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Ministry of Shipping
Government of India



THE SAGARMALA POST



SPOTLIGHT



EVENTS DETOUR



VIEWPOINT



MARITIME GLORY

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From the **SECRETARY'S DESK**



At the outset, I would like to state that I am honoured and privileged to have taken over as the Secretary in the Ministry of Shipping. The shipping sector is an extremely important one, being an essential element of the country's supply chain linkage. With ships carrying 95 percent by volume of both, our import and export cargos, there can be no better assertion of the importance of the sector. I look forward to working with all the stake holders of the industry which, inter alia, include, ports and the port workers, shipping lines and the seafarers, all support organisations, e.g., ship owners, agents, surveyors, training institutions, etc. in improving the performance and productivity of the Shipping and the Ports sector.

Our ports, being the gateway to the country, are the primary elements in the supply chain linkage and improving their performance, expansion and modernisation is the primary concern of the Ministry. We need to rapidly grow our handling capacities such that we are future-ready to meet the ever-increasing export/import cargo volumes. All around the world, shipping has been transitioning towards containerised cargo shipments, and so has India. The growth in volumes necessitates that we expand our capacities, not just in volume but also in the size of ships that the ports can handle.

Sagarmala has been the flagship programme of the Ministry and is in its fifth year of implementation. To give a fillip to the PPP projects undertaken under it and otherwise, fresh measures have recently been undertaken in consultation with other agencies. Our endeavour has to be provide the necessary impetus to projects that are underway to ensure timely completion and also expedite the project preparatory activities for those that are in the pipeline.

I am also pleased to see that the Ministry publishes its news bulletin 'The Sagarmala Post' on a bimonthly basis. News has a use by date, and hence, needs to be circulated quickly. Whilst the use of social media helps in quick dissemination, it is concise, and headline based. Bulletins such as this provide complete coverage with a wider reach. I am happy to note that the Ministry has decided to publish the bulletin every month. This will benefit the readers, in assimilating industry-related

policy matters, initiatives and activities.

This issue of the Sagarmala Post has kept its focus on the industry's fight against the COVID-19. The ports have ensured that their premises and infrastructure are not impacted by the spread of the virus and, more importantly, their operations are not impacted. The Ministry has been, proactively, taking measures to ensure that the country's supply chain linkages remain functional during the lockdown and the subsequent recovery period.

Seafarers, the men behind the shipping industry, have had to face substantial disruption due to crew change and health issues relating to isolation. Whilst the former had already been addressed by the Ministry at Indian ports, repatriation from overseas ports has also been addressed by permitting seafarers to be accommodated on the repatriation flights being flown under the "Vande Bharat" scheme. The Ministry has announced a compensation of Rs 50 lakhs for dependents of port workers who may be deceased due to COVID-19 whilst discharging their duties. The Ministry has also announced a package for the industry by way of concessions in various charges levied by ports on ships and their cargo.

And finally, my best wishes to the entire industry in these trying times, and I hope that our combined effort will help the country emerge resilient and stronger in the coming months. I request you all to maintain the highest levels of hygiene, and take all necessary precautionary measures both at the workplace and at home.

Stay Safe, Wash Hands, Wear a Mask and Practise Social Distancing

Sanjeev Ranjan

Secretary, Ministry of Shipping





SHIPPING INDUSTRY MARCHES ON DURING COVID 19

The Coronavirus pandemic has pushed the entire world hidden behind the walls of their homes. The first instance of the epidemic that came knocking on the doors of India in January resulted in both the Central and State Governments initially announce steps to contain the spread of the virus. Subsequently the Ministry of Shipping announced a slew of financial and other relief measures to the various elements of the shipping industry, thus ensuring that the global supply chain linkages with India remained functional.

With a lockdown in place, port operations and movement of cargo to the hinterland came to a standstill. Despite the lockdown, export and import of essential goods and, consequently keeping ports fully operational and global supply chain linkages intact was a necessity. After an initial slowdown, ports rapidly came back on track with measures initiated by the Ministry of Shipping and the Port Authorities. Measures taken included providing adhoc boarding and lodging facilities to port workers and other support staff. The financial stress various players in the shipping industry were experiencing due to delays during the initial lockdown period was recognized and proactive steps were taken to provide succor.

The Ministry of Shipping proactively and frequently announced several financial and other measures as relief to the industry include: -

- Invoking of “Force Majeure” clause on Port activities and Port operations.
- Exemptions/Remissions on penalties, demurrages charges, fee, rentals levied on any Port user for any delay in Berthing/Loading/Unloading operations or evacuation/arrival of cargo caused due to lockdown and includes ground rent beyond the allowed free period, port storage charges, extra anchorage expenses, berth hire charges or any performance-related penalties on cargo owners or recipients of non-containerized bulk cargo shipment.
- Exemption from payment of container detention charge on import and export shipments for the period from March 22, 2020 to April 14, 2020 (both days inclusive). This is over and above any free time arrangement that is in place as per existing terms and conditions.
- Zero expenses on storage till the completion of the lockdown period along with the provision to use the unused land near the port for storage of extra cargo temporarily.
- Guidelines issued for a standard operating procedure for international cruise ships at major ports in India.



- Certificates of Competency (COCs), Certificates of Proficiency (COPs) and Certificates of Efficiency (COEs) of seafarers on board or for those kept in reserve as replacement crew, have lapsed or are likely to get lapsed. In order to keep the validity of these certificates alive, DGS has extended the validity of certificates expiring up to October 31, 2020 for a period of six months.
- In view of the difficulties faced by ship surveyors in carrying out the required safety inspections of the ships during these times, the validity of ship certificates has been extended till June 31, 2020 subject to the Master of the Ship certifying that the ship is safe to operate.
- Major Ports have also been allowed to extend the completion of any project under implementation in PPP mode or otherwise, permitting them to waive all penal consequences with the deferment of performance obligations as per concession agreement on case to case basis, for existing and operational PPP Projects.

- Deferment of the yearly lease rentals receivable for April, May and June other than waived off penalties and charges.
- To deal with the COVID-19 pandemic, DGS has developed revised guidelines for sanitisation of all ships, PPEs requirements for ship staff and pilots boarding the vessels, sanitisation and PPE requirements for ship and port staff for loading and unloading of cargo at all major and minor Indian Ports, the protocol for the management of sick crew and dead bodies on board, protocol for sign-on and sign-off of the crew in emergencies, etc.

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Ports remain critical to the economy of the country, supporting supply chains, industry, manufacturing, etc. Operating 24 x 7 during the lock-down despite exposing the port workers and ship's crew to the infectious corona virus, port authorities ensured that availability of essential goods was not disrupted.

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PROPELLING PPP PROJECTS FORWARD



The Ministry of Shipping has been promoting several modernisation and capacity augmentation projects under the PPP model. Delay in completion of some of these projects and consequent cost overruns have resulted in further time overruns. To get these projects on track and resolve the cost escalation issues, the Ministry of Shipping, in consultation with the Department of Economic Affairs (MoF) has formulated guidelines to be followed by Major Ports authorities. The guidelines are expected to ensure resolution of cost escalation issues and availability of requisite funding for implementation of these projects.

SFC Approves Mumbai International Cruise Terminal (MICT) on DBFOT Basis

The Ministry of Shipping has been planning to promote cruise tourism activities at Mumbai Port. Operation and maintenance facilities to ensure world-class services at the Mumbai International Cruise Terminal (MICT) are envisaged. Consequently, the project 'Development, Operation & Maintenance of MICT at Indira Dock on DBFOT (PPP) basis' was appraised and recommended by the Standing Finance Committee recently. The project will open the doors to more opportunities in the cruise tourism sector and associated activities.

Deepening and Optimisation of Inner Harbour at Paradip

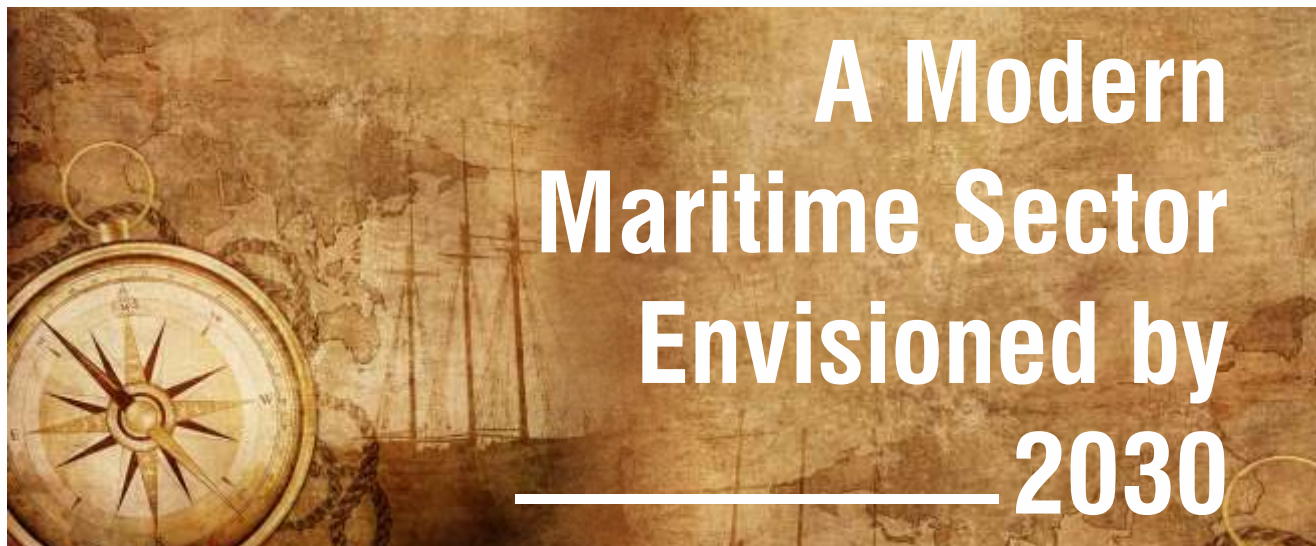
A need has long been felt to de-congest the Western Dock at Paradip Port primarily to resolve the conflict due to unloading of coal and handling of Cape sized vessels. It would also help reduce sea freight making coal imports cheaper and to boost the industrial economy in the hinterland of the port leading to job creation.

Accordingly, a proposal to deepen the port and optimise the facilities at the Inner harbour of the Paradip Port including the construction of captive berths had been recommended by the Public Private Partnership Appraisal Committee. The project costs are estimated at Rs 3,025.34 Cr with Rs 2,040.00 to be invested by the concessionaire and Rs 985.34 by Paradip Port. The proposal is expected to be placed before the Cabinet Committee on Economic Affairs (CCEA) shortly.

IPRCL to Work on NMHC Project

The government has approved the development, construction and O&M of the National Maritime Heritage Complex (NMHC) at Lothal in Gujarat. The exact terms and conditions of the approval and the roles and responsibilities of other stakeholders are detailed in the tripartite MoU amongst Ministry of Shipping, Government of India, Government of Gujarat and Indian Port Rail & Ropeway Corporation Ltd (IPRCL)





The Coronavirus crisis has slowed India's dreams of imminent progress and development, though the same has not dampened the spirit of the country's shipping sector that has managed to continue its operations, albeit at a slower pace. With nearly half of 2020 expected to be utilised in managing a tough and united stand against COVID-19, the Indian shipping industry is already looking beyond Sagarmala and has come up with the draft version of the Maritime Vision 2030. Working groups have been set up to focus on 14 thrust areas that have been identified as the components that will take India's shipping sector to another level. Working groups have been tasked to examine the thrust areas to draw up a roadmap, milestones and timeline for implementation. The areas visualised for modernisation are given in succeeding paragraphs.

Integrated Port Authority

Similar on the lines of National Highways Authority of India (NHAI) and the Airports Authority of India (AAI), the Ministry of Shipping is planning to set up the 'National Port Authority of India' by redefining the role of the Indian Ports Association (IPA). This organisation would be entrusted the task of project planning, development and implementation, formulate recruitment policies, staff procurement and materials management.

The Centre would now be on promoting the Landlord Port Model for ports, which would enable port authorities to generally focus only on the governance aspect instead of getting into operations and maintenance of the ports. Model Standard Operating Procedures (SOPs) for various port related activities across the board and standardized log sheets would be issued to smoothen vessel operations. Efforts are already on with the Introduction of MPA Bill, 2020 in the Parliament during March, 2020 which aims at giving more autonomy to Ports management.

Increased Private Participation

Renewed focus has been laid on expansion and modernisation

under the PPP model. A greater need has been felt to gauge the adequacy of existing terminals after projecting possible traffic growth, assessing capacity requirement, and reviewing the need for an updated infrastructure channelizing system. Also, the government is inclined to promote FDI investment for ports with a progress monitoring mechanism and fix the FDI targets, respectively.

The Ministry of Shipping aims to create at least two new world-class ports at deep draft locations in India. Apart, developing port capacity with the focus on 'zero' waiting policy is in line. World-class technologies, e.g., elevated container conveyors, modern high capacity cargo handling equipment, automation in port operations, seamless connectivity, focus on efficient coastal movement etc. would be introduced to decongest the ports. The start-up culture that had found its calling in India long ago is now being encouraged by the Shipping Ministry that intends to do away with inefficient and burdensome monopolies and encourage innovation in shipping technologies. Govt is committed to resolve various hinderances/disputes between the Concessionaire & Concessioning authority. Captive policy is being revisited to make it more attractive.

Encourage Cargo Transshipment

The dire need to develop this country as a transshipment hub has led the Ministry aiming towards timely implementation of related projects at ports. Efforts are on to develop VO Chidambaranar and Cochin Ports as major transshipment centres for containerised cargo. Kandla and Vizag Ports could be developed similarly as transshipment centres to enable effective connectivity for coastal and EXIM trades. Bunkering facility would also be created to attract transshipment. Then, there is also the plan of coming up with the Smart Port-Safe Port-Green Port concept.

Paperless Operations

e-Governance in the maritime sector would be introduced through ERP system and complete digitization of the processes in all ports

to enable paperless transactions, thus, aiding the idea of 'Ease of Doing Business'. The National Maritime Transport Portal is set to be established for all Indian ports while the development of the National Logistics Portal is under consideration. All ports would introduce online calculator to assess port charges and accept all payments online while e-gate pass will be implemented at all the ports. The inland waterways would be brought on the 'National Shipping Portal'. Under this thrust area, faceless (online) and paperless compliance will be set for all ports and shipping. Automated clearance of consignment is another area that the Ministry is currently working on by promoting one-day cargo clearance or evacuation using modern technological means.

Cost-competitive Maritime Logistics

Reducing the logistics cost has been one of the major aims of coming up with the Sagarmala Programme. However, there is a dire need to lower the maritime logistics cost while enabling end-to-end services. The focus would be on port-led industrialisation, coastal cargo development and ensure that Indian ports are affordable and possess the competitive streak necessary for EXIM and coastal trade. As a step, the Proposed MPA Bill 2020 has already a provision to remove TAMP and Ports are given powers to fix the tariffs based on the market conditions.

For this, warehousing and cold storage facility at the port for Agri commodity export would be done on a PPP basis. Besides, there would be an Investment Facilitation Centre, i.e., a single point of contact for every investor. Further, a policy allowing cabotage relaxation for cruise ships up to 10 years would be introduced. Similar on the lines of the 'Udan Scheme', the government would incentivise to the use of sea and river routes by exporters and importers to move cargo.

Establishment of modern port infrastructure and techniques to allow increased scope for 'Ease of Doing Business' apart from creating and sustaining linkages for multimodal transport. Other than allowing priority berthing at each port for coastal cargo, the Ministry would also fix the charges for the same. Last, but not the least, the Ministry would promote coastal cargo jetty/berth on the lines of Inland Waterways along the coast with PPP operations while encouraging coastal communities to participate in domestic coastal trade.

World-class Cruise Development Hub

Cruise tourism is an area that India still lagging behind and needs to work on. An action plan would be decided upon to promote cruise tourism in India. Keeping this in mind, cruise destinations would be set up at tourism hotspots in coastal states. The focus would be on developing international and domestic cruise terminals in all ports while lighthouse islands would be developed for cruise and domestic tourism. Besides, there would be a further reduction in bearing charges including

berthing charges, towage expenses and pilotage costs for the cruise ships. Apart from developing the cruise terminals at Mangalore, Cochin and Chennai, new destinations for domestic tourism like Diu, Ganpatipule, Porbandar, Somnath, Lakshadweep, Puducherry, Chennai, Puri and Konark would be identified.

Charging the cruise ship import with GST has proved to be damaging. Therefore, the Ministry has now decided to do away with the GST on import of cruise ships. Other islands, unlike the Maldives, are mostly not considered for tourist attraction. Lakshadweep and Andaman & Nicobar Islands would be developed to attract international tourists, thus, helping to tap the full potential of these places. Andaman & Nicobar Administration has already conducted a study to develop Marinas in Port Blair & other locations.

Better Maritime Institutes in India

There is a limited number of institutions in India that provide maritime education. Experience has taught us the need to showcase these institutes at the global level for more exposure and outreach. These institutions would be used to research on factors like reducing the cost of port operations, shipbuilding, dredging activities, etc., while enabling development of the cruise crew skill development vis-à-vis other facilitation centres. Other than that, coastal communities would be trained in various skills and development of infrastructural facilities. Conversion Scheme for 'Coastal Community Development would be introduced on the lines of 'Sagar Khedu' scheme of Gujarat while 'Deep Sea Fishing Vessel' training scheme for fishermen would be undertaken as a joint initiative of CSL, Ministry of Shipping and Department of fisheries.

Focus on Minor Ports

While there are many key thrust areas that the Ministry is keen to pay attention to, there are many focus areas that fall within the ambit of various State Governments. Due concerns will be addressed keeping in mind the constraints of states while ensuring that they are aligned to the state policies too. Moreover, the vision is not limited to the development of major ports alone. Minor ports would also be operationalised while the unused small ports would be turned into domestic cargo terminals. In this regard Indian Ports Act, 1908 is being revisited to bring minor ports in mainstream with current scenario.

Lending a Final Touch to India's Maritime Vision - 2030

The final version of the Maritime India Vision 2030 is slated to be submitted in three months post which unseen constraints that impede the development of the shipping sector would be addressed while focusing on capacity building and human resource issues.



REPATRIATION OF SEAFARERS



Ships present a unique work environment without a parallel. In very simplistic terms, the maritime boundary of a nation is placed at twelve nautical miles from the coast. There are, though, several exceptions to this rule depending on neighbouring countries, island nations etc. Seas beyond this limit are known as international waters. Merchant shipping, by virtue of their work methodology, transiting from port to port, operate in international waters for a large part of their voyage.

Seafarers manning these ships are from various nationalities. India is the second largest provider of seagoing human resource and among the top nations providing the officer cadre. The crew are signed up for a ship on a time-limited contract, upon completion of which, the owners arrange for the incoming and outgoing crew to be replaced at the next port of call. The work environment is tough as there are minimal distractions for the crew for months on end. Facilities have improved over time with the crew being provided internet connectivity to connect with their families and also have better entertainment opportunities. These facilities notwithstanding, a crew would remain on board for between 6 to 9 months and be replaced at the next port.

The Corona crisis and the ensuing nation-wide lockdown in India and several other countries have presented the maritime industry with a unique, unforeseen and an unprecedented problem, of undertaking crew change. With immigration clampdowns, flights grounded and non-existing surface transportation, how do companies effect crew change? In India's context, as an example, a crude carrier may bring in oil from the Persian Gulf and discharge its cargo at Kandla. Two crew members, the Chief Engineer and the third officer having completed their tenure, need to be turned around. In the lockdown conditions, how would the replacement crew arrive at Kandla and once disembarked, how would the two signing off officers proceed to their hometowns with no



immigration, no road, rail and air travel permissible and a compulsory 14-day quarantine for foreign travellers? An issue of seafarers morale faced the Ministry of Shipping during the complete lockdown stage and three scenarios prevailed:-

- Indian Seafarers onboard ships in Indian Ports.
- Indian seafarers onboard ships operating on International routes, away from India.
- Indian Seafarers disembarked at foreign ports.

Amongst the 1st few measures initiated at the behest of Shri Mansukh Mandaviya, Minister of State for Shipping (I/c), who is also a member of the Group of Ministers on Corona Virus Crisis, the Government of India eased restrictions on crew change onboard ships for Indian nationals, at Indian ports. This relief measure enabled many Indian crew to be replaced. Six each crew signed on/off at VO Chidambanar Port, 12 at Deendayal Port and 145 Cruise ship crew at Mumbai, amongst others, during the initial few days. This was possible after an SOP was issued on April 22, 2020 by the Ministry of Home Affairs for this purpose. Seafarers and ship owners welcomed the move, which ensures high morale of the crew and a work environment onboard, bereft of tension and unhappiness.

With regard to repatriation of Indian seafarers onboard ships, awaiting sign-off, or crew who have already disembarked in ports overseas, frequent consultations were held with shipping companies and seafarers' unions for a solution. Such seafarers have now begun returning to India utilizing flights and ships being deployed by the Government as part of the Vande Bharat and Samudra Setu missions. With these facilities in place, it is hoped that seafarers will be able to return to India after signing-off. Shipowners and their crew management agents will need to be proactive in using this facility to get their crew back to India.



ENSURING SEAFARERS' MENTAL WELL-BEING AMIDST CORONAVIRUS OUTBREAK

The Coronavirus pandemic has brought forth stories of pain and vulnerability as doctors scramble to find a cure to treat the large number of people getting infected with the disease every day. However, not many newspapers and websites cover the obstacles that our seafarers are facing owing to this disease. Trapped in the ships at sea due to the global lockdown, seafarers wait for their pleas to be heard and sent back to their homes.

A recent tweet by the IMF India on April 18, 2020, reveals the zeal of our country's seafarers against the Coronavirus disease India is currently fighting against. These seafarers, despite being miles away from their homeland, realise the need to take a united stand to fight against this disease that has resulted in innumerable deaths and complete lockdown of the global economy.

As the country went through its third phase of lockdown, some people have complained against it and how it had put a brake on the regular pace of their lives. While some have penned down experiences of loneliness and symptoms of 'cabin fever', others have not acted as responsibly as they should under these circumstances. However, for seafarers accustomed to prolonged journeys away from their friends and families, the lockdown feature is just another way of life as they are mostly confined to limited spaces within ships.

Seafarers' Mental Health

It is not uncommon to hear about many seafarers exhibiting symptoms of emotional vulnerability owing to the job responsibilities that keep them away from their friends and family for long periods. Bereft of their loved ones, these people are at an increased risk of being diagnosed with mental health disorders. Stress, fatigue, frequent accidents and lack of shore leave may worsen the mental health condition among seafarers.

Data from the National Center for Biotechnology Information (NCBI) reveals how the increasing number of seafarers committing suicide every year underscore their poor mental health. The mental health of seafarers has a determining effect on the economic health of the shipping industry, thus, warranting immediate attention.

Added Misery to Seafarers

The coronavirus pandemic has led to more than 5.5 Mn people getting infected globally and left roughly 3,46,000 Mn people dead from this virus. In India alone, over 1,45,0000 people have been affected with numbers expected to rise as the country increases its COVID-19 testing process from May 2020. The virus has spread to a lot of cruise vessels ferrying passengers between various international ports. More than a dozen fatalities have been associated with cruise ships with many passengers and crew members either dying while at sea or after disembarking from the vessels.



Forced confinement to semi-enclosed areas and limited medical resources heightened the risk of disease spread, thus, prompting governments and ports to prevent many of the ships from docking in their ports. Also, some ports have barred ships to enter simply because they had docked in areas affected by COVID-19, thus, preventing the vessels from discharging cargo or accessing essential supplies. The seafarers unable to sign off their vessels due to the corona outbreak are not only concerned about their health but also the well-being of their families back home. Restrictions due to the coronavirus outbreak coupled with looming job insecurity have spruced up fear and feelings of instability in many of them.

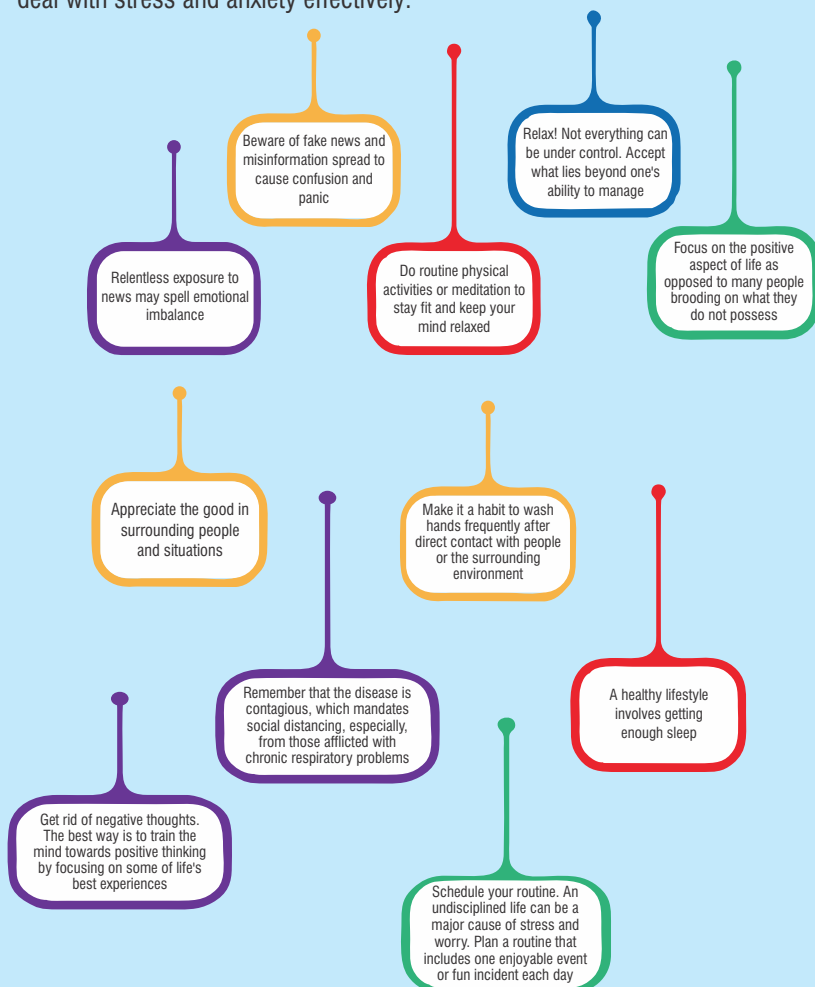
Dealing with Anxiety

Managing mental health during this crisis is important. Seafarers are trained to manage their boredom by maintaining remote contact with their families and friends. Besides, focusing on activities onboard and undertaking training in various physical activities are ways that seafarers adopt to cope with unprecedented restrictions.

Shipowners ensure complete security and good mental health of their entire staff including the seafarers by extending necessary employee support and increased access to their families through social media platforms and regular video calling forums. Shipping companies ensure that these seafarers are not at a loss for anything and attempt to boost their morale by arranging entertaining games and general awareness programmes.

ESSENTIAL TIPS TO COPE WITH THE CORONA STRESS

Current circumstances have induced a sense of crippling anxiety and unwarranted stress. The following measures can help them deal with stress and anxiety effectively:



Puzzled about Seafarers' Safety

The Coronavirus crisis has had a tremendous impact on global shipping. Various shipping companies have ensured a continued supply of food, water and necessary medical care to the crew members to ensure safety and good health of the seafarers operating in the ships. Measures are being taken to ensure their mental well-being. However, the current pandemic has left various governments and organisations in a tizzy as they are unable to decide on how to send their seafarers back to their respective home countries.

“We must stop, contain, control, delay and reduce the impact of this virus at every opportunity. Every person has the capacity to contribute, to protect themselves, to protect others, whether in the home, the community, the healthcare system, the workplace or the transport system.” - The World Health Organization (WHO)





Ministry of Shipping Launches New Website

The Ministry of Shipping website has undergone a total revamp, thus, lending it a better look and more scope of sharing its services. Launched on April 30, 2020, the new website (shipmin.gov.in) runs on open source technology and has been deployed on NIC Cloud Meghraj. Designed according to the Guidelines for Indian Government Websites (GIGW) issued by the Department of Administrative Reforms and Public Grievances, Government of India, the new website boasts of a dynamic homepage. Besides, a new feature that allows social media integration with better video uploading facility has been added to the site.

Compensation for Port Workers in Case of Death due to COVID-19

While entire India the country is under lockdown, ports have continued to operate moving cargo that contains essential commodities and fuel. This has led to an increased risk of port employees suffering from being infected by the dreaded Coronavirus disease. To compensate for the selfless service, port workers put in by risking their lives, the Ministry of Shipping has announced grant compensation or ex-gratia payment in the event of death due to COVID-19 to the dependent members of the port employees. The monetary compensation covers the risk of life due to the COVID-19 virus contamination while discharging port duties. Entitlement to compensation is applicable only for the ongoing COVID-19 pandemic and will be in force up to September 30, 2020, and is subject to review, thereafter.

Category	Amount of compensation/ Ex-Gratia (Rs.)
All port employees including contract labourers employed directly by the port	50.00 Lakh
Other contractual labourers	50.00 Lakh



Sanitisation Process at Indian Ports

A New Helmsman for the Ministry of Shipping

Shri Sanjiv Ranjan, IAS (1985, Tripura Cadre) has assumed the helm of the Ministry of Shipping as its new Secretary. Before taking over, Shri Ranjan was the Secretary, Ministry of Roads, Highways and Transport. Shri Ranjan brings to the ministry a huge amount of experience amassed over nearly 35 years. Amongst his various senior appointments, the key tenures include Chairman NHA, Chief Secretary, Government of Tripura, Additional Secretary and Financial Advisor, Ministry of Roads, Highways and Transport, Shipping and Tourism and tenure at the Ministry of Defence. The Secretary is an alumnus of St Xavier School and his vast experience in the government is backed by an equally matched academic profile which includes BTech from IIT Kanpur, MBA from FMS, Delhi University, MPhil from the University of Glasgow and National Defence College and a PhD from IIT Delhi.



Shri Sanjeev Ranjan, Secretary, Ministry of Shipping

Shri Ranjan is also a linguist of sorts with proficiency in Bengali, Hindi, English, Sanskrit and Urdu.

The Editorial Board of the Ministry of Shipping welcomes Shri Sanjeev Ranjan and wishes him the very best to steer the shipping industry to greater heights.

Screening-Detection-Quarantine at Indian Ports



Screening process at Indian Ports

The coronavirus pandemic has had no halting effect on port operations. Keeping in mind the risk of COVID-19 contamination to port officials, the Ministry of Health and Family Welfare had barred all international cruise vessels from foreign destinations to call on Indian ports till March 31, 2020. Later, the Ministry of Shipping had issued necessary directions to all ports to initiate a screening-detection-quarantine system for disembarking seafarers or cruise passengers, obtain self-declaration from arriving crews/passengers and put in place thermal scanners to test them. Apart, these ports were directed to procure personal protection equipment, N-95 masks in addition to creating awareness among the travellers at the ports and port officials. Important steps, which inter alia included, including drawing up the formation of SOPs for disease surveillance, vessel and crew/passenger management, thermal scanning while moving outside port prohibited area, isolation wards at port hospitals, IEC activities through electronic/print media/LED display boards of port trust and display in port hospitals were taken by the major ports under the administrative control of Ministry of Shipping. Details of the vessels arriving at the ports and screening results of crew members or passengers are collected and uploaded daily on the eSamikSha portal of Cabinet Secretariat.

Container Detention Charges Waived off at Major Ports

The Ministry of Shipping had barred the shipping lines to impose any form of container detention charges on import and export of shipments arriving between March 22, 2020 and April 14, 2020 over and above the free time arrangements agreed and availed as part of negotiated contractual terms. Moreover, an advisory has been issued by the Ministry of Home Affairs to maintain proper supply lines at the major ports. Considering the disturbance in downstream services, leading to some delay in evacuation of goods from the ports or detention of containers of some cargo owners, the Ministry of Shipping issued an advisory to all Major Trusts for invoking "Force Majeure" clause on port activities and port operations on March 24, 2020, thus, putting in place regulations to ensure smooth trade functioning and supply chain maintenance in the country. Moreover, the major ports can permit waiver of all penal consequences with the deferment of performance obligations as per concession agreement on case to case basis, for existing and operational PPP Projects.



Container Cargo Handled at Indian Ports

59 Cr Donated to PM Cares Fund by Port Employees and PSUs

To share is to care, and this is what precisely the Indian ports and Public Sector Undertakings (PSUs) under the Ministry of Shipping have done in times when India is in the grip of the Coronavirus pandemic. Keeping in mind the need for shared responsibility, employees of all the

major ports and PSUs donated a day's salary to the tune of Rs. 7.1 crores. Additionally, ports and PSUs attached to the Ministry contributed over Rs 52 Cr for the fund through their CSR Funds. Details of contributions of the employees and organisations are tabulated below.



ORGANISATION	EMPLOYEES CONTRIBUTION	CSR CONTRIBUTION
Kolkata Port Trust	1,00,00,000	1,00,00,000
Mumbai Port Trust	1,27,00,000	1,00,00,000
Jawaharlal Nehru Port Trust	43,10,979	16,40,00,000
Deendayal Port Trust	41,82,846	8,00,00,000
Paradip Port Trust	15,43,862	8,00,00,000
Cochin Port Trust	25,42,000	54,58,000
Chennai Port Trust	72,13,000	50,00,000
Vishakhapatnam Port Trust	62,28,296	1,00,00,000
V.O. Chidambarnar Port Trust	15,00,000	2,00,00,000
Kamarjar Port Limited	3,71,624	4,00,00,000
New Mangalore Port Trust	30,00,000	4,00,00,000
Mormagao Port Trust	29,55,846	25,00,000
DG (Shipping)	67,71,832	—
DGLL	12,36,843	1,00,00,000
IMU	9,23,000	—
IPA	1,80,335	—
SCI	40,00,000	37,00,000
DCI	13,40,000	1,00,00,000
GSL	—	2,50,00,000
IPRCL	—	50,00,000
SDCL	—	9,45,320
Total	7,10,00,463	52,16,03,320
Grand Total		59,26,03,783



Consultations with Industry Leaders by Minister of Shipping through VC

Shri Mansukh Mandaviya, Minister of State for Shipping (I/c) and Chemical & Fertilizers held a video conference meeting with the stakeholders of various ports including port users, courier and cargo services, representatives of the Customs Brokers Associations, logistics service providers and others on April 03, 2020. The meeting evaluated the challenges and concerns stemming from the Coronavirus pandemic and consequent nation-wide lockdown that resulted in impeded port operations. During the meeting that was also attended by the officers of the Ministry of Shipping and Chairpersons of all Major Ports, Shri Mandaviya sought the support of all stakeholders to help sail the country through this unprecedented crisis and stressed upon the use of state-of-the-art technology in the port operations and container management to manage the future challenges caused by COVID-19 epidemic. Issues relating to high port operations cost, stuck up cargo, port congestion, shortage of labour, movement of workers and truck drivers, managing supply chain and other difficulties due to the lockdown were also discussed.



Minister of Shipping and officials in talks with industry leaders

NSB Reconstituted, Malini Shankar Former DG Shipping Appointed Chairperson

The 16-member National Shipping Board (NSB) has been reconstituted with Shri Malini Shankar, former Director General of Shipping as its head. The members of the board formed to advise the government on matters associated with Indian Shipping include Amitabh Kumar, DG Shipping, Satinder Pal Singh, Joint Secretary (Shipping) and a representative each from the Indian Navy and Indian Coast Guard (not below the rank of Director), Abdulgani Serang, representative of National Union of Seafarers of India and National Ship Owners' Association representative Anil Devli.

Other members of the Board include Indian Coastal Conference Shipping Association member Aditya Suklikar, International Maritime Federation representative Capt Sanjya Prashar, Coastal Container Transporters Association representative Rahul Modi, Federation of Indian Exporters' Organisation representative Ajay Shah and Association of Multimodal Transporters of India representative Shantanu Bhadkamkar. Besides, Capt Piyush Sinha, Balasubramanian and Ishwar Achanta have been inducted as members of the NSB.



Second Addendum on Protocol on Inland Water Transit and Trade between India and Bangladesh

People's Republic of Bangladesh and the Republic of India have a long standing and time-tested Protocol on Transit and Trade through inland waterways of both countries. This Protocol, which was first signed in 1972, is a reflection of shared history and friendship between the two countries. It was last renewed in 2015 for five years with a provision for its automatic renewal for a further period of five years giving long term assurance to various stakeholders.

The Standing Committee on the Protocol and the Shipping Secretary level Talks are the institutional arrangements between the two friendly neighbors to discuss and make the Protocol more effective. New Indo Bangladesh Protocol (IBP) Routes have been included and older ones reviewed and extended during subsequent discussions. New Ports of Call have also been added to facilitate trade. These decisions have been made effective with the signing of 2nd Addendum to the Protocol on 20th May 2020.



Routes: The number of Indo Bangladesh Protocol (IBP) routes are being increased from 8 to 10 and new locations are also added to the existing routes: -

- Inclusion of Sonamura- Daudkhandi stretch of Gumti river (93 Km) as IBP route No. 9 & 10 in the Protocol will improve the connectivity of Tripura and adjoining States with Indian and Bangladesh`s economic centres.
- Operationalization of Rajshahi-Dhulian-Rajshahi Routes and their extension up to Aricha (270 km) will help the augmentation of infrastructure in Bangladesh as it would reduce the transportation cost of stone chips/aggregate to the northern part of Bangladesh through this route.
- In Routes (1) & (2) [Kolkata-Shilghat-Kolkata] as well as in Routes (3) & (4) [Kolkata-Karimganj-Kolkata], Kolaghat in India has been added.
- Routes (3) & (4) [Kolkata-Karimganj-Kolkata] and Routes (7) & (8) [Karimganj-Shilghat-Karimganj] have been extended up to Badarpur in India. In these routes, Ghorasal in Bangladesh has also been added.

Ports of Call.

Presently there are six Ports of Call each in India and Bangladesh under the Protocol. Five more Ports of Call and two more extended Ports of Call have been added, increasing the number to eleven Ports of Call and two extended Ports of Call in each country as listed below:

- Inclusion of Jogigopha in India and Bahadurabad in Bangladesh as new Ports of Call will provide connectivity to Meghalaya, Assam and Bhutan. Jogigopha also becomes important, since, a Multimodal Logistics Park is proposed to be established there.

Movement on Shallow Draft Mechanized Vessels:

As a path-breaking development, both sides have agreed to introduce trade between Chilmari (Bangladesh) and Dhubri (India) through the use of shallow draft mechanized vessels, provided these are registered under Inland Shipping Ordinance 1976 of Bangladesh or Inland Vessels Act, 1917 of India. This initiative will allow export of stone chips and other Bhutanese and North East

cargo to Bangladesh and easy access for the traders to the hinterland of Bangladesh, enhancing the local economy in Bangladesh and the lower Assam region of India.

New Opportunities on Cargo Movement:

Under this Protocol, Inland vessels of both countries can ply on the designated protocol route and dock at Ports of Call in each country, notified for loading/unloading of cargo. The Indian transit cargo is mainly coal, fly-ash, POL and ODC for power projects in NE region. The other potential cargo for movement is fertilizers, cement, food grains, agricultural products, containerized cargo etc. The export cargo from India to Bangladesh is mainly fly-ash which is to the tune of 30 lakhs MT per annum.

The 2nd Addendum to the Protocol on Inland Water Transit and Trade was signed at Dhaka on 20th May, 2020 by the HE High Commissioner of India in Bangladesh on behalf of the Republic of India and by Secretary (Shipping) on behalf of People's Republic of Bangladesh.

SHIPBUILDING INDUSTRY EXPECTED TO GROW IN COMING QUARTERS



Shri Madhu S Nair, Chairman & Managing Director, CSL

The Ministry of Shipping has been bullish about India's shipbuilding and ship repair industry. Financial and infrastructural assistance is being provided to shipyards that can serve both businesses. An exclusive interview with **Shri Madhu S Nair, Chairman & Managing Director, Cochin Shipyard Ltd** reveals the shipyard's strategy to build sustainable shipbuilding prospects while doing away with the hurdles that restrain the country's ship repair market.

Q. The shipbuilding industry in India is driven by India's defence requirements. Other than that, do you foresee growth in this sector considering the recent focus of the government to use inland waterways for cargo and passenger transport?

I tend to agree with the statement, in the current scenario. However, this has not always been the case with Cochin Shipyard Limited (CSL). As a leading shipbuilder in India, CSL focuses on both the commercial and defence segments. While we are currently engaged in some very major defence projects, including the construction of India's first Indigenous Aircraft Carrier (IAC) and another project for the construction of eight Anti-Submarine Warfare Shallow Water Corvettes (ASW-SWCs) for the Indian Navy, CSL is also undertaking many other projects of varied sizes that are of strategic importance to the country. Flexibility and adaptability have been the hallmark of CSL, which has enabled the yard to take up construction of all segments of vessels, of all types and sizes.

We, at CSL, are strong believers of the Indian growth story. The focus of the Indian Government on the development of inland waterways, with its many benefits, including both commercial and environmental has been of keen interest. We have a strong desire to be part of the emerging sector and establishing high-quality water transport solutions for the country's inland water segment. With this objective, CSL has taken over the erstwhile HDPEL shipyard on the banks of Hooghly in Kolkata (gateway to National Waterways No.1 & 2). We are now in an advanced stage of setting up a modern shipyard for inland water vessels named Hooghly Cochin Shipyard

Ltd (HCSL) at a cost of about Rs.150 crores. This yard would cater to the development and construction of high-quality international class vessels of all types for the inland waterways.

It is pertinent to mention here that CSL has just delivered eight Ro-Pax vessels to the Inland Waterways Authority of India (IWAI) for operating in NW1 & NW2. Four vessels have already reached Kolkata and would be put into operation shortly. Two Ro-Ro vessels meant for container truck operations in NW-3 (Kerala) are almost completed and would be delivered shortly.

The CSL is also bullish about the coastal vessel segment in India, given the impetus of Sagarmala Programme, which focusses on port-led development. We are presently constructing a few coastal/river-sea bulk carriers for a major Indian conglomerate setting up a new steel plant in coastal Maharashtra.

We are also optimistic about long-term shipbuilding prospects and are committing to the tune of Rs. 1799 crores to build a new large drydock in CSL's Kochi yard. This will be the third drydock in CSL Kochi that will measure 310 metres in length and 60 metres in breadth that may go up to 75 metres in breadth. With 40 per cent of the project completed and expected to be commissioned in late 2021, this dock will significantly add to CSL's capabilities and capacities to handle large vessels including strategic assets like the next-generation aircraft carrier, LNG ships and other large merchant vessels.



Q Can you tell us about the International Ship Repair Facility (ISRF) being developed by the Cochin Shipyard Limited within the premises of Cochin Port Trust?

The CSL has a percentage share of close to 50 per cent of the total ship repair being undertaken in India. The CSL main yard at Kochi undertakes repairs of about 100 vessels of all types and sizes, every year. The performance of our Ship Repair Division has been improving steadily over the last decade and it was felt necessary to augment our ship repair facilities to cater to the increasing demand. When Cochin Port Trust decided to lease out 42 acres including their old Marine Workshop facility with a small British era dry dock (66 x 12.5 M) on lease for 30 years for setting up a modern International Ship Repair Facility (ISRF) on PPP mode, CSL participated in the tender and was awarded the project.

Considering the space available, and the fact the CSL main facility houses a sufficient number of big dry docks to handle repairs of the large vessels, it was decided to go for a ship repair facility based on a ship lift system capable of handling medium-sized vessels of which there is a dearth in the country. Nearly 65 per cent construction of this Rs. 970 crores project is already completed, and the facility is expected to be commissioned in 2021. It would incorporate a ship lift of size 130 M x 25 M, capable of docking ships up to 6000 MT. It also provides for six workstations and transfer stations for docking, repair, and undocking of vessels in any sequence. With the commissioning of this facility, there would be a significant ramping up of capacity in Kochi thereby enabling CSL to project Kochi as a prominent ship repair hub. The proximity of Kochi to the main international shipping lanes (ISL) linking Singapore & South East Asia to the Middle East would be an added advantage.



ISRF being Developed at CSL

Q The ship repair business at your shipyard has not caught up in the same manner as shipbuilding has. Would you like to discuss it?

Ship Building & Ship Repair are two very different businesses, from almost all aspects, be it technical or commercial. Shipbuilding business is essentially an EPC mode business. Ship Repair, on the other hand, is a rapid project-driven business which thrives in a good local ecosystem and ability to turnaround projects in quick

time. Also, the ship repair volumes and margins are not in line with shipbuilding activities. This is probably the reason why many shipyards worldwide would either be a shipbuilding yard or a ship repair yard and not a combination of both. CSL, right from inception was conceived to handle both these business segments. CSL's ship repair facility at Kochi has been running at full capacity contributing nearly 25-30 per cent of our turnover, and we sense more demand from the market. The development of additional ship repair infrastructure, including the ISRF facility at Kochi and commencement of operations of our new ship repair units at Mumbai, Kolkata and Port Blair are expected to significantly ramp up our ship repair business.

Q What stops the Indian ship repair market to grow as fast as its foreign counterparts?

Ship repair calls for a dynamic and flexible ecosystem to meet the urgent demands of the customers to complete the work in the shortest possible time and put the vessels back into the business. The quality of ship repair and turnaround time (TAT) are key points in this business. To achieve this, there is a need for highly efficient support systems, many of which are not within the direct control of the shipyard, such as faster logistics and supply chain (to source spare parts and also to connect service technicians with ease), fast track visa approvals, customs clearances, etc. The tax structure also needs to be harmonised and made comparable to international rates for competitiveness. Similarly, other services such as sourcing of stores, spares, fuel bunkers, crew change, etc. need to be improved and made at par with international standards. Hence, it is not only the infrastructure, skill and commercial competence of the shipyard that is in question but an overall ship repair ecosystem that is essential to develop ship repair in India. Ship repair thrives in 'hubs' where competent service providers and OEMs can set up their facilities and CSL is making every effort to try and develop Kochi into a major hub. We have also commissioned a modern 'Maritime Park' at Kochi for bringing in competent service providers and OEMs into the ecosystem.

Administrative reforms enabling 'Ease of Doing Business' will also help in attracting quality ship owners to consider India as a favoured destination. Recent improvements in many of the above areas are reasons enough for the CSL to remain optimistic and hopeful that India is moving in the right direction.

Q GST has posed to be a major deterrent in ship repair. How do you propose to resolve this problem?

The ship repair business has been brought under the tax rate of 18 per cent under the GST regime. Under the erstwhile Service Tax regime, the ship repair service to the government was

exempted from service tax. This included repair services to Indian Navy who is a major customer for the shipyards. Commercial ship repair services were taxed at 15 per cent.

In the GST regime, there is no differentiation between services to the government and services to Indian commercial entities. And both are taxed at 18 per cent tax rate. Thus, the effective tax rate under the GST regime has gone up. For the government there is no input tax credit as they mostly do not have any taxable outputs and, hence, GST adds to the cost of procurement for government entities. For Indian commercial entities, while input credit is available, the timing difference acts as a deterrence, especially, compared to repairing abroad where they do not pay taxes.

A reduction in the GST rate will make the Indian ship repair industry more attractive to Indian entities. It would be advantageous for the Indian ship repair industry if these services including inputs are brought down to the five per cent tax rate slab. This will help in bringing ship repair services at par with the output tax rate of shipbuilding. Meanwhile, CSL will also have to try and garner more orders from foreign companies, in which case there is no incidence of GST.

Q What is the current order book position of Cochin Shipyard Limited?

Currently, our Order Book position is close to Rs 15,000 crores, which would include around Rs 500 crores of ship repair orders.

Q Which major port trusts have you tied up with to expand your ship repair facility?

Almost all the major ports in India house a marine dockyard and a dry dock, which were designed and built to handle the repairs of

port craft during the pre-independence era. However, with changing operation and business models over the decades, many of these facilities have become idle or defunct. To avoid idling of such large infrastructure within port limits in major cities and metropolises, the Indian government directed ports to examine the possibility of handing over these facilities to professional ship repair firms on a lease-based or profit-sharing model.

CSL, being the leading ship repairer in the country with a renewed outlook of geographical expansion saw this as an opportunity. Based on business model & financial viability assessments, CSL utilised this opportunity to set up Ship Repair Units at Mumbai, Kolkata & Port Blair. The unit in Mumbai, named CSL Mumbai Ship Repair Unit (CMSRU) commenced operations in January 2019 while the unit at Kolkata, named CSL Kolkata Ship Repair Unit (CKSRU) commenced operations in October 2019. We have also entered into an agreement with the Andaman & Nicobar Administration for Operation & Management of their Ship Repair Facility at Port Blair. This unit, named CSL Andaman Nicobar Ship Repair Unit (CANSRU), commenced operations in November 2019.

Q What is the status of the four passenger-cum-cargo vessels that your shipyard had been assigned to build for the Andaman and Nicobar administration under the 'Make in India' initiative?

The first 500 pax vessel is getting ready for sea trials and will then be delivered within a couple of months closely followed by the second 500 pax vessel. We are aiming the delivery of both the vessels in the current year. The 1200 pax vessels will follow and are expected to be delivered in 2021.



INDIA'S TRYST WITH SHIPPING AND SHIPBUILDING DATES BACK TO THE INDUS CIVILISATION



Shipbuilding thrived as a major industry in ancient India. Eminent historian Prakash Charan Prasad in his book titled 'Foreign Trade and Commerce in Ancient India' writes, "Big ships were built. They could carry anywhere upwards from 500 men on the high seas. The Yuktialpataru classifies ships according to their sizes and shapes. The Rajavalliya says that the ship in which King Sinhaba of Bengal (ca. sixth century BCE) sent

Prince Vijaya, accommodated full 700 passengers, and the ship in which Vijaya's Pandyan bride was brought over to Lanka carried 800 passengers on board. The Samuddha Vanija Jakarta mentions a ship that accommodated one thousand carpenters."

Whilst everyone talks about the American and European shipbuilding industries while applauding the ingenuity of those in the South East, not much literature is dedicated to the Vedic civilization's great reach in maritime trade propelled and promulgated by Indian shipbuilding in those times.

Shipbuilding Industry in Ancient India

A strange belief had taken hold of ancient India against navigation by sea. Devout Brahmins forbade Hindus against crossing the seas threatening them with loss of caste and social respectability. However, not many Hindus adhered to this proscription also referred to as "Samudrolanghana" or "Sagarollanghana" in ancient religious texts. This led to burgeoning maritime trade with South East Asia and the Middle East that, in turn, had a direct bearing on shipping and shipbuilding industry in India.

Ancient Texts Refer to Indian Shipbuilding Expertise

Shipbuilding as art in India can be traced back to 3000 B.C. The Sanskrit text Yuktikalpataru compiled by Raja Bhoja Narapati during the early 10th century A.D. provides details about 25 different classes of ships that were then built during those times. Apart from this, references were also made to their different sizes and the materials, especially wood, used in building them.



Ancient Indian shipbuilders had a good knowledge of the kinds and characteristics of wood that went into the making of the ships during that period. A famous treatise on the science of plant life called the Vriksha-Aytirveda reveals the four different classes of wood used in shipbuilding apart from their distinguishing properties. There is mention of, though not substantiated, those early-day shipbuilders took care not to use iron for holding together the planks at the bottom of the deep-water seafaring vessels, lest they get pulled down by magnetic rocks in the sea.

Also, details regarding the materials used to decorate and furnish ships were found in many ancient texts. For example, ancient shipbuilders relied on four different materials including gold, silver, copper or a combination of all depending on need and use. Decorative pieces consisting of pearls and garlands made of gold were hung from the prows (bow) of ships.

Evidence from Ancient Indian Art Forms

If literary pieces of evidence are not enough to identify India's long tryst with the seas and trades on international water routes, one may turn to other forms of evidence that are nothing short of commemorative. Descriptions of maritime trade like representations of ships and boats can be found in old art forms including paintings, sculpture and coins. One of the sculptures on the Eastern Gateway at Sanchi Stupa has an engraving of a canoe crossing a river. Another sculpture found on the Western Gateway of Sanchi Stupa represents a barge floating on a sheet of freshwater. The prow of the barge has been depicted by a winged gryphon and its stern by the tail of a fish. However, the oldest representation of a sea voyage in Indian sculpture is that of a sculpture in Kanheri caves in Salsette island near Mumbai representing the scene of a shipwreck on the sea and two persons praying for rescue.

A more interesting series of ships' representations have been discovered in the sculptures of the Temple of Borobudur in Java. Describing the detailed artwork of the ships in full sail to depict the history of colonisation of Java by Indians, Ernest Binfield Havell, author of the book "Indian Sculpture and Painting" wrote, "The ship, magnificent in design and movement, is a masterpiece in itself." Describing some of the Indian ships used in early 15th century, an Italian merchant, explorer, and writer Niccolò de' Conti described, "The natives of India build some ships larger than ours, capable of containing 2,000 butts, and with five sails and as many masts. The lower part is constructed with triple planks, to withstand the force of the tempests to which they are much exposed. But some ships are so built-in compartments that should one part be shattered the other portion remaining entire may accomplish the voyage." Comparatively lesser than the available old literary pieces, the permanence of the inscriptions on stone and metal underscores the antiquity of Indian shipping.

Paintings on the walls of the Buddhist cave temples at Ajanta corroborate the use of Indian ships and boats in that period. The paintings found mostly in Cave No. 2 have been dated back to a period between 525-650 A.D. The much-acclaimed British artist and author of the book titled 'The Painting in the Buddhist Cave Temples of Ajanta', John Griffiths had rightly remarked about the representation of ships and boats in the Ajanta paintings as "A vivid testimony to the ancient foreign trade of India."

Numismatic Evidence of Indian Shipping

Inscriptions of ships and boats found on some old Indian coins indicate the development of Indian shipping and activity. Some Andhra coins, belonging to the period between 2nd and 3rd century AD, found during excavation have depictions of a device of a two-masted ship. In his book titled "The Early History of India", author Vincent Arthur Smith wrote, "The ship-coins, perhaps struck by Yajna Sri, testify to the existence of a sea-borne trade on the Coromandel coast in the 1st century of the Christian era."

In the book "South Indian Buddhist Antiquities", the much-acclaimed British archaeologist Alexander Rea shared illustrations and descriptions of three of such ship coins recovered from Andhra. Other than these, some Kurumbar or Pallava coins, depicting two-masted ship like the modern coasting vessel or d'honi steered using oars from the stern, had been recovered from the Coromandel Coast.

Hints of Indian Maritime Activity

Direct references to Indian shipbuilding activities are scarce in ancient Indian literature. However, texts do share numerous references to sea voyages taken by Indian kings to other countries and persistent use of the ocean to augment seaborne trade. The oldest evidence can be found in the Rig Veda that includes information about sea voyages undertaken for commercial and military purposes. References to merchants sending out ships to foreign countries in pursuit of monetary profits from international commerce. Apart, Dharma Sutra literature contains details of India's commercial connection via sea with foreign countries while the Smritis give clear references to sea-borne trade. But then there are astronomical works like the Vrihat Sanhita that contains references to the flourishing condition of the Indian shipbuilding sector.

It is not clear under what conditions under which shipbuilding in India declined. However, old dockyards and shipyards unearthed by our archaeologists suggest that the concept of shipbuilding is as ancient as our civilisation.





Ports in Unison against **COVID-19**



The Sagarmala Post

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