WORLD MARITIME UNIVERSITY  
Malmö, Sweden

INDIAN PORT POLICY IMPERATIVES POST PRIVATISATION

By

SUDHESH KUMAR SHAHI  
India

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MARITIME AFFAIRS  
(PORTS MANAGEMENT)  
2002

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DECLARATION

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

Sudhesh Kumar Shahi
2nd September, 2002

Supervised by: Dr. Bernard Francou
Associate Professor: Ports Management
World Maritime University

Assessor: Dr. Shuo Ma
Vice Rector and Academic Dean,
Course Professor, Ports and Shipping Management
World Maritime University

Co-assessor: Professor Hercules Haralambides
Position: Professor: Maritime Economics
Institution/organization: Erasmus University, Rotterdam.
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Title of Dissertation: **The Indian Port Policy Imperatives Post Privatisation**

**Degree:** MSc

This dissertation seeks to look for the imperatives of a port policy for the Government of India in the present phase when the major initiative of introduction of privatisation has been undertaken with the twin objective of resource mobilisation and efficiency improvement as well as to find the role which the government would be required to play after the ultimate objective of converting major ports from service ports to landlord ports is achieved.

The study starts with looking at the historical background and the existing set up obtaining in respect of major ports including the major reform initiatives undertaken. It further goes on to look into the port reforms and theoretical framework governing port privatisation. Thereafter, the privatisation as adopted in some countries was overviewed and the pros and cons of public intervention in regulating the ports after privatisation were looked into.

Some emerging global trends, such as effect of globalisation on ports, consolidation of port operators, convergence of ship and port operators, affecting the port sector and its relative bargaining strength ports vis-à-vis shipping lines were investigated.

The study further progresses to find out the imperatives for policy intervention in order to address major issues, the Indian ports are confronted with and the possible ways to address those issues. The issues identified include the need to structure a long-term port policy, reform in the labour set up, urgent action for setting up of a load centre port. It further goes on to examine the role of government in post privatisation setting which hinges on strategic planning, technical and economic regulation and trade and transport facilitation. The study concludes with the recommendations concerning the key issues.

**Key words:** Privatisation, port reforms, port policy, regulation, trade facilitation, post-privatisation.
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<table>
<thead>
<tr>
<th>Acronym</th>
<th>Full Form</th>
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<tbody>
<tr>
<td>ADB</td>
<td>Asian Development Bank</td>
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<tr>
<td>BOT</td>
<td>Build, Operate and Transfer</td>
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<td>DLB</td>
<td>Dock Labour Board</td>
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<td>GOI</td>
<td>Government of India</td>
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<td>ICD</td>
<td>Inland Container Depot</td>
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<td>IPA</td>
<td>Indian Ports Association</td>
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<tr>
<td>ISPL</td>
<td>International Seaports Private Limited</td>
</tr>
<tr>
<td>FF</td>
<td>Freight Forwarder</td>
</tr>
<tr>
<td>JNPT</td>
<td>Jawaharlal Nehru Port Trust</td>
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<tr>
<td>MTO</td>
<td>Multimodal Transport Operator</td>
</tr>
<tr>
<td>MARPOL</td>
<td>International Convention for the Prevention of Pollution from Ships, 1973/78</td>
</tr>
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<td>MPA</td>
<td>Maritime and Port Authority (Singapore)</td>
</tr>
<tr>
<td>NSICT</td>
<td>Nhava Sheva International Container Terminal</td>
</tr>
<tr>
<td>PSP</td>
<td>Private Sector Participation</td>
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<tr>
<td>SOEs</td>
<td>State Owned Enterprises</td>
</tr>
<tr>
<td>SSA</td>
<td>Stevedoring Services of America</td>
</tr>
<tr>
<td>TAMP</td>
<td>Tariff Authority for Major Ports</td>
</tr>
<tr>
<td>TEU</td>
<td>Twenty-foot Equivalent Unit</td>
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<tr>
<td>UNCTAD</td>
<td>United Nations Conference on Trade &amp; Development</td>
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CHAPTER 1
INTRODUCTION

1.1 Background

Port authorities around the world in the past have been public authorities, owned and controlled by the local or national governments. Ports were seen as public utilities serving the need of region/nation rather than a commercial entity guided by the profit motive. Another reason behind the public ownership was the strategic importance of ports from national security point of view, economic as well as physical security, and it was considered prudent to keep such structure under the government control.

About two decades ago, the privatisation of public utilities and state owned enterprises (SOEs) started becoming popular and order of the day, in many countries as the very concept of governance underwent a paradigm shift. The ownership and operation of public utilities were increasingly being seen as not a core function of the government and the concept of governance was shrinking to cover the essential function of national security, external relations, law and order and regulation of public and private affairs. Thus hitherto public service organisations such as railways, Postal services, communications started getting privatised in different parts of the world. The shift was intended not only to attract private capital in these services but to also infuse dynamism, efficiency and market discipline associated with private capital, thus, lowering the cost and improving the quality of service. This shift signifies change in policy objectives rather than a device to simply meet paucity of resources. A lead was taken in this regard by the British government, which went on
privatisation spree of public sector organisations during the period of the conservative government (1979-90) led by Margaret Thatcher. Ports were not untouched by this process. Sherman R.B. (1996, p.5) asserts, “Privatisation has emerged within past few years as one of the most significant challenges to public ports and their governments.”

Consequently, privatisation of ports spread to different parts of the world. Before the 1980s, the government’s extensive involvement in the ports as state owned enterprise was the prevailing practice around the world (Thomson, 1997, pp. 198-199). With the proliferation of concept, various models and versions of port privatisation surfaced. Privatisation of ports was perceived and defined by different people in different ways. A few privatised ports were hailed as success based on their financial and physical performance. Since privatisation of public utilities, as the ports were perceived to be, carried its own social fall out, there was an air of scepticism about the possible benefits as De Monie (1994, p.3) points out:

Although the inherent benefits of genuine privatisation schemes are tangible and have been actually reaped by the countries, which championed the injection of significant amount of private equity in ports and fostered private initiative in port operations, privatisation schemes also carry serious disadvantages.

India did start the process of private sector participation (PSP) in ports in the early 90s despite the heavy social and political risks associated with privatisation in a country where employment creation remains at the top of the agenda of any government. The first phase of privatisation did not bring adequate response as the policy was, as candidly admitted by a senior bureaucrat of the Ministry of Surface Transport, ambiguous and devoid of commercial principles (Joshi, 1995, p.227).
Learning from experiences of the past, a new revised policy was introduced in 1996, which attempted to remove the ambiguity of the past. One of the vexed issues of labour was made clear and any investor making investment in new facilities was not obliged to take existing labour. The new policy did bring more enthusiastic response from the private investors. As a result, many Built, Operate and Transfer (BOT) projects are already operational and many big names such as P&O Ports, PSA Corp, APM Terminals and ISPL (SSA) have their presence in the country.

Apart from private sector participation, commercialisation and corporatisation of major ports are also being pursued simultaneously. The model being considered for the future is the landlord model of port management, being the most popular one. During the transitional phase from public to private ownership, which in Indian context could stretch considerably, clashes of interest between private players, public port authority, tariff regulator, national security agencies are quite likely. There could also arise conflict of interests between the state responsible for public welfare and private operators guided by the profit motive. The state will have to safeguard public interest by introducing necessary statutory regulatory mechanisms as well as by incorporating suitable clauses in concession/licence agreements. It would thus be useful to chart out a long-term course by the port policy planners in order to strike a balance between public and private good and to ensure smooth transition from public ports to private ones in larger national interest. In order to find out answers, the experiences of other countries would be worthwhile to look into, as one need not re-invent the wheel.

1.2 The objectives

In pursuance to the issues identified and enumerated in the above paragraph, this study would seek to focus on the imperatives of port policy after the major policy initiative taken in the recent past in the shape of PSP and the role of Government in post-privatisation scenario in the Indian context on the basis of objectives sought to
be achieved by privatisation and experiences of some other countries, which have moved much ahead in privatisation of their ports with a well defined Port policy. Though every country has its own unique socio-economic and political setting but it is hoped that such comparison could be useful in drawing a blueprint for the future. The study proposes to make an attempt to flag some key contemporary issues, which need attention of and intervention by the authorities.

1.3 Methodology

The methodology adopted in the study is ‘Empiricist’ and ‘Critical’ as it is based on controlled observation and analysis of facts and information. The study has adopted descriptive approach as to ‘what is’ and ‘what ought to be’. The solutions and recommendations are based on the analysis of experiences of different countries across the globe, writings of scholars and the globally emerging trends in the port sector. The information used in the study includes:

a) Data collected from Ministry of Shipping, Indian Ports Association
b) Books, monographs, trade journals, magazines, field trips during the course
c) Information gathered through Internet.

1.4 Limitations of study

India is a federal nation and the subject ‘Ports’ falls under the concurrent jurisdiction of the central and the state governments. Though the central legislation on the subject has overriding priority over the state one, but there is no direct administrative control of the central government over the states in policy formulations or port development concerning minor ports, except in the matter of environmental clearance. There is a consultative body known as Maritime States Development Council (MSDC) comprising of central minister in-charge of ‘Ports’ and the ministers in charge of ‘Ports’ of maritime states, which was set up in 1997. Different maritime states have adopted their own policies, which are generally in tandem with the central policies.
The present study is mainly based on the policies adopted by the central government, as it is difficult to access the policies adopted by various maritime state governments.

1.5 Significance of the Study

It is hoped that comparison and analysis of worldwide experiences in port privatisation and post privatisation structures to administer and regulate the sector as well as an overview of globally emerging trends in the ports sector would help in determining suitable framework for policy formulation and drawing roadmap for future development and planning for the port sector in India. An overview of, the various models tried in different countries, pros & cons thereof as well as certain emerging trends influencing port, would throw-open possible alternatives for policy makers in the Government of India.
CHAPTER 2
INDIAN PORTS-AN OVERVIEW AND REFORM INITIATIVES

2.1 Historical perspective

India has a coastline of 7516 km (including 1962 km of Andaman & Nicobar Islands and 132 km of Lakshadweep Island). Surrounded by water on the three sides of its peninsular south, India has always looked for sea-routes for contacts with the outside world. The country had a glorious maritime tradition in the ancient period when the Indian cultural empire extended up to the Indonesian Islands and Buddhism spread to the Far East. Historians have traced the links with the sea, way back to the Harappan Culture around 3000 B.C. The Harappan Culture has shown the presence of a large number of ports. The first tidal dock was built at Lothal, around 2300 B.C. near the Mangrol Harbor in the Gujarat Coast. It confirms of the existence of large ships, capable of being used at sea. ("Maritime History of India", 2000)

The shipbuilding industry was also highly developed. Marco Polo in 1292 A.D., talked of the Indian ships as, "… built of fir and timber having a sheath of boards …fastened with iron nails…. the bottoms were smeared with a preparation of quicklime and hemp, pounded together and mixed with oil from a certain tree which is better material than pitch". Some of the finest sail ships were built in Indian yards for the service of East India Company and the Royal British Navy. However, like other indigenous industries, this industry also suffered during colonial period. ("Maritime History of India", 2000)
After the fall of Constantinople, Western Europe was in search of new routes for the spice trade from Asia. The arrival of Spanish and Portuguese Armadas set the decline of Indian native maritime influence. The old ports of the country were among the first few places where the European trading companies such as English East India Company, Dutch East India Company started their trading bases. At present, there are 12 major ports and 148 other minor and intermediate ports (of which around 53 are currently active for handling cargo, remaining catering to fishing, passenger boats, etc), handling about 380 million tonnes of cargo annually. (Proposal for annual plan 2002-03, Ministry of Shipping). Most of the major ports are well located close to trans-pacific and Europe-Far-East trade route. A map showing the location of major ports is given below in figure 1.

Figure 1: Map showing major ports of India

Source: Indian Ports Association
‘Major port’ refers to any port, which the Central Government may by notification in the Official Gazette declare, or may under any law for the time being in force have declared, to be a major port. Major ports function under administrative control of Central Government. ‘Other ports’ (also known as minor ports) refers to any port, which the state government by notification in the official gazette declares to be state controlled ports. The term major and minor does not denote the size or scale of the port but only the jurisdictional control of the central or the state governments respectively. However, major ports have been the mainstay of sea-borne foreign trade of the country and their share in total cargo handled was about 90% till a few years ago. Of late some state governments have taken strong initiative to develop minor ports with the result that the share of minor port in the total throughput is consistently increasing and at present stands at about 25%. In order to appreciate the relative importance and evolution of major and minor ports, their share in the total traffic during the last five years is indicated in Table 1.

Table 1: The distribution of traffic between major and minor ports (in million tons)

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<tbody>
<tr>
<td>1</td>
<td>Major Ports</td>
<td>251.66</td>
<td>251.72</td>
<td>271.92</td>
<td>281.09</td>
<td>287.57</td>
</tr>
<tr>
<td>2</td>
<td>Minor Ports</td>
<td>38.61</td>
<td>36.31</td>
<td>62.52</td>
<td>86.58</td>
<td>95.00*</td>
</tr>
<tr>
<td>3</td>
<td>Total</td>
<td>290.27</td>
<td>288.03</td>
<td>334.44</td>
<td>367.67</td>
<td>382.57</td>
</tr>
<tr>
<td>4</td>
<td>% share of Major Ports</td>
<td>86.7</td>
<td>87.4</td>
<td>81.3</td>
<td>76.5</td>
<td>75.2</td>
</tr>
<tr>
<td>5</td>
<td>% share of Minor Ports</td>
<td>13.3</td>
<td>12.6</td>
<td>18.7</td>
<td>23.5</td>
<td>24.8</td>
</tr>
</tbody>
</table>

* estimated

Source: Proposal for 10th five year plan, Ministry of Shipping, Govt. of India.

The traffic handled by major ports has grown from 33 million tones in 1960-61 to 288 million tones in 2001-02. During 1998-99, out of the total cargo handled at the
major ports, overseas cargo was 72 % and coastal cargo was 28 %. The share of principal commodities handled by major ports during 2001-02 is shown in Table 2 and Figure 2.

Table 2. Principal commodities handled by major ports during 2001-02

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Quantity in million tons</th>
<th>Percentage share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petroleum &amp; other lubricants</td>
<td>108.35</td>
<td>38.5</td>
</tr>
<tr>
<td>Iron ore</td>
<td>40.46</td>
<td>14.4</td>
</tr>
<tr>
<td>Fertiliser</td>
<td>9.14</td>
<td>3.3</td>
</tr>
<tr>
<td>Coal</td>
<td>48.10</td>
<td>17.1</td>
</tr>
<tr>
<td>Containers</td>
<td>32.22</td>
<td>11.5</td>
</tr>
<tr>
<td>Others</td>
<td>42.83</td>
<td>15.2</td>
</tr>
</tbody>
</table>

Figure 2. Commodity wise distribution of cargo handled in major ports during 2001-02

Source: Indian Ports Association

The major ports were administered by the port commissioners appointed by the central govt. till Major Port Trust Act, 1963 came into force, which envisaged a uniform autonomous ‘Trust’ structure for management of the port. Now the youngest major port at Ennore, which is operational since 2001, has been set up as a company, albeit owned publicly. Among ‘other ports’, Private sector ports have also emerged on the scene (Port of Pipavav in Gujarat where PSA Corp and APM Terminals have stakes and Mundara Port).
Post independence Indian port policy focused on capacity creation and modernization in tune with the policy of rapid industrialization. Starting from first five year plan (1951-55) till fifth five year plan (1974-79), the emphasis was placed on creation of additional capacity especially for handling bulk cargo, liquid and dry both. New major ports of Kandla, Manglore, Tuticorin and Mormugao were added. Modernization of existing ports and construction of new ones was undertaken using public finance in the shape of soft loans. In the sixth plan (1980-85), emphasis was laid on development of container handling facilities and smooth inter-modal linkages. In order to take advantage offered by containerisation, ICDs were set up in different parts of the country. The Seventh plan (1985-90) for the first time recognized the need for introduction of private capital and inter-corporate loans between major ports was introduced as a method for financing port projects by using the surplus reserves of cash rich ports. The Eighth plan (1992-97) concentrated on inviting private capital not only in running of existing assets but in creation of new assets and a comprehensive guideline for the purpose was finalised. A scheme for creation of joint venture between major and minor ports, major and foreign ports/private companies was also framed. User investment was recognized not only as a means to augment the resources but also to improve operational performance.

Towards the end of the Ninth plan (1997-02), for the first time it happened that installed port capacity was more than the traffic and the chronic congestion problem in major ports due to capacity constraint was resolved to a large extent. The Ninth plan also saw the first BOT private container terminal operational with great success. In order to allow major ports to act as commercial entities rather than a beauraucratic organisation, a policy decision was taken for phased corporatisation of major ports. The Tenth plan (2002-07) is still under finalisation, however since capacity is no more a constraint, the proposals seek to focus on modernization of ports, enhancement in their service quality, making them cost effective and gradual shifting towards commercialisation to corporatisation to privatisation.
2.2 Legal Regime

The following main legislations are connected with the functioning of ports namely:
1. The Indian Ports Act, 1908.
2. The Dock Workers (Regulation of Employment) Act, 1948.

The Indian Ports Act (IPA), 1908 is the governing Act, which defines the jurisdiction of Central and State Governments over ports. The Act empowers the respective governments in administering and developing the ports. The Act also provides for private sector participation in a Government-controlled port. It describes the duties and powers of port officials including conservator and rules for the safety of shipping and the conservation of ports. It also provides for charging of levies and duties as well as penalties for violation of various provisions of the act. The Act provides for indemnity of Government against act or default of port official or pilot.

The Major Port Trusts Act (MPTA), 1963 defines the administrative framework for Major Ports. The MPTA makes provision for the constitution of port authorities (Trust) for major ports in India and vests the administration, control and management of such ports and matters connected therewith in such authorities. Major Ports are autonomous bodies, managed by ‘Board of Trustees’ under the overall administrative control of the central government through the Ministry of Shipping.

At the time of enactment of MPT Act in 1963, six Major Ports: Kolkata, Mumbai, Chennai, Cochin, Kandla and Visakhapatnam, were in existence. Paradip, Tuticorin, New Mangalore, Marmugao and Jawaharlal Nehru Ports were included in this group of Major Ports after 1963. Further, Haldia Dock was developed by 1977 under the jurisdiction of Kolkata Port Trust. The Dock Workers (Regulation of Employment) Act (DWA), 1948 dealing with the regulation of the employment of dockworkers is discussed under Labour sub-heading.
2.3 Administrative set-up

The Ministry of Shipping (MOS) in the Government of India (GOI) is the nodal ministry responsible for overall policy formulation in respect of matters connected to ports and shipping and administration, interalia, of IP Act, MPT Act & DW Act. Since IP Act assigns the subject ‘major ports’ to the central government, MOS is responsible for the overall management of major ports in accordance with the provisions of MPTA. The MOS constitutes a ‘Board of Trustees’ for each major port in accordance with the provision of MPTA. The chairman and deputy chairman of the board of trustees is appointed by the GOI. Besides the chairman and deputy chairman, the board of trustees is comprised of representatives of Customs, Railways and Defence Department, a representative from the concerned state government, and representatives of ship owners, shippers, labour etc. All members of the board of trustees, other than the chairman and deputy chairman, are part-time members.

MPTA makes it mandatory for major ports to seek approval of MOS for their annual plans, five year plans and schemes costing beyond the financial powers delegated to the Board. All statutory regulations concerning administration of the port are to be concurred by the MOS. Major ports are empowered to receive loans from government, obtain loans in the open market and charge rates and fees for the services rendered. Port authorities are required to receive prior GOI approval for annual budgets and to submit annual administrative reports, and annual accounts, which are subject to audit by the Comptroller and Auditor General (CAG) of India.

The State governments administer the minor ports either through State Maritime Board (Gujarat, Maharashtra, Tamil Nadu and West Bengal) or through State Government Departments. State Maritime Boards have structures and powers to a large extent similar to those of Board of Trustees in a Major Port.
2.4 Labour situation

Workers employed by port authorities are generally known as port workers and they work on shore. For work on board the ship, workers are registered with the Dock Labour Board and are referred to as dock labour. Till the late 40s, private stevedores were using unorganised dockworkers, for on board handling of cargo. In the absence of any governmental control on their employment and working condition, private stevedores exploited dockworkers. Their working conditions were poor and hazardous with no concern for their safety and health. In order to regulate the employment of dockworkers, a legislation ‘Dock Workers (Regulation of Employment) Act, 1948[DW Act] was enacted, which provided for listing of dockworkers, ensuring their rotational employment and minimum wages. The Act provides for setting up of Dock Labour Boards (DLBs), which are tripartite bodies representing the Government, the employer and the workers in equal proportion, to administer the various schemes framed for regulation of employment under the act.

A negative fall out of this legislation was that cargo handling got divided in two watertight compartment namely dock work and shore work and two different set of work force working under the control of two different organization (though the chairman of Port Trust and DLB is common) were used for cargo handling on board and on shore. This resulted in wastage of labour, as surplus on one side could not be deployed on the other, due to non-interchangeability. The interchangeability amongst these two sets of labour could not be introduced mainly due to resistance of trade unions representing dock workers since merger would entail possible financial loses in the earning of dock workers as dock workers historically earned more than the shore worker. Since this duality of the workforce was affecting the productivity and cargo handling cost adversely, in order to rectify the situation, it was decided to merge the Dock Labour Boards with the port trust in order to bring all the work-force under single umbrella and for the purpose, DLB Act was amended. The amendment act provides for the consent of trade unions before merger settlement, which makes
the task more daunting, given the strong trade unionism amongst dockworkers. The
tough and protracted negotiation with the trade unions has resulted in merger of 4 out
of 7 DLBs with their respective port trust whereas process is on in the remaining
three. Eventually DLB Act would be repealed once the remaining 3 DLBs merge
with their respective port trust.

Most of the major ports are also saddled with excess workforce. The total number of
work force in 11 major ports and 4 dock labour boards together as on 31st March
2001 was 87676, of which the number of cargo handling workers is 31,377 (IPA,
2001). This figure is very high compared to international norms. Contrary to popular
perception, the excess workforce is not only there in the category of Cargo handling
workers, but also in other non-cargo handling categories as shown by the ratio
roughly of 1:2. Outdated excessively high manning scale and the trade unions
resistance to allow reduction in these scales with advancement in cargo handling
technology is one of the important reasons for the inflated workforce. Moreover
labour productivity is low resulting in high cargo handling cost. The low labour
productivity may, among others, be attributed to poor management, restrictive labour
practices, low motivation and lack of training.

Further, India’s labour laws in force are deeply entrenched in the past when the
social security was the utmost concern of the state. They are quite complex and
cumbersome and are heavily loaded in favour of labour. They are not conducive to
modern production and management practices. As Akram (1997) points out:

Labour dispute procedures tend to be prolonged and do not offer expeditious
or fair method of labour dispute resolution. Any attempt for undertaking port
reforms would not yield desired result unless the simultaneous action is taken
for amendment of certain restrictive provisions of labour laws and bring them
in tune with current market driven economic environment.
2.5 Tariff Regulation

In the past, major ports were free to fix tariff themselves subject to the approval by the MOS. This system offered flexibility to port trust in fixing tariff but pricing was monopolistic in the absence of competition among ports, each major port having its own captive hinterland. With the opening of major ports for private sector participation, it was decided to set up an independent tariff regulator and accordingly a ‘Tariff Authority for Major Ports’ (TAMP) was set up in April 1997. The objective was to rationalize tariffs on a continuing, transparent and fair manner, thereby enhancing the confidence of private sector to spur investments in the sector. Under the regulatory set-up, the service providers at major ports, public and private both, are required to submit proposals to TAMP and seek its approval for fixing and revising tariffs.

The tariff fixed by the authority is a ceiling and the operators are free to charge less than the notified tariff. However, the new system puts the major ports in disadvantageous position vis-à-vis private operators in major ports. Whereas private operator has the flexibility of lowering his tariff below the ceiling fixed, major ports are unable to lower the tariff at will being state owned. This situation was more pronounced in one major port (JNPT) where a private and a port authority owned container terminal are competing side by side. Further due to rapid development of minor ports in the last few years, they started offering competition to major ports, fixing the tariff themselves free from any independent tariff regulator. Faced with receding cargo volume lost to minor ports and private operators, concerns are voiced by major ports for liberating them from the purview of TAMP. The GOI is now considering to convert TAMP into an appellate tribunal. In the proposed new set-up, the service providers would be free to fix and revise tariffs on their own without seeking the regulator's approval. But, users will have the liberty to approach the appellate tribunal for airing their grievances on the tariffs thus fixed and revised by the service providers (Manoj, 2002).
2.6 Privatisation

A great wave of privatisation has swept across the world in the last two decades or so. Advocates in favour of privatisation of public enterprises argue that it increases the productive efficiency and effectiveness of a firm. Private ownership of a firm leads to profit-maximizing behaviour. Privatisation encourages competition; creates better corporate management, product quality, and customer service; cuts down bureaucracy and expedites the development of capital projects; reduces political interference in corporate management; ensures the right economic incentives; and leads to an infusion of private capital (Akram, 1997).

In India, though the introduction of deregulation of economy can be traced back to the mid seventies but privatisation (in more politically acceptable name of deregulation and disinvestments) of SOEs as a matter of stated state policy objective was introduced in 1991 as conditionality of structural adjustment loans, undertaken at the behest of IMF. As stated earlier, a structured privatisation in major ports started in 1996 conforming to landlord model and accordingly individual terminals and facilities are being privatised within the overall control of port trust. In case of minor ports, some Greenfield ports have been developed by joint venture companies with minority stake of state government viz. Pipavav, Mundara port in Gujarat state.

The initial efforts for attracting the private investors in the first half of 90s did not bring enthusiastic response apparently due to lack of clarity and vagueness of overall paradigm. Some of the initial projects involving private sector were leasing of berths at Haldia to Steel Authority of India Ltd. and Tata Iron & Steel Co. in 1992, dedicated iron ore berth at New Manglore, Priority berthing rights to American Presidents Line (APL) in Mumbai port in 1994, setting up of a CFS by Maersk at JNPT, hiring of crane by JNPT etc. Drawing lesson from the first phase, more structured programme was undertaken by issue of detailed guidelines for private sector participation in major ports in October 1996.
The stated objective of revised PSP guidelines is to mobilise substantial resources required for capacity addition and to improve efficiency, productivity and quality of service as well as to bring in competitiveness in port services. As per the revised guidelines, following areas have been identified for PSP:

1. Leasing out existing assets of the Port.
2. Construction/creation of additional assets such as:
   i. Construction and operation of container terminals.
   ii. Construction and operation of bulk, break bulk, multipurpose and specialised cargo berths.
   iii. Warehousing, container freight stations, storage facilities and tank farms.
   iv. Cranage/Handling equipment.
   v. Setting up of captive power plants.
   vi. Dry docking and ship repair facilities.
3. Leasing of equipment for port handling and leasing of floating crafts from the private sector.
4. Pilotage.
5. Captive facilities for port based industries.

The other important features of the guidelines are:

i. The PSP in all the above-mentioned areas should be done through an open tender.

ii. Relevant feasibility study is to be carried out by the port itself with cost to be recovered from the successful bidder.

iii. The facilities created will be given on Build-Operate-Transfer basis. The period of lease shall be 30 years after which the assets shall revert back to the port free of cost.

iv. 100 per cent captive facilities (land/waterfront) may be considered for privatisation, without recourse to a tender.
v. Financial bids to be generally invited for (i) an upfront fee for the lease; (ii) royalty per tone of the cargo to be handled; (iii) the minimum cargo which prospective operator is willing to guarantee; (iv) the lease rent per unit area; and (v) any other financial parameter to be specified depending upon the facility to be leased.

vi. Comparative financial evaluation of offers is to be based on the concept of maximum realization to the port on net present value basis. Royalty will be based on the minimum traffic, which the entrepreneur guarantees.

vii. In case of licensing of existing facility, port trust is to decide about the number of labour to be necessarily taken over along with the facility with the guarantee of maintaining the service conditions, by private operator.

The different state governments have their own vision and policies for the development of minor ports. Some of the state governments especially Gujarat and Maharashtra, Andhra Pradesh are quite active and successful in soliciting private investment in port development.

The first private sector project under the revised guidelines was awarded to a consortium led by M/s P&O Ports in 1997 for construction and operation of a 2-berth container terminal at JNPT, which is operational since 1999. So far 17 private sector/captive projects, involving a capacity of 60.50 million tonnes have been approved some of which are operational and others are at different stages of implementation. On the average, PSP in major ports can be termed as average owing to reasons such as insistence on royalty based on guaranteed throughput, upfront payment, taking over of labour in case of existing facilities etc. Further, PSP in ports is a reflection of overall ability of Indian economy to provide investor friendly atmosphere. In order to make the PSP more investor friendly, a new model concession agreement has been adopted based on revenue sharing, which is more in the spirit of public-private partnership and risk sharing.
2.7 Corporatisation

The globalisation of world economy witnessed during last two decades or so has had far reaching impact on shipping and ports. With the opening of market to foreign capital and goods, capital is reaching out to places where the cost of production is low and necessary technical expertise is available. It forced the Port management world over, to realize that ports are a vital link in the overall transport chain and thus their efficiency is crucial for their own survival as well as for economic growth. The ports came under the pressure of an increasingly competitive and dynamic market. As De Monie, (1994, page 1) observes “The drive for accelerating transport efficiency resulting from international sourcing and the globalization of the market have fundamentally affected ports around the world and forced political leaders to critically review the performance and service of their national ports…”

Economic liberalization and globalization adopted by the Indian government since the early nineties has brought the Indian port sector too under the scrutiny for improving its operational and financial performance, service standards and overall efficiency levels. It was then felt that a number of restrictive provisions of MPT Act, 1963 do not allow Indian major ports to operate on commercial lines. They lacked required flexibility to operate in a market-oriented economy. To overcome this infirmity, corporatisation of ports has been seen as a tool to extend desired autonomy by making major ports an independent corporate entity, not looking for operational directives from the government. A corporatised port will have access to market, to raise capital by debt, as well as equity or raise funds through the banking system. Thus it has been decided to corporatise major ports in a phased manner. A corporate port entity can provide further impetus to PSP. Already the youngest major port at Ennore is functioning as a corporate entity since inception and the process of corporatisation of JNPT, the second youngest major port and Haldia Dock Complex; satellite port of Kolkata is on. Corporatisation in the port sector at the State level has meanwhile, taken off in respect of two ports in the state of Gujarat - Mundhra Port and Pipavav Port - both of which have come up as private corporate entities.
It may thus be seen that major ports have come a long way as far as their capacity and throughput is concerned but they remain less productive and inefficient, far from the acceptable international standards. India has yet to go a long way in making its ports capable of meeting the objectives of macro-economic policies. Private sector participation has brought in some kind of dynamism in ports functioning as seen in the increasing throughput of the first private container terminal (0.9 million TEUs in the 3rd year of operation) and the competition between public and privately owned container terminals in JNPT. But still major ports have to cover a long distance to function on commercial line and this may perhaps need a complete overhaul of existing set up. The next chapter will seek to focus on the theoretical framework of port reforms, the different type of administrative structures in vogue, the role of public authorities in post privatized scenario and review briefly the privatisation as attempted in other parts of the world.
CHAPTER 3
PRIVATEISATION WORLD WIDE – ISSUES AND OVERVIEW

3.1 Port reforms

Restructuring of global economic environment is an ongoing continuous process. A phenomenon sweeping across the world in the last two decades or so has been to re-examine the role of public sector, which led to initiation of institutional reform and restructuring of public enterprises. The collapse of erstwhile Soviet block gave fillip to the process as the whole eastern block was gradually moving from controlled economy to market economy. The process of globalisation emerging from dismantling of trade barriers is resulting in not only market expansion but also in global competition, where only the best are fit to survive. Manufacturers are now seeking out minimum cost inputs world-wide, shifting their manufacturing bases to places which are advantageous in terms of lower production costs and higher profits. Ports did not remain untouched by this process as increased and intense competition in world trade put pressure on ports to reduce their part of cost in the overall transportation cost, which was substantial. Poor performance along with problems associated with public sector ports led to catharsis of their public nature and made them an object of institutional reforms. Juhel (2001, p.142) notes that the most striking feature of rearranging port organisations is the growing participation of private parties in the provision and management of port services.

UNCTAD (1995, p.5) notes that high costs, poor services and low efficiency and productivity are symptoms of the problem rather than the causes. The investigation of poor port performance in four African countries revealed that often the cause for poor
performance was institutional rather than infrastructural deficiencies. Some of the causes found were heavy interface between government and the port preventing later to operate commercially, lengthy bureaucratic procedures, unnecessary state intervention, lack of commitment to commercial objectives. Public ports by nature tend to be bureaucratic and operate in a protected environment. They are insulated from the rigours of market forces and even if they are rejected by the market for their inefficiency, high cost, user unfriendliness, they are least worried about their continued existence because of the backing of government which is obliged to bail them out from financial difficulties. As the very structure of the public ports make it unsuitable to operate commercially, the solution was seen in modifying the structure itself in different ways.

The core idea behind institutional reform is to make port management responsive to the needs of port users by operating on commercial lines in market oriented environment, thereby improving the efficiency and quality of services. The specific objectives of port restructuring interalia include enhancement in efficiency, promotion of competition, reduction in port cost, acquiring management expertise, augmenting financial resources, introduction of modern technology and management practices and improving industrial relations.

UNCTAD (1995, p. 8) has classified various reform methods initiated in the ports sector in following four major categories, which could be implemented sequentially or simultaneously:

**Managerial approaches** which seeks to introduce modern management techniques such as management by objectives, cost control, quality control, decentralisation of decision making etc. in order to bring improvement in the functioning of the organisation. This is normally a precursor to the introduction of major institutional reforms.
**Deregulation** seeks to restore competition in a market which is distorted by excessive regulation and thus benefiting from the market discipline. Deregulation may relate to inter-port competition for cargo, port labour, port charges, investment in new facilities. Deregulation of port labour in UK in 1989 reportedly had massive impact on the industry. But deregulation needs to be accompanied by a strong and effective control mechanism in order to prevent possible misuse on monopolistic position of operator.

**Commercialisation** is the process of adapting the port organisation to be in line with the commercial requirements and market needs. It leaves the port free to operate as a business entity with required flexibility and autonomy in market oriented environment. Though sometimes it is difficult to commercialise ports operated and managed by the public sector, some successful examples of commercialisation are port reforms of New Zealand in 1988, Port Policy of Morocco of 1984.

**Privatisation** seeks to involve private capital and private companies to run the commercial operations of port whereas above three reforms are intended to improve port performance and make them market friendly without changing the public character of port management. Privatisation is a broad concept emerging in many forms and fashions. The various formats may vary from outright sale of port assets to private sector to management contract for running the services.

Since different ports operate in their own specific environment, which is unique, no single prescription of reform is going to work in all the ports. Suitability of specific measure would depend on circumstances and conditions. The degree of difficulty in implementing the above reform measures also increase from managerial approach being the easier one to privatisation being the most radical one. Privatisation being the most radical reform would be discussed in detail in the next paragraph.
3.2 Privatisation in Ports: the concept, objectives and forms

Privatisation in ports is not easy to define due to different formats used in different countries for involving private sector in the management of ports. Ircha (2001, p.200) opines that part of the definition problem arises from the purpose of privatisation; ranging from the ideological belief in the superiority of market discipline to the pragmatic need to redress failed national economic development efforts. Cass (1996, p. 31) is of the view that any explanation of privatisation in ports requires a closer look at a number of variables including the types of port ownership, role of port authorities, the relationship between the public one and private sector, and the many types of privatisation. Involvement of private parties in provision of port services has been there in the past in many countries and the public ownership came as a response to dissatisfaction against the private ports, as Cass (1996, p. 22) points out:

It was civic dissatisfaction with private ports that led to creation of public port authorities. The main concerns surrounding private ports included their tendency toward monopolistic behaviour, (and) the lack of any coordination or orderly port development. …..in the UK public sector ports authorities were established to succeed private companies which had proved unable to develop or maintain adequate port facilities.

Some general objectives behind the introduction of privatisation in port sector are:

i) To augment the much needed financial resources for expansion or modernisation

ii) To improve the efficiency and productivity of port operations which comes along with private capital
iii) To introduce modern technology and management practices
iv) To raise revenue for the government
v) To assist in reducing the size of public sector
vi) To stimulate private entrepreneurs and investment in economy
vii) To serve the national economic policy targets.

Sommer (1999) summarises the driving force for shift towards private involvement as:

1. The strong growth in world trade has led captive port users—unable to switch
to other transport modes, such as railways or airports, or to other ports—to put
enormous political pressure on authorities to improve handling efficiency, reduce
port user fees, and expand facilities to accommodate larger cargo flows. Yet
many public port authorities have had only limited success in improving labor
and other practices to increase the productivity and efficiency of existing
installations.

2. Economies of scale in cargo shipment have led to the emergence of a few
global players in shipping, able to control the allocation of transhipment business
to strategically located, well-equipped, and efficiently managed hub ports. To
stay competitive, port authorities have to modernize and upgrade port facilities to
meet the needs of the large shipping lines. But with larger ships, the advance of
containerisation, and the introduction of sophisticated cargo information systems,
the investment required has often gone beyond the financial and managerial
capacities of public port authorities.
The most common methods employed to bring about port privatisation have been summarised by Baird (2000) as i) Commercialisation ii) Corporatisation/leasing of port assets iii) Concessions iv) Management contract v) Build, operate and Transfer (BOT) schemes vi) Joint ventures and vii) Sale of assets. Baird here has taken very liberal interpretation of the term privatisation. A brief description of each of these is given below:

i) Commercialisation: Commercialisation normally involves unbundling of public ports main activities into separate functional units, each functioning as an independent commercially focussed unit. This may also involve selling of some or all shares in various operating units to the private sector or to employees. Commercialisation is a step towards privatisation rather than being privatisation in strict sense of the term.

ii) Corporatisation/leasing of port assets: Under corporatisation, a 100 percent state owned company is established to take over the business of providing port services, while the port assets are leased to the private sector. The purpose of corporatisation is to liberate the public ports from day to day intervention of the government and to allow them to operate with the flexibility of a commercial organisation. The main function of corporatised port is to provide terminals for private sector companies to lease and operate whereas its own role gets limited to planning and provision of port facilities.

In both the above forms, there is no transfer of assets or services from public to private sector and thus De Monie (1994, p. 1) opines that many so called privatisation schemes are in fact some form of commercialisation or corporatisation of a port authority often to weaken the demand for much greater private sector involvement and safeguard acquired prerogatives and vested interests of the public sector.
iii) Concessions: In concession, the port authority gives right over specified port land for a certain period in return for an agreed fee. The property normally reverts back to the port after concession period on payment or free depending on concession agreement. A concession is different from lease in the sense that the concessionaire makes necessary investment to improve and/or expand an existing port facility.

iv) Management contract: In this format, port authority retains the ownership of port assets and is responsible for providing necessary funding, while a private company offers a package of expertise to operate and manage the port or terminal. In this case, private company is not required to make any major investment. Such contracts are usually granted for a period of at least five years.

v) Built, operate and transfer (BOT) schemes: In BOT schemes, private sector constructs and operates the facility for an agreed period after which the ownership gets transferred to the public authority.

vi) Joint Venture: In joint venture, a port authority and one or more other organisation come together and establish jointly an independent organisation. In the joint venture, parent organisations share the costs and rewards. Joint venture can be established between two public sector organisations also.

vii) Sale of port assets: The sale of port assets involves transfer of ownership of all port land and equipment from the public to the private sector.

Different countries adopted different models however some models proved to be more popular than others. Some major models used in different parts of the world are discussed in the following:
3.3 Privatisation in practice: some leading examples from Asia, Europe and Americas

3.3.1 Asia

Some Asian countries in the last few decades witnessed considerable economic growth resulting in considerable increase in the volume of international trade passing through the region. Negative effect of poor transport infrastructure including ports on trade performance of a country is too obvious. Inefficient ports not only act as a stumbling block in the nations trade but the emergence of transhipment has converted ports itself into a profitable independent business entity. In Asia, Malaysia took the lead in undertaking the reform and involved third parties in managing port facilities. Some representative examples are described below:

Malaysia: Port Kelang was the first port where privatisation was introduced by the Malaysian government. To pursue the privatisation programme, KPA was allowed to enter into joint venture arrangement and to establish companies under the companies act. The first phase of the privatisation program for Port Kelang started in 1986 when container operations were moved to Kelang Container Terminal (KCT). The KCT was set up as a joint venture between Port Kelang Authority (49%) and Konnas Terminal Klang (51%), a consortium of government owned Kontena Nasional and P&O (Australia) Ltd. KCT was given four berths to handle container operations under a 21-year lease. In order to spread the benefit of privatisation, a condition was stipulated that 40% of the shares of KPT would be divested to public (including 5% to employees). In 1992, KCT,s shares were listed on stock exchange.

In the second phase, the remaining 22 berths of the port were privatised and the facilities were given to another company, Kelang Port Management (KPM) on 21 years lease.
Kontena Nasional had the majority stake in the KPM and was allowed to divest its 60% equity to other parties. The Port Authority did not subscribe to any share in KPM but the Government retained a golden share to ensure national priorities are served. The new container terminal under KPM was to compete with KCT. Both the deals involved taking over of existing infrastructure and payment of upfront for taking over the business and movable assets along with fix lease rental (with yearly fixed escalation) and supplementary lease rental based on throughput.

In development of new facility at the westport in Port Kelang, BOT system was adopted in which the concession was awarded to a consortium of Malaysian transport companies and financial institutions (Kelang Multi Terminal Consortium-KMTC) on a 30 years lease, which took over semi-constructed facility on the basis of payment actual expenditure and a percentage in pre tax profit to the government.

In post privatisation setting, KPA regulates the port activities and the operation of facilities by private operators including performance parameters under the powers conferred by the Port (Privatisation) Act, 1990, to maintain healthy growth. Malaysia's three federal ports at Penang, Johor, and Bintulu have been corporatized, with new government-owned companies taking over the port services. Johore Port was taken over by a private terminal operator for 30 year in 1995. Some other smaller ports are inviting offers from private parties without going through the corporatisation phase.

**Philippines:** The Government of the Philippines in 1998 privatised existing Manila International Container Terminal (MICT) operated by the Philippines Port Authority (PPA). The private operator was to take over the existing infrastructure and develop it at its own expenses. The operator was also to provide all cargo handling equipment and operate all the terminal services including pilotage, towage, marshalling yard, freight station etc. A consortium (International Container Terminal Services Inc.- ICTSI)
consisting of two local and an American company won the bid. The contract involved operation of existing terminal with the contractor responsible for the future development at its own expenses. The period of contract was for 25 years further renewable for 25 years on mutual agreement. The contractor was to pay a fixed fee prescribed by the PPA along with a percentage share of revenue generated by the contractor from all sources of income. Under the various control measures, the contractor was required to obtain approval of PPA for port development and maintenance plans a semi annual performance audit was to be conducted by the PPA. The tariff setting mechanism was subject to regulations of PPA. After the privatisation, considerable improvement is reported in the performance of the port.

**China:** In 1985, the Chinese government made regulations permitting foreign investment in the port sector by means of joint venture with Chinese partners. The Shanghai Port Authority (SPA) and Hutchison Whampoa Ltd (HWL) formed a joint venture company between their subsidiary, Shanghai Port Container Comprehensive Development Company (SPCCDC) and Hutchison Port Shanghai Ltd. (HSPL), to own and operate all of Shanghai’s container port facilities. The contract was finalised in 1993 and a new joint venture company by name Shanghai Container Terminal Ltd. (SCT) was formed with 50:50 equity from both partners. During first year of operation, SCT handled 25% more containers compared to preceding 12 months. SPA chose to become a joint venture partner in its own container terminal including new BOT development. Shekou Container Terminal is being managed by P&O Ports since 1994 with equity holding by China Ocean Shipping Company (COSCO), China Merchants Holding and Swire Pacific Ltd. of Hong Kong. Nansha Tung Fat Cargo Terminal, Panyu situated on Pearl river delta is a joint venture between Henry Fok Ying Tung group and Fat Kee Stevedores Ltd in which local Panyu government has a token 10% equity. Fat Kee Stevedores manage the operation of terminal. The HWL has also taken equity through
Hongkong International Terminals (HIT) led consortium in Yantian International Container Terminals. The consortium is controlling 73% of the share in the venture. Tianjin Xingang Sinor Terminal Co.Ltd. is a joint venture between Port of Tianjin, P&O Ports Australia Ltd and the Norwegian company Gearbulk with majority holding with the port authority. The terminal is functional since 1992. The Hutchison Port Holding is also involved in the development and operation of river and coastal ports through its subsidiary where HPH would be expanding, modernising and operating the various river and coastal ports.

**Indonesia:** A large bulk handling port is being constructed on Pulau Laut Island to be operated by Indonesia Bulk Terminal, owned 50:50 by Australian group ‘New Hope’ and local Indonesian groups. In Indonesia’s gateway port Tanjung Priok, right to develop a new container terminal named terminal 3 has been awarded to Indonesian holding company Humpuss Petikemas. A new company PT Humpuss Terminal Petikemas would manage and operate the terminal for 20 years. A second container terminal is being developed at Tanjung Perak in Surabaya and an Indonesian group Citra Lamtorong Persada has been awarded the contract to built and operate the terminal.

**3.3.2 Europe**

Western Europe has the highest concentration of ports with the result that there is intense competition amongst the ports in the region. Most northern continental ports other than UK ports operate on the landlord concept where often the local municipality is the owner and custodian of infrastructure. The Landlord port authority provides the infrastructure i.e. navigational channel, dredging, quays, harbour basins, public roads whereas superstructure i.e. cranes and warehouses and stevedoring labour is owned and employed by private companies.
Rotterdam Municipal Ports Management have leased port infrastructure to private sector companies such as ECT terminal, which are responsible for providing necessary superstructure. The port management do not impose either standards of performance or controls on tariff and it is assumed that competitive pressure within the region would lead to improved performance and competitive tariff.

In two main ports of Germany namely Hamburg and Bremen, port infrastructure is owned and maintained by the local municipal government. In Hamburg, terminals have been leased to various operators including the public subsidiary company of the port namely Hamburger Hafen- und Lagerhaus- AG (HHLA). This type of arrangement places the port as a landlord as well as service port In the port of Bremen and Bremerhaven, a joint venture company BLG wherein the municipality owns 51% and the private sector 49% of shares performs terminal operations. In Germany, the Federal Government does not spend any money on port infrastructure.

In Antwerp, private terminal operators such as Noord Natie, Antwerp Combined Terminals (ACT) and Hessenatie, have leased the site from the municipal port authority and each operator provides his own cargo handling equipment.

In the UK, the privatisation of port has been the most radical with complete sale of port assets to private operators including the Management and Employees Buy-outs (MEBO). The Associated British Ports (ABP) running 19 ports was formally privatised in 1983 when 49% of the share capital of the company was sold to public and the balance being sold in 1984. The Tees and Hartlepool port Authority was sold through the process of competitive bidding in 1991. In 1992, the Medway Ports Authority and the Port of Tilbury were privatised and awarded under MEBO. The Ports Act of 1991 promulgated to facilitate the process of privatisation paves the way for vesting of rights and liabilities
of the trust port in a new successor company formed to privatise the port and successor company retains the statutory powers and responsibilities.

3.3.3 Americas

Most of the major ports in the US are administered by public bodies under the administrative control of local or the state government and cut across the various operating models namely operating, non-operating (landlord) and limited operating ports. Though majority of port operate as landlord system but in operating ports also, the private stevedoring companies perform the on-board operations. Many ports have leased individual terminals to stevedores and shipowners. For example, in the port of Los Angeles, Evergreen, APL have been given licences. Further many port services such as towage and pilotage are usually provided by the private sector. In order to commercialise operations, some of the ports have formed semi-private operating subsidiaries such as Virginia Port Authority (Virginia International Terminal Inc.) The Federal Government has very little role in port administration but undertakes the responsibility of maintaining the channel, fairways through US Army Core of Engineers and maintenance of aids to navigation by US Coast Guard.

In Argentina, the largest port of the country handling about 90% of the containerised traffic was privatised in 1994 and concessions were awarded to five concession holders. Some of the big multinational operators such as P&O, ICTSI have their presence there. In Chile, ports were owned and operated by the state owned body but a limited privatisation was introduced in 1981 when stevedoring was allowed to be carried by private stevedoring companies. Even this much of deregulation resulted in considerable improvement in port productivity. In Panama, a 40-year concession was granted in 1994 to a joint venture company between Stevedoring Services of America (SSA) and a local company at Manzanillo. The establishment of privately owned Manzanillo
International Terminal is attracting significant amount of transhipment cargo to Panama. In the same year Evergreen Marine Corp. won Coco Solo Terminal on the Atlantic side of Panama canal for building container terminal. In 1996, Hutchison port Holding was awarded concession to modernise Balboa and Cristobal ports in Panama.

### 3.4 Role of Port Authorities in post-privatisation scenario

Ports like other infrastructure facilities are vital for any nation as they not only act as a node in the transport chain but also act as engine for regional economic development. Private sector participation in ports has thrown up a prominent question of role of the public port authorities and demarcation of domain of public authorities and the private operator. Privatisation carries along with itself some inherent risks, which De Monie (1994, pp. 3-4) outlines as:

1. It increases the risk of neglect of statutory public service obligations as private sector would be interested only in profit generating activities
2. There is a threat of public monopoly getting converted into private one due to lack of or little competition, to the detriment of port users.
3. Poor coordination between public port authority and private operator leading to reduced efficiency.
4. The risk of favourable treatment being offered to business interest of private operator resulting in discriminatory treatment of clientele in a common user facility.

Mitigation of those risks is a moot question, which involves two issues. One is the ways to mitigate above risks and other is the institutional set up to take care of those potential risks. In this context, opinion seems to be divided about the relevance of public port authorities in post privatisation scenario where private operators perform all the operations. On the one extreme, it is argued that the public authority acts as impediment
to private initiative and leads to bureaucratisation, without offering any tangible economic gains, the alternative view continues to support a strong public authority to oversee and regulate the private sector apart from ensuring that public service obligations are met.

In fact, the UK experience with privatisation of ports where the state completely withdrew and ports regulatory functions were transferred to private successors, has been seen with scepticism about the perceived gains from it as Baird (1999, p.9) observes:

…it remains that there has been a complete lack of convincing arguments in favour of such a comprehensive withdrawal and any perceived advantages (from such a policy) are, according to the evidence, clearly misguided. Indeed, there are good reasons (e.g., public goods, externalities etc.) for a partial reversal of this process whereby port regulatory duties and responsibilities are transferred back to reconstituted, self-funding, user-oriented public sector port authorities.

The role of public sector continues to be relevant in post privatisation scenario for discharging public service obligations as well as ensuring fair deal to port users; more so in countries where enough intra and inter port competition does not exist amongst private operators to enforce market discipline. As De Monie (1994, p.6) rightly feels that “a growing private involvement is not synonymous with a redundancy of (the) port authority(ies).”
Juhel (2001, pp. 144-145) divides the prospective public sector’s role in three different natures of missions; the catalyst mission, the statutory mission and the facilitation mission:

The catalyst mission would include financing of critical transport assets that are unlikely to attract private or alternative financing and which are essential to create enabling environment for private capital to operate such as setting up of breakwater, channel, and inland transport linkages. Catalyst role also includes establishment of suitable legal and regulatory framework to ensure fair competition, appropriate social climate and financing of redundancy schemes.

The statutory mission would take care of the issues concerning navigational safety (including aids to navigation, VTMS), environmental protection, compliance to relevant international conventions, Coastal zone management and fostering of common development policies between port and cities.

The facilitation mission would aim at the efficient use of transport network. The specific public intervention might include trade facilitation by simplifying custom regulations, monitoring of public-private partnership without interfering in commercial sphere, taking initiatives for trade integration, attracting value-adding activities to the port.

De Monie (1994) also classifies functions of public port authorities after privatisation in more or less similar manner. These are:

- a. The landlord and performance monitoring function (catalyst function).
- b. The policy-making, planning and development function (catalyst function).
- c. The traffic control, regulatory and surveillance function (statutory function).
- d. The marketing, public relations and promotion function (facilitation function).
- e. The human resource development function (facilitation function).
ADB study (2000) concerning best practices in port privatisation has listed following tasks for the public port authority in post privatisation stage:

- Own and preserve foreshore and areas for port expansion
- Enforce government regulations affecting port activities
- Provide basic infrastructure
- Port-wide strategic planning
- New port development
- Planning and engineering design
- Access to long-term public finance
- Provide guarantees
- Provide basic public services at reasonable prices
- Advocate trade and transport facilitation
- Promote competition in the provision of port services
- Interface with political stakeholders
- Prepare and tender leases and concessions
- Coordinate with Govt. on the provision of access and public services

Growing international terrorism and the September 11, 2001 attack in the US has added a new dimension in the responsibilities of public port authorities. Maritime security has become a prominent issue as it has the potential to cause extensive damage if maritime transport is used as an instrument by terrorist organisations. Ports being at the frontier, thus, become the centre of attention in order to pre-empt any possible misuse of maritime transport. The issue, being security of a sovereign nation, can effectively be addressed by a public authority only.
3.5 Port Administrative Structures

UNCTAD (1995) has grouped the various activities, which are provided by ports under the following headings:

- Infrastructure
- Superstructure
- Equipment
- Services to ships
- Services to cargo

Depending upon which entity owns and operates those facilities and services, ports can be divided into basically three types of structures:

1. The service (operating) port where port authority owns and operates all of the port assets and provides all types of ship and cargo related services to port users.
2. The tool (resource) port: In this type of ports, the port authority owns the infrastructure as well as superstructure including heavy equipments, which are rented out to operators generally under short term contract for providing commercial services. In this case port authority retains regulatory powers.
3. The landlord port: In this type of port, the port authority provides basic infrastructure such as access channel, breakwater, dredging, quays etc. and then concession are granted/ assets are leased out to individual operators, which could either be public or private, to construct superstructure and own equipment and provide services to port users. Such concessions are normally granted on long-term basis and port authority retains all the regulatory functions.

The latest World Bank study (2001) divides service ports further in two categories, public and private service ports possibly keeping in view the fact that some of the
ports in the UK and Australia are totally privatised. It provides a matrix of public and private functions in these 4 different categories as shown in Figure 3.

Figure 3. Distribution of roles between public and private sector

<table>
<thead>
<tr>
<th>Port Activity</th>
<th>Port Administration</th>
<th>Naval Facilities</th>
<th>Mechanical Infrastructure</th>
<th>Port Infrastructure</th>
<th>Superstructure Equipment</th>
<th>Superstructure Buildings</th>
<th>Cargo Handling Activities</th>
<th>Pilotage</th>
<th>Towing</th>
<th>Navigating Services</th>
<th>Dredging</th>
<th>Other Functions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public Service Port</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Private Service Port</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tool Port</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Landlord Port</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: World Bank

There could be hybrid models combining different types for example, a tool port may act as a landlord too at the same time and an operating port may give up certain activities to be carried out by an operator different from the port authority. A pertinent example is the port of Hamburg, which is owned by local municipality. While it has leased out terminals to private operators as landlord, it is also acting as a major terminal operator in the shape of a subsidiary company HHLA. Thus it is a mixture of landlord and service port. ADB (2000, p. 21) classifies some of the port under different categories including mixed one as shown in Table 3.
Table 3: Some major ports grouped by type of port

<table>
<thead>
<tr>
<th>Tool</th>
<th>Service</th>
<th>Service-Landlord</th>
<th>Landlord</th>
<th>Tool-landlord</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cebu</td>
<td>Singapore</td>
<td>Nhava Sheva</td>
<td>Rotterdam</td>
<td>Manila</td>
</tr>
<tr>
<td>Davao</td>
<td>Bangkok</td>
<td>Mumbai</td>
<td>Laem Chabang</td>
<td>Hong Kong</td>
</tr>
<tr>
<td>General Santos</td>
<td>Tanjong Priok</td>
<td>Chennai</td>
<td>Pusan</td>
<td>Karachi</td>
</tr>
<tr>
<td>Balikpapan</td>
<td>Penang</td>
<td>Colombo</td>
<td>Kwangyang</td>
<td>Qasim</td>
</tr>
<tr>
<td>Banjarmasin</td>
<td>Calcutta</td>
<td>Tianjin</td>
<td>Kelang</td>
<td>Sydney</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Shanghai</td>
<td>Bintulu</td>
<td>Perth</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Chittagong</td>
<td>Songkla/</td>
<td>Auckland</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Phuket</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Surabaya</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Medan</td>
</tr>
</tbody>
</table>

Source: Asian Development Bank

As may be seen from the various examples, the ownership of assets is not primary determinant of port efficiency. In two most efficient container ports namely Hong Kong and Singapore, the ownership of assets are in private and public hands respectively. The landlord model was considered to be good only for the ports with large traffic volumes leaving the scope for multiple operators to share the traffic and compete with each other. But Juhel (2001) argues that this is no longer true today and the landlord port concept is gaining ground throughout the world at the expense of tool and service models. He quotes that a world review of top 100 container ports carried out in 1997 reveals that 88 out of 100 ports conform to Landlord model. There seems to be a consensus emerging that landlord model is the most suitable structure for promoting private sector participation since it offers flexibility and accommodates different forms of public-private partnership.

ADB (2000) has listed following administrative structures in use around the world for administering the port sector post privatisation but declines to comment upon the suitability of any particular one:
• A Harbour Board which allocates land for private development.
• A Port Authority that develops the port land, often in conjunction with the private sector, and retains control over port activities as a landlord.
• A Port Corporation which is wholly government owned with powers similar to an authority but governed by a board and having greater financial accountability.
• A Port Corporation with mixed public and private ownership but with powers similar to an authority.
• An Independent Regulatory Agency responsible for technical and limited economic regulation of port activities complemented by a national planning department responsible for public investment in port infrastructure.

3.6 Regulatory framework

Monopolistic nature of the ports whether public or private stems out from the fact that it is capital intensive industry and the investment made can not be put to alternative use. Monopolistic behaviour of private sector may arise due to the fact that a port can not sustain more than one operator because of low volume of cargo, or the fact that one operator is comparatively too big or when operator has many terminals catering to same hinterland (Theory of natural monopoly). Along with the privatisation of ports, fears have been expressed that it might result in conversion of public monopoly into a private one. In fact, if such a situation occurs, it might subvert one of the very bases for PSP, which is to introduce competition and thus gain the benefit from resultant increase in productivity. It would be natural for private operator to maximise his gains by creating barriers to entry of potential competitors. This tendency may also arise from the genuine need to recover heavy investment made with reasonable profits.

Thus the need for regulation might arise in two broad areas, Technical and Economic ones. The technical regulation which may include safety of navigation, VTS,
environment protection, performance standards, safety, health and welfare of employees, safety of property and internal security may be taken care by public port authority. It is the economic regulation, which is subject to debate and requires a serious thought. The objective of economic regulation is to ensure that tariff being charged by private operator is not monopolistic and no cartelisation among private operators develops resulting in tariff manipulation. In strong competitive scenario, market forces regulate prices, but such a situation does not exist at all the places where PSP is being introduced.

Thus till there is sufficient inter port and intra port competition or even competition between different modes of transport, there may be a need for a regulatory mechanism to act as deterrent to monopolistic behaviour. This may require a general legal framework to check monopoly or anti-competitive practices in general economy and specific one concerning the port sector. There are many ways recommended to check the monopolistic behaviour of private operators including the regulation of tariffs by an independent authority. This fact is undisputed now that the best regulator is the market force. Thus any such regulatory mechanism should only be transitional till the time market matures and such regulation should not kill the commercialism, which comes with PSP.

Having examined the issues connected with PSP in the port sector, chapter 4 will outline some recent trends emerging in the maritime sector having profound influence on ports. Some of the trends are not be attributable to the privatisation process per se but still has bearing on policy framework. It would be beneficial to observe those trends in order to adjust the policy orientation accordingly.
CHAPTER 4
GLOBALLY EMERGING TRENDS IN PORT SECTOR

4.1 Globalisation and ports

Ports like any other organic entity are evolving with the time. They are no more seen an interface only between land and sea transport, what the traditionally has been the role of ports as Goss (1990A, p.208) defines seaports as a gateway through which goods and passengers are transferred between ships and the shore. Ports have come a long way to a stage, which is referred to as third generation ports. Globalisation is converting the whole world economy into one integrated system and thus as a corollary, transport system had to follow the pattern and convert into an integrated activity. The containerisation and multimodalism have helped enormously in the integration of transport system. Further improvement in transport infrastructure has also resulted in the growth of world trade as Ma (2000, p. 14) argues, “The new transport technique has also enlarged international trade to include many goods which otherwise would not have been technically possible and economically viable to be traded internationally.”

UNCTAD (1992) lists out some of the developments in international trade and transport that have affected ports significantly. These are multiplication of world trade centres, increased trade in semi-finished (intermediate) and finished product rather than raw material, internationalisation of world production in search for cheaper and better production factors, trade’s need for reliable, speedy, frequent, integrated transport system. Corresponding changes in the transport system are integration of foreign trade and transport chain, intermodalism, growth of
transhipment, specialisation and economies of scale of ocean going vessels and customer oriented diversity and flexibility. When the port users are faced with the intense competition in world trade due to globalisation, as a consequence, ports are faced with the challenge to anticipate the needs of, and help, the port users to improve their competitive advantages by providing low cost and efficient port services, not only in traditional port services but also in non-traditional areas increasingly becoming part the functions of modern ports.

4.2 Changed perception of ports-expanded role

In a competitive world trade scenario where margins are getting smaller and smaller, the need for an efficient and cost effective transport network comes into sharp focus and ports as an important node of the whole transport chain assume pivotal role in meeting the economic policy objectives. The protected environment in which most ports were operating has undergone a sea change and they could not anymore afford to be a passive bureaucratic entity depending on captive hinterland and cargo, waiting for the ships and the cargo to come. Now modern ports are playing proactive role to understand the need of the market and adapting to them. Thus the ports are increasingly getting into the provision of value added services different from their traditional role. For example, distribution, packaging, marking, quality control are some such services which create value for the shipper and in the process ports also gain increased value in the value chain. Further with increasing standardisation in port services, ports try to differentiate themselves on the basis of such value added services.

The evolution of ports from a simple interface between inland and sea transport modes to a logistic platform has been mapped as generations; the classification, which is not based on size or scale but the range of services, offered. UNCTAD (1992) divides the port in first, second and third generation.
The first generation port is involved mainly in cargo loading and unloading activities, isolated from the overall trade and transport activities. There is hardly any coordination between port and port users and decision-making in an organisation hardly takes a holistic view keeping in mind the interest of other actors.

The second generation of ports are described as those, which undertake or offer industrialised and commercial services to port users apart from traditional loading and discharging activities. Such additional services may include cargo packaging, marking, cargo transformation as well as setting up of industrial estate primarily for port based industries such as iron and steel, refineries and petrochemicals etc. There is closer relationship between port and other transport and trade partners and within the port different activities are more integrated.

The third generation ports emerged on the scene in 80s mainly due to large-scale containerisation and consequent growth of intermodalism. The ports are now seen as a dynamic component of international transportation and distribution chain. Ports now actively seek to facilitate and promote trade, transport and value added activities, which in turn generate revenue for them. The third generation ports are seen as a close-knit community of various stakeholders, public and private, who are dependent on port. The community has common agenda to see the growth of port in which growth of all is involved and thus decision-making process becomes collaborative instead of isolated.

A third generation port actively seeks to promote establishment of port based industries and free trade zones to boost throughput and value addition. Such an approach also generates captive cargo for the port in the long run. One important activity for modern ports is distribution services. It is an important value adding activity essential in the global logistics of any producer. Various modern ports have established distribution parks in order to maximise gains from the value chain. As distribution involves accurate information system to minimise dead inventories, it is
obvious that a strong information network needs to be established and here comes the role of EDI for speedier exchange of information. In the competitive situation in which ports are placed today, such actions are not only desirable but sometimes are the only means of survival.

4.3 Mega Port Operators

With the introduction of PSP in ports, private-sector companies have become more involved in the operation and development of port terminals especially container one in both developed and developing countries than in the past. The trend witnessed is that some big multi national operators are emerging on the scene at the cost of small local stevedores. These major port operators are specialised groups and they possess considerable international expertise in container terminal operation and management and they are winning most of the bids, which are being put across the world for operation of container terminals. There is a clear trend towards market consolidation and global operators are acquiring local competitors. For example, in 1999, APM Terminals acquired U.S. container terminals of Sea land and in the year 2001, HPH acquired most of the international terminal business of Philippine based International Container Terminal Services Inc.

There are various factors responsible for consolidation in port terminal operations; principal ones are access to capital, experience and know-how, credibility in the market, established systems and procedures. These requirements create entry barriers for small local operators especially in greenfield port development commonly known as BOT. Consolidation in the port operations and management industry may change the competitive landscape, more on a regional level as some operator as a matter of strategy might like to dominate a particular region. For example, P&O Ports is quoting aggressively for container terminals in India, already having acquired 3 container terminals, along with a terminal each in Colombo, Pakistan in south Asia.
Some major international terminal operators are:

- Hutchison Port Holdings (HPH), the Hong Kong-based subsidiary of Hutchison Whampoa Ltd.
- PSA Corp., the state-controlled operator of the port of Singapore.
- APM Terminals, the ports arm A.P. Moller group and a sister company of Maersk Sealand.
- P&O Ports, the ports arm of the United Kingdom’s P&O group
- Eurogate, the German port group.
- Stevedoring Services of America.
- CSX World Terminals.

These 7 groups together handled 37% of the global container port handling volume at present, as indicated in table no. 4 below.

Table 4. World coverage of major container terminal operator groups
(Based on number of marine container terminals operated or leased)

<table>
<thead>
<tr>
<th>Port Group</th>
<th>Global port volume handled in million TEU</th>
<th>No. of Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hutchison (Hong Kong)</td>
<td>25.3</td>
<td>29</td>
</tr>
<tr>
<td>PSA (Singapore)</td>
<td>19.8</td>
<td>11</td>
</tr>
<tr>
<td>APM Terminals (Denmark)</td>
<td>13</td>
<td>28</td>
</tr>
<tr>
<td>P&amp;O Ports (U.K.)</td>
<td>8.3</td>
<td>27</td>
</tr>
<tr>
<td>Eurogate (Germany)</td>
<td>7.7</td>
<td>9</td>
</tr>
<tr>
<td>Stevedoring Services Of America (U.S.)</td>
<td>6</td>
<td>14</td>
</tr>
<tr>
<td>CSX World Terminals (U.S.)</td>
<td>3.5</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>84 million TEUs</td>
<td>127</td>
</tr>
<tr>
<td>Total as % age of world total.</td>
<td>37% of the world total</td>
<td></td>
</tr>
<tr>
<td>World TEU port volume</td>
<td>230 million TEUs</td>
<td></td>
</tr>
</tbody>
</table>

NB: In addition to the container terminal activities shown in the table, port operators may also provide container-handling stevedoring services on shared or common-user terminals, and break bulk port activities in ports not counted above.

Source-American Shipper, February 2002.
These international terminal operators are increasing their throughput significantly through international operations. The world’s largest container terminal group, HPH’s 65% volume comes from the terminals located outside Hong Kong. Their growth in volume has also been spectacular. HPH handled 25.3 million TEUs in 2000 as against 8.4 million handled during 1994, a 3 fold increase in 6 years. Similarly, PSA Corp. handled 2.73 million TEUs from their operations outside Singapore during the year 2000. (Damas, 2002)

Consolidation in the port operation business may eventually lead to a situation where only few international operators are going to command the market. In fact, 4 major operators HPH, PSA, P&O and APM are lapping up most of the privatization bids around the world extending their geographical coverage and reach. Concerns were expressed by the European Commission on the Hutchison’s plan to take over Europe Combined Terminal (ECT) at Rotterdam as that would make Hutchison bigger that three of its closest competitors combined, namely HHLA and Eurogate of Germany and Hessenatie of Belgium. The proposal was approved by EC subject to certain conditions including that Hutchison would sell off its 33% shares in Maersk Delta Terminal in Rotterdam.

The situation emerging needs to be closely watched to see that growth of few operators does not lead to some oligopoly or regional monopoly.

4.4 Convergence of Ship and Port Operator

The shipping lines in the past have been operating container terminals for themselves at different ports mainly in North America and Asia but not as a common user facility. However, of late, some shipping conglomerates have emerged having independent subsidiaries in port operation business. Two major ones are the APM Terminals of A.P Moller group, the holding group for Maersk Sealand and the P&O Ports, the ports arm of UK’s P&O group and a group affiliates of P&O Needlloyd Container Line. The apparent reasons for making
foray into port business is to achieve the synergy between these two complementary activities shipping and ports (vertical integration) and to diversify in related area which is more profitable and constant source of income even during the time of depressed shipping market. Further owning of container terminal is seen as a way to reduce the port cost and thus improve the bottom line of shipping operations. This also helps in keeping the total shipping operations in the control of liner. However, these independent port subsidiaries possibly cannot flourish with their affiliate sister shipping lines cargo alone and that is the reason that both P&O Ports and APM Terminals work for shipping lines other than their affiliates. However, there is strong possibility for granting favorable treatment to affiliate shipping line at the cost of others and their neutrality as unbiased independent operator would remain under doubt. The desire by the carriers to control the port operation is putting them in direct confrontation with pure port operators. As Damas (2002) comments:

But the disagreement over the need for carrier controlled dedicated terminals between Maersk Sealand/APM Terminals and PSA in the port of Singapore and reportedly between Maersk Sealand and Hutchison in the United Kingdom have shown the underlying conflict for control between independent operators and carrier-aligned operators.

It is well known that refusal to grant dedicated terminal to Maersk-Sealand by the PSA Corp. led to shifting of their transshipment hub to nearby Malaysian port of Tanjung Pelapas, which offered 30% stake to APM Terminals alongwith the management of the terminal. In fact several carriers are reported to be moving into container terminal business apparently to control their port operations and costs. Hapag-Lloyd is developing a terminal in Hamburg. CMA-CGM and China Shipping Container Line both have set up new subsidiaries for port development.
Furthermore, terminal operation has emerged as a more profitable business than the shipping. In 2000, PSA Corps.’s operating profit was more than 47% of its revenue, whereas Hutchison’s operating profit from ports and related services was 38% of the revenue. In the same year, the P&O group made operating profit of $153 million from its ports business compared to its 50-percent interest in P&O Nedlloyd Container Line, which gave it an operating profit of $99 million. In 2000, CSX World Terminals earned an operating profit margin of 23% whereas CSX Lines (domestic container shipping line of the group) only broke even. (“Global port operators,” 2002)

The profit figures of some major port operators during 2000 are given in the Table 5.

Table 5. Profit figures of selected port operators during the year 2000

<table>
<thead>
<tr>
<th>Major port group</th>
<th>Revenue</th>
<th>Operating profit</th>
<th>Operating margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hutchison</td>
<td>HK$14.2 billion</td>
<td>HK$5.3 billion</td>
<td>38%</td>
</tr>
<tr>
<td></td>
<td>($1.8 billion)</td>
<td>($685 million)</td>
<td></td>
</tr>
<tr>
<td>PSA</td>
<td>S$2.5 billion</td>
<td>S$1.1 billion</td>
<td>47%</td>
</tr>
<tr>
<td></td>
<td>($1.4 billion)</td>
<td>($662 million)</td>
<td></td>
</tr>
<tr>
<td>P&amp;O Ports</td>
<td>£532 million</td>
<td>£103 million</td>
<td>19%</td>
</tr>
<tr>
<td></td>
<td>(£793 million)</td>
<td>(£153 million)</td>
<td></td>
</tr>
<tr>
<td>CSX World Terminals</td>
<td>$305 million</td>
<td>$71 million</td>
<td>23%</td>
</tr>
</tbody>
</table>

Source: American Shipper.

4.5 Growing ship size-Impact on ports

The increase in ship size has been witnessed continuously thanks to development in naval architecture and shipbuilding technology as well as growing volume of sea borne trade, motivating the industry to achieve economy of scale by increased ship size. The first tanker ‘Gluckaf’ built in 1886 had a capacity of 2307 dwt whereas the largest tanker built so far ‘Seawise Giant’ was of 556,000 dwt with overall length of 458 meter, beam of 68.8 meter and the maximum
draught of 24.5 meter. As such a giant tanker cannot enter in a port due to limitation of draught, cargo is handled by the lighterage operation in open sea. Like other segments, size of container ships is also increasing and it has broken the limit imposed by the Panama Canal, thus requiring more and more draught in the port to service those vessels. As container ships cannot be handled in open sea like tankers, the increasing size of container ships poses a great many problems for ports, as they are required to spend a considerable amount of money in maintaining the required depth and on-shore facilities.

The currently biggest container ships are the S-class of Maersk line with a capacity between 6,500-7,000 TEUs. Maersk Line is believed to have ordered 4 ships of a capacity of 9,000 TEUs or so expected to arrive in the market shortly. These ships could be 404 meters long with a beam of 52 meters with 20 rows of containers across the ship on the hatches. Theoretically and technologically, there is no hindrance to increase in ship size and talks are afloat regarding container ships of size upto 15,000-18,000 TEUs in the not very far future.

Increase in the container ship’s size is putting enormous pressure on the ports to match their capability to service those ships, not only in terms on technical capability such as draught, turning basin but also in terms of equipment and very high level of productivity as these ships built at enormous cost do not want to spend much time in ports. Corresponding to increase in ship’s size, ports around the world are spending huge amounts of money on dredging the navigational channel and alongside berths to accommodate those ships. In addition, landside infrastructure also poses challenge with quay cranes are requiring replacement so that they could handle ships with wider beams. Such large ships require large back up area for storage of containers to be loaded and unloaded apart from quick yard handling and evacuation system. Since the shipping lines, which are driving up the ship size continuously, are now dictating the market, ports have no choice but to simply follow the suit. Though the shipping lines are trying to
achieve economies of scale, ports are spending huge amounts in establishing the facility jacking up the cost per unit of cargo with the result that the total cost of transportation from end to end might not be economical enough to justify the bigger ship size. In any case, increased ship size would give further impetus to hub and spoke system with the hubs also being differentiated as main and the regional one. It might be prudent for a port to look at the economics of receiving big ships by spending fortunes on dredging and other facilities as it might not prove economical to spend on infrastructure without the critical mass of cargo to justify that.

As the majority of privatization in ports undertaken so far conform to the landlord model wherein channel ownership is retained with the landlord authorities, increasing ship size to be serviced by the port may put lot of pressure from private operators in ports to increase the draught and landlord authority might not be in a financial position to undertake the expensive capital dredging. This might also put forward the issue of government’s support for the channel improvement as navigational channels are considered to be national assets. This might also lead to conflict between the operators and the landlord about the scale and timing of such draught improvement as assessment of the two players in this regard may be different from each other. The port authority before making such investment would like to be certain of recovering the cost in reasonable period of time.

4.6 Increasing competition in port services

Ports in the past mostly operated in a protected environment with their captive hinterland and cargo, either due to shortage of port capacity or expensive and underdeveloped inland transport network or sometime due to administrative reasons (assignment of cargo by public agencies). With the development of inland transport network and improved worldwide communication, captive hinterlands of the past are no more captive and now shared with other ports. The growth of world trade with the
shippers and the shipping lines demanding better services from ports is making them to respond to the desired performance level or run the risk of losing the lines. The competition in international trade and the liner shipping market is making shippers and carriers to demand cheap, reliable and quality services from the ports. In fact, increasing competition has added a new dimension in port management i.e. ‘Port Marketing’ as Bernard (1995, p.1) claims that a successful seaport is the one, which develops a commercial strategy in order to obtain and sustain its market share. Competition thus can have positive effects to force and motivate the ports to improve their performance otherwise perish. In fact the one of the main objectives of port reforms and PSP in ports is to bring in competition and contestability in provision of port services and use the same to improve the quality of port services.

UNCTAD (1992) lists out three categories of competition faced by the ports: inter-port competition, intra-port competition and intermodal transport competition. Goss (1990B, p.275) further divides inter-port competition in three categories; competition between whole range of ports or coastline such as west coast and east coast ports in north America, competition between ports in different countries such as Antwerp and Rotterdam and competition between individual ports in the same country such as Long Beach with Los Angles.

Various factors responsible for emergence of inter-port competition are briefly described. The foremost is improved and efficient inland transport system thereby relegating the concept of captive hinterland into oblivion. The development of land bridges between the east and the west coast of the US has brought the ports on either coast in intense competition with other. Transhipment is another factor for example the port of Singapore and Hong Kong compete with each other for the regional transhipment cargo. Transport organisers such as freight forwarders (FF)/ multimodal transport operators (MTO) are increasingly playing important role in selection of ports because of the better information and communication network. Shippers hard pressed by increasing international competition and receding
bottomline are making tough demands on their transport operators to provide cost effective transport solutions. FFs/MTOs in turn scout around to look for better alternatives amongst those available.

Ports also face competition from different modes of transport namely air and land. The high value, time sensitive cargo is increasingly being carried by air transport instead of sea and growth in this sector is expected to increase in the years to come. Within Europe, there is intense competition between shipping and road/rail transport. Coastal and inland water transport in most of the countries is in direct competition with land transport.

Intra port competition basically applies to the landlord model of port operations where private operators provide individual services. There is competition between private service providers provided there are more than one service providers for the same service and there is no unholy nexus between them to avoid competition. In fact, port managements can successfully use intra-port competition as a tool in order to improve efficiency and quality of port services. The publicly owned service ports are unlikely to introduce intra-port competition due to organisational difficulties and/or unwillingness on their part. However, in a service port, unbundling of organisation into quasi-autonomous production centres can introduce some kind of pseudo competition.

Having reviewed the emerging trends, which are affecting the role of ports and dynamics of port operations, the Chapter five will attempt to identify the issues and challenges facing the Indian port sector and possible alternatives and strategies to address them.
CHAPTER 5
KEY ISSUES POST PRIVATISATION INITIATIVE

5.1 The Indian Ports: a critique

An improved and efficient transport infrastructure is an important pre-requisite for the growth and development of a country. A developed transport network spurs the industrial growth by allowing the market and industries to source their raw material from a vast area as well as access to bigger markets in an efficient, reliably and cost effective manner. In India, poor transport infrastructure has been seen as one of the hindrances to economic growth and development. The country embarked upon a policy of economic transformation with the announcement of a liberalised new industrial policy in July 1991 to boost the stagnating economy. The policy paid dividend in terms of a reasonable average economic growth rate of about 6-7 %. However, the growth of the economy is not comparable with the fast growing Asian tiger economies and Shashikumar (1998A, p.35) asserts that this was partly because the nation’s port and transport infrastructure is incapable of supporting increased industrial production.

The performance of Indian ports especially has been a subject matter of criticism because of its inefficiency and high cost. In 1996, container-handling costs in India were about 80 % higher than the cost in Japan and the US, the countries where labour costs are much higher (Shashikumar, 1998A, p.37). Due to inefficiency in operation and associated high cost, major liner operators avoid sending their mainline vessels and majority of Indian general cargo is transhipped mainly through regional transhipment hubs of Colombo, Singapore and Dubai. It is estimated that if all the containers handled at Mumbai and JNPT in 1992 had been brought by deep-sea
vessels instead of feeders, the saving in freight costs would have been of the order of USD 250 million (Farrell, 1995, p.234).

In container handling, which is the hallmark of a modern port, the productivity of Indian ports is too low compared to efficient ports of the region. Table 6 shows TEUs per person per year productivity in container handling in some Indian ports (public and one private terminal NSICT) compared to Singapore port and West Port (Malaysia).

Table 6. Container handling productivity per person per year

<table>
<thead>
<tr>
<th>Name of Port</th>
<th>Productivity per person (TEU/Person)</th>
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<tbody>
<tr>
<td>Mumbai Port</td>
<td>220</td>
</tr>
<tr>
<td>Chennai Port</td>
<td>210</td>
</tr>
<tr>
<td>Cochin Port</td>
<td>270</td>
</tr>
<tr>
<td>JNPT Terminal</td>
<td>330</td>
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<tr>
<td>NSICT Terminal (JNP)</td>
<td>733</td>
</tr>
<tr>
<td>Singapore Port</td>
<td>230*</td>
</tr>
<tr>
<td>West Port (Malaysia)</td>
<td>1080</td>
</tr>
</tbody>
</table>

Source: Dhar (2000, p.56)

De Monie (1995, p.235) identifies some of the shortcomings of Indian ports as physical configuration and proximity to urban centres, outdated port facilities, inadequate equipment maintenance, excessive management control of operations, and lack of coordination of port activities.

From time to time various interventions made by the government in publicly owned and operated major ports resulted in improvement in their performance as can be gleaned from some of the productivity parameters given in Table 7, but still these improvements fall short of making Indian ports comparable to international standards.
Table 7. Selected performance indicators in respect of major ports

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<tbody>
<tr>
<td>Average Turn-round time (in days)</td>
<td>7.5</td>
<td>6.3</td>
<td>5.7</td>
<td>5.1</td>
<td>4.1</td>
</tr>
<tr>
<td>Average Pre-berthing waiting time* (in days)</td>
<td>1.7</td>
<td>1.2</td>
<td>1.0</td>
<td>0.9</td>
<td>0.5</td>
</tr>
<tr>
<td>Average output per shipberth day (in tons)</td>
<td>4497</td>
<td>4912</td>
<td>5167</td>
<td>5500</td>
<td>6469</td>
</tr>
<tr>
<td>Cargo handled (in million tons)</td>
<td>226.97</td>
<td>251.66</td>
<td>251.74</td>
<td>271.92</td>
<td>281.1</td>
</tr>
</tbody>
</table>

* On port’s account
Source: Handbook of Management Information-2000-2001, Ministry of Shipping, GOI.

One of the most important policy intervention made by the government in improving the performance of major ports in the recent past was to allow private sector participation with the objectives to mobilize substantial resources required for the capacity creation and to improve efficiency, productivity and quality of service as well as to bring in competitiveness in port services. The response to privatisation has been moderate but the process has been kick-started. Thus the focus of contemporary port policy would emerge from the objectives, which are sought to be achieved. With the overall objective of making the ports subservient to the national economic interest by becoming an efficient, cost effective node of the transport chain, some of the issues which need to be addressed sooner than later are briefly highlighted.

5.2 Key issues

5.2.1 Need for formulation of a long-term port policy

At present, there is no official document outlining the port policy of the GOI. The various policy declarations are part of the official documents connected with the formulation of five-year plans or the submissions made to parliamentary committees or even answers given to parliament questions. A declared policy shows the vision of the government for that particular sector along with an expressed commitment to the
same. The policy should take into account the state of other transport modes and the convergence needed to achieve synergy between various transport modes. The Policy would also show the level of involvement of the government with the sector and would delineate and demarcate the role of public and private sector in achieving the objectives. Thus India needs to formulate a coherent and clear port policy in consultation with maritime states, which outlines long-term objectives and vision of the government. The level of involvement of the government needed to achieve the general objectives would differ from country to country depending on the stage of development of economy, maturity of port sector (in terms of capacity and contestability), socio- economic conditions, maritime dependence factor of the country (importance of maritime sector for a country’s trade) etc.

How the different national objectives lead to different policy pronouncements is amply depicted by two representative policies. One is the UK policy, where the government has distanced itself from the port industry after full scale privatisation and provision of port services are left to market forces; and the other one, the Hong Kong policy where the private sector has always played a key role but the government has also played a proactive role as strategic planner and facilitator.

To quote from the British port policy in short (Great Britain, Department for Transport, 2000), it seeks to promote:

- UK and regional competitiveness;
- high nationally agreed safety standards;
- the best environmental practice.
Whereas the port policy of the Hong Kong Special Administrative Region (HKSAR): …seeks to ensure a realistic planning of port-related infrastructure and a timely provision of port facilities to handle Hong Kong's forecast cargo throughput and the future development of the port and maritime sector should form part of the strategy to develop and promote Hong Kong as the preferred international and regional trade, transportation and logistics hub and a base for integrating service providers for the global and regional demand and supply chain.


The two policy pronouncements clearly show the difference in objectives. The UK policy seeks to promote ports as an instrument to enhance nations competitiveness in international trade whereas Hong Kong Port policy is different in the way that the port is not only seen as an instrument for trade promotion of local economy but also an independent value generation activity due to large amount of transhipment carried through Hong Kong. Thus the policy is aimed at promoting the port as global transportation and logistics hub.

What are the policy options for the GOI at a stage where the port reforms are halfway and at the best piecemeal and there is a long road to reach the stage of landlord? The active involvement of the government would seem necessary to push through the reform process to its logical end and create conducive situation for the private sector to operate successfully. Further, it may need some kind of public support to sustain those ports which are not an attractive proposition for the private players but which play a crucial role for the regional economy as engine of economic growth. In India, traditionally, the public sector has been at the forefront in helping balanced regional development and it would perhaps be difficult for any government to withdraw itself quickly from this role. The policy should also outline a clear
mechanism for regulation of the sector till the competition is established in the sector. How the competition is going to be introduced and what is the vision for Indian ports to compete as a hub with the neighbouring ports? These objectives need to be clearly articulated.

Further, there is no policy or instrument to regulate the construction and expansion of ports. Thus, lack of coordination between central and state governments might result in the haphazard and unregulated development of ports along the coastline of India, locking up precious national resource (waterfront). The issue needs serious considerations to balance the interest of capacity creation and competition on the one hand and avoidance of duplication and overlapping of efforts resulting in possible over-investment on the other hand. Will setting up several ports dotting the coastline be commercially viable? Are the likely returns on investment attractive enough for the private sector to invest in new port projects? Further sustenance of any port would depend on critical cargo volume, without which the cost of cargo handling would move too high. Should the government concentrate on development of few ports to the international standards or spread the efforts thinly over many ports to satisfy competing political demands? Given the fact that port charges in Indian ports are comparatively high, should not ports benefit from the economy of scale! The national policy must address these issues in consultation with stakeholders.

5.2.2 Clarity of the objectives and the processes

One of the current objectives of the Indian policy is to convert major ports as landlord ones and simultaneously undertake corporatisation in a phased manner. The landlord model of port management presumes that the landlord would only be the owner of land/infrastructure and a regulator, not an operator and the commercial functions are assigned to private/public sector operators. Corporatisation is a reform aimed at giving operational and commercial autonomy, free from bureaucratic control, to public ports by converting them as a corporate entity under normal
company law. The best example of a corporatised port is PSA Corp., which functions as a service or comprehensive port and not as landlord and regulator. Another example of port corporation is the Melbourne Port Corporation (MPC) acting as a landlord for the biggest container port of Australia, but here MPC is not a corporate entity under the normal company law but a statutory body created to oversee the landlord function by a separate act namely Port Services Act, 1995 (Section 11 defines MPC as a public authority not representing the crown) of the Victoria province. Thus the objective of converting major ports into corporations, where PSP is being pursued vigorously and are suitable for early conversion into landlord, appears to be somewhat misplaced. For instance, in case of JNPT, where a container terminal is already being operated by the private operator and a liquid cargo berth has been awarded to consortium of oil companies, other terminals, namely second container terminal and the bulk terminal being operated by the Trust could easily be hived off to the private sector. Therefore, what would be needed after hiving off operational activities would be a landlord authority, which need not be a corporation. The benefits of corporatisation stem out of the fact that there is operational and financial flexibility to undertake commercial activities and when no commercial activity is left to be done, corporatisation would not serve much purpose.

In the ports where it is not easy to divest the operations to the private sector or only a part of operation could be divested to the private sector, the solution may be found in establishment of two entities, one a corporate entity to take care of the commercial activities which could not be hived off and another landlord public authority to regulate various operators in the port including the corporate public entity which would be nothing but another operator. The corporate entity could gradually be privatised either at one go or in parts. The straight jacketed model of privatisation may not offer a solution. Innovative solutions may be needed to hive off the commercial operations to the private sector if possible otherwise to even separate public entity (ies). Another possible variant could be to unbundle port operations into different terminals/units and create separate operating companies in public or joint
ownership. The public landlord authority may take care of statutory and landlord functions and operating entities may be privatised gradually over a period of time. The unbundling experiment has been successfully tried in the power sector in India (for example in Orissa state) where generation, transmission and distribution functions were vested in a different corporate entity and an independent regulatory authority has been set up.

5.2.3 The manpower and labour issues

For the success of port reforms and privatisation initiative in India, satisfactory resolution of manpower and labour issues is essential, which is not an easy task given the socio-economic structure of the work force and inflexible job market in the country. As Thomas (1995, p.239) notes:

This (resolution of labour issues) is a formidable challenge, made difficult by the extent of overmanning, the persistence of long established and archaic employment practices, the obstinacy and deeply entrenched views of the trade unions, the deep resistance to change of employees and the lack of expertise in modern personnel management in the major ports.

A private operator would not be willing take the burden of excessive workforce, which the Indian ports are saddled with. The extent of extra workforce in major ports may be gauged from the fact that the direct expenditure on salaries and wages alone as percentage of total operating expenditure in 2000-01, was 44.2 % for a workforce of about 80,000 (Source:IPA, 2001). In a country like India where the job market is not flexible and there is large-scale unemployment, resolution of labour issues can be the most challenging task for the policy planners. Thomas (1995, p.251) suggests, as long term objective, to transfer the majority of portworkers from the public to private sector by offering inducements such as attractive employment conditions,
redundancy pay, accelerated pension as well as sensitising workers about the declining demand of labour. He also suggests that new terminal operating companies should be permitted to engage their own labour, employed on a permanent basis under new contract of employment, though the priority should be given to port trust staff.

In any case, for privatisation to succeed, especially in respect of existing port facilities where guidelines prescribe compulsory transfer of workers along with the facility, GOI would have to address the issue beforehand. No private operator would be inclined to accept labour attached with a port facility on the basis of outdated and excessive manning level obtaining in major ports. It would thus be desirable to progressively bring down the number of workers and other non-cargo-handling employees by implementing separation schemes (Voluntary Retirement Schemes-VRS), as there would hardly be scope for redeployment of such an excess workforce. Even though such schemes are expensive to operate, the economic benefits of reduction would far outweigh the financial outgo on such schemes. Such reduction would help in hastening up the process of PSP by making the port facilities on offer more attractive. The workers opting for VRS would need suitable alternative employment, which may call for acquisition of new skills. Such facilitation by the government and port trusts would be helpful in making VRS more acceptable and less harsh from the social point of view.

Along with the reduction in workforce, an equally important issue is to improve the quality of manpower. This is one area, which has not got sufficient attention. The major ports lack a well-structured human resource development policy. Most of the cargo-handling workers learn the work on the job without any kind of organised training. Lack of training is identified as one of the causes of low productivity. Thus a suitable training programme will not only add to the skill of workers but will also improve their level of motivation.
5.2.4. Modal convergence and hinterland connectivity

The present day transport is an integrated activity involving different modes, of which the ports are a small nodal point. The smooth interface and integration between different transport modes is essential to achieve the objective of hassle free through transport what is termed as seamless. Such smooth interface allows a shipper to assess with greater degree of reliability the transit time for cargo thus apart from reducing the cost associated with in transit inventory, a shipper can commit the delivery schedule with greater certainty. With the concept of ‘just in time’ delivery in production and distribution processes, reliability of supply assumes more importance than transportation costs. The developed nations have in general invested huge sums in their transport infrastructure to facilitate seamless transport with the result that service providers in these countries can provide guaranteed service levels. These nations as a result enjoy lower total logistics cost contributing to sustainable competitive advantage in the global market (Shashikumar, 1998B, p. 17)

In the Indian set up, rail, road, water and air transports are handled by different ministries and there is hardly any regular forum or mechanism to coordinate the activity between them. Different modes operate as independent entities with practically no modal convergence or integration. Then there is always public and political pressure to channel scarce public investment in a particular region or project. In such a scenario, it is difficult to see convergence of plans of different ministries aimed at integrating the transport network. At times, priorities of different ministries are different. A case in point is that despite the tremendous increase of container traffic of JNPT (1.57 million TEUs in 2001-02), the doubling of connecting railway track to JNPT from the mainline has not received due priority in the Railway’s plan. Since infrastructure projects have a long gestation period, timely intervention is very important to avoid the problem of congestion. In this connection, the importance of improved hinterland connectivity as well as land bridges connecting different ports and industrial pockets of the country goes without saying. Timely intervention by the
concerned agency is essential in order to achieve synergy of different modes. Land bridges would not only provide smooth access but would also help in creating competition among ports by making access to alternate gateway easy.

5.2.5 Indian Load Centre

For a country of India’s size with sizeable container traffic (2.89 million TEUs in 2001-02) and a healthy growth rate of 17% during 2001-02 over previous year, it is a sad reflection that a significant amount of this traffic is transshipped mainly through the hub ports of Colombo, Singapore and Dubai. A study by the consultant Fredrik R Harris B.V. (1997) estimates that 47% of India’s total container trade is transshipped through somewhere and about half of that i.e. 23 % of the total is transshipped through Colombo. The amount of transshipment is estimated to have gone up by now. This significant amount of transshipment increases the cost of Indian exports significantly in terms of high direct transport cost, indirect cost associated with high transit time and the cost of inventory in transit, making them uncompetitive in the international market. Since the country has embarked upon the export led growth policy, the importance of having an Indian load centre or making Indian ports direct call ports assumes more importance.

Though officially, it has been decided to develop JNPT on the west coast and Chennai on the east coast as gateway port, the development of these ports as gateway or the Indian load centre would need not only the physical and organisational improvement but also a load centre friendly policy which promotes the transshipment through other Indian ports as well as attracting more direct calls. Indian ports would have to offer substantial benefits, in terms of tariff and productivity both, to container lines given the diversion from the main Singapore- Suez route needed for ships to call major Indian ports. India’s premier container port JNPT with the 11 meter draught in the navigational channel cannot expect to receive main-haul vessels in service on the east west liner route, which are mostly post-panamax. In comparison,
Colombo and Dubai offer a draught of about 14 meter. The port trusts may find it difficult to fund the costly deepening of the navigational channel to service mainline vessels as direct financial return from the investment may not justify the same. In such a situation, alternative sources of funding may have to be located, especially when the economic returns from the investment are expected to be more than the financial one.

The issue is also linked with cabotage restrictions. Section 407(1) of the Merchant Shipping Act, 1958 bans the employment of foreign ships in the coastal trade except under a licence granted. The Government had relaxed the Cabotage Law partially from 1992 to 1997 in respect of transhipment of containers by foreign flag vessels or feeder lines from one Indian port to another. However, foreign operators took little advantage of the opportunity as Frederic R Harris B.V. Report (1997, p.27) points out the reasons (i) The absence of an Indian load centre, leaving very little market for domestic feeder service beyond what is already being adequately addressed by the domestic carriers and (ii) Despite the liberalisation of cabotage, the remaining regulations fail to provide the flexibility required by international shipping practices.

Now with the setting up of private container terminal at JNPT whose performance standard are stated to be matching with international one and the handing over of container terminal at Chennai to private operator, there is renewed interest in cabotage by foreign liners. (“APL seeks easing of cabotage,” 2001, July 07). There are competing demands for and against the relaxation. The issue needs to be amicably resolved keeping in view the long term interest of the economy rather than sectarian interests of domestic carriers.

**5.2.6 Organisational restructuring: De-bureaucratisation**

The excessive paperwork and bureaucratic procedures hamper the smooth flow of cargo through the ports and lot of efforts and energy go waste in fulfilling those paper requirements. Evidence of bureaucratic organisational set up in major ports
lies in the fact that about 65% of the total work force at major ports is engaged in non-cargo handling activities despite the fact that they mostly operate as service port. The involvement of a multiplicity of agencies in the total transport process makes it more complicated. As Shashikumar (1998, p.23) notes, an exporter from Mumbai needs to complete and process 54 documents (27 preshipment, 14 customs clearance documents and 13 document for post-shipment realization of bills) and receive 16 approvals from the various departments. The customs procedures especially come under scathing criticism for being outdated and based on the presumption of guilty till proven innocent. The mindset and role of customs should change to a service provider to traders thereby supporting international trade through speedy clearance of goods without compromising with the national interest. Here the importance of EDI comes into the picture, which greatly enhances the speed of document transmission and processing. EDI needs to be implemented in major ports sooner than later to speed up the cargo clearance process. Haralambides and Behrens (1998, p.11) underline the importance of management restructuring among others through introduction of EDI, the streamlining of customs procedure; factors which could be equally important to the need for physical expansion of the port infrastructure.

5.3 Role of the Government in post privatisation setting

Since the country is pursuing vigorously the PSP in ports with the ultimate objective of adopting the landlord model, what should be the role of the central government in the scenario when all the major ports achieve the desired status? How much regulation of the sector would be needed and what kind of instrumentalities would be required for the required control? There is a kind of consensus on the issue that ports are strategically and economically important for a nation and as such cannot be left to be entirely regulated by the market mechanism alone. This is reflected from the overarching criticism of British model of privatisation (Saundry & Turnbull, 1997; Baird, 1999). The major objection against the UK model came from the transfer of ownership of land and infrastructure to private operators without any rider or
condition to bind private operators to continue to use the land for the port purposes. Thus, one of the dangers of sale of land on free hold basis is that it leaves the operator free to make alternate use of land, which could probably fetch better return than port operations unless prohibited by a sale contract. The opinion predominantly is in favour of retaining the public ownership of land and waterfront, these being important and scarce national resources as Juhel (2001, p.149) observes;

Land is power and it is within the statutory duties of public administration to retain the capacity and power to carry out long–term planning decisions affecting naturally restricted areas, all the more so the utilisation of the latter carries a significant weight in the overall country’s resource management.

The two issues connected with the supervision of public interests are i) which are the areas needed to be looked after and ii) which kind of body would be needed to undertake the responsibility. Chapter 3 touches upon the role of port authorities after privatisation. Port authorities are nothing but an extended arm of the government to administer the landlord and public function of the port. This section will go a little specific about the role for the Government in the post privatisation period. The role of the government could be placed under four broad categories:

1. Strategic and Perspective Planning
2. Technical regulation
3. Economic regulation
4. Trade facilitation

5.3.1 Strategic and perspective planning

Strategic and perspective long term planning for the future development of ports would continue to be most important public function to be undertaken at the government level. The government as regulator of the overall transportation system
has to determine the long term goals encompassing vision for each and every port coming in its jurisdiction. Only the government is well placed to secure necessary data for the planning purposes from various players and the resources to undertake the studies needed. The government has a key role in the co-ordination of logistics in the hinterland, including road and rail connections. These plans chart out long term strategy and the vision which would help private investor and port developers to plan their role in the overall framework for port development. The strategic planning needs to take into account the various developments taking place in the surrounding environment, especially while planning the capacity. The core objective of strategic planning, that is to enhance international competitiveness of the nation’s trade, requires a cost-effective transport system, with the port interface being a critical link to international markets.

In the Indian context, the subject ports falls under the concurrent list of subjects in the constitution meaning that the central and the state governments both have the jurisdiction over the subject, but constitution also gives overriding preference to central legislation to the extent of repugnancy between the central and the state act. Both governments have their own administrative structure as briefly mentioned in Chapter Two. However there is no single statutory body for planning and regulation of the sector. This duality of jurisdiction may lead to the variance between overall country level vision and the state level visions of maritime states for the sector. As pointed out previously this might lead wastage of national resources (waterfront is a precious national resource) or may lead to duplication of efforts. It may be desirable for the government to consider evolving some kind mechanism to ensure compatibility between central and state plans. The arrangement like one that exists in the power sector could be considered where the Central Electricity Authority is statutorily responsible for vetting and clearing all proposals concerning power production.
5.3.2 Technical regulations

Technical regulations in the port sector are required to ensure compliance with safety (navigation, marine operations, cargo handling), safety, health and welfare of employees and environmental protection standards. Safety is a major concern for any state with ship movements in and around port mooring and berthing areas and with cargo handling operations ashore. Port safety is of great importance to the uninterrupted operation and sustainability of ports and thus deserves due emphasis in the overall institutional mechanism for supervision of the port sector. Safety is an area where the roles and responsibilities are needed to be clearly defined. The issue of safety involves safety of navigation, safety of marine operations, safety of cargo handling, safety while dealing with hazardous cargo and now the security from physical attacks from anti-national and terrorist elements. It would be the responsibility of the government to frame appropriate national codes dealing with the various aspect of safety so far as they could be commonly applied to all the ports. Framing of appropriate operational codes and regulations concerning various safety related issues and enforcement of these regulations would continue to be an important responsibility of the government and public port authorities.

Similarly, environmental protection has assumed importance especially in the case of ports where pollution caused by the ships such as oil spills can adversely affect the livelihood of the community dependent on sea use (fishing, tourism) for years. Most of the countries have their Integrated Coastal Zone Management plan in tune with the ecological sensitivity of the coastline and all development activities including port construction, expansion and dredging need to conform to the same. There should be a national and port contingency plan defining the clear-cut role of different authorities for combating the pollution caused by ships as well as hazardous cargo handled at port. Handling of hazardous cargo not only poses a threat to those who are working in the port but also to the community surrounding the port, should any mishappenning takes place. Thus environment protection is one of the important
statutory duties, a port authority needs to perform and accordingly the authority should have sufficient powers to command the resources of private operators in combating any eventualities such as oil spills and spillage of dangerous cargo. Similarly, regulations may also be needed for giving effect to the requirement of reception facilities mandated by the MARPOL Convention. Ports need an integrated approach to reducing pollution from all kinds of shipping activities, through improved regulation and enforcement.

Another issue connected with safety is that the personnel working in ports must be adequately qualified and trained for the job. Various inquiries into accidents have found that the human factor is the biggest cause of such accidents and thus the appropriate training of human resources becomes of paramount importance in the strategy to prevent such accidents. Ports are one of the most hazardous areas for workers and visitors alike. The Government may not only have to prescribe the mandatory requirement for qualification and training for the various categories of workers, machine and crane operators but to also provide the facilities for such training in larger public interest since private operators would either be unwilling to fund this activity or the small number of employees would make it non-feasible for them to own such facility.

5.3.3 Economic regulation

One of the biggest concerns voiced with the privatisation of ports is that there is a serious threat of public monopoly getting converted into a private one, especially where no or only limited competition exists due to narrow traffic base, limited scale of operations or the port’s geographical location (De Monie, 1994, p.3). In contrast, votary of privatisation argue in favour of private monopoly being preferable to a public one in the interest of improved performance with monopolistic behaviour being subject to corrective mechanism. Monopolies, whether public and private, are in a position to set their prices and output standards. The consequence of
monopolistic pricing (excessive profiteering) in infrastructure sector may result in reduced demand for the service and the higher cost for downstream industries dependent on that service and thus can be highly detrimental to the general economic interests.

Thus, there is a strong public interest in ensuring that ports provide fair and competitive services to common port users, which is borne out of the fact that ports are gateways for trade and commerce. The subject of ensuring fairness and competitive services by ports is described as economic regulation. Economic regulation of ports in the wake of reforms has been a subject matter of debate about the utility, extent and scope of regulation. Market oriented reforms are guided by the fact that market is the biggest regulator itself and various competing forces operating in the market maintain the equilibrium. However, this is the case in perfect market condition where sufficient level of competition exists amongst the provider of same services. Ports by nature are monopolistic being the capital-intensive industry not amenable to alternate usage.

The general opinion and experience of countries such as Australia seem to be in favour of putting a regulatory regime in place in order to maintain a check on monopolistic tendencies associated with private operator, at least till such time, sufficient competition is established in the provision of port services. However, one of the problems associated with the economic regulation is to determine the stage of anti-competitive behaviour, which would warrant intervention of regulator. The World Bank (2001) offers a conceptual framework based on four parameters namely Transport options; Operational performance; Tariff comparisons; and Financial performance, to determine whether regulatory intervention may be warranted. The framework can indicate conditions where anti-competitive behavior may occur and serves effectively as a red flag to indicate to the regulatory authority that the situation should be closely monitored.
Pinto (1999, p.311) argues that the better way to tackle the problem of monopoly is to get rid of the monopoly rather than try to regulate it, implying that it is always better to let the market do the regulation. However, this would be possible only in the markets where healthy competition exists among the providers of same service. The monopoly of public authority is equally detrimental to public interest as the private monopoly. The kind of privatisation model being pursued in India where public authority would be the owner of infrastructure, who would ensure that all the port operators and users have equal access to that common user infrastructure and the public authority does not misuse its monopoly on the infrastructure either to favour or extract monopolistic prices for the use of infrastructure. An example from the Victorian port reforms (Australia) may be cited where the services provided by public authority are predominantly subject to price control by Regulator General (Victoria Government, 2002).

Though in the Indian scenario, competition in port services is gradually setting in, this may be limited to certain commodities and region. It is argued, for example, that two container terminals operating in JNPT, one by private operator and the other by the public authority are offering choice to shippers and shipping lines to choose from and thus introducing competition. However if there is vast difference in productivity and performance standards between the two terminals and time sensitive shipper and liners are willing to pay substantially higher price in the absence of an equally efficient alternative, it would not qualify as healthy competition. Further the container terminal operating under a trust port, functioning within the controlled and restrictive ambit of government regulations sans commercial orientation cannot offer effective competition to a private one. Thus, the efficient operator would attempt to maximize his profit by pricing the services to the highest level, which the market can bear, in the absence of any competitor nearing his level of efficiency and output. Will this exorbitant profiteering be in public interest in the name of service differentiation and in the absence of strong competitor?
Sunder and Sarkar (1999) list out constraints to free competition amongst market players in the Indian port sector as i) restricted labour practices ii) absence of hinterland infrastructure facilities iii) inadequate support facilities and iv) dominant residual power of the major port trusts. There are still only handfuls of private players in the market that are not very close to each other either physically or in the scale of operation. Gandhi (1999) opines that each port has its own captive immediate hinterland where inter-port competition would be negligible because of distinct locational advantage, relatively lesser distance, commensurate lesser transportation cost and less lead time for movement of cargo to and from particular port. The author is of the opinion that it would take a while for the Indian port sector to mature into a reasonably competitive market and till that time, some kind of price and performance regulation would be desirable to safeguard the interests of port users.

5.3.4 Trade and transport facilitation

Trade promotion, which used to be considered as private affairs in the past, is receiving more and more attention of the governments and policy makers given the strong linkage between trade and public welfare. The facilitation role starts with communicating with port users, understanding their needs and problems and responding to those needs by appropriate measures. Some of the components of trade promotion functions are infrastructure provision, port promotion, ensuring efficient service provision, finding out impediments and obstructions in the system hindering the trade, coordination with other connected organizations and integration with other modes of transport. This would include simplification and harmonization of trade and transport formalities and procedure, generating awareness of efficient commercial practices, simplification of customs procedure and introduction of automation to speed up the process. The UN Compendium of trade facilitation recommendations (1994) provides a detailed list of documents and procedure that should be simplified to facilitate trade. Even the simple interventions like
standardizing the format and size of trade document can reduce the cost associated with paperwork significantly. Another area where the government can facilitate the trade is the introduction of e-commerce backed by appropriate legal regime to regulate e-commerce. Since trade facilitation involves coordination between various governmental and non-governmental agencies, a government agency only has the required authority and the resources to undertake those. In the interest of national trade such initiatives should have the support of the highest levels in the government.

5.4 Future administrative set up

Once the objectives of PSP in ports, ultimately leading to landlord model is gradually achieved, what kind of instrumentalities would be needed to monitor and regulate the sector within the purview of the Ministry of Shipping. There are differing opinions about centralised and decentralised port administration. Each approach has its strengths and weaknesses. Centralised administration permits a broader national economic and multi-modal perspective for directing port development policy. The decentralised administration permits a more narrow local perspective that aligns port development with the economic interests and priorities of regional economies. In addition to national and local approaches to port supervision responsibility, a two-tiered option may be tried, one at the national level and other at the local level. The two-tiered arrangement allows for the balancing of national and local interests both.

Different countries follow different patterns. For example, Singapore government constituted the Maritime and Port Authority of Singapore (MPA), a statutory board by the MPA Act (1996) at the time of corporatisation of the port, to separate commercial and regulatory functions. The MPA was formed by merging the Marine Department, the National Maritime Board and the regulatory departments of the former Port of Singapore Authority. The authority functions under the Ministry of Transport of the Government of Singapore and as ‘Port Authority’ is responsible for
vessel movements, navigational safety and the marine environment in the port. The other port related functions of MPA include:

- The promotion of the use, improvement and development of the port
- The licensing and regulation of marine services and facilities as well as port services and facilities
- The regulation of the port industry's economic behaviour

The MPA also acts as the Government's Adviser on matters relating to sea transport, marine and port services and facilities (MPA, Singapore, 2002).

The Hong Kong port does not have any port authority and most of the port facilities are privately owned and operated, with minimal interference from government. The Marine Department of the government is responsible for all navigational matters, strategic planning for port development, pollution control, hydrographic services and navigational aids (Hong Kong government, 2002).

However, both examples pertain to small territories. India being a big country may need two-layered structure to strike a balance between national and local perspective. The GOI has recently taken initiative to examine the feasibility of constituting a ‘Maritime Authority of India’ by merging the maritime and port regulatory functions as well as provision of navigational aids facilities. This is a welcome step as such convergence is the need of hour not only to reduce the multiplicity of agencies leading to bureaucratization but to also benefit from the integrated approach for the management of maritime sector.
CHAPTER 6
CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

This paper has sought to examine the imperatives for the Indian port policy to address some relevant and topical issues after the introduction of private sector participation and also the establishment of a suitable administrative framework for administration and regulation of the port sector in post privatisation scenario. The paper started with an overview of the current Indian port policy including privatisation and the conditions as obtaining in Indian ports at present (Chapter 2) juxtaposing the same against the conceptual framework governing the privatisation and the experiences of some countries in this regard as well as the need for public interventions in regulation of ports (Chapter 3). The chapter 4 attempts to identify and analyse the current development in maritime sector which may have the profound influence on the functioning of ports and the challenges posed to port planners and managers. Chapter 5 has sought to flag the issues confronting Indian ports sector on their way to rise to the expectations of the larger objectives of country’s economic policies and the imperatives for a port policy in the post privatisation period when the major ports are converted into landlord entities.

Introduction of privatisation demands a clear-cut demarcation and delineation of role and responsibilities of public and private sectors and the rules governing interface between public and private authorities. This is needed to allow private capital to
assess clearly the risks and benefits associated with investment and to improve their level of comfort.

Maladies affecting the performance of Indian major ports are manifold and needed to be tackled simultaneously. These are seen in the way the ports are administered (not managed), suffering not only from bureaucratic control but also adopting bureaucratic attitude in the port operation stemming from a mind set where the major ports have been seen as an extended arm of the government. This mindset needs to be changed by injecting the elements of commercialisation by changing the management structure till major ports reach to the stage of landlord where commercial operation would no more be a concern of public entity.

The low productivity of man and machines in major ports is an important area of concern when speed is the name of the game in the port business. The low productivity of labour arises out of lack of modern operation and management practices, outdated productivity norms, lack of training and motivation and public sector work culture evolved over a period. The part of the problem is attributable to prevalent labour laws, which are complicated, cumbersome and too protective and thus not conducive for introduction of modern operational and management practices, in keeping with the dynamic changes taking place in working environment and philosophy. A case in point is the Indian Contract Labour Act, 1970 that hampers the well-recognised practice of outsourcing.

A spin of effect of low productivity is the high cost of cargo handling and slower ship turnaround time. Indian ports are considered to be too expensive compared to other neighbouring ports despite the fact that labour cost is comparatively low. Higher port costs emanating from inefficiency, redundant work force or the practices such as ‘speed money’ coupled with low productivity transforms into higher freight cost charged by the shipping lines, works detrimental to the interest of country’s international trade. One of the reasons for continued feeding of Indian cargo is the
higher port costs (cargo related, vessel related or caused by higher turnaround time) at Indian ports dissuading the shipping lines to bring their expensive mainline.

The transhipment of Indian cargo through foreign hub ports despite the sufficient aggregation of cargo in the country is a major cause of concern. The share of transhipment estimated at about 50% in 1997, is estimated to have further gone up. This not only adds significant cost to import and export but also increases transit time apart from the country loosing valuable foreign exchange. There seems to be little opportunity for India to act as regional transhipment hub at this point of time owing to geographical location and availability of substitutes in the region but the national interest would be served by ensuring direct shipment of cargo from Indian ports.

Efficiency of a port is not only dependent on efficient cargo handling operations but on smooth and efficient linkage to the hinterland for faster evacuation and receipt of cargo. An added advantage of improved hinterland connectivity is introduction of competition among nearby ports.

As the port sector is moving towards landlord structure from publicly owned service port, the steps need to be simultaneously initiated for management and regulation of the port sector. The role of the government and the public port authority needs to be conceived in advance keeping in view the public service obligations of the government in terms of national economic objectives, economic regulations aimed at making available fair and competitive port services to port users, safety of the workers and employees, safety of community surrounding the port from the hazardous and polluting activities carried out in ports, protection of marine environment and the ecology, national security interests. With private operators pursuing their limited role as service provider, the Government’s active involvement in trade and transport facilitation is called for to bridge the gaps in the way of seamless and efficient transport infrastructure.
6.2 Recommendations

The recommendations are briefly summarised below:

1. The country needs to formulate a long-term vision mapping the development of the port sector in a perspective. The vision must translate into a clear cut policy outlining the objectives sought to be achieved and the strategies, both short and long term, to be adopted in order to achieve objectives and a strategic master plan encompassing major and minor ports.

2. Such master plan needs to look into the need based port development in order to check over-investment and overcapacity, which might lead to general sickness in the absence of critical volume. There is a need to find a delicate balance between ensuring competition between ports and capacity creation.

3. Instead of adopting a straightjacket approach for restructuring of port organisations, the same should be undertaken on a case-to-case basis. The ports, which are ripe for early conversion into landlord authority, need not go through the process of corporatisation, which apparently holds no benefit. Corporatisation is suggested for ports, which are finding it difficult to attract private operators and thus are not ripe for conversion into landlord authorities. Innovative solutions may also be tried by way of unbundling of activities (terminalisation) and converting them into separate corporate entities holding concession from public port authority acting as landlord. These entities may be privatised over a period once corporatisation makes them attractive for divestment.

4. Successful privatisation would depend on rapidly resolving the labour issues. The government should invest in voluntary retirement schemes (VRS) to
make the port facilities attractive for private investors. Those opting for VRS may be trained and imparted alternative skills at the government’s expense to help them finding alternative jobs. Such retraining will motivate people opt for VRS.

5. There is a need to integrate the efforts being made by ministries in charge of rail, road, and air transport for ensuring modal convergence and improve hinterland connectivity. Benefits from the investments made in ports cannot be optimised in the absence of improved hinterland connectivity. This may need setting up of a permanent coordinating mechanism.

6. The need to develop one or two Indian load centres to act as gateway has already been recognised. The government may consider providing necessary support to identified gateway ports (JNPT and Chennai) in terms of investment in creating infrastructure (Deepening of channel, Tugs) as well as by suitably modifying regulatory regimes connected with customs and cabotage.

7. There is need to simplify the procedures to remove obstacles in speedy cargo clearance at various points such as ports, customs and inspections at modal exchange points. The documentation connected with these clearances consumes lot of time, efforts and money, which could be avoided by standardising and simplifying the documents and procedures. Customs procedures need to be completely overhauled to make them trade friendly. The expeditious introduction of EDI in all major ports would go a long way in speeding up cargo clearance and saving the time, efforts and associated cost of all the parties concerned.

8. The legal framework for regulating the port sector (technical and economic) in the post privatised setting needs to be finalised and put in place. GOI
should clearly spell out the post privatisation relationship between public and private sectors and necessary legislation/statutory rules covering technical and economic regulations should be framed, which would be applicable to landlord port structure, as major ports are poised to be.

9. The Indian port sector still seems to be far from operating in a healthy competitive environment and thus the need for economic regulations governing tariff and the conditions of service appears desirable. The tariff setting mechanism should contain some flexibility to allow the operators to price the service strategically charging the premium for quality. Banding the tariff in a range rather than capping the tariff, thereby offering flexibility to operators may achieve this.

10. The necessary organisational structure should be finalised and put in place. Whereas strategic planning should remain the function of the Ministry of Shipping; for regulation of the sector, a two tier public authority structure is recommended, one at the national level for establishing the regulatory regimes and the other at the local level to enforce those regulatory regimes and discharge the landlord function. There could be a single local authority constituted for more than one contiguous ports in order to avoid multiplicity.
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