

Port restructuring in India

S Sundar^a

Introduction

India has nearly 5560 kms long coastline and presently has 12 major ports (of which 11 are operational and the 12th is under construction). There are 148 minor ports of which only 30 handle cargo. 95% of India's foreign trade by weight/volume and about 70% by value involves transportation by sea. During the first 25 years after independence, aggregate traffic grew modestly from 20 million tonnes in 1950 to 67 million tonnes in 1975, the main commodities handled being crude oil and iron ore. However, following the liberalisation and opening up of the economy in the early 90s, there has been a significant increase in India's maritime trade. Containerisation of general cargo, which came, late in India in comparison with other Asian economies, has also shown a steady increase and is currently around 10% of all traffic in major ports. The traffic handled by major and minor ports during last six years is given in table 1.

Table 1: Traffic handled by major and minor ports

(Traffic in million tonnes)

Ports	1994-95	1995-96	1996-97	1997-98	1998-99
Major ports	197.26	25.34	227.13	251.44	251.70
Minor ports	18.41	20.30	24.93	26.13	35.66
Total	215.67	235.64	252.06	277.57	287.36
% share of Major ports	92	91	92	91	88
% share of Minor ports	8	9	8	9	12

Source: Basic Ports Statistics, 1998-99

Structure of Ports in India and governing legislation

Regulatory framework

Major ports

In India, the major ports are placed under the Union list of the Indian Constitution, and are administered under the Indian Ports Act, 1908 and the Major Port Trust Act, 1963 by the Government of India. Under the Major Port

^a Distinguished Fellow, TERI, New Delhi, India

Trust Act, each major port is governed by a Board of Trustees appointed by the Government of India; their composition gives dominance to public enterprises and government departments. The powers of the trustees are limited and they are bound by directions on policy matters and orders from the Government of India.

Minor Ports

Minor ports are placed in the Concurrent list of the Constitution and are administered under the Indian ports Act, 1908. The Act defines the jurisdiction of Central and State government over ports. It lays down rules for safety of shipping and conservation of ports. It regulates matters pertaining to the administration of port dues, pilotage fees and other charges.

At the State level, the department incharge of ports or the State Maritime board (created through State legislation as in case of Gujarat), is responsible for formulation of water front development policies and plans, regulating and overseeing the management of state ports, attracting private investment in the development of state ports, enforcing environmental protection standards etc. Maritime boards have so far been constituted only in Gujarat, Maharashtra and Tamil Nadu.

Port Performance

Capacity constraints

The major ports handled traffic of about 250 million tonnes in 1998-99 as against an assessed capacity of about 220 million tonnes. The overall capacity utilization for all the major ports was about 115% which indicates that the major ports were handling traffic in excess of capacity. As a result, in India ships have to wait for berths instead of berths having to wait for ships. Port traffic has been projected to grow to a level of 650 million tonnes by 2006.

Poor Performance

The productivity in Indian ports is poor as compared to other ports in the region as discussed below.

Vessel turn around time

The average vessel around time for Indian ports varies from 3.3 days to 8.3 days, (1998-99) as compared to 15 to 35 hours in major European ports and less than a day in Singapore (1998-99).

Equipment utilisation

The average availability of equipment in Indian ports is around 70% as compared to 85%-90% for other Asian ports. (World Bank, 1995). The number of containers handled per ship/ hr is 10 at JNPT port which is India's most modern container terminal, as compared to 30 in Colombo and 69 in Singapore respectively. While, efficiencies have improved since 1995, productivity of Indian Ports is still below international standards.

Labour productivity

On an average, Indian ports handled around 1424 tonnes of cargo/ employee in 1998-99. In comparison ports in U.K. handled around 47,000 tonnes of cargo per employee in 1997-98. The port of Rotterdam handled around 50,500 tonnes of cargo / employee during 1998-99. Manning scales at different ports for specific activities such as container handling and stuffing vary widely. For example, for transfer of containers from ships to quay Calcutta port employs a total of 32 persons as against 12 at haldia, 15 at Mumbai, 21 at Chennai and 4 at JNPT. Again for container stuffing/destuffing, Calcutta and Mumbai employs 28 persons, Chennai 7 and Haldia 2 for unitised and 7 for non unitised cargo. Such large manning scales result in excessive transaction and manning costs, again making Indian ports highly uncompetitive.

The main factors that have led to inefficiencies in the Indian ports are:

- Most major ports were originally designed to handle specific categories of cargo which have declined in time while other types of cargoes gained importance. The ports have not been able to adjust to the categories of cargo which grew the most. There are thus several berths for traditional cargo, which are under-utilised, and only a few for new cargo, which are over-utilised.
- Equipment utilisation is very poor both because equipment is obsolete and poorly maintained.
- Over staffing at Indian ports remains rampant and productivity indicators in respect of cargo and equipment handling continue to be poor.
- Documentary procedures relating to cargo handling such as customs clearance requirements are unduly complicated and time consuming. Electronic document processing is still to be introduced in all the ports.
- Port access facilities and arrangements for moving inbound and outbound cargo are inadequate and unsatisfactory.

- Absence of inter-port and intra-port competition which have been conducive to substantial productivity increases in other countries is absent in Indian due to poor inland connectivity and a policy regime that protected domestic ports against competitive pressures.

The consequences of these various shortcomings for the Indian economy are severe. Few large liner ships are willing to call on Indian ports as they cannot afford to accept the long waiting times. Indian container cargo is transshipped in Colombo, Dubai or Singapore resulting in additional costs and transit times. As a result the Indian exporter is not in a position to avail of “fixed-day-of-the-week” services offered by the liner industry at a time when manufacturing and trading companies abroad are increasingly selling and buying on a “just-in-time” basis. Indian exporters are, therefore, operating on the basis of substantial buffer stocks which also makes them less competitive. It has been estimated that the annual incidence of these various factors such as demurrage charges, transshipment costs, pre-berthing delays and vessel turn around time could be as high as US \$ 1.5 billion per annum. These costs have ultimately to borne by the end user, raising the costs of India’s exports in international markets and the prices of imports for the Indian economy.

Ports are no longer mere modal interfaces between surface transport and sea transport. They are now logistics and distribution platforms in the supply chain network. International trade has now become transport intensive and time sensitive and Indian ports clearly are not yet ready for this changing environment. There is, therefore, an urgent need to restructure the port sector in order to improve efficiencies and reduce costs.

Models for port restructuring

There are basically three types of port operating structures:

1. Service ports
2. Tool ports
3. Landlord ports

Service Port

The Port Authority provides all commercial services to ships and cargo, owns and operates every port asset, and fulfils all regulatory functions; the Service Port Authority can be either a public entity, as used to be in former socialist countries, and in Singapore, or a private one, as is the case in Felixstowe (United Kingdom), or Hong Kong. Since both Singapore and Hong Kong are

outstanding references as far as productivity of port services are concerned, this could suggest that to some extent, ownership could be a secondary matter. However, the Service Port experience in former centralized economies clearly demonstrated its shortcomings, and the former Port of Singapore Authority was turned in 1997 into PSA Corporation, a port operating company, while regulatory powers were vested into the newly created Maritime and Port Authority (MPA).

Tool Port

The Port Authority owns the infrastructure, the superstructure and heavy equipment, rents it to operators which carry out commercial operations, and retains all regulatory functions.

Landlord Port

The Port Authority owns the basic infrastructure only, land and access and assets, and leases them out to operators, mostly on a long-term concession basis, while retaining all regulatory functions. Some of the examples of landlord ports are Rotterdam (Netherlands), Buenos Aires (Argentina), or Laem Chabang (Thailand).

The Landlord Port and Tool Port Authority are usually public bodies, owning the land and related assets on behalf of the Government, while the commercial operators leasing the facilities or renting the superstructure and equipment are private companies.

Port restructuring in India – Policy initiatives

The Government of India which administers the major ports has now realised that port restructuring is essential if Indian exporters are to be given an opportunity to enjoy the efficiencies and low costs in transportation as are available to their competitors elsewhere. The Government also recognizes that the additional port capacity to meet the projected traffic by 2006 can not be achieved unless there is massive private investment in the augmentation of port capacity. The Government of India, has, therefore, decided to adopt the concept of landlord ports, and gradually secure private participation in the provision of port services. Accordingly, in October 1996 policy guidelines were issued which provided for private sector participation/investment in the following areas:

1. Leasing out existing assets of the port.
2. Construction/creation of additional assets, such as:
 - Construction and operation of container terminals.

- Construction and operation of bulk, break bulk, multipurpose and specialised cargo berths.
 - Warehousing, container Freight Stations, storage facilities and tank farms.
 - Cranage/Handling Equipment.
 - Setting up of captive power plants.
 - 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

As a part of this initiative the procedure for inviting private participation and the criteria for evaluation were prescribed; model tender documents and concession agreements were also formulated. The major ports were advised to identify projects for private sector participation on the basis of viability, and proceed to take steps to obtain private investment.

As a further step towards securing private participation, policy guidelines were issued in 1997 to enable the major ports to set up joint ventures with foreign ports, minor ports or private companies. The major Port Trust Act was amended to give effect to the guidelines issued in 1996 and 1997.

Corporatization

As stated earlier, the major ports are governed by the Major Port Trusts Act, 1963 and the minor ports by the Indian Ports Act 1908. Both these acts were modelled after the then British practice in managing ports and carry a lot of baggage from the acts of the 19th century governing the ports in the three presidencies of Madras, Calcutta and Bombay. The Board of Trustees who are appointed by the Government of India to administer the port represent government departments involved with port operations, labour and service providers such as stevedores, shipping agents etc. Their interest lies more in protecting their turfs and not in promoting the commercial well being of the ports. The financial and other powers of the trustees are also limited. In fact, they could incur expenditure only up to Rs 5 billion in respect of new works and replacements. The different operations in the port were also not set up as separate profit centres. The accounting practices followed were revenue accounting practices and not commercial accounting practices.

Recognizing that port operations can not be made efficient or cost effective unless ports were encouraged to operate on commercial lines, the Government

of India, as part of the 1996 policy guidelines, substantially increased the financial and other powers of the Port Trusts. The Government of India also took a decision that all new ports will be set up as companies under the Indian Companies Act and the existing Port Trusts will also be gradually corporatized and set up as companies. This decision is based on the belief that corporatization of ports will necessarily make ports operate on commercial principles and make it possible to evaluate their performance on the basis of their profitability. It will also expose the ports to the financial markets for meeting their working capital and project funding requirements and thereby subject them to market discipline. Also corporatization of ports could eventually lead to their privatisation. Accordingly, the 12th new major port, which is under construction at Ennore near Madras, has been set up as a company under the Companies Act, with the conservancy functions being exercised by the Madras Port Trust. Action has also been initiated to corporatise the Jawaharlal Nehru Port Trust (JNPT) and the Haldia port, which are among the newer of the major ports.

Tariff Authority for Major Ports (TAMP)

As private sector was allowed entry into the major ports to provide services often in competition with the Port Trust themselves, there was a demand from the private sector for an independent regulator to set port tariffs in order to ensure that there was no unfair competition between themselves and the Port Trust. There was also a feeling that where services are provided only by one agency involvement of the private sector could result in public monopolies being converted into private monopolies. Accordingly, the 1996 guidelines provided for the establishment of the Tariff Authority for Major Ports to fix and revise port tariffs. TAMP was set up in March 1997 through an amendment of the Major Port Trust Act 1963. All powers for fixing tariffs in major port lies with TAMP, but it has no jurisdiction over minor ports or private ports.

TAMP as stated above is only an authority for fixing tariffs and has no other regulatory functions or powers. All the conservancy powers in ports and all other regulatory function in regard to safety etc. are vested in the Port Trust themselves. In Singapore, when the Port of Singapore Authority was restructured in 1997, the regulatory and commercial functions were bifurcated and the regulatory functions were vested in a Maritime and Port Authority (MPA). But the MPA however, has no tariff setting functions. TAMP on the other hand is only a tariff setting authority and has no other regulatory functions. Ideally, there should be one regulator exercising all regulatory functions including tariff setting if necessary in the port sector TAMP has no role

to play in opening up the port sector for private investment. TAMP has also not been specifically mandated to improve efficiencies or lay down quality of service standards in port operations. However, the Major Port Trust Act provides that while fixing tariffs the conditions under which the service to be rendered can be prescribed. Using this as a mechanism TAMP is now seeking to relate tariff to efficiencies. But each port has its own tariff schedule and scales; the accounting procedures are also different. It would be necessary for TAMP in the first instance to establish some common accounting procedures amongst ports and move towards fixing uniform principles for fixation of tariffs; this would go a long way towards promoting interport competition.

With private investment coming in, some of the Port Trusts have been arguing that there is no need for TAMP and what is required at best is a tribunal to hear complaints if any against port tariffs. The argument is that there is adequate competition in the port sector and, therefore, TAMP could be wound up. But the reality is that Inter Port and Intra Port competition in India are still very weak. The port user does not in practice have the option to shift his goods from one port to another or between service providers within the same port except for JNPT where there are two competing agencies handling container traffic. In this situation, it would be sometime before TAMP can withdraw from active regulation. But TAMP like any other regulator should have a sunset clause, and withdraw from regulation when adequate competition emerges.

Progress so far

The statement below in table 2 indicates the number of projects identified for private investment, projects approved, under bidding and the projects for which bids are yet to be invited. It also indicates the capacity build up through private investment.

Table 2: Status of projects for privatisation

Details	No of projects	Capacity (to be created) (mt)	Amount (Rs. In crores)
Already approved	15	60.30	4376
Under bidding process	7	31.40	3100
Bids yet to be invited	3	5.00	450
Total	25	96.70	7926

The first major private investment to materialise after this sector was opened up in 1996 was an investment of about \$250 million in setting up a two berth container terminal in the JNPT by a consortium led by P&O Australia. This terminal is in addition to the terminal operated by the JNPT Port Trust at the same location. The competition between these two terminals has resulted in significant increase in the container traffic at JNPT, to the detriment of the Mumbai Port, which shares the same sea front.

The major projects being set up by the private sector at the different ports are listed at Annex 1.

The projects listed in Annex 1 together have brought in or are in the process of bringing in an investment of approximately \$1.7 billion. In fact, the Government of India, in planning an additional capacity of 122 million tonnes during 9th five year plan (1997 – 2002) had estimated a total investment requirement of about US \$ 3.4 billion of which US \$ 1.7 billion were to be provided by the Port Trust and US \$ 1.7 billion was expected from the private sector. It would appear that this expectation of private investment has materialized. However, the capacity requirements up to 2006 have been projected at 650 million tonnes. The augmentation of capacity from the level of 372 million tonnes, which should be achieved when these and the projects being funded by the Ports themselves are completed, to the level projected for 2006 would call for substantial additional investment.

Minor Ports

As far as the minor ports are concerned the state governments have had the opportunity to start almost from scratch and develop ports without being inhibited by existing institutional arrangements, labour or other vested interests. The Gujarat Maritime Board has allowed the private sector to develop two ports in Gujarat mainly the Gujarat Pipavav Port and the Adani port, and has further identified nine sites for port development by the private sector. The Government of Orissa has granted a concession to a private consortium to develop a green field port at Damra on Build-Own-Operate-Share-Transfer (BOOST) principle. Similar initiatives are being taken by other Maritime states to develop ports along their coast line. Some states like Gujarat and Maharashtra are following the joint venture route where the maritime boards are taking a minority interest in the port company and leaving it entirely to the private sector partner with the majority stake to develop and operate the port. Some states like Andhra Pradesh and Orissa are allowing the private sector to develop the port entirely, without any government participation, on a BOOT or

BOOST basis. In either case it is important that the state should have a master plan for the development of a port in order that full economies scale are achieved and the port developer does not restrict its development to meeting his captive requirements. States like Gujarat, Maharashtra and Andhra Pradesh have developed master plans for each of their ports and are also ensuring their guaranteed revenue shares. These various forms of port development are possible under the Indian Ports Act 1908 and the State Governments, as stated, earlier have an advantage in that they are not fixed in by the existing structure or the Major Port Trust Act.

Lessons learnt

A review of the policy initiatives taken by the Government of India to restructure the ports and of the implementation of these guidelines suggest the following lessons:

- India has not gone the whole hog towards making the major ports landlord ports. All that has happened so far as can be seen from Annex 1 is that new investments by way of some berths or container handling facilities have been made by the private sector in the existing major ports, with the Port Trusts themselves continuing to handle the other berths and facilities. It is thus a hybrid approach and has resulted in a conflict of interest between the Port Trusts, who continue to be port regulators and providers of commercial services, and the private sector.
- Even where the private sector has been allowed to invest, there has been no attempt to encourage competition by introducing two or more service providers. For example, in Chennai all 6 berths have been given to P&O Australia, to set up container handling facilities instead of the berths being divided amongst two or more operators as was done in Klang Port in Malaysia. As a result, there is a danger of private monopolies emerging in the absence of intra-port competition.
- There is no national strategy for privatising all the cargo handling services in the ports with the ports becoming landlord ports. It has been left to individual Port Trusts to formulate their own strategies for private sector participation and set their own pace for the implementation of these strategies. As a result the move towards becoming landlord ports is slow and hesitant.
- Given the distance between the major ports and absence of adequate land and rail connections between ports, inter-port competition has been limited.

- Adequate attention has also not been paid to the danger of private monopolies emerging with one operator been given, although on the basis of competitive bids, the franchise to handle similar facilities in several ports. For instance, the competitive bidding procedures have resulted in one Company being given the franchise to operate container terminals at Chennai, and, J&PT, and possibly in Cochin and Kandla . That company is also part of the consortium running the container terminals at Klang Port in Malaysia, the Colombo Port in Sri Lanka and the Karachi Port in Pakistan. The absence of a competition policy in India and regional co-operation on competition issues in Asia could result in that company enjoying the dominant position in India and the adjacent coastline of the neighbouring countries.
- Dock Workers Act 1948 which governs port workers provides a remarkable degree of protection to Dock workers and has led to various mal-practices such as speed money, over manning, low productivity, idle time, etc., The present policy does not provide for an exit policy for labour and therefore, to act as a disincentive for private investment.
- The Port Trusts, as now structured, lack a commercial approach and there are no incentives or compulsions to improve efficiencies and reduce cost.
- TAMP has not been given powers to function as a quasi-judicial body and ensure compliance of its orders. It has not also been granted necessary financial autonomy. Besides, the orders of TAMP are not final as government has retained powers to order remissions from the rates approved by TAMP.
- Port operations are to a great extent influenced by administrative procedures such as customs procedures. Customs procedures in India continue to remain cumbersome and the co-operation between the customs and port authorities is inadequate.
- Electronic data exchange system that enable ships to inform the port authorities about their cargo arrangements so that the port authority can prepare for a speedy unloading of vessels, together with linkage to customs to enable cargo clearance in advance, have not been established in all the major ports.

The Way Forward

The Government of India should play a more proactive role in implementing its policy so as to realise the benefits of private sector participation in port development. The Port Trusts should only perform the role of a regulator and as a facilitator of services, as is in the case of the landlord model.

Although there is policy decision to corporatize the ports, the movement towards corporatization of major ports has been slow. This is largely due to the difficulty in financial restructuring of the old ports, which like Bombay and Calcutta have acquired assets over some 300 years. In this situation, corporatisation could be accomplished by setting up fully owned subsidiary companies by the Port Trusts, and leasing all ports assets to these companies. These companies could then be either privatised in whole or in part or can enter into long term concession agreements with private sector companies to perform various commercial functions. This could be an intermediate step in privatisation of ports and would help to transfer all commercial decisions with regard to privatisation from major Port Trusts to the companies.

Inter port competition

Inter-port competition does not exist in India due to long distances between ports and poor interface of ports with the rest of the transport network. The users are constrained in the choice of ports by the availability of road and rail network. Integration of ports with the transport system is necessary to increase interport competition.

Intra port competition

Intra port competition should be encouraged wherever possible and new facilities should be concessioned to multiple providers. The concession agreement should also be designed that there are no restrictions in the agreement on developing competing facilities. All future investments in ports should be left to the private sector and the government must move away from additional public investment in port infrastructure.

Labour reforms

The enormous gap between the number of labour required given modern cargo handling technology, and actual number of workers in the port is a major deterrent for private investment in port facilities. An appropriate voluntary retirement scheme should be designed so as to reduce excess staff. Proper training should be given to the port employees to improve their performance and productivity. The performance of port employees should be judged and linked to their productivity.

Tariff regulations

The tariff structures at different ports vary widely and are extremely complex. Port tariff should be fair, simple and transparent based on broad banding and scientific clustering of cargo categories. Tariff in major ports is now regulated by TAMP. Regulation of tariff is best a proxy for competition. TAMP should foster competition and eventually withdraw from market as it develops. TAMP should endeavour to use each tariff revision as an opportunity to increase port efficiencies.

Conclusions

Policy guidelines aim at moving the ports towards the landlord ports concept with the provision of services being increasingly left to the private sector. However, the strategy to achieve the policy objective has not been thought through and progress so far has been halting and adhoc. There is no concerted move to speed up the privatisation of all port services. Adequate attention has not also been paid to strengthen the support infrastructure such as land and rail connections and to streamline administrative and customs procedures including MIS. The way forward is for the Government of India to develop an integrated approach for the commercialisation and privatisation of port services.

References

- Indian Ports Association, 1999. Major Ports of India- A profile: 1998-99, Indian Ports Association. New Delhi.1999. pp. 105.
- Juhel, M.H, 1998, Globalisation, privatisation and restructuring of Ports, 10th Annual Australasian summit on Ports, Shipping and waterfront reforms.
- MoST 2000. Status paper on private sector participation in Port sector Department of shipping Ministry of Surface Transport. Government of India. New Delhi. 1999. pp. 51
- MoST 1999. Basic Port Statistics of India 1998-99. Transport Research Wing Ministry of Surface Transport. Government of India. New Delhi. 1999. pp. 277+viii
- Vasudevan R, 2000, Investment needs and opportunities in Ports and shipping, Conference proceedings- Transport India 2000, New Delhi 2000.
- World Bank, 1995, India Port sector Strategy report, March 31,1995, The World Bank, Washington D.C., 1995.

Annex 1***Major projects being set up by the private sector***

1. Liquid cargo berth at Jawahar Lal Nehru port being developed by joint venture between BPCL and IOC.
2. Oil jetty and related facilities at Kandla being developed by Essar Oil Ltd.
3. Oil jetty at Kandla being developed by Bharat Petroleum Corporation
4. Multipurpose berth 5A and 6A being developed by ABG Ltd at Murmugao port.
5. Coal berth at Tuticorin being developed by SPIC Electric Corporation on captive basis.
6. Captive berth at Paradip being developed by Oswal Group.
7. Captive coal and general cargo berth at Pir, Pau, Mumbai - License agreement signed with Tata Electric Company.
8. Container terminal at Chennai, approval issued to P&O, Australia.
9. Construction of third oil jetty at Haldia
10. Construction of second multi purpose berth at Paradip
11. Capital dredging and construction of a shallow berth at Tuticorin
12. Deepening of berths at Murmugao
13. Construction of multipurpose berth in outer harbour at Vizag.