Sagarmala is the first of its kind programme for port-led-development. The earlier thrust on developing ports didn’t adequately consider the backward linkages in terms of port road & rail connectivity to the hinterland & developing industrial areas in the port vicinity.

Sagarmala presents an integrated plan for port modernisation, enhancing port connectivity, port linked industrialisation and coastal community development.

We expect public & private investment of over Rs. 12 lakh Crore in these areas to bring about development of the country by exploring the natural advantage of the vast coastline. We are confident of making Indian manufacturing sector more competitive and create more jobs for the youth of the country through the flagship programme of Sagarmala.

- Nitin Gadkari
Honourable Minister
The vision of the Sagarmala programme is to stimulate economic growth by bringing port-driven prosperity to the people.

In the last 4 years, focused initiatives undertaken by the Ministry of Shipping include improving efficiency of ports, building capabilities and capacities of ports, creating seamless transport connectivity, and upskilling the coastal community.

While transforming the logistics sector by creating world-class infrastructure, Sagarmala will provide growth opportunities and employment to coastal and hinterland communities by unlocking the full potential of India’s coastline and waterways.
CONTENTS

1. Accelerating India's growth through ports
   - Port Performance
   - Port Modernisation
   - Port Connectivity

2. Driving growth through holistic development of ports
   - Port-Linked Industrialisation
   - Coastal Community Development

3. Transforming connectivity for sustainable growth
   - Inland Waterways
   - Coastal Shipping

4. Harnessing opportunities for the New India
   - Ship Repair & Ship Building
   - Cruise Shipping
   - Ease of Doing Business

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MINISTRY OF SHIPPING
Accelerating India’s growth through Ports
ACCELERATING INDIA’S GROWTH THROUGH PORTS
Efficiency achieved in cargo handling

5 TIMES faster growth in Cargo Traffic at Major Ports during 2014-18 compared to 2010-2014.

Cargo Traffic at Major Ports

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CARGO (in MT)</th>
<th>GROWTH RATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>570.32</td>
<td></td>
</tr>
<tr>
<td>2011-12</td>
<td>560.137</td>
<td>-2%</td>
</tr>
<tr>
<td>2012-13</td>
<td>545.79</td>
<td>-3%</td>
</tr>
<tr>
<td>2013-14</td>
<td>555.487</td>
<td>2%</td>
</tr>
<tr>
<td>2014-15</td>
<td>581.344</td>
<td>+5%</td>
</tr>
<tr>
<td>2015-16</td>
<td>606.465</td>
<td>+4%</td>
</tr>
<tr>
<td>2016-17</td>
<td>648.398</td>
<td>+7%</td>
</tr>
<tr>
<td>2017-18</td>
<td>679.367</td>
<td>+5%</td>
</tr>
</tbody>
</table>

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ACCELERATING INDIA’S GROWTH THROUGH PORTS

Growth in profits

2x Growth in Operating Surplus
Growth from Rs. 2,519 Crore in 2013-14 to Rs. 5,667 Crore in 2017-18.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Growth Rate</td>
<td>2,561</td>
<td>2,571</td>
<td>1,807</td>
<td>2,519</td>
<td>3,599</td>
<td>4,297</td>
<td>4,920</td>
<td>5,667</td>
</tr>
</tbody>
</table>

63% Growth in Operating Margin
from a low of 27% to a high of 44% in last 4 years

3x Growth in Net Profit
Increased efficiency at Major Ports resulted in tripling the profits during the last 4 years from Rs. 1,026 Crore in FY14 to Rs. 3,413 Crore in FY18.
ACCELERATING INDIA'S GROWTH THROUGH PORTS
Improvement in performance, reduction in turnaround time

Reduction in turnaround time at Major Ports over the last 4 years

<table>
<thead>
<tr>
<th>YEAR</th>
<th>HOURS</th>
</tr>
</thead>
<tbody>
<tr>
<td>2011-12</td>
<td>107</td>
</tr>
<tr>
<td>2012-13</td>
<td>102</td>
</tr>
<tr>
<td>2013-14</td>
<td>94</td>
</tr>
<tr>
<td>2014-15</td>
<td>96</td>
</tr>
<tr>
<td>2015-16</td>
<td>87</td>
</tr>
<tr>
<td>2016-17</td>
<td>82</td>
</tr>
<tr>
<td>2017-18</td>
<td>64</td>
</tr>
</tbody>
</table>

Overall Turnaround Time (Hrs)

Hours in 2013-14: 94
Hours in 2017-18: 64

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SAGARMALA

Project Implementation

- The Sagarmala Programme is based on the 4 key pillars for Port-led development and comprises of 577 projects across 19 States and UT's.

- Out of the 577 projects, more than 70% of the projects are in various stages of implementation.

Sagarmala Overview
577 Projects

Port Modernisation | 243 Projects | Rs.142,955 Cr
Port Connectivity | 211 Projects | Rs.249,785 Cr
Port-Linked Industrialisation | 57 Projects | Rs.476,258 Cr
Coastal Community Development | 66 Projects | Rs.7,125 Cr

Sagarmala Programme
(Projects in Different Stages of Execution)

- Completed
  - 61 Projects | Rs.11,351 Cr

- Under Implementation
  - 162 Projects | Rs.237,173 Cr

- Under Tendering
  - 45 Projects | Rs.10,966 Cr

- DPR Stage
  - 152 Projects | Rs.131,146 Cr

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SAGARMALA
Project Implementation

NUMBER OF PROJECTS AWARDED

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects</th>
<th>Cumulative Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 2015-16</td>
<td>87</td>
<td>87</td>
</tr>
<tr>
<td>2016-17</td>
<td>72</td>
<td>159</td>
</tr>
<tr>
<td>2017-18</td>
<td>61</td>
<td>220</td>
</tr>
</tbody>
</table>

VALUE OF PROJECTS AWARDED

<table>
<thead>
<tr>
<th>Year</th>
<th>Value</th>
<th>Cumulative Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 2015-16</td>
<td>129,027</td>
<td>129,027</td>
</tr>
<tr>
<td>2016-17</td>
<td>72,284</td>
<td>201,311</td>
</tr>
<tr>
<td>2017-18</td>
<td>46,450</td>
<td>247,767</td>
</tr>
</tbody>
</table>

NUMBER OF PROJECTS AT COMPLETION

<table>
<thead>
<tr>
<th>Year</th>
<th>Projects</th>
<th>Cumulative Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upto 2015-16</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2016-17</td>
<td>15</td>
<td>19</td>
</tr>
<tr>
<td>2017-18</td>
<td>42</td>
<td>61</td>
</tr>
</tbody>
</table>
## SAGARMALA

### Projects in Coastal States

<table>
<thead>
<tr>
<th>States</th>
<th>Projects Completed</th>
<th>Work in Progress</th>
<th>Total</th>
<th>Value (Rs. in Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gujarat</td>
<td>2</td>
<td>49</td>
<td>51</td>
<td>1,21,626</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>6</td>
<td>102</td>
<td>108</td>
<td>2,34,807</td>
</tr>
<tr>
<td>Goa</td>
<td>4</td>
<td>25</td>
<td>29</td>
<td>11,710</td>
</tr>
<tr>
<td>Karnataka</td>
<td>5</td>
<td>37</td>
<td>42</td>
<td>23,933</td>
</tr>
<tr>
<td>Kerala</td>
<td>3</td>
<td>37</td>
<td>40</td>
<td>14,928</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>15</td>
<td>88</td>
<td>103</td>
<td>2,25,831</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>12</td>
<td>32</td>
<td>104</td>
<td>1,62,961</td>
</tr>
<tr>
<td>Odisha</td>
<td>7</td>
<td>38</td>
<td>45</td>
<td>45,533</td>
</tr>
<tr>
<td>West Bengal</td>
<td>6</td>
<td>31</td>
<td>37</td>
<td>31,054</td>
</tr>
</tbody>
</table>

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PORT MODERNISATION
Modernising ports, modernising India
MODERNISING PORTS, MODERNISING INDIA

Traffic growth at Major Ports

Major boost through improving Port Infrastructure, increasing traffic & efficiency and decreasing costs

TRAFFICHandled AT THE MAJOR PORTS

<table>
<thead>
<tr>
<th>Year</th>
<th>Traffic (MT)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015-16</td>
<td>606.37</td>
</tr>
<tr>
<td>2016-17</td>
<td>648.40</td>
</tr>
<tr>
<td>2017-18</td>
<td>679.47</td>
</tr>
</tbody>
</table>

- 2 Major Ports handled more than 100 million tonnes of cargo in FY 2017-18.
- For the first time a Major Port in India, Deendayal Port (Kandla), crossed 100 MT of traffic in 2016-17. Paradip Port has become the second major port to cross the figure of 100 MT of traffic during 2017-18.
MODERNISING PORTS, MODERNISING INDIA

Traffic at Major & Non-Major Ports

- The share of Major Ports in traffic handled which declined continuously up to 2014-15, is increasing since then.
- The share of Major Ports in traffic handled, was **55% in 2014-15** and has increased to **58% in 2017-18.**
MODERNISIGN PORTS, MODERNISING INDIA

Capacity addition at Indian Ports

Projects identified to increase the capacity to 3500+ MMTPA to cater to the projected traffic of 2500 MMTPA by 2025

<table>
<thead>
<tr>
<th>Project Type</th>
<th>Number</th>
<th>Cost (Rs. Crore)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Projects under Port Modernisation</td>
<td>243</td>
<td>142,955</td>
</tr>
<tr>
<td>Total Capacity Addition Projects at Major Ports</td>
<td>107</td>
<td>68,092</td>
</tr>
<tr>
<td>Total Completed Capacity Addition Projects at Major Ports</td>
<td>15</td>
<td>7,167</td>
</tr>
<tr>
<td>Work in Progress Projects for Capacity Addition at Major Ports</td>
<td>92</td>
<td>60,925</td>
</tr>
</tbody>
</table>

Capacity at Major Ports
(Million Tonnes)

- 2013-14: 801
- 2017-18: 1451

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MODERNISING PORTS, MODERNISING INDIA

Efficiency improvement at Major Ports

116 initiatives identified across 12 Major Ports to unlock 100MTPA capacity, out of which 98 initiatives have been implemented unlocking 80 MTPA.

RFID based Gate-automation System implemented in all Major ports.

e-Delivery Order through PCS made mandatory along with e-invoicing and e-payment.

Direct Port Delivery and Direct Port Entry facilitated for faster clearance.

Container Scanners being installed for faster clearance.
MODERNISING PORTS, MODERNISING INDIA

Important Projects

Fourth Container Terminal at JNPT inaugurated by the Prime Minister on 18th Feb. 2018

Largest container terminal in India with a capacity of 4.8 TEUs

India’s largest FDI project in the port sector

Estimated investment of Rs. 7,915 crore
MODERNISING PORTS, MODERNISING INDIA

Important Projects

Sustainability Initiatives

24.32 MW Non-conventional energy commissioned at various Major Ports through solar and wind energy projects in 2016-17

Solarization of all lighthouses with achievement of 100% green energy status
BUILDING INFRASTRUCTURE FOR NEW INDIA

Important Projects

Shipping Infrastructure Facilities at Andaman & Nicobar Islands and Lakshadweep

- Extension of New Dry Dock-II in Port Blair - Rs. 96.24 Cr
- Procurement of Two Tugs - Rs. 63.55 Cr
- Replacement & Upgradation of Cargo Handling equipment - Rs. 39.02 Cr
- Development of Sea Route to Baratang - 4516 Cr
- Extension of Wharf 60 m at Hope Town in South Andaman - Rs. 17.49 Cr
- Construction of Berthing Jetty in Neil Island - Rs. 38.19 Cr
- Construction of Additional Approach and Wharf at Hut Bay in Little Andaman - Rs. 45.55 Cr
- Acquisition of 6 ships for increased Inter-Island Connectivity at a Cost of Rs. 1800 Cr
- Acquisition of Container Vessel for Lakshadweep at a Cost of Rs. 90 Cr
PORT CONNECTIVITY
Connecting ports, connecting India to growth
ENHANCING CONNECTIVITY

Rail

More than 50% of the rail connectivity projects identified under Sagarmala are already under implementation through various agencies such as Indian Port Rail Corporation Limited (IPRCL).

IPRCL is a joint venture between Major Ports and Rail Vikas Nigam Limited (RVNL) dedicated to enhancing port rail connectivity and evacuation, while paving the way for seamless integration of port-railway system with the Indian Railways network.
ENHANCING LAST MILE CONNECTIVITY

Road

Total Road Projects: 112
Cost: Rs. 1,79,761 Cr
Length: 8,584 Km
Coverage: 12 major and 27 non-major ports

ROAD CONNECTIVITY OF PORTS THROUGH SAGARMALA

<table>
<thead>
<tr>
<th>STATE</th>
<th>NUMBER</th>
<th>LENGTH (KMS)</th>
<th>COST (Cr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gujarat</td>
<td>4</td>
<td>690</td>
<td>19,311</td>
</tr>
<tr>
<td>Maharashtra</td>
<td>14</td>
<td>2351</td>
<td>53,703</td>
</tr>
<tr>
<td>Goa</td>
<td>2</td>
<td>110</td>
<td>1,363</td>
</tr>
<tr>
<td>Karnataka</td>
<td>7</td>
<td>781</td>
<td>6,094</td>
</tr>
<tr>
<td>Kerala</td>
<td>21</td>
<td>220</td>
<td>4,423</td>
</tr>
<tr>
<td>Tamil Nadu</td>
<td>19</td>
<td>1913</td>
<td>54,800</td>
</tr>
<tr>
<td>Andhra Pradesh</td>
<td>36</td>
<td>2184</td>
<td>30,140</td>
</tr>
<tr>
<td>Odisha</td>
<td>4</td>
<td>62</td>
<td>649</td>
</tr>
<tr>
<td>West Bengal</td>
<td>5</td>
<td>275</td>
<td>9,278</td>
</tr>
<tr>
<td>TOTAL</td>
<td>112</td>
<td>8584</td>
<td>179,761</td>
</tr>
</tbody>
</table>

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ENHANCING LAST MILE CONNECTIVITY

Road

More than 20% of the projects are in various stages of implementation.

ROAD CONNECTIVITY PROJECTS STATUS

<table>
<thead>
<tr>
<th>STATUS</th>
<th>NUMBER</th>
<th>LENGTH (KMS)</th>
<th>COST (IN ₹)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed</td>
<td>4</td>
<td>25</td>
<td>232</td>
</tr>
<tr>
<td>Under Implementation</td>
<td>22</td>
<td>2193</td>
<td>23,497</td>
</tr>
<tr>
<td>Pre-Implementation</td>
<td>86</td>
<td>6367</td>
<td>156,032</td>
</tr>
<tr>
<td>TOTAL</td>
<td>112</td>
<td>8584</td>
<td>179,761</td>
</tr>
</tbody>
</table>

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### ENHANCING CONNECTIVITY

Multi Modal Logistics Park (MMLP)

15 MMLPs identified under Sagarmala
Cost Rs. 3,561 Cr

<table>
<thead>
<tr>
<th>STATUS</th>
<th>NUMBER</th>
<th>COST (Cr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completed</td>
<td>1</td>
<td>120</td>
</tr>
<tr>
<td>Under Implementation</td>
<td>9</td>
<td>1,725</td>
</tr>
<tr>
<td>Pre- Implementation</td>
<td>5</td>
<td>1,717</td>
</tr>
<tr>
<td>Total</td>
<td>15</td>
<td>3,561</td>
</tr>
</tbody>
</table>
## ENHANCING CONNECTIVITY

### Multi Modal Logistics Park (MMLP)

<table>
<thead>
<tr>
<th>Project Name</th>
<th>State</th>
<th>Cost (Rs. Cr)</th>
<th>Implementing Agency</th>
<th>Development Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. New ICD in South Uttarakhand (Pantnagar)</td>
<td>Uttarakhand</td>
<td>120</td>
<td>CONCOR</td>
<td>Completed</td>
</tr>
<tr>
<td>2. New ICD in Naya Raipur</td>
<td>Chhattisgarh</td>
<td>207</td>
<td>CONCOR</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>3. New ICD in Hyderabad (Nagulapally)</td>
<td>Telangana</td>
<td>102</td>
<td>CONCOR</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>4. New ICD in Jharsuguda</td>
<td>Odisha</td>
<td>100</td>
<td>CONCOR</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>5. MMLP at Swaroopganj in Rajasthan</td>
<td>Rajasthan</td>
<td>102</td>
<td>CONCOR</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>6. MMLP at Phulera in Rajasthan</td>
<td>Rajasthan</td>
<td>310</td>
<td>CONCOR</td>
<td>DPR to be Prepared</td>
</tr>
<tr>
<td>7. MMLP at Paradip Port</td>
<td>Odisha</td>
<td>114</td>
<td>CONCOR</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>8. New ICD in North Bengal (Darjeeling)</td>
<td>West Bengal</td>
<td>85</td>
<td>SJDA</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>9. Phase II of Multi Model Logistics Hub - Ving Port</td>
<td>Andhra Pradesh</td>
<td>260</td>
<td>VPT</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>10. Dry Port cum MMLP Terminal at Jolarpet</td>
<td>Tamil Nadu</td>
<td>200</td>
<td>CHPT</td>
<td>DPR to be Prepared</td>
</tr>
<tr>
<td>11. MMLP in Jogighopa, Assam</td>
<td>Assam</td>
<td>207</td>
<td>MoRTH</td>
<td>DPR to be Prepared</td>
</tr>
<tr>
<td>12. Dry Port at Niphad in Nashik District</td>
<td>Maharashtra</td>
<td>500</td>
<td>JNPT</td>
<td>DPR to be Prepared</td>
</tr>
<tr>
<td>13. Dry Port at Ranjani Village in Sangli District</td>
<td>Maharashtra</td>
<td>500</td>
<td>JNPT</td>
<td>DPR to be Prepared</td>
</tr>
<tr>
<td>14. Dry Port at Wardha</td>
<td>Maharashtra</td>
<td>353</td>
<td>JNPT</td>
<td>Under Implementation</td>
</tr>
<tr>
<td>15. Dry Port at Jaina</td>
<td>Maharashtra</td>
<td>400</td>
<td>JNPT</td>
<td>Under Implementation</td>
</tr>
</tbody>
</table>

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ENHANCING CONNECTIVITY

Pipeline

3 Pipeline projects (cost: Rs. 5,084 Cr) identified for transportation of crude oil and petroleum products across long distances.

1. CRUDE PIPELINE PROJECT
   - Rs. 1,584 Cr
   - At Salaya - Mathura
   - Under Implementation

2. CRUDE PIPELINE PROJECT
   - Rs. 500 Cr
   - At Chennai Petroleum Corporation Ltd. (CPCL)
   - Under Implementation

3. PRODUCT PIPELINE PROJECT
   - Rs. 3,000 Cr
   - At Hyderabad - Paradip
   - Under Implementation
1. Accelerating India’s growth through ports
   - Port Performance
   - Port Modernisation
   - Port Connectivity

2. Driving growth through holistic development of ports
   - Port-Linked Industrialisation
   - Coastal Community Development

3. Transforming connectivity for sustainable growth
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PORT-LINKED INDUSTRIALISATION
A robust eco-system of prosperity
A ROBUST ECO-SYSTEM OF PROSPERITY

14 Coastal Employment Zones (CEZs) identified across 9 coastal states. Within each CEZ, there would be multiple Industrial Clusters called CEU (Coastal Employment Units).

35 Industrial Clusters across three Sectors namely - Energy, Materials and Discrete Manufacturing, identified.

12 Bulk Clusters for Basic Input Industries such as Power, Refineries & Petrochemicals, Steel and Cement.

23 Discrete Manufacturing Clusters in the labor-intensive sectors of Electronics, Apparel, Leather Products, Furniture and Food-Processing etc.

Total 57 Industrialization Projects near ports were identified worth Rs. 476,258 Cr out of which 18 projects worth Rs. 150,000 Cr have either been completed or are under implementation.
A ROBUST ECO-SYSTEM OF PROSPERITY

Key Highlights

- Port-linked SEZ under implementation at JNPT expected to attract investment of around Rs. 12,764 Cr from industries that could create more than 50,000 jobs.
- Smart Port Industrial Cities (SPICs) are under implementation at Kandi and Paradip and expected to attract investments worth over Rs. 13,000 Cr and employment generation potential of over 55,000.
- 1 mega food processing park at Satara, Maharashtra cost: Rs. 139 Cr has been completed.
- 3 Power Clusters (Rs. 78547 Cr) in Krishnapatnam (AP), Ennore (TN), and Tuticorin (TN).
- Coastal Employment Units (CEUs) at Tuticorin and Ennore are planned for development.
- 2 Maritime Clusters are planned for development in Gujarat and Tamil Nadu.
- 8 Electronics Manufacturing Clusters cost: Rs. 170.4 Cr in AP, Gujarat, Odisha, Kerala, West Bengal.
- 2 Food Processing Parks cost: Rs. 248 Cr in AP under implementation.
COASTAL COMMUNITY DEVELOPMENT
Providing livelihoods, enhancing lives
PROVIDING LIVELIHOODS, ENHANCING LIVES

Skill Development

- Skill gap study of 21 coastal districts completed and district action plan prepared
- Fire safety training project for workers at Alang-Sosiya shipyard, 4,036 workers trained
- JNPT Multi-Skill Development Centres being set up for training 1,500 persons annually in the maritime sector

- Skill development in Ports and Maritime sector with DDU-GKY to train 30,000 persons for the next 3 years
- Under coastal district skilling programmes in convergence with DDU-GKY, 1,917 candidates trained, 1,123 candidates placed
Providing Livelihoods, Enhancing Lives

Fishing Harbours

To improve the livelihood of fishermen community in 9 coastal states, total 26 Fishing Harbour Projects (Rs. 3,954 Cr) have been identified, which will benefit lakhs of fishermen.

11 Projects
- Cost Rs. 922 Cr
- Sanctioned
- Improving livelihoods of 1.5 LAC fishermen

26 Fishing Harbour Projects have been identified.
## FISHING HARBOUR PROJECTS

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Project Name</th>
<th>Project Status</th>
<th>State</th>
<th>Cost (Crore)</th>
<th>No. of Fishermen beneficiary</th>
<th>Fish Landing (Ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Third stage expansion including modernisation of the existing fishing harbour of Malpe in Udupi District in Karnataka</td>
<td>Completed</td>
<td>Karnataka</td>
<td>50</td>
<td>3500</td>
<td>10000</td>
</tr>
<tr>
<td>2</td>
<td>Expansion of fishing harbour at Chinnamuttom Kanyakumari District in Tamil Nadu</td>
<td>Completed</td>
<td>Tamil Nadu</td>
<td>74</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Modernisation of the existing fishing harbour at Amadalii in Uttara Kannada</td>
<td>Under Implementation</td>
<td>Karnataka</td>
<td>19</td>
<td>2000</td>
<td>4000</td>
</tr>
<tr>
<td>4</td>
<td>Stage-II expansion of Mirkawada Fishing Harbour in Ratnagiri District</td>
<td>Under Implementation</td>
<td>Maharashtra</td>
<td>75</td>
<td>17230</td>
<td>40000</td>
</tr>
<tr>
<td>5</td>
<td>Construction of Fishing Harbour at Thalai in Kannur District in Kerala</td>
<td>Under Implementation</td>
<td>Kerala</td>
<td>35</td>
<td>59369</td>
<td>15700</td>
</tr>
<tr>
<td>6</td>
<td>Construction of Mini Fishing Harbour Chettuva in Thrissur District in Kerala</td>
<td>Under Implementation</td>
<td>Kerala</td>
<td>30</td>
<td>34853</td>
<td>8000</td>
</tr>
<tr>
<td>7</td>
<td>Construction of Fishing Harbour at Poompuhar in Nagepatnam District in Tamil Nadu</td>
<td>Under Implementation</td>
<td>Tamil Nadu</td>
<td>148</td>
<td>30000</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Modernisation of Sassoon Dock Fishing Harbour</td>
<td>Under Implementation</td>
<td>Maharashtra</td>
<td>52</td>
<td>48000</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Fishing Harbour Phase-3 at Mangrol, District Junagadh</td>
<td>Under Implementation</td>
<td>Gujarat</td>
<td>158</td>
<td>10000</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Development of Fishing Harbour at Kulai</td>
<td>Pre Implementation</td>
<td>Karnataka</td>
<td>197</td>
<td>2500</td>
<td>27100</td>
</tr>
<tr>
<td>11</td>
<td>Fishermen development projects at Vadavan (fishing harbour, fish processing centre, Deep sea fishing vessels)</td>
<td>Pre Implementation</td>
<td>Maharashtra</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Fishermen development projects at Enayam (fishing harbour, fish processing centre, Deep sea fishing vessels)</td>
<td>Pre Implementation</td>
<td>Tamil Nadu</td>
<td>80</td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Fishing harbour Phase-2 at Veraval, District Gir Somnath</td>
<td>Pre Implementation</td>
<td>Gujarat</td>
<td>260</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Fishing Harbour Projects

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Project Name</th>
<th>Project Status</th>
<th>State</th>
<th>Cost (Cr.)</th>
<th>No. of Fishermen (Bam/Min)</th>
<th>Fish Landing (Ton/yr)</th>
</tr>
</thead>
<tbody>
<tr>
<td>14</td>
<td>Development of Fishing Harbour in Jumaladime in SPSR Nellore District in the State of Andhra Pradesh</td>
<td>Pre Implementation</td>
<td>Andhra Pradesh</td>
<td>241</td>
<td>69750</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Phase 2 development of existing fishing harbour at Machilipatnam in Krishna district</td>
<td>Pre Implementation</td>
<td>Andhra Pradesh</td>
<td>251</td>
<td>57500</td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Phase 2 development of existing fishing harbour at Nizamnagar in Guntur district</td>
<td>Pre Implementation</td>
<td>Andhra Pradesh</td>
<td>341</td>
<td>68775</td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Development of fishing harbour at Vedaara in Prakasam district</td>
<td>Pre Implementation</td>
<td>Andhra Pradesh</td>
<td>409</td>
<td>82200</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Development of fishing harbour at Uppada (V) U. Coorgali (W) in East Godavari district</td>
<td>Pre Implementation</td>
<td>Andhra Pradesh</td>
<td>289</td>
<td>78225</td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Construction of Major Fishing Harbour at Vasa Bay, NmPT</td>
<td>Pre Implementation</td>
<td>Goa</td>
<td>104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Development of Fishing Harbour at Karanja in Raigad District</td>
<td>Pre Implementation</td>
<td>Maharashtra</td>
<td>150</td>
<td>1700</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>Development of Fishing Harbour in Ananadwadi, Sindhudurg District</td>
<td>Pre Implementation</td>
<td>Maharashtra</td>
<td>188</td>
<td>6800</td>
<td>5800</td>
</tr>
<tr>
<td>22</td>
<td>Development of Heymadadi Kali Fishing Harbour in Udupi District</td>
<td>Pre Implementation</td>
<td>Karnataka</td>
<td>139</td>
<td>7000</td>
<td>16124</td>
</tr>
<tr>
<td>23</td>
<td>Development of Fishing Harbour at Vasco in Mumbai Suburban</td>
<td>Pre Implementation</td>
<td>Maharashtra</td>
<td>319</td>
<td>2900</td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>Construction of fishing harbour at Chendipura</td>
<td>Pre Implementation</td>
<td>Odisha</td>
<td>46</td>
<td>5300</td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>River mouth dredging of Maheswadi at Paradip fishing harbour</td>
<td>Pre Implementation</td>
<td>Odisha</td>
<td>21</td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>Fishing Harbour at Narsabender, Taluka Una, District Gir Somnath</td>
<td>Pre Implementation</td>
<td>Gujarat</td>
<td>185.85</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
1. Accelerating India's growth through ports
   - Port Performance
   - Port Modernisation
   - Port Connectivity

2. Driving growth through holistic development of ports
   - Port-Linked Industrialisation
   - Coastal Community Development

3. Transforming connectivity for sustainable growth
   - Inland Waterways
   - Coastal Shipping

4. Harnessing opportunities for the New India
   - Ship Repair & Ship Building
   - Cruise Shipping
   - Ease of Doing Business

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INLAND WATERWAYS
Rivers for prosperity
RIVERS FOR PROSPERITY
Bringing opportunities and prosperity to the hinterland

ROAD, COST PER KM
₹1.5

RAIL, COST PER KM
₹1

WATERWAYS, COST PER KM
20 PAISE

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Bringing opportunities and prosperity to the hinterland

BENEFITS OF INLAND WATER TRANSPORT

- **MAKE INDIAN INDUSTRY COMPETITIVE BY REDUCING LOGISTICS COST**
- **PROVIDE OPTIMAL MODAL MIX BY CONVERGING RIVER TRANSPORT WITH OTHER MODES**
- **EASE CONGESTION ON ROAD AND RAIL NETWORKS**
- **CATER TO THE NEEDS OF THE GROWING POPULATION AND ECONOMY**
- **MINIMIZE LAND ACQUISITION AS COMPARED TO ROAD AND RAIL TRANSPORT**
Improving navigation capacity in the Varanasi - Haldia stretch of National Waterway-1 (Ganga), the implementation of the Jal Marg Vikas Project (JMVP) at the cost of Rs 5369 Cr approved by the Govt.

NW-1 development & operations will lead to employment generation to the tune of 46,000 direct and 84,000 indirect jobs.

Multimodal Terminals at Varanasi, Sahibganj and Haldia and Navigation Lock at Farakka are being developed at a cost of 1327 Cr. Varanasi terminal is expected to be completed by Nov 18.
RO-RO SERVICES
People-friendly transportation

Ro-Ro terminals are being developed, at a cost of Rs. 300 Crore at Rajmahal-Manickchak (Jharkhand-West Bengal), Bakhtiyarpur-Hasanpur (Mahnar) (Bihar), Kahalgaon-Tintanga (Bihar) and Buxar-Sarai Kota (Bihar-Uttar Pradesh)

River Information System (RIS) from Haldia to Farakka is functional and from Farakka to Patna is ready to commence shortly

Major activities under JMVP are intermodal terminals, five pairs of Ro-Ro terminals, channel marking systems, integrated vessel repair & maintenance facilities, automated information techniques of Differential Global Positioning System, day and night navigation aids, slipways, bunkering facilities, river training and river conservancy.
RIVERS FOR PROSPERITY
Bringing opportunities and prosperity to the hinterland

National Waterway-2
Regular movement of cargo on National Waterways-2 (river Brahmaputra) from Pandu to Dhubri/Hatsingimari flagged off on 29th December, 2017 at Majuli, Assam

<table>
<thead>
<tr>
<th>Cargo transported</th>
<th>Distance covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>400 tonnes of cement</td>
<td>255 km</td>
</tr>
</tbody>
</table>

Benefit
Saving of 1,50,000 tonne km of road transportation per trip

Ro-Ro service carrying vehicles, passengers and cargo from Dhubri to Hatsingimari on NW-2 is going on successfully from July, 2017
RIVERS FOR PROSPERITY

National Waterway-3

Kottapuram to Kollam (168 km) together with Champakara canal (14 km) and Udyogmandal canal (23 km) was declared as NW-3 in 1993

IWAI has constructed 9 terminals at Kottapuram, Aluva, Maradu, Vaikkom, Thanneermukkom, Thrikkunnappuzha Kayamkulam, Kolam & Alappuzha

Approximately 10 lakh tonnes of cargo is being moved on NW-3 per annum
RIVERS FOR PROSPERITY
Inland Water Transport

DEVELOPMENT OF 8 NEW WATERWAYS HAS BEEN TAKEN UP DURING 2017-18

<table>
<thead>
<tr>
<th>S.No.</th>
<th>National Waterway</th>
<th>State</th>
<th>Length (km)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mahanadi - Luna River (NW-64)</td>
<td>Odisha</td>
<td>98</td>
</tr>
<tr>
<td>2</td>
<td>Amba River (NW-10)</td>
<td>Maharashtra</td>
<td>45</td>
</tr>
<tr>
<td>3</td>
<td>Revadanda Creek - Kundalika River (NW-85)</td>
<td>Maharashtra</td>
<td>31</td>
</tr>
<tr>
<td>4</td>
<td>Narmada River (NW-73)</td>
<td>Gujarat &amp; Maharashtra</td>
<td>226</td>
</tr>
<tr>
<td>5</td>
<td>Tapi River (NW-100)</td>
<td>Gujarat</td>
<td>173</td>
</tr>
<tr>
<td>6</td>
<td>Ajoy (Ajay) River (NW-7)</td>
<td>West Bengal</td>
<td>19</td>
</tr>
<tr>
<td>7</td>
<td>Alappuzha- Changanassery Canal (NW-8)</td>
<td>Kerala</td>
<td>29</td>
</tr>
<tr>
<td>8</td>
<td>Kalyan-Thane-Mumbai Waterway, Vasai Creek And Ulhas River (NW-53)</td>
<td>Maharashtra</td>
<td>145</td>
</tr>
</tbody>
</table>
COASTAL SHIPPING
Safer, Smarter, Sustainable

Sagarmala programme is also aimed at promoting coastal shipping, which is not only a substantially cheaper mode of transport compared to other modes of transport but also more environment friendly. Further, coastal shipping provides opportunities to Indian entrepreneurs, and smaller shipping operators as well as port/hinterland logistics opportunities to smaller companies catering to coastal/domestic trade, often in smaller ports/harbours.
COASTAL SHIPPING
Safer, Smarter, Sustainable

Coastal Shipping in India has grown at a CAGR of approx. 10% between 2015 and 2018 compared to 2.2% between 2012 and 2015.

Besides the present coastal shipping movement of 106.8 MTPA in FY2017-18, a potential of moving an additional 130 MMTPA by 2025 has been identified under Sagarmala Programme.

MoU signed between Pondicherry and Chennai to boost coastal movement of EXIM cargo.
COASTAL SHIPPING
Safer, Smarter, Sustainable

Initiatives taken to promote Coastal Shipping

- Cabotage has been relaxed for 5 years for specialized, foreign-flagged vessels such as RO-RO, RO-Pax, Hybrid RO-RO, Pure Car Carriers, Pure Car and Truck Carriers, LNG Vessels, Project Cargo Vessels
- Cabotage has also been relaxed for EXIM Containers being transshipped in India
- Cabotage has been relaxed for Agricultural Commodities
COASTAL SHIPPING
Safer, Smarter, Sustainable

Infrastructure development for promoting coastal shipping

- **116 initiatives** identified across 12 major ports to unlock **100MTPA capacity**, out of which 86 initiatives have been implemented unlocking **80 MTPA**

- Development of port infrastructure to enable coastal shipping. **50 projects (cost Rs. 2,482 Cr)** identified for financial assistance under the Coastal Berth Scheme

- **31 projects (cost Rs. 1,413 Cr)** sanctioned with financial assistance of Rs. 586 Cr and Rs. 334 Cr released

- **19 projects** under various stage of development and process of approval. Funding under the scheme is available for construction of coastal berth, passenger jetty, breakwater, capital dredging and mechanization of coastal berth
COASTAL SHIPPING

MoUs with Bangladesh

- An agreement has been signed to promote coastal shipping between India and Bangladesh which will help in providing an alternative route for the transportation of **EXIM** cargo as well as domestic cargo to the North Eastern Region.

- An MoU has been signed for the use of **Chittagong and Mongla** ports for the movement of goods to and from India.

- An MoU has been signed that will allow Passenger and Cruise services on the Coastal and Protocol Routes between **India & Bangladesh**.

- An MoU has been signed for fairway development of the Ashuganj-Zakiganj stretch of **Kushiyara River and Sirajgunj-Daikhowa** stretch of the Jamuna River of Indo-Bangladesh Protocol to access North-Eastern Indian through Bangladesh.
COASTAL SHIPPING

Benefits to North East

Enhance connectivity to the North-Eastern States of India through an alternative route via coastal movement.

Provide all-season fairway which will help in considerably lowering the logistics cost of cargo movement and reduce congestion through the Siliguri corridor.

Enhance trade, facilitate the movement of transit cargo and add to the economic development of both the countries.

Facilitate cross border tourism
1. Modernizing India's ports & terminals
2. Enhancing India's connectivity
3. Promoting green ports for sustainable growth
4. Harnessing opportunities for the New India

- Innovation, Research, Technology
- Ship Repair & Ship Building
- Cruise Shipping

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INNOVATION. RESEARCH. TECHNOLOGY.
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National Technology Centre for Ports, Waterways and Coasts (NTCPWC)

NTCPWC set up at IIT-Madras at an initial cost of 70.53 crore was inaugurated on 26 February 2018. It aims at providing innovative and research-based engineering solutions for various issues related to ports, waterways and coasts in the country.

NTCPWC to provide R&D and technical consultancy support to all Major Ports, IWAI and other related institutions. Poised to be self-sustainable in three years through national and global industry consultancy projects.
A world-class Center of Excellence in Maritime and Ship Building (CEMS) has been set up with investment of 770 Cr by Ministry of Shipping in collaboration with Siemens and Indian Register of Shipping (IRS).
A FILLIP TO ‘MAKE IN INDIA’, BUILDING STRATEGIC STRENGTHS

Center of Excellence in Maritime and Shipbuilding (CEMS)

A global hub for quality skill development in the port and maritime sector. CEMS is to provide skilled manpower for India’s ship building and heavy industry.

BENEFITS OF CEMS

End-to-end activities involved in Ship Design Manufacturing | Maintenance | Repairs and Operations MRO | Port Logistics | Dry Dock related to Ports

CEMS will provide skilled manpower for making vessels for inland waterways, ships, fishing boats and other ancillary manufacturing sectors.

The total strength of CEMS will be 10,512 students per year.
SHIP REPAIRING AND SHIP BUILDING
A fillip to ‘Make in India’, building strategic strengths
A FILLIP TO ‘MAKE IN INDIA’, BUILDING STRATEGIC STRENGTHS

Ship Building Operations

Cochin Ship Yard (CSL)

New Dry Dock

Cochin Shipyards Limited is building an additional dry dock

size 310x75x60 meter

The project to be completed within 30 months

This third dry dock will be the largest dry dock in CSL.

This enhanced capacity will enable the yard to take up construction and repairs of larger vessels and offshore structures.
A FILLIP TO ‘MAKE IN INDIA’, BUILDING STRATEGIC STRENGTHS

Ship Building Operations

Shipbuilding under the ‘Make in India’ initiative to boost Island Connectivity

- 2 passenger-cum-cargo vessels of 1200 passengers and 2 passenger-cum-cargo vessel of 500 passengers capacity are being built by Cochin Shipyard at a cost of Rs. 1,291 Cr for the Andaman and Nicobar administration

Hooghly Cochin Shipyard Limited (HCSL)

- A new Joint Venture Company ‘Hooghly Cochin Shipyard Limited’ set up between CSL and Hooghly Dock & Port Engineers Ltd. (HDPEL), Kolkata
- The JV will concentrate on manufacturing the inland waterways transport vessel segment
- A new yard for the construction and repairs of vessels for Inland and Coastal segment will be set up

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A FILLIP TO ‘MAKE IN INDIA’, BUILDING STRATEGIC STRENGTHS

Ship Repair Operations

- Mumbai Port – Dry Dock MoU with CSL signed on 11 January 2018
- Ship repair facility being expanded in Port Blair and Guwahati
- Netaji Subhash Dock – Kolkata Port - MoU with CSL signed on 17 March 2018
- International Ship Repair Facility (ISRF) at Cochin being developed at a cost of 970 Cr
A FILLIP TO ‘MAKE IN INDIA’, BUILDING STRATEGIC STRENGTHS

International Ship Repair Facility (ISRF)

A contract worth Rs. 970 Cr has been awarded for setting up ISRF, which is to be completed by May, 2020.

ISRF is a greenfield ship repair yard being put up at Willingdon Island, Kochi on 42 acres of land leased from the Cochin Port Trust.

The facility will house a modern Ship Lift and Transfer System of 6,000 Tonnes capacity, which will cater to repairs of all types of small and medium sized vessels, including Navy and Coast Guard ships.
CRUISE SHIPPING
India cruising ahead
INDIA CRUISING AHEAD
Boost to Cruise Shipping

World-class cruise terminal at Mumbai port
Cost Rs. 300 Cr
to be completed by December, 2019

New cruise terminals at Mormugao Port and Chennai Port
Increase in the number of cruise vessels visiting the five major ports:
(Mumbai, Mormugao, New Mangalore, Cochin & Chennai)

<table>
<thead>
<tr>
<th>Year</th>
<th>2013-14</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>95</td>
<td>166</td>
</tr>
</tbody>
</table>

The number of cruise passengers has doubled

<table>
<thead>
<tr>
<th>Year</th>
<th>2013-14</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>82,600</td>
<td>1,91,835</td>
</tr>
</tbody>
</table>

STANDARD OPERATING PROCEDURE (SOP) FOR CRUISE VESSELS
HAVE BEEN REVISED AND OPERATIONALIZED

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INDIA CRUISING AHEAD
Boost to Cruise Shipping

Promoting Cruise Shipping

• **E-Visa facility** for cruise vessels at five major ports: Mumbai, Mormugao, New Mangalore, Cochin and Chennai. Cruise tourists arriving with e-visa exempted from biometric enrolment for a period of three years i.e. till 31 December 2020.

• **Port charges reduced:** all major ports to charge a uniform single rate of $0.35 per GRT for first 12 hrs of stay

• Facility for foreign flag passenger vessels to call at Indian ports without obtaining license from DGS extending from February, 2019 to February, 2024

• Costa Neo Classica cruise ship has made Mumbai Port its home port for the season 2016-17 and 2017-18.
India re-elected to International Maritime Organisation Council

An MoU with Republic of Korea was signed on mutual recognition of Certificates of competency of seafarers.

Contract for interim agreement of Chabahar Port signed on 17 February 2018 and documents exchanged in the presence of the Prime Minister of India and the President of Iran.
IMPROVING SERVICES TO SEAFARERS BY DG SHIPPING

- E-Governance system being revamped to make DGS **paperless and footfall free**
- **Online grievance**-cum-feedback system started in June 2016 with a turnaround time of less than 3 days
- Requirement to issue annual trading license for Indian flag ships done away
- The powers for registration, survey and certification of Indian fishing vessels delegated to respective State Governments/Union Territories
- Relief to Indian ship owners by doing away with dry docking requirement
- Application, processing and issuance of the chartering permissions made **online and e-payment enabled**
- E-learning module launched to enable Indian seafarers to prepare for Certificato of Competency
- Students benefitting from **Online Counseling**, initiated by IMU from 2014-15
- Employment of Indian seafarers on ship increased from 1,08,446 in 2013 to 154,349 in 2017
Saaf Niyat
Sahi Vikas