

Administrative Report 2022-2023



Infrastructure Development, Ports & Inland Water Transport ,
Government of Karnataka



**Karnataka
Maritime Board**



MARITIME MAP OF KARNATAKA



Approved Sagarmala Projects	
1	Construction of Coastal Berth of 250 mtr length at Karwar Port
2	Extension of existing Southern breakwater by 145m and construction of new North breakwater of 1160 Mtrs. at Karwar Port
3	Construction of 350 Mtr. long coastal cargo berth at Old Mangalore Port
4	Capital Dredging at Old Port Mangalore (Bengre)
5	Port Upgradation at Karwar Port - Installation of Firefighting Equipment at Karwar Port, Karnataka
6	Integrated Development of Tadadi - Aghanashini Waterway in Kumta Taluka of Uttara Kannada District
7	Development of waterways from Almatti to Bagalkot in Karnataka
8	Development of waterways on Gurupur (NW-43) in Mangalore Taluka of Karnataka
9	Gurupur River Islands Development in Dakshina Kannada District
10	Construction of Coastal Berth at Hangarkatta in Udupi Taluka of Karnataka
11	Development of Beach Front and Ancillary Infrastructure at Bengre
12	Construction of Coastal Berth at Gangolli in Byndoor Taluka of Karnataka
13	Development of Majali Fisheries Harbour in Uttara Kannada District, Karnataka
14	Dedicated Jetty for Lakshadweep with Allied Infrastructure facilities for Cargo and Cruise Terminal at old Mangalore Port

Projects under Positive Consideration of Sagarmala Cell, MoPSW	
A	Development of Multipurpose Harbour at Mangalore in Dakshina Kannada District
B	Development of Multipurpose Harbour at Baidur (Byndoor) in Baidur (Byndoor) taluka of Udupi District
C	Development of Multipurpose Harbour at Malpe in Udupi Taluk of Udupi District
D	Development of waterways on Kali River (NW - 52) in Karwar Taluka of Karnataka (Phase - 1)
E	Road Connectivity to Old Mangalore port
F	Development of waterways from Hangarkatte to Manipal in Udupi Taluka of Karnataka
G	Integrated Old Mangalore Port Development (Dedicated Lakshadweep Jetty, Cargo, RoRo/CoPax & Cruise Terminal)
I	Development of Maritime and Fisheries Institute at Karwar
J	Construction of landing platform for Tourism in Gurupur river at Sulthan Batherly in Mangalore
K	Construction of Tourism Passenger Jetties at GunmaGad Island in Karwar Taluka
L	Construction of floating jetties at 18 proposed locations for Tourism Purposes
M	Development of Gangolli Fishing jetty in Kundapur Taluk of Udupi District
N	Development of Floating jetties for Fisheries at 10 locations in Karnataka:
O	Installation of Floating Jetties & Ancillary infra at Byndoor
P	Installation of Floating Jetties MRO & Ancillary infra at Malpe
Q	Installation of Floating Jetties & Ancillary infra at Mangalore

LEGEND

- State Boundaries
- District Boundaries
- State Infrastructure
- Proposed Hubli Ankola Rail Line (HARL)
- Konkan Rail Line (KRCL)
- Railway Lines
- HMRDC Rail line
- National Highways
- State Highways

Ports in the State of Karnataka

- New Mangalore Port (Major Port)
- Non Major Ports
- Notified Non Major Port Areas
- Envisoned & Existing Non Major Ports (Capacity 0.3-1MTPA)

Port Capacities

- 1-5MTPA
- 5-7MTPA
- >7MTPA

Major Coastal Towns & Cities

Cities based on Population size

- 4-11K
- 11-40K
- 40-77K
- 77K - 1.5L
- 1.5-5L

Sagarmala Project at the location

**Proposed to be declared at National Waterway*
**Ports being taken up on PPP Basis*

Introduction

Sea Ports are important gateways for trading of commodities between regions. The ports form a major infrastructure in the logistic chain of activities in economic transport of goods. It is a known fact that there is a big gap between the current capacity of ports in India and the huge demand for port services.

In India, marine transport has the highest modal share of export-import cargo. Sea routes provide an efficient and cost-effective mode of transporting large quantities of goods. As per the Ministry of Ports, Shipping and Waterways, (MoPSW)'s estimates, the traffic at seaports is likely to grow exponentially in the coming years.

With the growing cargo traffic across the Indian coastline, it is essential to develop high-quality port infrastructure with commodity focus. The Major ports in India have a total of 249 berths, 9 single buoy moorings and two barge jetties to handle cargo traffic. However, it must be noted that Indian ports largely continue to remain dominated by multipurpose berths (approximately 60%), which evidently is falling short of specialized commodity focused requirements.

The Karnataka Maritime Board (KMB) is responsible for the infrastructural development related to the Non-Major Ports and Waterways in the state of Karnataka.

The objective of KMB is to facilitate seamless Supply-Chain logistics for Cargo movement responsibly across/within Indian states and to serve as International Transshipment Hub.

The state at present, exports a wide variety of goods such as agricultural and industrial covering silk, sandalwood oil, handicrafts, readymade garments, coffee, iron ore, sophisticated machine tools, electronic products, computer hardware and software, inter alias. Further, in the last two decades the State has emerged as a major player in the export of engineering goods, readymade garments, leather goods, chemicals, minerals, and ores. This further heightens the need for efficient cargo evacuation infrastructure at the non-Major ports of Karnataka.

Karnataka At a Glance

Karnataka is one of the nine coastal states of India. The State has a coastline of approximately ~320 km which houses 13 non-Major ports and One Major port spread across the three coastal districts of Uttara Kannada, Udupi and Dakshina Kannada. Presently, the state of Karnataka is responsible for handling ~4.5% of India's total port cargo.

The Indian Non-Major Ports have handled about 615 million tons of cargo in FY 2020, out of which Karnataka's Non-Major Ports have handled only 0.93 million ton (which is 0.15% only).

The state requires state of the art infrastructure facilities and the upgradation of the ports from shallow water to deep water port to provide adequate draft to handle large vessels. The Department has recognized the pressing need for holistic development of the State's Maritime Sector. These developments will, in addition to augmenting activities such as Maritime Trade, Logistics, Tourism and Fisheries, ultimately enhance the socio-economic scenario of the hinterland.

Imports & Exports

Karnataka exports a wide variety of goods both agricultural and industrial covering sophisticated machine tools, electronic products, computer hardware and software along with silk, sandalwood oil, handicrafts, readymade garments, coffee and iron ore. In the last two decades the State has emerged as a major player in the export of engineering goods, readymade garments, leather goods, chemicals, minerals and ores.

Positioning the Karnataka Coastline – Strengths

1. Developed Industrial Hinterland

Karnataka has 2nd highest GSDP (*Gross State Domestic Product*) growth rate among maritime states due to its developed industrial hinterland. This includes ~40 MTPA of cement capacity, ~25 MTPA of iron & steel capacity, ~10 GW of installed thermal power plant. A developed industrial hinterland provides gateway cargo and is extremely important for the development of any port.

As most of the coastal and adjoining industries are under ecologically sensitive area both industrial development of these regions and its rail connectivity with the industrial hinterland has been limited so far. But focusing on cargo which use modes other than rail, such as waterways, as primary mode of first/ last mile transportation such as stock & sale thermal coal, pet coke, etc. can help in removing this constraint on development.

2. *Serene & Picturesque Coastline*

The State has a long coastline with serene beaches, picturesque landscape and tourist spots such as Karwar, Kundapura, Gokarna, Udupi, etc. The 320 kms coastline of Karnataka with its beaches and islands aided by rivers, Western Ghats and forests creates a potential for tourism development.

The tourist footfall in the coastal locations of Karnataka have been rising. The approval of the Airport project in Uttara Kannada district will further augment tourist footfall in the region.

Development of niche tourism products such as luxury yachts and cruises, water sports activities, superior tented accommodations, island resorts and marina development etc. will all be major attractions that can pull in crowds especially from urban centres such as Bengaluru and Mumbai.

3. *Well Spread and Connected River Network*

The State has several waterways including Kali, Gurupura, Netravati, Suvarna and Almatti. Development of boating activities, water sports activities, cafes, luxury accommodation as well as development of infrastructure such as docking stations for tourist boats will augment tourist inflow to these spots. Further, development of inland waterways can also serve to boost connectivity of ports to hinterland industrial areas which will hugely boost exports from these ports leading to employment and development of the region.

Principle Laws and Enactments enforced to be enforced by IDP& UWT

The Department is enforcing the following enactments in respect of Ports and Ferries/ Waterways in the State:

- Indian Ports Act, 1908
- Karnataka Harbour Crafts Rules, 1963
- Karnataka Ports (Landing and Shipping Fees) Act, 1961 and Rules
- Merchant Shipping Act, 1958
- Merchant Shipping (Sailing Vessels) Rules, 1997
- Inland Vessels Act, 1917
- Karnataka Inland Vessel Act, 2006
- International Ship and Port Facility Security Code (I.S.P.S.) Code.

Major Regulatory Functions

With a view to achieve various objectives the Department discharges the following regulatory functions:

- Regulation of Navigation at the ports.
- Landing and Shipping of goods at the ports.
- Maintaining and hiring of marine Floating crafts and cargo handling, equipment such as Cranes, Tugs, Water Barges, Weigh Bridge etc.,
- Execution, supervision, and Maintenance works of Port structures.
- Dredging at the Ports and channels for safe Navigation.
- Maintenance of Navigational Aids such as local Light Houses, Buoys and beacons.
- Registration, Survey, and Inspection of sailing vessels / Inland vessels / Harbor crafts.
- Constructions management of Port Estate Installations, Transit sheds etc.,

-
- Examination and issue of Certificate of competency to Engine, Drivers, Masters, Sarongs under Karnataka Harbor Craft Rules/ I. V. Rules.
 - Levying and collecting the fees on vessels entering the port and on Harbor crafts, Cargo landed and shipped.
 - Conducting Hydrographic surveys of the Ports & Waterways in a phased manner.
 - Conducting enquiry about casualties / wrecks, jettisoning
 - Supervising of Liquid Cargo terminals and handling of liquid cargo at the port.
 - Manning the Fire Fighting Equipment's.
 - Manning the Oil Spill Response Equipment's.
 - Maintaining the Security System as per I.S.P.S. requirement.
 - Inspection and issue of Certificate of fitness to crafts deployed in Ferries and Waterways.
 - Providing modernized and mechanized crafts and operating departmentally more important ferries and waterways in the state.
 - Auctioning and supervising operation of Ferries through contract system.
 - Construction of jetties, platforms, Approach Roads for Ferry Services.
 - Execution of Coastal Protection Works.

The cargo traffic handled at the Non-Major Ports of the Karnataka and statistical information thereon are furnished in Annexure – II to Annexure VI. The Statement of Traffic handled at the departmentally managed Ferries and Waterways are furnished in Annexure – VII to Annexure X. The statement showing the receipts and charges of the department is shown in Annexure XI to Annexure XVI.

Non-Major Ports in Karnataka

The state's non major ports stretch from Karwar located in the Uttara Kannada district till the Old Mangalore Port at the tip of the Dakshina Kannada district.

The State has 13 non major ports listed as follows:

- i. Karwar
- ii. Keni
- iii. Belekeri
- iv. Tadadi
- v. Pavinakurve
- vi. Honnavara
- vii. Manki
- viii. Bhatkal
- ix. Kundapura
- x. Hangarkatte
- xi. Malpe
- xii. Padubidri
- xiii. Old Mangalore



Figure 1: Non-Major Ports in Karnataka

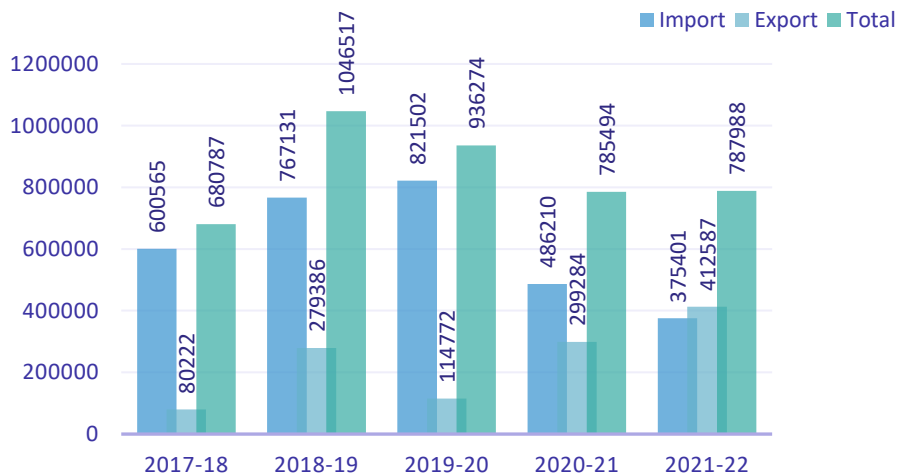


Figure 2: Traffic Handled at Non-Major Ports of Karnataka

i. Karwar Port

The Karwar port is located at the northern most extremity of the state of Karnataka. (*Latitude 14° 48' N & Longitude 74° 7' E*). The Port is located close to the Major Port - Mormugoa Port at ~92 km. The Karwar Port Division is one of the 4 Divisions of the Department, consisting of the port of Karwar, Sadashivgad and Belekeri Port with Divisional Head Quarters at Karwar.



Figure 3: View of the Karwar Port

The Karwar Port is an I.S.P.S compliant port and is acclaimed as one of the best natural all-weather ports on the western coast. Further, the port is permitted to handle class “C” & “B” petroleum products. The port is rightly located midway between the major ports at Mumbai and Mangalore and near the Mormugao Port, Goa, serving the needs of the trading community interacting these with western destinations. Given that there is only one major port at Mormugao between the major ports at Mumbai and Mangalore, Karwar which is located midway between the ports at Mumbai and Mangalore caters to the trading needs of northern Karnataka, Andhra Pradesh, and Maharashtra. The port is located beside the National Highway 66 that connects Mumbai and Kochi which is one of the busiest corridors in the country. Further, the port is also only 8 km away from the Konkan Railway network.

The Port caters to the requirements of 2 lakh sq.km of Hinterland of Northern / Central Karnataka, comprising the districts of Belgaum, Dharwad, Gadag, Bijapur, Bagalkot, Raichur, Bellary, Hospet, Chitradurga, Shimoga etc., and a few districts of South Maharashtra, West Andhra Pradesh and Southern Goa. Karwar Port is strategically located for handling of Mineral products, agricultural products, horticultural products, Marine Products.

The Non-Major ports in Karnataka have seen continuous growth in traffic, especially through export-import (Exim) transactions over the past 4 years.

A majority of these transactions have been carried out through Karwar Port. The details of the traffic handled at the port and the principal commodities transacted through Karwar Port are provided as below:

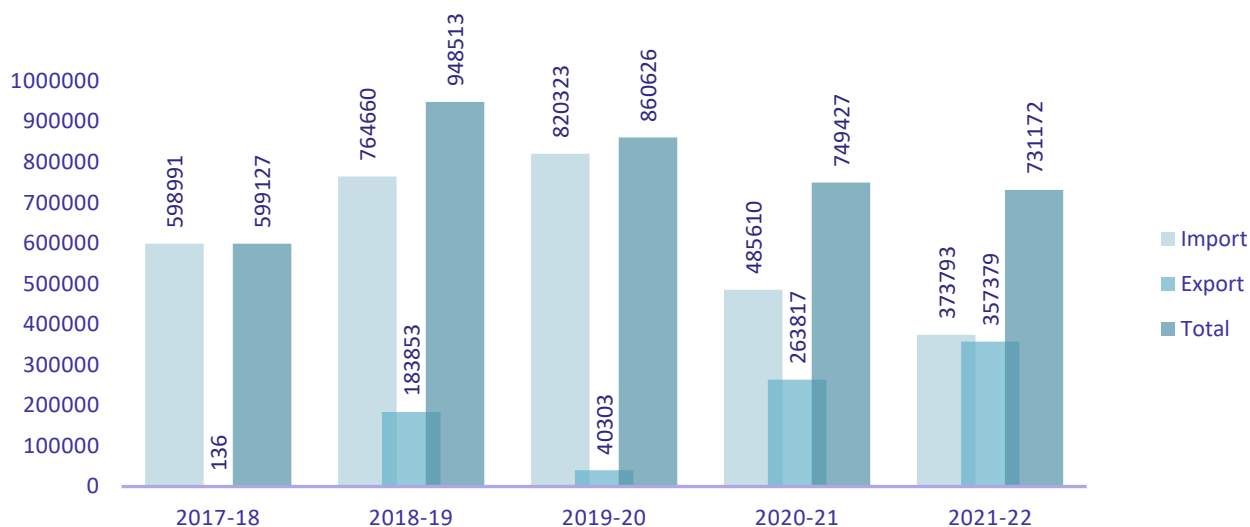


Figure 5: Traffic Handled at Karwar Port (in Metric Tons)

Exports	Imports
<ul style="list-style-type: none"> Sugar, Alumina, Food grains, Maize, Granite, Horticulture and Agriculture products. Liquid cargoes like Molasses, phosphoric acid, marine products. 	<ul style="list-style-type: none"> Cement, Sugar, Food Grains, Fertilizers and Industrial salts, Rock Phosphate, Raw Sugar, Caustic Soda Solution. Liquid cargoes like H.S.D, Furnace Oil, Kerosene, Palm Oil, Molasses and other Chemicals.

Figure 6: Table showing commodities of export and import at Karwar Port

Given the strategic location of the Karwar Port, it has a lot of untapped potential and is currently underutilized. To unlock the port's potential, the Government of Karnataka has undertaken the 2nd Stage development of the port under Sagarmala with state-share. The components include extension of 1,508 meters jetty, construction of new breakwaters of 1,300 meters, increasing the depth to -14 meters and other matching infrastructure at an estimated cost of ~1,200 crores.

The State Government has developed Karwar Port and created infrastructural assets approximately worth of Rs. 150 Crores. Further, other basic infrastructure for container handling is also under construction. At present, Private entrepreneurs have already constructed 35 Liquid Cargo Storage Tank Terminals with the storage capacity of ~1.5 lakhs cu. m.

HINTERLAND CONNECTIVITY

For Uttara Kannada, the connectivity to the ports is majorly through the NH 66 for road and via the Konkan Rail Line for road movement.

The proposed Hubli Ankola Rail Line if/when operational will significantly reduce travel time to these ports.



Figure 7: Hinterland Connectivity to Karwar and other ports in Uttara Kannada

COMMODITY-WISE DETAILS OF IMPORT CARGO HANDLED AT KARWAR PORT (IN METRIC TONNES)

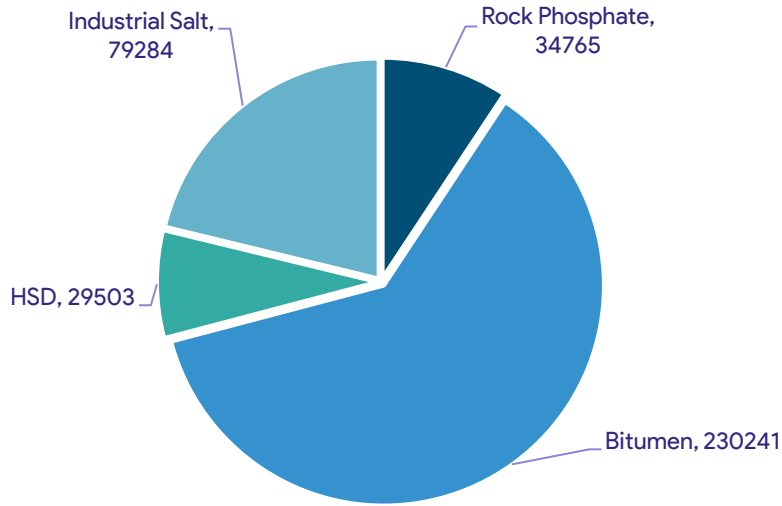


Figure 8: Commodity Split of Import Cargo

TOTAL: - 3,73,793

COMMODITY WISE DETAILS OF EXPORT CARGO HANDLED AT KARWAR PORT (IN METRIC TONNES)

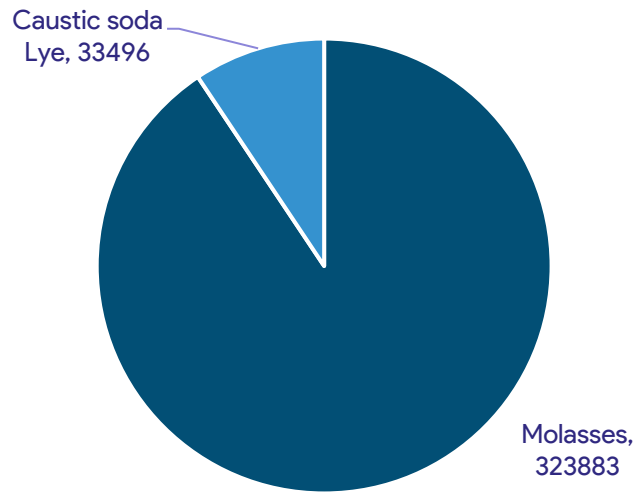


Figure 9: Commodity Split of Export Cargo

TOTAL: - 3,73,793

EXISTING INFRASTRUCTURAL FACILITIES AT KARWAR PORT

The key infrastructural components that are available at Karwar Port and had been developed under 1st Stage development are as follows:

1. 515m wharf accommodating 2 ships and other matching facilities.
2. 205 meters lighterage wharf of 3.5 Meters draft
3. 250 m. long breakwater
4. Departmental transit sheds – 4 Nos
5. 30 Tonnes capacity Mechanical weigh bridge
6. Bunkering facilities by IOC
7. Diesel Generator 63 KVA
8. Land Area available approximately 200 acres
9. Sufficient cargo handling equipment like Gantry crane, escort crane, pay loader, shovels, JCB, forklifts etc., are available with private entrepreneurs.
10. 45 liquid cargo storage Tank terminals of 2 lakhs cubic meter installed storing capacity were constructed by private entrepreneurs.
11. Signal Station, Flag – mast and transit marks Tidal observatory watch tower as per ISPS requirement.
12. Traffic control Tower and communication tower with Automatic identification of Ship (AIS) with Rader and digital – VHF
13. Oil Spill Response Equipment IMO-LVL 1
14. Tugs for berthing and un-berthing operations chartered by private parties.

DETAILS OF LAND AREA (INCLUDING SADASHIVGAD PORT)

1. Total land available: 6,91,524 sq.m.
2. Land allotted for Shipping activities (Govt & Others): 2,14,335 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 2,70,948 sq.m.
4. Remaining Port Land: 2,06,244 sq.m.

VESSEL NATIONALITIES HARBORING AT THE NON-MAJOR PORTS IN KARNATAKA

Europe	Americas	Africa	Middle East	Asia
<i>UK, Cyprus, Greece, Turkey, Norway, Croatia, Malta</i>	<i>Honduras, Panama, Bahamas, Saint Vincent, Cayman Islands</i>	<i>Liberia</i>	<i>UAE, Qatar, Iran, Saudi Arabia</i>	<i>Indonesia, Cambodia, Thailand, Singapore, China, Malaysia, Sri Lanka, Russia,</i>

ii. Old Mangalore Port

The Old Mangalore Port is situated on the banks of Gurupur river near the confluence of Netravati and Gurupur rivers with Arabian Sea approximately at a distance of ~10 Kms, south of the New Mangalore Port. This port has been deepened by dredging to maintain a draft of ~4m to handle vessels alongside the wharf. A 300m wharf is available at the South of this port. A signal station is already in operation. The cargo handled through Old Mangalore Port during the year 2019-20 was 74,390 metric tonnes.

The Port also has a vast & rich hinterland. The port is connected to the Mangalore city via the NH 66, NH 48 and NH 213. The Konkan Railway and Southern Railway both pass close to the Port. The Port mainly caters to the requirements of the Lakshadweep Islands. The administration of the Lakshadweep Island largely dependent on the Old Mangalore Port for the transportation of construction materials, provisions, and all day-to-day requirements. The Passenger ships ply regularly between the Mangalore Old Port to Lakshadweep islands.

As it is such a crucial port, the department has planned various projects for it. Under the Sagarmala Scheme, a coastal berth is being planned at this port. Further, the draft is being increased to ~7 meters as proposed under the scheme. The Government of Karnataka has also planned the development of multiple projects at this port under the Sagarmala Scheme, such as the construction of a 350-meter-long coastal cargo berth at the port. Furthermore, DPR for the development of a 15 km long proposed Class III waterway that is situated on the Gurupura River has been approved.

At present, the Old Mangalore Port has the following facilities:

- South –Wharf ~320 Meters land
- Salt & Central Wharf ~150 Meters land
- North – Wharf of 500 meters length (*Dry Masonry Wall*)
- Dry Dock facilities for the Mechanized Sailing Vessels and other vessels up to 30 meters length
- Crane of 10 Tonne Capacity.
- Fresh water supply facilities
- Lighthouse and Signal Station.
- Transit shed of 500 M.T. Capacity.
- Further, at the Port, a TATA 320 Cranes is available for Cargo handling, and Private Operators using their own / Hired equipment for cargo handling presently under repair.

DETAILS OF LAND AREA

1. Total land available: 23,66,568.64 sq.m.
2. Land allotted for Shipping activities (Govt & Others): 21,88,226.16 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 80,936 sq.m.
4. Remaining Port Land:97,406.48 sq.m.

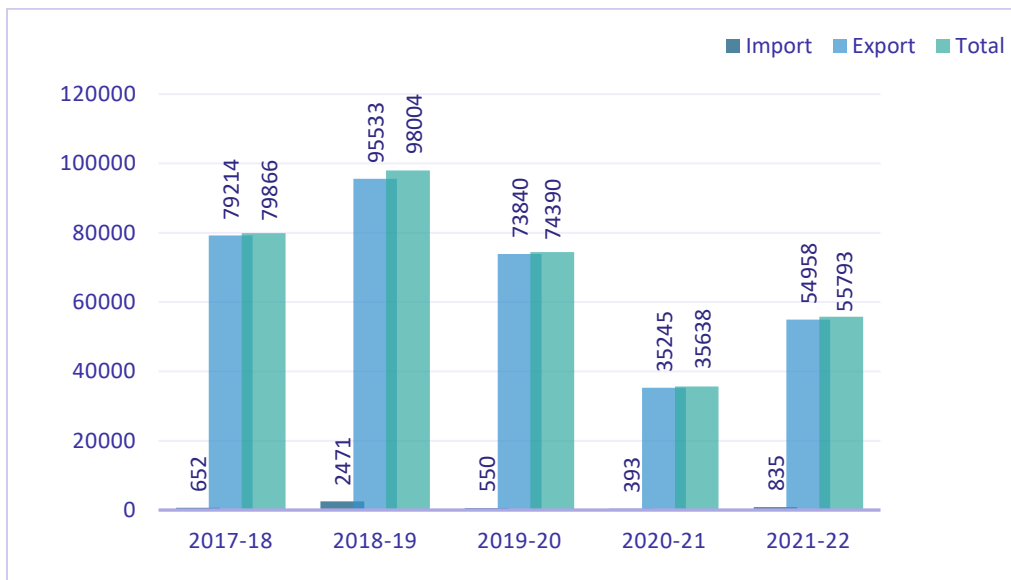


Figure 10: Traffic Handled at Old Mangalore Port (in Metric Tons)

COMMODITY WISE IMPORT AND EXPORT AT OLD MANGALORE PORT

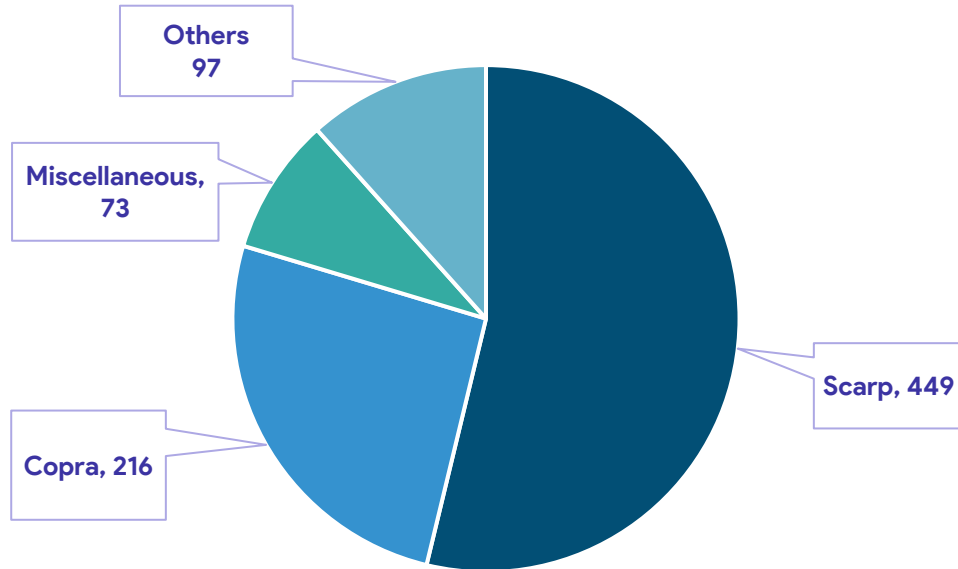


Figure 11: Imports at Old Mangalore Port

Total: 835

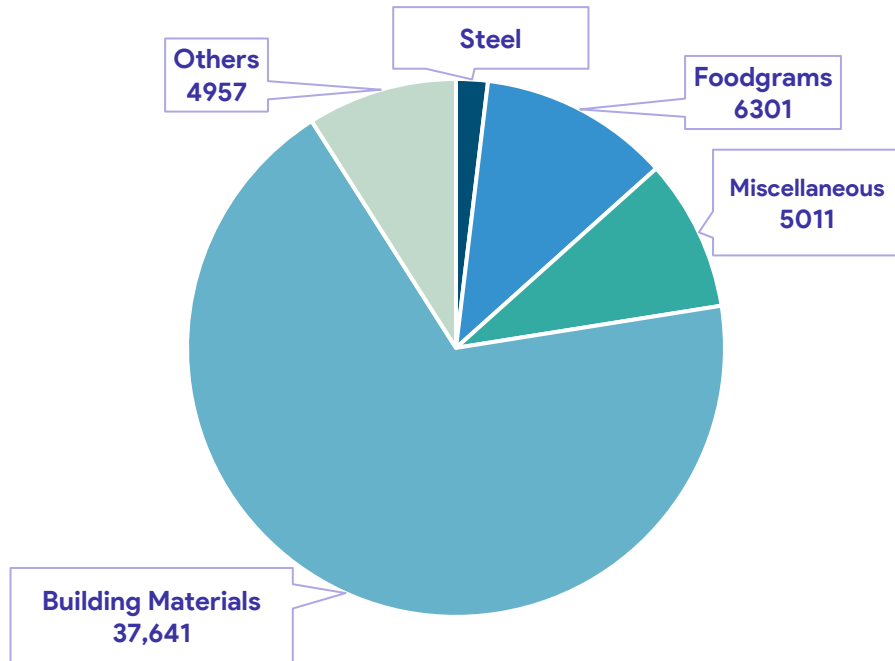


Figure 12: Exports at Old Mangalore Port

Total: 54,958

iii. Honnavar Port

The Port of Honnavar is located at (Latitude 14° 16.30' N & Longitude 74° 7.10 E) the mouth of the Sheravati River in the Uttara Kannada District. The Port of Honnavar is surrounded by hills, Forest and Sharavathi river. The environment position of the port is quite good and there is no environmental threat.

The development at this port is already underway by M/s Honnavar Port Pvt. Ltd. (HPPL). The development of the Port will be advantageous to the local populace with the provision of various improvements like increased draft due to dredging and other infrastructural facilities like Breakwaters and Approach Roads. The development of the port will also help boost business opportunities in the hinterland.

HONNAVAR PORT: EXISTING FACILITIES

1. First stage lighterage wharf of 400 m length with a stacking area of 69,000 sq.ft.
2. Second stage lighterage wharf of 564' long with about 3,00,000 sq.ft. of stacking area.
3. Transit shed for the storage of imported and exported cargo.

HONNAVAR PORT DEVELOPMENT: SALIENT FEATURES



Figure 13: Images of work in progress at Honnavar Port

1. Construction of northern breakwater 820m long.
2. Construction of southern breakwater 865m long.
3. Construction of Berth size 440mtrs x 30m with 2 no's approach trestles in Stage 1.
4. Dredging of navigation channel up to -15mtrs

5. Channel Width 150 mtrs.
6. Outer channel length 2280mtrs.
7. Inner channel length 1395mtrs.
8. Turning Circle Radius of 350mtrs. in Phase-1 and will be expandable up to 600mtrs for larger vessels in Phase 2.
9. Vessel capacity – up to 60,000 DWT in Phase 1
10. Vessel capacity – 1,00,000 DWT up to 1,20,000 DWT in Phase 2

DETAILS OF LAND AREA

1. Total land available: 56,812 sq.m.
2. Land allotted for Shipping activities (Govt & Others): 8,553 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 7,567 sq.m.
4. Remaining Port Land: 40,692 sq.m.

iv. Keni Port

Considering the rising demand in comparison to the current meagre cumulative capacity in the coastline, there is a clear need for an additional deep draft port specifically to be located in the northern end of the coast considering the presence of NMPT in the southern end. Keni is one such suitable site for an All-weather, Greenfield, Multi-cargo, direct berthing, deep-water and commercial port.



Figure 14: Proposed Port Location - Keni Port

A bifurcation of the Ports limits for the proposed Keni Port was undertaken while keeping the overall limits for the proposed Keni Port was undertaken while keeping the

overall limits of the Belekeri Port Intact. The Gazette Notification no. IDD 280 PSP 021(E-632148) was issued on 11.04.2022. The Government of Karnataka has accorded the administrative approval vide G.O. No. IDD/68/PSP/ 2022 (E-746686), dated 08.04.2022. Keni port is envisaged as an all-weather, greenfield, multi-cargo, direct berthing, deepwater and commercial port for handling cargoes on the west coast in North Karnataka region to serve the industries in the area covering Bellary, Vijayanagar, Hubballi, Kalaburagi and South Maharashtra.

The proposed site is located at ~144kms from the Hubli airport, 8.2kms from the Ankola Railway Station, and is approximately 5 kms away from NH 66 which runs along almost the entire western coastline of India connecting Mumbai in the north and Kanyakumari the south. The location of the Port is well connected to the hinterland through National and State Highways. Through existing roads, the proposed Port location is approximately 4.2 Km from the Edapally-Panvel or Kochi-Panvel Highway (NH 66). With regard to railway connectivity, the Konkan railway line is at a horizontal distance of 3.8 km from the site. There is a hinterland potential primarily of coal and coke cargo which is being utilized for steel, cement and power plants. It is also further supported by Iron ore, limestone, dolomite handlings and export of finished steel products. The port is expected to be of the capacity of 27 MTPA in the medium term and 56.5 MTPA in the long term. The following infrastructural facilities are envisaged for the Proposed Port:

Port Details	Description
Estimated Project Cost	₹4118.84 Cr.
Port Capacity	~30 MTPA
Port Vessels	Capsize, Handymax & Panamax
No. of Berths (min)	2
Vessel Draft	18m
Total Land Requirement	200 Hectares (494 Acres)

PROPOSED KENI PORT DEVELOPMENT: SALIENT FEATURES

- Provision of two breakwaters and adequate Dredging to handle vessels up to 2,00,000 DWT.
- The marine infrastructure for the facility would include the required berths, turning circle, channel of required length etc.
- Provision of tugs, mooring launches, survey launch and pilot launch.
- Backup area of approx. 500 acres, *(proposed to be created with dredged material)*
- No land acquisition or displacement envisaged for the port except for the road and rail connectivity.
- Appropriate width of roads up to backup area for commodity / trucks movement.
- Provisions for utility infrastructure such as power and water would be developed as per the requirement.

V. Pavinakurve Port

The Government of Karnataka in their Notification No: PWD 107 PSP 2013 Dated: 09.12.2013 has declared the Port Limits of Pavinakurve Port in Honnavar Taluk for the development of Captive Port.

In terms of traffic, this port will be highly dependent on its hinterland comprising Uttar Kannada, Shivamogga, Belagavi, Haveri, Koppal, Bagalkot, Davangere &

Bellary and also South Maharashtra & border of Andhra Pradesh. The vision is to develop the site as an All Weather, Deep Water, Multi Cargo, Greenfield Port. The proposed site for development of Pavinakurve port is located near Pavinakurve village, Honnavar



Figure 15: Proposed Port Location at Pavinakurve

Taluka of Uttar Kannada district, Karnataka. The geographical location of the port is positioned at Latitude 14^o 18' 49.1" N, Longitude 74^o 24' 54.4" E.

Pavinakurve is well connected to the hinterland through National and State Highways and has a lesser gradient compared to Goa & Mangalore, making it easier to move cargo by road. The National Highway No. 66 passes very close to the port site.

With regards the railway connectivity, the Konkan Railway passes just a couple of kilometers away. Thermal coal, Iron ore, coking coal and dolomite would be the key commodities that can be catered by the proposed port. The port will operate as a Commercial Port for Industrial hinterland of Central & North Karnataka and for the adjacent states of Telangana and Southern part of Maharashtra. It is estimated that the proposed port has a present potential of attracting thermal coal traffic of 3 MTPA which can go up to 4.2 MTPA by 2030. The current potential is estimated on the basis of Pavinakurve being better placed given the shorter distance from most of the Steel plants and power plants located in the hinterland. The port would be better placed to handle iron ore moving inbound to Bellary region as compared to Krishnapatnam, since the distance from Belekeri to Bellary is significantly lesser than the distance between Bellary and Krishnapatnam port. This will result in reduced logistic costs and Pavinakurve port may become the primary port to handle iron ore traffic in future. The traffic cargo potential of the proposed Port is expected to be 14 MMTPA in the short term and will potentially increase to 37 MMTPA in the long term by FY50. A Detailed Project Report (DPR) has already been prepared to envisage the port under the PPP model.

PROPOSED FACILITIES

Port Details	Description
Estimated Project Cost	₹3047.86 Cr.
Port Capacity	~14 MTPA
No. of Berths (min)	2
Vessel Draft	18m

Total Land Requirement	114.9 Hectares (284 Acres)
Land for Approach Road & Rail Connectivity, utilities etc. <i>(to be acquired)</i>	25.9 Hectares (64 Acres)
Berth Length	600m
Turning Circle	600m
Channel length	
Approach Channel	8900m
Entrance Channel	1100m
Channel Width	240m

SALIENT FEATURES

- The Pavinakurve Port is envisaged as a modern Greenfield Deep water Port to boost EXIM - with capacity of ~14 MTPA and having 2 berths in the initial phase.
- The Port would have modern environment friendly high throughput equipment with deep draft berthing facilities for handling of cape size vessels up to 1,80,000 DWT capacity, enabling the Port to meet the present and future requirements of trade and shipping.
- Construction of breakwater protected harbour on the leeward side of the Basavarajdurga Island estimated with 8 km long channel.
- The average productivity is envisaged to be 70,000 TPD for iron ore and 40,000 TPD for Coal.
- Being predominantly a bulk import terminal, it can serve the social good through export of Agro-products and the locally finished steel products and can also supply fuel to the existing power plants in the hinterland.

vi. Manki Port

This is a newly declared port located at south of Honnavar Port in Honnavar Taluka, the port limits of the Manki Port have been declared vide Govt. Notification No: - PWD 86 PSP 2010. Dt: 18.11.2011. The proposed port would be located in Manki



Figure 16: Indicative Port Layout, Manki

village, in Honnavar Taluka in Uttara Kannada district of Karnataka. It is strategically located between the ports of Goa and Mangalore, about 100 km from Karwar. The proposed location of the port at Manki is at 14.142879° N, 74.478421° E. The closest airport is Mangalore, and the closest railhead is Manki with a proposed Airport at Ankola.

The proposed site at Manki generally has a plain terrain with slight undulation towards the western end. There is a protrusion in the ocean which can potentially be used as a breakwater. This location has immense potential for development of a bulk cargo port capable of handling the potential captive cargo of the industries in the hinterland. There are majorly three types of bulk cargo namely, Dry Bulk, Liquid Bulk and Break Bulk.

A railway line runs parallel alongside the NH 66, which runs in proximity to the Port. Manki Railway Station is the nearest station at about 5 km away (aerial distance) from the port. It is a single electric line running between Karwar and Thokur. The major commodities that would be catered to at Manki port are Iron Ore, Coal and Pet Coke, Limestone and Steel Finished Goods. These would be catering to the hinterland industries of Iron & Steel, Cement factories and thermal power plants.

PROPOSED FACILITIES

1. The port will be constructed for a capacity of 15 MTPA in Phase 1.
2. The port would be capable to handle Capsized vessels of up to 1,80,000 Deadweight Tonnage (DWT).
3. The proposed productivity would be 70,000 TPD for Coal and 40,000 for Iron ore.

vii. Bhatkal Port

The Bhatkal Port is located (*Latitude 13° 58' North and Longitude 74° 32' East*) at the mouth of Sharavathi river in Uttara Kannada District, near the Bhatkal lighthouse. The climate of this port is typically characterized by high temperature and humidity. Bhatkal port is surrounded by river and hills and there is no environment threat to this port.

Presently, fishing vessels are utilizing the facilities of the port. The existing fishing harbour is located inside the inlet. The approach channel to the port is protected by the headland itself in the north and a breakwater in the south.

EXISTING FACILITIES

1. Lighterage wharf 186mlength with a stacking area of 15,888 sq.m.
2. Transit shed for the storage of cargo.
3. Import/Export cargo shed 20 m in length and 7.50 m in breadth.

DETAILS OF LAND AREA

1. Total land available: 8,645 sq.m..
2. Land allotted for Shipping activities (Govt & Others): 5,030.25 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 1,544.58 sq.m.
4. Remaining Port Land: 2094.64 sq.m.

viii. Hangarkatta Port

The Hangarkatta Port is located (*latitude 13° 27' North and 74° 42' East*) at the mouth of Sita River in Udupi District. The climate of this port is typically tropical characterized by high temperature and humidity. Additionally, the DPR for a 15 km long proposed Class III waterway situated on the Suvarna River has also been approved. The total funding for this project is ~INR 78.28 Cr from the State and Central Government.

M/S Waterways Shipyard Pvt. Ltd. has developed a modern Ship building yard at Hangarkatta Port, with the Ship building and Ship repair activities are in full swing and plans of expansion.

EXISTING FACILITIES

1. Wharf in front of Port Office
2. 2 Nos. Wooden jetties
3. 1. No. Flag mast

Further, the Hangarkatta Coastal Berth has also been approved vide order no. IDD/166/PSP/2021, Dated: 12-04-2022 and construction will commence soon.

DETAILS OF LAND AREA

1. Total land available: 31,648 sq.m
2. Land allotted for Shipping activities (Govt & Others): 5,258 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 10,118 sq.m.
4. Remaining Port Land: 16,272 sq.m.

ix. Malpe Port

The port of Malpe is located (*latitude 13° 21' North & longitude 74° 42.5' East*) at the mouth of the Malpe River in Udupi District. It is amongst the largest fishing harbours in Asia. Malpe is a major fishing harbour with the provision of a breakwater for guiding the river flow and is working as an efficient fishing harbour. The 1st Stage Development of the Malpe Port is to be undertaken at an estimated cost ₹ 165.00 lakhs. The islands in

the region near the port, remain untapped and provide a massive opportunity to investors interested in tourism projects. M/s. Tebma Shipyard Limited (Now M/s Cochin Shipyards Ltd.) has been approached with the vision to develop a modern ship building and ship repair yard at the port. Besides providing better employment opportunities to the people of the region, the port helps to earn huge revenue to the state.

EXISTING FACILITIES

1. RCC Wharf 84 m.
2. Passenger jetty
3. Passenger shed (104' x 23'.8") 1No.
4. Cargo shed (53' x 23') 1No.
5. Flag mast
6. Transit light wooden mast
7. Light House (*Handed over to Central Government*)

DETAILS OF LAND AREA

1. Total land available: 4,53,248 sq.m.
2. Land allotted for Shipping activities (Govt & Others): 1,20,834 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 19,142 sq.m.
4. Remaining Port Land: 3,13,272 sq.m.

x. Kundapur Port

The port of Kundapur (Gangolli) is located (*latitude 13° 38' North & Longitude 74° 40.50' East*) at the confluence of 5 rivers forming the Gangolli (Panchagangavali) river basin in Udupi District. The weather is generally fair throughout the year except during the Southwest Monsoon. Many islands are situated near this port and offer a huge opportunity for tourism development projects. The development of the Kundapur Coastal Berth has been approved vide order no. IDD/168/PSP/2021(E-518496), Dated: 26-11-2021.

EXISTING FACILITIES

1. Storm Groyne near port office Gangolli 159 length.
2. R.C.C. wharf measuring 700' x 124'.
3. Stacking platform cum jetty of Kundapur side measuring 181' x 136'.
4. Transit shed and Labour amenities building

DETAILS OF LAND AREA

1. Total land available: 2,66,203 sq.m.
2. Land allotted for Shipping activities (Govt & Others) : 1,60,903 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 57,628 sq.m.
4. Remaining Port Land: 47,672 sq.m.

xi. Tadadi Port

Tadadi Port is located (latitude 14°13.50' North & Longitude 74° 21.50' East) at the mouth of Aghanashini River in Uttara Kannada District. The Konkan Railway line and N.H-66 are near the port area. Further, there is also the presence of the NH 63, the proposed Hubli-Ankola Railway line and Honnavar-Tumkur N.H-206.

Tadadi also has many tourist hotspots in proximity, such as Gokarna. Hence, the Government envisages to develop it as an eco-tourism hub.

EXISTING FACILITIES

1 RCC Jetty, 1 Transit Shed and a Light House Structure

DETAILS OF LAND AREA

1. Total land available: 10,268.92sq.m.
2. Land allotted for Shipping activities (Govt & Others): 1,568.08 sq.m.
3. Department Land used for Jetty, Quarters, Road & Godown: 6,421.3 sq.m.
4. Remaining Port Land: 2,279.54sq.m.

xii. Padubidri Port

The Padubidri is a new port in Udupi District, the limits of which have been declared in exercise of the powers conferred by Section - 5 of the Indian Ports Act 1908 and through the Government Notification No. PWD 117 PSP 98 dated: - 12.10.1998 w.e.f. 1-11-1998, the limits of the said port have been declared. No port infrastructures exist in the port.

xiii. Belekeri Port

The proposed site for development of Belekeri port, is located in Ankola taluka of Uttara Kannada District of the state of Karnataka-The co-ordinates of the site are 140 42' N and 740 15' E. The deep-water contours are close to the Project Site and the abutting land area has relatively flat terrain. A suitable waterfront of about 2 km is available for port development between fishermen's colony and area earmarked for the Indian Navy.

EXISTING FACILITIES

- 4 Nos. of barge loading chutes of 3m draft.
- Dry stone masonry wharf of 250m Length.
- Transit shed with floor area of 146.08 sq.m.
- Electrification of wharf area loading chutes.
- Aga light sun valve in Kukeral Island.

DETAILS OF LAND AREA

- Total Land Available: 4,72,880 sq.m.
- Land allotted for Shipping activities (Govt & Others): 18,250 sq.m.
- Department land being used for Jetty, Quarters & Godown: 2,196 sq.m.
- Remaining Port Land: 4,52,434 sq.m.

Projects proposed under the Sagarmala Scheme

The following projects were proposed under the Sagarmala Scheme, off which 22 projects have been given Administrative Approval by the Sagarmala Cell, MoPSW. Further remaining 16 projects are under positive consideration.

Karnataka Sagarmala Projects given AAES Approval	
1. Construction of Coastal Berth of 250m at Karwar Port	2. Extension of existing southern breakwater by 145m & construction of new north breakwater of length 1160m. at Karwar Port
3. Construction of 350Mtr. long coastal cargo berth at Old Mangalore Port	4. Capital Dredging at Old Port Mangalore (Bengre)
5. Port Upgradation at Karwar Port – Installation of Firefighting Equipment at Karwar Port, Karnataka	6. Integrated Development of Tadadi-Aghnashini Waterway in Kumta Taluka
7. Construction of Coastal Berth at Hangarkatta in Udupi Taluka of Karnataka	8. Development of Waterways from Almatti to Bagalkot in Karnataka
9. Development of Waterways on Gurupur (NW-43) in Mangalore Taluka of Karnataka	10. Development of Beachfront and Ancillary Infrastructure at Bengre
11. Gurupur River Islands Development in Dakshina Kannada District	12. Construction of Coastal Berth at Gangolli in Byndoor Taluka of Karnataka
13. Development of Dedicated Jetty for Lakshadweep with allied infrastructure facilities for Cargo and Cruise Terminal at Old Mangalore Port	14. Development of Majali Fishing Harbour in Uttara Kannda District
15. Construction of floating jetty at Jappinamogoru Old Ferry for Tourism Purposes	16. Construction of floating jetty at Kasaba Bengre for Tourism Purposes

Karnataka Sagarmala Projects given AAES Approval

17. Development of Waterways on Kali River (NW-52) in Karwar Karnataka	18. Construction of floating jetty at Northern Sandbar
19. Construction of floating jetty at Old Port	20. Construction of floating jetty at Sulthan Bathery
21. Construction of floating jetty at Sandpit Bengre	22. Construction of floating jetty at Bandaru Ferry

Further, the following projects are under positive consideration for approval by the Sagarmala Cell, MoPSW:

Karnataka Sagarmala Projects under Positive Consideration

1. Development of Multipurpose Harbour at Mangalore, Dakshina Kannada	2. Development of Multipurpose Harbour at Baindur, Udupi
3. Development of Multipurpose Harbour at Malpe, Udupi	4. Road Connectivity to Old Mangalore port
5. Development of waterways from Hangarkatte to Manipal in Udupi Taluka of Karnataka	6. Development of Maritime Institute at Karwar
7. Installation of Floating Jetties & Ancillary Infra at Byndoor	8. Installation of Floating Jetties & MRO & Ancillary Infra at Malpe
9. Installation of Floating Jetties & Ancillary Infra at Mangalore	10. Installation of Floating Jetties & Ancillary Infra at Kali River
11. Floating Jetties at Thannirbhavi Church, Karnataka	12. Floating Jetties at Kullur Bridge, Karnataka
13. Floating Jetties at Jappinamogru NH Bridge, Karnataka	14. Floating Jetties at Bangra Kuluru, Karnataka
15. Floating Jetties at Ulla Kotepura, Karnataka	16. Floating Jetties at Mangalore Old Port, Karnataka

A. Development of Multipurpose Harbours at Malpe, Mangalore & Byndur

The Department is also envisaging the development of Multi-purpose Harbours at the locations of Malpe, Mangalore and Byndur. The aim of these developments is to promote coastal/Water tourism in the state & attract high-end tourist footfalls. Further, this will enhance the connectivity in the state with a major focus on decreasing the travel time across important tourist destinations whilst providing a much-needed boost to other allied/support industries in the region such as Hospitality.



Figure 17: Proposed location for Mangalore Harbour

B. Dedicated Lakshadweep Jetty at Old Mangalore Port

The Department of Ports & IWT seeks to develop a jetty edicatedd to cater to the Lakshadweep islands located in the Old Mangalore Port. At present Lakshadweep vessels face problems in berthing on the mainland. They are required to wait in the line to get their turn to load or unload the cargo, subject to the



Figure 18: Proposed Location for Dedicated Lakshadweep Jetty

availability of berth. In view of proximity of the islands to Mangalore and to establish a strong sea-route for cargo movement and travel to the Lakshadweep Islands, the Department wishes to envisage to construct a dedicated jetty at Old Mangalore Port to cater purely to the Lakshadweep islands. This will enable the port to provide better and improved service to people of Lakshadweep who depend upon vessel and ship service for their daily needs. The Dedicated Lakshadweep Jetty will have three major components:

- Cruise Terminal
- Wharf for Berthing
- Godown Building

C. Gurupur River Island Development

3 Riverine islands located in the Gurupur River have been identified to be developed into World-Class Ecotourism Locations. The following will be the components of this Island Development:

- Island Strengthening
- Jetty Development



Figure 19: Locations of Riverine Islands

Ferries and Inland Water Transport

In Karnataka State, the Inland Water Transport wing was created under the Department of Ports in the year 1972 on the recommendations of Gokhale Committee and Bhagavathi Committee to look after the administration, maintenance, control and regulation of the Ferries and Waterways by providing modernized LCTs, FRP Boats and Mechanized Steel Boats.

At present, the State has got at present 123 Ferries out of which 11 Ferries are being operated by the Department while operations of 14 Ferries were handed over through public auction under the control and supervision of the department. Further, ~30



Figure 20: Inland Ferries running in Coastal Karnataka

ferries are operating by Taluk Panchayat / Gram Panchayat / Dam. Remaining 98 Ferries are being operated by Taluks, Villages and Zilla Panchayats and Taluk Development Boards. The personnel working in the department are well trained in the field on Navigation and Nautical Technology. The above Ferry services are mainly provided to cater to the shore-to-shore transportation of passengers and materials, especially necessary for the remotest rural areas, which are connected neither through rail nor road. These form part of the service-oriented facilities to the rural commuters for their daily requirements. The following table gives details of the Crafts & LCTs being managed by the IDP& IWT Department:

S.No.	Type of Ferry	No's
1.	LCT	8
2.	Mini LCT	12

S.No.	Type of Ferry	No's
3.	Fibre Glass Mechanized boat	12
4.	Mechanized steel boat	5
5.	Wooden Dumb boat	4
6.	Fibre Glass Dumb boat	2
7.	Mechanized wooden Boat	4
TOTAL		47

During the Year 2021-22, a total of 9,28,015 Passengers along with 1,77,257 different kinds of vehicles were transported through the 11 ferries run by the Department of Ports and Inland Water Transport earning the Department a revenue of ₹ 1,06,57,398/-

Development of Waterways

The Department of Ports & Inland Waterways Transport, Government of Karnataka, is seeking to develop 4 inland waterways to cater to Passenger and Tourism Traffic. These projects cumulatively stretch approximately over 70 km. These include the following scenic locations:

1. Almatti Dam and Bagalkot on the Ghataprabha River
2. Hangarkatte Area on the Suvarna River
3. Stretch on Kali River
4. Stretches on the Gurupur and Netravati Rivers
5. Redevelopment of the Tadadi-Aghanashini ferry line

The combined projected tourist and passenger traffic across these 4 stretches is estimated to be around 93 Lakhs annually by 2030.

A. Integrated Development of Tadadi-Aghnashini Waterway

The Tadadi-Aghanashini Ferry line is also set to be redeveloped and upgraded. This Ferry Line will reduce the 46-kilometre road journey between Tadadi and Aghanashini that takes 70 minutes to just 0.8 km over water (20 minutes). The proposed Government funding for this project is INR 20 cr. In addition to the



Figure 21: Proposed Tadadi Aghanashini Ferry Line

upgradation of the existing jetty, two other Ferry Lines have been proposed at these locations to link the terminals with tourist hotspots. The Proposed developments on this waterway include:

- 2 Terminals (At Tadadi Ferry Service Point and at Aghanashini Jetty)
- 5 types of Vessels (Catamarans, Ro-Ro boats, Passenger boats, Inflatable boats, Peddle Boats)

B. Development of Kali River (NW-53) at Karwar

The 10 km long proposed Class III waterway is situated on a stretch of the river Kali. The Proposed developments on this waterway include:

- 2 Terminals
- 3 types of Vessels (Catamarans, Ro-Ro boats, Passenger Boats)

The project will have huge economic benefits for the local people since it will act as an enabler for river tourism in the catchment region and attract high-end tourist footfalls

with other ancillary developments. Further, it will provide tourists and residents of region the opportunity to experience luxurious water-based tourism activities whilst adding to the scenic beauty of the river / dam.

C. Development of Gurupur Waterway (NW - 43), Mangalore

The proposed Class III-Waterway is located on the Gurupur River, stretching for over 10 Km. The project includes the following components:

- 2 Terminals (At Kullur Bridge and at Bengre)
- 3 types of Vessels (Catamarans, Ro-Ro Boats, Passenger Boats)



Figure 22: Development of Gurupur Waterway

D. Development of Waterway from Hangarkatta to Manipal, Udupi

The 15 km long proposed Class III waterway is situated on the Suvarna River. The Proposed Development on this waterway include:

- 2 Terminals (At Manipal End Point and at Hangarkatte Port)
- 3 types of vessels (Catamaran, Ro-Ro Boats, Passenger Boats)

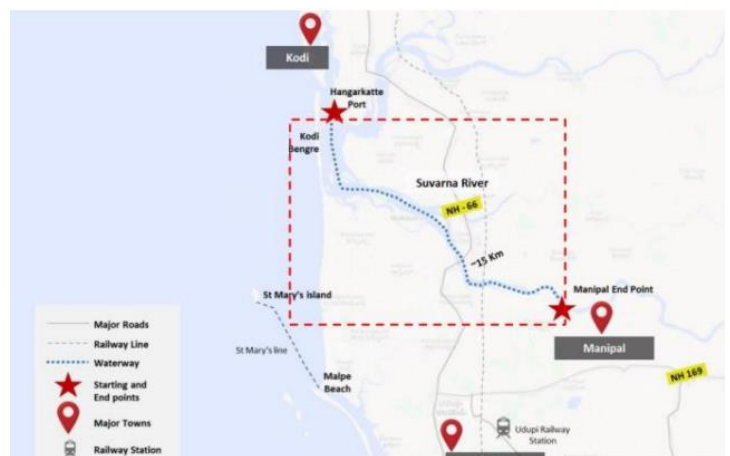


Figure 23: Development of Waterway from Hangarkatta to Manipal

E. Development of Waterway from Almatti to Bagalkot

The proposed Class III Waterway is situated on the Krishna River. It stretches about 25 Km. The Proposed developments on this waterway include:

- 2 Terminals (At Almatti Dam and at Bagalkot)
- 3 types of Vessels (Catamarans, Ro-Ro boats, Passenger boats)



Figure 24: Development of Waterway from Almatti to Bagalkot

Sustainable Coastal Protection & Management Investment Programme

(under ADB Assistance)

The Coastline of Karnataka State stretches from Majali in Karwar Taluk in the North to Ullal in Mangalore in the South, passing through three districts i.e., Uttara Kannada, Udupi and Dakshina Kannada. Out of the approximately ~320 Kms. long coastline of Karnataka State, about ~240.54 Kms. long coastline is subjected to Sea Erosion. The tidal reaches of as many as 14 rivers like Kali, Aghanashini, Gangavali, Sharavathi, Kollur, Sitanadi, Gurupur, Netravathi etc., are also subjected to riverbank erosion. It is thus very essential to protect the public property like roads, buildings etc. by construction of Permanent/Temporary Sea walls wherever severe erosion is taking place to mitigate the risk of damage to this infrastructure and to the coastal communities.

During the year 2021-22 an amount of ₹ 3500.00 lakhs has been spent (*under the head of Account 4711-02-103*) Capital outlay on Flood Control Construction of ~900 Mtrs. Long Rubble Mound Sea wall.

ULLAL SHORELINE PROTECTION SUB PROJECT

To Protect the Severe erosion areas of State Coastline, the Government of Karnataka had accorded approval for ~Rs.911.00 Cr. with the assistance of “Asian Development Bank” (ADB) under Sustainable Coastal Protection & Management Programme.

TRANCHE -1

Coastal protection works have been taken at Ullal in Dakshina Kannada district at a cost of ~Rs.246.11 Cr. Under this scheme, 8 inshore berms, 2 offshore reefs, and 245 m long riverbank revetment and rehabilitation of 1105 m long north and south break waters (which were built previously and dilapidated) have been completed.

TRANCHE -2

The Tranche-2 of the project consisted of the following sub projects:

-
- 35 Nos. of groynes at Udyavara
 - 15 Nos. 'I' shape groynes and 9 Nos. of 'T' shape groynes at Maravanthe
 - 2 offshore reef and beach nourishment at Someshwara
 - 750 m long sea wall at Mukkachcheri
 - 3290 m long sea wall at Tenka Yermal
 - 4100 m long seawall at Kodibengre
 - Plantation for a length of 1440 m at Kodikanyana
 - Geo Textile Revetment Works at Someshwara
 - Dune component works for a length of 1.10 km and height of 5.50 m in Bhatkal Constituency
 - Dune component works for a length of 1.18 km and height of 5.50 m in Kumta Constituency

Summary

Despite the presence of thirteen non-major ports, the state's capacity of handling water-borne cargo requires a makeover. The state requires state of the art infrastructure facilities and the upgradation of the ports from shallow-water to deep water port to provide adequate draft to handle large vessels.

The Department has recognized the pressing need for holistic development of the State's Maritime Sector. These developments will, in addition to augmenting activities such as Maritime Trade, Logistics, Tourism and Fisheries, ultimately enhance the socio-economic scenario of the hinterland. The Department has been making continuous and sincere efforts to **Develop, Maintain and Conserve** the non-major ports in the State. Further, KMB is also taking active measures to introduce **waterways** as a safe, clean and reliable method of transportation of goods and passengers. Financial Aids from various agencies especially under the Sagarmala Scheme are being requested for these development projects in a bid to provide State-of-the-Art Infrastructure.

Further, effort needs to be exerted on the development of Maritime/ Logistics related developments in a bid to support the allied industries. The aim is to develop various maritime related industries including but not limited to ship building, ship repairing, dredging, eco-friendly ship breaking. These will not only significantly contribute to the development of the maritime sector of the state but also towards the creation of jobs. Meanwhile, the department is taking significant steps to introduce private participation into the maritime sector. With all the above sincere efforts of the Department, it is expected that, the Karnataka Maritime State will emerge as a one of the prominent maritime states in the country in the field of Port activities and Navigational technology.

Member (Maritime and IWT Operations)

Director, Karnataka Maritime Board

