

Photos from Indian Integrated Logistics Summit



Sagarmala Stall at Integrated Logistic Summit, New Delhi from 3rd-5th May 2017.

Shri Nitin Gadkari, Hon'ble Minister of Shipping, Road Transport & Highways being welcomed by Shri Rabindra Kumar Agarwal, Joint Secretary (Sagarmala), Ministry of Shipping at Integrated Logistic Summit, New Delhi from 3rd-5th May 2017.



Shri Mansukh Mandaviya, Hon'ble Minister of State, Shipping, Road Transport & Highways being welcomed by Shri Rabindra Kumar Agarwal, Joint Secretary (Sagarmala), Ministry of Shipping at Integrated Logistic Summit, New Delhi from 3rd-5th May 2017.

Shri Nitin Gadkari, Hon'ble Minister of Shipping, Road Transport & Highways addressing the gathering and media at Sagarmala, Ministry of Shipping stall during Integrated Logistic Summit, New Delhi from 3rd-5th May 2017.



Shri Rajive Kumar, the then Secretary, Ministry of Shipping along with Shri Sanjay Bhatia, Chairman, Mumbai Port Trust, Shri Barun Mitra, Joint Secretary (Ports), Ministry of Shipping, Shri Rabindra Kumar Agarwal, Joint Secretary (Sagarmala), Ministry of Shipping at Sagarmala stall during the Integrated Logistic Summit, New Delhi from 3rd-5th May 2017.

SAGARMALA POST

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THE SAGARMALA POST



MINISTRY OF SHIPPING, GOVERNMENT OF INDIA

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From the Secretary's Desk



It gives me immense delight to share the third edition of The Sagarmala Post. Over the past few months, the newsletter has greatly progressed in bringing valuable updates to its readers on the Sagarmala programme.

The world is brimming with technological changes and every industry is transforming. Like everything, ports too have to keep up the pace and adapt to these changes. The Sagarmala programme has also welcomed these changes and acted as an enabler in ensuring that major ports in India are aligned to a common vision of Port-led Prosperity.

Keeping in mind the ambitious vision of Sagarmala, this edition reports on Kandla and Paradip Ports' transformation into Smart Cities. It also entails updates on infrastructure expansion and development related projects at Haldia, Chennai and Tuticorin Ports. From revolutionizing industrial growth to enhancing port connectivity, the projects covered in this edition contribute extensively to the Sagarmala Programmes' four broad pillars of Port Modernization, Port Led Industrialization, Port Connectivity & Coastal Community Development.

Understanding how Sagarmala can be advantageous to states is prerequisite to the success of the Programme. This stems from the fact that states must be familiarized with the key provisions of the Sagarmala Programme in order to effectively communicate their needs and vision to us. In a move to encourage greater engagement with the states, we held a workshop in New Delhi.

But while contemporary development fast-tracks us on the path of Port-led Prosperity, the rich contributions of our maritime heritage must not be forgotten. It is matter of pride, as we focus on Tamil Nadu's maritime glory in this edition. The Pallavas and Cholas of the region, have played a significant role in not only strengthening sea links with our neighbours in both the East and the West, but also laid the foundation of a rich maritime culture and knowledge.

Continuing with our tradition of outreach and engagement, we actively seek feedback from readers and invite you to connect with us via social media (Facebook and Twitter) and our website www.sagarmala.gov.in.

With these thoughts, I would also like to share my gratitude with all our stakeholders. Their support and interactions have been integral to achieving new found heights in the Sagarmala Programme.

Sh. Ravi Kant
Secretary, Ministry of Shipping

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Spotlight

Kandla and Paradip: Transforming Port Cities to Smart Cities

Everything around us is getting smart: from smart TVs and smart phones to smart cars. Indian ports are not far behind in the race to become smart. The development of Smart Cities around Major Ports has been a key initiative of the Ministry of Shipping. Consequently, the Major Ports of Kandla and Paradip are set to join the Smart City bandwagon.

A state-of-the art Smart City would have numerous advantages for these ports. Both are already blessed with numerous locational advantages and pre-existing infrastructure. In addition, their close proximity to thriving townships ensures a ready supply of skilled and unskilled manpower. They are located close to rich deposits of resources such as timber, metal and minerals. Besides easing access to raw materials, this initiative will reduce last-mile distance between manufacturing units and ports. Thus, Smart Cities with industrial clusters would ensure swift and cost-effective transportation of raw materials and finished products.

Dual Site Plan for Smart Industrial Port City (SIPC) at Kandla

The Kandla Port Trust (KPT)



Kandla Port Trust

intends to develop one of India's first Smart Industrial Port Cities (SIPC) within the Gandhidham - Kandla - Adipur Complex, spanning across two sites of total 1425 acres.

Site-1 is planned to develop as a smart urban township spread across 580 acres. Complete with residential units, commercial complexes, entertainment zones, educational centres and hospitals, it aims to cater to all aspects of urban community living. Since one of the key features of any Smart City is its ability to attract a young, ambitious workforce, SIPC at

Kandla too is expected to draw many residents from the vicinity of Gandhidham City and Modern Industrial Zone.

The Modern industrial Zone or Site-2 at KPT, includes development of port-based industrial clusters for Furniture-based industries, Edible Oil Refinery units, Engineering units and Salt-based chemical units. To cater to residential needs, Site-2 would encompass housing for employees and labourers working there, designated green areas with landscaping and efficient transport and communication within the zone.

Spotlight

Expenditure forms a key aspect for all Smart Cities. Getting the best technology and developing infrastructure that lasts for generations, comes at a high cost. The estimated cost for the development of infrastructure is approximately ₹ 1,400 crore, which is planned to be raised utilising internal resources. Additionally, SBI Caps has been signed to raise foreign currency loans and select infrastructural projects that are to be developed on PPP mode.

Paradip set to Become a globally competitive Smart City

The Paradip Port Trust in Odisha has come a long way since its inception. It was the first Major Port in the East Coast commissioned after independence and subsequently declared the 8th Major Port of India on 18th April 1966.

The Ministry of Shipping under Sagarmala Programme plans to develop Paradip as a world class, globally competitive smart city under the PPP model. With the area around Paradip Port rich in mineral deposits, it can now harness its yet untapped potential, develop robust industrial clusters and thus create a hub for SME and MSME enterprises.

Like most Smart Cities, Paradip will be home to a multi-modal Logistics Park, Industrial Parks, Residential areas and Commercial areas. Infrastructure-wise, Smart Enablers will encompass an online Water Management

System, Smart Electricity Grid, Waste Recycling Centre and Creek Development Programme to attract tourism.

Spread across 6727.17 acres, the area would be divided between residential sectors and industrial hubs. Concerted efforts have been made to ensure an efficient drainage system, access to potable water for residents through dedicated water supply lines and rehabilitation of slums under the Pradhan Mantri Awaas Yojana.

Current Status

The Smart City projects at both ports have made considerable progress as per their timelines. For Kandla SIPC, the application for environmental clearance and pricing strategy are at advanced stages for approval. Infrastructure development is expected to be completed by December 2019.

Paradip too is on fast-track mode, with projects worth ₹ 514 crore initiated. While the DPR

stage is complete, for detailed engineering of the project site, the award for a Project Management Consultant has also been granted. In addition, the Marketing Consultant's report on the Industrial Park has also been completed. Greenification and beautification drive worth ₹ 6 Crores is underway and the construction of a 10 MW Solar Energy Power Plant is in progress.

Two Smart Industrial Port Cities and a Multitude of Benefits

The projects at Kandla and Paradip will serve as a roadmap for other port cities. Given the large-scale projects, it is estimated that 70,000 direct jobs would be generated in both locations over a period of 25 years. It would also create sector-specific employment opportunities particularly for people belonging to the Economically Weaker Sections, resulting in the economic growth of the port cities.



Artistic impression

Smart Port City

Spotlight

JNPT Develops India's First Port-based Multi-product SEZ

One of India's largest and most successful ports, Jawahar Lal Nehru Port Trust (JNPT) has added another feather in its cap. Under the Ministry of Shipping's Sagarmala programme, it announced the

first of its kind, port-based, multi-product Special Economic Zone (SEZ) near Uran, in Navi Mumbai. The foundation stone for the SEZ project was laid by Prime Minister Shri Narendra Modi.

SEZ to attract investment of nearly ₹ 5,000 crore

Spread across 277 hectares of freehold land area, the SEZ is expected to attract ₹ 5,000 crore of investment in the region. The SEZ is aligned with the Central



Spotlight

and State Government's vision of inclusive growth to develop an eco-friendly business environment. It's development will include Free Trade Warehousing Zone (FTWZ) and house sectors such as Engineering, Electronics & Hard-ware and Pharmaceuticals.

Competitive advantage

In the age of competitive advantage where location is pivotal, the JNPT SEZ scores high. Part of one of the most industrialized states i.e. Maharashtra, the SEZ provides excellent rail-road linkages to the hinterland as it links the proposed Western Node of the Golden quadrilateral, Dedicated Freight Corridor (DFC) and International Airport near Navi Mumbai. It is also connected with efficient eight-laned State, National highways and nine Railway sidings. Thus, the multi-modal link to the hinterland by ICD signifies competitive advantages with other Indian ports as well. It is this advantageous location that has

tempted investors from Japan, Europe and other regions to express their interest.

A Self-sustainable Integrated Development Project

Developed through JNPT-SPV (Special Purpose Vehicle) under the Engineering, Procurement & Construction (EPC) mode and planned as a Self-Sustainable Integrated Development Project, the SEZ can potentially generate over 1.5 lakh direct and indirect jobs. The SEZ management has partnered the civic authorities for master planning and detailed engineering, and reputed EPC and PMC partners for utility development. Facilities such as – common effluent treatment plant, water supply distribution network, power supply distribution, network supply through three 33/11 kV switching stations, fibre optics connection, up to 60m internal road network, solid waste management and in-house treatment for biodegradable waste as part of green initiative.

Un-matched Port Facilities

As one of the biggest container ports in the country, JNPT handles around 55% of total container traffic to Major Ports. Its multi-product capacity enables it to handle dry bulk cargo, break bulk cargo and liquid bulk cargo as well. In its coveted role as the Hub Port on the Western Coast of India, JNPT ranks amongst the top 40 ports in the world. It has consistently handled cargo of 4.4 Million tons of TEUs (twenty feet equivalent), and served as a Gateway Port to 60+ global destinations.

The JNPT SEZ comes with unmatched business incentives such as world-class utilities under one-roof, customizable plot sizes and all taxes and duty benefits under SEZ Act. With the JNPT SEZ opportunity, industries and businesses must now suitably leverage proximity of the SEZ to India's Gateway Port.

Proposed SEZ Highlights

- | | | |
|--|---|---|
| <ol style="list-style-type: none"> 1. No Regulatory Risks <ol style="list-style-type: none"> a. Set-up in JNPT's Freehold Land b. All regulatory clearances secured 2. Strategic Location <ol style="list-style-type: none"> a. Surrounded by the most industrialized state of Maharashtra b. Excellent last mile linkage to JN Port 3. Foremost Gateway to India <ol style="list-style-type: none"> a. Connected with over 90+ global destination across US, | <ol style="list-style-type: none"> 4. Assured Execution Certainty <ol style="list-style-type: none"> a. Civic authorities such as CIDCO, MSEDCL, MJP on board since inception b. Dedicated team consultants and SEZ cell for EPC timeliness 5. Best Logistics Linkage <ol style="list-style-type: none"> a. 8 Lane state and national highways, 9 Railway sidings, western coastal hub b. Western node of proposed Golden Quadrilateral | <ol style="list-style-type: none"> c. Western node of proposed Dedicated Freight Corridor (DFC) d. 40 km from international airport and 15 km from proposed New Mumbai airport 6. Unmatched Business Incentives <ol style="list-style-type: none"> a. World class utilities under one roof b. Customizable plot sizes c. All tax and duty benefits under SEZ Act |
|--|---|---|

Sagarmala Projects' Update

Development of Cuddalore Port in Tamil Nadu



Cuddalore Port

Situated at the confluence of the rivers Uppanar and Paravandar in the East Coast of Tamil Nadu, the Cuddalore Port enjoys an advantageous position. To enhance the capacity of the Cuddalore Port by developing it into a deep-water, all weather port, Tamil Nadu Maritime Board (TNMB) has planned to develop its infrastructure, together with the Ministry of Shipping. The project aims to better equip the port so as to handle coastal cargoes such as coal, containers,

edible oil and agro products. In addition, it is also expected to encourage use of coastal transport for cargo movements. The Ministry of Shipping has sanctioned ₹ 57.5 crores for the construction of Breakwater on the North and South sides of the entrance channel and two Coastal Berths at Cuddalore Port. This project is being jointly funded by the Ministry of Shipping and Tamil Nadu Maritime board (TNMB) under

the Coastal Berth Scheme of Sagarmala Programme.

After it's development, cargo handling capacity of the port will increase to 5.68 MTPA. The project is being implemented by TNMB and is expected to complete in 24 months. The development of the port will create employment opportunities, improve socio-economic conditions, de-congest highways and promote coastal shipping in and around Cuddalore district.

Sagarmala Projects' Update

ROB-cum-Flyover at Ranichak Crossing, Haldia to Ease Traffic Congestion

Haldia Port acts as the primary gateway for EXIM trade that originates from the Northern, Northeastern, Eastern parts of India, besides the land-locked countries of Nepal and Bhutan. An industry-rich region, HDC houses the Indian Oil Corporation Limited (IOCL), Tata Chemicals Ltd., Hooghly Metcoke Ltd., Mitsubishi Chemical Corporation (MCC), United Phosphorus Limited (UPL), Petrocarbon, Exide and Ruchi Industries. About 30 million tons of cargo is handled by Haldia Dock Complex (HDC) annually, which is projected to grow substantially in the future.

Issue of Congestion

Many Indian Ports, including Haldia, have faced issues of congestion, particularly at the Raichak crossing. The Kolaghat (NH-41) to the Haldia Port Gate (52.7 km) road section has already been four-laned by NHAI in 2013. However, two railway crossings and one at-grade rotary at Ranichak, have been creating serious traffic congestion.

Solution to Ease Traffic

The Department of Road Transport has taken a concrete step to successfully tackle congestion and ease traffic. It proposes to construct a Rail-Over-Bridge or ROB-cum-Flyover at Ranichak crossing in HDC. The construction work for the flyover is currently underway.

The cost of the project is stipulated at ₹ 127.80 crores, with ₹ 50 crores granted by the Ministry of Shipping under the Sagarmala programme. The project will be implemented by NHAI through their 100% subsidiary viz. M/s. Calcutta-Haldia Port Road Company Ltd. (CHPRCL). As part of the project, the Kolkata Port Trust has given a sizeable land of 27.49 acres on equity basis.

To ease this congestion, the traffic from NH-41 to Haldia Dock Complex (HDC) main gate and vice-versa, will use the under construction flyover. In addition, the ramps will provide uninterrupted flow of traffic. Port-bound traffic to and from Haldia Township

as well as Durgachak, has the option to use the developed at-grade roads.

Enhanced Multi-modal Transport

This project aims at improving overall connectivity of Haldia Dock Complex, particularly for user industries that depend upon road-borne cargo. The completion of this project presents multitude benefits such as making the Ranichak crossing congestion-free and reducing road accidents.

In order to develop an efficient network of transport around Haldia Port, plans are underway with the Indian Waterways Authority of India (IWAI). These aim to establish a modern Indian Waterways Hub at Haldia to attract greater vehicular traffic in the region. In addition, the construction of ROB-cum-Flyover at Ranichak Crossing is expected to improve traffic flow in the surrounding areas, besides attracting more industries and developing Haldia as a region.

Sagarmala Projects' Update

Coastal Community Development: Skill Development in the Coastal Districts in India

The development of coastal districts is critical to achieve the port-led prosperity goal of the Sagarmala Programme. Towards this, the Ministry of Shipping has conducted skill gaps studies in 21 coastal districts. These districts are Mumbai and Raigad in Maharashtra, Thiruvallur and Thoothukudi in Tamil Nadu, Dakshina Kannada and Udupi in Karnataka, Goa (North and South Goa), Poorba Midnapore and 24 South Parganas in West Bengal, Ernakulam and Kozhikode in Kerala, Ganjam and Jagatsinhpur

in Odisha, Vishakapatnam and East Godavari in Andhra Pradesh, Kachchh and Bhavnagar in Gujarat, Puducherry, Andaman and Lakshwadeep Islands.

These skill gap studies in 21 coastal districts done by PwC give skilled manpower required for execution of Sagarmala projects in port and maritime sector, skilled manpower required for implementation of various other projects, such as Hospitality and Tourism, Retail, BFSI, Construction, Fishing, etc, existing infrastructure with training

capacity and the need for additional infrastructure with training capacity.

The on field study was conducted through interactions with the employers, district administration officials, local youth and port officials. District Action Plans have been prepared for the next five years in consultation with State Governments. A requirement of about 2 lakh skilled persons every year is projected in these 21 districts. The same can be seen in the table below:

	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22
Agriculture	-4227	-503	433	4302	2113	2883
BFSI	4994	5163	5344	5529	5727	5935
Communication	8224	3589	3860	263	4495	4868
Construction	54517	58075	61890	59560	70374	74604
Fishing	357	1587	2002	2213	2424	2598
Logistics	36103	39491	42372	43771	51109	56533
Manufacturing	41138	45027	48295	46144	53674	54693
Ports & Allied	6958	6764	7250	7612	7373	7909
Public Admin & Others	626	639	653	666	680	695
Tourism	13520	15086	16388	15331	18689	18773
Trade(Retail and Wholesale)	40908	28522	30172	27928	33840	35880
TOTAL	203118	203440	218659	213319	250498	265371

Sagarmala Projects' Update



DDU-GKY Skill Session

Multiple meetings with the State government officials were undertaken to refine the skill gap study and the district action plans. The Ministry of Shipping has written to the respective State Governments, Ministry of Skill Development and Entrepreneurship, National Skill Development Corporation and the Ministry of Rural Development to integrate the District Action Plans of these 21 coastal districts into their Annual Action Plan so that the skill gaps can be met in a time bound manner. Ministry of Shipping would fund skill development projects relating to Port & Maritime sector in convergence mode.

Ministry of Shipping is already working with Ministry of Rural Development through the Sagarmala- DDU GKY convergence programme, which is currently training 2130 candidates in states of Andhra Pradesh, Karnataka, Maharashtra, Odisha, Tamil Nadu. Out of this 935 trainees have been trained in 35 trades, 646 trainees have been placed and 548 are currently undergoing training. The Sagarmala-DDU convergence (Phase-I) is one of the early bird projects and Ministry of Shipping is providing 100% funding.

An MoU has been signed between Ministry of Shipping and

the Ministry of Skill Development and Entrepreneurship (MSDE) to create synergy for skill development in the coastal districts to ensure regular supply of skilled manpower for the Sagarmala Projects.

Furthermore, skill gap studies for two districts where new ports (Palghar in Wadhawan and Kanyakumari Enayam), are being proposed. These studies are expected to lead to an implementation that will benefit local youth in the form of job opportunities created by new ports development under the Sagarmala programme.

State Focus Tamil Nadu

State Focus - Tamil Nadu

Tamil Nadu, with its second-longest coastline (1,076 km) and economy, has positioned India as a pivotal centre for sea trade that connects the country with key global trade centres. Its state capital of Chennai is a Major Port that caters to the country's key industrial assets, besides handling cargo. Together with two other Major Ports - Ennore and Tuticorin, they record a combined cargo handling capacity of over 110 mtonnes per annum, that accounts for over 15% of India's major port capacity.

Current economic scenario

Tamil Nadu is one of the most developed states in India. The GDP of Tamil Nadu was around USD 85 billion in 2015-16 at 2004-05 constant prices with a CAGR growth of around 9 percent over the last 10 years. It received a cumulative foreign direct investment (FDI) of USD 16 bn between April 2000 and December 2014, and occupies the third rank in terms of cumulative FDI inflows. UNCTAD's World Investment Prospects Survey 2013-2015 ranks the state as the seventh preferred investment destination. Tamil Nadu is characterised as a state with high per capita income and an increasing standard of living. It is an important hub for manufacturing industries, particularly automotive, textiles and software. The state accounts



Tuticorn Port, Tamil Nadu

for 15.1% of Micro, Small and Medium Enterprises (MSMEs) in the country, which is the highest contribution by any state.

Projects under Sagarmala

Under the Sagarmala programme, seven projects of ₹ 486 crore have been sanctioned for the state of Tamil Nadu. Out of the sanctioned amount of ₹ 143.87 crore, ₹ 100.65 has been released. Six Projects are under implementation and for one project DPR is under preparation. Some of the major projects are,

- Development of Outer Harbour-Dredging and Breakwaters at Tuticorin

- Development of Cuddalore/Sirkazhi Port
- Conversion of oil jetty to handle coal at Tuticorin Port
- New port at Enayam to serve as a trans-shipment hub

Port Connectivity

Around 30 projects have been identified to provide better connectivity to the ports. This would result in efficient evacuation and reduced congestion. The total cost of the projects sums up to about ₹ 50,000 crore. These include the construction of expressways, development of dedicated container corridors,

State Focus Tamil Nadu

enhancement of road connectivity to port, new connectivity to National Highways and enhancement of rail connectivity to port.

Some of the major projects under this theme include,

- Expressway from Whitefield Industrial Cluster (Bangalore) to Enayam
- Puducherry (NH-32) - Marakkanam - Sadaras - Kovalam - Coromandel - Chennai (NH -32)
- Enhanced pipeline capacity to CPCL Manali, increasing dia from 30" to 42"

Port-led Industrialization

Many industrialization projects have been identified to leverage the ports which can result in

better export-oriented manufacturing. These projects cover a wide variety of industries such as Petrochemical, Power, Refinery, Steel, Leather, Footwear and Electronic. The total costs of these projects sums up to more than ₹ 148,000 crore. Some of the major projects under this theme are:

- Refinery and petrochemical clusters in Tamil Nadu
- Power cluster in Tamil Nadu
- Steel cluster in Ennore

Coastal Berth Scheme

The Ministry of Shipping revamped the existing Central Sector Scheme, in consultation with NITI Aayog and Department of Expenditure, by expanding the scope to include dredging,

mechanisation and construction of breakwater in addition to construction of coastal berths and jetties. Department of Expenditure has also approved the merger of the scheme with Sagarmala Programme. Some of the major projects under this theme are:

- Construction of Breakwater both in North and South side of entrance channel at Cuddalore Port
- Construction of Coastal Berth/Wharf at Cuddalore Port (Berth-1) and Construction of Coastal Berth at Cuddalore Port (Berth-2) and Capital Dredging at Cuddalore Port (From entrance channel till cargo berths)

A list of major projects for which progress has significant,

S. No.	Project Name	Theme	Project cost (₹ Cr)	Port Name
1	Four lane road from Northern gate of port to Thachur, outer ring corridor - 6 laning with service roads - Ennore	Port Connectivity	1,300	Ennore
2	Enhanced pipeline capacity to CPCL Manali, increasing dia from 30" to 42"	Port Connectivity	500	Chennai
3	Southern port Access road for connectivity to Ennore port - (NCTPS - 7 km)	Port Connectivity	200	Ennore
4	Providing railway track between Marshalling Yard and Hare Island.	Port Connectivity	70	Tuticorin
5	LNG Import Terminal at Ennore	Port Modernization	5,151	Ennore
6	Construction of Container Terminal Phase 1 Stage 1 & 2 - Ennore Port	Port Modernization	780	Ennore
7	IOC-POL Captive Jetty at Ennore Port	Port Modernization	465	Ennore
8	Upgradation of Inner Harbour - NCB3 - Tuticorin	Port Modernization	420	Tuticorin
9	Maritime cluster in Ennore	Port Led Industrialization	500	Ennore
10	Extension of Passenger berthing facility at Kanyakumari Port	Coastal Community Development	20	-
11	Construction of Breakwater both in North and South Side of entrance channel at Cuddalore Port. Construction of Coastal Berth - 1/ Wharf at Cuddalore Port	Coastal Community Development	45	Cuddalore
12	Expansion of Fishing harbour at Chinnamuttom in Kanyakumari District in Tamil Nadu	Coastal Community Development	73.52	-
13	Financial Assistance to ChPT under CSS on Oil Spill Response	-	14	Chennai
14	Financial Assistance to VoCPT under CSS on Oil Spill Response	-	0.6	Tuticorin

State Focus Tamil Nadu

- Coastal berth with dredged depth to handle vessels up to 15000 DWT (length 150m) at VoCPT
- Coastal Cargo Berth at ChPT

Coastal Community Development

Coastal communities are recognised as critical stakeholders in Sagarmala's port led development. Therefore, sustainable development of the coastal areas is a key aspect of the Sagarmala programme. A well-defined action plan to ensure holistic and sustainable development has been drawn. The plan includes activities such as modernising fishing harbours, and supporting the development of deep sea fishing vessels and fish processing centres.

Maritime Cluster in Tamil Nadu

Based on the study conducted under the Sagarmala Programme, the Ministry of Shipping, Government of India has planned to develop a Maritime Cluster in Tamil Nadu. The proposed Maritime Cluster will comprise of shipyards, ancillary units for shipbuilding, service providers for shipping industries, marine tourism and marine products such as fisheries and aqua culture. Despite the fact that Tamil Nadu handles far more cargo throughput than any other state in India except Gujarat, there is no distinct town or city in Tamil Nadu with a strong commercial maritime identity. Tamil Nadu is home to many more first of its kind landmark developments in the ports and infrastructure sector in the country. However, when the term commercial maritime hub is referred to, the only city in India that strikes attention is possibly

Mumbai. The reason for this could probably be attributed to the fact that Mumbai is the commercial capital of India.

The maritime cluster in Tamil Nadu is proposed to be developed near Chennai due to enabling conditions such as existing shipyards, major ports, steel cluster, automotive and engineering industry, universities and colleges. Given the manufacturing strength, size of the ports with high traffic and synergies with other steel ancillaries, both the identified locations for maritime clusters can provide a positive synergistic effect by attracting business for the maritime industry and improving the economics for cluster participants.

Coastal Economic Zones (CEZs) in Tamil Nadu

The development of Coastal Economic Zones is being driven through an Inter-Ministerial Committee headed by CEO, NITI Aayog. Under the National Perspective Plan, Tamil Nadu has identified three Coastal Economic Zones - Mannar, Poopuhar and VCIC South in Tamil Nadu. The State Government of Tamil Nadu is of the firm opinion that Mannar Coastal Economic Zone is best suited to be the first CEZ of the State.

Mannar Coastal Economic Zone - around 10% of Tamil Nadu's population lives in the three districts of Tirunelveli, Kanyakumari and Thoothukudi. Together, they account for around seven percent of state GDP. Thus, a CEZ with two existing SEZs in the periphery, known as AMRL International Tech City Ltd. and State Industries Promotion Corporation of Tamil Nadu, serves as an ultimate

project location. As part of the CEZ, a refining and petrochemical manufacturing hub has also been planned. Secretary (Shipping) has written to the State Government for identifying atleast 50 Sqms. of area for the development of the coastal economic zone and once the land is identified the CEZ will be developed. Other two notable coastal economic zone namely Poopuhar Coastal Economic Zone & VCIC South Coastal Economic Zone can be developed subsequently.

Projects at Kanyakumari

Many projects under Port Connectivity, Coastal Berth Scheme and Fishery Scheme are identified to be implemented in Kanyakumari. This district is supposed to get better rail connectivity for development of Enayam Port. The project needs an investment of more than ₹ 300 crore. Indian Port Railway Corporation Limited (IPRCL) has taken up the task of execution for which DPR is under preparation at present.

Again, Tamil Nadu Maritime Board is engaged in the execution of Extension of Passenger berthing facility at Kanyakumari. The project cost is ₹ 20 crore, for which the DPR is under preparation. In addition, a fishing harbour project has also been identified in Kanyakumari. Tamil Nadu Fisheries Department has taken up the implementation of expansion of the fishing harbour at Chinnamuttom in Kanyakumari. The project costs ₹ 74 crore for which ₹ 55 crore has already been sanctioned of which ₹ 10 crore has been released.

State Focus Tamil Nadu

Chennai Port Projects

1. Development of Common Railway Yard inside the Port (Est. Cost: Rs. 19 Cr.; Balance: Internal Resources) – Contract Value: ₹ 12.68 Cr.

The area west of the western yard is being developed into a paved surface of width 30 m and 700m length with an additional rail line for full rake loading and is being executed by IPRCL (a SPV formed between Major Ports and RVNL for executing rail infrastructure works in Ports). RITES is the PMC for executing the work which is likely to be completed in September 2017.



Common Railway Yard

3. Development of Paved Storage Yards at Chennai Port for handling Export Cargoes (Est Cost: ₹ 54 Cr.; Funding: Partially GBS - sanction awaited; Balance: Internal Resources)

Developing open multipurpose storage yards for clean cargoes at ONB (Old Navy Barracks) yard in about



Piling work in progress

86,000 Sq.m and transit storage at JD(East) backup area of about 23,500 Sq.m mainly catering to JD(East) and other Inner Harbour berths. The work is scheduled for completion by Jan' 2018.

4. Strengthening of JD 4 & 6 (Est. Cost: ₹ 7.36 Cr.)

The strengthening of 141 m of



Paved Storage Yard – work in progress

JD-East wharf will allow dredging to (-)14 m CD for the entire 655 m length of JD(E) as against JD II alone presently and enable handling of dry bulk vessels of up to 60000 DWT.LoA issued on 07.06.2017 and the work will commence shortly.

State Focus Tamil Nadu

Development of parking at V. O. Chidambaranar Port

Since its inception, V. O. Chidambaranar Port has shown consistent growth in traffic volume as well as in productivity. In the league to become one of India's top ports, it has continuously upgraded its infrastructure facilities and strived to receive the hub-port status.

The most notable trend has been the Cargo throughput of the VOC port trust, that has steadily increased year by year. Most of the cargoes are transported through trucks and at present, approximately 2500 trucks ply daily for loading and unloading cargo operations at the port. Due to non-availability of a dedicated parking yard, many trucks are parked by roadsides, thereby causing unnecessary hardships, accidents and fuelling-related issues.

In an effort to introduce suitable solution, V.O. Chidambaranar Port is developing an integrated truck parking area about 5 km from the Port, where the Port owns 13 acres of land. This project aims to facilitate convenient truck parking, ensure



Development of Tuticorn Project

seamless truck movement for the EXIM cargo/trade and avoid traffic congestion. It will

have the capacity to accommodate 200 trucks per day.

Project details

- i) Cost of the project: ₹ 23.69 cr
- ii) Physical and financial progress: Physical and financial progress of the project is 78% and 68% respectively.
- iii) Funding under Sagarmala: Sagarmala committee has

- considered the above project in the list of Sagarmala programme and an amount of ₹ 10cr has been given as budgetary support to the Port from Sagarmala Development Company Ltd (SDCL).
- iv) Date of completion: 15.12.2017

Recent Highlights

PM launches infrastructure projects at Kandla Port

Gujarat's 1600 kms of coastline is of strategic importance for the economic development of the state, nation and the subcontinent. Kandla Port, Gujarat has emerged as one of the finest ports in Asia.

In line with its pioneering and futuristic port policy, the Prime Minister, Shri Narendra Modi, launched various infrastructure projects at Kandla Port Trust, Gandhidham in Gujarat on 22 May 2017. He unveiled plaques to mark the laying of Foundation Stone for construction of the Dr. Babasaheb Ambedkar Convention Centre and the development of the 14th and 16th General Cargo Berth.

Among other infrastructure-related projects, the Prime Minister also handed over Letters of Award for construction of interchange-cum-ROB at Kutch Salt Junction, deployment of two mobile harbour cranes and mechanization for handling fertilizers at Kandla Port.

In praise of the newly launched projects, the Prime Minister said that if India wishes to make a place for itself in global trade, it must have the best of arrangements in the port sector. Describing Kandla as 'mini India', he added that Kandla is set to find an important place on the global trade map.

Speaking on the occasion, Union Minister Shri Nitin Gadkari said that the Sagarmala project, and port-led development would have positive ramifications for the economic prosperity of the state through job creation.

It is a well known fact that the state-of-the-art, modernized ports contribute extensively to a nation's port-led development. The expansion of quality and modern infrastructure at Kandla is bound to benefit those working at the ports and reap benefits for Gujarat and the nation.



Inauguration Ceremony at Kandla Port

Recent Highlights

Foundation stone for eight connectivity projects laid at JNPT

Seamless multi-modal connectivity is the cornerstone of successful port-led development. In fact, Port Connectivity is among the four pillars of Ministry of Shipping's flagship Sagarmala programme. It aims to unlock the full potential of India's coastline

and waterways by improving intra and inter-port connectivity.

One of the major ports of India, Jawaharlal Nehru Port Trust (JNPT) has been at the forefront of many infrastructural projects, including those aimed at improving connectivity. Most

recently, the Minister of Shipping and Road Transport and Highways Shri Nitin Gadkari, laid the foundation stone for eight connectivity projects worth ₹ 1117.03 crores at Jawaharlal Nehru Port Trust (JNPT) on 30 May 2017. These projects are mentioned in table below:

S.No	Project	Cost
1	Integrated Common Rail Yard Facility at JNPT	₹ 250 crore
2	Connecting 4th Terminal of JNPT with Rail	₹ 100 crore
3	Jasai-JNPT 3rd Railway Line	₹ 150 crore
4	Flyover at North Gate	₹ 127.45 crore
5	Integrated Centralised Parking for Tractor-Trailers	₹ 149.31 crore
6	Construction of Coastal Berth	₹ 142.32 crore
7	Flyover at Y Junction	₹ 82.95 crore
8	Restructuring of Yard behind shallow water berth	₹ 115 crore

Speaking on the occasion, Shri Gadkari said that the massive investments under the Sagarmala programme, will lead to better infrastructure. They will also impact the job economy with the creation of new jobs, besides boosting the Indian Exports sector. He added, that many companies have expressed interest in acquiring land to establish factories within the JNPT SEZ zone, which in turn will create a demand for skilled manpower.

With these projects completed, connectivity between JNPT and the hinterland is bound to undergo significant improvements.



Laying of foundation stone at JNPT

Recent Highlights

Five Capacity Enhancement Projects Inaugurated at Kamarajar Port, TN

Tamil Nadu today continues to thrive as an urban centre with fast growing peripheral, coastal regions. Notably, it is also the second largest contributor to India's GDP at 8.4%. Central to its urbanisation have been the three ports of V O Chidambaranar Port Trust, Chennai Port Trust and Kamarajar Port. A comparatively recent contributor to the state's growth has been the Kamarajar Port.

The recent launch of the five capacity enhancement projects at Kamarajar Port (KPL), symbolise its potential to act as a catalyst for maritime-led economic growth for India, as well as in the Asian region.

Inaugurated by Hon'ble Minister of Road Transport and Highways, Shri Nitin Gadkari in the presence of Hon'ble Minister of State for Road Transport and Highways, Shri Pon. Radhakrishnan, the projects focused on the development, sustainability and digitization of the Kamarajar Port. Shri Gadkari said the work being done under Sagarmala is estimated to create two lakh direct jobs in the state within the next two years.

The projects inaugurated included Adani Ennore Container



Inauguration Ceremony of Projects at Kamarajar Port

Terminal, Multi Cargo Terminal, Railway Siding to Container & Multi Cargo Terminals, e-Office and RFID Gate Entry System.

Benefits of the projects

- 1) **New Container Terminal worth ₹ 1,270 crore:** The development of New Container Terminal will provide enhanced container handling facility for traders, facilitate new industries and ancillaries in the vicinity of the port, provide newer job opportunities and will boost the local economy.
- 2) **New Multi-Cargo Terminal project worth ₹ 151 crore:** The development of a New Multi-Cargo Terminal will provide more cargo handling facility to the traders, new

industries and ancillaries in the vicinity of the port and boost the local economy, besides creating job opportunities.

- 3) **The Rail Connectivity to Container and Multi Cargo Terminal worth ₹ 60 crore:** This project will improve cargo movement through the rail route. The terminal will also reduce the logistic cost, reduce load on roads and decongest nearby roads for benefit of the general public.
- 4) **Implementation of RFID worth ₹ 11.82 crores:** The implementation of RFID System project will enhance the ease of doing business. The RFID system will reduce time and congestion in cargo traffic and thereby enhance port operations.

Recent Highlights

Engaging with the States - Workshop on Sagarmala Programme

The strategies adopted by Japan and Korea in building their economies, have led them to become model countries in port-led development. Combining international experience and indigenous needs and demands, India's Sagarmala Programme is a way forward for India to follow a similar growth trajectory.

For states and other key stakeholders to comprehend the diverse avenues available to them through Sagarmala, they must be aware of the various provisions that the Programme has to offer. It is with this objective that the Ministry of Shipping organised a workshop titled "Accelerating Sagarmala Implementation - Engaging with the States" at New Delhi on 9 May 2017. The workshop provided a common platform to effectively engage and coordinate efforts of the Ministry of Shipping, line ministries and various maritime states of India.

As part of his keynote address, Sh Amitabh Kant, CEO, NITI Aayog, said that ports can act as catalysts of growth and help achieve 10% consistent growth rate for India, thereby making Sagarmala a gamechanger for India's development. He also

emphasised on a collaborative approach for the Sagarmala Programme to succeed and encouraged Port Chairmen to align their vision with Sagarmala for an integrated approach towards port development. The workshop was presided by Sh. Rajiv Kumar, Former Secretary, Ministry of Shipping. In attendance at the workshop were also Principal Secretaries, Chairmen of Ports and officials of the line ministries.

The workshop programme entailed informative presentations on Port-Rail connectivity by the Indian Port Rail Corporation (IPRCL) and

Coastal Community Development. The states of Maharashtra, Gujarat, Karnataka, Andhra Pradesh, Tamil Nadu and Odisha also showcased presentations on the status of various projects under the Sagarmala Programme.

The workshop successfully concluded by acknowledging states as key stakeholders in achieving the vision of the Sagarmala Programme. Its success is largely dependent on states' ability to adopt and translate this vision using innovative, all-inclusive and collaborative approaches to port development.



Shri Amitabh Kant, CEO Niti Aayog at Workshop on Sagarmala Programme

Recent Highlights

V.O. Chidambaranar Port Trust and TANGEDCO Signs MoU to Upgrade Coal Jetty-I&II

Guided by the four pillars under the Sagarmala Programme, Indian ports continue their quest to upscale, expand and modernise. Central to the vision of Sagarmala, V.O. Chidambaranar Port (VOCPT) has announced an expansion and development project. The launch of the project enables a four-fold increase in the capacity of its two Coal Jetties i.e. Jetty I and II.

The capacities of the jetties has been increased from 6.25 MTPA to 24 MTPA, following signing of a Memorandum of Understanding (MOU) between VOCPT with Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO) at New Delhi on 15 May 2017. The MoU was signed by Shri S. Anantha Chandra Bose, Chairman, V.O. Chidambaranar Port Trust and Shri (Dr.) M. Sai Kumar, Chairman cum Managing Director, TANGEDCO in New Delhi.

The Minister of Shipping and Road Transport and Highways Shri Nitin Gadkari and Minister of Electricity, Prohibition and Excise, Government of Tamil Nadu Shri P. Thangamani were present on the occasion. Speaking on the occasion, Shri Gadkari said that the project would benefit both, TANGEDCO and the VOCPT by ensuring coal handling is more voluminous and efficient, which would consequently reduce



V.O. Chidambaranar Port Trust and TANGEDCO Sign MoU to upgrade Coal Jetty-I&II

logistics costs. This move would also allow for cheaper production of electricity thereby increasing industrial growth, he added.

Expanded Infrastructure for Enhanced Capacity

An upgradation of coal jetties will enable TANGEDCO to handle additional volume of coal cargo, for the two power plants at Uppur and Kadaladi in Ramanathapuram district in Tamil Nadu.

In addition, turnaround time of vehicles coupled with the deployment of high-tech handling equipments will also be reduced.

As a result, enhancement in handling capacity and upgradation of infrastructure will reduce overall costs in logistics. TANGEDCO will therefore be able to utilize the services of the Port in a more cost-effective way. With the power generation from TANGEDCO's Tuticorin plants being linked to the National Grid,

this would enable availability of additional power at reduced costs, which in turn, can fuel industrial growth and employment generation.

Part of Project Unnati

This project is the outcome of Ministry of Shipping's Project Unnati, under which a study, titled 'Unlocking National Ports Potential' was undertaken to improve handling capacity of CJ-I & II. The estimated cost for upgrading CJ-I & II is about ₹ 800 crore. According to the MoU, Coal Jetty-I will be upgraded within 24 months by constructing a new Coal Jetty-I of 300mx25m, along with the repair of the existing CJ-I. Thereafter, CJ -II will be upgraded. Following this upgradation, V.O. Chidambaranar Port is expected to gain a competitive edge in addition to helping it maintain a lead position in coal handling.

Recent Highlights

Sagarmala - DDUGKY Convergence for Skill Development in Coastal Districts

The Ministry of Shipping and the Ministry of Rural Development signed an MOU on 16th May 2017 on Skill Development of youth in Coastal Districts.

The MoU is for convergence of the Ministry's prestigious project Sagarmala and Ministry of Rural Development's flagship programme, Deen Dayal Upadhyay Grameen Kaushalya Yojana (DDU GKY). The Minister of Shipping and Road Transport & Highways, Shri Nitin Gadkari and Shri Narendra Singh Tomar, Minister of Rural Development, Panchayati Raj, Drinking Water and Sanitation, were present during the occasion. DDU-GKY is expected to utilize its skilling expertise for the benefit of coastal communities. This will help the youth take advantage of the job opportunities that are expected to come up in the maritime sector under Sagarmala programme.

The Coastal Communities are key stakeholders in the Sagarmala Programme and their skill development and livelihood is an important objective of the program. A budget of ₹ 100 crore has been allocated under Sagarmala for coastal community development



The Ministry of Shipping signed an MoU with the Ministry of Rural Development in New Delhi on 16th May, 2017.

activities. Prior to execution, understanding the exact requirement is essential and therefore an on-ground survey to accurately understand the skill needs of 21 coastal districts has been undertaken. This is an important initiative to align training programs to match the exact requirements of the industries. Along with the Skill Gap Studies, District Action Plans have been prepared in consultation with the State Governments and Districts concerned. Training commenced from May, 2017, and specific training needs have been identified for more than 60,000 trainees in the next phase through more than 100 skill projects.

It is expected that greater involvement of the coastal communities under Sagarmala will make them key contributors in the economic development and ensure inclusive growth of the coastal districts of India.

DDU-GKY is currently being implemented in 28 states and has over 654 training centers covering 522 projects. It is in partnership with over 261 training partners, conducting training across 39 sectors, and for over 329 job roles. So far, a total of 4.54 lakh candidates have been skilled and 2.31 lakh candidates provided with jobs.

Maritime Glory

The Maritime Ventures of Pallavas and Cholas

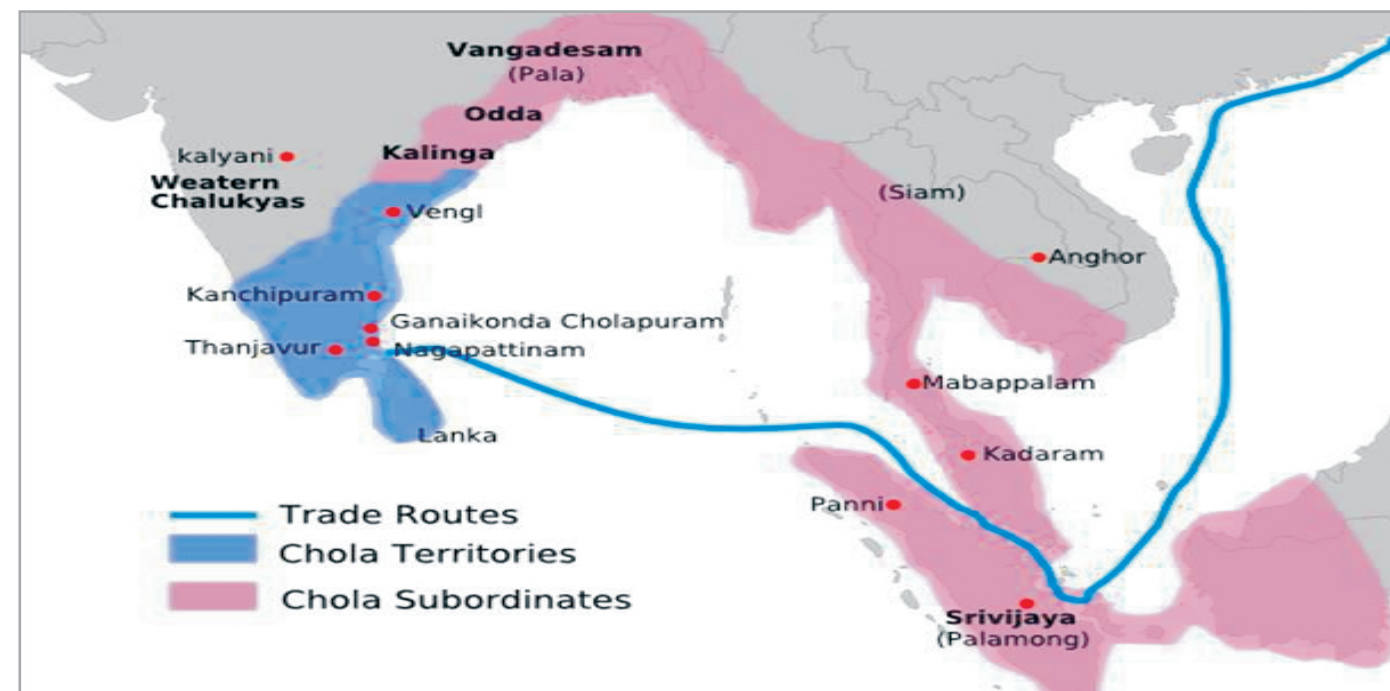


Image from Google

Trade Routes during cholas

India's maritime wisdom dates back to the sixth century AD. It emanates from the contributions of navigational skills and concepts of the Pallavas and later the Cholas. The Southern part of Peninsular India owes much of its present-day maritime culture and knowledge to the navies of both these periods. For instance, among the most prominent innovation of that period has been the Chola Method that comprises of a unique package of

navigational methods and techniques.

The kings of both eras played significant roles in building prosperous maritime trade contact. These trade contacts were not limited to a region, but stretched from as far as China to the island regions of South East Asia. A strong maritime trade appears to have developed between China and the Pallava Kingdom. Chinese chronicles state that Narasimha Pallava sent

cultural embassies to China and erected Buddhist Vihara (Chinese Pagoda) at Nakamattinam for the benefit of the Chinese merchants. The rise of port cities at Mamallapuram or kadal-mallai and another near Kanchipuram is evident in inscriptions that clearly indicate the emerging naval power of the Pallavas. Several early inscriptions in Sanskrit have also been found in Vietnam, Thailand, Myanmar, Malaya, Java and Sumatra that belong to the

Maritime Glory

sixth and seventh century, along with Pallava coins. The existence of a Tamil mercantile community has also been revealed through various such inscriptions.

In the Chola period too, the overseas mercantile community spread to Southeast Asia and Bay of Bengal became the centre of key maritime activities. This led to the development of merchant groups that were hierarchical in nature and formed not just at local levels, but also at international levels. Chola naval expeditions expanded from two invasions of Sri Lanka and later, Maldives, Lakshadweep and Sandimateevu or Sindubar (present day Goa between rivers Zuari and Mandovi). They also attacked the maritime naval power of Sri Vijaya, based in Palembang in Southern Sumatra extending upto Manakkavaram (Nicobar) islands.

Tamils greatly benefitted from a Key element of Chola maritime trade. This involved sending cultural and trade emissaries to China by successive Chola rulers to Southeast and East Asia. Sent mostly eleventh century onward, four such emissaries were recorded by Chola inscriptions and Chinese annals. As greater evidence of increasing maritime trade, porcelain from Jingdezhen kiln has been found in excavations by the State Department of Archaeology at the palace site of Gangaikondaacholapuram in China. Interestingly, Cholas' maritime relations with Sri Vijaya and Sailendra empires of Sumatra, Java and Malaya and other kingdoms of Southeast Asia, existed for a long period, even before trade links with China were established.

Ancient tamil maritime knowledge can also be seen as the for many navigational terms such as Parumal or the yard arm, alattu for rigs and aniya-pirai for prow. A palm leaf manuscript known as NavoiSattiram penned towards the end of the fifteenth centuries, mentions interesting concepts and records varied species of boat timbers, the structure and composition of boats. While these are mere snippets, there exist numerous such records and inscriptions that hail Tamil Nadu for its glorious maritime past. It is because our forefathers laid the foundational knowledge and maritime culture, that Tamil Nadu has the highest number of India's ports that contribute richly to the country's GDP.



Image from Google

Image of Hegemonic Navy of the Cholas