clearly in the tender document and will be on the basis of maximum realisation to the port using Net Present Value (NPV) analyses. The Port will give no guarantee either for financial return or for the traffic, which can be expected. Ports will continue to fix the ceiling of tariffs until an independent Regulatory Authority to fix and Revise Port tariffs is established. However, the tariff will be revised suitably once every three years. The BOT model will generally be used for private sector participation with the assets reverting back to the Port after the concession period. The concession period would be decided upon by the respective Port Trusts in each case, with the maximum period not exceeding thirty years.

### **Areas of privatization:**

The following areas have been identified for participation/investment by the private sector.

- Leasing out existing assets of the Port
- Construction/Creation of additional assets
- Leasing of equipment for port handling and leasing of floating crafts from the private sector
- Pilotage
- Captive facilities for Port based industries

These are indicative in nature and individual ports can expand the scope of activities after prior consultation with Central Government.

### **Some Facts about Indian Ports**

- India has the vast coastline of 7,517 kms.
- 95% of India's foreign trade by volume involves sea transportation.
- 45 other non – major/ private ports needs to be addressed to develop urgently to make Indian goods competitive in the international market.

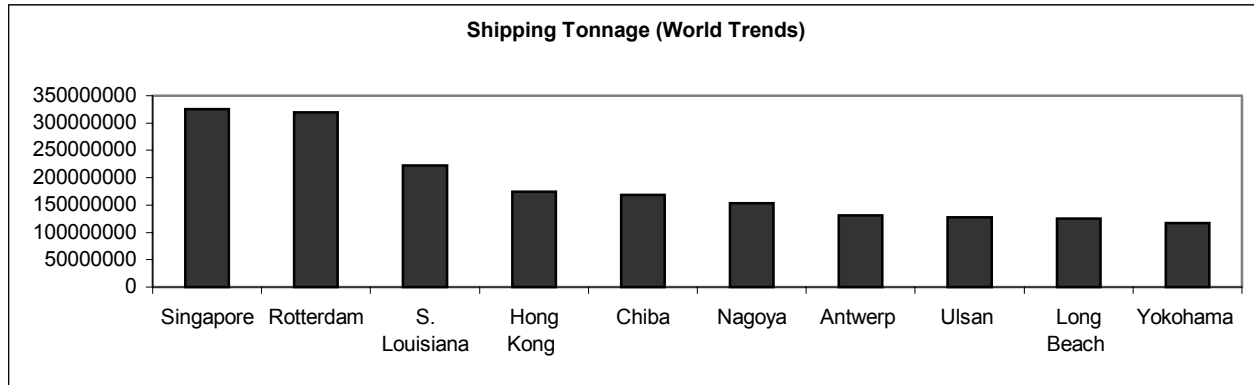
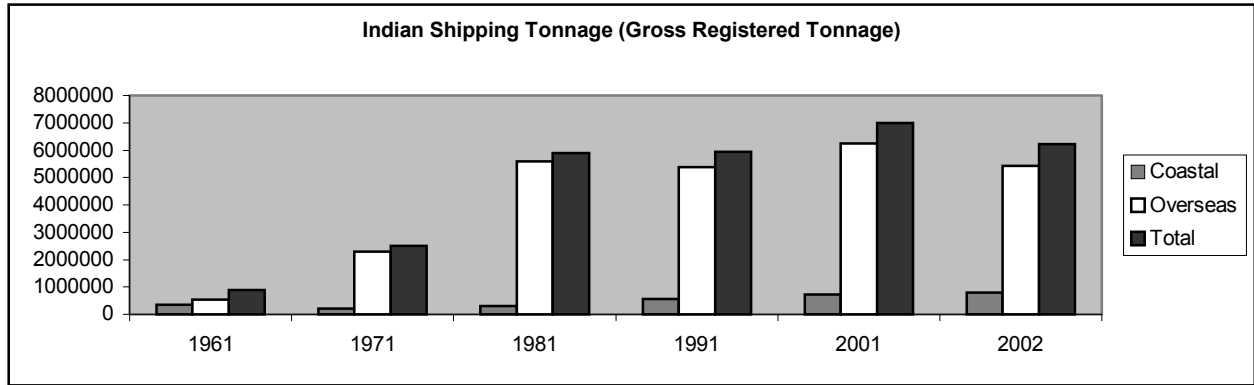
- Pre – berthing detention on port account declined to 14 hrs in 2001 – 02 from 41 hours in 1997 – 98. Turn – around time of the ships showed a decrease from 180 hours in 1997 – 98 to 98 hours in 2001 – 02. Daily output has increased from 4,497 tonnes in 1997 – 98 to 6,700 tonnes 2000 – 01.
- Private port terminals are performing far better & consistently & setting new performance benchmarks that are almost at par with neighbouring international ports.
- Indian ports are still very expensive than other ports in the world & we have to try & reduce transport cost.

**Features of the Indian Port Policy Reform:**

- Divestment of shipping corporation of India on cards.
- Streamline the process so as the entire transportation process and relevant documentation is quicker through channels.
- Union Budget 2002 – 2003 provides various tax sops & fiscal incentives to encourage fleet acquisition, modernization & growth.
- Reduction in tax will give a tremendous boost to cargo handling traffic.
- The presence of large market & a thriving economy makes it an important destination from the trade & commerce point of view.
- Efficiency & low cost are essential to nurture the shipping industry.
- New projects will be taken up to provide better connectivity between our eastern & western coasts without going to Sri Lanka. These projects reduce the intra – port cost of cargo movement between two coasts & promote coastal shipping.
- Need to develop inland water transportation. Investment in coastal shipping will yield high returns. Coastal shipping can develop as eco friendly & energy efficient alternative to road & rail transport. Cargo handled through coastal shipping is five times more cost – effective than any other modes.
- Labour reforms will be achieved by (privatisation) but will take some time.
- Higher budgetary support given to road connectivity & decongestion of container traffic inside ports. Transshipment hubs have also been proposed; new container terminals have also been constructed using revenue sharing formula.

- The freight element in total cost of Indian exports is much higher than elsewhere in the world. This makes our exports uncompetitive. The need of the hour is to develop ports as price centers & competitive driven primarily by economic factor. The ministry of shipping has undertaken several cost cutting initiatives like:
  - ❑ Better initiative Management.
  - ❑ Disposal of surplus equipment & replacement of latest equipment.
  - ❑ Streamlining documentation procedures to avoid delay for exporters/importers.
  - ❑ Assigning accountable targets to ports
  - ❑ Prevention of costs & time overruns on various projects & reduction in variable expenses including that of fuel, power, labour.
  - ❑ Budgetary support to a few ports for deepening & widening the navigable channels, improvement in road connectivity & decongestion of container traffic inside ports through additional railway lines are some of the additional initiatives to improve efficiency & at the same time to reduce cost.
- The corporatisation of ports will be mainly through landlord system of ports. Labour has also been represented & the rights of the laborer will be protected.
- Ports should be more vibrant, responsive & competent if we are able to emerge as forerunners in the maritime League of Nations.

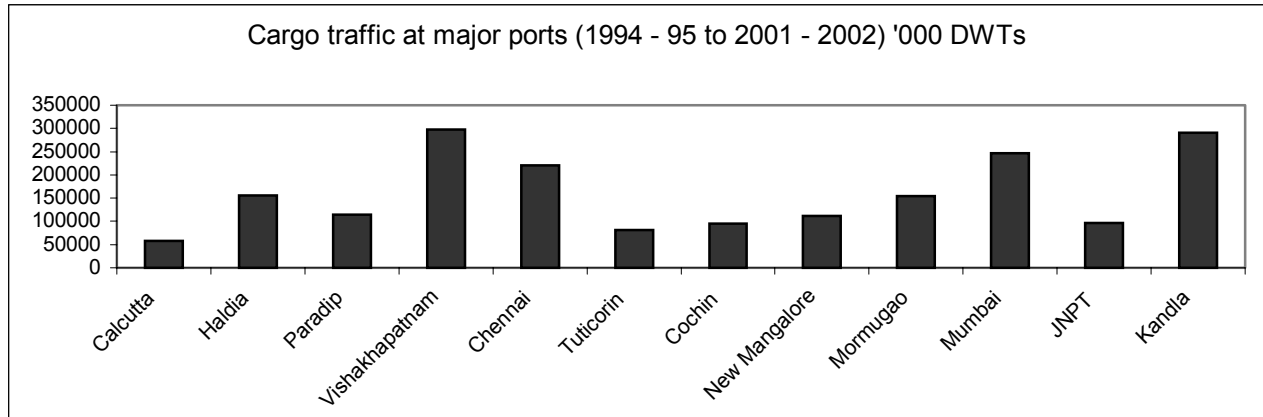
**Comparison between Gross Indian Shipping Tonnage and World Trends**



Shipping tonnage handled by Major Indian Ports in 2002 is 62,24000 (Gross Registered Tonnage) while the world average by major ports is 18,65,04,700.

The coastal Indian tonnage has increased from 3,62,000 in 1961 to 7,92,000 in 2002. Overseas Indian tonnage also increased till 2001. In 2002 there was a decline in Overseas Indian Tonnage to 54,32,000 from 62,56,000.

**Cargo Traffic handled at Major Ports (1994 – 95 to 2001 – 02) '000 DWTs**



The Cargo traffic handled by the 12 major ports in India from 1994 – 95 to 2001- 02, then the total traffic including exports, imports, and transshipment cargo is 19,22,779 ('000 Dwt). From this figure it is clearly seen that huge amount of cargo is carried through ports. Ports & Shipping are very important, as they are able to carry bulk goods at a very low cost. In India Coastal shipping is not much advanced, as a result the domestic cargo has to be transported through roads & railways. An efficient ports & shipping system of transportation not only reduce the dependence of high cost alternatives like roads, railways, but also ensures safety of the goods/commodities transported. If we take a comparative look at the individual ports in India then we observe that goods carried through major ports from 1994 – 95 to 2001 – 02 had increased considerably. Except for Calcutta & Mumbai all the other ports cargo traffic had increased over the period. Taking out the average mean of the total cargo traffic by major ports, from 1994 – 95 to 2001 - 02 we can differentiate the major Indian Ports into three categories.

- Above average ports in handling traffic.
- Below average ports in handling traffic.
- Below average ports in handling traffic but near to average traffic calculated.

The above average ports in handling traffic are Vishakhapatnam port, Kandla Port, Mumbai Port, Chennai port. These ports were able to handle cargo traffic of more than 2 lakh '000 DWTs.

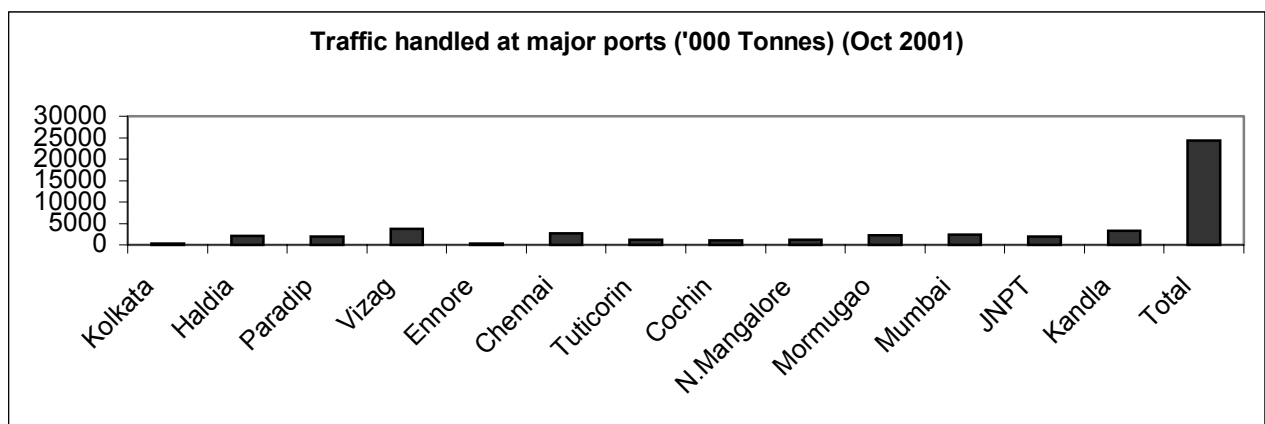
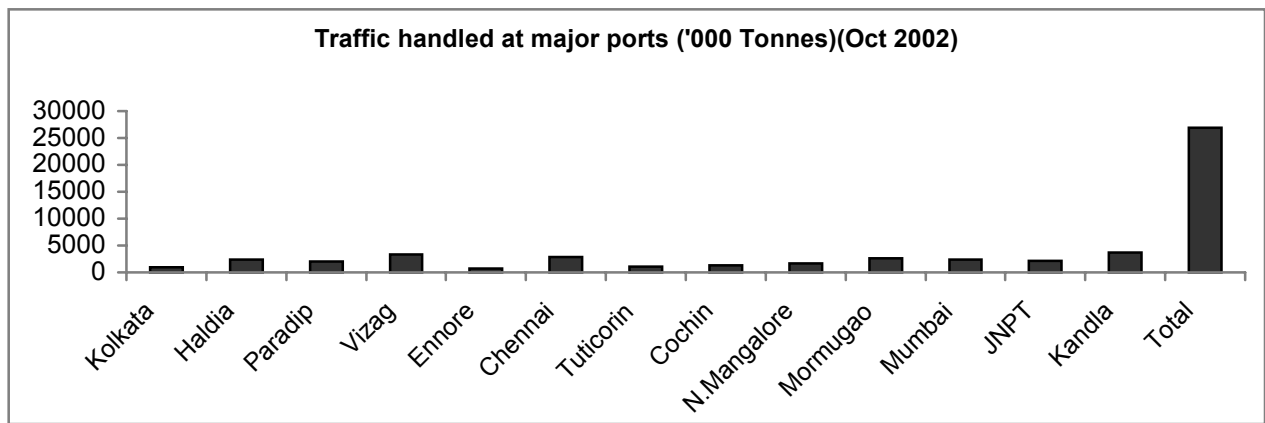
The ports like Haldia, Mormugao, Paradip, New Mangalore were able to handle cargo traffic of more than 1 lakh '000 DWTs.



While the ports like JNPT, Cochin, Tuticorin, Calcutta were able to handle cargo traffic of less than 1 lakh '000 DWTs.

When we study the data on cargo traffic at major ports from 1994 – 95 to 2001 – 02, then there are many interesting things to look into. Though Mumbai Port Trust is placed in the first four ports to handle cargo of more than 2 lakh '000 Dwt, the traffic handled by Mumbai Port Trust is continuously decreasing. At the same time though JNPT is placed in the last – below average category of handling cargo traffic, the traffic handled at JNPT is constantly increasing from 5008 thousand DWT in 1994 – 95 to 22521 thousand DWT in 2001 – 02.

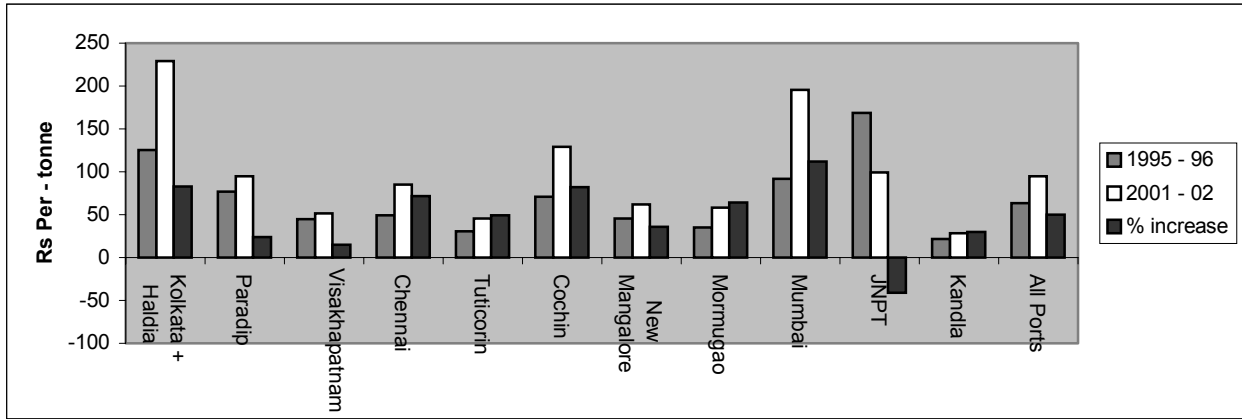
**Traffic handled by major Ports in October 2002**



The total traffic handled at major ports increased in October 2002 at 26952 thousand tonnes as compared to 24259 thousand tonnes in October 2001. In October 2002 the highest traffic handled was at Kandla port with 3681 thousand tonnes while the lowest traffic was handled at Kolkatta port with 898 thousand tonnes of traffic. In October 2001 the highest traffic was handled at

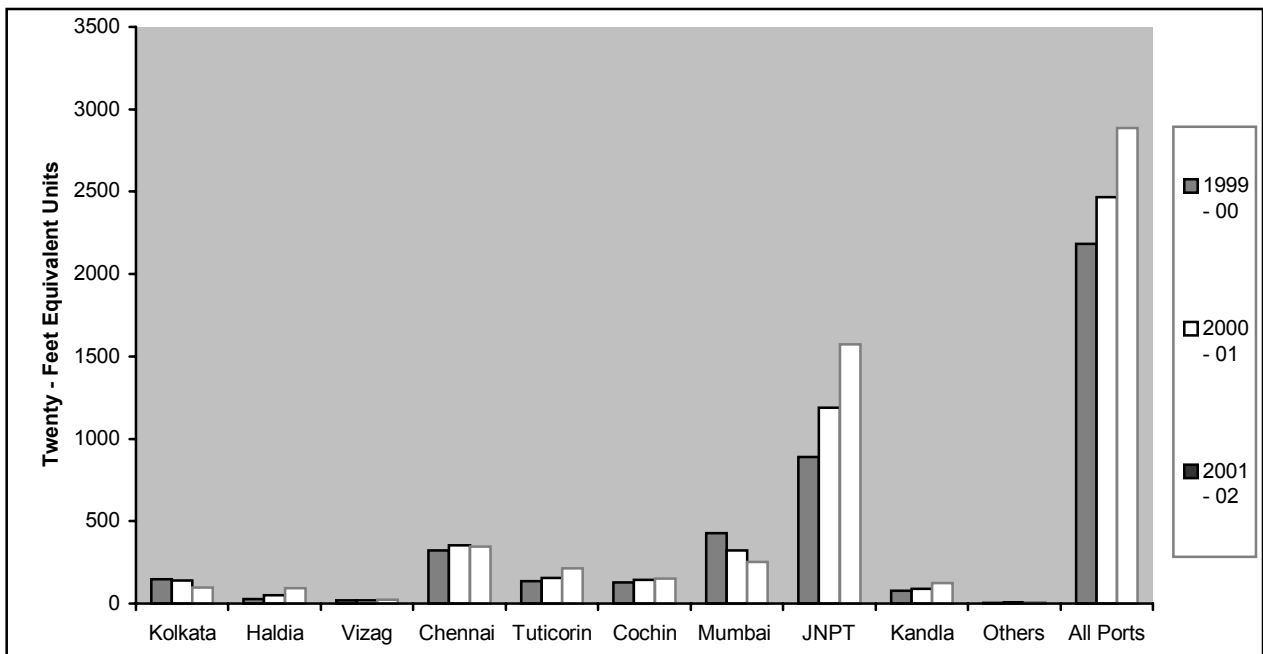
Vishakhapatnam port with 3790 thousand tonnes of traffic while the lowest traffic was handled at Kolkatta port with 289 thousand tonnes of traffic.

**Cost Per – Tone handling at Major Ports**



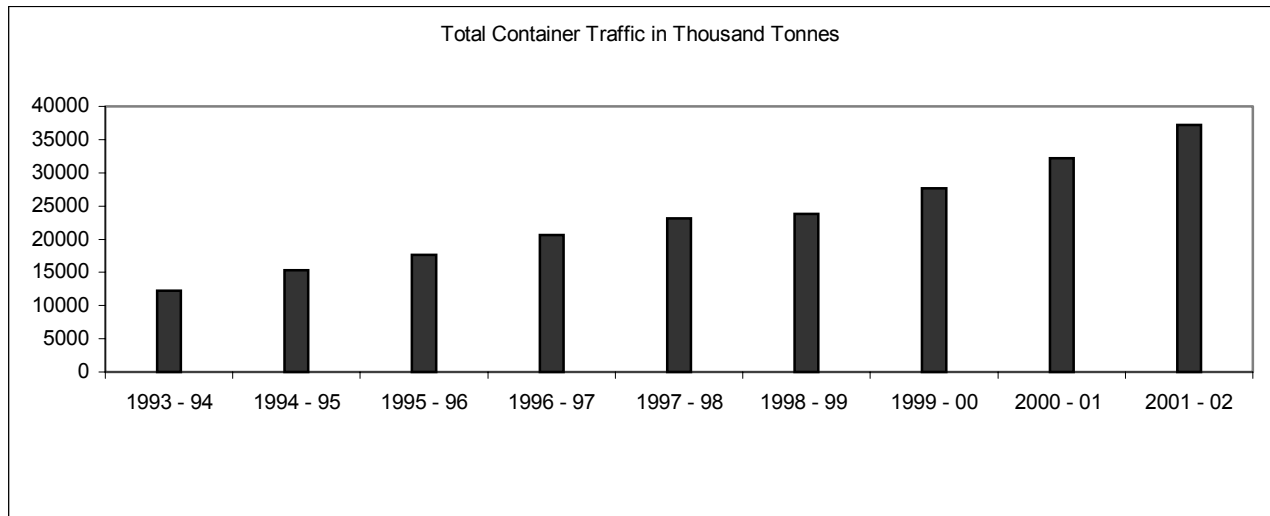
Except for JNPT port, all other major ports handling cost per – tone cargo has increased considerably. Maximum percentage increase cost was at Mumbai Port Trust at 112%. The cost increased from 92.1 rupees per tone in 1995 – 96 to 195.5 rupees per tone in 2001 – 02. Lowest cost increase was at Vishakhapatnam from 44.7 rupees per tone in 1995 – 96 to 51.3 rupees per tone. The total percentage increase in the cost was 15%.

**Container Traffic at Major Ports for 2001 – 02**



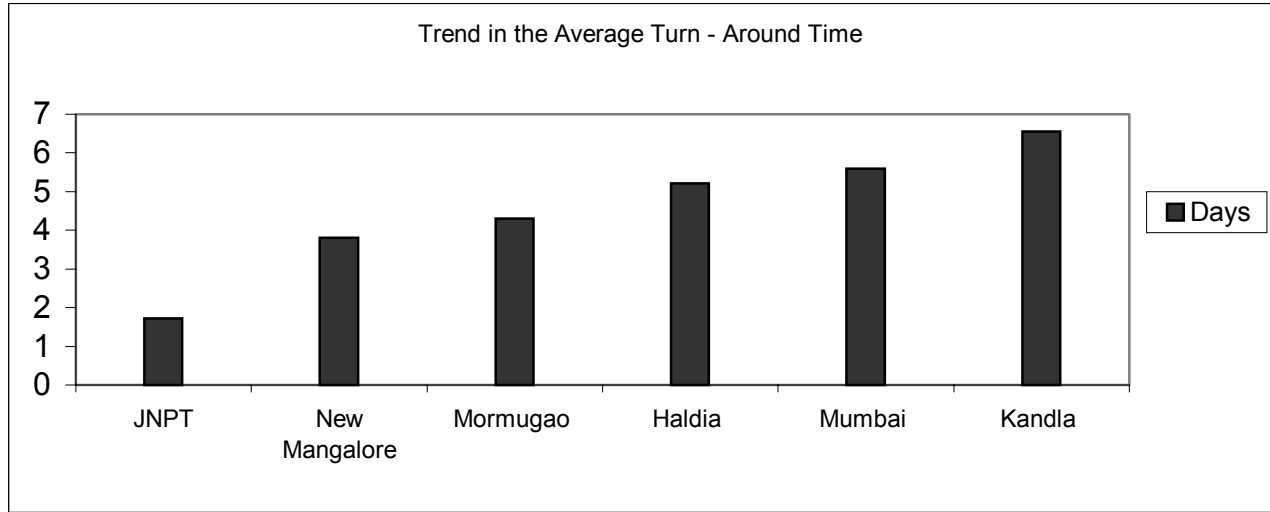
JNPT was the highest Container handling port during 1999 – 00 to 2001 – 02. The overall Container Traffic during this period increased from 2185 TEU’s to 2885 TEU’s. Vishakhapatnam handled the lowest Container traffic of 20 TEU’s during 1999 – 00 to 2001 – 02.

**Container Traffic at Major Ports from 1993 - 94 to 2001 – 02**

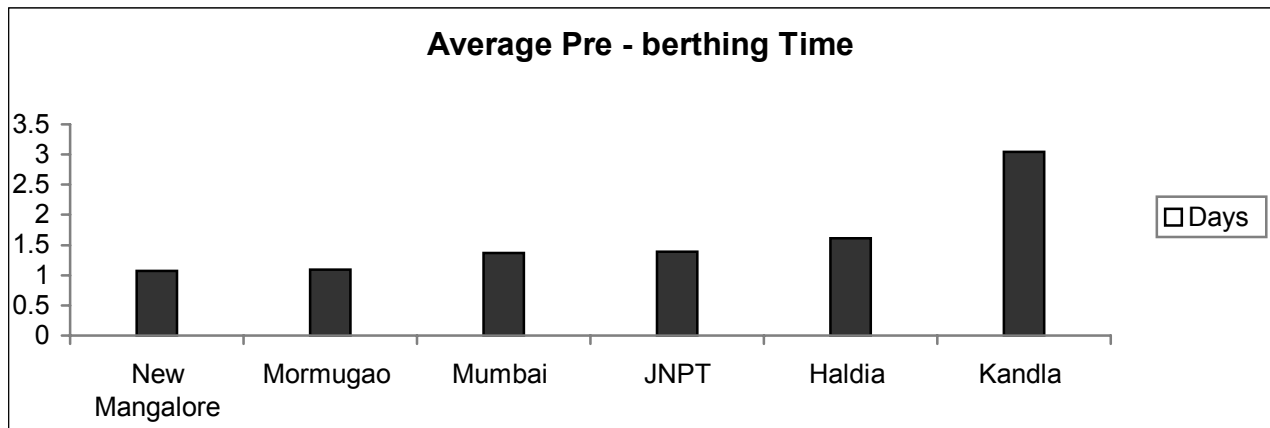


Total Container Traffic for major ports in India has increased from 12,249 thousand tones in 1993 – 94 to 37,229 in 2001 – 2002. In 2001 – 02 highest containers were handled by JNPT at 1573 TEU’s while the lowest containers were handled by Vishakhapatnam at 22 TEU’s.

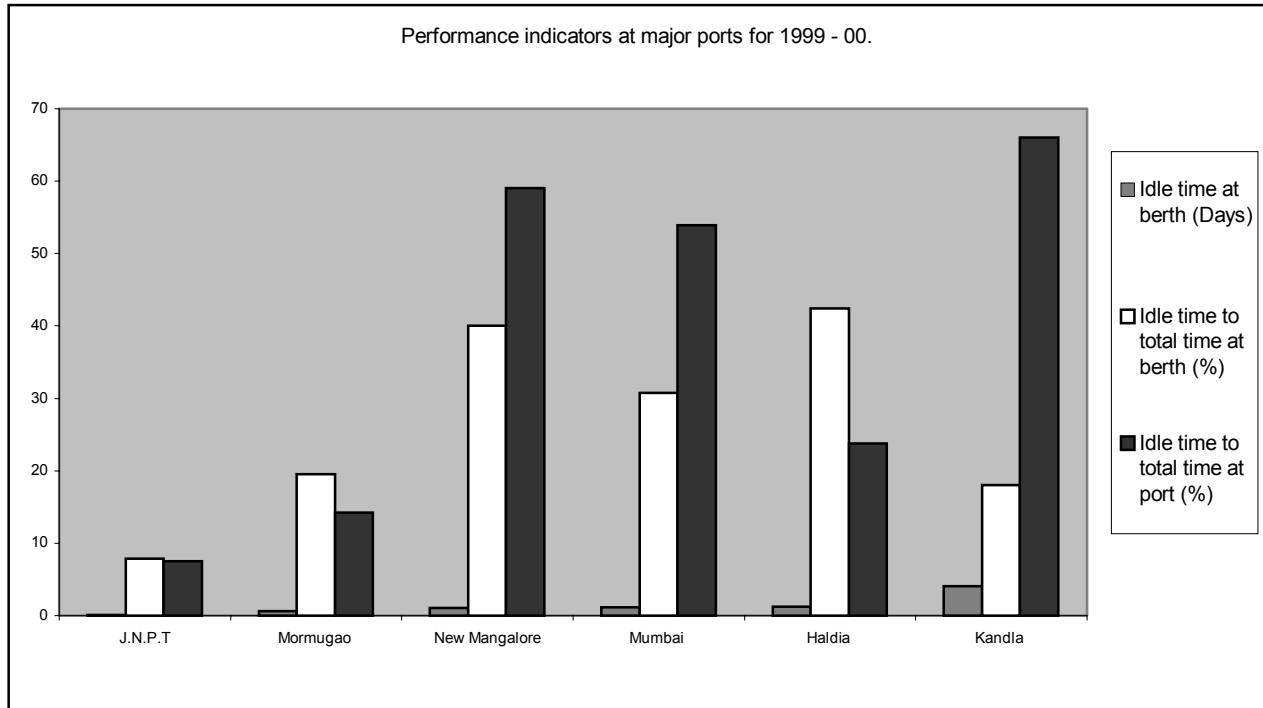
**Performance Indicators of Major Ports in India (Situation as on 1999 – 00)**



Considering the performance indicators of major ports in 1999 – 2000, JNPT is with the lowest average turn – around time of 1.72 days while Kandla is with the highest turn – around time of 6.55 days.

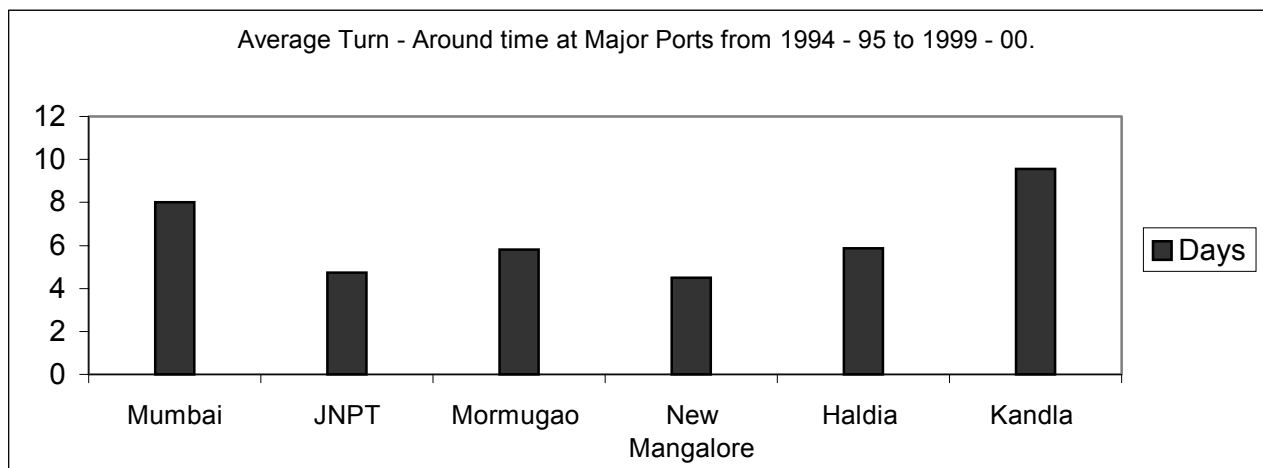


New Mangalore stands first with the average pre – berthing time of only 1.07 days while the highest pre – berthing time was at Kandla port of 3.04 days.



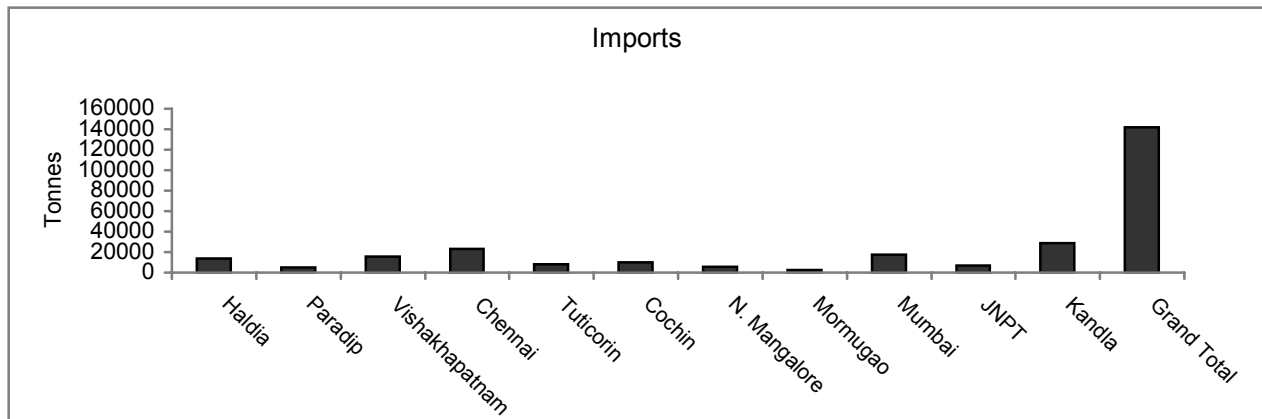
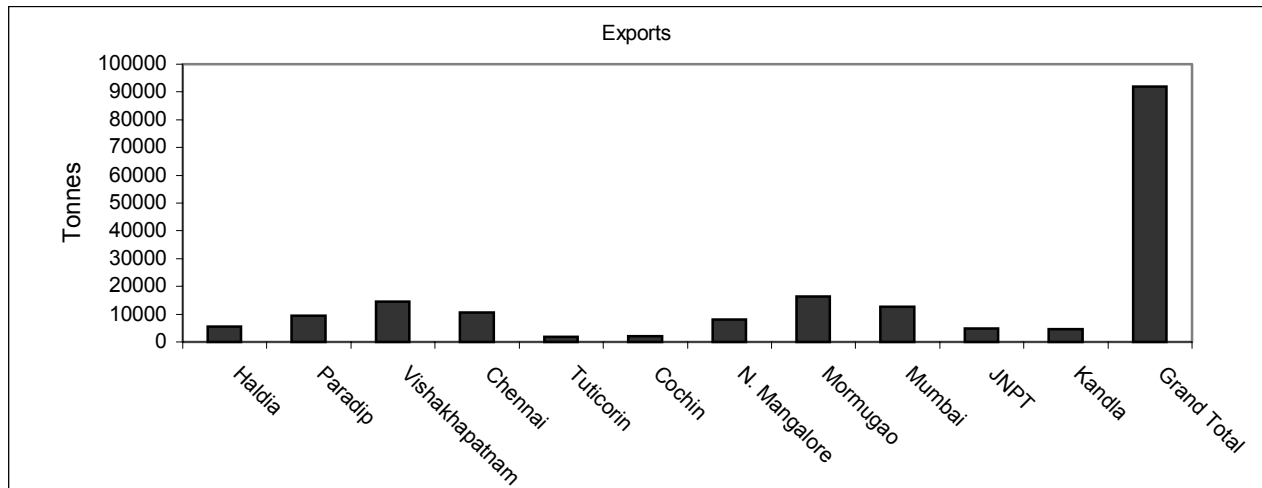
JNPT stands first of all the major ports with the idle time at berth equal to 0.12 days, idle time to total time at berth equal to 7.84% while idle time to total time at port is equal to 7.55%. Kandla port is very weak on performance indicators taking maximum time at port for the ship to load/unload cargo. JNPT port is doing very well on performance indicators and this is reflected in the increase in the cargo traffic handled by JNPT from 1994 – 95 to 2001 – 02.

**Performance Indicators of Major Ports in India: (Trend Situation from 1994 – 95 to 2001 – 02)**



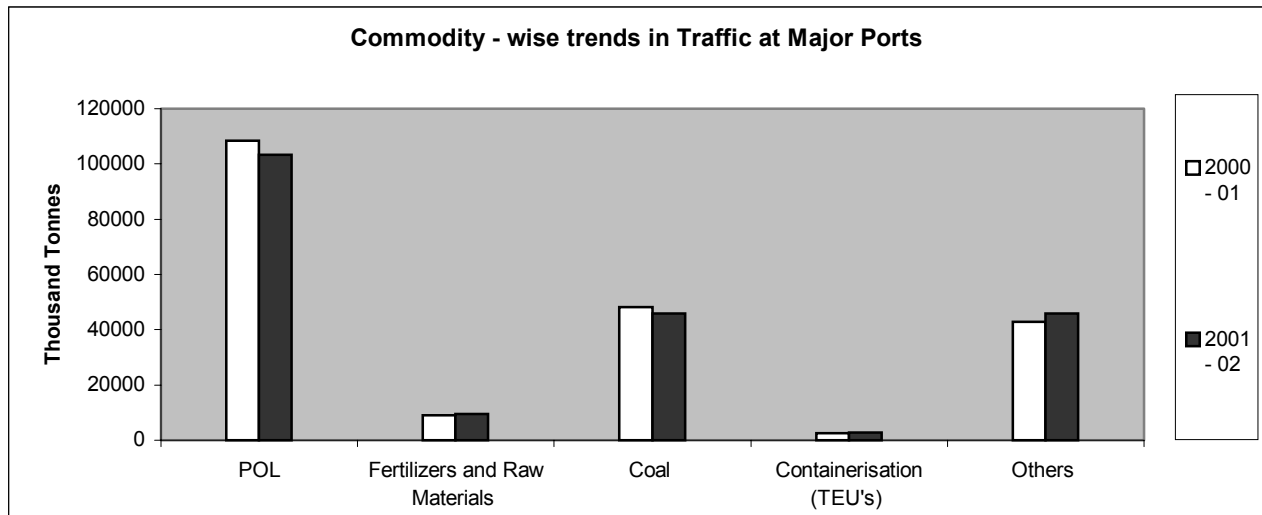
Looking at the performance indicators over time from 1994 – 95 to 2001 – 02 it is seen that the Kandla port is having the highest turn – around time of 9.56 days while the lowest turn – around time was registered at New Mangalore and JNPT ports of 4.49 days and 4.73 days respectively. New Mangalore registered the lowest pre – berthing time of 1.41 days while Kandla registered the highest pre – berthing time of 5.04 days. Lowest idle time at berth was registered at JNPT of 0.37 days while the highest idle time was at berth was registered at Kandla port with 2.63 days. Haldia registered the highest idle time to total time at berth of 49.03% while JNPT noted the lowest idle time to total time at berth of 16.94%. In case of idle time to total time at port JNPT recorded the lowest idle time to total time at port of only 4.61% while Kandla recorded the highest idle time to total time of 61.31%.

**Trends in the Exports – Imports Traffic handled at Major Ports in India from 1994 – 95 to 2001 – 02.**



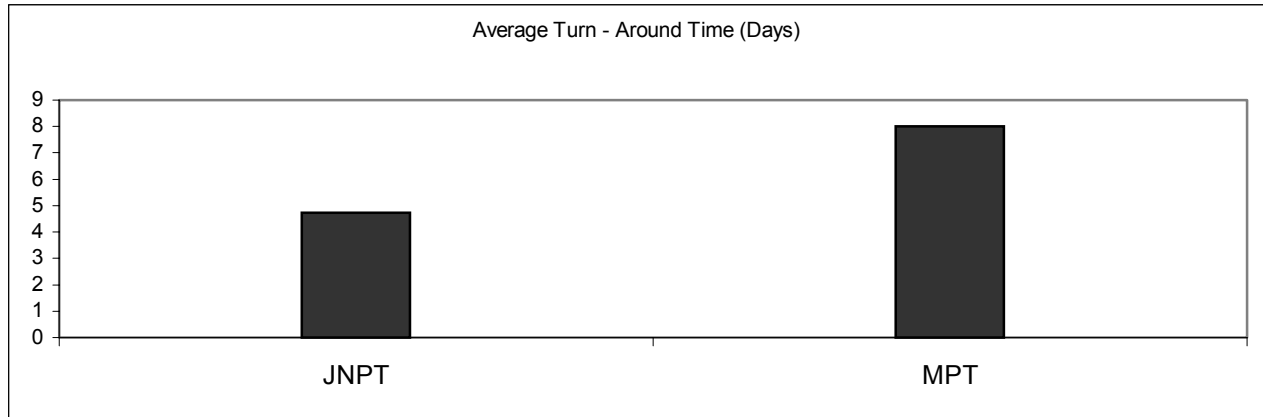
The total exports of all the major ports from 1994 – 95 to 2001 – 02 were 92,040.8 tonnes. Highest exports were handled at Mormugao port of 16,328 tonnes while the lowest exports were handled at Tuticorin port of 1,873.7 tonnes. Considering the total imports, imports at all major ports from 1994 – 95 to 2001 – 02 were 1,41,665.1 tonnes. Highest imports were handled at Kandla port with traffic of 29,011.1 tonnes while the lowest imports were handled at Mormugao port with the traffic of 2,700 tonnes.

**Commodity – wise Cargo handled at Major Ports**



Considering the commodity – wise traffic for all major ports in India for the year 2000 – 01 and 2001 – 02, PoL handled by major ports has declined in 2001 – 02 to 1,03,264 thousand tonnes from 1,08,348 thousand tonnes in 2000 – 01. Coal handled by major ports also declined to 45,891 thousand tonnes in 2001 – 02. from 48,099 thousand tonnes in 2000 – 01. Fertilizers and Raw materials handled had shown an increase from 9144 thousand tonnes in 2000 – 01 to 9565 thousand tonnes in 2001 – 02. Overall containerization has gone up from 2470 TEU’s in 2000 – 01 to 2885 TEU’s in 2001 – 02.

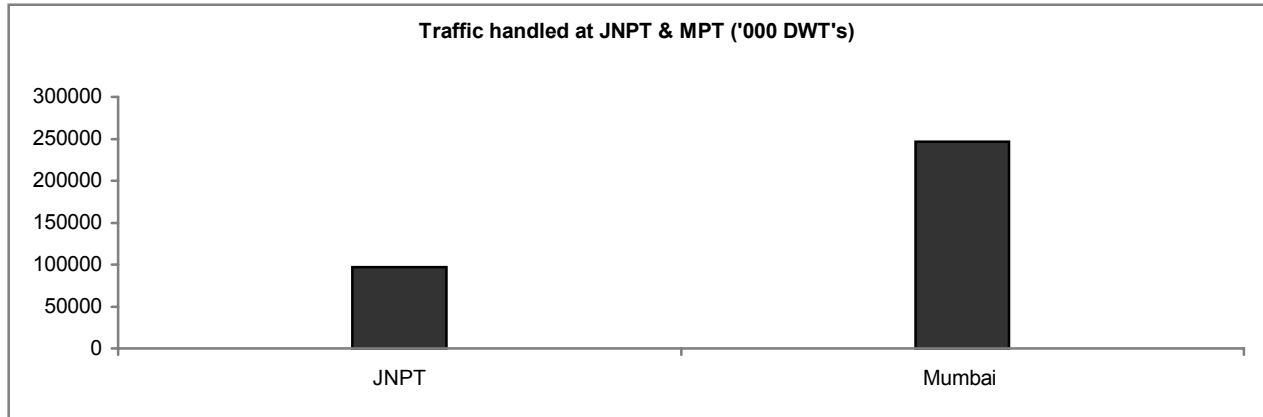
### **Performance Indicators of Major Ports in Maharashtra**



Studying the performance indicators of major ports in Maharashtra it is seen that MPT's Turn – around time from 1994 – 95 to 1999 – 2000 is 8.01 days to that of JNPT's 4.73 days for the same period. The average pre – berthing time taken by MPT was 308 days while that by JNPT was 1.75 days during 1994 – 95 to 1999 – 00. The average idle time at berth for Mumbai Port was 11.08 days while that for JNPT was 0.37 days during 1994 – 95 to 1999 – 00. The average idle time to total time at berth was 35.35 % for MPT while that of JNPT was only 16.94 % during 1994 – 95 to 1999 - 00. The average idle time to total time at Port for MPT was 53.68% while that for JNPT was only 4.61%. The main causes of the low performance of Mumbai Port Trust on all the performance indicators are lack of modernization since inception. The reserves of 4000 cr in the MPT treasury are not used for modernization purposes. There are no privatization attempts made by the government for Mumbai Port Trust. There is no proper infrastructure available for container handling at Mumbai Port Trust.

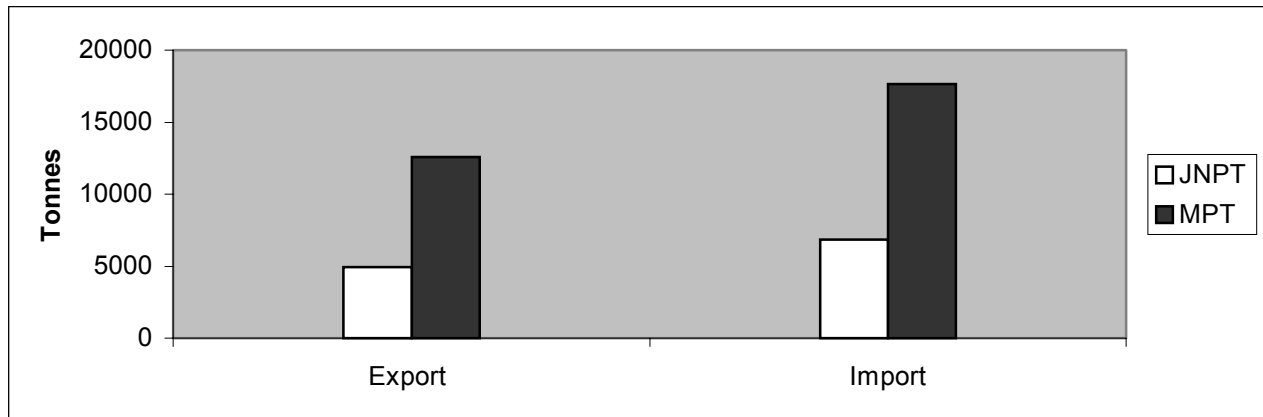


**Total traffic handled at MPT & JNPT - (1994 – 95 to 2001 – 02)**



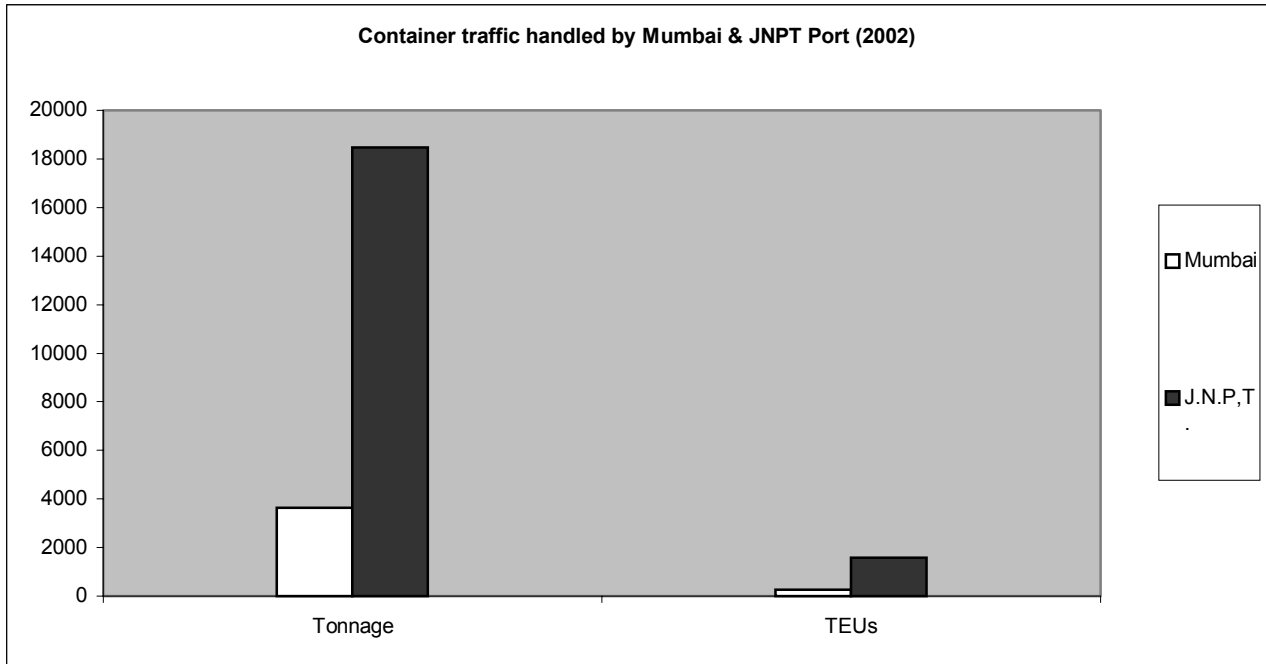
The traffic handled by Mumbai from 1994 – 95 to 2001 – 02 was 2,46,768 thousand DWTs while traffic handled by JNPT during 1994 – 95 to 2001 – 02 was 96,640 thousand DWTs.

**Exports & Imports handled from MPT & JNPT**



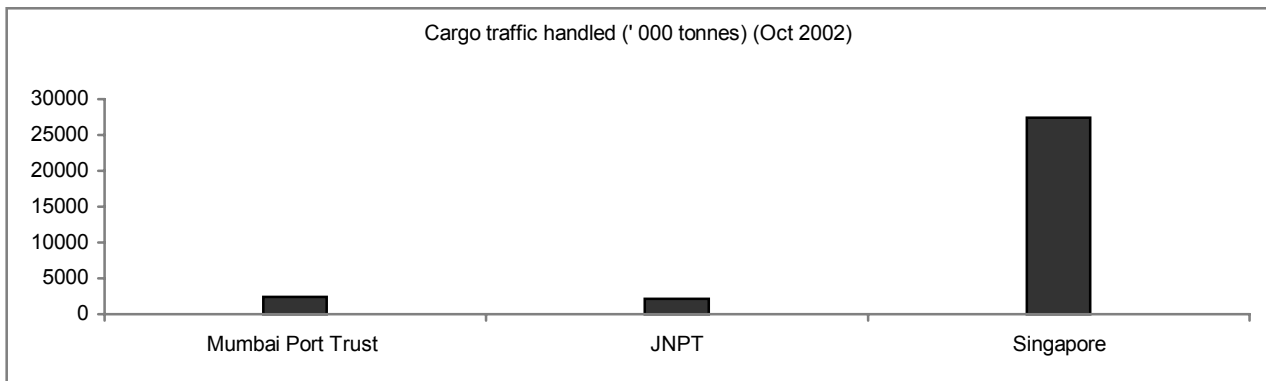
During 1994 – 95 to 2001 – 02, exports from Mumbai Port Trust were 12591.6 tonnes while imports from Mumbai Port Trust were 17641.2 tonnes. During the same period exports for JNPT was 4937.2 tonnes while imports for JNPT were 6837.5 tonnes.

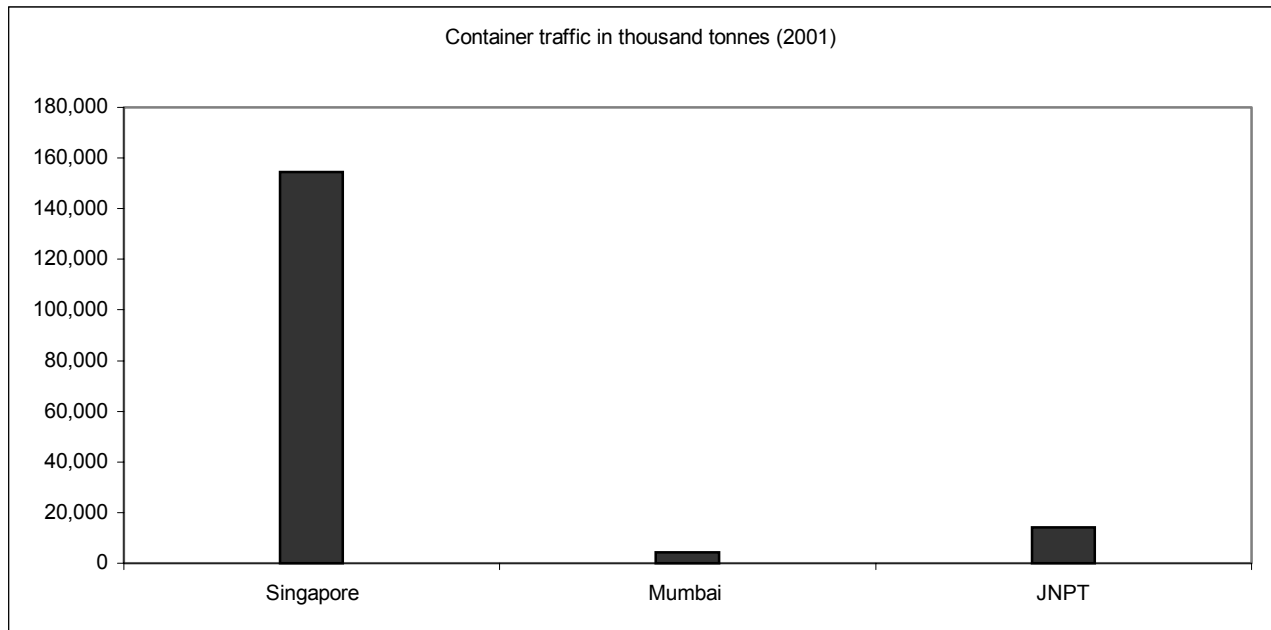
**Container Traffic handled at JNPT & MPT**



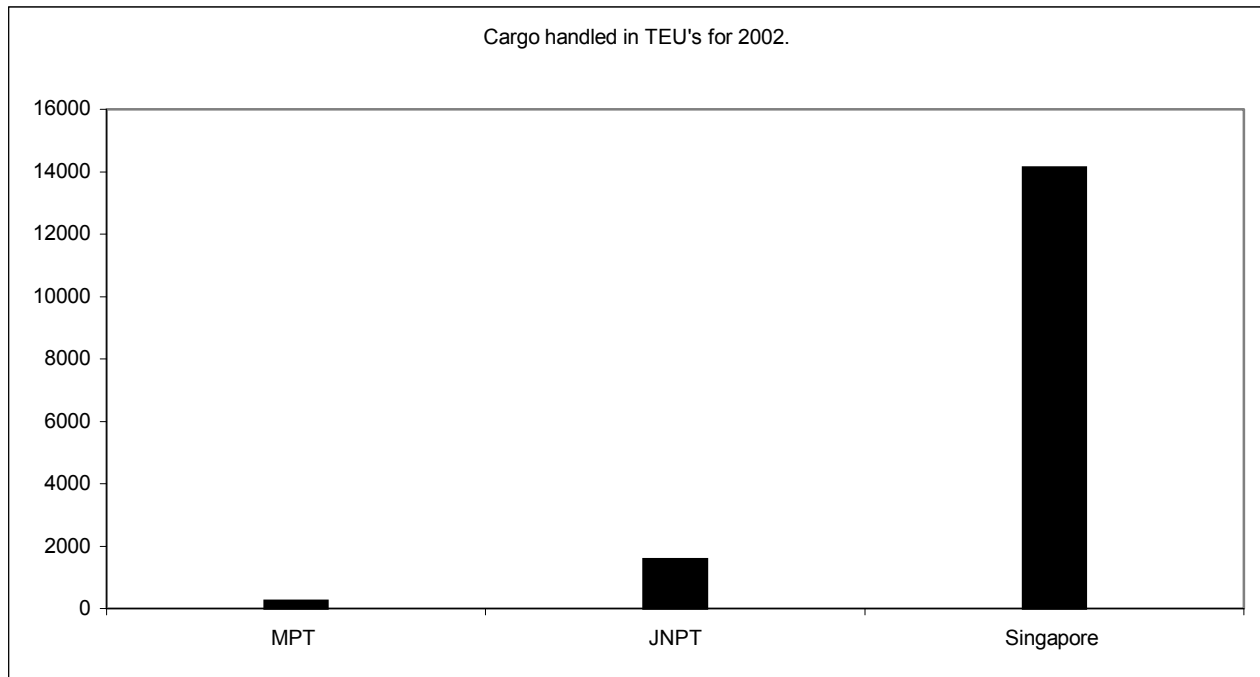
Considering the Container Traffic handled by JNPT and MPT in 2002, JNPT handled 18,484 tonnes of tonnage, which is higher than 3,648 tonnes of tonnage handled by MPT. Considering the TEU's handled JNPT handled 1573 TEU's in 2002 while MPT handled only 254 TEU's during the same period.

**Comparison of Maharashtra's Major Ports to that of Singapore Port**





Comparing the major Ports in Maharashtra with that of the Port of Singapore in October 2002 we find some stunning figures. The single port of Singapore is in a position to handle 27,410 thousand tonnes of cargo while MPT and JNPT taken together handle 4534 thousand tonnes of cargo. Considering the Container Traffic, the Port of Singapore handled 1,54,540 thousand tonnes of Container Traffic in 2001 while MPT and JNPT taken together handled 18,640 thousand tonnes of Container Traffic during the same period.



The Container Traffic handled at MPT and JNPT (In TEUs) taken together is nowhere near Singapore for the year 2002.

**Conclusion:**

Considering the current situation of major ports in India as well as Maharashtra, it is very well seen that JNPT port is performing very well as compared to the other Indian ports. Though the traffic handled by JNPT port is not matching the other major ports in India at this point of time, the cargo handled by JNPT is showing a continuous increase from 1996 – 97 onwards. JNPT is doing far better than the other major ports especially in case of performance indicators like the Turn – around time taken, Pre – berthing time taken, Idle time to total time taken at berth & port.

Though JNPT port is doing well on national standards, considering globalisation we have to benchmark ourselves with international ports. We have to compare Indian Ports to that of Internationally developed ports to exactly judge the shortcomings of the Indian ports & the possible solutions to overcome these problems.

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