

1	2	3	4	5
93.	Setting up of FSRU in the Outer Harbour for LNG	200	2019	Visakhapatnam Port Trust
94.	Cruise-cum-coastal cargo terminal	77	2020	Visakhapatnam Port Trust
95.	JNPT-Mumbai Port Barge-Ship Operations to Reduce City Congestion and Create Value for Trade	160	2019	Mumbai Port Trust
96.	Removal of 2 Nos. Mooring of Spiral in the area of Cruise Berth-Mormugao	13.87	2019	Mormugao Port Trust

#### **Project for modernisation of ports**

2517. SHRI K.R. ARJUNAN: Will the Minister of SHIPPING be pleased to state:

(a) whether it is a fact that the capacity addition at ports is expected to grow at a Compound Annual Growth Rate (CAGR) of 5 to 6 per cent till year 2022, thereby adding 275-325 MT of capacity;

(b) whether it is also a fact that under the Sagarmala programme, Government has envisioned a total of 189 projects for modernisation of ports involving an investment of ₹ 1.42 million by the year 2035; and

(c) if so, the details thereof?

THE MINISTER OF STATE OF THE MINISTRY OF SHIPPING (SHRI MANSUKH L. MANDAVIYA): (a) Yes Sir. The capacity addition at ports is expected to grow at a Compound Annual Growth Rate (CAGR) of approx 6% till 2022 thereby adding around 500 MTPA of capacity.

(b) and (c) Under the Sagarmala, Government has identified 252 projects for modernisation of Ports involving an investment of ₹ 139,284 crores by the year 2035. The details of projects is given in Statement.

**Statement***Details of projects identified for modernisation of Ports under  
Sagarmala Programme*

Sl. No.	Project Name	Project Cost (₹ crore)
1	2	3
1.	Development of Cruise Passenger Facilitation Centre at Chennai Port Trust	18
2.	Coastal Cargo Berth at ChPT	80
3.	Development of paved storage yard at Chennai Port for handling export cargo	54
4.	Construction of Bunker berth at Chennai Port	44
5.	Development of Dry Dock at Timber Pond-Boat basin at Chennai port or Development of Marina	315
6.	SBM terminal at Chennai port	600
7.	Conversion of JD East into Multi cargo Berth at Chennai port	110
8.	Development of Bharti Dock II for Additional Container Storage at Chennai or Development of Bharti Dock II berth and back up space for fully mechanised fertilizer terminal	100
9.	Installation- Commissioning and maintenance of RFID based gate access system for vehicle entry-exit - Cochin	1
10.	Refurbishment and Capacity enhancement of Coastal liquid terminal -COT and NTB at CoPT	20
11.	Multi User Liquid Terminal at Puthuvypeen- Cochin Port	240
12.	Development of Cruise Berthing Facilities cum Cruise Passenger Facilitation Centre near Boat Train Pier Jetty-Cochin	28
13.	Provision of Scanner - Cochin	15

1	2	3
14.	Construction of dry dock at Cochin Shipyard	1,799
15.	International Ship Repair Facility -ISRF - Cochin Shipyard	970
16.	Cryogenic Warehousing - Cochin	150
17.	RFID Implementation at KPL	12
18.	Multi Cargo Terminal at KPL on DBFOT -Design- Build- Finance- Operate and Transfer basis	151
19.	LNG Import Terminal at Ennore	5,151
20.	Development of Ro-Ro Terminal cum GCB-2 at KPL	150
21.	Capital Dredging Phase 4 at KPL -To provide 18m deep draft	258
22.	Construction of Coal berth 4 at KPL	250
23.	Construction of Container Terminal Phase 1 Stage 1 and 2 at KPL	1,270
24.	Additional TNEB Coal Berth CB 3 at Ennore Port	247
25.	Construction of IOCL Oil jetty on Captive basis at KPL	480
26.	Mobile X-ray Container Scanner -1 no systems at KPL	35
27.	Capital Dredging Phase 3 at KPL	334
28.	Construction of Container Pre-Stacking Yard in the area of Port access road - KPL	24
29.	Modification of existing Iron Ore Terminal to handle coal - SIOTL - KPL	228
30.	Multi-User Liquid Terminal-II at Ennore	393
31.	Capital Dredging Phase-V for providing water depth of -16 m CD for the proposed Ro-Ro cum GCB 2- LNG- MLT 2 and IOCL Captive Jetty berths at KPL	250
32.	Construction of Container Terminal Phase 2 at KPL	2,000
33.	Coal Berth -Bulk Terminal -2x9 MTPA at KPL	700
34.	Ro-Ro and General Cargo Berth-3 at KPL	350

1	2	3
35.	2nd Multi Cargo Terminal at KPL	200
36.	JNPT Container Terminal 4 - Phase 1	4,719
37.	Procurement of 15 RTYGCs at port owned Container Terminal - JNPT	160
38.	Restructuring of JNPT Yard for Optimal Yard Utilisation	115
39.	Deepening and widening of JNPT and Mumbai Channel Phase-II	1,963
40.	Construction of Central Truck Parking Terminal at JNPT	149
41.	Development of Additional Liquid Cargo Jetty - JNPT	385
42.	JNPT Container Terminal 4 - Phase 2	3,196
43.	Terminals in Nhava Creek at JNPT	600
44.	JNPT 5th Container Terminal	5,500
45.	JNPT Multipurpose Cargo Terminal in Uran Mudflats	1,000
46.	Development of Oil Jetty 7 at Old Kandla	42
47.	Container Terminal at Berth Nos. 11 and 12 at Kandla Port on PPP Mode	160
48.	Development of Liquid Terminal facilities consisting of SPM and 2 product jetties at OOT- Vadinar- Kandla Port on captive use basis	448
49.	Deployment of two Mobile Harbour Cranes - Kandla Port	93
50.	Mechanisation of Fertilizer Handling Facility at Kandla	461
51.	Construction of 14th berth for Multipurpose Cargo at Kandla	138
52.	Construction of 16th berth for Multipurpose Cargo at Kandla	150
53.	Development of Oil Jetty 8 at Old Kandla	150
54.	LNG-LPG-SPM LNG Terminal at Kandla	5,000
55.	Mechanisation of Barge Unloading Facility at Kandla	100

1	2	3
56.	Mechanisation of Food Grains Handling Facility at Kandla	155
57.	Development of Ro-Ro Terminal at Kandla Port	70
58.	Development of Tuna Tekra Container Terminal at Kandla - Phase 1	1,500
59.	Development of Tuna Tekra Additional Bulk Terminal at Kandla - Phase 1	1,050
60.	Development of Tuna Tekra Container Terminal at Kandla - Phase 2	1,500
61.	Development of Tuna Tekra Additional Bulk Terminal-Phase 2 - Kandla	400
62.	Installation of 2 MHCs at Berth 13- HDC	50
63.	Installation of RFID facilities at HDC	16
64.	Deployment of 2 floating cranes near Sagar	65
65.	Mini Bulk Carrier Facility on upstream of 3rd Oil Jetty at HDC- Floating Cargo Handling Jetty	73
66.	Upgrading berth 2 and 11 KPD for coastal vessels at KoPT	8
67.	Replacement of Fendering System at lead in Jetty - HDC	28
68.	Development of hardstand storage area of 1.13 lakh sqm behind Berth No. 13 at HDC	44
69.	Setting up of Outer Terminal-2 for handling of liquid bulk cargo at Haldia Dock Complex	74
70.	Setting up of Outer Terminal-1 at HDC	481
71.	Setting up of Liquid Cargo Handling facilities at Shalukkhali- Haldia Dock-II	173
72.	Building barge jetty for Coal in KPD II- KoPT	25
73.	Mechanisation of Berth 3 at HDC	323
74.	Building Barge Jetty to Support the Anchorage Operations at Haldia	120

1	2	3
75.	Construction of berth 18 in Western dock Arm at NMPT	94
76.	Implementation of RFID - NMPT	5
77.	Mechanisation of Berth 18 - now 16 for handling bulk cargo at NMPT	469
78.	Development of 30 acres of stack yard and ancillary roads for parking of Ro-Ro cargoes and cars - NMPT	22
79.	Implementation of Mobile X-Ray Container Scanner at NMPT	40
80.	Mechanization of Berth 14 and Backup area for handling Container Terminal at NMPT	258
81.	Development of Storage area for container at Mormugao	15
82.	Additional Transshipments Goa	56
83.	Deepening of Approach Channel Capesize vessels at Mormugao	194
84.	Re-development of Ore and multipurpose berths 8-9 and barge berths - Mormugao	1,145
85.	RFID Implementation - Mormugao	5
86.	Development of POL berth at Mormugao	156
87.	Development of Coastal Cargo and General Cargo Berth	203
88.	Development of 2 berths with connecting flyover for Indian Navy and Coastguard at Vasco Bay - Mormugao	850
89.	5th Oil Berth at Jawahar Dweep -JD5 including capital dredging	811
90.	Bunkering Terminal at Jawahar Dweep	50
91.	Offshore Container Terminal - Mumbai Port	1,286
92.	Redevelopment - Facelift of Indira Dock - Mumbai Port	55
93.	Upgrading and modernisation of International Cruise Terminal at BPX -Indira Dock - Mumbai	300
94.	Setting up of a Floating Storage and Regasification Unit-FSRU-Mumbai	2,690

1	2	3
95.	Development of Marina at Prince's Dock - Mumbai	200
96.	RFID - Paradip	10
97.	2 nos. of Harbour mobile cranes - Paradip	70
98.	Deep Draft Iron Ore Export Berth on BOT basis - Paradip	740
99.	Multi Purpose Berth to handle clean cargo including container on BOT basis at Paradip port	431
100.	Mechanisation of EQ1- EQ2 and EQ3 Berths on BOT basis - Paradip	1,438
101.	Development of IWT Terminal at Paradip Port	80
102.	New Deep Draft Coal Import Berth on BOT basis at Paradip	656
103.	LPG Terminal at South oil jetty in Paradip	690
104.	Capital Dredging of BOT basin - Paradip	86
105.	Mechanisation of CQ1 and CQ2 berths on BOT basis-Paradip	1,103
106.	Drive through Container Scanner -1 No.-Tuticorin	50
107.	RFID-Tuticorin	5
108.	Mechanization of Berth IX at Tuticorin	93
109.	Development and Operation of a full-fledged Truck Parking Terminal adjacent to NH-7A opposite to Fisheries college at Tuticorin	25
110.	Construction of North Cargo berth-II for handling bulk cargoes on DBFOT basis - Tuticorin	335
111.	Conversion of 8th berth as container terminal on BOT basis for a period of 30 years - Tuticorin	312
112.	Coastal berth with dredged depth of 10.0m to handle vessels up to 15000 DWT -length 150m at VoCPT	36
113.	Development of a PPP berth for construction material	65
114.	Upgradation of Existing Coal Jetty -GJ1 and GJ2 at Tuticorin	98

1	2	3
115.	Deployment of Additional Harbour Mobile Cranes at III and IV berth - Tuticorin Port	29
116.	Construction of NCB3 at VOCPT	37
117.	Upgradation of Inner Harbour - SEPC Berths - Tuticorin	250
118.	Channel and Basin Deepening of Inner Harbour Tuticorin for Fully Loaded Panamax Ships	325
119.	Conversion of Oil jetty to handle coal at Tuticorin Port	200
120.	NCB 1 - Utilisation of its full capacity at Tuticorin	10
121.	Upgradation of inner harbour - Barge berths for food grains at Tuticorin	100
122.	Upgradation of Inner Harbour- Deep draft bulk Berth - Tuticorin	330
123.	Development of Outer Harbour- Dredging and Breakwaters- Tuticorin	500
124.	Development of Outer Harbour - Phase 1 – 2 coal and 2 container berths - Tuticorin	1,500
125.	Multi-Purpose Berth at Tuticorin	330
126.	Development of Outer Harbour - Phase 2 – 2 coal and 5 container berths - Tuticorin	1,700
127.	Extension of existing container terminal at VPT on DBFOT basis	633
128.	Conversion of existing berths EQ-2- EQ-3- EQ-4 and part of EQ-5 into two numbers of berths - Vizag	182
129.	Upgradation of OB 1 and 2 for Iron Ore Handling - Phase 1	395
130.	Development of WQ N -WQ-7 and WQ-8 - Vizag	243
131.	Development of New Berth EQ 1A - Vizag	313
132.	RFID system - Vizag Port	7
133.	Container scanners - Vizag Port	30
134.	Supply- Erection- Testing and commissioning of 2 HMCs of capacity greater than 100 MT at east quay berth - Vizag Port	39



1	2	3
135.	Construction of coastal Berth at VPT	43
136.	Additional Oil Jetty -OR3 alongwith OR1 and OR2 at Vizag	168
137.	LNG Import Terminal at Mundra	5,040
138.	New Mega Port at Outer harbour- Paradip	8,767
139.	Development of new port at Sirkazhi	3,000
140.	New Port at Vadhavan	9,267
141.	New transshipment Port at Enayam	6,575
142.	New Port at Belekeri	2,783
143.	Construction of break water at Mandwa	72
144.	Ro Ro service at Mandwa -Phase 2 of Mandwa port development	63
145.	Construction of Ro-Ro jetties at Gorai	7
146.	Construction of Ro-Ro jetties at Vasai	7
147.	Construction of Ro-Ro jetties at Bhayander	14
148.	Construction of Ro-Ro jetties at Narangi -Virar	7
149.	Construction of Ro-Ro jetties at Kharwadeshwari -Palghar	13
150.	Construction of Ro-Ro jetties at Manori	7
151.	Construction of jetties at Ghodbunder	8
152.	Construction of jetties at Malvan- Sindhudurg	10
153.	Construction of jetties at Borivali	15
154.	Capital dredging in Navigational Channel for Ro-Ro Pax Services at Mandwa	18
155.	Capital dredging at Versova	37
156.	Construction of passenger jetty at Bhavani island- Krishna district	22
157.	Construction of Passenger Jetty at Baruva in Srikakulam	59

1	2	3
158.	Construction of Tourism Passenger Jetty at Manginapudi-Krishna	74
159.	Construction of Tourism Passenger Jetty at Kothapatnam-Prakasam	62
160.	Construction of Tourism Passenger Jetty at Maypadu- SPS Nellore	58
161.	Development of Passenger Jetty- Sea Plane Jetty and upgradation of existing jetty at Kakinada	58
162.	Construction of a passenger Jetty at Bheemunipatnam	79
163.	Construction of a passenger Jetty at Kalingapatnam	48
164.	Development of passenger jetties at Kakinada Port for tourism	100
165.	Capital Dredging at Old Mangaluru Port -Bengre Side	29
166.	Construction of 1258m Wharf at Karwar Port	250
167.	Extension of Southern breakwater by 145m and construction of 1-160 m northern break-water at Karwar Port	215
168.	Construction of coastal cargo berth at Old Mangaluru Port	65
169.	Construction of Coastal cargo berth of 250 m at Karwar Port	61
170.	Capital dredging- including rock dredging at karwar port to increase the draft up to 16m	100
171.	Construction of Dry dock for Coastal vessels repairs at Old Mangaluru Port	60
172.	Construction of Breakwater both in North and South side of entrance channel- Berth-1- Berth-2 and Capital Dredging at Cuddalore Port -From entrance channel till cargo berths	135
173.	Coastal berth for passenger-cargo at Porbandar Port	37
174.	Upgrading of existing Alang - Sosiya ship recycling yard with the help of JICAODA Ioan	715

1	2	3
175.	Coastal jetty at Navlakhi for cement	108
176.	Construction of jetties at Shiroda	12.48
177.	Construction of jetties at Durbhat	5.20
178.	Construction of jetties at Cortalim-Rassaim	6.01
179.	Construction of jetties at Aldona	8.17
180.	Construction of jetties at Sanvordem	6.56
181.	Construction of coastal berths- dredging and construction of break- water at Azhikkal Port	496
182.	Construction of Multipurpose Coastal Berth at Kollam	19
183.	Construction of jetties at Raibander	7.11
184.	Construction of jetties at Old Goa-Divar	6.17
185.	Construction of jetties at Banastarim	9.89
186.	Construction of jetties at Pilgao	11.45
187.	Strengthening of existing revetment at eastern seashore of Chennai Port	63
188.	Extension of passenger berthing facility at Kanyakumari Port	20
189.	Dredging of RO-Pax Ferry Services between Gogha and Dahej in Gulf of Cambay	234
190.	Construction of passenger boat landing jetty at Kanhoji Angre Island	14
191.	Construction of Landing Platform for pleasure Tourism in Gurupur river	10
192.	Setting up of LNG facilities at HDC	200
193.	Construction of Coastal Berth at JNPT	143
194.	Modernisation of Infrastructure at Kakinada Anchorage Port	90
195.	New deep Sea port at Tajpur- Purba Medinipore- West Bengal	5,808

1	2	3
196.	Development of Sea Port Terminal at Phoenix Bay Harbour- Port Blair	27
197.	Development of Sea Port Terminal at (Havelock) Swaraj Dweep	25
198.	Providing separate approach way for cargo movement in Havelock jetty at Havelock	11
199.	Tourism Jetty at Durgadi -Kalyan in Thane District	9.12
200.	Tourism Jetty at Belapur in Navi Mumbai	8.48
201.	Tourism Jetty at Diveagar in Raigad District	7.81
202.	Tourism Jetty at Underi in Raigad District	9.12
203.	Tourism Jetty at Kashid in Raigad District	98
204.	Tourism Jetty at Padmadurg in Raigad District	8.3
205.	Tourism Jetty at Suvarnadurg in Ratnagiri District	8.8
206.	Tourism Jetty at Veldur in Ratnagiri District	7.99
207.	Tourism Jetty at Guhagar in Ratnagiri District	8.46
208.	Tourism Jetty at Chivla in Sindhudurg District	9.46
209.	Extension of berthing jetty at Campbell bay in Great Nicobar Island	49
210.	Development of New EQ-10 berth - Vizag	55.38
211.	Ship Repair Operations and Management of Ship Repair Facility at 7 Indira dock- MbPT	80
212.	Dredging the dock basin for coastal cargo berth at VOCPT- Dredging in front of dedicated coastal berth	98
213.	Construction of Ro-Ro jetty at Marve- Mumbai Suburban - Including. Terminal Building- Dredging- Parking	4.17
214.	Construction of Passenger jetty and Allied Facilities at Devichapada Dombivali- Tal.Kalyan.	12.68
215.	Construction of jetty at Arnala fort- Tal Vasai- Distt. Thane.	9.94

1	2	3
216.	Construction of Passenger Jetty at Ambavane shigwan in Ratnagiri district.	7.4
217.	International Cruise Terminal at Ernakulam Wharf	25.72
218.	Passenger Jetty at Vasco Bay- MoPT	21
219.	Capital Dredging for Puducherry Port	68.75
220.	Multipurpose Jetty at Chhoti Chowpatty -Marine Drive	45
221.	New Port at Machhilipatnam -Phase 1	11924
222.	New Port - Kakinada SEZ -KSEZ	2123
223.	New Port - Bhavanapadu	4000
224.	Development of Hughe's Dry Dock at MbPT	115
225.	Connectivity of IOHP and MCHP at PPT	66.47
226.	Development of Western Dock Basin -2 Captive berths for port dependent industries	2000
227.	Reconstruction of Q1 Berth at Mattancherry Wharf	5.02
228.	Refurbishment of South Tanker Berth	29.22
229.	Truck parking at Liquid Storage Tank Farm area	10.27
230.	Construction of Oil Jetty 9 at Kandla	159
231.	Construction of Oil Jetty 10 and 11 at Kandla	200
232.	Ferry service from Baina to Panaji	5
233.	Container scanners - JNPT	135
234.	Extended port gate at Balagarh	320
235.	Procurement of 1 no. Rail Mounted Quay Crane -RMQC at HDC	61.31
236.	Construction of 1.5 Lakh sq.meters of Hardstand inside HDC	54.48
237.	Container Scanner KoPT and HDC	40
238.	Construction of Additional car parking yard for RoRo cum GCB-2	50
239.	Development of LNG FSRU Terminal at NMPT	331

1	2	3
240.	Container scanners - PPT	40
241.	Development of Tourism Jetty- waterfront- promenade recreational facility at Jaigad Creek- Ratnagiri	69.82
242.	Mobile rubber tyred electrically operated hopper	38.08
243.	Ferry service between Tuticorin - Kanyakumari and Kanyakumari -Trivandrum	TBD
244.	Strengthening of existing EQ-7 berth to handle vessels of 14.5 m draft	16.5
245.	Setting up of FSRU in the Outer Harbour for LNG	200
246.	Cruise-cum-coastal cargo terminal	77
247.	JNPT-Mumbai Port Barge-Ship Operations to Reduce City Congestion and Create Value for Trade	160
248.	Development of domestic cruise terminal	15
249.	Tank Farm at JD5- MbPT	700
250.	Dredging at Vanakbara Port of UT of Daman and Diu	46.44
251.	Dredging at Diu port of UT of Daman and Diu	45.9
252.	Removal of 2 No.s Mooring of Spiral in the area of Cruise Berth -Mormugao	13.87
TOTAL Project Cost (₹ cr.)		139,284

#### Maritime agenda of ports

2518. SHRI A. K. SELVARAJ: Will the Minister of SHIPPING be pleased to state:

(a) whether it is a fact that Government has taken several measures to improve operational efficiency through mechanisation, deepening the draft and speedy evacuations;

(b) if so, the details thereof;

(c) whether it is also a fact that the maritime agenda 2010-20 has a target of 3,130 MT of port capacity by the year 2020; and