Uncovering The True Potential Of The Maritime Sector

Indian Ports Association (IPA) is the driving force fostering the spirit of growth and development of all major ports of India. Thus, IPA is contributing to the growth of the economy and the country at large. It acts as a think tank for Ministry of Shipping and Major Ports. IPA is also rightly hailed as the Centre of Excellence (CoE) helping ports to achieve eminence in their operations and management. Logistics Insider spoke to **Dr Abhijit Singh, Executive Director of IPA** about the initiatives undertaken at major ports to transform them into world class facilities so that India can emerge as a major player in the world of maritime trade. He also emphasised on the projects initiated by the government to improve maritime efficiency and what the future holds.

Karvi Rana

What role is the Sagarmala Programme playing in enhancing hinterland connectivity to bring down the logistics cost in a single figure?

Connectivity is one of the critical enablers for ports and the end-to-end effectiveness of the logistics system drives competitiveness for the maritime industry as well. With infusion of new technology and infrastructure capacity building, the cumulative/total capacity available at ports can match demand but will not be able to handle additional traffic if the evacuation to and from the port is restricted. It is, therefore, important that connectivity of major ports with the hinterland is augmented not only to ensure smooth flow of traffic at the present level but also to meet the requirements of projected increase in traffic.

India's hinterland connectivity is mainly based on surface transport i.e. road and rail, wherein, domestic waterways (coastal shipping and inland waterways) plays a very limited role. Pipelines are predominantly used only for transporting crude oil, refined petroleum products and natural gas.

In India, smooth connectivity to ports is crucial as cargo generating centres are mainly in hinterland instead of coastal region.

Under Sagarmala Programme, endeavour is to provide enhanced connectivity between ports and domestic production/consumption centres. Vision of the Sagarmala Programme is to reduce logistics cost for EXIM and domestic trade with minimal infrastructure investment, for which more than 235 connectivity projects at an estimated investment of more than `2.35 Lac Crore have been identified. Projects under Sagarmala are being implemented by relevant Central Ministries, State Governments, Ports and other agencies primarily through the private or PPP mode.

The major ports in the country attract bulk of the traffic (handling ~55% throughput) which leads to the problem of congestion. What initiatives are being taken under Sagarmala programme to decongest the port and make them more efficient?

Ports have a limited amount of dockage and in most cases capacity does not match demand. That is why vessels usually have to wait in the anchorage, before being able to access the port and use the cranes or the pier.

As per the studies conducted under the Sagarmala Programme, it is expected that by 2025, cargo traffic at Indian ports will be approximately 2500 MMTPA while the current cargo handling capacity of Indian ports is only 2316.14 MTPA. A roadmap has been prepared for enhancing the Indian port capacity to 3300+ MMTPA by 2025 to cater to the growing and expected traffic. This includes improvement of port operational efficiency, capacity expansion of existing ports and new port development.

For all the 12 major ports, master plans have been finalised. From the port master plans, 92 port capacity expansion projects (cost: Rs. 58,884 Cr) have been identified

for implementation over next 20 years and are expected to add 712 MTPA to the capacities at major ports.

To fill the demand gap, 2 new major ports are planned which will bring in significant capacity expansion. New port locations have been identified based on the cargo flow for key commodities and the projected traffic. Greenfield ports are proposed to be developed at Vadhavan (Maharashtra) and Paradip Outer Harbour (Odhisha).

How has implementation of Port Community System helped increase the efficiency of the Indian Ports? What are the other digital technologies that IPA might have/is planning to adapt in order to make shipping more efficient for the shippers?

A centralised web-based Port Community System (PCS) has been operationalised across all major ports which enables seamless data flow between various stakeholders through common interface. Port Community System (PCS) is intended to integrate the electronic flow of trade related document/information and function as the centralised hub for the ports of India and other stakeholders like Shipping Lines/Agents, Surveyors, Stevedores, Banks, Container Freight Stations, Customs House Agents, Importers, Exporters, Railways/CONCOR, various other Government regulatory agencies, etc. for exchanging electronic messages in secured manner. The main objectives of the PCS are:

- Develop a centralised web-based application, which act as SINGLE WINDOW, for the port community members/stakeholders to exchange messages electronically in secured fashion.
- Reduce transaction time and cost in port business
- Achieve paperless regime in port sector
- Implement an e-commerce portal for port community
- Data Respository for research and analysis

To move towards complete paperless regime, e-DO (Electronic Delivery Order) through PCS is made mandatory along with e-invoicing and e-payment. An upgraded version, PCS1x has been launched in December 2018. 24 out of 27 stakeholders are on board. PCS1x which has latch-on facility with all other trade partner portals to evolve as National Maritime Single Window which will ultimately reduce transaction time of EXIM trade apart from being online.

As per the studies conducted under the Sagarmala Programme, it is expected that by 2025, cargo traffic at Indian ports will be approximately 2500 MMTPA while the current cargo handling capacity of Indian ports is only 2316.14 MTPA.

Other than PCS, number of modernisation, mechanisation and digital transformation measures are taken-up such as installation of container scanners and RFID (Radio-Frequency Identification) system, Enterprise Business System (EBS), automatic berth allocation, plot/yard planning, linking of rail booking with port systems etc. which are catalyst to improve their operational efficiencies. Going forward, using technologies like ML and AI can help ports make more sense of the data and get better insights for improving efficiencies and driving down the cost. The Blockchain technology and Smart Contracts can resolve issue of trust among various stakeholders and make information sharing and transactions secure and faster. These innovations and technological adoptions will help in transforming the Indian Ports sector on a par with leading international ports.

Indian Ports Association (IPA) has a collaboration project with Portall Infosystem. How will this project benefit the shippers and other players in the process and help cutting down the paper trail?

The Indian Ports Association, in conjunction with its technical services provider Portall Infosystem Pvt Ltd, has been leading the Port Community System (PCS) project, under which users are able to process all port services electronically, instead of a hard-copy or manual forms – a process that typically involves inordinate transit delays and lacks shipment visibility. As Port Community System (PCS) is intended to integrate the electronic flow of trade related document/ information and function as the centralised hub for the ports of India and other stakeholders.

In your decade long career, you have looked at Maritime sector very closely. What are the major transformations that you have seen in the sector that has helped it to grow and flourish?

Under the leadership of our Prime Minister we have seen major transformation in the sector. Stressing more on policy driven governance and predictable transparent policies coupled with reforms and adoption of technology, we have achieved remarkable milestones such as development of SEZ and smart industrial port cities to attract investments and accelerate economic growth in the region, State-of-the-Art Center of Excellence in Maritime and Ship Building (CEMS) being developed in Vishakhapatnam & Mumbai, set up of Indian Port Rail Corporation Ltd. As a public limited company to undertake last mile rail connectivity projects in Major Ports to improve their handling capacities and efficiency etc.

Apart from this, State-of-the-Art technology of adopting Shore to Ship power supply, converting all diesel crane to electric crane, automatic mooring-unmooring operation etc. are under consideration for implementation. Also, a new Major Port Authorities Bill to give greater operational freedom to the board of Major Ports in tune with present day requirements has to be introduced in the Lok Sabha.

These initiatives of the Government have led to the tremendous increase in the performance of Major Ports. Average turn-around-time has come down to 59.51 hours in 2018-19 from 82.32 hours in 2016-17. Average output per ship berth-day which was 15333 tons in 2017-18 has improved to 16541 in 2018-19. As per the latest Ease of Doing Business Ranking (Doing Business 2020) report released by World Bank, India ranked 63 among 190 countries. India has leapt 14 ranks over its rank of 77 in the DBR 2019. Moving to paperless regime actually improved India's Trading Across Border indicator ranking in EoDB,India jumped to 68 from 80thposition last year. **India has improved its rank by 79 positions in last five years [2014-19]**.

Other than this, focus would be to execute and implement all strategic initiatives at ports in timely manner. A monitoring framework for the same has also been developed by using digital technology to have updates on each infrastructure projects.

However, this is just the beginning. We are enhancing our own capacities of execution and implementation.