



Ministry of Shipping  
Government of India



MARCH, 2020

# THE SAGARMALA POST



SPOTLIGHT



EVENTS DETOUR



VIEWPOINT



MARITIME GLORY

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# From the **SECRETARY'S DESK**



Just as the rest of the country is in a very high state of alert to handle the outbreak of the Coronavirus, the Ministry of Shipping has also taken several initiatives to ensure that not just are our ports mission ready for the likely impact of this pandemic, but we ensure that the ports maintain their operational efficiency to handle cargo movement of essential commodities. With 95 per cent of our trade by volume transiting through the ports, their operation is critical to the nation's economy. The very early signs of the spread of the virus gave the Ministry an opportunity to put the essential steps in place. A three step Standard Operating Procedure (SOP) was formalised based on the principle of Screen – Detect – Quarantine and included thermal screening of passengers and crew, denial of entry to passengers and crew with symptoms and from notified countries. The screening of cruise tourists and seafarers began at a very early stage, initially from notified countries and subsequently from all overseas destinations. Monitoring of disembarking crews, screening and isolation was followed in line with the overall guidelines issued by monitoring agencies. We have also taken extreme steps including putting a suspect ship in quarantine to check the spread of the virus.

Apart from the preparatory activities for tackling the menace of the Coronavirus, the Ministry has been going about its primary task of improving the performance of ports to be future ready for the 2025 target of enhancing capacities of ports to 3300 MMT.

India is amongst the largest providers of seafarers to the international maritime fleet. Towards this, the Ministry sought and obtained the approval of the Cabinet for a standard format of an MoU that may be concluded with other countries on a unilateral or bilateral basis to recognise certifications approved by the Director General Shipping. This would enable DG Shipping to engage with his counterparts in other countries and conclude agreements without seeking the Cabinet's approval. Such agreements are likely to enlarge the employment opportunities for Indian seafarers.

Since Independence, our major ports have shouldered the burden of the movement of our exports and imports. With limited capacities, the ports maintained long wait time and excessive turnaround time, thus, prolonging the supply chain timeline. As the maritime world moved forward, building larger ships, especially ultra large container vessels, our ports were restricted in not receiving such ships due to draught limitations. The

government has recently approved the setting up of the nation's 13th Major Port at Vadhavan, 70 NM North of Mumbai. A greenfield port, it will have a draught of 20 m enabling berthing of ULCVs. To be constructed at a cost of Rs. 64,500 Cr in two phases, Phase I will be ready by 2023 affording 0.8 MTEU of container traffic. The project will provide employment opportunities to the local coastal and tribal community.

Modernisation of port infrastructure has been the focus of the Ministry under the Sagarmala Programme and ports have taken several initiatives under this programme. JNPT has been at the forefront by setting up infrastructure to improve ease of doing business, reducing traffic congestion, container scanning, etc. Similarly, Paradip Port has undertaken dredging of the Mahanadi river mouth that would benefit cargo movement and fisheries.

Ro-Ro and Ro-Pax are modern and efficient methods of moving wheeled cargo. A long-felt need to connect the city of Mumbai with Mandwa and Alibagh across the Mumbai harbour was recently achieved by the introduction of a Ro-Pax service under the PPP model. Whilst the infrastructure has been developed by Mumbai Port and the Maharashtra Maritime Board, the service is run by a private entity, M/s M2M Ferries. Time and distance advantages will accrue to the users apart from cost saving and reducing pollution.

The Ministry of Shipping of Republic of India and Ministry of Shipping & Ministry of Defence of Republic of Portugal concluded Memoranda of Understanding to cooperate for harmonisation and uniting their position with the international organisations, holding forums and conferences and to develop a world-class National Maritime Heritage Complex at Lothal, Gujarat. JNPT and Antwerp ports came together for a brainstorming session to identify ways for enhancing trade between India and Europe, focusing on providing efficient gateways at both ends.

Coming back to the spread of Coronavirus, the Ministry of Shipping, ports and all allied organisations associated with the ministry are leaving no stone unturned to ensure that the spread of the virus is contained at ports. Keeping their guard up, port authorities and maritime boards are keeping a strong vigil against the pandemic.

**Gopal Krishna, IAS**  
Secretary, Ministry of Shipping



## FULL STEAM AHEAD AGAINST CORONA

Soon after the Ministry of Health began monitoring the developments taking place as a consequence of the spread of Coronavirus, the Ministry of Shipping initiated measures to acquaint, educate and disseminate information relating to the virus. The Ministry drew up guidelines and Standard Operating Procedures (SOPs) to be followed by all major ports and also coordinated with State Governments and Maritime Boards to implement similar measures at non-major ports. The action-oriented steps by the Ministry were essential as a nation-wide screening of travelers was being initiated at all entry points. Ports being the gateway for entry of seafarers and tourists from the sea, similar measures were



Shri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemical & Fertilizers Reviewing Port Preparedness over Coronavirus Pandemic

essential to block the entry of the virus from this entry point as well. Secondly, 95 per cent of India's export/import trade takes place by sea. To keep the logistic supply lines open and ensure there is no disruption in the availability of goods and commodities, ports need to continue to be operational as an essential service provider to the nation. With these two aspects in view, SOPs were drawn up to be followed by all ports.

The overall theme was based on the concept of 'Screen Detect Quarantine'. The SOPs included guidelines for port health officials for monitoring movement of embarking and disembarking crews and goods, need for maintaining social distancing as also guidelines for port officials and workers whilst interacting with ships' crews. Additionally, quarantine facilities have also been set up within port premises and in liaison with local hospitals for use by crews suspected of being a carrier of the virus.

Soon after the ports were ready in all respects, mock drills were conducted at all ports to ensure there are no lacunae in the guidelines as also for the port workers to practice their roles. Shri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemical & Fertilizers, who is a member of the GoM reviewing the preparedness to contain the deadly coronavirus, has been holding regular review meetings with port and maritime board officials via video conferencing to review the actions.

As part of the SOPs, port calls by Cruise Ships which had not notified their schedule by 1st January 2020, were barred from calling at Indian ports. Other cruise ships underwent normal screening processes and tourists who had travel history to the notified countries were not permitted to disembark for city tours.

As the ports remain fully operational, maintaining 24/7 operations, screening of crews, ships and cargo has been a humongous task. By April 12, 2020, more than 50,902 seafarers have been screened and impacted personnel and ships acted upon.

There has been complete compliance of the SOPs outlined by the Ministry and strict monitoring and screening of all ships calling at Indian ports has been undertaken with ports taking no chances in this regard. Port health officials, the nodal point for the fight against Coronavirus, have been playing an extremely crucial role. Additionally, the ports have been undertaking periodical sanitisation of areas that are likely infected due to the presence and movement of a large workforce in the port complex. Despite the restrictions imposed on ports, operations have been maintained at their optimum efficiency levels.



## Model MoU for Recognition of Seafarers' Certificates Approved



country of the certificates issued by the Directorate General of Shipping to Indian seafarers, without seeking similar recognition by India of the certificates issued by that country. Indian Seafarers, therefore, would be eligible to be placed on ships under the flag of that country for employment, thus leading to increased employment opportunities.

The bilateral MoU would enable India and other countries with which such an MoU may be entered, to mutually recognise maritime education and

The Union Cabinet chaired by the Prime Minister, Shri Narendra Modi, approved the Model Memorandum of Understanding (MoU) for unilateral or bilateral recognition of certificates pursuant to Regulation 1/10 of International Convention on Standards of Training, Certification and Watchkeeping (STCW) for Seafarers, 1978. The MoU would be concluded between the Directorate General of Shipping, Government of India and its counterparts in foreign countries with the approval of Minister-in-charge of Shipping and the Minister of External Affairs. The unilateral MoU would facilitate unilateral recognition by another

training, certificates of competency, endorsements, documentary evidence of training and medical fitness certificates, issued to the seafarers who are citizens of respective countries in accordance with the provisions of regulation 1/10 of the STCW Convention. The bilateral MoU would, therefore, make the seafarers of both the countries to be eligible for employment on ships of either party based on the certificates so recognised. India being a seafarer supplying nation with large pool of trained seafarers will stand to be benefitted.

## Deep-sea Vessels for Coastal Communities



A large part of India's population lives along its coasts. With a view to increase fish production and incentivise the seafood industry, thereby, increasing employment opportunities, the fishermen community in coastal areas are being provided deep-sea vessels at subsidised costs. Participating in a seminar on "Challenges of Coastal Community and Their Role in Nation Building", Shri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemical & Fertilizers added that the Ministry of Shipping is currently focused on developing the blue economy and the shipbuilding industry to ensure prolonged prosperity to the coastal community.

Reiterating the government's intent to develop inland waterways and promote cargo movement through coastal shipping, Shri Mandaviya added that cargo movement through inland waterways would considerably increase in the coming four years, thus, reducing logistics costs for cargo shipping. He also highlighted that the inland waterway route from Dhubri to Dibrugarh and then through Bangladesh to Sundarbans on the Brahmaputra river had created new logistics opportunities for the country's Northeast. The Ministry was also exploring possibilities of building jetties and to promote cruise tourism.





India & Portugal sign Agreement on maritime transport, ports

## India and Portugal Agree on Mutual Cooperation in Maritime Transport & Ports

India and Portugal agreed on opening avenues for cooperation to promote maritime transport between the two countries. Both countries agreed to cooperate on harmonisation and uniting their position with the International Organisation Institution, holding forums and conferences associated with maritime and port activities apart from organising operation of their merchant fleets. An MoU to develop a world-class National Maritime Heritage Complex at Lothal, Gujarat with the cooperation from the Republic

of Portugal was also concluded. This will pave the way for cooperation between the two countries for showcasing their maritime heritage. The NMHC will consolidate all diverse and rich artefacts from ancient to modern times. It will provide access to the public and make them aware of India's rich maritime heritage. The coming together of both countries will allow them to access international conventions so that the Agreement's objectives may be strengthened.

## JNPT & Antwerp Port Authority Discuss Initiatives for Seamless Trade between Indore and Global Markets

Both Jawaharlal Nehru Port Trust (JNPT) and Antwerp Port Authority, in association with Associated Global Logistics Pvt Ltd conducted a Knowledge Session on "Gateways for trade between the India-Europe corridors" on January 25, 2020. Discussions were held on the role of ports in international trade and supply chain ecosystem, technological inventiveness affecting the sector and various initiatives that must be taken for smooth gateway to customers trading via the sea in the India-Europe corridors.

Whilst addressing the delegates, which also included industry captains of Indore along with the trade fraternity, Shri Sanjay Sethi, Chairman, JNPT said, "Indore was a significant market for JNPT, and, therefore connectivity to/from there was extremely significant to further increase the market economy of Indore and Madhya Pradesh. He urged the EXIM community of Indore to take advantage of JNPT's facilities to trade across the world as it could open an opportunity for enhancing cargo generation between Indore and JNPT.



Jawaharlal Nehru Port Trust & Antwerp Port Authority Attending the Knowledge Session on "Gateways for trade between the India-Europe corridors" at Indore

## Cabinet Extends PLR Scheme for Major Port Trust and Dock Labour Board Employees

The Union Cabinet has approved to extend the current Productivity Linked Reward (PLR) Scheme beyond 2017-18 till further change or amendment is sought in the same. The scheme is expected to benefit 28,821 people employed in the country's major port trusts and docks. The PLR scheme would be evaluated on the existing wage ceiling to calculate bonus at Rs. 7000 every month and involves an annual outgo of nearly Rs. 46 crores. Aimed to induce better industrial association and a conducive work environment, the scheme was first put in place to boost port productivity. The existing PLR scheme is granted based on the composite Ports Performance Index on an annual basis based on the settlement arrived at between the management and the labour federations of the major port trusts.



## Effective Measures in Place for MARPOL Compliance



Being a signatory of the International Convention for the Prevention of Pollution from Ships (MARPOL), India has a robust system for ensuring that ship generated pollution is kept under control. Shri Mansukh Mandaviya, Minister of State (I/C) for Shipping informed members of the Lok Sabha during the current session. He informed that under the provisions of Chapter XIA of Merchant Shipping Act, 1958, compliance is monitored and regulated by the Directorate General of Shipping (DGS) and non-compliance is addressed by exercising powers vested through Section 356E and 356G of the Act. Ships contravening the requirements are detained until the non-compliances are rectified and a detention fees is imposed.

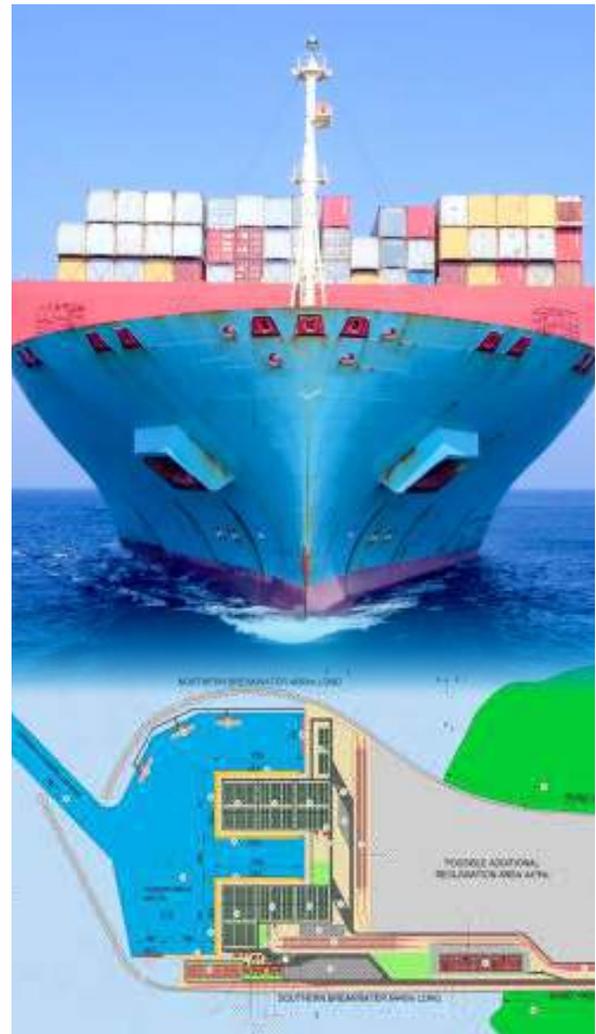
Importantly, the Minister highlighted that in order to reduce pollution of air by sulphur oxide, MARPOL Annex VI (Prevention of Air Pollution) has been amended and now requires that from 1 January 2020 Sulphur content of fuel used on board ships should not exceed 0.5% mass/mass. The Directorate General of Shipping has issued Engineering Circular 02 of 2019 implementing the same on Indian Ships and foreign ships coming to Indian ports. Further, with respect to prevention and control of pollution in inland-waterways, the Inland Waterways Authority of India (IWAI) regulates the same through the concerned State Maritime Authorities.

## Shipping Ministry Approves 13th Major Port in Maharashtra

The Government of India has approved the development of a greenfield port at Vadhavan in Maharashtra. The port would be developed on the landlord model through incorporation of a Special Purpose Vehicle (SPV) under the Companies Act, 2013 with Jawaharlal Nehru Port Trust (JNPT) as the lead partner.

The financing of the project would be through a mix of equity capital and debt. While the equity capital would be raised through the incorporated SPV, multilateral financial institutions would make way for raising debt.

The project would be completed in two phases. The first phase of the project is slated to be in operation in five years subject to necessary statutory clearances and investment approval.





'Chintan Baithak' - Ports Review Meeting with Chairpersons of All Major Ports

## Port Improvement Measures Reviewed at 'Chintan Baithak'

A Ports Review Meeting held at Mamallapuram, Tamil Nadu on March 01, 2020 reviewed matters that would help augment ports' performance and increasing their competitive ability. Issues that drew the attention, inter alia, included port modernisation, implementation of e-governance model, development of India as a trans-shipment hub, the need for coastal community development to generate employment apart from setting forth guidelines for preparing Vision 2030 for the maritime sector. During the second day of the meet, Sri M Venkaiah Naidu, Vice President of India, who graced the 'Chintan Baithak' urged authorities to work towards bringing Indian ports at par with global ports.

During an interaction with Sri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemicals & Fertilizers, the Chairpersons of various ports presented their respective ports' performance and major achievements while attributing them to a slew of innovative measures aimed at port development. The Chairpersons also apprised the Minister about the issues plaguing various ports and matters that necessitate Ministerial interventions.

## Inauguration of Concrete Floating Jetty in Goa

Shri Mansukh Mandaviya, Minister of State for Shipping (I/C) inaugurated the country's first floating concrete jetty in Goa on 21<sup>st</sup> February, 2020 on the banks of National Waterway-68 (Mandovi river) in the august presence of Shri Pamod Sawant, Chief Minister of Goa, Shri Shripad Naik, Minister of AYUSH and Shri Vinay Tendulkar, Member of Parliament, Rajya Sabha. This is the first project to be completed under the tripartite MoU signed by Inland Waterways Authority of India (IWAI), Mormugao Port Trust (MPT) and Captain of Ports (CoP) Department, Govt. of Goa in May 2018 for the development of National Waterways in Goa. Under the MoU, the projects are to be funded by IWAI, executed by MPT as the Project Management Consultant (PMC) under the overall guidance of CoP.

The floating jetty on NW- 68 is the first such facility in the country made of cement concrete, which can be realigned, relocated and resized as per requirement. The technology used in making the jetty has been offered by a Finland based company M/S Marinetek and is now transferred under the Make in India programme. The cement concrete jetties built under the modern technology are environment friendly, have the potential to be built in a short span of time and are expected to boost the development of NWs in the country. Under the project three more such jetties are to be built in Goa.



Shri Mansukh Mandaviya, Minister of State for Shipping (I/C) Inaugurating the Concrete Floating Jetty in Goa



# Investing in Coastal Tourism to Develop Communities along India's Coasts

**C**oastal tourism is an important aspect of coastal community development under the Sagarmala Programme. With roughly 18 per cent of India's population living in the country's coastal districts, creating economic opportunities along the coast is essential to help sustain their daily livelihoods. By promoting the tourism sector along the coastal areas and attracting both domestic and foreign tourists, employment opportunities could be created for the population of these districts.

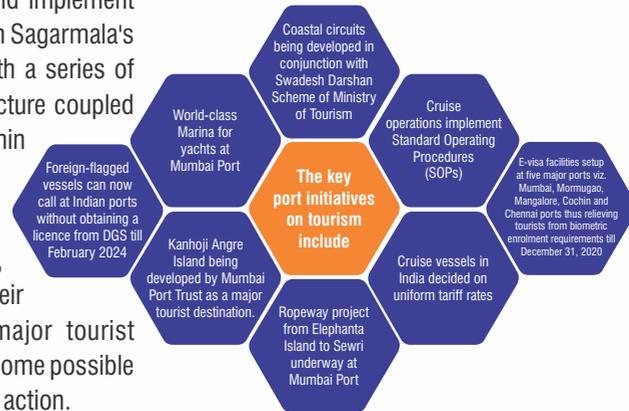
To allure both domestic and foreign tourists to the charm of India's long coastline necessitates an in-depth understanding of different patterns of coastal and maritime tourism and developing them accordingly. As coastal areas captivate tourists' interests with mesmerizing images of beaches and cliffs, the desire to be a part of the exotic Indian culture tempts foreigners to visit coastal states. India hosts the maximum number of tourists (both domestic and foreign) in many of its coastal states. Despite the country being home to many tourism destinations, current models do not allow much scope for recreation except swimming, sunbathing and boating. Numerous other coastal recreation activities like surfing, yachting, cruising and other nautical sports and hospitality facilities are missing as infrastructure and shore-based support facilities are not available.



## Tourism Activities by Major Ports

Major ports in India have now come forward to design and implement schemes to promote coastal tourism. These ports, in line with Sagarmala's objectives to promote maritime tourism, have come up with a series of initiatives including putting in place the necessary infrastructure coupled with entertainment activities to attract tourists from both within the country and abroad.

As India strives to increase its foreign exchange earnings through tourism by encouraging enhancing tourist footfalls, the Indian ports have taken it upon themselves to develop their coastal regions and adjoining inland waterways as major tourist attractions. Though there is still much to be done, we look at some possible areas where we can perhaps witness and experience possible action.



## Cruise Tourism

The joy is in the journey, not the destination. This is true of vacationing on a cruise ship that provides the ultimate experience of travelling in leisure. Apart from the joy of visiting the actual destination, cruise ships, with their wide range of entertainment facilities, are the ultimate destination point for travellers. Considering the untamed beauty of the forests and wildlife synonymous with India's long coastline apart from the country's rich cultural heritage, coastal states have a lot to gain by simply paying more attention to the development of coastal tourism. Amongst the salient projects is the development, operation, and maintenance of Kanhoji Angre Island as a tourist destination at a total cost of Rs 50 Cr, to be developed by Mumbai Port Trust alongwith a PPP partner. Whilst the Mumbai Port Trust will invest Rs. 7.68 Cr to develop basic infrastructure facilities at the Island, the concessionaire will be permitted to develop a resort and open area with exclusive access for ten games and sports including other outdoor activities. The selection of a concessionaire will be through a tendering process. Besides, the port is also constructing a state-of-the-art cruise terminal of international standards, having 4,00,000 sq. ft. built-up area with retail shops, cafes and other leisure and entertainment facilities, apart from serving as a terminal for international and domestic passengers. The terminal is likely to be operational this year.

The number of cruise ships calling at Indian ports has increased over the past few years increasing the number of tourists substantially. It is estimated that the number of cruise ships calling at Indian ports could increase from 138 (2017/18) to 1000 by 2023/24. Taking advantage of this potential market, International cruise operators e.g. Costa, Royal Caribbean, MSC and domestic ones e.g. Jalesh Shipping are tapping this market to attract both foreign and domestic tourists which is estimated to grow from 0.177 Mn to one million by 2023/24.

## Inland Water Tourism

The focus on using inland waterways for cargo transport has raised the possibility of India investing in river tourism too. Many rivers meander through the vast landmass of peninsular India. The backwaters and lagoons of Kerala or easing your way through the mighty Ganges or sailing down the dynamic Brahmaputra River and its tributaries, they provide a mesmerizing experience of the country's varied topography and diverse cultural heritage and intermittent tourist spots dotting India's landscape. The Inland Waterways of India (IWI) is currently looking into the activities associated with the development and regulation of the national waterways. A continued focus remains on the development of necessary infrastructure to maintain a navigable waterway, thus, enabling basic inland water transport infrastructure including fixed terminals and floating pontoons jetties.

A few river cruises are being offered by private parties along the rivers connected through the National Waterways 1, 2 and 3 offering a peek into places and people living along the banks, inspiring some of the best poetry and tales of a rustic life. In October 2019, a seven days river cruise operation on a vessel having 16 luxury rooms, has been started by Far Horizon Adventures.

After the signing of Agreement and SOP on cruise services between India and Bangladesh for the use of Protocol routes on inland waterways under the Protocol on Inland Water Transit and Trade and coastal routes as per the Coastal Shipping Agreement (from Kolkata Port to Cox's Bazar in Bangladesh), river cruises have commenced in 2019. Six initial voyages have been successfully completed by river cruises on PIWTT in 2019-20, including four voyages between Kolkata and Dhaka and two voyages between Kolkata and Guwahati through Bangladesh.



## Lighthouse Tourism

This is a fairly novel concept unheard of in India. Lighthouses, also known as the beacons on the coasts of India, are a major star attraction among people living in small villages along the coasts. Determined to showcase the history of lighthouses to tourists and travellers, the Directorate General of Lighthouses and Lightships (DGLL) has proposed to develop tourist destinations alongside the lighthouses as major tourist attractions. The tourist facilities would be developed to enhance & develop the existing lighthouses & its surrounding areas into a Tourism Destination, Maritime Landmark, and Heritage Precinct and to develop allied Maritime Infrastructure like National Maritime Museums & National Light house Museums.

While the old lighthouses speak a lot of the country's glorious past and its lost heritage, under the Sagarmala Programme, it is being proposed to promote lighthouses as major tourism destinations, which means that they would soon be included in both domestic and international itineraries. Till date, 13 lighthouses across the states of Tamil Nadu, Kerala, Goa, Andhra Pradesh, Odisha, Gujarat and Lakshadweep have been identified, with more to follow soon.

## Marina for Yachts

A 300 yacht marina is being developed at Mumbai under the design, build, finance, operate and transfer model. The capital cost of the project is 357.33 Cr to be made by the concessionaire. The project will provide berthing facility in the wet basin for 200 yachts and speed boats. Space for 100 boats will be made available in the dry stack. A marina ancillary centre will house a yacht club and commercial space for leasing of space to the third party.

## Floating Restaurants

Though few, the floating restaurants driven by the various state tourism boards have found their niche among vacationers eager to derive the experience of dining on a barge/pontoon converted into a restaurant floating on water. We already have two of them moored near the Gateway of India and Marine Drive. South Indian coastal states are gradually warming up to the idea of introducing floating restaurants as we see an increasing number of them coming up in the backwaters of Tamil Nadu, Karnataka and Kerala apart from the Puducherry coasts.

## Water Sports

Inspired by the aquatic activities promoted on foreign shores, tourists visiting our coastal destinations are being increasingly provided several water sports facilities. Though limited to Goa, Andaman and Nicobar Islands and Lakshadweep, tourists can choose from a wide range of nautical sports facilities like kayaking, windsurfing, canoeing, parasailing, windsurfing, water-skiing and so on. Also, infrastructural developments are being planned to encourage conventions, conferences, meetings, exhibitions and incentives by various businesses, thus, promoting increased footfall to these places.

## Maritime Museum

A lot of people continue to be unfamiliar with India's rich maritime heritage. To promote greater awareness among the populace about India's contribution to trade and commerce through its seas and rivers and its long history of shipbuilding and ship repair activities, the Ministry of Shipping is developing a National Maritime Heritage Museum at the ancient Indian site of Lothal in Gujarat, which dates to the Harappan period. The foundation stone of the museum had been laid down by the Indian Prime Minister Shri Narendra Modi in March 2019.

The planning of the museum is at an advanced stage. Lothal was aptly chosen as the site for the museum as archaeologists discovered a lot of artefacts and ruins showcasing ancient shipbuilding and repair sites apart from the state's burgeoning trade via its seas and rivers. The discovery of the earliest known drydock of its time gives credence to the maritime heritage of India.

The project is currently being steered by the Ministry of Shipping with active support of other stakeholder 'e.g.' Archaeological Survey of India, Gujarat State Government & Gujarat Maritime Board.



## Details of Completed Projects in Coastal Tourism

Sr No	Project Name	Implementing Agency	Project Cost (In Rs. Crores)
1.	Development of Kakinada Hope Island Konaseema as World Class Coastal and Eco-Tourism Circuit in Andhra Pradesh	AP Forest Department	70
2.	Floating Restaurant at Girgaum Chowpatty	Mumbai Port Trust	10
3.	2 Floating Restaurants at Gateway of India	Mumbai Port Trust	40
<b>Total</b>			<b>120</b>

### Cruise Terminal

1.	Development of Cruise Berthing Facilities cum Cruise Passenger Facilitation Centre near Boat Train Pier Jetty-Cochin	Cochin Port Trust	28
2.	Development of domestic cruise terminal	Mumbai Port Trust	15
3.	Development of Cruise Passenger Facilitation Centre at Chennai Port Trust	Chennai Port Trust	18
4.	International Cruise Terminal	Cochin Port Trust	26
<b>Total</b>			<b>87</b>

### Ro-Ro & Tourism Jetty

1.	Construction of Breakwater and Ramp at Mandwa	Maharashtra Maritime Board	135
2.	Capital dredging in Navigational Channel for Ro-Ro Pax Services at Mandwa	Maharashtra Maritime Board	18
3.	Dredging of RO-Pax Ferry Services between Gogha and Dahej in Gulf of Cambay	Gujarat Maritime Board	234
4.	Construction of passenger boat landing jetty at Kanhoji Angre Island	Mumbai Port Trust	14
5.	Ferry service from Baina to Panaji	Mormugao Port Trust	5
<b>Total</b>			<b>406</b>



## Multiple Infrastructural Projects Inaugurated at JNPT



Shri Mansukh Mandaviya Inaugurating Several Infrastructure Projects at JNPT

Shri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemicals & Fertilizers inaugurated several infrastructure-related projects at the Jawaharlal Nehru Port on March 14, 2020. The projects inaugurated by the Minister are in support of the Government's initiatives under the Sagarmala Programme to improve port and port related infrastructure. These projects include:

- **Flyover at Y junction near PUB at JNPT.** The 830 m long flyover aims to ease movement of cargo traffic with the ultimate aim to support faster evacuation.



Flyover at Y junction near PUB

- **Centralised Parking Plaza.** A centralised parking hard has been created to provide a parking facility for trucks carrying export containers and enable completing pregate entry formalities and documentation for export under one window system thus enabling controlled and planned movement.



Centralised Parking Plaza

- **Container Scanner Facility.** This A newly setup Mobile X-Ray Container Scanner facility has the capacity to scan



Mobile X-Ray Container Scanner Facility

20 containers per hour, thus, helping scan containers inside the terminal premises. This initiative would benefit trade as DPD containers would now be allowed directly from the port after examining the same with the help of new mobile scanners.

- **Augmentation of 220/33KV Master Unit Sub Station.** To provide stable, uninterrupted, reliable power a state-of-the-art 220/33 KV gas-insulated facility has



Augmentation of 220/33KV Master Unit Sub Station

been set up with gas insulated switchgear. The Supervisory Control and Data Acquisition (SCADA) facility provides automatic fault detection and reporting system. As per the norms, the substation has an automated fire detection & an alarm system along with CCTVs are deployed.

- **Shiva Samarth Smarak Memorial & Museum.** Inaugurated near Jasai-Dastan phata, Uran to commemorate the great Maratha Emperor Chhatrapati Shivaji



Shiva Samarth Smarak Memorial & Museum

Maharaj, this memorial is a recreational facility project developed to promote the art, culture and be an avenue for the society at large to stay connected with the local heritage.



## Ro-Pax Service Reduces Travel Time across Mumbai Harbour



Shri Mansukh Mandaviya taking a tour of Ro-Pax ferry service in Mumbai

Shri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemicals & Fertilizers inaugurated a Ro-Pax ferry service from Bhaucha Dhakka, Mumbai to Mandwa, Alibag in Maharashtra on March 15, 2020. The newly introduced ferry service will reduce the time taken from Mumbai to Mandwa from 4 hrs 15 minutes to nearly 45 minutes as the distance of 110 kms by road will now be roughly 18 kms by sea. Moreover, this new Ro-Pax facility will not only help ease the traffic congestion on the Mumbai-Goa highway but also reduce carbon emissions. The project has been jointly executed by the Mumbai Port Trust which has developed the Ro-Pax jetty and terminal facilities at Bhaucha Dhakka at a cost of Rs. 31 crores and the Maharashtra Maritime Board having developed the breakwater, Ro-Pax jetty and terminal facilities at Mandwa at a cost of Rs. 135 crores. The project has been developed under the Sagarmala Programme with part funding provided by the Ministry of Shipping.

## Dredging at Mahanadi River Mouth Completed



Paradip Port Officials Announce Completion of Dredging Operations at Mahanadi River Mouth

The local fishermen community living near the Mahanadi River mouth were in for joy as Paradip Port announced the completion of dredging operations at the river's mouth on February 27, 2020. The work carried out by the Dredging Corporation of India involved dredging the area to ensure a four-meter depth at critical areas of the river mouth. Temporary buoys would be laid to mark the channel. It has been almost 20 years since dredging had been carried out at this river mouth.

## Paradip Port Trust Inks MoU with Port Health Organisation

The Paradip Port will soon have a port health unit headed by a port health officer. The unit is slated to come up in a four-roomed building at the port at Bhuyan Chhak, Madhuban. An MoU in this regard was signed between the port trust and Port Health Organisation (PHO) on February 20, 2020.



Paradip Port Officials Announce Establishment of Port Health Unit at Paradip Port



## JNPT Comes up with its Port Driving Permit Cell



An initiative for improving Ease of doing business JNPT has introduced a Port Driving Permit (PDP). The PDP Cell was inaugurated on January 20, 2020 by Shri Sanjay Sethi, Chairman, JNPT handed over by handing over the first six port driving permits issued by the JNPT-CISF to the respective drivers of cargo vehicles at the port. Every driver of a heavy vehicle will be issued the permit by the PDP Cell post verification of driving license and completion of safety training. The permit issued to the driver would be prominently displayed on arrival at the Port gate, thereby eliminating the need for the driver to prove his credential at the gate at every visit and help speed up the movement of cargo vehicles, thus, reducing time spent by the vehicle at the gate and easing traffic at the gate.

'Port Driving Permit Cell' Inaugurated at JNPT



Inauguration of the New Tug-Boat 'Ocean Victor' at JNPT

## JNPT Inducts New Tug 'Ocean Victor'

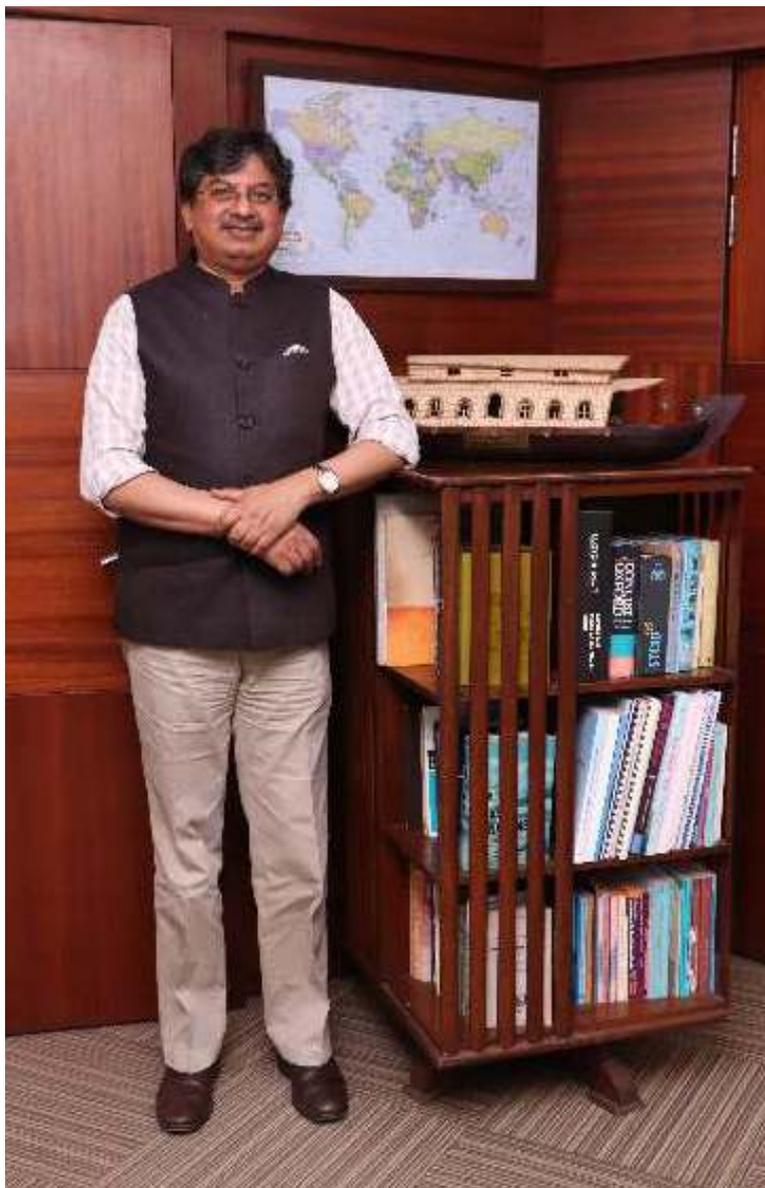
Jawaharlal Nehru Port inducted a 50 Ton bollard pull tug "Ocean Victor" into its inventory for handling various sized vessels, affording them greater safety during their berthing at the port. The tug would also facilitate seamless operations during strong tides and severe monsoon conditions.

Based on the Robert Allan design, the tug has an Azimuth Stern Drive configuration with the latest technology and equipment. This tug-boat makes use of two Niigata main engines each developing 1471 KW at 750 rev/min giving a speed ahead of around 12 knots.



## DG Shipping: Reiterating Need to Draw A Maritime Knowledge Cluster & Link it with Blue Economy Industries

The shipping sector in India has undergone innumerable changes in the past few years. Though requisite technologies and laws are in place to promote the working of this sector, much more needs to be done on both the cargo and cruise fronts to ensure continued progress in this regard. A tête-à-tête with *Shri Amitabh Kumar, Director General of Shipping and Additional Secretary to the Government of India* reveals all that lies in store for India's maritime progress.



### Q. What are the Shipping Ministry's plans to increase the number of ships, both passenger and cargo, on Indian coasts?

There are varied requirements of ships around the Indian coast which can be broadly classified into three categories—cargo vessels, passenger vessels & offshore vessels and port craft.

The EXIM trade in all Indian ports is carried through Indian or foreign flag vessels without restrictions, except in case of PSUs. There is no shortage of vessels for EXIM trade. However, the coastal trade is hindered due to several restrictions and limitations emanating from geography, cabotage restrictions, costing, taxation, non-availability of cargo and disproportionate investment by the Government on other modes of transport, etc. There is a huge potential to increase movement of cargo from road or rail to sea, if some of these issues are resolved.

To reduce the cost of coastal transportation, the DG Shipping had framed River Sea Vessels (RSVs) rules with relaxed construction and manning requirements and has now allowed inland vessels to move along Indian coasts in a 5 NM corridor. To increase the supply of specialised cargo vessels, the government has removed cabotage restrictions on such vessels for a period of five years. Similarly, cabotage has been relaxed for carriage of empty & EXIM containers, agricultural commodities, fertilisers, etc. Simultaneously, the process for issuing licences for foreign flagged vessels chartered by Indian entities has been simplified to enable chartering of vessels.

Passenger vessels are being predominantly used for inland water operations. The Directorate has issued guidelines for the registration of RSV passenger vessels and small pleasure crafts and yachts of 24 metres and less. It is now in the process of issuing guidelines for registration of bigger pleasure craft/yachts. The Ministry has also granted cabotage relaxation for cruise ships. As a result, several small to medium sized passenger vessels have now started operating in Gujarat, Goa, Maharashtra, Kerala, A&N Island and West Bengal. Cabotage relaxation on cruise ships has helped frequent visits by cruise ships and their movement from one Indian port to another.

About the availability of the third category of vessels, India has nearly 973 Indian flagged offshore vessels and ports craft that have benefitted from the policy of the 'right of first refusal'. These vessels are great strategic assets for offshore exploration and commercial exploitation of our Exclusive Economic Zone (EEZ).

I am happy to inform that due to the relaxation of regulatory guidelines to reduce the capital and operating costs of coastal vessels, reduction on taxation on bunkers and in port charges, etc., the number of Indian vessels has gone up from 1302 in 2016 to 1430 till date.

The Government has now tasked the Asian Development Bank (ADB) to undertake a study to identify cargo which can be shifted from Rail & Road to Shipping. Discussions have also started to integrate the country's inland waterways with coastal shipping. Availability of additional cargo due to this exercise will also result in addition to Indian tonnage.

**Q. How is the Port Community System (PCS) expected to improve port efficiency?**

The Indian Port Community System (PCS Ix) is an integrated single platform & single window system for all the stakeholders (27) in maritime and land transportation sector, i.e., public and private bodies. It emphasizes real-time tracking of information on consignment, API-based connectivity, latch on facility, interactive dashboards, link with other international platforms and data lake. There will be integration of Port Operating System and Gate System with RFID. It will give live updates and status check at port about berthing schedule, vessel at berth, sailed vessels, expected vessels, detailed vessel information, shift-wise details (loading and discharge status) and gate transaction, etc. It will help in providing real time notifications and alerts by SMS and email. It aims to provide a one stop for online payments by wallet option for purchase and sales and reports by data visualization templates. It will give e-berthing meeting by providing a collaborative platform for port and vessel agents. It will also support direct data entry for the customers (CHA) for faster movement at the port gate and seamless tracking solution for the truck trailers for faster turnaround time.

Thus, it will contribute substantially in improving the Ease of Doing Business, Trading Across Borders and Logistics Performance Index Ranks.

**Q. The Recycling of Ships Bill 2019 has been passed. What speed do you envisage at which the ship recycling industry will grow?**

The Government has taken a very progressive step by acceding to the Hong Kong Convention and by enacting the Recycling of Ships Act, 2019. The shipowner is responsible for environmentally sound shipping during the entire course of a ship's life cycle. It is important that the organisations engaged in the ship recycling process create an enabling environment to allow the ship owners to discharge their responsibility.

There was a perception in the Western world that though Indian ship recycling yards offer a cost advantage due to the low labour cost, they do not conform to the international standards in terms of environmental protection and safety, security and welfare of their workers. This perception inhibited some shipowners from coming to India for ship recycling, as they feared that they would be held accountable for any possible environmental degradation during the recycling of these vessels. With accession to the Hong Kong Convention and enactment of Recycling of Ships Act, 2019, India has sent a clear message to the international shipping community of its commitment to adopt the best international practices in the ship recycling industry. Today, a majority of the Alang Ship Recycling Yards has have obtained certification of compliance to the Hong Kong Convention. The Government has provided facilities for testing of water, incinerator, garbage disposal sites, training school and housing complex for workers and a super speciality hospital.

Adherence to international standards will encourage the ship owners to bring the vessels to India for ship recycling. While it is difficult to give an exact number, it can be said with a fair amount of certainty that the business will increase because of these measures.

We are now in the process of framing of rules and creation of online systems for smooth implementation of the Recycling of Ships Act, 2019.

**Q. With a vast coastline, India has great potential for cruise tourism. However, barring a few domestic cruise vessels operating on Indian seas, we do not see much development. What steps are being taken to encourage a greater number of domestic cruise vessels and to develop Indian ports as famous tourist spots?**

The Ministry of Shipping has appointed the Mumbai Port Trust as a nodal point for development of cruise tourism in India. Mumbai has already emerged as the centre for cruise tourism in India. At least two cruise vessels 'Jalesh' and 'Angriya' have made Mumbai their home ports. As the Ministry has exempted foreign flag cruise vessels from the requirement of obtaining licences from DG Shipping, foreign cruise vessels have started scheduling port calls in India and voyages between Indian ports.



Major ports have started developing infrastructure for carrying passengers through cruise ships. Terminals have already been constructed at Mumbai and Cochin while a temporary terminal has been set up in Goa. Issues regarding immigration, local transportation, etc. have been sorted out. These measures have provided an enabling environment for increase in cruise tourism in India.

However, the full potential of cruise tourism can be realised in India only when some of the issues relating to taxation and infrastructure are addressed. Some of the actions that need to be taken in the short and medium term are removal of customs duty on consumables of cruise vessels in Indian waters, removal of GST on tickets, development of dedicated terminals at old ports and development of new destinations, improvements of guest experiences at the ports, development of ferry and passenger services in the islands of Lakshadweep & Andaman and Nicobar and use of information technology for immigration, security clearance, etc.

**Q. There are limited skill development initiatives at CEMS and CICMT. What are other plans for maritime research?**

A robust blue economy requires growth of four sectors in maritime domain, viz.

- (a) Ports and harbours
- (b) Shipping
- (c) Exploitation of economic resources of territorial waters, EEZ and continental shelf
- (d) Maritime security

The requirement of skilling and research is felt for all these four sectors. Any exploitation of economic resources in the ocean must be done in an ecologically sustainable manner and, hence, research in the field of maritime environment protection is also paramount. The skill requirement of the shipping sector has been handled well in India and more than 150 maritime training institutions have been set up to provide pre-sea and post-sea training for nautical and engineering officers, nautical and engine ratings and catering staff. These institutes provide requisite training for career progression too. However, an equally organised training environment for the port and offshore sector is not available. Similarly, pure research in the field of ship design, ship engines, alternate fuels, ship management systems, etc. is lacking in India.

This government, under the skill development program of the Sagarmala scheme has now started to focus on skilling and research in shipping related subjects. To impart knowledge and information on maritime law, three dedicated maritime centres have been setup at GNLU, Maharashtra National Law University and National Law University, Odisha.

India needs to set up a maritime knowledge cluster to bring together the scattered knowledge centres of today under one online platform and link them with the industries engaged in blue economy. This will help the researchers focus more on the industry's requirements.





## Indian Ports Association: Strengthening Ideas to Foster Growth & Development at Major Ports

Fast implementation of various initiatives under the Sagarmala Programme has resulted in the Indian major ports revamp their working methodologies.

**Dr. A. Janardhana Rao, Managing Director, Indian Ports Association** elucidates how increasing cargo demand and changing times have changed the way Indian ports work.

### **Q. Allowing Ease of Doing Business is important. What are the major challenges that Indian ports are currently facing in implementing this model?**

As per the latest Ease of Doing Business Ranking (Doing Business 2020) released by World Bank, India ranked 63 among 190 countries improving its position by 14 ranks. As far as the Ministry of Shipping and ports are considered, it has a huge role to play in improving the Trading Across Border indicator ranking, thus, impacting overall EoDB ranking. Currently India is ranked 68 on the Trading Across Borders Indicator.

The Trading Across Borders Indicator records the time and cost associated with the logistical process of exporting and importing goods. Important factors that determine ranking include documentary compliance, border compliance and domestic transport for shipment of goods. Measures like modernisation, mechanisation and digital transformation and doing away with manual forms, etc. have been taken to reduce time and cost in EXIM trade and improve ease of doing business.

Indian major ports are working vigorously in implementing such high-tech solutions to ease the flow of cargo to and from the ports. We are continuously organising roadshows and stakeholder meetings and

consultations to ensure all stake holders are on board, understands the system and see huge value in adopting the same.

### **Q. As new projects keep getting added to the Sagarmala Programme, to what extent has it affected the growth of India's major ports?**

The Sagarmala Programme is contributing hugely in the development of port infrastructure in India. The vision of the programme is to reduce logistics cost for EXIM and domestic trade with minimal infrastructure investment. Under it, various projects such as development of world class, deep draft container port at Vadhavan, development of deep-water terminal in the Eastern coast capable of handling super cape size vessels and adopting international norms in the bulk carrier in Paradip port, developing western dock in Paradip port with deep draft (20-22.5 m) for handling dry bulk capsize vessels, development of two new berths and mechanisation of three berths at Paradip and many other have been undertaken that will enhance the capacity of Indian ports and will making them globally competitive.

### **Q. To what extent has the "Make in India" call driven the port sector's growth?**

Between 2013-14 and 2018-19, the capacity at Indian ports (major and nonmajor ports including) has grown from nearly 1400 MTPA to 2400 MTPA.

Since about 95 per cent of India's trade by volume is via the maritime route, there is a continuous need to develop India's ports and trade related infrastructure to accelerate growth in the manufacturing industry and to aid the "Make in India" initiative. Thus, ports are proactively working on building up their capacity so that the initiative is strongly supported by modern and efficient logistics network.

### **Q. In which aspect of the ports' working and development, do you think that the PPP model would be unsustainable?**

The PPPs are contractual means to deliver public assets and public services. A contract may fail for many reasons. A good number of them are naturally related to the PPP characteristics and even to the essence of the project itself. But the contract must be ready to tackle many risks that can affect a project and are unavoidable in the most effective and efficient manner. The PPP concept fails when it does not properly allow the parties to deal with such circumstances; this creates imbalanced situations or produces early contract terminations that could otherwise have been avoided.

Also, value for money must be protected and maximised through the preparation and implementation process, and throughout the life of the contract. This involves a proper management of the process with suitable capabilities and



resources apart from the need to follow standard approaches and good practices. To make the PPP model sustainable for ports, government over the years has been continuously reforming the policies and guidelines in consultation with all the stakeholders and has been very empathic to the need and demands of private sector. Already, the government has amended the "Model Concession Agreement" that was approved by the Cabinet in January 2018 with a view to obviate the problems being faced in execution of the PPP projects because of certain provisions of the earlier MCA. Also, the government is drafting guidelines for dealing with stressed PPP projects at major ports.

**Q. Please enumerate the factors that will enhance global EXIM trade through Indian ports.**

There are various factors that can enhance the global EXIM trade through Indian ports. For example, bilateral and multilateral FTAs can boost EXIM trade through the ports. Due to such agreements, India is exporting huge number of automobiles to Africa and Latin America. China's increasing labour cost and growing trade frictions with America can lead to shifting of manufacturing facilities to India by global manufacturing players that can enhance exports through Indian ports.

An anticipated increase in demand in consumption of petroleum production, coal, natural gas for power generation and fertilizer industry, production of steel, fertilizer imports, etc. leads to increase in imports through the ports. Similarly, an anticipated increase in surplus exportable items leads to the increase of exports. Growth in container traffic is envisaged to international trade growth, penetration of containerization and hub and feeder service structure. Further, measures taken for improving efficiency and reducing the time to export through technology can boost the trade through Indian ports. Rationalizing the tariff

structure and discount methods at major ports can also have a huge impact in growth of EXIM trade at these ports.

**Q. What activities are currently in the pipeline to push the idea of port-led development?**

There are slew of projects in the pipeline under the port-led development programme. Some of them are as under:

- Over 600 projects are under different stages of development, implementation and completion with total investment of more than Rs. 8.5 lakh crores.
- More than 90 projects worth about Rs. 15000 crores have already been completed and balance projects are to be completed in stages by 2035.
- Development of deep-water terminal in the eastern coast capable of handling super cape size vessels and adopting international norms in the bulk carrier at Paradip port.
- Development of world class, deep draft container port at Vadhavan (15 berths with total length 8680 m and 2 SPMs).
- Developing western dock in Paradip ports with deep draft (20-22.5 m) for handling dry bulk capsized vessels (1.8- 2.0 lakh DWT).
- Development of two new berths and mechanisation of three berths at Paradip with an estimated cost of Rs. 2800 crores with additional capacity of 50 MMTPA.
- The Indian government is reorienting ports like Mumbai, Goa and Chennai from cargo handling port to hub of cruise and recreational tourism.

**Q. What support do you expect from the government to ensure overall ports' growth and development during its second term?**

The priority for the government and ports is to expedite on-going projects and bring

in more investments into port-led development. Also, the major ports are taking a huge leap in digitalisation and automation transformation. These measures would help the Indian major ports compete with global ports and facilitate both EXIM and domestic trade. To ensure efficient and expeditious working of major ports, it is very necessary to overhaul the administrative setup of the port trusts. The Government is looking to pass a new "Major Port Authorities Bill" for modernisation of the institutional structure of the major ports so that they can perform efficiently in the competitive port sector and provide greater autonomy to the ports. I expect this would be done in the next session of the Parliament. Further, the government needs to make efforts and come up with a coherent policy for expediting long pending environmental clearances for projects under the state governments as per the NGT guidelines as delay in such clearances not only affects the project implementation, but also dampens the investors' confidence.

**Q. The passing of the Ship Recycling Act will increase the brand value of our Ships Recycling Yards located at Alang in Gujarat, Mumbai Port, Kolkata Port & Azhikkal in Kerala. How?**

The Ship Recycling Act, 2019 ensures environment friendly recycling process of ships and adequate safety of the yard workers. This Act paves the way for more global ships to enter Indian shipyards for recycling and boost employment and business opportunities. Now, ships to be recycled in India will need to obtain a "Ready for Recycling Certificate" in accordance with the Hong Kong Convention. Hoping for increased business, many recycling plots, especially at Alang in Gujarat, are also gearing up and obtaining the Statement of Compliance (SOC) with the Hong Kong Convention. India is a leader in the global ship recycling industry with a share of over 30 per cent of the global market. With



the passing of this Act, the share is expected to grow up to 60 per cent in coming years, thus, increasing the brand value of Ship Recycling yards of India.

**Q. Not much development can be seen in port-led industrialization despite the impetus provided by the government. What impedes businesses to set up their industries near the ports?**

As part of the port-led industrialization programme, 14 CEZs and 30 potential port-linked industrial clusters across three sectors, namely - Energy, Materials and Discrete Manufacturing were identified along the coastal states. Many projects such as development of a SEZ at JNPT and SIPC at Paradip are under progress. The SIPC at Kandla and CEUs at VoCPT and KPL are also under development. Whilst we may not have achieved the envisaged results, port-led industrialisation along coastal locations cannot be seen in isolation in view of the overall economic slowdown in the country. With government efforts in place, we hope to see confidence regaining and more investment coming in the industrialisation initiative under Sagarmala Programme. The Union government is also drafting the new institutional framework for the execution of CEZs in consultation with states and will soon finalise it.

**Q. During the Swachh Bharat Mission, the IPA ranked the major ports based on the cleanliness drive initiatives taken.**

To rank a port on Swachh Bharat Mission, a detailed questionnaire covering all the key parameters of the Green Ports

initiative was used as a tool for assessment. A team comprising of two members from the Quality Council of India (QCI) visited all the ports and conducted the assessment using handheld devices. Data regarding various parameters was collected at multiple stages using key data sources:

- Official Interview
- Direct Observation
- Stakeholders' Interactions

To collect relevant data, every port was divided into two major areas, viz., port and township areas. The port area includes operational area and other organisations whereas the township area comprises of residential and commercial areas.

The assessment of major ports was done on the following parameters in line with guidelines of "Swachh Bharat Mission".

- Sanitation and cleanliness
- Solid and liquid waste management
- Open defecation free status

**Q. During the Swachh Bharat Mission, the IPA ranked the major ports based on the cleanliness drive initiatives taken.**

- IEC and subsequent behaviour change
- Swachhta message dissemination
- Coastal cleaning
- Adoption of village/schools/communities for WASH (Water, Sanitation & Hygiene) improvement





Ruins of the ancient Buddhist monastery Mahavihara, Nalanda during the Gupta Period

# A SNEAK PEEK INTO INDIA'S MARITIME HISTORY UNDER THE GUPTA DYNASTY

Referred to as “The Golden Age” by many historians, the Gupta Empire built a solid foundation on strong trade ties through the sea route. Estimated to have been founded or existing from the mid-to-late 3rd century CE to 543 CE, the Gupta rulers laid a lot of focus on establishing trade relations with other states and foreign nations. Most of the trade plied through the sea as extensive knowledge of sea winds helped them gain entry and establish their foothold into foreign markets across the Arabian Sea. Though there is much speculation and debate regarding the Gupta ancestry, records and inscriptions indicate that extending influence far beyond the kingdom's borders through increased commerce enabled the Gupta rulers to amass enormous wealth, thus, adding to the kingdom's prosperity.

### Trade under Gupta rulers

The influence of foreign trade had its influence on the kingdom's industries too. Prosperity marked both industry and trade as the balance of trade continued to be in India's favour.

The focus was on organised trade, thus, explaining the Gupta rulers' achievements in the fields of navigation, shipbuilding and maritime trade. One can find mention of the same in ancient literary records as scholars during those days detailed how

there were mainly two kinds of merchants, called Sresthi and Sarthavaha, under the Gupta rule. The former, understood as bankers and money lenders in today's time extended money and gave loans for trade purposes. The latter also called the caravan trader assumed a distinct position in city life.

### References to sea trade

Accounts by an ancient Chinese monk called Fa-Hien who had been in India during that period (405 CE-411 CE) refers to the



prevalence of the sea trade during those times. In his account of India titled "A Record of Buddhistic Kingdoms", Fa-Hien writes about the perils marking the Central Asian route from China to India. However, the increasing volume of Indo-Chinese sea trade had an augmenting effect on the prosperity of both the countries as both continued their trade relations via sea and land. The Buddhist scholar also mentioned about the ports dotting the country's geography and about the regular trade with many countries including Sri Lanka, Persia, Arabia, Ethiopia, the Byzantine Empire, China and the islands in the Indian Ocean. Roman coins from the first to the fourth century CE unearthed in various parts of Western and Southern India point to the flourishing maritime trade between India and the Byzantine empire in the West. Famous sixth-century traveller Cosmas Indicopleustes informs about the Indian ports on its East and West Coasts were linked together via Sri Lanka. The major seaports, for both import and exports, that served as important trade stations include the Sindhu, Calliana, Sibor and the Malabar on the West Coast.

Another Chinese traveller Hiuen Tsang, in his records, mentioned how the Tamralipti at the head of the Ganga delta flourished during this period due to its excellent geographical position. That the people living in and around the Ganga delta flourished from the share in the trade from Tamralipti can be found in the recollections and anecdotes about maritime activities compiled in the Raghuvamsam and the Dasakumaracharita. Other famous seaports called Charitra in Odra and Kongoda in modern Ganjam district occupied greater importance due to increasing maritime trade.

Cosmas' records of trade under the Gupta rulers highlight how agricultural products were exported from the country's East Coast to Western, Persian and even Ethiopian ports en route Sri Lanka. References to brisk trade with the Chinese and Western worlds have been found in Chinese records maintained during

those times. Since most of the vessels from the Arabian countries and Persia towards China passed through the Indian ports, these ports gained considerably due to their strategic economic value.

The Amarakosa written in Sanskrit by the eminent Indian scholar Amarasimha details about trade in mineral products, especially, copper that was obtained from the Western Mediterranean (referred to as mlechchha countries). While India procured sapphire from Sri Lanka, emerald stones were exported to the Ethiopians. Trade operations in areas surrounding Bihar and Uttar Pradesh ensured them a material advantage as iron ores were mined in huge quantities from Central India and south Bihar, thus, enabling exports of huge quantities of Indian iron. Similarly, diamonds and cotton fabrics featured in the list of exports as found in the Annals of the T'ang Dynasty.

## Nature of trade

Foreign trade consisting principally of luxury goods were carried out through both the sea and land routes, while internal trade between the various states was primarily considered via roads and rivers. Chinese silk also called the chinasunka found a good market in India. The goods sold and bought through internal trade mainly consisted of commodities for everyday use that were sold in village community fairs and town markets. Cordial relations with the Byzantine emperors helped revive the trade relations with the West that had declined with the fall of the Roman Empire. As a result, silk and spices continued to be exported in large quantities by the Guptas to the Byzantine kings. Trade in animals grew as the Gupta rulers imported some of the best breeds of horses from Arabia, Persia and modern Afghanistan. Other products like corals, pearls and ivory were imported in huge quantities as the records of those period points to the extensive use of pearls during the Gupta period.



# INDIAN PORTS GEAR UP TO TACKLE THE COVID-19 PANDEMIC



## The Sagarmala Post

(A Newsletter On Sagarmala Programme By Union Ministry Of Shipping)