C.R.C.C.-226(C.T.D)/EAC
Annexure II 159

मुंबई पोर्ट ट्रस्ट
स्थापत्य अभियंत्रिकी विभाग
Mumbai Port Trust
Civil Engineering Deptt.
प्रकल्प ऑफिस/ Project Office
फाईल नं./File No. CE.CC.226/CT
आ.रं.क्र./Inward No. 462 /EN
दिनांक/Date 20.07.2017

F. No. 10-10-2017-IA-III
Government of India
Ministry of Environment, Forest and Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road, New Delhi - 3

Date: 11th July, 2017

21.7.17
Dy. C.E. P-II
S.E. P-I 25/07/17
E.E. P/I
A.E.
2015

To,

The Chief Engineer.
M/s Mumbai Port Trust,
Mumbai Port Trust, Port House,
Shoorji Vallabhdas Marg, Ballard Estate,
Mumbai- 400 001 (Maharashtra)
Fax: 022- 22616804, 3469

Subject: Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour by Mumbai Port Trust - Terms of Reference - reg.

Sir,

This has reference to your online proposal No. IA/MH/MIS/62185/2017 dated 4th February, 2017, submitted to this Ministry for seeking Terms of Reference (ToR) in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 and Coastal Regulation Zone (CRZ) Notification, 2011, under the Environment (Protection) Act, 1986.

2. The proposal for grant of Terms of Reference (ToR) to the project 'Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour' promoted by Mumbai Port Trust was considered by the Expert Appraisal Committee (Infra-2) in its meeting held on 25th - 27th May, 2017.

3. The details of the project, as per the documents submitted by the project proponent, and also as informed during the above said meeting, are under:-

(i) Name of the proposal is "Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour" by Mumbai Port Trust. This project is an expansion of existing Mumbai Port Trust for improvement of traffic at Mumbai Port. The site was selected by the consultants (JICA) who prepared the master plan for development of Mumbai Port.

(ii) Ministry of Environment and Forest, Govt. of India had accorded the Environment Clearance for the subject project by letter No.10-18/2005-IA-III dated 15.6.2006 and modified the same vide corrigendum by letter No.10-18/2005-IA-III dated 09.11.2006. Thereafter, the validity has been extended upto 14.6.2016 vide letter No. 10-18/2005-IA-III dated 07.01.2014. Further 6 monthly reports were regularly sent to zonal office.

(iii) No extra land is required, as stated in earlier clearance, the existing Princess and Victoria Docks areas which were used for handling cargo other than containers have been filled up. At present, only Victoria docks will be used for stacking of cargo such as steel, car, containers and any other clean cargo.

(iv) Cost of the project is estimated at Rs. 1290 crores.

(v) Court cases: PIL no 149 of 2014 later changed as PIL 31 of 2015 has been filed by the petitioner Shri Sayyed Abdul against the Filling of Prince's and Victoria Docks. The works of filling of Prince's and Victoria Docks have already been completed.

(vi) Employment potential: The EXIM trade due to this facility will increase and creating employment opportunity, supply chain management, facilities for industries in the Mumbai region and Maharashtra.

(vii) Benefits of the project: The EXIM trade due to this facility will increase and creating employment opportunity, supply chain management, facilities for industries in the Mumbai region and Maharashtra.

4. During deliberation in the meeting held on 25th-27th May, 2017, the project proponents made a request for an exemption from public hearing as the same was conducted in 2005. The Committee allowed the same and advised the project proponent to include a chapter on queries and comments raised by the participants during the earlier Public hearings suitably documented in the form of a management plan drawn to address to the expressed concerns.

5. The EAC, after detailed deliberations, recommended the project for grant of ToR as specified by the Ministry as Standard ToR in April, 2015 for the said project/activity and the following TOR in addition to Standard ToR for preparation of EIA-EMP report without public hearing. As per the recommendation of the EAC, the Ministry of Environment, Forest and Climate Change hereby accords ToR to the project 'Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour by Mumbai Port Trust for preparation of the Environmental Impact Assessment (EIA) Report and Environmental Management Plan (EMP) with the following additional conditions:

i. Importance and benefits of the project.

ii. Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale.

iii. Recommendation of the SCZMA.

iv. Stage – I forest clearance to be submitted.

v. Various Dock and shipbuilding facilities with capacities for existing and proposed project.

vi. Study the impact of dredging on the shore line.

vii. A detailed impact analysis of rock dredging.

viii. Study the impact of dredging and dumping on marine ecology and draw up a management plan through the NIO or any other institute specializing in marine ecology.

ix. A detailed analysis of the physico-chemical and biotic components in the highly turbid waters round the project site (as exhibited in the Google map shown during the presentation), compare it with the physico-chemical and biotic components in the adjacent clearer (blue) waters both in terms of baseline and impact assessment and draw up a management plan.

x. Details of Emission, effluents, solid waste and hazardous waste generation and their management in the existing and proposed facilities.

xi. The existing project should avail of and submit consent to operate from the State Pollution Control Board.

xii. Requirement of water, power, with source of supply, status of approval, water balance diagram, man-power requirement (regular and contract).

xiii. Wastewater management plan.

xiv. Details of Environmental Monitoring Plan.

xv. The Project proponents will submit copy of the certified compliance report on the Environmental clearances issued earlier to the project.

xvi. To prepare a detailed biodiversity impact assessment report and management plan through the NIOS or any other institute of repute on marine, brackish water and fresh water ecology and biodiversity. The report shall study the impact on the rivers, estuary and the sea and include the intertidal biotopes, corals and coral communities, molluscs, sea grasses, sea weeds, subtidal habitats, fishes, other marine and aquatic micro, macro and mega flora and fauna including benthos, plankton, turtles , birds etc. as also the productivity. The data collection and impact assessment shall be as per standard survey methods.

xvii. The EIA report shall address to all representations and complaints received against the project including those received from the representations from the Conservation Action Plan.

xviii. The Study area should be 15 Kms round the project site for base level studies in order that the areas already polluted or under stress can also be identified for impacts and mitigation.

xix. The EIA would follow the orders of the respective courts and include a chapter in the EIA on the Court cases including those at the Supreme Court and the NGT.

xx. The Queries and comments raised by the participants during the earlier Public hearing held in 2005 will be suitably documented in the form of a management plan drawn up to address to the expressed concerns.

xxi. Disaster Management Plan for the above terminal.

xxii. Layout plan of existing and proposed Greenbelt.

xxiii. Status of court case pending against the project.

xxiv. A tabular chart with index for point wise compliance of above TORs.

General Guidelines

(i) The EIA document shall be printed on both sides, as for as possible.

(ii) All documents should be properly indexed, page numbered.

(iii) Period/date of data collection should be clearly indicated.

(iv) Authenticated English translation of all material provided in Regional languages.

(v) The letter/application for EC should quote the MoEF&CC File No. and also attach a copy of the letter prescribing the ToR.

(vi) The copy of the letter received from the Ministry on the ToR prescribed for the project should be attached as an annexure to the final EIA-EMP Report.

(vii) The final EIA-EMP report submitted to the Ministry must incorporate the issues mentioned in ToR. The index of the final EIA-EMP report, must indicate the specific chapter and page no. of the EIA-EMP Report where the

specific ToR prescribed by the Ministry. Questionnaire related to the project (posted on MoEF&CC website) with all sections duly filled in shall also be submitted at the time of applying for EC.

(viii) Grant of ToR does not mean grant of EC.

(ix) The status of accreditation of the EIA consultant with NABET/QCI shall be specifically mentioned. The consultant shall certify that his accreditation is for the sector for which this EIA is prepared.

(x) On the front page of EIA/EMP reports, the name of the consultant/consultancy firm along with their complete details including their accreditation, if any shall be indicated. The consultant while submitting the EIA/EMP report shall give an undertaking to the effect that the prescribed ToRs (ToR proposed by the project proponent and additional ToR given by the MoEF&CC) have been complied with and the data submitted is factually correct (Refer MoEF&CC Office memorandum dated 4th August, 2009).

(xi) While submitting the EIA/EMP reports, the name of the experts associated with/involved in the preparation of these reports and the laboratories through which the samples have been got analysed should be stated in the report. It shall clearly be indicated whether these laboratories are approved under the Environment (Protection) Act, 1986 and the rules made there under (Please refer MoEF&CC Office Memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.

(xii) All the ToR points as presented before the Expert Appraisal Committee (EAC) shall be covered.

6. The above ToR should be considered for the project 'Construction of two offshore container berths and development of container terminal on BOT basis in Mumbai Harbour by Mumbai Port Trust, in addition to all the relevant information as per the 'Generic Structure of EIA' given in Appendix III and IIIA in the EIA Notification, 2006.

7. The project proponent shall submit the detailed final EIA/EMP prepared as per ToR to the Ministry for considering the proposal for environmental clearance within 3 years as per the MoEF&CC O.M. No.J-11013/41/2006-IA-II(I) (P) dated 08.10.2014.

8. The consultants involved in preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and data provided by other Organization(s)/ Laboratories including their status of approvals etc. vide Notification of the MoEF&CC dated 19.07.2013.

9. The prescribed ToR would be valid for a period of three years for submission of the EIA/EMP Reports.

14/7/17

(Kushal Vashist)
Director

Copy to:

The Member Secretary, Maharashtha State Pollution Control Board Kalptaru Point, 3rd & 4th Floor, Sion Matunga Scheme, Road No.6, Opposite Cine, Sion Circle, Sion (E), Mumbai-400 022 E Mail- ms@mpcb.gov.in) Fax- 022 24023516

HONNAVAR PORT PRIVATE LIMITED (HPPL)

Environment and CRZ Clearance for Development of Barge/Vessel Loading Facility for 4.9 MTPA at Honnavar Port

ToR File No: SEIAA 02 IND 2024 dated 12/08/2024

7(e): Ports, Harbours, Breakwaters, Dredging

Study Period :Winter 2023

EDS CLARIFICATIONS -1

EIA Consultant

Assystem India Limited

NABET/EIA/2326/ RA 0299 (Rev.02)

C1241301
RP02 Rev. 0

COVER LETTER

HONNAVAR PORT (P) LTD.

No. HPPL/KC/2023-24/0078 Date:27/10/2024

To
Member Secretary,
State Expert Appraisal Committee (SEAC),
Ambedkar Veedhi, Sampangi Rama Nagar,
Bengaluru, Karnataka 560001.

Subject: Environmental and CRZ Clearance for proposed "Development of Barge/vessel loading facility to handle 4.9 MTPA of cargo at Coastal Sand Spit, Kasarkod Tonka Village, Honnavar Taluk, Uttara Kannda District of M/s. Honnavar Port Pvt. Ltd." – Submission of Replies to EDS raised by SEIAA-reg.

Reference: 1. Accorded ToR through file no. SEIAA 02 IND 2024 dated 12.08.2024 by SEIAA, Karnataka
2. KSCZMA Recommendations dated 25.10.2024
3. EDS SEAC dated 27th October, 2024

Dear Sir,

M/s. Honnavar Port Pvt. Ltd. (HPPL) obtained the Environmental & CRZ Clearance through File No. SEIAA: 22: IND:2011 dated September 21, 2012 for Development of Barge/Vessel loading facility to handle 4.9 MTPA of Cargo at Coastal Sand Spit, Kasarkod Tonka village, Honnavar Taluk, Uttar Kannada District along with the Road & Rail connectivity network. EC validity is due to expire and SEIAA accorded the ToR on August 12, 2024 with exception from public hearing for present proposal.

In line with the request submitted online in Parivesh portal for SEAC recommendations by HPPL, SEAC raised EDS (above reference 3) with following observations

1. Pl submit baseline data reports.
2. Village map with boundary markings of proposed area,
3. Submitted layout plan do not tally with KML polygon, pl verify
4. Is there change in land area w.r.t EC issued in 2012.
5. Copy of earlier EIA report
6. Any pending court / litigation cases pertaining to project proposal
7. Presentation copy with ToR & PH compliance
8. Clear layout plan demarcating 44Ha of land area with legend
9. EIA report with compliance to ToR issued
10. Dredging material disposal coordinates and whether CRZ clearance has been obtained for the same.

Herewith, we are submitting the required clarifications/replies

We request you to kindly consider our proposal in the upcoming SEAC meeting and recommend the proposal further for grant of EC from SEIAA.

Thanking you,

Yours sincerely,
For HONNAVAR PORT PRIVATE LIMITED

Executive Director, Authorised Signatory
Honnavar Port (P) Ltd.

Encl.: As stated above.

Port Office : Kasarkod Tonka, Honnavar Taluk, Uttar Kannada District, Karnataka - 581 342
Regd. Office : #103, Lalchzar Apartments, 46/1-2, Palace Road, Bangalore - 560 001, Karnataka, India.
Ph : +91-80-2235 3670, 4149 4960 Fax : +91-80-2235 3671 Email : info@honnavarport.com

EDS QUERIES

S. No.	Query	Description
1	Other (Optional)	-
2	10	Dredging material disposal coordinates and whether CRZ clearance has been obtained for the same.
3	9	EIA report with compliance to ToR issued
4	8	Clear layout plan demarcating 44Ha of land area with legend
5	7	Presentation copy with ToR & PH compliance
6	6	Any pending court / litigation cases pertaining to project proposal
7	5	Copy of earlier EIA report
8	4	1. Is there change in land area w.r.t EC issued in 2012.
9	3	1. Submitted layout plan do not tally with KML polygon, pl verify
10	2	1. Village map with boundary markings of proposed area,
11	1	1. Pl submit baseline data reports.

ATTACHMENTS

1. BASELINE RESULTS

Baseline Monitoring Results

The Monitoring locations were selected based on the following:

- Topography/Terrain
- Meteorological conditions
- More sites in downwind side/ impact zone
- Residential and sensitive areas within the study area
- Representatives of regional background air quality/pollution levels and
- Representation of likely impacted areas

Ambient Air Quality Monitoring Stations

To evaluate the baseline air quality of the study area, *Six (06)* monitoring locations have been identified. A combined map showing the Air monitoring locations are given as **Figure FD0301** and the details of the locations are given in **Table Error! No text of specified style in document.**-1.

Table Error! No text of specified style in document.**-1: Ambient Air Quality Monitoring Locations**

S. No.	Location Name	Distance	Azimuth Direction	Environmental Setting
1	Honnavar Near Port Office	1.8 km	SE	Residential Area
2	Kasarkod Village Near Sub Station	4.2 km	SE	Residential Area
3	Karki Village, Havyka Sabha Bhavan	0.9 km	E	Residential Area
4	Ramtirth Village, Near RTO Office	3.0 km	E	Residential Area
5	Kulkod Village, Near Govt School	4.3 km	E	Residential Area
6	Hosad Village, Near Primary School	7.0 km	SE	Residential Area

Ambient Air Quality Monitoring Techniques and Frequency

Ambient air quality was monitored twice a week for complete one season. PM_{10}, $PM_{2.5}$, SO_2, NO_2 were monitored on 24 hourly basis and CO, HC were monitored on eight hourly basis. Sampling was carried out as per Central Pollution Control Board (CPCB) monitoring guidelines at each location for all twelve parameters.

Results

The variations of PM_{10}, $PM_{2.5}$, SO_2 and NO_2 are graphically presented in the **Figure Error! No text of specified style in document.**-1 **to Figure Error! No text of specified style in document.**-4 and remaining parameters such as CO, NH_3, C_6H_6, Pb, BaP, As, Ni are within limits. The detailed results are given in **Appendix H**.

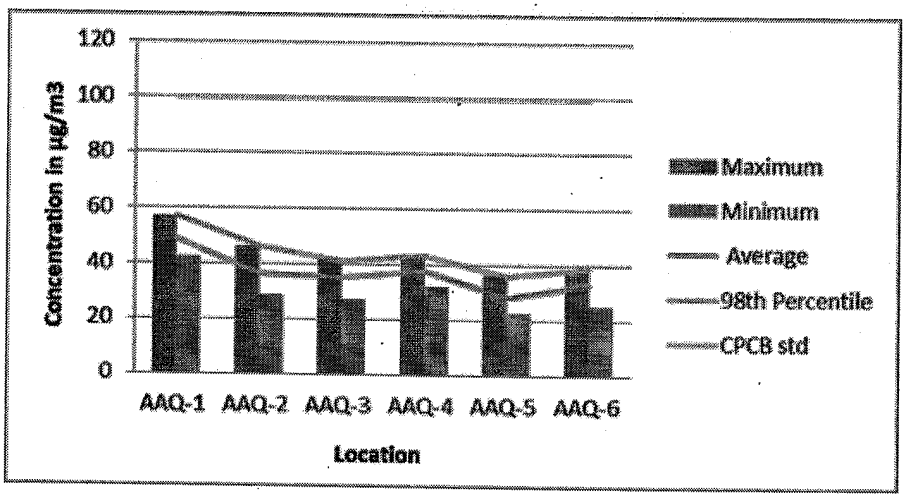


Figure Error! No text of specified style in document.**-1: Ambient PM_{10} Levels**

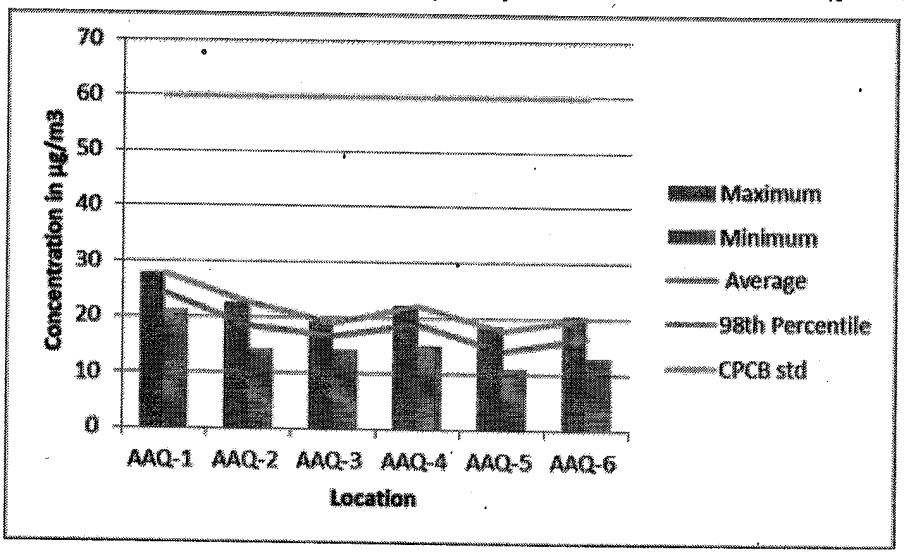


Figure Error! No text of specified style in document.**-2: Ambient $PM_{2.5}$ Levels**

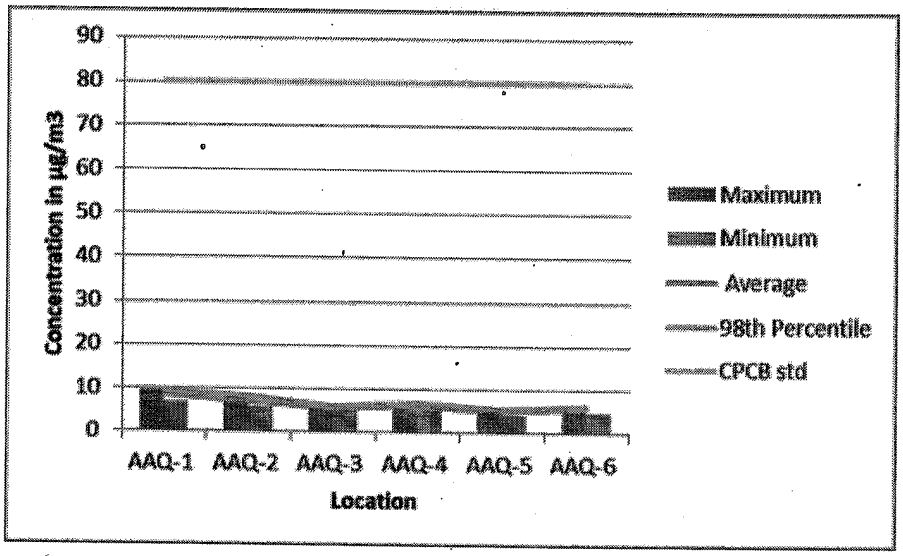


Figure Error! No text of specified style in document.**-3: Ambient SO_2 Levels**

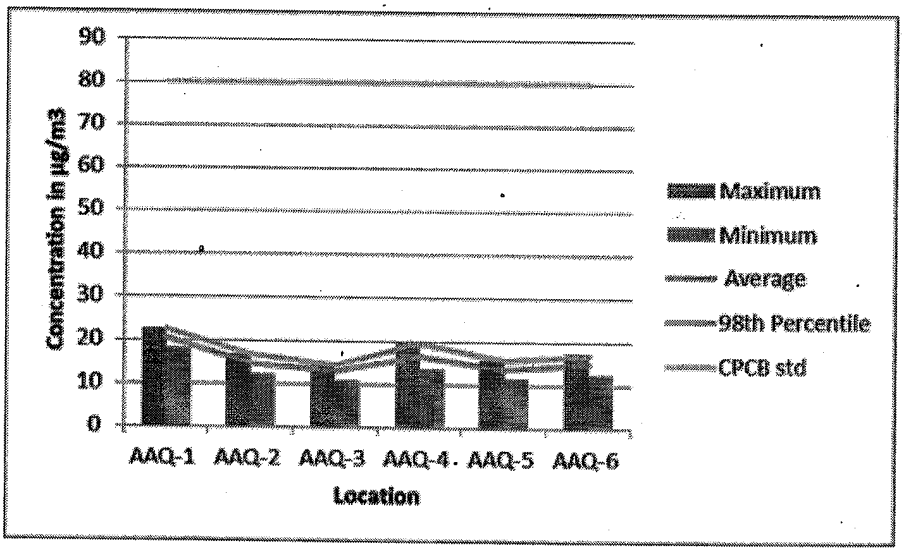


Figure Error! No text of specified style in document.**-4 Ambient NO_2 Levels**

Observations and Interpretation

Maximum concentrations of Sulphur Dioxide (SO_2), Nitrogen Dioxide (NO_2), Particulate Matter ($PM_{2.5}$), Particulate Matter (PM_{10}), Carbon Monoxide (CO), Ozone (O_3), Ammonia (NH_3), Lead (Pb), Benzene (C_6H_6), Benzo (a) Pyrene (BaP) – Particulate phase only, Arsenic (As), Nickel (Ni), are well within the National Ambient Air Quality Standards for Residential areas at all monitoring locations during the study period.

- PM_{10} ranged between 22.7 µg/m^3 and 56.9 µg/m^3. NAAQ stipulated standard for PM_{10} for 24 hr. average is 100 µg/m^3.
- $PM_{2.5}$ ranged between 11 µg/m^3 and 27.8 µg/m^3. NAAQ stipulated standard for $PM_{2.5}$ for 24 hr. average is 60 µg/m^3.

- SO_2 ranged between 4.3 µg/m^3 and 9.6 µg/m^3. NAAQ stipulated standard for SO_2 for 24 hr. average is 80 µg/m^3.
- NO_2 ranged between 10.8µg/m^3 and 22.6 µg/m^3. NAAQ stipulated standard for NO_2 for 24 hr. average is 80 µg/m^3.
- O_3, CO, NH_3, Pb, C_6H_6, BaP, As, and Ni were observed below CPCB limits in all the locations.

Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, ambient air quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Station code	Location	Max/Min	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3	SO_2 µg/m^3	NO_2 µg/m^3	CO µg/m^3
A1	Project Site	Minimum	36	64.1	10.2	19.9	0.01
		Maximum	47	73.5	17.5	27	0.16
A2	Honnavar Village	Minimum	36.6	64.4	12.1	19.1	0.03
		Maximum	44.2	73.2	16.7	27.7	0.13
A3	Shanthi Nagar	Minimum	28.5	67.4	11.3	24.7	0.01
		Maximum	39.6	74.5	16.9	33.9	0.17
A4	Khariveri village	Minimum	32.5	62.1	12.2	24.7	0.01
		Maximum	43.5	72	17.2	29.8	0.15
A5	Kaladanape village	Minimum	32.4	64.6	11.3	22.2	0.02
		Maximum	42.6	72	16.2	27	0.15
A6	Hosapattana Village	Minimum	31	62	10	21.6	0.01
		Maximum	40.5	73.3	15.7	29.3	0.12
A8	Nachageri village	Minimum	30.2	63.3	11.6	20.5	0.01
		Maximum	41.2	72.7	16.3	29.9	0.12
A9	Haldipur village	Minimum	32.2	63.7	11.4	17	0.01
		Maximum	40.2	73.4	15.1	21.9	0.16

Ambient Noise Levels

Ambient noise levels have been established by monitoring noise levels at six (06) locations in the study area during study period using precision noise level meter. The noise monitoring locations in the study area were selected after giving due consideration to the various land use categories. Noise levels were recorded on an hourly basis for one complete day at each location using pre-calibrated noise levels. A combined map showing the Noise monitoring locations is given as **Figure FD0301** and the details of the sampling locations are given in **Table Error! No text of specified style in document.**-2. Detailed noise monitoring data is given in **Appendix H**.

Table Error! No text of specified style in document.**-2: Baseline Noise Monitoring Locations**

S. No.	Location Name	Distance	Azimuth Direction	Environmental Setting
1	Honnavar Near Port Office	1.8 km	SE	Residential Area
2	Kasarkod Village Near Sub Station	4.2 km	SE	Residential Area
3	Karki Village, Havyka Sabha Bhavan	0.9 km	E	Residential Area
4	Ramtirth Village, Near RTO Office	3.0 km	E	Residential Area
5	Kulkod Village, Near Govt School	4.3 km	E	Residential Area
6	Hosad Village, Near Primary School	7.0 km	SE	Residential Area

Results and Discussion

Based on the recorded hourly noise levels at each monitoring location, the day equivalent (Ld) and night equivalent (Ln) were calculated,

- L_d: Average noise levels between 46.6 to 58.5 dB(A) 6:00 hours to 22.00 hours.
- L_n: Average noise levels between 36.5 to 46.5 dB(A) 22:00 hours to 6.00 hours.

The Day-Night (L_{dn}) equivalent noise levels were calculated using the US Environmental Protection Agency formula:

$L_{dn} = 10 \text{ Log } [0.0416 \{16 (10L_d/10) + 8 (10L_n+10/10)\}]$

The comparison of day equivalent noise levels (Ld) and night equivalent noise levels (Ln) with the respective CPCB stipulated noise standards for various land use categories are shown in the **Figure Error! No text of specified style in document.**-5. The summary of the results are given in **Table Error! No text of specified style in document.**-3.

Table Error! No text of specified style in document.**-3: Ambient Noise Monitoring Results Summary**

S. No	Location	Environmental Setting	L_d	CPCB Standard Ld	L_n	CPCB Standard Ln
NQ1	Honnavar, Near Sharavathi Circle	Residential Area	58.5	55	46.5	45
NQ2	Kasarkod, Near Primary school	Residential Area	48.6	55	38.6	45
NQ3	Karki, Near Primary School	Residential Area	49.8	55	40.7	45
NQ4	Ramtirth, Near RTO Office	Residential Area	50.8	55	41.4	45
NQ5	Kulkod, Near Church	Residential Area	47.5	55	37.6	45
NQ6	Hosad, Near Bus Stop	Residential Area	43.8	55	36.5	45

Observations

It is observed that day and night-time equivalent noise levels at all locations are within NAAQS standards for Industrial, residential and silent zones.

- Day equivalent noise levels (Ld) ranged between 43.8 to 58.5 dB(A)
- Night equivalent noise levels (Ln) ranged between 36.5 to 46.5 dB(A)
- Noise levels are slightly high in the project site due to the traffic and construction activities.

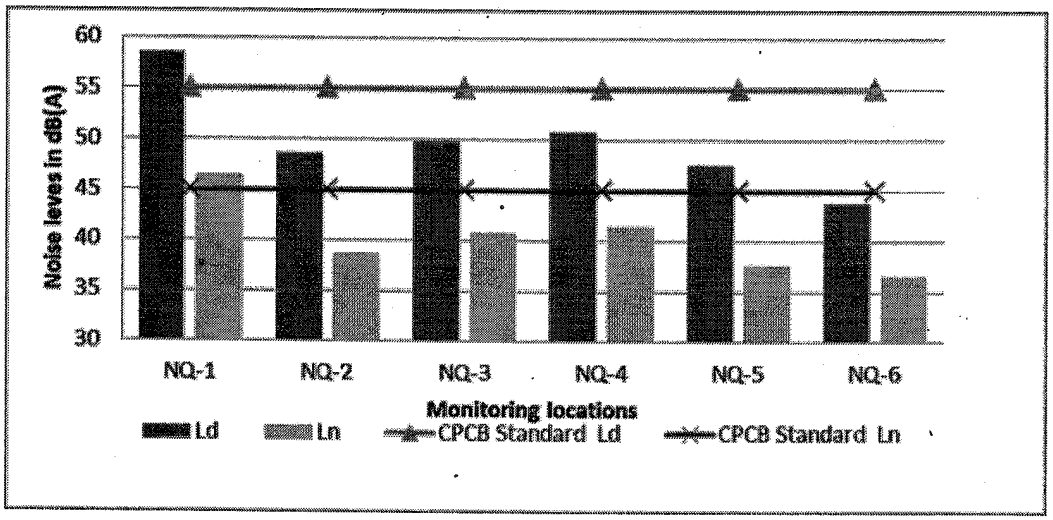


Figure Error! No text of specified style in document.**-5: Noise Monitoring Results**

Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, noise quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

- Ambient Noise levels during the day ranged between 44.1 to 54.7 dB(A)

Noise monitoring results reveal ambient noise levels are well within the limits as per CPCB standards.

Inland Surface and Ground Water Quality

The baseline status of water quality has been assessed through the identification of water resources and appropriate sampling locations for surface and groundwater in the study area. The water samples were collected once during the study period and were analysed for physical, chemical and bacteriological parameters. Standard methods prescribed for sampling and analysis were adopted. Sampling protocol was based on the hydrogeological conditions of the region and also based on the competitive usage of the respective water source from which the sample has been collected.

Ground Water Quality

Total Six (03) ground water monitoring locations were identified for assessment in different villages around the project site based on the usage of ground water by the settlements/ villages in the study area. The groundwater results are compared with the desirable and permissible water quality standards as per IS: 10500 (2012) (as amended) for drinking water. Groundwater quality monitoring locations are given in **Table Error! No text of specified style in document.-4.** A combined map showing the Groundwater quality monitoring locations is given as **Figure FD0301**.

Table Error! No text of specified style in document.**-4: Groundwater Monitoring Locations**

S. No.	Location Name	Co-Ordinates

		Latitude	Longitude
1	Honnavar, Near Coastal Police Station	14°16'37"N	74°26'25" E
2	Kasarkod, Near Ganesh Mandir	14°14'58"N	74°26'51" E
3	Karki, Near Bus Stop	14°17'46"N	74°26'12" E

Results and Discussion

The detailed results are given in **Appendix H** and summary of the results are given below.

- Temperature ranged between 25.6 to 26.4°C.
- pH ranged between 6.86 to 7.3.
- Salinity ranged between 0.02 to 0.07 ppt.
- Electrical Conductivity (EC) ranged between 66 to 286 µs/cm
- BOD ranged less than 02 mg/l at all locations
- COD ranged less than 04 mg/l at all locations
- DO ranged less than 01 mg/l at all locations
- Residual free chlorine varied less than 0.02 mg/l at all locations.
- Total dissolved solids ranged between 43 mg/l to 186 mg/l
- Total alkalinity (as $CaCO_3$) varied between 10 mg/l to 60 mg/l
- Total hardness (as $CaCO_3$) ranged between 10 mg/l to 80 mg/l
- Calcium ranged between 02 mg/l to 20 mg/l.
- Chlorides (as Cl^-) ranged between 10 mg/l to 40 mg/l
- Fluorides as (F^-) ranged less than 0.1 to 0.5 mg/l at all locations.
- Sulphates as (SO_4) ranged between 6.6 to 20.8 mg/l.
- Nitrates value ranged between 1.2 to 5 mg/l.
- Manganese (Mn), Zinc as (Zn), Cadmium (Cd), Arsenic (As), Mercury (Hg), Total Chromium (Cr), Phenol Compounds, Cyanide (CN) found to be below 0.001 mg/l at all the locations.
- Coliforms not detected at any of the locations. Faecal Coliforms were below 2 MPN/ml in all the water samples.

It is observed that all ground water sample collected within the study area are well within the permissible limits of drinking water standards IS 10500:2012 (as amended).

Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, surface water quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Test Parameters	Unit	max	min
Colour Hazen Units	Hazen	<5	--
Odour	---	Agreeable	Agreeable
Conductivity	µs/c	1467	893
pH Value	---	7.38	6.89
Turbidity	NTU	<1	-
Total Dissolved Solids	mg/L	935	572
Chloride as Cl	mg/L	220	110
Total Hardness as $CaCO_3$	mg/L	520	290

Calcium as Ca	mg/L	124.2	76.1
Magnesium as Mg	mg/L	51	24.3
Sulphate as SO_4	mg/L	34.8	11.6
Fluoride as F	mg/L	0.7	0.3
Total Alkalinity as $CaCO_3$	mg/L	360	140
Total Alkalinity as $CaCO_3$	mg/L	360	140
Nitrate as NO_3	mg/L	6.1	4.2
Iron as Fe	mg/L	<0.1	-
Total Coliform, MPN/100ml	mg/L	Not Detected	Not Detected
E. Coli, MPN/100ml	mg/L	Not Detected	Not Detected

Surface Water Quality

Three (03) surface water monitoring locations were identified for assessment in different villages around the project site based on the usage of surface water by the settlements/ villages in the study area.

Water sample analysis with respect to physico-chemical, nutrient demand and bacteriological parameters having relevance to public health and aesthetic significance are selected to assess the water quality status with special attention. Standard methods prescribed for surface sampling and analysis were adopted.

Descriptions of sampling locations are given in **FD0301** and **Table Error! No text of specified style in document.**-5.

Table Error! No text of specified style in document.**-5: Surface Water Monitoring Locations**

S. No.	Code	Location Name	Co-Ordinates	
			Latitude	Longitude
1	SW-1	Sharavati River Near Honavar	14°16'34"N	74°26'24" E
2	SW-2	Badgane River Near Pavinkurve	14°15'53"N	74°29'15" E
3	SW-3	Sharavati River Near Hosad	14°20'25"N	74°25'10" E

Results and Discussion

The detailed results are given in **Appendix H** and summary of the results are given below.

- Temperature ranged between25 to 26.1°C.
- pH ranged between 6.88 to 6.75 indicating the surface waters are neutral to slightly acidic in nature
- Electrical Conductivity (EC) ranged between 80 to 128 µs/cm
- Total Dissolved Solids (TDS) ranged between 52 to 84 mg/l
- Total Solids (TDS) ranged between 52 to 84 mg/l
- Turbidity ranged between 13.5 to 22.8 mg/l
- Total Hardness (as $CaCO_3$) ranged between 20 to 30 mg/l
- Total Alkalinity (as $CaCO_3$) ranged between 10 to 30 mg/l
- Calcium ranged between 4 to 8 mg/l
- Magnesium ranged 2.4 mg/l at all locations.
- Chlorides ranged between 10 to 15 mg/l
- Sulphates ranged between 8.5 to 14.3 mg/l
- Nitrates ranged between 2.5 to 3.7 mg/l
- BOD ranged between 5 to 6 mg/l

- COD ranged between 20 to 30 mg/l
- Dissolved Oxygen (DO) ranged between 4 to 4.8 mg/l
- Mercury (Hg), Zinc (Zn) Lead (Pb) Arsenic (As), Cadmium (Cd) is <0.01 mg/l at all locations
- Total Coliforms recorded were 130 to 210 MPN/100 ml
- Faecal Coliforms recorded were 20 to 30 MPN/100 ml

As per CPCB classification, the samples fall under classification C (Drinking water source after conventional treatment and disinfection)

Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, surface water quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Test Parameters	Unit	SW1	SW2
Colour	Hazen	25	30
Odour	...	Disagreeable	Disagreeable
Conductivity, µs/cm	...	921	2840
pH Value	...	7.86	7.71
Turbidity	NTU	21.4	22.4
Total Dissolved Solids	mg/L	597	1980
Chloride as Cl	mg/L	120	500
Total Hardness as $CaCO_3$	mg/L	210	580
Calcium as Ca,	mg/L	56.1	160
Magnesium as Mg	mg/L	17	84
Sulphate as SO_4	mg/L	15.9	351.4
Fluoride as F	mg/L	0.3	1.1
Total Alkalinity as $CaCO_3$	mg/L	220	290
Nitrate as NO_3	mg/L	4.1	12.1
Iron as Fe	mg/L	<0.1	0.3
Dissolved Oxygen	mg/L	3.4	4.2
Total Coli form,	MPN/100ml	12	60
E. Coli, MPN/100ml	MPN/100ml	<1	<1

Soil Quality Monitoring

Soil plays a vital role in EIA study because disturbance in the soil will leads to deterioration of other components of environment such as air, water quality and health. It is essential to determine the potential of soil in the area and identify the current impacts of urbanization on soil quality and also predict impacts due to the proposed construction. Accordingly, a study of assessment of baseline soil quality carried out.

The Baseline monitoring for soil quality has been conducted during the study period at 5 locations. The soil collection was carried out once during the study period based on which the Physio-

Chemical were analysed. The soil quality monitoring locations are given in **FD0301** and in the **Table Error! No text of specified style in document.**-6

Table Error! No text of specified style in document.**-6: Soil Quality Monitoring Locations**

S. No.	Code	Location Name	Co-Ordinates	
			Latitude	Longitude
1	S-1	Project Site	14°16'55"N	74°25'34" E
2	S-2	Honnavar, Near fish Market	14°16'36"N	74°26'25" E
3	S-3	Kasarkod, Near Ganesh Temple	14°14'50"N	74°26'53" E
4	S-4	Karki, Near sharadha Hospital	14°17'58"N	74°26'03" E
5	S-5	Apsarakonda, Near Beach	14°14'17"N	74°26'34" E

Results and Discussion

The detailed results are given in **Appendix H** and the summary of the results are given below:

- Sand -40-60% and Silt – 16-28%, Clay 22-35% at monitored locations
- pH of soil ranged between 6.5 and 7.12 showing slightly acidic to slightly alkaline nature
- Electrical Conductivity varied between 126 µs/cm and 176 µs/cm.
- Water holding capacity varied between 2.3 inch/foot and 5.8 inch/foot
- Infiltration rate varied between 15.2 mm/hr and 20.5 mm/hr
- Bulk density varied between 1.5 gm/cc and 2.62 gm/cc
- Permeability varied between 3.2 and 4.2 cm/hr
- Porosity varied between 0.36 % and 0.52%
- Organic Matter varied between 0.64 % and 1.1 %
- Organic Carbon varied between 0:36 % and 0.64 %
- Zinc (Zn) varied between 0.32 mg/kg and 0.92 mg/kg
- Copper (Cu) varied between 0.08 mg/kg and 0.16 mg/kg
- Iron as Fe varied between 0.48 mg/kg and 0.64 mg/kg
- Sodium Absorption Ratio SAR ranged between 1.05 and 1.46 meq/kg
- Available Nitrogen varied between 398 mg/kg and 454mg/kg
- Available Phosphorus as P varied between 126 mg/kg and 185 mg/kg
- Available Potassium as K varied between 75 mg/kg and 91 mg/kg
- Nickel as Ni, Manganese as Mn, Chromium as Cr ranged below 1mg/kg

Secondary data analysis

To understand the surrounding environment in a comprehensive manner, soil quality- secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Test Parameters	units	Max	Min
Coarse Sand	%	17	10.5
Fine San	%	25.8	22.5
Silt	%	28.9	24.5
Clay	%	36.6	32.7
Cation Exchange capacity	Mg/kg	29.5	24.3

Test Parameters	units	Max	Min
pH (1 : 2.5)	-	7.58	7.12
Electrical Conductivity (1 : 2.5)	µs/cm	186	119
Organic Matter	%	1.56	1.2
Nitrogen as N	Kg/ha	91.4	75.9
Phosphorous as P	Kg/ha	37.4	30.3
Potassiumas K	Kg/ha	35.2	28.6
Calcium as Ca	mg/kg	29.6	25.4
Chloride as Cl	mg/kg	89	72.9
Moisture Content	%	10.8	8.4
Magnesium as Mg	mg/kg	17.2	12.8
Sulphates as SO4	mg/100g	14.7	12.1
Zinc as Zn	mg/kg	5.5	3.8

Marine Environment

The Marine sampling locations were carried out at 14 locations including estuarine area of Sharavati River. The MSL map is given as **FD0302**.

S. No	Location Code	Latitude	Longitude	Depth (m)
1	MSL-1	14°16.890'N	74°25.917'E	2.3
2	MSL-2	14°17.571'N	74°25.649'E	2.5
3	MSL-3	14°18.008'N	74°25.500'E	2.0
4	MSL-4	14°18.595'N	74°24.668'E	5.5
5	MSL-5	14°18.079'N	74°24.929'E	4.5
6	MSL-6	14°17.409'N	74°25.027'E	5.0
7	MSL-7	14°16.748'N	74°25.312'E	5.5
8	MSL-8	14°16.954'N	74°24.605'E	8.0
9	MSL-9	14°16.348'N	74°23.751'E	11.5
10	MSL-10	14°15.447'N	74°22.397'E	16.5
11	MSL-11	14°16.564'N	74°20.142'E	20.0
12	MSL-12	14°18.652'N	74°21.830'E	13.5
13	MSL-13	14°18.193'N	74°23.359'E	10.0
14	MSL-14	14°17.842'N	74°24.4016'E	8.2

Sea/Harbour Water Quality

Physico-Chemical Parameters

Temperature: The water temperature was recorded from 30.16°C to 31.88°C. The lowest water temperature was found in MSL-11 and the highest temperature was found MSL-1

Salinity: The salinity varied from 4.52 PSU to 35.39 PSU. The lowest salinity was found in MSL-1 and the highest salinity was found in MSL-4

Turbidity: The turbidity ranged from 0.84 NTU to 8.97 NTU (average: 2.23±1.55 NTU). The lowest turbidity was observed in MSL-11 and the highest turbidity was observedin MSL-5

Dissolved Oxygen: The dissolved oxygen varied from 4.43 to 8.34 mg/l (average: 6.98±0.98 mg/l). The lowest DO was found in MSL-11 (bottom) and the highest DO was found in MSL14

Biochemical oxygen demand: The BOD varied from 1.08 mg/l to 2.86 mg/l (average: 1.66±0.60 mg/l). The highest BOD was found in MSL-14. In two stations (MSL-10 and MSL-12)

The Results of Physico-chemical parameters of marine water is shown in the **Figure Error! No text of specified style in document.**-6 to **Figure Error! No text of specified style in document.**-7.

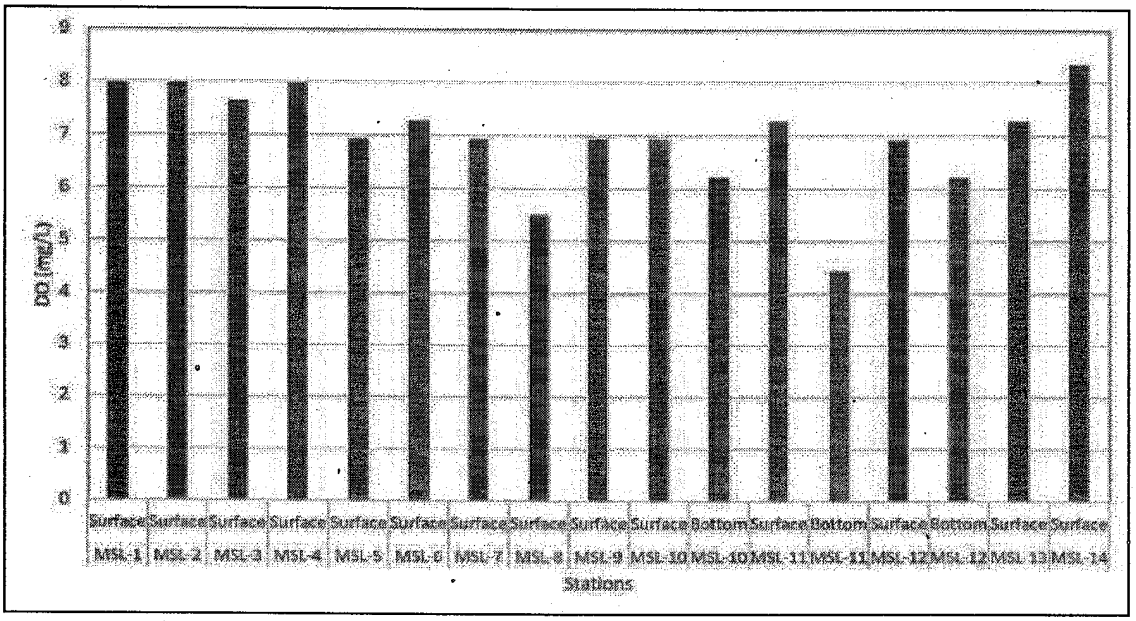


Figure Error! No text of specified style in document.**-6: DO in the water samples of study locations**

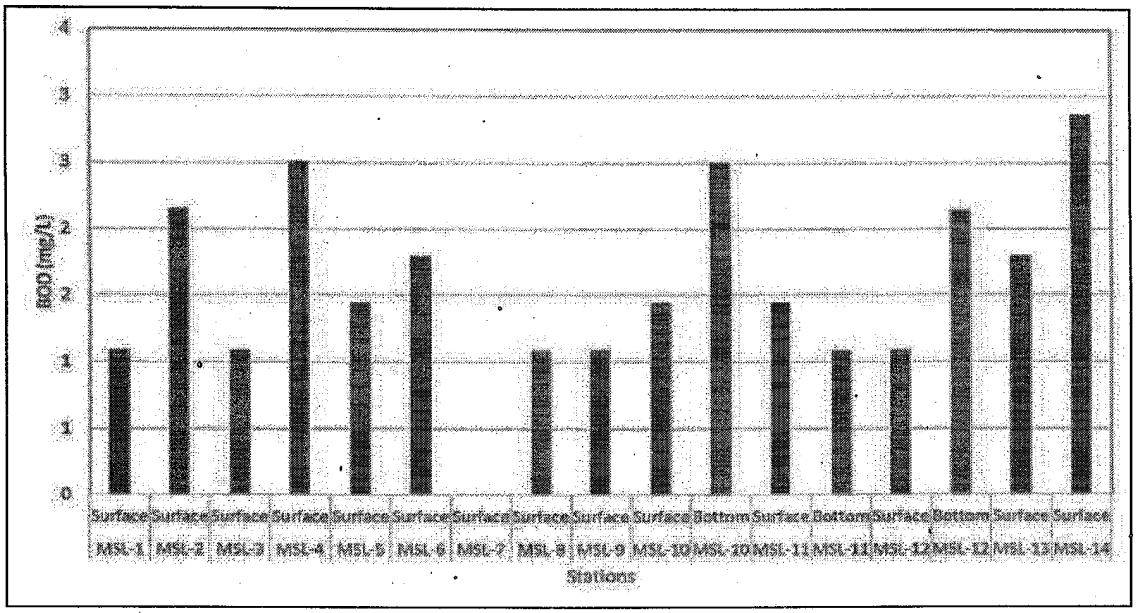


Figure Error! No text of specified style in document.**-7: BOD in the water samples of study locations**

Nutrients

Nitrate: Concentration of Nitrate ranged between 0 to 0.32 µmol/l, minimum was recorded in the MSL-7 and maximum was recorded in MSL-10

Nitrite: Concentration of Nitrite ranged between 0.01 to 0.06 µmol/l, minimum was recorded in the MSL-11 and maximum was recorded at MSL-9 & MSL-1

Total Phosphate: Concentration of total phosphate ranged between 0.14 to 0.45 µmol/l, where the minimum level was recorded in MSL-3 & MSL-2 and maximum was recorded in MSL-14.

Silicate: Concentration of Silicates ranged between 17.96 to 111.72 µmol/, minimum level was recorded in MSL-12 and maximum was recorded in MSL-1.

Ammonia: Concentration of Ammonia ranged between 0.71 to 2.07 µmol/l minimum level was recorded in MSL-3 and maximum was recorded in MSL-1.

The Results of Nutrients in marine water are shown from **Figure Error! No text of specified style in document.**-8 to **Figure Error! No text of specified style in document.**-12.

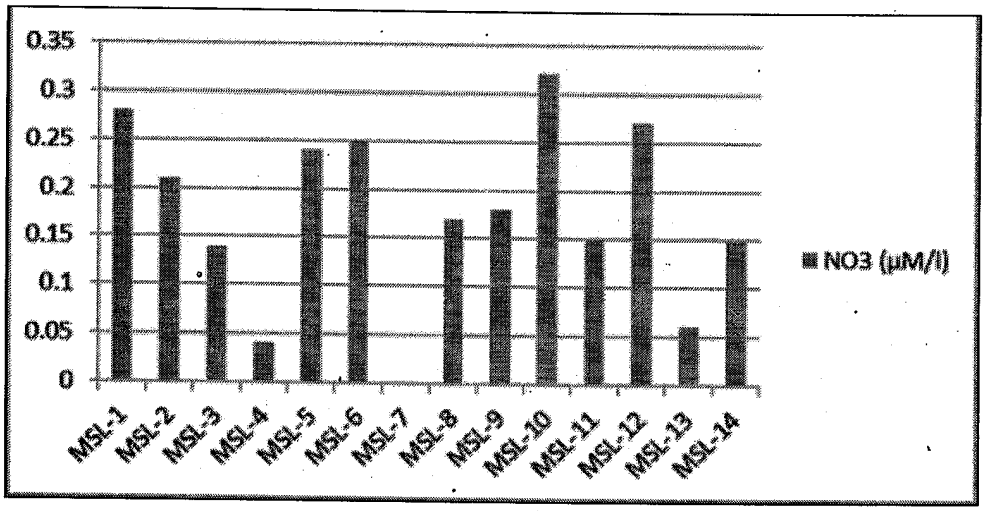


Figure Error! No text of specified style in document.**-8: Nitrates in the study locations**

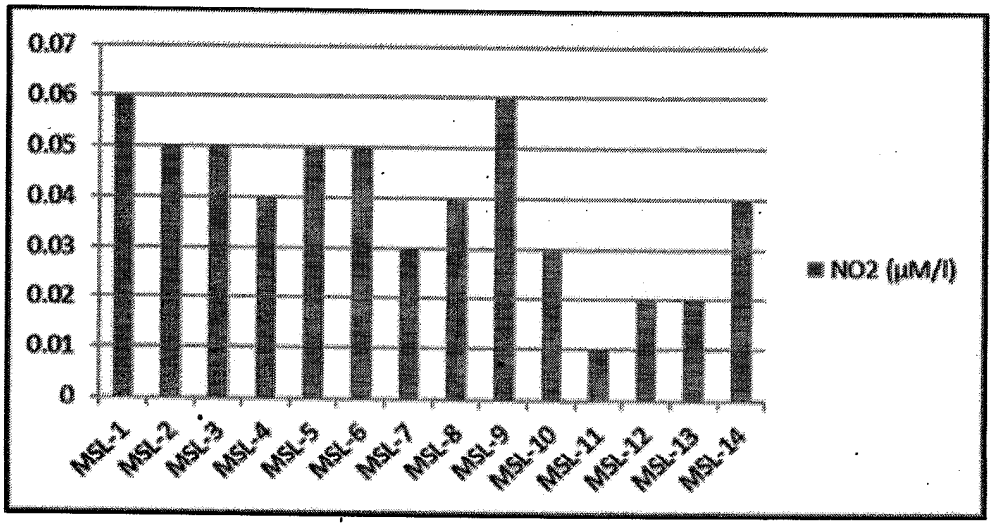


Figure Error! No text of specified style in document.**-9: Nitrites in the water samples of study locations**

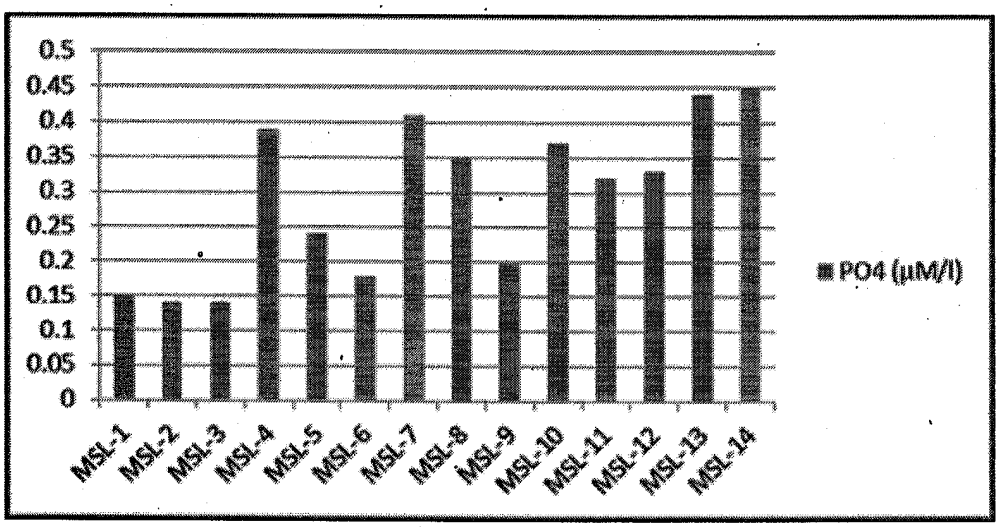


Figure Error! No text of specified style in document.**-10: Total Phosphate in the study locations**

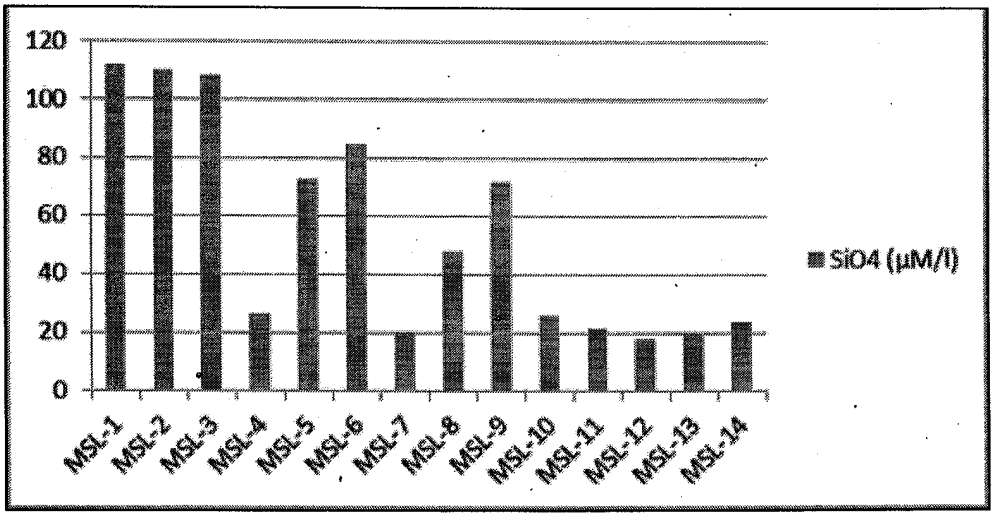


Figure Error! No text of specified style in document.**-11: Silicates in the water samples of study locations**

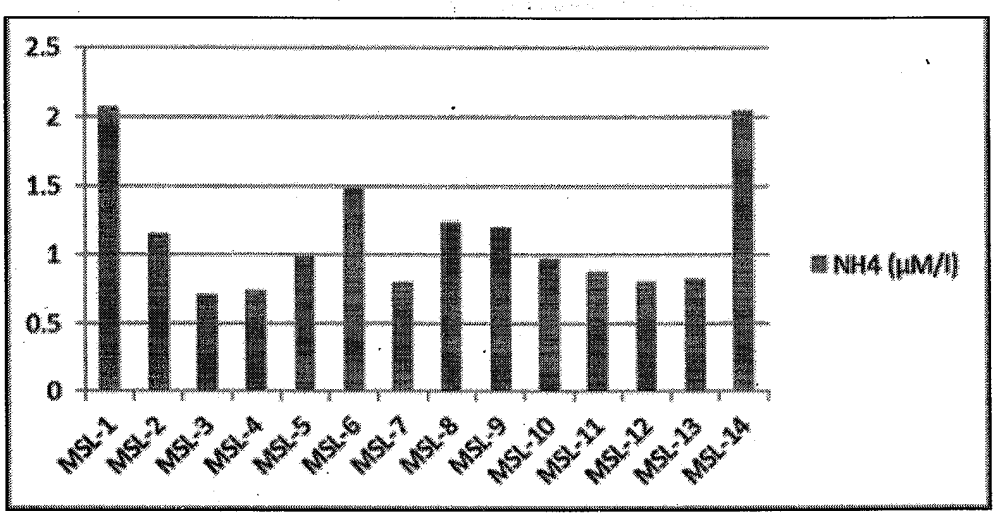


Figure Error! No text of specified style in document.**-12: Ammonical Nitrogen in the study locations**

Marine Sediment

The marine environment of the project region has been studied for the evaluation of baseline information and the existing marine environmental conditions around the site were established through collection and analysis of water and sediment samples in the project region.

The potential impacts due to the construction and operation of the proposed project components will be felt on the marine environment. Therefore, existing marine environmental conditions were monitored to establish the baseline status. This will remain as benchmark data for monitoring environmental impacts due to various project activities. The locations in the marine monitoring network were selected such that the existing baseline conditions in the area likely to be affected by the effect of potential environmental impacts of the project activities.

The detailed results are given in **Appendix H** and summarised results are given below.

Physico-chemical parameters

Sediment texture analysis indicates that sand, silty sand and sandy silt and clay were observed in the study area. The sand fraction ranged from 0.02 to 97.44%, silt fraction ranged from 2.16% to 99.32 and clay fraction ranged from 0.08 to 1.69% as shown below.

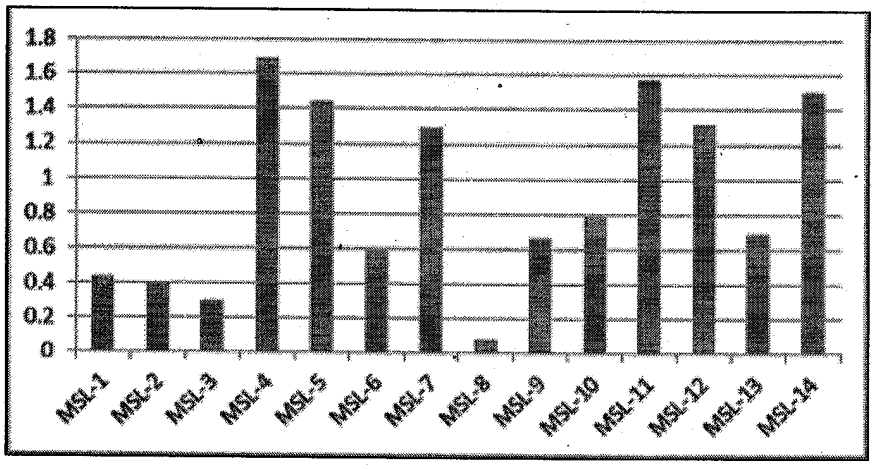


Figure Error! No text of specified style in document.**-13: Clay concentration % in marine sediment**

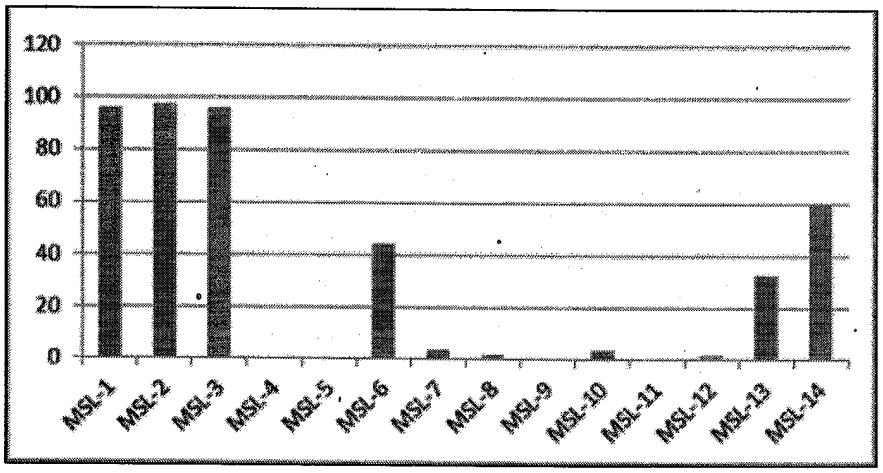


Figure Error! No text of specified style in document.**-14: Sand concentration % in marine sediment**

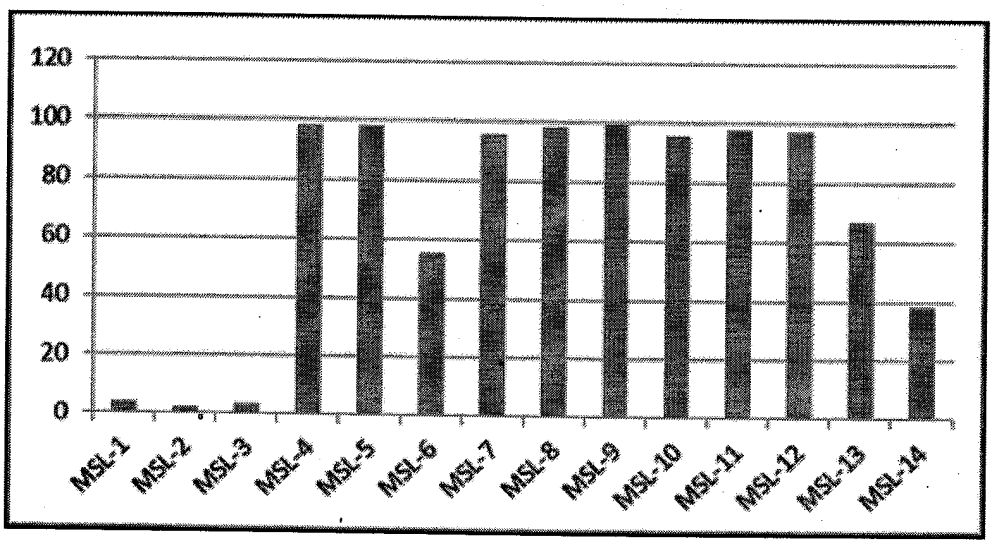


Figure Error! No text of specified style in document.**-15: Silt concentration % in marine sediment**

Trace Metals

Aluminium: Concentration of Al ranged 7.27 to 14.43 %, min at MSL-3 and Max at MSL-8 respectively.

Calcium: Concentration of Ca ranged 0.36 to 2.26 %, min at MSL-2 and Max at MSL-8 respectively.

Iron: Concentration of Fe ranged 0.6 to 6.35 %, min at MSL-2 and Max at MSL-8 respectively.

Magnesium: Concentration of Mg ranged 0.03 to 2.38 %, min at MSL-3 and Max at MSL-8 respectively.

The Results of Nutrients in marine sediment is shown from **Figure Error! No text of specified style in document.**-16 to **Figure Error! No text of specified style in document.**-19

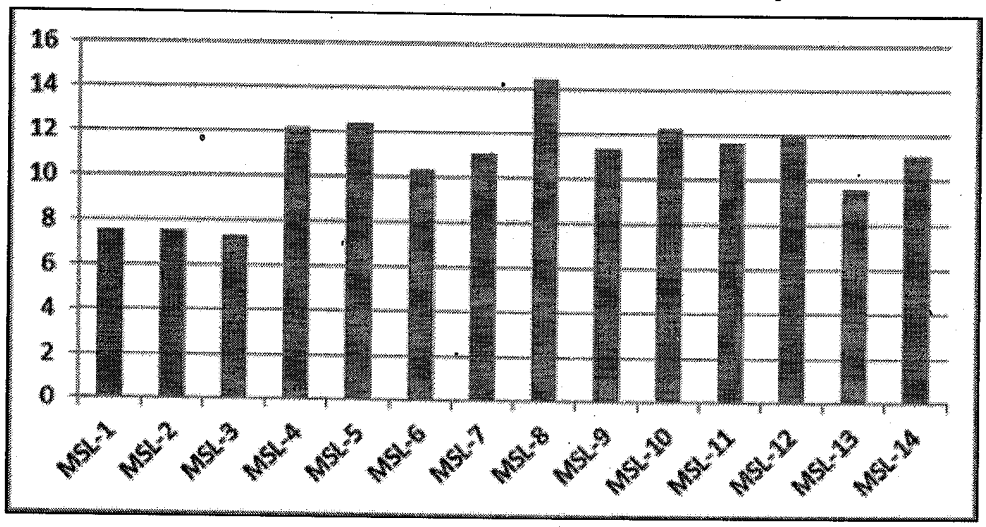


Figure Error! No text of specified style in document.**-16: Aluminium % in the sediment samples of study locations**

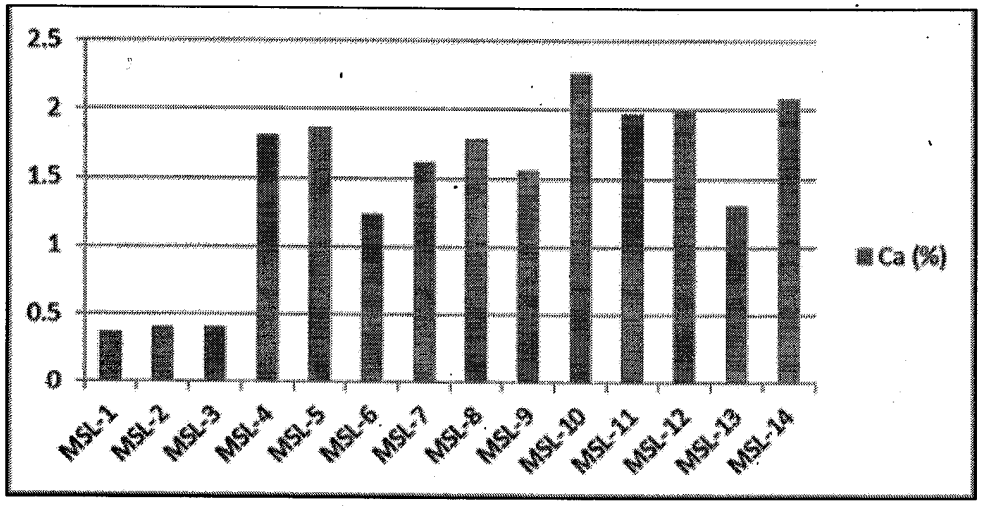


Figure Error! No text of specified style in document.**-17: Calcium % in the sediment samples of study locations**

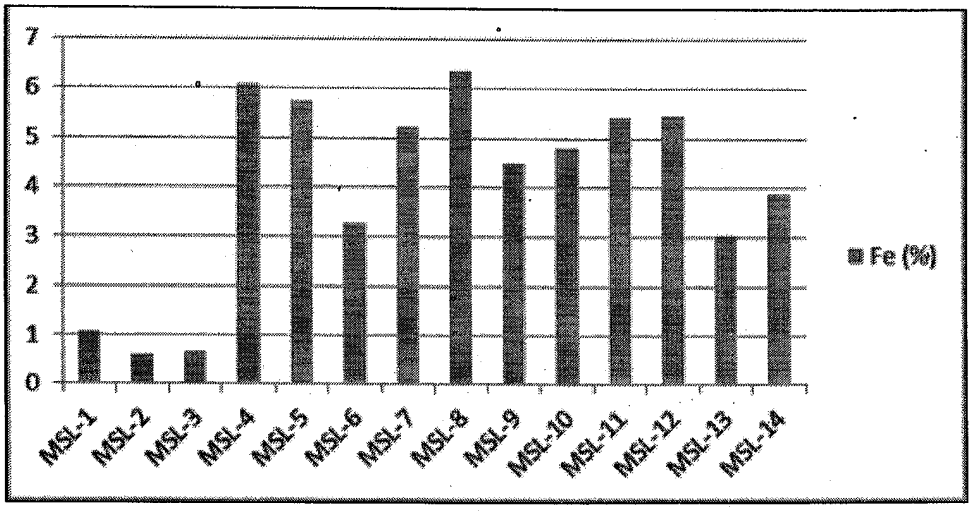


Figure Error! No text of specified style in document.**-18: Fe % in sediment samples in the study locations**

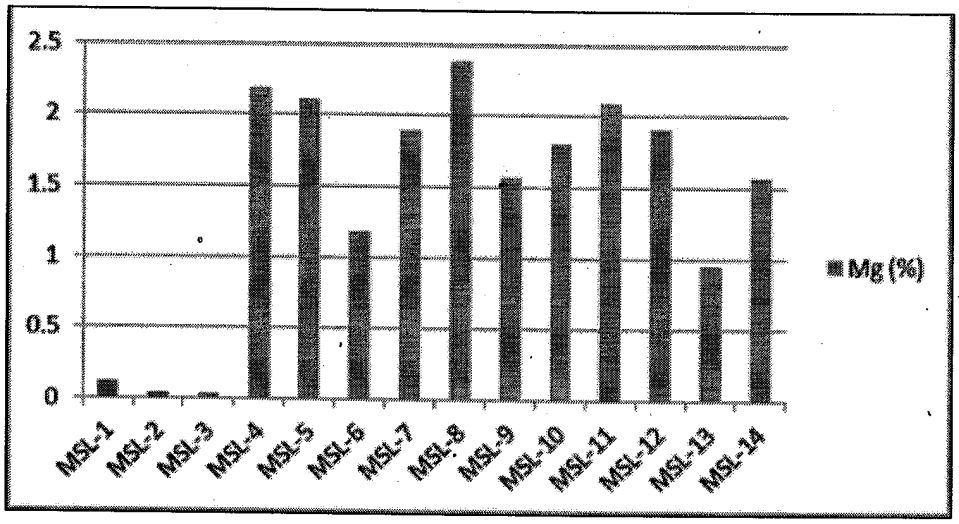


Figure Error! No text of specified style in document.**-19: Magnesium % in the sediment samples of study locations**

Heavy Metals

Mercury: Concentration of Hg ranged upto 0.05 µg/g at MSL-11.

Chromium: Concentration of Cr ranged 14.55 to 217.65 µg/g, min at MSL-2 and Max at MSL-8 respectively.

Zinc: Concentration of Zn ranged 21.8 to 115.9 µg/g, min at MSL-2 and Max at MSL-5 respectively.

Nickel: Concentration of Ni ranged 18.33 to 98.2 µg/g, min at MSL-2 and Max at MSL-8 respectively.

Copper: Concentration of Cu ranged 9.45 to 53.37 µg/g, min at MSL-2 and Max at MSL-8 respectively.

Cobalt: Concentration of Co ranged 0.78 to 22.38 µg/g, min at MSL-3 and Max at MSL-4 respectively

Lead: Concentration of Pb ranged 3.14 to 19.75 µg/g, min at MSL-2 and Max at MSL-8 respectively.

Arsenic: Concentration of As ranged 4.18 to 29.52 µg/g, min at MSL-2 and Max at MSL-4 respectively.

Cadmium: Concentration of As ranged 4.18 to 29.52 µg/g, min at MSL-2 and Max at MSL-4 respectively.

Manganese: Concentration of As ranged 4.18 to 29.52 µg/g, min at MSL-2 and Max at MSL-4 respectively.

The Results of Heavy Metals in marine sediment is shown from **Figure Error! No text of specified style in document.**-20 to **Figure Error! No text of specified style in document.**-27.

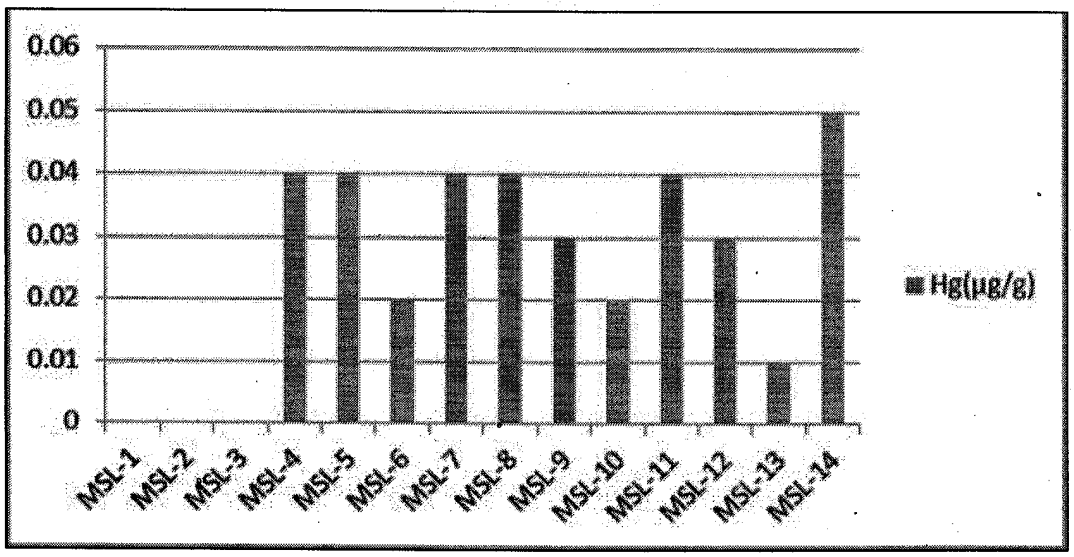


Figure Error! No text of specified style in document.**-20: Mercury concentration in the Marine sediment**

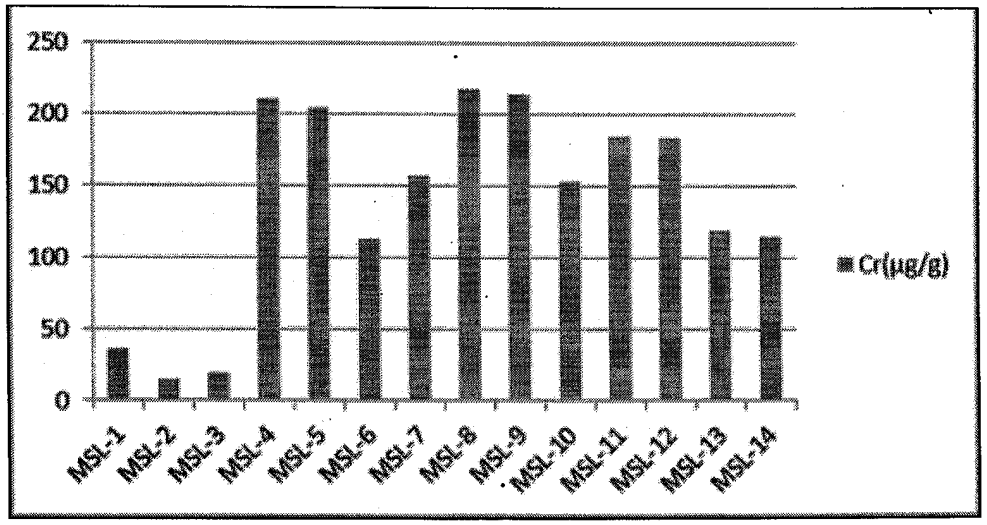


Figure Error! No text of specified style in document.**-21: Chromium concentration in the Marine sediment**

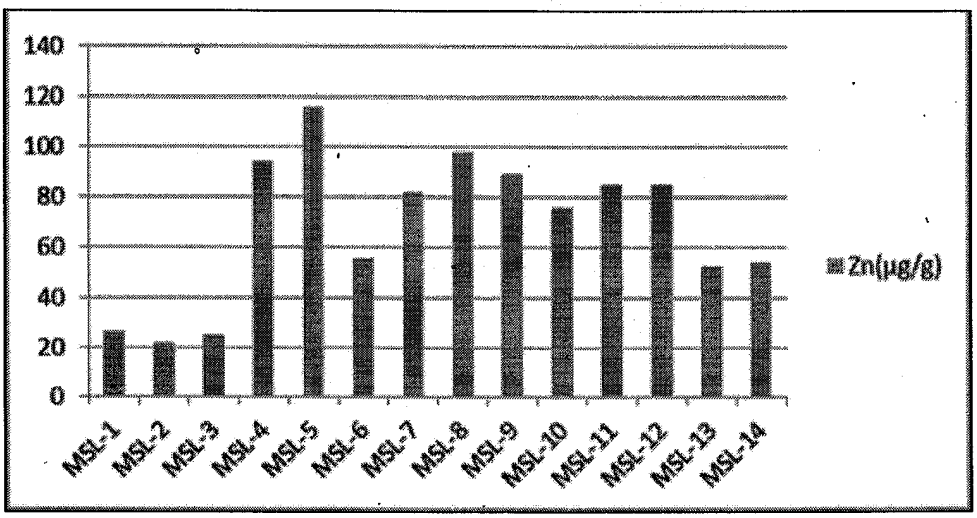


Figure Error! No text of specified style in document.**-22: Zinc concentration in the Marine sediment**

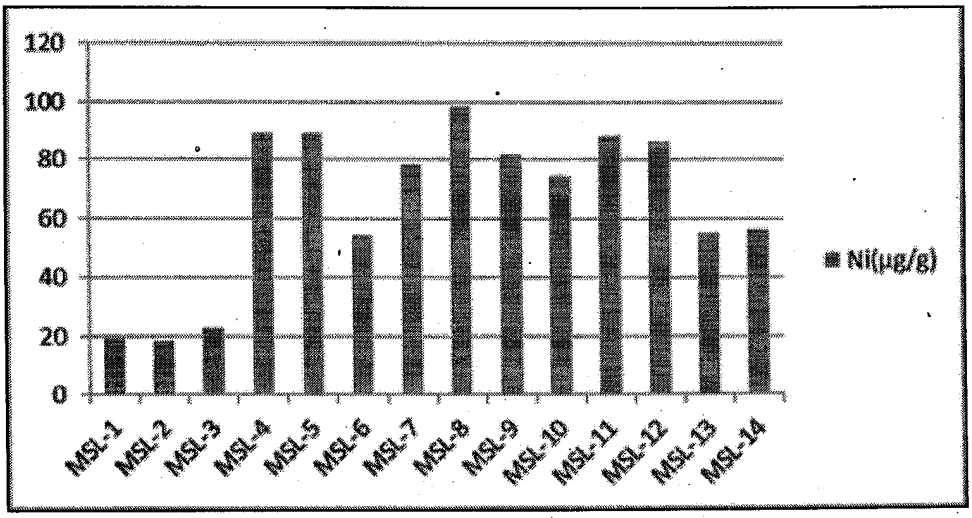


Figure Error! No text of specified style in document.**-23: Nickel concentration in the Marine sediment**

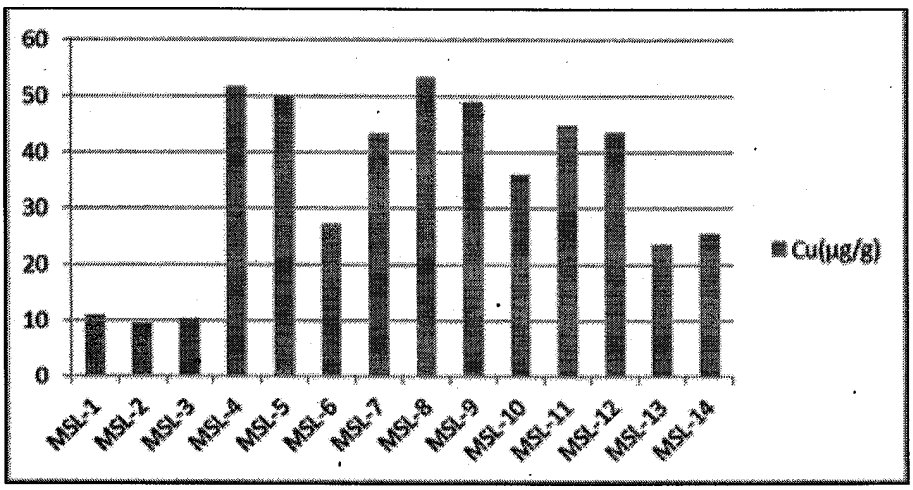


Figure Error! No text of specified style in document.**-24: Copper concentration in the Marine sediment**

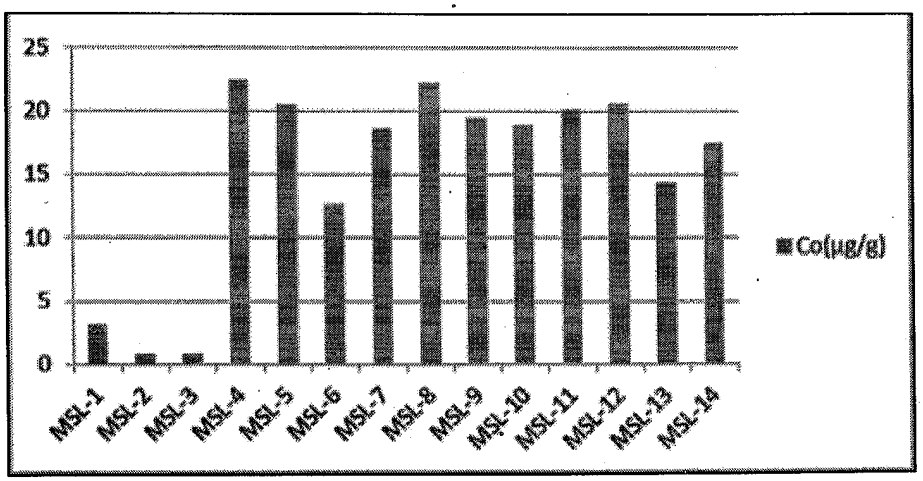


Figure Error! No text of specified style in document.**-25: Cobalt concentration in the Marine sediment**

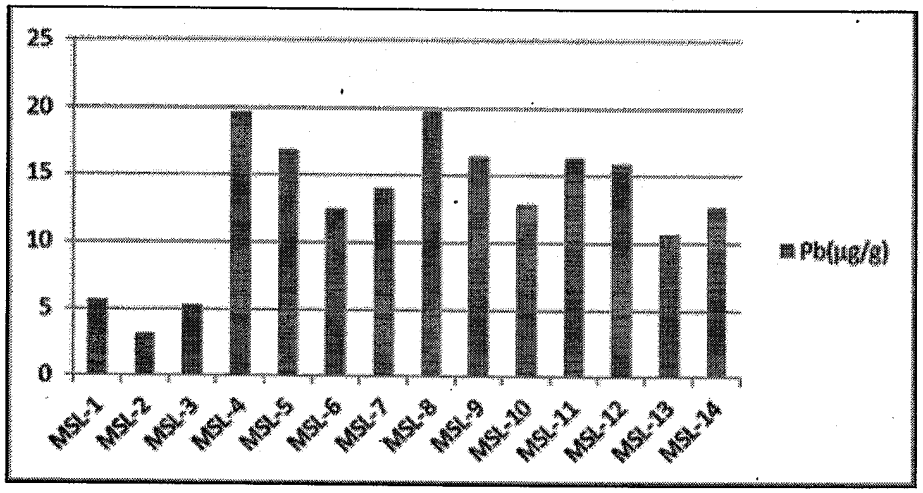


Figure Error! No text of specified style in document.**-26: Lead concentration in the Marine sediment**

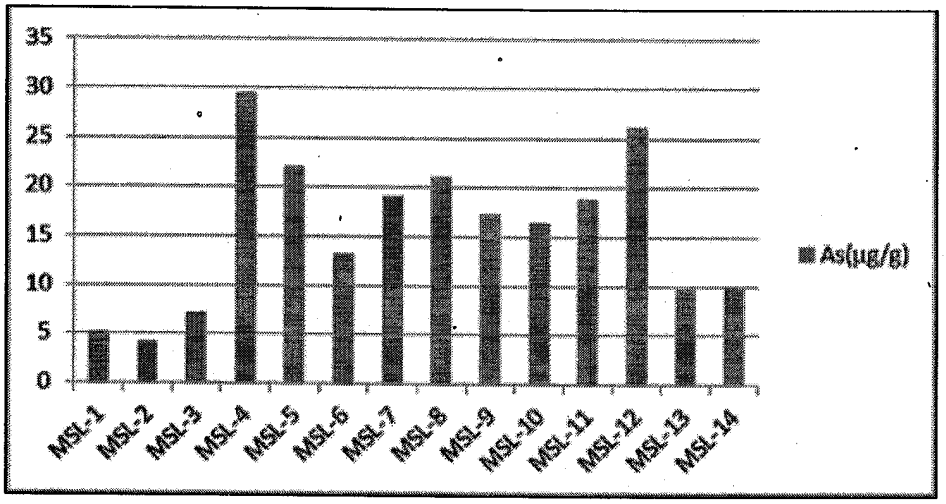


Figure Error! No text of specified style in document.**-27: Arsenic concentration in the Marine sediment**

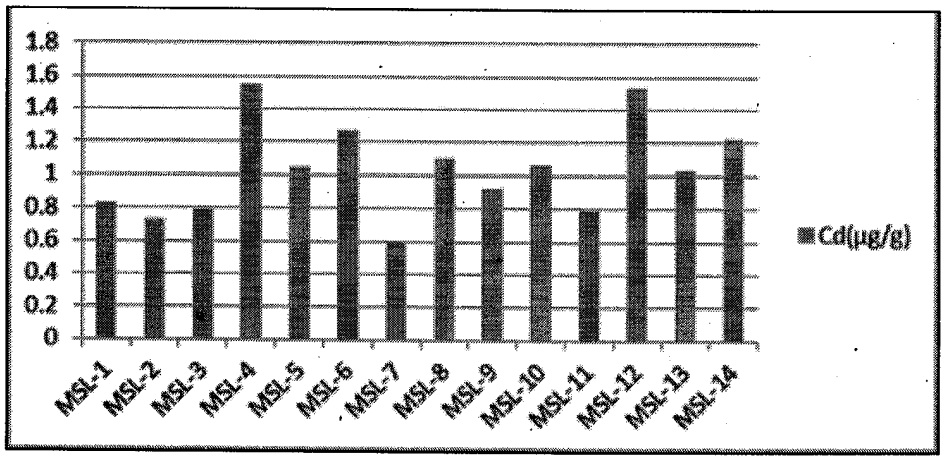


Figure Error! No text of specified style in document.**-28: Cadmium concentration in the Marine sediment**

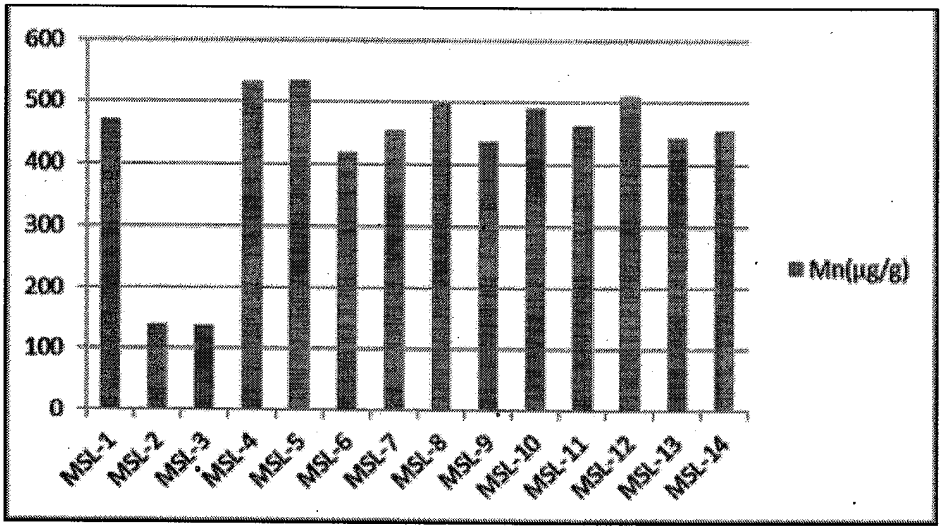


Figure Error! No text of specified style in document.**-29: Manganese concentration in the Marine sediment**

Marine Biology

Bacterial population

Total viable count of Bacteria

Total viable count of bacteria varied between 3 x 10^3 CFU $100mL^{-1}$ at MSL-13 and MSL-14 and 4 x 10^4 CFU $100mL^{-1}$ at MSL-5 as shown in following table.

Table Error! No text of specified style in document.**-7: Total viable count of bacteria**

Locations	Source	Total viable Count (CFU $100mL^{-1}$)
MSL-1	Surface Water	2 x 10^4
MSL-2	Surface Water	3 x 10^4
MSL-3	Surface Water	3.9 x 10^4
MSL-4	Surface Water	2 x 10^4

MSL-5	Surface Water	4×10^4
MSL-6	Surface Water	1.2×10^4
MSL-7	Surface Water	2×10^4
MSL-8	Surface Water	1.9×10^4
MSL-9	Surface Water	7×10^3
MSL-10	Surface Water	1.9×10^4
MSL-10	Bottom Water	5×10^3
MSL-11	Surface Water	1.3×10^4
MSL-11	Bottom Water	7×10^3
MSL-12	Surface Water	2.5×10^4
MSL-12	Bottom Water	6×10^3
MSL-13	Surface Water	3×10^3
MSL-14	Surface Water	3×10^3

Total E. coli and Other Coliforms Count

Total E. coli count of bacteria varied between 1×10^1 CFU $100mL^{-1}$ at MSL-3 and MSL-9 and 2×10^1 CFU $100mL^{-1}$ at MSL-6 and MSL-8 as shown in following table. No E. coli growth was observed in other marine sampling locations.

Other coliforms count varied between 3×10^1 CFU $100mL^{-1}$ at MSL-9 and 8.2×10^2 CFU $100mL^{-1}$ at MSL-3. No coliforms growth was detected in marine sampling locations MSL-4, MSL-10, MSL-12, MSL-13 and MSL-14. At MSL-11, other coliforms were observed in surface water sample which were absent in bottom water.

Table Error! No text of specified style in document.**-8: Total *E. coli* and Other Coliforms Count**

Locations	Source	Total Count (CFU $100mL^{-1}$)	
		E. coli	Other Coliforms
MSL-1	Surface Water	Nil	1.4×10^2
MSL-2	Surface Water	Nil	3.7×10^2
MSL-3	Surface Water	1×10^1	8.2×10^2
MSL-4	Surface Water	Nil	Nil
MSL-5	Surface Water	Nil	2.6×10^2
MSL-6	Surface Water	2×10^1	2.6×10^2
MSL-7	Surface Water	Nil	$.1 \times 10^2$
MSL-8	Surface Water	2×10^1	4.3×10^2
MSL-9	Surface Water	1×10^1	3×10^1
MSL-10	Surface Water	Nil	Nil
MSL-10	Bottom Water	Nil	Nil
MSL-11	Surface Water	Nil	4×10^1
MSL-11	Bottom Water	Nil	Nil
MSL-12	Surface Water	Nil	Nil
MSL-12	Bottom Water	Nil	Nil
MSL-13	Surface Water	Nil	Nil
MSL-14	Surface Water	Nil	Nil

Total Faecal Coliforms Count

Total faecal coliforms count varied between 1×10^1 CFU $100mL^{-1}$ at MSL-9 and 7×10^1 CFU $100mL^{-1}$ at MSL-6 as shown in following table. Faecal coliforms growth was observed only at five marine sampling locations viz. MSL-2, MSL-3, MSL-6, MSL-8 and MSL-9

Table Error! No text of specified style in document.**-9: Total Faecal Coliforms Count**

Locations	Source	Total Faecal Coliforms Count (CFU 100mL^{-1})
MSL-1	Surface Water	Nil
MSL-2	Surface Water	4 x 10^1
MSL-3	Surface Water	3 x 10^1
MSL-4	Surface Water	Nil
MSL-5	Surface Water	Nil
MSL-6	Surface Water	7 x 10^1
MSL-7	Surface Water	Nil
MSL-8	Surface Water	5 x 10^1
MSL-9	Surface Water	1 x 10^1
MSL-10	Surface Water	Nil
MSL-10	Bottom Water	Nil
MSL-11	Surface Water	Nil
MSL-11	Bottom Water	Nil
MSL-12	Surface Water	Nil
MSL-12	Bottom Water	Nil
MSL-13	Surface Water	Nil
MSL-14	Surface Water	Nil

Total Vibrio Count

Total Vibrio count varied between 1x10^1 CFU 100mL^{-1} at MSL-12 and 5.2x10^3 CFU100 mL^{-1} at MSL-7 as shown below.

Table Error! No text of specified style in document.**-10: Total *Vibrio* Count in water samples**

Locations	Source	Total Vibrio Count (CFU 100mL^{-1})
MSL-1	Surface Water	6 x 10^1
MSL-2	Surface Water	1.6 x 10^2
MSL-3	Surface Water	1.18 x 10^3
MSL-4	Surface Water	5 x 10^1
MSL-5	Surface Water	9 x 10^2
MSL-6	Surface Water	5.9 x 10^2
MSL-7	Surface Water	5.2 x 10^3
MSL-8	Surface Water	8.4 x 10^2
MSL-9	Surface Water	2 x 10^1
MSL-10	Surface Water	4 x 10^1
MSL-10	Bottom Water	1.27 x 10^3
MSL-11	Surface Water	4.5 x 10^2
MSL-11	Bottom Water	6.2 x 10^2
MSL-12	Surface Water	1 x 10^1
MSL-12	Bottom Water	1.7 x 10^2
MSL-13	Surface Water	1.2 x 10^2
MSL-14	Surface Water	1.78 x 10^3

Total Pseudomonas Count

Pseudomonas growth was observed only at six marine sampling locations viz. MSL-1, MSL-5, MSL-8 (1 x 10^1 CFU 100mL-1), MSL-2 (3 x 10^1 CFU 100mL^{-1}), MSL-3 and MSL-6 (4 x 10^1 CFU 100mL^{-1}) as shown

Table Error! No text of specified style in document.**-11: Total Pseudomonas Count in marine water samples**

Locations	Source	Total *Pseudomonas* Count (CFU 100mL^{-1})
MSL-1	Surface Water	1 x 10^1
MSL-2	Surface Water	3 x 10^1
MSL-3	Surface Water	4 x 10^1
MSL-4	Surface Water	Nil
MSL-5	Surface Water	1 x 10^1
MSL-6	Surface Water	4 x 10^1
MSL-7	Surface Water	Nil
MSL-8	Surface Water	1 x 10^1
MSL-9	Surface Water	Nil
MSL-10	Surface Water	Nil
MSL-10	Bottom Water	Nil
MSL-11	Surface Water	Nil
MSL-11	Bottom Water	Nil
MSL-12	Surface Water	Nil
MSL-12	Bottom Water	Nil
MSL-13	Surface Water	Nil
MSL-14	Surface Water	Nil

Total Salmonella & Shigella Count

Salmonella growth was observed only at six marine sampling locations viz. MSL-2, MSL-5, MSL-6, MSL-8 (1 x 10^1 CFU 100mL^{-1}), MSL-7 (2 x 10^1 CFU 100mL^{-1}) and MSL-3 (9 x 10^1 CFU 100mL^{-1}) as shown in following table.

Total *Shigella* count varied between 1 x 10^1 CFU 100mL^{-1} at MSL-5, MSL-10 and MSL-12 and 1.36 x 10^3 CFU 100mL^{-1} at MSL-8 as shown in following table. No *Shigella* growth was observed at MSL-4, MSL-9 and MSL-13. At the same time, at MSL-10, MSL-11 and MSL-12 growth of *Shigella* was observed only in bottom water sample.

Table Error! No text of specified style in document.**-12: Total Salmonella and Shigella Count in water samples**

Locations	Source	Total Count (CFU 100mL^{-1})	
		Salmonella	*Shigella*
MSL-1	Surface Water	Nil	1.9 x 10^2
MSL-2	Surface Water	1 x 10^1	2.3 x 10^2
MSL-3	Surface Water	9 x 10^1	8.3 x 10^2
MSL-4	Surface Water	Nil	Nil
MSL-5	Surface Water	1 x 10^1	1 x 10^1
MSL-6	Surface Water	1 x 10^1	1.8 x 10^2
MSL-7	Surface Water	2 x 10^1	1.35 x 10^3
MSL-8	Surface Water	1x 10^1	1.36 x 10^3
MSL-9	Surface Water	Nil	Nil
MSL-10	Surface Water	Nil	Nil
MSL-10	Bottom Water	Nil	1 x 10^1
MSL-11	Surface Water	Nil	Nil
MSL-11	Bottom Water	Nil	5.4 x 10^2
MSL-12	Surface Water	Nil	Nil
MSL-12	Bottom Water	Nil	1x 10^1
MSL-13	Surface Water	Nil	Nil
MSL-14	Surface Water	Nil	5x 10^1

Phytoplankton community structure and biomass

As total 34 genera of phytoplankton were observed in the water samples collected from the estuarine and coastal region of Honnavar in April 2024. The abundance was varied between 375 - 35100 cells/litre. The number species found in each sample had a range of 3-18. The Shannon diversity was ranged between 0.8-1.6. Out of 17 samples, 7 had high evenness (uniform abundance among species) and 10 samples had less evenness (dominance of few species). The biomass (chlorophyll-a) was ranged between 0.19 and 2.33 µg/L. Out of 34 genera observed, 15 were dominated by abundance (>5% contributed). Only 7 genera (Coscinodiscus spp., Pleurosigma spp., Ornithocercus spp., Trichodesmium spp., Leptocylindrus spp., Staurastrum spp., Skeletonema spp.) had >20% of cell abundance.

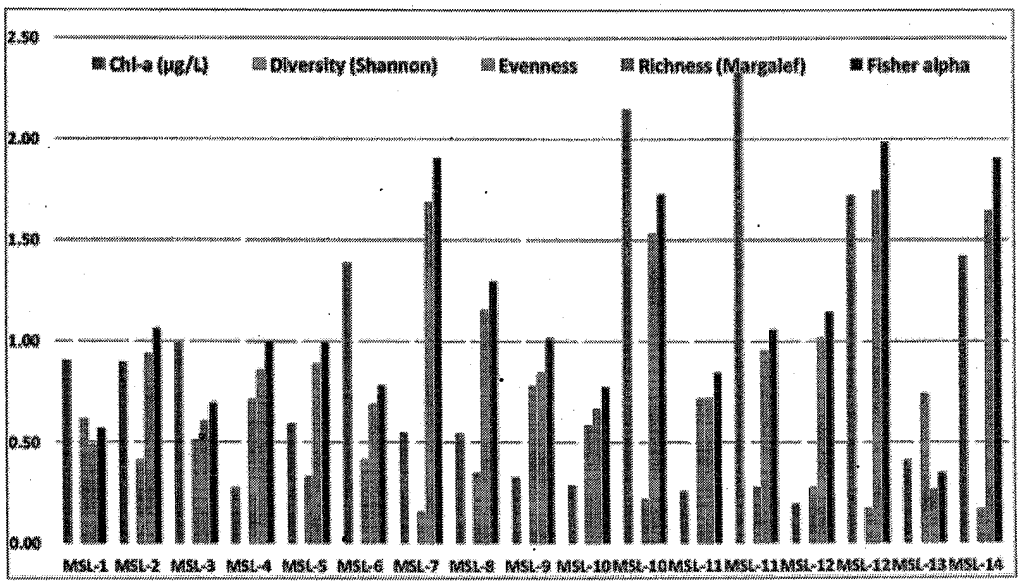


Figure Error! No text of specified style in document.**-30: The graph shows the phytoplankton biomass (Chl-a) and different diversity indices at each location around Honnavar estuary and coastal region.**

Note: The repeated labels in x-axis indicate the bottom water sample of same location

Table Error! No text of specified style in document.**-13: The percentage contribution of dominant phytoplankton species (cell abundance > 5%) observed at different locations around Honnavar estuary and coastal region**

% of phytoplankton	MSL-1	MSL-2	MSL-3	MSL-4	MSL-5	MSL-6	MSL-7	MSL-8	MSL-9	MSL-10	MSL-10	MSL-11	MSL-11	MSL-12	MSL-12	MSL-13	MSL-14
Coscinodiscus spp.	54.5	53	60.8	45.5	67.9	68.6	79.0	57.6	33.3	55.6	63.1	50.0	63.4	13.1	74.2	45.3	23.0
Pleurosigma spp.	-	-	6.3	-	-	-	-	-	6.7	-	8.1	15.4	24.8	-	-	-	-
Ornithocercus spp.	-	-	-	9.1	-	-	-	-	6.7	25.0	19.3	11.5	-	-	10.1	52.0	-
Rhizosolenia spp.	-	-	-	-	-	-	-	6.6	-	-	-	-	-	-	-	-	-
Nitzschia spp.	-	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prorocentrum spp.	-	-	-	9.1	-	-	-	-	6.7	5.6	-	7.7	-	-	-	-	-
Chaetoceros spp.	-	-	-	-	-	-	-	-	-	-	-	11.5	-	-	-	-	-
Thalassiosira spp.	-	-	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-
Protoperidinium spp.	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	-	-

% of phytoplankton	MS L-1	MS L-2	MS L-3	MS L-4	MS L-5	MS L-6	MS L-7	MS L-8	MS L-9	MS L-10	MS L-10	MS L-11	MS L-11	MS L-12	MS L-12	MS L-13	MS L-14
Oscillatoria spp.	-	-	-	-	-	-	-	16.2	-	-	-	-	-	73.8	-	-	69.9
Leptocylindrus spp.	11.7	-	22.8	18.2	16.7	9.6	-	-	-	-	-	-	-	-	-	-	-
Staurastrum spp.	28.6	9.0	-	-	7.7	12.8	-	-	33.3	5.6	-	-	-	-	-	-	-
Skeletonema spp.	-	28.0	-	-	-	-	-	7.9	-	-	-	-	-	-	-	-	-
Pseudonitzschia spp.	-	-	-	-	-	-	-	-	13.3	-	-	-	-	-	-	-	-
Eucampia spp.	-	-	-	9.1	-	-	-	-	-	-	-	-	-	-	-	-	-

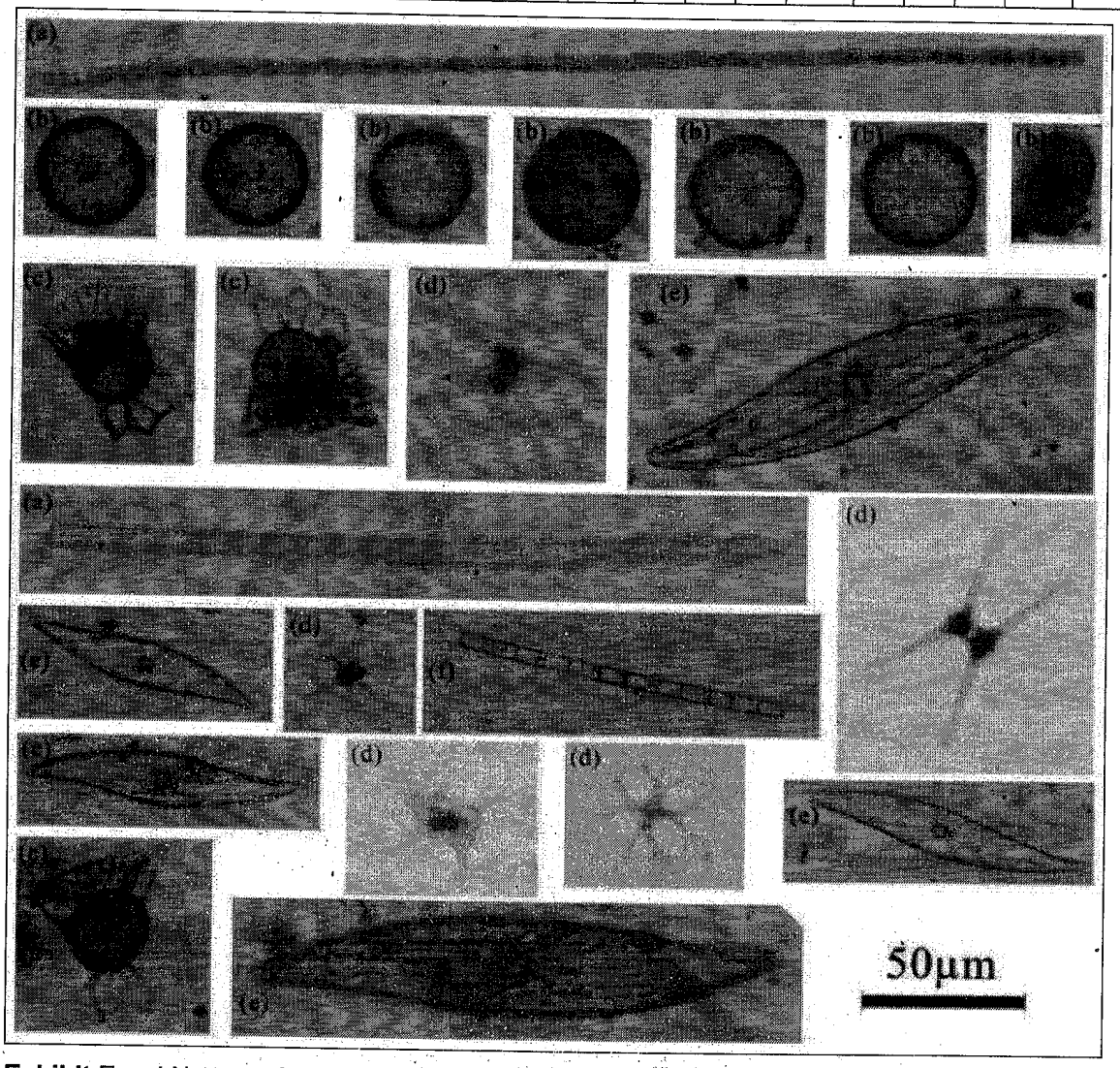


Exhibit Error! No text of specified style in document.**-1: The microscopic images of dominant phytoplankton observed at Honnavar estuarine and coastal waters**

Where (a) *Trichodesmium* spp. (b) *Coscinodiscus* sp. (c) *Ornithocercus* sp. (d) *Staurastrum* spp. (e) *Pleurosigma* spp. (f) *Leptocylindrus* sp.

Zooplankton

The zooplankton abundance varied from 852 Nos./m^3 to 15537 Nos./m^3 (average: 7237±4032 Nos./m^3). The lowest abundance was found in MSL-1 and the highest was observed in MSL-12. The zooplankton biomass varied from 0.06 ml/m3 to 0.98 ml/m3 (average: 0.58±0.29 ml/m^3). The lowest biomass was found in MSL-1 and the highest was observed in MSL-12. The dominant zooplankton groups observed were copepods, appendicularia, chaetognatha, gastropods. In stations MSL-10 and MSL-14, high number of echinoderm larvae was observed compared to other stations. The highest number of taxa was observed in MSL-8 (19 taxa) and MSL-12 (20 taxa). The number of taxa was lower in estuarine region compared to coastal regions.

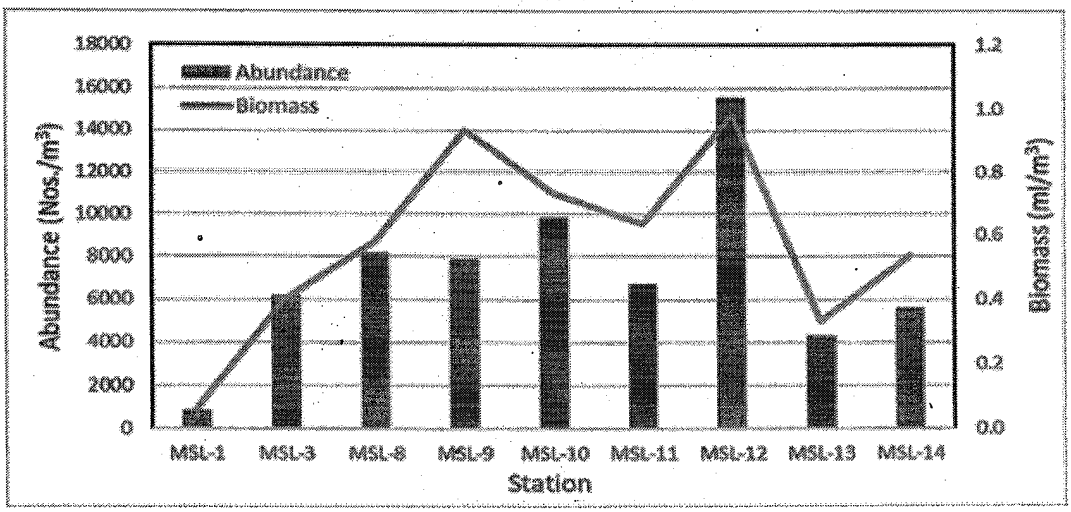


Figure Error! No text of specified style in document.**-31: Zooplankton abundance and biomass in estuarine and coastal areas of Honnavar during April 2024**

Benthos

Benthic fauna is a crucial component of the marine ecosystem with multiple ecological roles.They are broadly divided into three distinct groups based on their size namely macrobenthos (>500 µm), meiobenthos (500 – 63 µm) and microbenthos (< 63 µm). Due to their size rangeand various feeding habits they contribute to different levels in the marine food chain. Additionally, their limited mobility, and diverse species with different tolerances to stress andenvironmental perturbation make them important biomarkers in assessing the health of the marine ecosystem at spatial and temporal scales.

Macro benthos

During the present survey of coastal regions of Honnavar, a total of 30 taxa of benthic fauna were recorded belonging to a wide range of taxonomic groups viz., Polychaeta, Amphipoda, Cumacea, Bivalvia, Gastropoda, Ophiuroidea, and Chaetognatha. Polychaeta, with 19 taxa (63%), was the most dominant group, followed by Crustacea 5 taxa (16.6%) and Gastropoda, 4 taxa (13%).

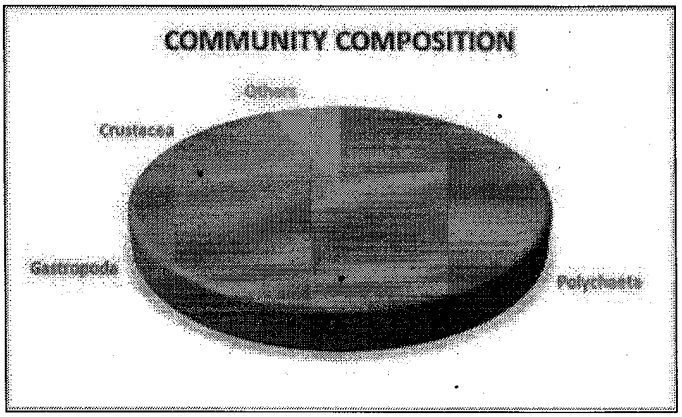


Figure Error! No text of specified style in document.**-32: Taxonomic composition (%) of Macrobenthos in Honnavar coastal region**

The abundance of macro benthic fauna varied between 119 ind.m^{-2} to 928 ind.m^{-2}. The lowest abundance was found in MSL-2 and the highest was observed in MSL-7.

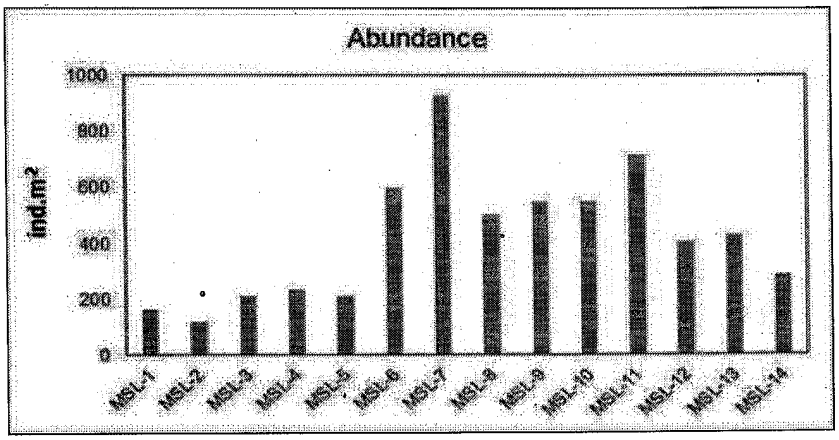


Figure Error! No text of specified style in document.**-33: Abundance of benthic fauna in the coastal region of Honnavar**

Each station represented a variable abundance of particular fauna and few taxa were specific to one or two particular stations. For the assessment of diversity, three diversity indices viz., Margalef's index (d), Pielou's evenness (J') and Shannon-Wiener index (H') were calculated.All the indices revealed MSL-6 as the most diverse station concerning benthic fauna whereas MSL-8 was the least diverse.

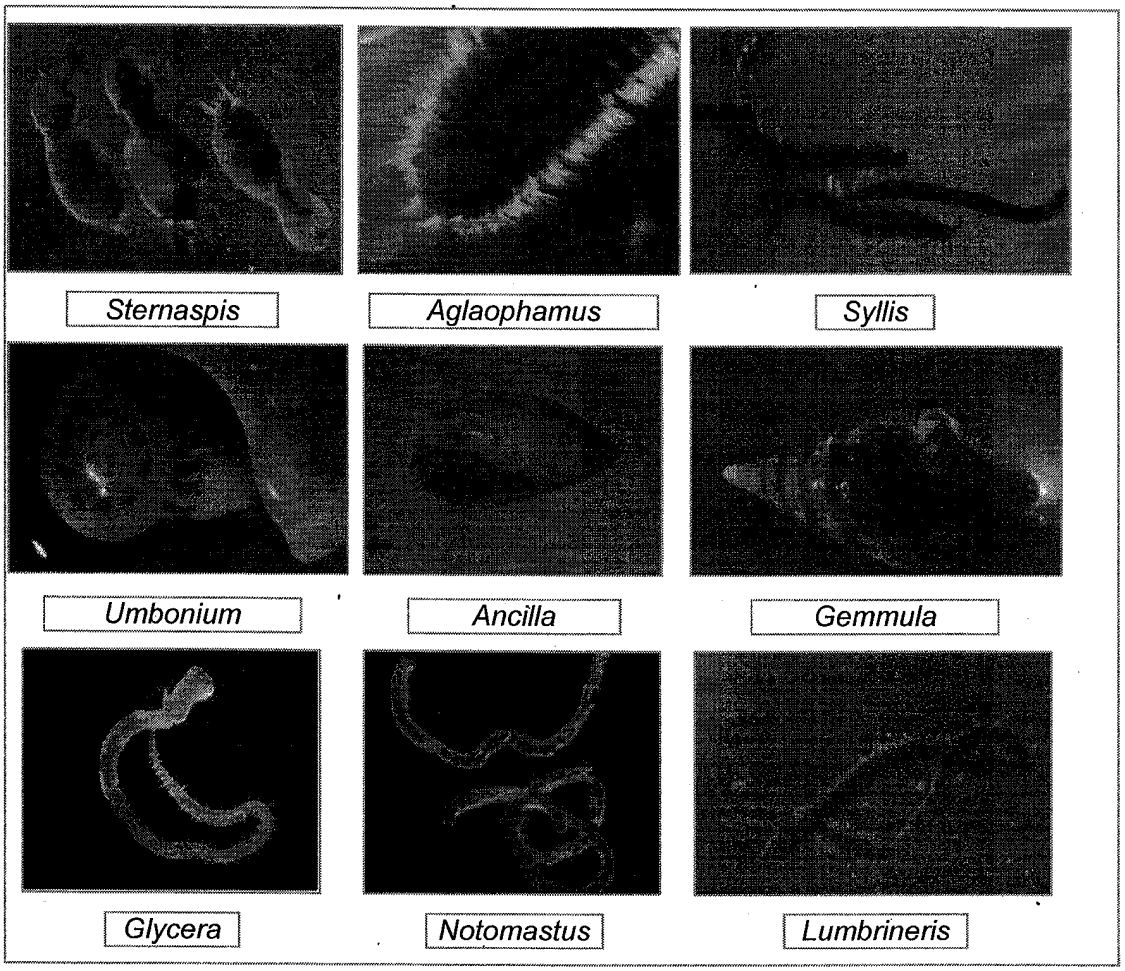


Exhibit Error! No text of specified style in document.**-2: Some selected macrobenthic species from coastal regions of Honnavar**

Meibenthos

Meiobenthos are considered as an important link between macro and microbenthos in the sediments. It indirectly improves the rate of carbon mineralization in sediments by encouraging microbial activity through predation, and/or directly through feeding of detritus material contributed by larger deposit-feeding invertebrates. Meiobenthic community are also known in helping stabilization of the sediment through their mucus secretion and thus act as a potential microbioturbators. They increase productivity of shallow waters by enhancing recirculation of nutrients, augment energy flow, and mineralization of organic matter.

During the present survey of coastal regions of Honnavar, meiobenthos recorded belonged to a wide range of taxonomic groups viz., Nematoda, Oligochaeta, Copepoda, Amphipoda, Cumacea, and Polychaeta. Nematoda, was the most dominant group, followed by Oligochaeta.

The abundance of meiobenthic fauna varied between 1 ind/10 cm^2 to 151 ind/10 cm^2, with the highest and lowest abundance found in MSL-10 and MSL-1 respectively. There was no

meiobenthic fauna in 4 stations, namely – MSL-2, MSL-3, MSL-4 and MSL-14. Percentage composition of meiofaunal group from study site is presented below.

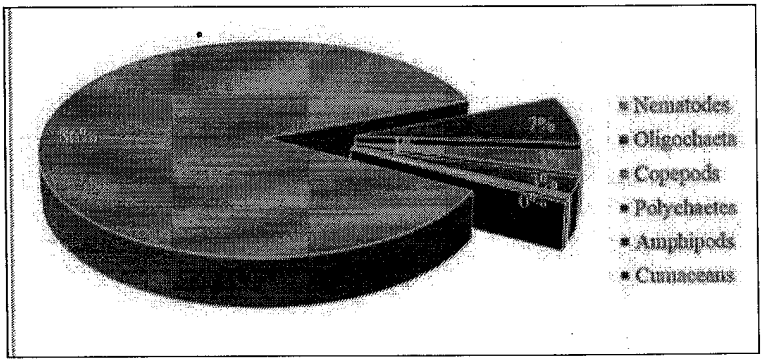


Figure Error! No text of specified style in document.**-34: Percentage composition of meiofauna at Honnavar coastal region**

Nematoda was found dominant and was the major organism in meiofaunal composition at all the stations. Oligochaeta was the next dominant group followed by Copepods and Polychaetes. Amphipoda and Cumaceans contributed less than 2 percentages to meiofaunal composition.

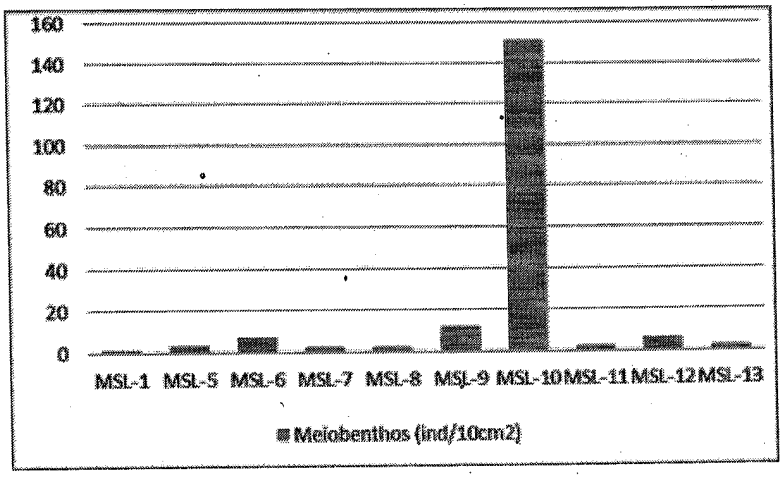


Figure Error! No text of specified style in document.**-35: Abundance of meiofauna at each sampling location**

Marine Flora Fauna

Marine Turtle Nesting areas

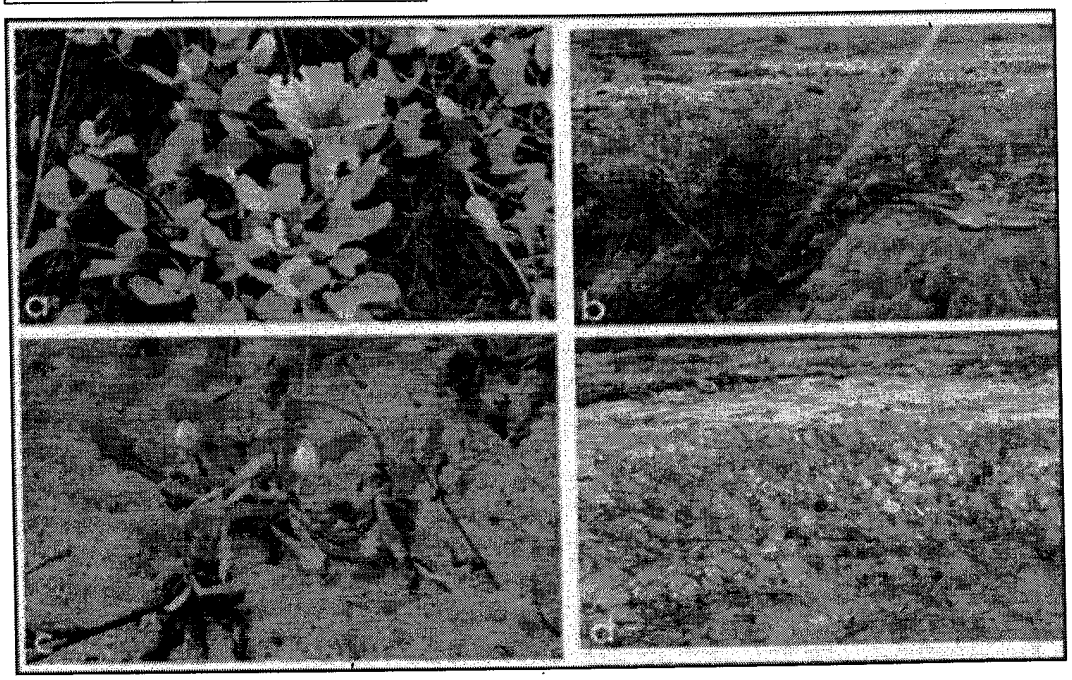
Man Made turtle breeding / hatchery sites are present near the project area. Report on Water Quality and Biological Parameters Related to Rapid Marine Environmental Impact Assessment Studies in connection with Port development at Honnavar carried out by NIO is enclosed as **Appendix I.**

Marine Flora

In the sand dune area ten species were recorded belonging to ten different families **Table Error! No text of specified style in document.**-14. Spinifex littoreus and Ipomoea pes-caprae was found to be the common species occurring in both core and project influence area.

Table Error! No text of specified style in document.**-14: List of sand dune flora species recorded during survey**

Family	Species
Aizoaceae	*Sesuvium portulacastrum*
Asteraceae	*Launaea sarmentosa*
Casuarinaceae	*Casuarina equisetifolia*
Convolvulaceae	*Ipomoea pes-caprae*
Fabaceae	*Crotalaria pallida*
Myrtaceae	*Syzygium* sp.
Pandanaceae	*Pandanus sp.*
Poaceae	*Spinifex littoreus*
Rubiaceae	*Oldenlandia* sp. ,
Verbenaceae	*Lantana camara*



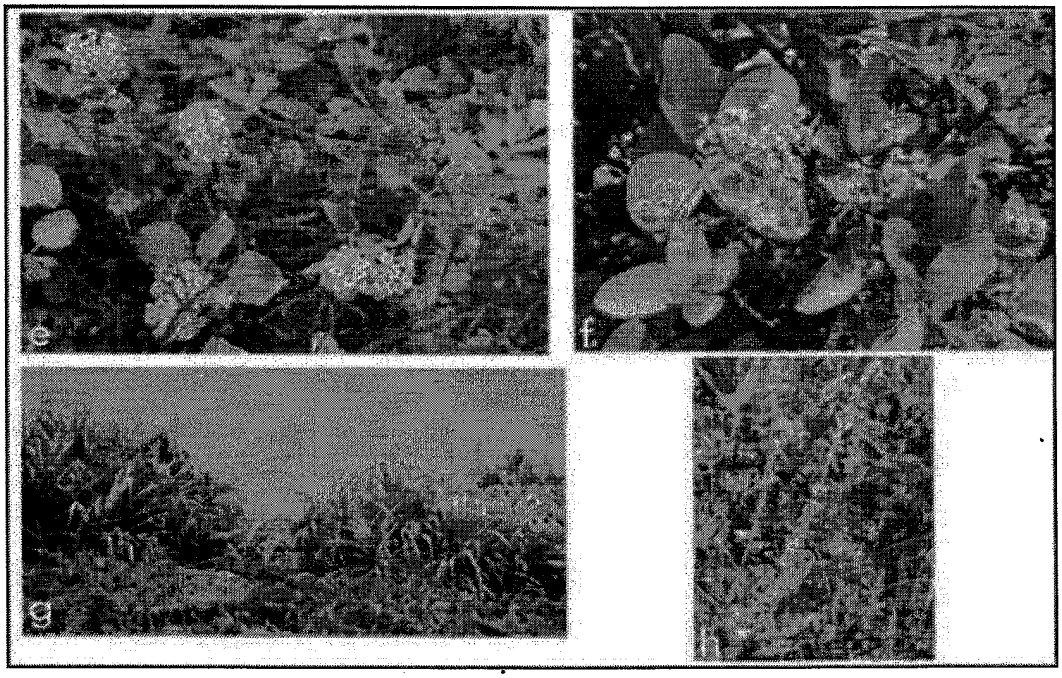


Exhibit Error! No text of specified style in document.**-3: Observed Sand dune floral species**

Where: **a.** *Ipomoea pes-caprae* **b.** *Spinifex littoreus* **c.** *Launaea sarmentosa* **d.** *Sesuvium portulacastrum* **e.** *Lantana camara* **f.** *Syzygium* sp. **g.** *Pandanus* sp. **h.***Crotalaria pallida*

Table Error! No text of specified style in document.**-15: Location of sand dune flora observed at the proposed core site**

Station	Latitude	Longitude	Species observed	
			Family	Species
Station-1	14° 17.800'N	74° 25.523'E	*Poaceae*	*Spinifex littoreus*
Station-2	14° 17.722'N	74° 25.520'E	Convolvulaceae	*Ipomoea pes-caprae*
Station-3	14° 17.492'N	74° 25.486'E	Aizoaceae	*Sesuvium portulacastrum*
Station-4	14° 17.322'N	74° 25.435'E	Asteraceae	*Launaea sarmentosa*
Station-5	14° 16.992'N	74° 25.531'E	Casuarinaceae	*Casuarina equisetifolia*
Station-6	14° 16.946'N	74° 25.543'E		

The present survey also revealed the presence of three salt marsh species represented by *Sesuvium portulacastrum, Porteresia coarctata* and *Scirpus littoralis.*

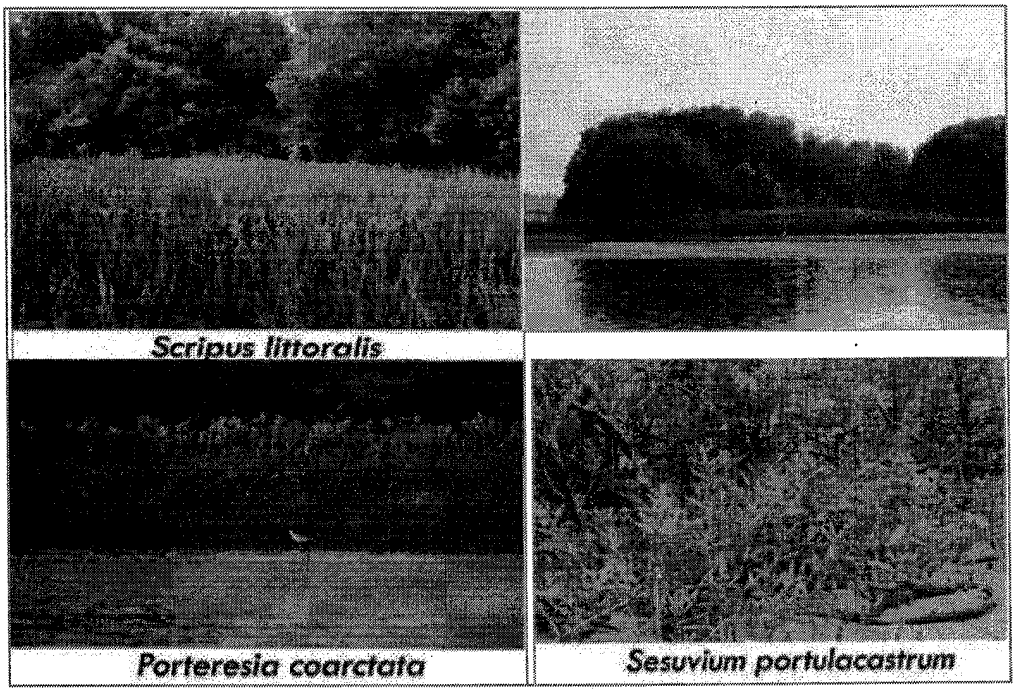


Exhibit Error! No text of specified style in document.**-4: Species observed in salt marshes**

Mangroves

Mangrove primary survey revealed presence of a total ten mangrove species belonging to five families.The dominant mangrove species were *Sonneratia alba*, and *Kandelia candel* followed by *Sonneratia caseolaris*, *Acrostichum aureum*, *Avicennia officinalis*, *Acanthus ilicifolius*, *Aegiceras corniculatum*, *Rhizophora mucronata*, and *Excoecaria agallocha*. Species such as *Bruguiera gymnorhiza* have only been found in one plot. Three common mangrove associateswere found in majority of the mangrove plots.

Table Error! No text of specified style in document.**-16: List of mangroves and the associate flora recorded during field survey**

Family	Species
Acanthaceae	*Avicennia officinalis* (Linnaeus, 1753) *Acanthus ilicifolius* (Linnaeus, 1753)
Euphorbiaceae	*Excoecaria agallocha* (Linnaeus, 1759) Lythraceae *Sonneratia alba* Sm.
Lythraceae	*Sonneratia caseolaris* (Linnaeus)
Primulaceae	*Sonneratia caseolaris* (Linnaeus) *Aegiceras corniculatum (L.) Blanco*
Pteridaceae	*Acrostichum aureum L.*
Rhizophoraceae	*Rhizophora mucronata* (Lam) *Kandelia candel* (L.) *Bruguiera gymnorhiza* (L.) Lam.
Mangrove associated flora	
Family	**Species**

Family	Species
Apocynaceae	*Cerbera manghas*
Fabaceae	*Derris trifoliata*
Lamiaceae	*Volkameria inermis*

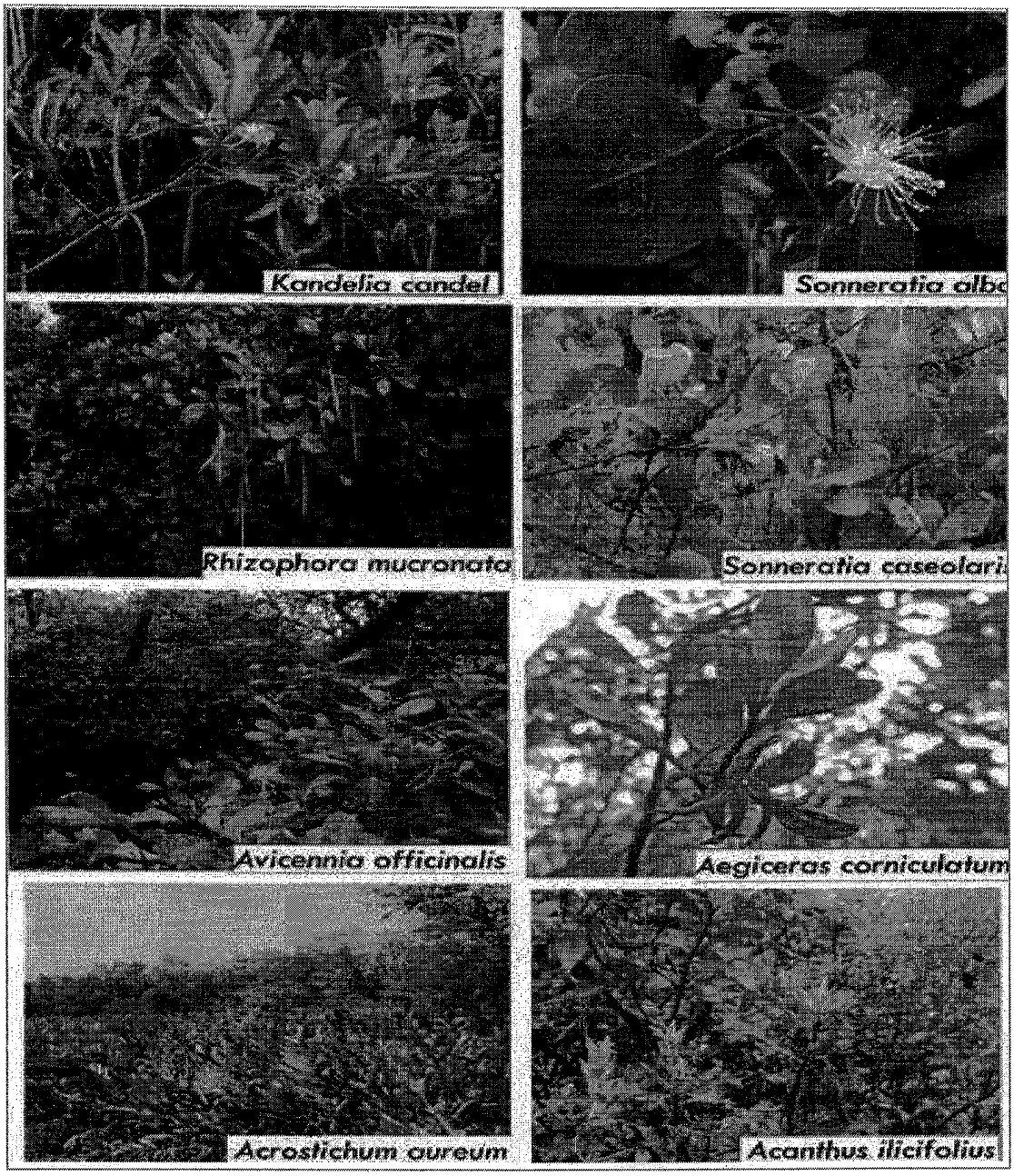


Exhibit Error! No text of specified style in document.**-5: Mangrove species recorded during the survey**

The overall tree density ranged between 1140/ha to 4400/ha at mangrove patch located oppositeto core area of proposed site. In project influence area, tree density value varied 2300/ha to 6500/ha. In terms of basal area, minimum (5.8 m^2/ha) and maximum (110.3 m^2/ha) was recorded. The mean girth and height minimum and maximum value recorded as 15.4cm and 4.7m and 43.3cm and 6.5m, respectively. Regeneration potential of mangrove ranged between 1000/ha and 4800/ha and was due to huge plantation of *Kandelia candel* by the forestdepartment. The complexity index of mangroves recorded varied 0.01 to 0.67.

Seagrass

In coastal areas of Karnataka, huge seagrass beds are not reported, however there are report of two species of seagrass *Ruppia maritima* and *Halophila beccarii* occurring along Swarnasita, Chakra, Haladi, Kollur, and Venkatapur estuary.

In Honnavar, there is no earlier reports or scientific publication mentioning the occurrence of seagrass. However, during our survey, we found presence of huge seagrass bed of *Halophila* sp. occurring adjacent to the mangrove forest patch situated in the sharavathi estuary. The seagrass bed is located 3.4 km away towards the south direction of the proposed core project site area. The approximate area of seagrass was found to be around five to seven hectares, however more detailed season sampling is required to confirm the exact area and the presenceof any other seagrass species.

Seagrass are listed as Ecologically Sensitive areas as per CRZ notification, 2019 and classified as CRZ1A and protected under the Environment (Protection) Act 1986.

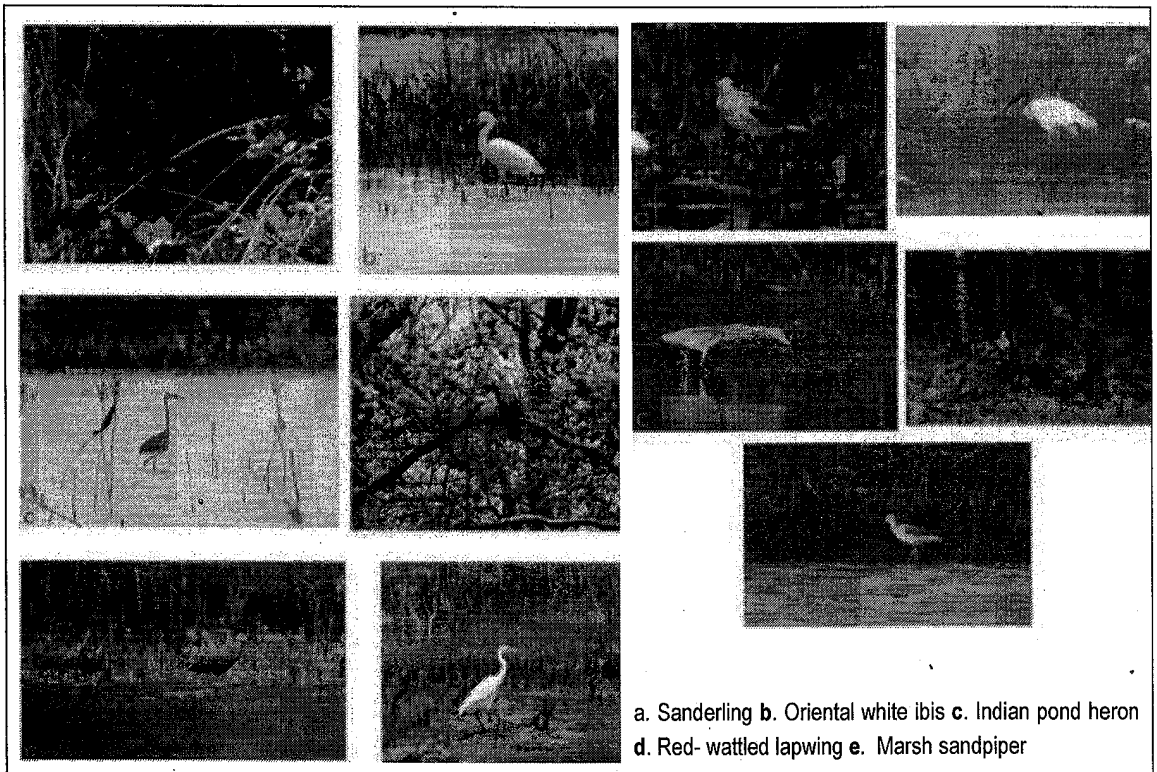
Avifauna in mangrove area

During our mangrove survey, we have recorded avifauna found foraging from the saltmarsh and mangrove areas. A total eleven species were recorded, out of which Oriental white ibis was categorized as near threatened (NT) according IUCN Red List of Threatened Species.

Table Error! No text of specified style in document.**-17: Avifauna in mangrove area**

Common name	Species
Little cormorant	*Microcarbo niger*
Little egret	*Egretta garzetta*
Grey heron	*Ardea cinerea*
Brahminy kite	*Haliastur indus*
Grey-headed swamphen	*Porphyrio poliocephalus*
Median egret	*Ardea intermedia*
Oriental white ibis	*Threskiornis melanocephalus*
Indian pond heron	*Ardeola grayii*
Red-wattled lapwing	*Vanellus indicus*
Sanderling	*Calidris alba*
Marsh sandpiper	*Tringa stagnatilis*

The avifauna documented was based on a rapid field survey in the month of April, 2024. Hence,the data should not be treated as a comprehensive or conclusive account of the avifauna foundin mangrove area of Honnavar/Sharavati estuary. Avifauna species spotted during the survey is shown in **Exhibit Error! No text of specified style in document.**-6.



a. Little cormorant **b.** Little egret **c.** Grey Heron **d.** Brahminykite **e.** grey-headed swamphen **f.** Median egret

a. Sanderling **b.** Oriental white ibis **c.** Indian pond heron **d.** Red- wattled lapwing **e.** Marsh sandpiper

Exhibit Error! No text of specified style in document.**-6: Avifauna species in mangrove area**

Terrestrial Flora and Fauna

Biodiversity encompasses a variety of existing life forms, the ecological roles they perform and the genetic diversity they contain (FAO, 1989).

The Honavar is situated on the northern bank of the river Sharavathi to the north of Bhatkal and to the south of Karwar. The river Sharavathi is navigable up to Gersoppa in the up Ghat. The present Honavar is also called Ponnavaru or Honnavaruin ancient times which literally means golden village. This place might have derived its name from the plant name Honnavar, which is called Tangadi (Gaz.Kar.VII.Kan:925) in Kannada[1].

General Description of Study Area

For better understanding of the habitat setup and identification of influences/impacts, the study was carried in both core zone and buffer zone.

Core Zone (Project area) study: Quantification has been done for the trees, shrubs, herbs, grasses and terrestrial & arboreal fauna in the core area. Status of natural vegetation, soil type, and associated services were also recorded. Maximum effort has been taken to assess the

[1] Working Plan for the Forests of Honnavar Division (2022-2023)

damage to be caused by the activity (if any) in the core zone and suggest appropriate implementable conservation action plan (if any). Project area mainly dominated by *Cocos nucifera, Casuarina equisetifolia* and *Acacia auriculiformis.*

Buffer zone/PIA (Study area) study:

The following habitats are investigated in the study area:

- Vegetation type (Agriculture, Plantation types, Avenue plantations, Mangroves and Reserve Forests)
- Terrain type (Plain & Undulating)
- Aquatic Habitat (lentic and lotic)

The forests in the study area represent a wide range of diversity in composition and quality due to edaphic, biotic and climatic factors. The UttaraKannada District is primarily an agriculture District with very limited presence of Industry. The district is known for its Dhan (paddy), Pan (Betel) and Meen (Fish). The vegetation ranges from jungle and coastal area comprising species like *Acacia auriculiformis, Acacia nilotica, Alstonia scholaris, Anacardium occindentale, Areca catechu, Azadirachta indica, Butea monosperma, Cassia fistula, Casuarina equisetifolia, Ceiba pentandra, Cocos nucifera, Cordia dichotoma, Excoecaria agallocha, Ficus benghalensis, Ficus racemosa, Ficus religiosa, Limonia acidissima, Mangifera indica, Manilkara zapota, Melia azedarach, Pandanus fascicularis, Peltophorum pterocarpum, Phoenix sylvestris, Phyllanthus emblica, Pongamia pinnata, Psidium guajava, Syzygium cumini, Tamarindus indica, Terminalia arjuna, Terminalia catappa, Thespesia populnea, Avicennia marina, Avicennia officinalis, Bruguiera gymnorrhiza, Ceriops decandra, Rhizophora mucronate and Sonneratia alba.*

The following forest types (as per H. G. Champion and S. K. Seth's classification) occur in the study area includes

- 1AC4 (Evergreen Forest)
- 2AC2 (Semi-evergreen Forest)
- 3BC1 (Teak bearing Moist Deciduous Forests)
- 3BC2 (Moist Mixed Deciduous Forests)
- 2/E4 (Lateritic semi-evergreen Forests)
- 5/E5 (Lateritic Thorn Forests)
- 3BC2S1 (Secondary Moist Deciduous forests)

The study area was divided in two major parts namely the Core area and Buffer area.

Core Zone study: The area within the project boundary is the core zone area; almost entire region was thoroughly investigated. Quantification has been done for the trees, shrubs, herbs, grasses and terrestrial and arboreal fauna in the core area. Maximum effort has been taken to assess the damage to be caused by the activity in the core zone and suggest conservation action plan accordingly if any.

Buffer zone Study: The area within the 15 km from the core zone area or from the project site boundary is considered as buffer zone area/Study area. The following habitats are investigated in the study area.

- Vegetation type (RFs, Agriculture and Villages)

- Terrain type (Plain, Undulating)
- Road network (Avenue plantation)
- Aquatic Habitat (Lentic, lotic and Marine)

Methodology for Ecological Survey

The primary data was collected by visual observations as well as by discussion with villagers. The field investigation and satellite imagery data shows that the study area is a mixture of Agricultural, Coconut-Casuarina plantation, barren/wasteland and waterbodies. Tropical dry thorny forests vegetation is observed within the study area.

Methodology for study of Flora & Fauna consisted of detailing taxonomic accounts based on visual observation, direct visual enumeration of plant species was carried out to generate data on flora. With regard to fauna, circumstantial evidence based on footprints, feathers, skin, hair, hooves etc. and the habitat features, reports from locals especially the local residents. These observations were supplemented by published literature and data including the reports, records and working plans of the forest department.

The ecological studies were carried out in Summer season and also considered secondary date conducted covering the post monsoon season and Winter season (2023-2024).

Flora: Phyto-sociological aspects of the study were carried out by perambulating and sampling through quadrat sampling method. Sample plots were selected in such a way to get maximum representation of different types of vegetation and plots were laid out in different parts of the areas. Accordingly, quadrats of 20 m x 20 m for the trees, 5 m x 5 m for shrubs and 1 m x 1 m for herbs. The plants were identified using state floras and also by using updated check list from www.theplantlist.org.

Fauna: Surveys were conducted by using transect method of 500 to 1000 m in all major habitats and recorded the species through direct and indirect evidence. Species were identified using standard field guides like mammals by Vivek Menon (2003), Reptiles by Whitaker and Captain (2004), Amphibians by Daniel (2005), Birds by Grimmet *et.al* (1998) and Butterflies by Isaac Kehimkar (2008). Scheduling of species is made as per the Indian Wildlife Protection act (1972) and IUCN to check the Rare Endangered Endemic and Threatened (REET) species. For fauna no quantitative assessment is made as it can be done through a detailed species specific and seasonal survey. Migratory paths for the birds and mammals were discussed with locals and forest department. Habitats used by for foraging, nesting, breeding and other ecological parameters were ascertained.

The authenticity of field observations are confirmed through discussions with local people and based on secondary data collected from different Government offices like Karnataka Forest Department (Wildlife wing), NGO's and Fisheries Department etc.

Status of Flora

Core Area

The core area is port site located on coastal sand pit and mostly plain and other proposed development area (road & rail and ancillary sites) are plain and undulating with commercial plantations. Trees such as *Acacia auriculiformis, Anacardium occindentale, Cocos nucifera, Cerbera odollam, Casuarina equisetifolia, Pandanus fascicularis, Pongamia pinnata* are

observed. There are no Reserve Forests (RF) or Biosphere Reserves or National Parks or Wildlife Sanctuaries or other Protected Areas within a radius in core area. Due to sandy conditions the core area is sparsely occupied with vegetation.

The plant resources in core area consist of 17 species belonging to 12 families. The floral forms include Trees with 7 sp. followed by 3 Shrubs sp., 5 Herbs & Grass sp. and 2 sp. climbers. Detailed checklist is presented in **Appendix H**.

Phytosociological studies in Core Zone

Among trees species *Acacia auriculiformis* (13.25), *Cocos nucifera* (12.67), *Casuarina equisetifolia (12.37), Pongamia pinnata (9.34), Anacardium occindentale, Cerbera odollam & Pandanus fascicularis (12.50), Cereus triangularis* (9.78) and *Launaea sarmentosa* (9.60) are the dominating in the core area. Details of other species are presented in **Appendix H**.

Species Diversity Index in Core area

There are two important indices to denote the diversity such as Shannon Wiener Index (H') and Simpson diversity Index. The trees in core area showed Shannon Wiener Index (H') value as 1.82 and Simpson Index values as 0.181. The shrubs in core area showed Shannon Wiener Index (H') value as 0.868 and Simpson Index values as 0.5. The herbs in core area showed Shannon Wiener Index (H') value as 1.47 and Simpson Index values as 0.26. Majority portion of the site is barren and remaining areas is under plantations hence the species diversity values interpret very less diversity in plant composition and major area is devoid of any vegetation except the herbaceous flora.

Buffer Area

The buffer area, i.e., 15 km radial distance around the project site, comprises mostly of agricultural crops, and commercial plantations and few reserve forest blocks. Forest type ranges between Dense scrub and Fairly Dense scrub. The different soils in the study area are Saline and Saline Alkali Soils, Coastal Alluvial Soil, Coastal Sandy Soils. Predominate soils encountered in the study area are Sandy Clay soils which are confined to the coastal village areas.

The plant resources of the buffer area account about 224 plants species belonging to 46 families. The predominant life forms includes Trees (93 sp.), Shrubs (50 sp.), Herbs (42 sp.), Grass (27 sp.) and Climbers (12 sp.). Detailed checklist of flora represented in both core and buffer are enclosed as **Appendix H**.

Phytosociological studies in Buffer Zone

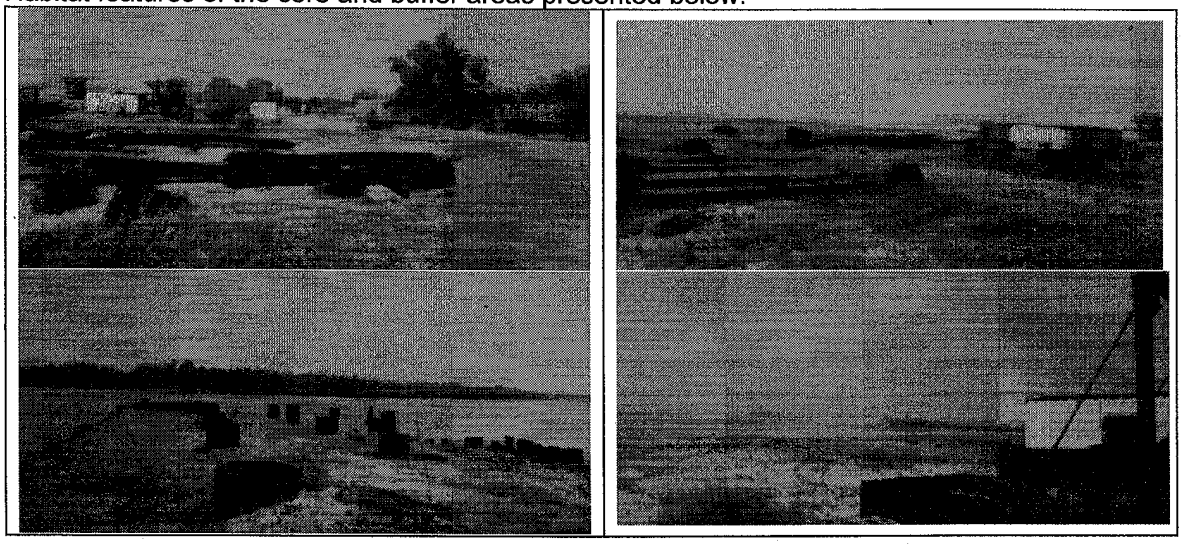
Among trees species *Cocos nucifera (82.25), Areca catechu (62.59), Acacia auriculiformis (42.47), Terminalia catappa (35.74), Syzygium cumini (32.41), Anacardium occindentale (31.36), Casuarina equisetifolia (30.49), Ficus religiosa (30.36), Mangifera indica (29.92), Cassia fistula (28.56), Pandanus fascicularis (28.42), Avicennia marina (27.59), Azadirachta indica (25.93), Melia azedarach (25.81), Excoecaria agallocha (25.70), Thespesia populnea (25.31), Acacia nilotica (24.65), Terminalia arjuna (24.43), Ceriops decandra (22.71), Cordia dichotoma (22.06), Ficus racemosa (21.94), Psidium guajava (21.94), Tamarindus indica (21.71), Alstonia scholaris (21.28), Limonia acidissima (21.05) and Peltophorum pterocarpum* (21.05) are dominating. Among herbaceous species, Lantana camara (53.57), Ricinus communis (47.67), Vitex negundo (31.18), Justicia adhatoda (26.95), Ixora coccinea (23.51), Ziziphus mauritiana (22.29), Canthium

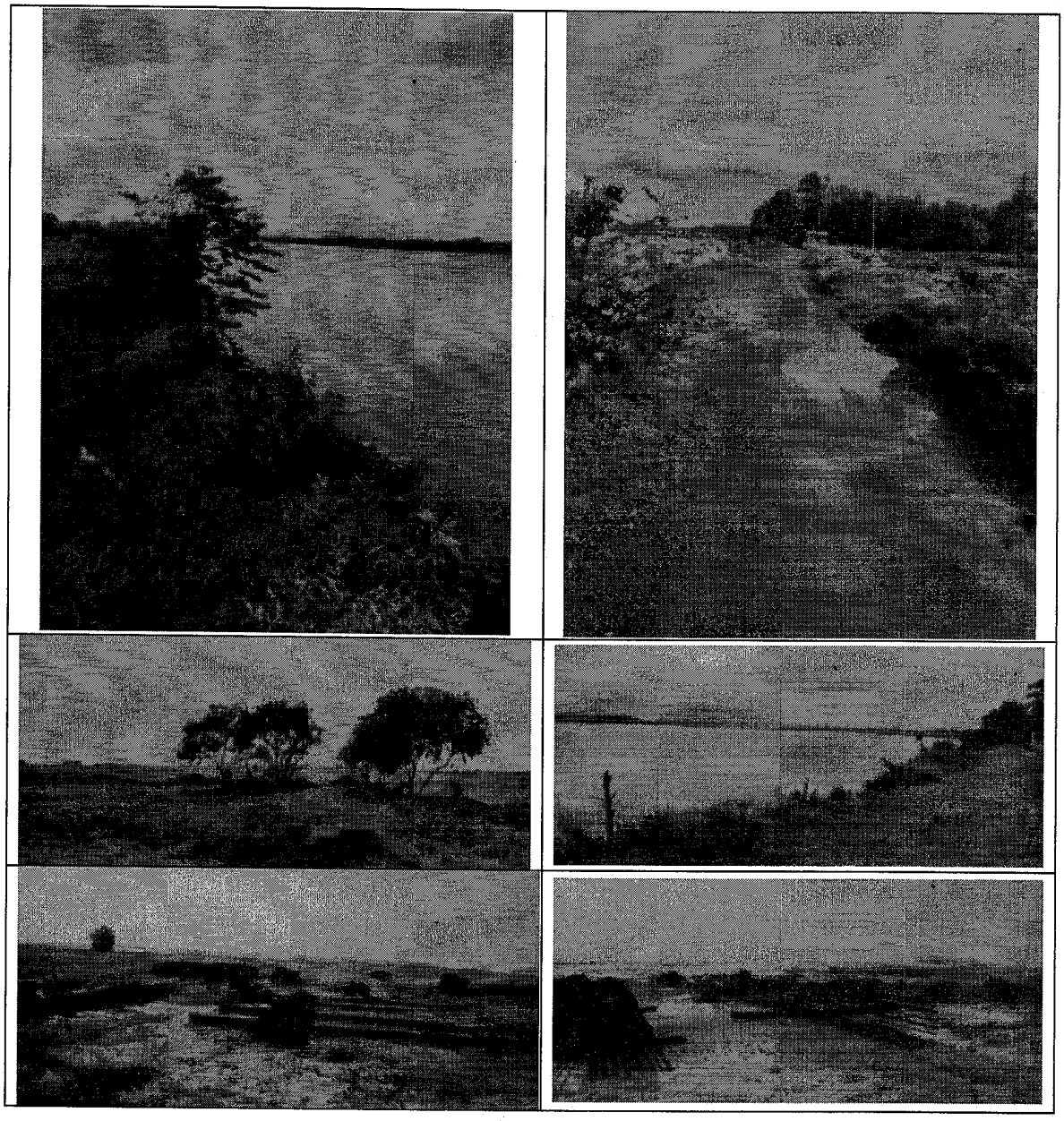
parviflorum (18.77), Clerodendrum inerme (18.77), Calotropis gigantea (18.49), Duranta repens (18.49), Atalantia wightii (18.24), Sesuvium portulacastrum (18.24), Ardisia solanacea (18.06) and Launaea sarmentosa (18.06) are dominating. Details of other species are presented in **Appendix H**.

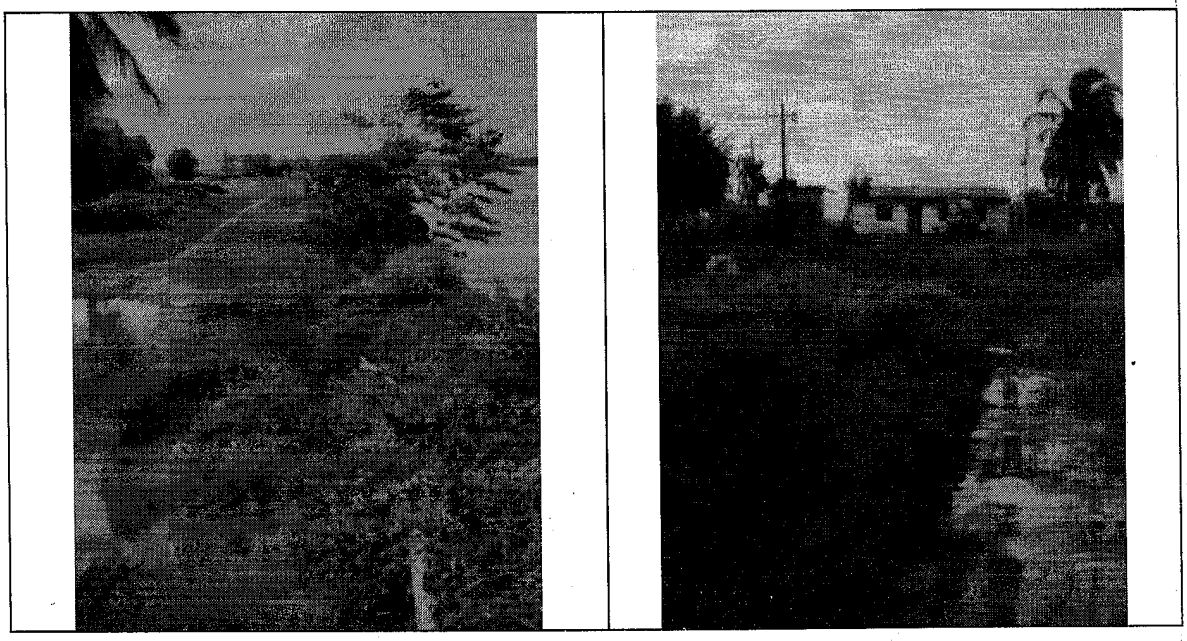
Species Diversity Index in Buffer area

The trees in Buffer area showed Shannon Wiener Index (H') value as 3.40 and Simpson diversity Index values as 0.045. The shrubs in Buffer area showed Shannon Wiener Index (H') value as 2.66 and Simpson Index values as 0.08. The herbs in Buffer area showed Shannon Wiener Index (H') value as 2.83 and Simpson Index values as 0.06. The species diversity in the buffer area interprets moderate diversity in plant composition due to the occurrence of agricultural farmlands, commercial plantations and coastal belt plantation.

Habitat features of the core and buffer areas presented below.







Status of Fauna

Core Area

A total of 5 bird species were recorded in the study period representing Common Myna, Pond Heron, Cattle Egret, House Crow, Little Egret are the common species which are encountered during the survey period. Details of other species are presented in **Appendix H**.

Buffer Area

During the study period, there is no direct evidence of major wild animal species observed. Through indirect evidences and also by interacting with the local fishermen community pug marks of jackal and wild boar were observed near the sea coast.

By direct and indirect evidences, a total of 80 species were recorded in the study area which include Mammals 5 sp., Birds 26 sp., Herpetofauna 19 sp., Invertebrates 25 sp. Details of other species are presented in **Appendix H**.

Mammals: Common species includes Common Indian Field Mouse, Striped Squirrel, Indian palm squirrel or three-striped palm squirrel, Indian Hare and Indochinese rhesus macaque.

Birds: Common bird species of the area include Common Myna, Pond Heron, Cattle Egret, House Crow, Little Egret, Shikra, Jungle Myna, Common Iora, Small Blue Kingfisher, White Breasted Waterhen, House Swift, Grey Heron, Purple Heron, Rock Pigeon, Indian Roller, Indian Couckoo, Black Drongo, Koel, White Breasted Kingfisher, Brahminy Kite, Tailor Bird, House Sparrow, Spotted Dove, Common Sandpiper, Common Babbler, Jungle Babbler.

Herpetofauna: Common species includes Ferguson's Toad, Common Indian Toad, Common skittering Frog, Bamboo tree frog, Indian pond frog, Malabar Gliding frog, The Vine Snake, Indian Gamma Cat Snake, Forest Lizard, Common Garden Lizard, Coastal Day Gecko, Common rat snake, Bronze backed Tree Snake, Southern House Gecko, Hump nosed Pit Viper, Gunther's Supple Skink, Indian Cobra, Rat Snake, Russels viper.

Invertebrates: Common species Hedge blue, Caper White or pioneer, Plain Puffin, Common castor, Common pierrot, Common gull, Black rajah, Plain tiger, Common tiger, Common Indian Crow, Small grass yellow, Grass Jewel, Common jay, Danaid egg fly, Yellow pancy, Blue pansy, Common sailor, Common Rose, Common mime, Common Mormon, Common leopard, Rounded pierrot, Blue tiger, Common Four ring and Tiny grass blue.

Among the fauna in study area the Species richness was high in birds (87 sp.) followed by Herpetofauna (33 sp.), Mammals (26 sp.). Invertebrates (50 sp.), This clearly indicates the moderate representation of species composition with low levels of energy transfer, predation, composition and niche availability.

Fisheries

Karnataka state emerged as a maritime State in 1956 with the reorganization of the states. The fisheries sector plays an important role in the socio-economic development of State in view of its contribution to the food basket, nutritional security, foreign exchange earnings, employment generation and income. Traditionally, Karnataka coast is known as "Mackerel Coast" and the pelagic fishery wealth of Karnataka coast, mainly comprising mackerel and oil sardine. An estimated 6.04 lakh tones of marine fish were landed in Karnataka in 2023, a 13% decrease from record landing in 2022. Honnavar is a historical estuarine port town in the Uttara Kannada district of Karnataka with huge population of fishers. Major species of fishes landing in Uttara Kannada district are listed in following **Table Error! No text of specified style in document.**-18.

The Sharavathi, a westward flowing river joins the Arabian sea at Honnavar, forming an ever shifting river mouth in the region. Several diversified methods of traditional fishing are used in this estuary almost throughout the year. These include gill nets, cast nets, hook & line, pole & line, drag nets, scoop nets, light fishing, scare line, crab fishing with traps and clam fishing by hand-picking at low tide or by dragging bagnets of wire meshes. In addition, many areas in Honnavar have been used by fishers for generations for drying fishes and park their boat equipment that employs more than 15,000 people. **Table Error! No text of specified style in document.**-19 represent fisheries data in Sharavati River as per personal discussion with Dr. Sreekanth G B, Senior Scientist, Fisheries Resource Management, ICAR - Central Coastal Agricultural Research Institute, Goa.

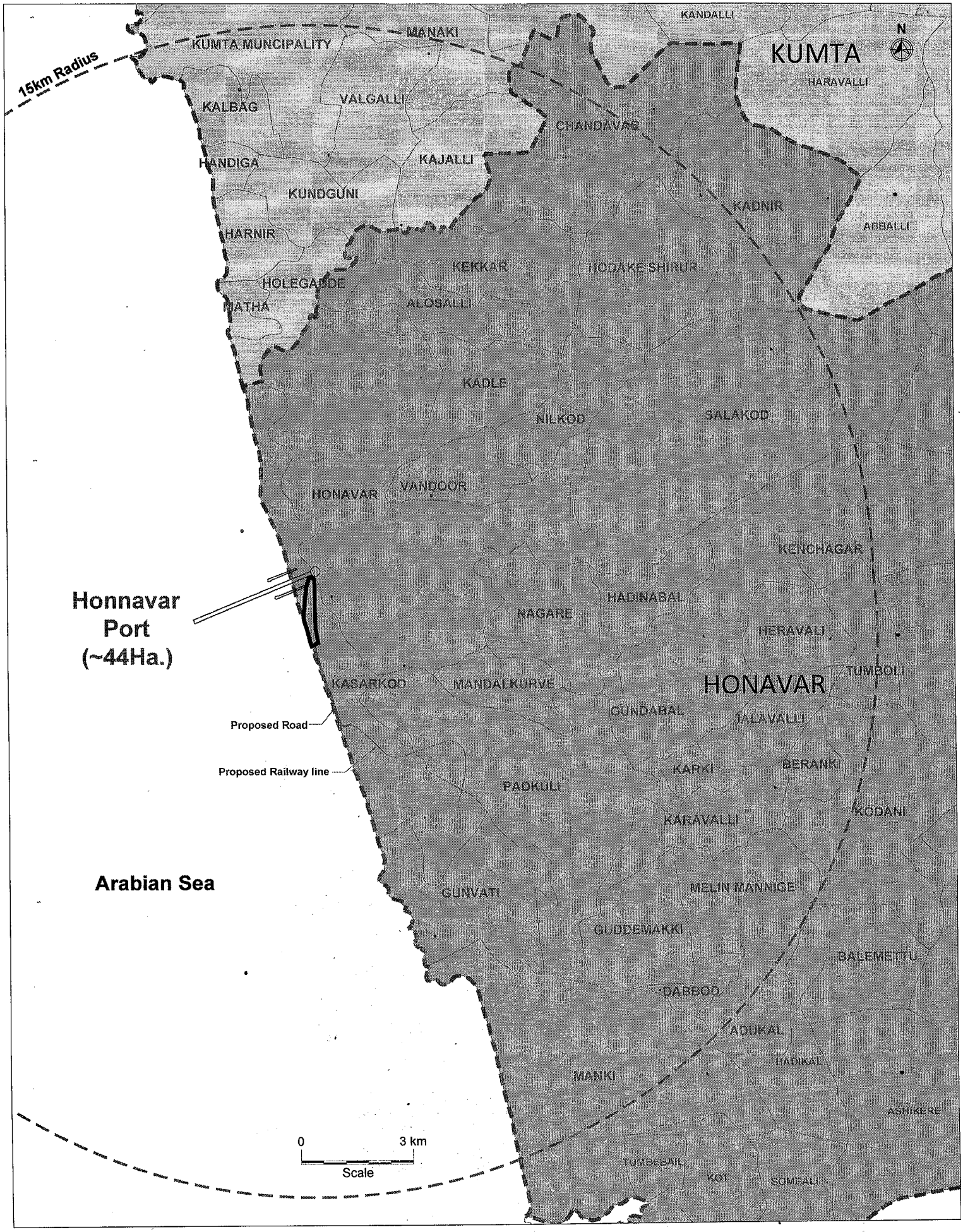
Table Error! No text of specified style in document.**-18: List of major species of fishes landing in Uttara Kannada district**

Species	
Mackerel	Crabs-Charybdis spp.
Oil sardine	Croakers
Anchovies	Horse Mackerel
Big jawed jumper	Little Tuna (kawa kawa)
Bull's eye	Metapenaeus spp.
Setipinn	Parapenaeopsis spp.
Soles	Silverbelliesa,
Tuna and	Squids
Penaeid-Penaeus spp.	Wolf herring
Other clupeids	Other sardines

Table Error! No text of specified style in document.**-19: List of major species of fishes in Sharavati River**

Species	Percentage	Species	Percentage
Nematalosa nasus	1.952	*Paraplagusia bilineata*	0.130
Lates calcarifer	0.211	*Sphyraena jello*	0.472
Ambassis ambassis	5.481	*Hemiramphus far*	0.195
Apogon hyalosoma	0.358	*Strongylura strongylura*	0.130
Etroplus suratensis	2.147	*Sphyraena barracuda*	0.098
Glossogobius giuris	1.854	*Hyporhamphus limbatus*	0.098
Scatophagus argus	1.692	*Escualosa thoracata*	3.188
Barbodes carnaticus	0.976	*Sardinella longiceps*	2.668
Dawkinsia filamentosa	0.553	*Sardinella gibbosa*	1.431
Gerres filamentosus	2.814	*Sardinella fimbriata*	1.252
Sillago sihama	2.863	*Terapon jarbua*	3.953
Mugil cephalus	22.300	*Terapon theraps*	2.977
Moolgarda cunnesius	15.631	*Terapon puta*	2.375
Liza parsia	6.913	*Pelates quadrilineatus*	0.520
Monodactylus argenteus	0.618	*Siganus vermiculatus*	0.260
Eleutheronema tetradactylum	0.228	*Siganus argenteus*	0.114
Lutjanus johnii	0.146	*Atule mate*	0.358
Lutjanus argentimaculatus	0.146	*Caranx ignobilis*	0.179
Lutjanus rivulatus	0.098	*Opisthopterus tardoore*	0.163
Lutjanus russelli	0.033	*Carangoides chrysophrys*	0.130
Thryssa mystax	1.854	*Arius arius*	0.081
Stolephorus commersonii	1.008	*Carangoides praeustus*	0.033
Thryssa malabarica	1.008	*Chrysochir aureus*	0.033
Stolephorus indicus	0.748	*Formio niger*	0.081
Lactarius lactarius	2.505	*Drepane punctata*	0.130
Leiognathus splendens	2.049	*Himantura bleekeri*	0.016
Secutor insidiator	1.008	*Platax orbicularis*	0.016
Cynoglossus arel	0.520	*Scomberomorus commerson*	0.049
Cynoglossus macrostomus	0.488	*Colletteichthys dussumieri*	0.049
Secutor ruconius	0.423	*Grammoplites scaber*	0.033
Pseudorhombus javanicus	0.130	*Platycephalus indicus*	0.033

2. VILLAGE MAP WITH BOUNDARY MARKING OF PROPOSED AREA


15km Radius
KUMTA MUNCIPALITY
MANAKI
KANDALLI
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N
HARAVALLI
KALBAG
VALGALLI
CHANDAVAR
HANDIGA
KAJALLI
KUNDGUNI
KADNIR
ABBALLI
HARNIR
KEKKAR
HODAKE SHIRUR
HOLEGADDE
MATHA
ALOSALLI
KADLE
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SALAKOD
HONAVAR
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KENCHAGAR
Honnavar
Port
(~44Ha.)
HADINABAL
NAGARE
HERAVALI
TUMBOLI
KASARKOD
MANDALKURVE
HONAVAR
GUNDABAL
JALAVALLI
Proposed Road
Proposed Railway line
KARKI
BERANKI
PADKULI
KODANI
KARAVALLI
Arabian Sea
GUNVATI
MELIN MANNIGE
GUDDEMAKKI
BALEMETTU
DABBOD
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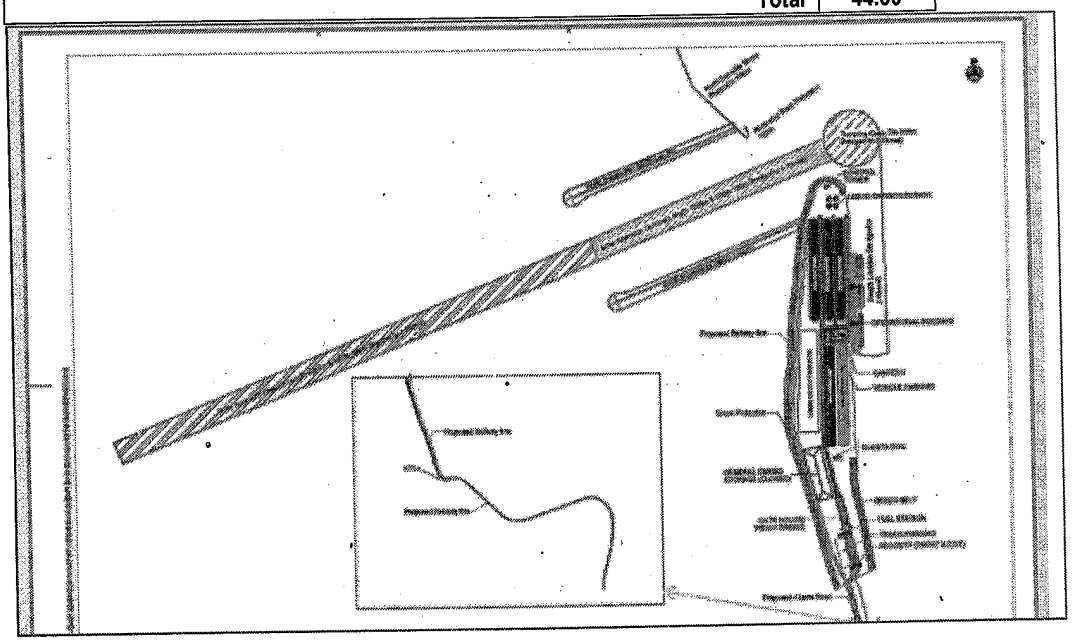
3. SUBMITTED LAYOUT PLANDONOT TALLY WITH KML POLYGON

3. Submitted layout plan do not tally with KML polygon, Pls. Verify

Proposed layout plan uploaded is the Greeb belt plan & Layout Plan proposed for the project. KML file uploaded is the layout plan.

Layout Plan of the proposed project

S. No	Description	Area (Ha)
1.	Coal Stockyard	7.00
2.	Iron Ore Stockyard	1.80
3.	General Cargo Storage (Open)	4.00
4.	General Cargo Storage (Closed)	2.00
5.	Liquid cargo storage	0.10
6.	Roads and Circulation Area	8.15
7.	Operation Building	0.05
8.	Canteen	0.02
9.	Vehicle Parking	0.09
10.	Substation	0.02
11.	Gate House/Security/Weigh Bridge	.1.50
12.	Truck Parking	5.40
13.	Fuel Station	0.02
14.	Control Tower	0.01
15.	Green Belt	3.10
	Sub total	33.26
16.	Area available for other Operations and area earmarked for future expansion	6.72
17	Rock armour area (approx)	4.00
	Total	**44.00**



Layout of the proposed project

KML file

4. IS THERE ANY CHANGE IN LAND AREA W.R.T EC ISSUED IN 2012

4. Is there any change in the land area with respect to EC issued in 2012

As per the EC&CRZ clearance M/S. Honnavar Port Pvt. Ltd., have proposed for development of a barge / vessel loading facility at Coastal Sand Spit, Kasarkod Tonka Village, Honnavar Taluk, Uttara Kannda District. Total land requirement for the proposed facility is 44 Ha

Earlier EC was issued vide letter No. SEIAA :22: IND: 2011 for an area of 44 Ha.

Present proposal is to get the valid EC for completion of the initiated construction activity. HPPL has obtained fresh Terms of Reference (ToR) from SEIAA, Karnataka through vide File No: SEIAA 02 IND 2024 dated August 12, 2024 and accordingly EIA study has been carried out. Total Land area for the proposed proposal is also 44 Ha.

There is no change in the land area proposed for earlier EC and the present proposal.

6. ANY OENDING COURT/LITIGATION CASES PERTAINING TO PROJECT PROPOSAL

Court Case Details

Various Writ Appeal (WA) / Want of Prosecution or Writ Petition (WP) / Public Interest Litigation (PIL) / Appeals / Applications were filed from the year 2016 to 2022 against the accorded approvals related to GO's issued by the Port Officer, Honnavar, Appeal against the court order, Appeal against ownership of the land, Challenged the Environment Clearance granted on September 21, 2012 and the extension granted on July 01, 2019, on turtle nesting grounds in project area, on the dedicated road corridor to provide road connectivity from the Honnavar Port Project to the National Highway – 66.

All the court cases pertaining to turtle nesting grounds in project area, connectivity corridor and land ownership with Honourable Karnataka State High Court, Dharwad branch, Karnataka; Honourable Court of Deputy Commissioner, Uttara Kannada, Karwar, Karnataka; Honourable Karnataka State High Court, Bengaluru; Honourable Court of the PRL. District & Sessions Judge, Uttara Kannada, Karwar, Karnataka; Honourable the National Green Tribunal, Southern Zone, Chennai; were Dismissed/ Disposed in favour of Govt. of Karnataka and Project Proponent HPPL. Details of court cases are given in **Table Error! No text of specified style in document.-1.**

Table Error! No text of specified style in document.**-1: Court Case Details**

S. No.	Case Details				Status
	WA / WP / PIL Nos	Date of Filing	Allegation/s	Date of Disposal/ Dismiss	
1	WP No.100908-934/2016 (GM-RES)	22/01/2016	Requesting for a writ of certiorari to quash the GO dated 22/09/2010 and the notices issued by the Port Officer, Honnavar dated 19/10/2015 & 24/11/2015.	10/02/2016	Hon'ble High Court of Karnataka, **DISMISSED** the WP as premature and directed the Respondents / Authorities to consider the representations of the Petitioners and pass appropriate orders in accordance with law.
2	WA No. 100303/2016 & 101144-101169/2016 (GM –RES) in the Hon'ble High Court of Karnataka, Dharwad Bench	28/03/2016	Appeal against the order of the Learned Single Judge order dated, 10/02/2016 and Requesting for a writ of certiorari to quash the GO dated 22/09/2010 and the notices issued by the Port Officer, Honnavar dated 19/10/2015 and 24/11/2015.	20/09/2016	This W.A. was **DISPOSED** on 20/09/2016 with an observation that the Port Officer, Honnavar and the District Court which is seized of the matter in M. A. Nos. 1 to 27/2016 would dispose of the said matter pending before them independently of and without being influenced by the learned Single Judge's order. Further, if the Government comes to the judicious conclusion that the appellants have the eligibility and entitlement to the grant/lease of land, it may consider their cases in respect of the alternative Government lands subject to their availability.
3	No. RB/LND-II/CR-72/12-13		Called upon for personal hearing with	29/11/2016	**DIRECTED THE PETITIONERS TO VACATE AND DELIVER VACANT POSSESSION OF THE**

S. No.	Case Details				Status
	WA / WP / PIL Nos	Date of Filing	Allegation/s	Date of Disposal/ Dismiss	
			respect to the ownership of the land.		**SCHEDULE PROPERTY IMMEDIATELY.** On failure to do so, the Port Authorities are directed to evict the encroachers and take vacant possession of the schedule property.
4	Miscellaneous Appeal No. 01/2016 to 27/2016 in the Court of the Principal & Sessions Judge, Uttara Kannada, Karwar.	30/12/2015	Challenged the order passed by the Port Officer, Honnavar on 30/12/2015.	07/01/2019.	The appeals filed by the appellants were **DISMISSED** on 07/01/2019 with regard to the facts and circumstances of the case the parties to bear their own costs.
5	Writ Petition No 4039/2021 (GM-POL) PIL filed by the Hasimeenu Vyaparastara Sangha (R) in the Hon'ble High Court of Karnataka, Bengaluru.	22/02/2021	Challenged the Environment Clearance granted on 21/09/2012 and the extension granted on 01/07/2019, Challenged that the construction of port is a prohibited activity in CRZ I area, that there are private revenue lands on which the project is coming up, that the entire area of 45 hectares on which the project is to come up is a turtle nesting ground, that the location of the project as set out in the environment clearance has undergone a change.	24/11/2021	The Hon'ble Court of Karnataka **DISPOSED** of the matter taking into consideration the report of NCSCM, Chennai and the report of Deputy Commissioner, Uttara Kannada, Karwar with regard to change in location of the project in favor of M/s. Honnavar Port (P) Ltd and the State Government Authorities/Departments.
6	Original Application No 76 of 2022 (SZ) & I.A. Nos. 116, 144 and 146 of 2022 (SZ) filed by Ms. Damayanti Subray Mesta in the Hon'ble National Green Tribunal (NGT), South Zone, Chennai	12/07/2022	Raised substantial questions relating to the Environment arising out of an ongoing construction (4-Lane, 4-Km, 40mwide) dedicated road corridor to provide road connectivity from the Honnavar Port Project to the National Highway – 66.	26/09/2023	**DISPOSED** in favor of the State Government Authorities / Departments and M/s. Honnavar Port (P) Ltd.

Details of the court verdicts are given as **Appendix E**.

IN THE HIGH COURT OF KARNATAKA
DHARWAD BENCH

DATED THIS THE 10th DAY OF FEBRUARY, 2016

BEFORE

THE HON'BLE MR.JUSTICE B.VEERAPPA

WRIT PETITION NOS.100908-934/2016 (GM-RES)

BETWEEN:

1. HASAN S/O ABUBAKAR SAB
AGE: 46 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

2. MOHAMMAD S/O KHADARSAB AHMED BABA
AGE: 52 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

3. SHRIDHAR S/O JAGANNATH OTANDEL
AGE: 29 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

4. NATEDAR S/O SAVER FERNANDES
AGE: 49 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

5. SHESHAGERI S/O VENKAPPA TANDEL
AGE: 51 YEARS,
R/O: KASARKOD TONKA,

TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

6. SANDEEP S/O SHESHAGERI VENKAPPA TANDEL
AGE: 24 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

7. MOHAMMED RAFIQUE S/O ISMAIL SAB
AGE: 37 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

8. SANJAY S/O PEDRU FERNANDES
AGE: 35 YEARS,
R/O: KASARKOD TONKA,
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9. PANDURANG S/O SHESHAGERI CHOLAYYA TANDEL
AGE: 41 YEARS,
R/O: KASARKOD TONKA,
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10. ILIYAS ABDUL S/O GAFOOR KEWKA
AGE: 43 YEARS,
R/O: KASARKOD TONKA,
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11. ABDUL AMEER S/O MAHAMMEDSAB ULLAL
AGE: 31 YEARS,
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AGE: 52 YEARS,
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13. ABDUL SATTAR S/O ABBAS CHAUGULE
AGE: 68 YEARS,
R/O: ASHURKHAN GALLI, BUNDER ROAD,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

14. ISMAIL S/O ABDUL SATTAR CHAUGULE
AGE: 39 YEARS,
R/O: ASHURKHAN GALLI ROAD,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

15. NARAYAN S/O RAMA TANDEL
AGE: 47 YEARS,
R/O: RAM NAGAR, KASARKOD,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

16. PRAKASH S/O OGOPAL TANDEL
AGE: 45 YEARS,
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AGE: 55 YEARS,
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AGE: 64 YEARS,
R/O: KASARKOD TONKA,
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24. SURESH S/O RUKMAYYA MESTA
AGE: 52 YEARS,
R/O: DURGAKERI,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

25. VICTOR S/O MARSHAL FERNANDES
AGE: 65 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

26. VIJAY S/O VICTOR FERNANDES
AGE: 35 YEARS,
R/O: KASARKOD TONKA,

TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

27. PANDURANG S/O GANAPATI TANDEL
AGE: 40 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

... PETITIONERS

(BY SRI. J S SHETTY ASSOCIATES, ADVOCATES)

AND:

1. THE STATE OF KARNATAKA
BY ITS SECRETARY
DEPARTMENT OF PUBLIC WORKS,
PORT AND INLAND WATER TRANSPORT (PORT)
M.S. BUILDING, BENGALURU.

2. THE DIRECTOR,
PORT AND INLAND WATER TRANSPORT DEPARTMENT
KARWAR, DIST: UTTARA KANNADA.

3. THE PORT OFFICER
HONNAVAR PORT,
TQ: HONNAVAR,
DIST: UTTARA KANNADA.

4. THE M/S NORTH CANARA SEA PORTS
GVPREL - CONSORTIUM,
HYDARABAD.
R/B PORT OFFICER

5. THE DEPUTY COMMISSIONER
UTTARA KANNADA DISTRICT
KARWAR.

... RESPONDENTS

(BY SMT. K. VIDYAVATHI, AGA FOR R1 TO R3 & R5)

THESE WRIT PETITIONS ARE FILED UNDER ARTICLES 226 AND 227 OF THE CONSTITUTION OF INDIA PRAYING TO QUASH THE GOVERNMENT ORDER DATED:22.09.2010, PASSED BY RESPONDENT NO.1, THE COPY OF WHICH HAS BEEN PRODUCED HEREWITH AT ANNEXURE-A, THE NOTICE DATED:19.10.2015 ISSUED BY THE 3rd RESPONDENT, THE COPY OF WHICH HAVE BEEN PRODUCED HEREWITH AND MARKED AS ANNEXURE-B SO FAR AS PETITIONERS ARE CONCERNED AND ALSO THE NOTICES DATED:24.11.2015, ISSUED BY THE 3rd RESPONDENT TO THE PETITIONERS, THE COPIES OF WHICH HAVE BEEN PRODUCED HEREWITH AND MARKED AS ANNEXURES-C, C1 TO C26.

THESE PETITIONS COMING ON FOR PRELIMINARY HEARING THIS DAY, THE COURT MADE THE FOLLOWING:

ORDER

Learned AGA is directed to take notice for respondent Nos.1 to 3 and 5.

The petitioners, who are the unauthorised occupants of the Government land, are before this Court for a writ of certiorari to quash the Government Order No.LOE 119 PSP 2010 Bangalore dated 22.09.2010 passed by the respondent No.1 and the notices No.BHUMI/CR-22/2015-16 dated 19.10.2015 and 24.11.2015, issued by the 3rd respondent.

2. It is the case of the petitioners that they are the residents of Tonka, Kasarkod village of Honnavar taluk and all of

them are doing traditional fisheries and allied activities and they are traditionally drying the fish so collected from the sea, in the sea shore by using the heat generated from the sun light. These fishermen are even though belonging to different social groups, caste and religion all of them are doing the said traditional fishing work and they and their family members are mainly depending on the income of said work for their livelihood. There were about 300 families who are residing in the Tonka area of Kasarkod village and the population of the area is about 1000 and they are mainly depending on the said fishing activities. There are about 5000 people who are mainly depending on the said fisheries and its allied activities, and the said activities being carried on by these petitioners from generations and generations and there were no complaint whatsoever against the petitioners and against the other persons in respect of the said activities. They also contended that there exists a temple, Christian Church and also Muslim Mosques in that area. It is also contended that the area where the petitioners are carrying on their fisheries activities is surrounded

by the Arabian Sea on the western side and the Sharavati River on the Eastern side and the river Shavravati is joining the Arabian sea in the said area. The petitioners produced the map showing location of the said area in Annexure-E and Toposheat of Survey of India as Annexure-F and also produced the sketch prepared in the year 1923 by the Superintendent of Revenue Survey Government Cotredance Office Puna at Annexures G to G1 and copies of the Earth Image prepared by the Google Earth in the year 2004 and 2015 at Annexures – H, H1, H2, H3 and H4.

3. According to the petitioners, due to the reason of the flood and also due to reason of force of water joining the sea the river Sharavati changed its course of joining the sea and as a result of which some area had disappeared and river started to join the Arabian Sea at Mallakuruva. As a result of which, the area where in the fishermen were living had sub-merged in the sea and river water and some abandoned river bed and formed the new land and as a result of which the fisherman who were residing in the area now sub-merged in the sea water, were compelled to shift to

the new area which was then formed and they have started to carry on their activities in the said area. The petitioners further contended that the 1st petitioner has been assessed to tax by the Gram Panchayat and he paid taxes in respect of the shed constructed by him and all the petitioners are in possession and enjoyment of the lands in question uninterruptedly.

4. It is further case of the petitioners that the land in question is a Alluvial land and the petitioners are entitled for temporary use thereof and further contended that the 3rd respondent – Port Officer, without any authority of law, had issued notice calling upon the petitioners to dismantle their houses and sheds where in the petitioners are carrying their fisheries activities and he had also issued the notice stating that this land have been granted by the Government in favour of 4th respondent, the petitioners without any right are continuing in possession and he has further directed the petitioners to vacate the land in question by removing the sheds. The copies of the

notices issued by the 3rd respondent is produced at Annexures – B, C and C1 to C26.

5. Thereafter, the petitioners filed objections in response to the said notice by Annexures – L, L1 to L26. However, the said objections are not all considered by the authorities till today. It is further case of the petitioners that, they made representation to the Deputy Commissioner to grant the said lands in their favour. In spite of the same, the Deputy Commissioner has not yet considered to pass orders. In the meanwhile, the respondents are threatening to evict the petitioners and hence they are before this Court.

6. I have heard the learned Counsel for the parties to the lis.

7. Sri. J. S. Shetty, learned Counsel for the petitioners, contended that the lands in question are Alluvial lands and the petitioners are entitled for grant under the provisions of Sections 80 and 92 of the Karnataka Land Revenue Act. Before taking any

action for grant of land in response to the applications filed by the petitioners, the respondents cannot evict the present petitioners, who are in possession and enjoyment of the respective sheds for more than 30 years. He also contended that the Deputy Commissioner has not initiated any action to consider the representation filed by the petitioners on 17.12.2015. Therefore, he sought to allow the above writ petitions.

8. Per contra, on issuing notice by the Court, Smt. Vidyavathi, learned AGA appeared for respondents 1 to 3 and 5, contended that the petitioners have not come to the Court with clean hands and they have suppressed the material facts of the case. She contended that there were three notices issued to the petitioners directing them to evict from the unauthorised occupation of the sheds unauthorisedly constructed by them in the land in question. The learned AGA brought to the notice of this Court that all the petitioners filed appeals in M.A.Nos.1/2016 to 27/2016 before the District Judge Court, U.K. Karwar at Karwar and the said appeals are pending. In the said appeals, the

petitioners also referred the present writ petitions at Para 8 of the appeal memo, which reads as under:

> *"8. The appellant and other has jointly challenged the order sanctioning the land occupied by them to the third party before the Hon'ble High Court of Karnataka at W.P.No.100908/2016 to 100934/2016. The matter is pending. This has been brought to the notice of the respondent No.3."*

Therefore she contended that the very writ petitions filed by the petitioners against show cause notices are premature and are liable to be dismissed. She further vehemently contended that the petitioners cannot avail the parallel remedies simultaneously before this Court as well as before the District Judge, Karwar, against the same show cause notices. The learned AGA also brought to the notice of this Court that Annexure-A is passed by the State Government leasing five acres for ten years in favour of the 4th respondent and now the same is transferred to SPV,

Honnavara Ports Pvt. Ltd., on 07.04.2011. Therefore, she sought to dismiss the writ petitions.

9. I have given my anxious consideration to the arguments advanced by the learned Counsel for the parties and perused the entire material on record.

10. Insofar as challenge in respect of Annexure-A passed by the State Government granting lease of five acres for ten years, on lease-cum-rental basis for Rs.1,17,560/- in favour of trhe respondent No.4, it is an admitted fact that all these petitioners are unauthorised occupants of the Government land. They have no *locus standi* to challenge the order passed by the State Government leasing the lands in question in favour of other person. The petitioners have not produced any material documents before this Court to show what is their right to challenge the order dated 22.09.2010 passed by the State Government. Admittedly, the State Government is the owner of the property in question. In the absence of any right, title and interest, the petitioners cannot question the same. Therefore, the

writ petition filed by the petitioners insofar as Annexure A is concerned, is without any right. The same cannot be accepted. On that ground alone, the writ petitions filed by the petitioners are liable to be dismissed.

11. Insofar as Annexures – B, C and C1 to C26 are concerned, it is not in dispute that the very impugned notices issued by the respondent No.3 – Port Officer, are the subject matter in the appeals before the learned District Judge, Karwar in M.A. Nos.1 to 27 of 2016, which clearly indicates that the petitioners are seeking parallel remedies simultaneously against the same show cause notices, before the District Judge as well as before this Court which is impermissible in law.

12. It is also not in dispute that in response to the notices issued at Annexures – B, C and C1 to C26 dated 19.10.2015, 24.11.2015 and 30.12.2015 respectively, the petitioners filed objections before the 3rd respondent – Port Officer on 04.01.2016, as per Annexures – L and L1 to L26. If that is so, the writ petitions filed by the petitioners against the show cause

notices stated supra are not maintainable and the same are liable to be dismissed. It is for the 3rd respondent to consider the objections filed by the petitioners to all the show cause notices dated 19.10.2015, 24.11.2015 and 30.12.2015 and pass orders in accordance with law.

13. Insofar as the contention of the learned Counsel for the petitioners that the petitioners have made the representations for grant of land as per Annexure-D dated 17.12.2015 cannot be accepted, the subject mentioned in Annexure-D clearly depicts that the eviction of unauthorised occupation by the petitioners in survey No.305 and in the operative portion they only states, if the authorities come to conclusion that if it is an Alluvial land, the authorities can grant the same to them. Admittedly, in the representation made by the petitioners on 17.12.2015, in respect of the eviction of unauthorised occupation, the details regarding which are the property and what is the extent and how many years they are in possession of the property etc. are not forthcoming. It is for the petitioners to approach the authorities, if the land is

available for grant, and ultimately, if the petitioners are able to prove that it is an Alluvial land, it is for the concerned authority to condone the same and pass appropriate orders in accordance with law. Therefore, the said contention of the petitioners cannot be accepted.

14. The learned Counsel for the petitioners further relied upon the judgment of this Court in the case of *Satish and Ors. Vs. The Deputy Commissioner, Bagalkot Taluk and Ors.* reported in 2015 (4) KLJ 95 in support of his arguments. The said judgment is with regard to Alluvial lands under the provisions of Section 92 of the Karnataka Land Revenue Act. Admittedly, in the present case, the petitioner has not produced any material documents before the Court that the lands in question are Alluvial lands. In the absence of the same, the judgment relied upon by the learned Counsel for the petitioners, has no application to the facts and circumstances of the present case.

15. It is a well settled law by a series of decisions of the Apex Court that no writ lies against the show cause notice,

namely, in the case of ***Executive Engineer, Bihar State Housing Board Vs. Ramesh Kumar S*** reported in **JT(1995) 8 SC 331**, ***Special Director Vs. Mohd. Ghulam Ghouse*** reported in **AIR 2004 SC 1467** and in the case of ***State of U.P. Vs. Brahm Datt Sharma*** reported in **AIR 1687 SC 943**. Further, the Hon'ble Supreme Court in the case of ***Union of India and Another Vs. Kunisetty Satyanarayana*** reported in **AIR (2006) 12 SCC 28**, while considering the departmental enquiry, has held that the writ jurisdiction is discretionary jurisdiction and as such, discretion under Articles 226 and 227 should not ordinarily be exercised by quashing show notice and no doubt in some very rare and exceptional cases, the High Court can quash notice, if it is found to be wholly without jurisdiction or for some other reason, which is wholly illegal. However, ordinarily, the High Court should not interfere in such matters.

16. In the present case, the petitioners are in unauthorised occupation of the Government Land and the show cause notices were issued to the petitioners calling for the explanation as to why

action should not be taken against them within fifteen days from the receipt of notice, by producing relevant documents sought in the impugned notices and the petitioners already approached the District Judge by filing appeals in M.A.Nos. 1 to 27 of 2016 against the very same show cause notices, which nothing but seeking parallel remedies simultaneously, and the petitioners have not made out any rare and exceptional cases, so as to exercise discretionary jurisdiction of this Court. It is not a case of the petitioners that in the present case that notices issued are only without jurisdiction, nor the notices are otherwise illegal and not a case that the impugned notices are issued without application of mind. Therefore, the writ petitions are not maintainable.

In view of the aforesaid reasons, the writ petitions filed by the petitioners are dismissed as premature. However, the respondents are directed to consider the representations of the petitioners and pass appropriate orders in accordance with law. Till such consideration of the representations, the respondents shall not dispossess the petitioners from the lands in question.

Learned AGA is permitted to file memo of appearance within four weeks.

Sd/-
JUDGE

gab

IN THE HIGH COURT OF KARNATAKA
DHARWAD BENCH

DATED THIS THE 20TH DAY OF SEPTEMBER, 2016

PRESENT

THE HON'BLE MR. JUSTICE ASHOK B. HINCHIGERI

AND

THE HON'BLE MR. JUSTICE P. S. DINESH KUMAR

W.A.NOs.100303/2016 & 101144-101169/2016 (GM-RES)

BETWEEN:

1. HASAN S/O ABUBAKAR SAB
AGE: 46 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

2. MOHAMMAD
S/O KHADARSAB AHMED BABA
AGE: 52 YEARS,
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3. SHRIDHAR S/O JAGANNATH TANDEL
AGE: 29 YEARS,
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TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

25. VICTOR S/O MARSHAL FERNANDES
AGE: 65 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

26. VIJAY S/O VICTOR FERNANDES
AGE: 35 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

27. PANDURANG S/O GANAPATI TANDEL
AGE: 40 YEARS,
R/O: KASARKOD TONKA,
TALUK: HONNAVAR,
DIST: UTTARA KANNADA.

... APPELLANTS

(BY SRI J. S. SHETTY ASSOCIATES, ADVOCATE)

AND:

1. THE STATE OF KARNATAKA
BY ITS SECRETARY
DEPARTMENT OF PUBLIC WORKS,
PORT AND INLAND WATER TRANSPORT (PORT)
M.S. BUILDING, BENGALURU

2. THE DIRECTOR,
PORT AND INLAND WATER TRANSPORT
DEPARTMENT KARWAR, DIST: UTTARA KANNADA.

3. THE PORT OFFICER
HONNAVAR PORT,
TQ: HONNAVAR,
DIST: UTTARA KANNADA.

4. THE M/S NORTH CANARA SEA PORTS
GVPREL-CONSORTIUM,
HYDARABAD.
REPRESENTED BY PORT OFFICER.

5. THE DEPUTY COMMISSIONER
UTTARA KANNADA DISTRICT
KARWAR.

...RESPONDENTS

(BY SMT. K. VIDYAVATHI, AGA FOR R1 TO R3 & R5)

THESE WRIT APPEALS ARE FILED UNDER SECTION 4 OF THE KARNATAKA HIGH COURT ACT, 1961 PRAYING TO SET ASIDE THE ORDER DATED 10.02.2016 PASSED BY THE LEARNED SINGLE JUDGE IN WP NO.100908-934/2016.

THESE APPEALS COMING ON FOR PRELIMINARY HEARING THIS DAY, **ASHOK B.HINCHIGERI, J.** DELIVERED THE FOLLOWING:

JUDGMENT

These appeals are directed against the learned Single Judge's order, dated 10.02.2016 passed in W.P.Nos.100908-934/2016. The appellants claim that earlier they were residing in the areas which came to be submerged under sea and river water. They were therefore constrained to shift to the newly formed areas near the said water. The Government, vide its order dated 22.09.2010 (Annexure - A), leased the land to M/s. North Canara Sea Ports GVPREL-Consortium, Hyderabad, the respondent No.4 herein, for a period of thirty years. The respondent No.3 issued the notice, dated 19.10.2015 (Annexure-B) to the persons, who had unauthorisedly occupied the said land and constructed the cottages/sheds. Subsequently, the individual show-cause notices (Annexures-C1 to C26) were also issued to the unauthorised occupants. The said Government Order, notice and individual show-cause notices were impugned before the learned Single Judge, who

by his order, dated 10.01.2016 disposed of the writ petitions with a direction to the respondents to pass appropriate orders on the notices issued to the appellants and the replies received thereto. He also directed the respondents not to dispossess the petitioners from the land in question until such time that their representations are considered.

2. Sri J. S. Shetty, learned counsel for the appellants submits that the learned Single Judge has erred in returning the finding that the lands in question are not alluvial lands. He asserts that the lands in question are newly formed on account of the change in the course or direction of the flow of the sea and river water. He submits that what is challenged before the District Court in M.A.No.1 to 27/2016 are the orders passed by the authorities under the provisions of Public Premises (Eviction of Unauthorised Occupants) Act. He submits that the filing of the said appeals before the District Judge is also not withheld from this Court. On the ground of the appellants filing the said appeals, the relief cannot be denied to them in the writ petition, where the challenge is primarily to the Government Order

granting the lease of the lands to the respondent No.4 for a period of 30 years. He has also relied upon the Division Bench decision in the case of ***Satish and Ors. Vs. The Deputy Commissioner, Bagalkot Taluk and Ors. reported in KANTLJ-2015-4-95.***

3. Smt. K. Vidyavathi, learned Additional Government Advocate who appears for the respondent Nos. 1 to 3 and 5 submits that the Government order granting the lease of land to the respondent No.4 is issued in 2010. After five long years, the appellants approached this Court. She would contend that the writ petition is liable to be rejected on the ground of delay and latches.

4. She would submit that the Port Officer called upon the appellants to produce five specific documents. Without producing any documents, the appellants have given the replies.

5. The submission of the learned counsel have received our thoughtful consideration. The challenge to the impugned Government order dated 22.09.2010 is liable to be negatived on the ground of delay and latches. No cogent explanation is forthcoming

as to why the appellants took 5-6 years to challenge the Government Order granting the lease of the land to the respondent No.4. We notice that the learned Single Judge has indeed given interim protection to the appellants. Admittedly and rightly the appellants have submitted the replies to the impugned show cause notices. Until such time that their explanation is considered, the crisis should not be precipitated. That is why the learned Single Judge has directed the respondents not to dispossess the petitioners from the land in question until such time that their representations are considered.

6. We find the learned Single Judge's order to be balanced. It does not call for any interference. All that is required to be done is to observe that the respondent No.3, to whom the explanation is offered by the appellants and the District Court, which is seized of the matter in M.A Nos. 1 to 27/2016, would dispose of the said matters pending before them independently of and without being influenced by the learned Single Judge's order.

7. Further, if the Government comes to the judicious conclusion that the appellants have the eligibility and entitlement to the grant/lease of land, it may consider their cases in respect of the alternative Government lands subject to their availability. With these observations, these appeals are disposed of.

Sd/-
JUDGE

Sd/-
JUDGE

gab

COPY
Assistant Registrar
High Court of Karnataka,
Dharwad Bench
28/10/14

IN THE COURT OF DEPUTY COMMISSIONER UTTARA KANNADA KARWAR

Present: **Sri. S S Nakul,**
Deputy Commissioner,
Uttar Kannada, Karwar.

No. RB/LND-II/CR-72/12-13

Between

1. Pandurang Sheshageri Tandel
2. Iliyas Gafoor Sab
3. Hamza Hasan Sab
4. Abdul Ameer Mohammed Sab - Present
5. Sanjay Pedru Fernandes
6. Mohammed Rafiq Ismail Sab
7. Natidar Saver Fernandes - Present
8. Narayan Venkappa Tandel
9. Shashidhar Jaganath Tandel
10. Mohammed Khadar Sab
11. Hasan Abubakar Sab - Present
12. Victor Marshall Fernandes - Present
13. Kasim Abdul Sab - Present
14. Jalil Mohammed Sab
15. Roshan Felison Fernandes
16. Felison Marshall Feranandes
17. Stanlos Albert Fernandes
18. John Albert Fernandes
19. M A Hasan (Saleem Patel) - Present
20. Narayan Rama Tandel
21. Abdul Sattar Chaugule
22. Prakash Gopal Tandel
23. Sandeep Sheshageri Tandel
24. Pandurang Ganapati Tandel - Present
25. Ismail Abdul Sattar Chaugule
26. Suresh Rukmayya Mesta
27. Dannish Santan Fernandes - Present
28. Sheshageri Venkappa Tandel
29. Vijay Fernandes
R/o Kasarkod Tq: Honnavar

.... **Petitioners**

V/s

1. The Port Director,
Honnavar Port,
Tq: Honnavar
Dist: Uttar Kannada
2. The M/s North Canara Sea Ports
GVPREL-Consortium
Hyderabad
R/B Port Officer

.... **Respondents**

Sub: On the Application of Sri. Panduranga Sheshgiri Tandel and 28 others dated: 17-12-2015

Preamble:

The brief facts of the case of petitioners that they are permanent residents of Kasarkod Tonka in Honnavar Taluk in Uttar Kannada District since from the time of their ancestors. It is also stated that they are fishermen and doing traditional fishing and mainly depending on the same for their livelihood. It is also stated that Sy No. 305 of Honnavar Taluk is totally

measuring 93 acres and situated on the Arabian Sea and Sharavati River. There are 300 families and 500 people belonging to different castes and religion are settled there. The said land is standing in the name of Government of Karnataka and all the revenue documents like RTC and Mutation are standing in the name of Government of Karnataka and since they have settled in the said Government land and requested the authorities to grant the said land in their respective names. However, Port Authorities issued a notice for evict them from the said land. Against that they filed WP No. 100908-934/2016(GM-RES) and it was ended in dismissal by order dated: 10-02-2016on the following grounds and observations:

1. WP is a premature only challenging the eviction notice.
2. Writ Petitioners have no documents to show they are having right, title or possession over the said land.
3. There are simultaneous petitions filed before District Court, Karwar in MA No. 1/2016 for the same relief.
4. The petitioners are unauthorized occupants of Government land and so no relief can be granted and dismissed the WP with the following observations.

> "In view of the above said reasons the Writ Petitions filed by the petitioners are dismissed as premature. However, The Respondents are directed to consider the representations of the petitioners and pass appropriate orders in accordance with law. Till such consideration of the representations, the Respondents shall not disposes the petitioners from the lands in question".

On verification it is observed that said lands have been granted on lease for 30 years to M/s North Canara Sea Ports GVPREL- Consortium represented by its Director Mr. Khwaja Masihuddin Khan by agreement dated: 02-05-2015 for improving the same as Port under Government Order No. dated: 18-03-2010 with some conditions and thereafter it has to be returned back to the Government with structures and improvements made thereon.

After issue of notices to the above applicants they have appeared in person and submitted copies of documents and contended that since long time they and their elders have been stayed there and doing fishery business and they have no other land to stay or to run the business and therefore requested for grant the said land to them. On the other hand the Port Authorities have opposed the same on the ground that separate 24.20 acres of Port land in Sy No. 303 situated at Kasarkod village have been granted to same petitioners which is 2Kms away from this place and there are no grounds to grant the Government land once again.

Further, the present land in Sy No. 305 is coming under CRZ area and no such person can stay there. Revenue documents like RTC, Mutation are all standing in the name of Government of Karnataka.

The Petitioner No.4 Abdul Ameer Mohammed Sab has submitted the following documents.

a) 2 photos of shed.
b) Xerox Copies of 03 Tax paid receipts
c) Xerox Copy affidavit.
d) Xerox Copy Tax site map.
e) Xerox Copy of RTC of Sy.No. 305.
f) Xerox Copy of application for regularization.
g) Xerox Copy Bank pass book.
h) Xerox Copy of survey Sketch with list of enchrochers.
i) Xerox Copy of enquiry notice issued by D.C. office on 18-10-2016.
j) Xerox Copy of order sheet of Misc Appeal 11/16 before Dist Court Karwar.
k) Xerox Copy of affidavit.
l) Xerox Copy of order sheet of M.A./11/2016.
m) Xerox Copy advocate notice.
n) Xerox Copy of Writ appeals of order of writ appeal no 100303/2016 and 101144/10/11/69/2016 (GM-RES) between Hassan Abubakar Sab and others V/s State of Karnataka and others dated 20-9-2016 of the file Hon'ble High Court Dharwad.

The Petitioner No.7 Natidar Saver Fernandes has submitted the following documents.

a) Photo of shet.
b) Xerox Copy of Residential certificate issued by Panchayat Development Officer Gram Panchayat Kasarkod Taluka Honnavar.
c) Xerox Copy of Ration Card.
d) Xerox Copy of Voter ID Card.
e) Xerox Copy 05 Tax paid receipts.
f) Xerox Copy of Acknowledgement.
g) Xerox Copy of Application for regularization of unauthorized constructions.
h) Xerox Copy of Mutation entry No H/72 of Sy. No.276/*/a1 and 305.
i) Xerox Copy of RTC of Sy.no 305.
j) Xerox Copy of statement recorded by Port officer dated 22-8-2016.
k) Xerox Copy of Adhar card and voter ID.
l) Xerox Copy of map with list of encroachers.
m) Xerox Copies of 06 Telephone bills.

The Petitioner No.11 Hasan Abubakar Sab has submitted the following documents

a) Xerox Copy of the photo.
b) Xerox Copy of the Map with list of encroachers.
c) Xerox Photo Copy the survey map.
d) Xerox Copy of the RTC Sy.No.21/1 of Pavinkurva village of Honnavar Taluka
e) Xerox Copy of the order of sanction of Janata plot issued by Block Xerox Development Officer dated 18-9-1982.
f) Xerox Copy of Form No. 10 for having obtained occupancy rights for an area of 3-28-0 (A-G-A) of Pavinkurva village in Honnavar Taluk.
g) Xerox Copy of Notice issued by Tahasildar Honnavar enchroachment of the said land.
h) Xerox Copy of Mutation extract No H -72 pertaining to Sy. 276/a1,305.
i) Xerox Copy of statement recorded by Port officer dated 22-8-2016.
j) Xerox Copy of Voter ID.
k) Xerox Copy of Adhar Card.

The Petitioner No.12 Hasan Abubakar Sab has submitted the following documents.

a) Photo of shed
b) Xerox Copy of Telephone letter from BSNL dated 21-3-2016.
c) Xerox Copies of Telephone bills
d) Xerox Copy of School leaving Certificate
e) Xerox Copy of Map of Site
f) Xerox Copy of RTC Sy. No. 305

g) Xerox Copy of Voter ID
h) Xerox Copy of Adhar Card
i) Xerox Copy of Ration Card.

The Petitioner No.13 Kasim Abdul Sab has submitted the following documents.

a) Xerox Copy of RTC of Sy. 305.
b) Xerox Copy Tax paid receipt.
c) Xerox Copy of Notice issued by Tahasildar Honnavar enchroachment of the said land.
d) Xerox Copy of Site Map.

The Petitioner No.15 Roshan Felison Fernandes has submitted the following documents.

a) Xerox Copy of Photo of Shed.
b) Xerox Copy of the Map with list of encroachers.
c) Xerox Copy of RTC Sy. No 305.
d) Xerox Copy of Ration Card.
e) Xerox Copy of Adhar Card.
f) Xerox Copy of order sheet of MA 22/2016 of the file of Hon'ble Principal District Court U. K. Karwar.
g) Xerox Copy of appeal memo.
h) Xerox Copy of Interim application-1
i) Xerox Copy affidavit.
Xerox Copy of statement recorded by Port officer dated 22-8-2016.

The Petitioner No.24 Pandurang Ganapati Tandel has submitted the following documents.

a) Photo of Shed.
b) Xerox Copy of notice issued by D.C. Karwar on 18-0-2016.
c) Xerox Copy of photo of shed.
d) Xerox Copy of Ration Card.
e) Xerox Copy of Voter ID card.
f) Xerox Copy of Adhar Card.
g) Xerox Copy of acknowlegdement
h) Xerox Copies of Site maps.
i) Xerox Copy of RTC of Sy. No 305.
j) Xerox Copy of order sheet of Misc Appeal 27/2016 before Dist Court Karwar.
k) Xerox Copy of Interim application 1 with affidavit, order sheet.
o) RTC of Sy. No. 628A/2A and 628A/2K of Honnavar village of Honnavar Taluk.
l) Xerox Copy of statement recorded by Port officer dated 22-8-2016.
m) Xerox Copy of advocate notice.
n) Xerox Copy of Writ appeals of order of writ appeal no 100303/2016 and 101144/10/11/69/2016 (GM-RES) between Hassan Abubakar Sab and others V/s State of Karnataka and others dated 20-9-2016 of the file Hon'ble High Court Dharwar.

The Petitioner No.27 Dannish Santan Fernandes has submitted the following documents.

a) Photo of Shed.
b) Xerox Copy of Telephone bill.
c) Xerox Copy of acknowledgement.
i) Xerox Copy of 02 Notice issued by Tahasildar Honnavar enchroachment of the said land.
m) Xerox Copy of show cause notice issued by Deputy Tahasildar Nadkacheri Manki on 11-02-2016 for eviction.
n) Xerox Copy of Adhar Card.
o) Xerox Copy of Residential certificate issued by Panchayat Development Officer Gram Panchayat Kasarkod Taluka Honnavar.
p) Xerox Copies of application dated 4-12-2015 and 4-1-2016 submitted to D.C. Uttar Kannada Karwar and Port Officer Honnavar.
q) Xerox Copies of 04 Telephone bills.

r) Xerox Copy of statement recorded by Port officer dated 22-8-2016.
d) Xerox Copy of Ration Card.
e) Xerox Copies of of Tax paid receipts.
f) Xerox Copies of 02 site maps.
g) Xerox Copy of notices issued by Tahasildar Honnavar for eviction.
h) Xerox Copy of RTC of Sy. No. 628A/2A.
i) Xerox Copy of Writ appeals of order of writ appeal no 100303/2016 and 101144/10/11/69/2016 (GM-RES) between Hassan Abubakar Sab and others V/s State of Karnataka and others dated 20-9-2016 of the file Hon'ble High Court Dharwar.

The petitioner No.11 Hasan Abubakar Sab argued that land in Sy.No. 21/1 was granted to him and he produced the form No. 10 and now the same Sy.No. has become Sy.No. 300 and accordingly he produced the documents as stated above.

The Petitioner No 4 Abdul Ameer Mohammed Sab submitted that his father has purchased the said land and paying tax to gram panchayath from 2009-10.

The Petitioner No. 19 M.A.Hassan stated that 107 persons were given lands and they are all in possession of the same.

The Petitioners in general have claimed that they have been in possession of land in contention and same must be granted to them.

On hearing the arguments and perusal of the above records it is clearly made out the all the above said revenue documents like RTC and mutations are standing in the name of Government of Karnataka. As per section 133 of The Karnataka Land Revenue Act 1964 RTC is the best proof of possession. No such RTC's are produced by petitioners. Morethan that the Petitioners have not produced any documents to prove their lawful right, tiltle or possession over the disputed land. Even Hon'ble High Court Dharwad has opined the same revealed from its order.

Now the point arise for my consideration for decision of the above petition is as follows:

Whether the petitioner proves that the petition schedule land is in their lawful possession and enjoyment and entitled for relief as prayed for the petition?

On issue of notices some of the petitioners have appeared in person and submitted that when there was flood in the year 1979 land in Sy No. 21/1 was granted to them and since then petitioners and their ancestors have constructed the sheds and are staying there in the disputed land. It is further submitted that Sy No. 305 of Kasarkod village was also merged with this Sy No. 21/1. It is also to be noted that to clear the doubt regarding the actual Sy No. of the property has been called for from Assistant Director of Land Records, Kumta by order dated: 07-11-2016, who surveyed the land and submitted the report which is available on records which shows that the land in Sy No. 21/1, 282A and 282B are situated 4km away from this Sy No. 305. Therefore, there cannot be any merit in the said contention of petitioners. Said report of Assistant Director of Land Records, Kumta and other documents shows petitioners have no existing right, title or lawful possession over the schedule property. It also shows that the said property exclusively belong to

Port Department and petitioner have failed to present any document to prove their claim on disputed land.

Hence the above point is held as negative to the petitioners.

Therefore, in view of the above facts I am of the considered opinion that present petitioners are not entitled for the relief of grant of said land and their claim is liable to be dismissed, and accordingly I find no merits in the contentions of petitioners and hence I pass the following order.

ORDER

No. RB/LND-II/CR-72/12-13 **Date: 29-11-2016**

The petition filed by the petitioners dated: 17-12-2015 is hereby rejected. The petitioners are further directed to vacate and deliver vacant possession of the schedule property immediately. On failure to do so the Port Authorities are directed to evict the encroachers and take vacant possession of the schedule property.

Deputy Commissioner,
Uttar Kannada, Karwar

IN THE HIGH COURT OF KARNATAKA AT BENGALURU

DATED THIS THE 24TH DAY OF NOVEMBER, 2021

PRESENT

THE HON'BLE MR. RITU RAJ AWASTHI, CHIEF JUSTICE

AND

THE HON'BLE MR.JUSTICE SACHIN SHANKAR MAGADUM

WRIT PETITION NO.4039 OF 2021 (GM-POL) PIL

BETWEEN:

HONNAVAR TALUK HASIMEENU
VYPARASTARA SANGHA (REGISTERED)
TONKA-KASARKOD, HONNAVAR
UTTARA KANNADA - 581 342.
REPRESENTED BY ITS PRESIDENT
SRI GANAPATHI ISWAR TANDEL
S/O LATE ISWAR DURGAYYA TANDEL
AGED ABOUT 38 YEARS.

... PETITIONER

(BY SRI MURTHY D. NAIK, ADVOCATE)

AND:

1. M/S. HONNAVAR PORT PVT LTD
REGISTERED OFFICE AT NO.103,
LALEHZAR APARTMENTS,
45/1-2, PALACE ROAD,
BENGALURU - 560 001
PHONE 080-22353670/080-41494960
EMAIL: info@honnavarport.com
REPRESENTED BY ITS
AUTHORIZED REPRESENTATIVE

2. THE PORT OFFICER
HONNAVAR PORT,
HONNAVAR - 581 334,
UTTARA KANNADA DISTRICT.

3. THE DIRECTOR OF PORTS, AND INLAND
WATER TRANSPORT,
KARWAR PORT,
BAITHKOL VILLAGE - 581302,
KARWAR TALUK,
UTTARA KANADA DISTRICT.

4. THE DEPUTY COMMISSIONER
UTTARA KANNADA DISTRICT,
MINI VIDHANA SOUDHA,
KARWAR - 581 301.

5. THE PRINCIPAL SECRETARY
PWD, PORTS AND INLAND WATER
TRANSPORT DEPARTMENT,
GOVERNMENT OF KARNATAKA,
ROOM NO.333, 3RD FLOOR,
VIKASA SOUDHA,
BENGALURU - 560 001.

6. THE STATE LEVEL ENVIRONMENT IMPACT
ASSESSMENT AUTHORITY-KARNATAKA,
DEPARTMENT OF
ECOLOGY AND ENVIRONMENT,
IV-GATE,
ROOM NO.709, 7TH FLOOR,
M.S. BUILDING,
DR. AMBEDKAR VEEDHI,
BENGALURU-560 001
REPRESENTED BY ITS PRINCIPAL SECRETARY.

7. THE KARNATAKA STATE POLLUTION
CONTROL BOARD
REPRESENTED BY ITS
SENIOR ENVIRONMENTAL OFFICER,
REGIONAL OFFICE,
'PARISARA BHAVAN',
LIG-II, B-217, NEAR HARI OM TRUST,
HABBUWADA
KARWAR-581 303.

8 . THE GRAMA PANCHAYAT
KASARKOD
HONNAVAR-581 342
UTTARA KANADA DISTRICT.

9 . THE SECRETARY,
MINISTRY OF ENVIRONMEMNT AND FOREST
AND CLIMATE CHANGE
GOVERNMENT OF INDIA,
INDIRA PARYAVARAN BHAVAN,
JOR BAGH ROAD,
NEW DELHI-110 003.

... RESPONDENTS

(BY SRI UDAYA HOLLA, SENIOR ADVOCATE A/W
SMT. MEGHANA, ADVOCATE FOR R1,
SRI RAJASHEKAR S, AGA FOR R2 TO R5,
SRI D. NAGARAJ, ADVOCATE FOR R6,
SRI GURURAJ JOSHI, ADVOCATE FOR R7,
SRI ASHOK N. NAYAK, ADVOCATE FOR R8 &
NOTICE TO R9 IS SERVED AND UNREPRESENTED)

THIS WRIT PETITION IS FILED UNDER ARTICLE 226 OF THE CONSTITUTION OF INDIA PRAYING TO ISSUE A WRIT OF MANDAMUS DIRECTING THE RESPONDENT NOS.1 TO 5 NOT TO CONTINUE WITH THE CONSTRUCTION OF THE PORT ON THE BEACHES OF KASARKOD, MALUKURVA, PAVINKURVE, KARKI AND HONNAVAR, IN HONNAVAR TALUKA, OF UTTAR KANNADA DISTRICT & ETC.

THIS PETITION COMING ON FOR ORDERS THROUGH VIDEO CONFERENCING THIS DAY, ***CHIEF JUSTICE*** MADE THE FOLLOWING:

ORDER

Heard Sri Murthy D Naik, learned counsel for the petitioner, Sri Udaya Holla, learned Senior Counsel assisted by Smt. Meghana, learned counsel for respondent No.1, Sri Rajashekar S., learned Additional Government Advocate appearing for respondent Nos.2 to 5, Sri D.Nagaraj, learned counsel for respondent No.6, Sri Gururaj Joshi, learned counsel for respondent No.7 and Sri Ashok N. Nayak, learned counsel for respondent No.8.

2. This Public Interest Litigation has been filed raising the issue of location and construction of the port on the beaches of Kasarkod, Malukurva, Pavinkure, Karki and Honnavar in Honnavar Taluka of Uttara Kannada District. The petitioner has challenged the Environmental Clearance dated 21.09.2012 issued by respondent No.6, the order dated 01.07.2019 issued by respondent No.6 extending the environmental clearance dated 21.09.2012 for a further period of three years. The petitioner has also prayed to quash the lease agreement dated 07.04.2010 entered into between respondent No.3 and M/s. North Canara Sea Ports-GVPREL-Consortium for usage of port land for port related

activities at Honnavar Port, to quash the lease agreement dated 11.10.2010 entered into between respondent No.3 and M/s. North Canara Sea Ports- GVPREL-Consortium for port related activities and ANCHORAGE operations at Honnavar Port and to quash the permission which was accorded by respondent No.5 to transfer the subject matter of lease agreement dated 07.04.2010 and lease agreement dated 11.10.2010 in favour of respondent No.1 without any change. The petitioner has also prayed several consequential reliefs in this regard.

3. Learned counsel for the petitioner submits that there is certain forest land in the said beaches and therefore, approval from the Ministry of Forests should have been obtained prior to commencement of the work. It is submitted that construction is carried out in CRZ-I area. The said beach is a turtle nesting ground. The National Centre for Sustainable Coastal Management (NCSCM) have carried out the survey of 45 hectares area at Kasarkod Tenka in Honnavar taluk and has submitted its report in compliance of this Court's order dated 26.03.2021. It is also submitted that there has been change of coastline village border and also location of the aforesaid

construction. It is further submitted that there are violations of various constitutional provisions and respondent No.1 has furnished false environmental details regarding the project.

4. Learned Senior Counsel appearing for respondent No.1, on the other hand, submits that the writ petition has been filed on behalf of certain individual persons whose vested interest are involved in the area. They do not want the port to be constructed and as such, the instant writ petition is a proxy petition on behalf of certain fishermen and other persons involved in fishing and other similar activities. It is submitted that all necessary approvals have been obtained from the concerned authorities and it is only after necessary survey and other formalities that decision has been taken to construct the port at the location which is under challenge. It is also submitted that in compliance of the Court's order dated 13.07.2021, the NCSCM has carried out the survey and in its report, it has been stated that no nests, turtles or dead carcass of turtles have been observed in the entire 45 hectares of the proposed site during the survey. It is also submitted that so far as the requirement of approval from

the Ministry of Forests is concerned, as per respondent No.1, there is no such requirement as the forest land is out side the land leased for the project. Moreover, no construction can be carried out without the formalities are concluded.

5. Learned counsel for respondent No.6 submits that the State level environment assessment was carried out by the Department of Ecology and Environment and it is only after the necessary assessment that permission has been granted. It is also submitted that the orders under challenge are applicable and hence, the writ petition, in the first stage, would not be maintainable.

6. We have considered the submissions made by learned counsel for the parties and gone through the records.

7. The question of location of a port depends on various factors including the requirement and necessity of a port. It is for the experts to determine the location of the port and its requirements.

8. So far as the contention of learned counsel for the petitioner that the site which has been leased for

development of the port is a nesting area of turtles is concerned, we have perused the survey report of the NCSCM. As per the survey report which is on record, no nest, turtle or dead characters are found during the survey of the entire 45 hecters area of the proposed site. However, it is for the concerning authority to ensure that no damage is caused to the nesting of turtles and other endangered species found in the area.

9. So far as the requirement of approval from the Ministry of Forests is concerned, we are of the considered view that the respondents shall obtain all necessary approvals, sanctions and permissions from all the concerned authorities while undertaking construction of the port in question.

10. Learned Additional Government Advocate appearing for respondent Nos.4 and 5 submits that a survey was carried out by the Deputy Commissioner, U.K.District on 13.08.2021 and no land in excess of the leased land has been found in use for construction of the port.

11. Considering the entire aspect of the matter, we dispose of this writ petition with liberty to the petitioner to raise its grievance before respondent No.5-The Principal Secretary, PWD, Ports and Inland Water Transport Department, Government of Karnataka, who may consider the grievance of the petitioner and pass appropriate orders in accordance with law.

12. The pending interlocutory applications do not survive for consideration and are accordingly disposed of.

Sd/-
CHIEF JUSTICE

Sd/-
JUDGE

KPS

IN THE COURT OF THE PRL.DISTRICT & SESSIONS JUDGE, UTTARA KANNADA, KARWAR.

DATED THIS THE 7th DAY OF JANUARY 2019

MISC.APPEAL NO: 01/2016 to 27/2016

PRESENT:SRI.T.G.SHIVASHANKARE GOWDA, *M.Sc., L.L.B.,*
Principal District & Sessions Judge,
Uttara Kannada, Karwar.

APPELLANAT

IN Misc.App. No.1/2016: czxs
Sri.Iliyas Abdul Gafoor Kewka,
Age: 31years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.2/2016:

Sri.Pandurang Ganpati Tandel,
Age: 40years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.3/2016:

Sri.Sanjay Pedru Fernandes,
Age: 37years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.4/2016:

Sri.Mohammed Rafique Ismail Sab,
Age: 37years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.5/2016:

Sri.Sandeep Sheshageri
Venkappa Tandel,
Age: 24years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.6/2016:

Sri.Sheshageri Venkappa Tandel,
Age. 51years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.7/2016:

Sri.Natedar Saver Fernandes,
Age: 49years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.8/2016:

Sri.Shridhar Jagannath Tandel,
Age: 29years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.9/2016:

Sri.Mohammed Khadar Ahmed
Baba,Age: 52years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.10/2016:

Sri.Hassan Sab Abubekar Sab,
Age: 46years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.11/2016:

Sri.Abdul Ameer Mohammed
Ullal, Age: 31years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.12/2016:

Sri.Hamja Hasan Sab,
Age: 52years, Fisherman.

R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.13/2016:

Sri.Abdul Sattar Abbaa Chaugule,
Age: 68years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.14/2016:

Sri.Ismail Abdul Sattar Chaugule,
Age: 39years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.15/2016:

Sri.Narayan Rama Tandel,
Age: 47years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.16/2016:

Sri.Prakash Gopal Tandel,
Age: 45years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.17/2016:

Sri.Stanlos Albert Marsdhal
Fernandes,
Age: 45years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.18/2016:

Sri.John Albert Marsdhal
Fernandes, Age: 52years,
Fisherman, R/o: Tonka,Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.19/2016:

Sri.Jaleel Mohammed Sab,
Age: 29years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.20/2016:

Sri.Kaseem Abdul Sab,
Age: 29years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.21/2016:

Sri.Roshan Felison Marsdhal Fernandes,
Age: 38years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.22/2016:

Sri.Felison Marsdhal Fernandes,
Age: 69years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.23/2016:

Sri.Danish Santan Fernandes,
Age: 64years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.24/2016:

Sri.Suresh Rukmayya Gun Mesta,
Age: 52years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.25/2016:

Sri.Victor Marshall Fernandes,
Age: 65years, Fisherman,

R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.26/2016:

Sri.Vijay Victor Marshall Fernandes,
Age: 35years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.

IN Misc.App. No.27/2016:

Sri.Pandurang Sheshageri
Cholayya Tandel,
Age: 41years, Fisherman,
R/o: Tonka, Kasarkod,
Tal.Honnavar, Uttar Kannada District.
(Sri.R.S.Hegde Gail, Advoate in all the cases)

Vs.

RESPONDENTS:

1. The State of Karnataka,
   R/by Deputy Commissioner,
   Uttar Kannada, Karwar.
2. The Director of Ports and Inland Water
   Transport, Department of Karwar,
   Uttar Kannada, Karwar.
3. The Self Claimed Authorised Officer/
   Competent Officer and the Port Officer,
   Honnavar Port, Tal. Honnavar,
   Uttar Kannada.
   (By learned D.G.P.)

COMMON JUDGMENT

These are the appeals filed U/Sn.10 of the Karantaka Public Premises (Eviction of Unauthorised Occupants) Act, 1974 by the appellants challenging the order passed by the respondent No.3 in BHUNI/CR-22/2015-16 dated 30.11.2015.

2. The identical question arises in all the appeals and hence they are taken up together for common disposal.

3. The appellants are the resident of Tonka, Kasarkod village of Honnavara Taluka. They have been directed for eviction from the land in Sy.No.305 of Kasarkod village. The appellants are said to have constructed their houses cum-fishing equipment storage and fish storing sheds by the side of Sharavati-Arebean sea which is alluvial land and it is formed part of Sy.No.305 of Kasarkod village. The respondents No.2 and 3 misguiding the Government machineries and obtained the sanction to hand over the premises in occupation of the appellants to private company for establishment of Barje and Export business and between 19.10.2015 and 24.11.2015 the respondent No.3 has served the notice on the appellants and asked them to vacate their sheds and huts and for this reason they made the representation to the 1st respondent. The 3rd respondent without hearing the appellants has passed the Order on 30.12.2015 directing the appellants to vacate their houses, sheds within 15 days from the date of order and they have received the Order on 2.1.2016. Aggrieved by the said Order, the appellants have come before this Court for and amongst the grounds below:

Common grounds of appeal:

I. There is no order appointing the 3rd respondent as competent officer or the authorised officer under the Karnataka Public Premises Act, 1974.

ii. The respondent No.2 and 3 will not get any right to pass the order of eviction against the appellants.

iii. The land in question is a revenue land, the authority for the said land is the revenue department who are required to pass the order of eviction and not the 2nd and 3rd respondent. Hence, the order is illegal and against the facts of the case.

iv. The 3rd respondent has not conducted any enquiry before passing the order, he has not recorded the evidence, no evidence is led on behalf of 2nd respondent nor were the appellants allowed to lead the evidence. Hence, the assumption of 3rd respondent that the land belonging to the 2nd respondent is illegal.

v. The earlier land revenue records show the names of the appellants and they are entitled to seek under K.L.R Act and therefore, the order passed by the 3rd respondent is illegal.

vi. The appellants are the fisherman by profession, they are involved in fishing and storage of fish and connected activities in the premises and if they are evicted their family will come to the road.

vii. The appellants have jointly challenged the order sanctioning the land occupied by them to the third party before the Hon'ble High Court of Karnataka in W.P.No.100908 to 100934 of 2016 and the matter is pending, hence, the Order passed by the 3rd respondent is to be set aside and sought for allowing all the appeals.

4. The appellants are duly represented by their counsel. The respondents are duly represented by the learned DGP who has filed the objections that the appeals are not maintainable, the appellants were already approached the Hon'ble High Court of Karnataka in W.P.No. 100908-934/2016(GM-RES) and the Writ Petitions have been dismissed by speaking order and therefore, all the appeals are become premature, deserves to be dismissed.

The appellants have filed the certified copy of the Order and therefore, there is no need for calling of the L.C.R.

5. Heard the arguments of both sides and have submitted their notes of arguments.

6. Now the points that arise for consideration are:

1. Whether the impugned Order is perverse, illegal and not in accordance with law?

2. What is the effect of the Order passed by the Hon'ble High Court of Karnataka in W.P.No.100908-934/2016?

3. What order?

7. My answers to the above said points are:

Point No.1: In the negative.
Point No.2: Appeals become infructuous.
Point No.3: As per final order, for the following:

REASONS

Points No.1 and 2:

8. Both the points are interconnected, hence taken up together in common.

9. It has been argued by the learned counsel for the appellants that, the contention of the appellants that there was no proper enquiry conducted by the 3rd respondent before passing the Order of eviction. The appellants were not given opportunity to produce the documents, adduce oral evidence,

the 2nd respondent has not led any evidence and the appellants were not given any opportunity to examine the witness, the nature of the land is revenue land it vests with the Government and in case of eviction of agricultural land in the light of the Judgment of the Hon'ble High Court of Karnataka in **2009(2)KCCR 1220** it is the revenue department who has to pass the Order and not the 3rd respondent. The Order passed by the Hon'ble High Court of Karnataka in W.P.No.100908-934/2016 is nothing to do with the decision of these appeals on merits and the appellants have challenged the action of the 3rd respondent for which they are required to answer by proper finding by this Court and on the basis of the Order of the 1st respondent taking possession of the property from the appellants is nothing to do with the finding required to be recorded for these appeals. On contrary, the learned DGP has contended that, the representation of the appellants filed to the 1st respondent since not considered they have challenged the same before the Hon'ble High Court of Karnataka in W.P.No.100908-934/2016 wherein the Hon'ble High Court of Karnataka dismissed the Writ Petitions giving directions to the respondents to pass Orders on the petitions filed by the appellants in accordance with law. Till such order, the appellants shall not be dispossessed from the land in question. The representation of the appellants were decided by the 1st respondent and the Order passed by the 1st

respondent was not challenged by the appellants and for this reason, all the appellants who are in unauthorized occupants of the premises have been evicted, possession of the property was taken and the very purpose of the Order passed by the 3rd respondent was fulfilled and therefore, even if the findings of the 3rd respondent if held negative by this Court they cannot seek possession from this Court. Hence, the appeals stand infructuous and remedy open to the appellants to question the Order of the 1st respondent, their representation and they have to question their eviction and taking possession in a separate proceeding and the appellants cannot waste the time before this Court.

10. Having heard the arguments of both sides, I have carefully perused the judgment of the Hon'ble High Court of Karnataka passed in **2009(2) KCCR 1220** in **"Smt.Asha Chakko and Ors Vs. The State of Karnataka and Anr.."** Wherein the Hon'ble High Court laid down referring to Sn.67 of the Karnataka Land Revenue Act, 1964 that there should be summary enquiry in respect of occupation of a Government land by the revenue authorities. This has been banked on by the learned counsel for the appellants who are in occupation of Sy.No.305 of Kasarkod village and any eviction of the appellants shall be by the revenue authorities and therefore, the 3rd respondent has no jurisdiction to pass eviction order. It has been counted by the learned DGP that the appellants were

dispossessed from the premises in occupation by virtue of the Order of the Dy.Commissioner and therefore, there is a clear compliance of the law laid down by the Hon'ble High Court of Karnataka in the said case.

11. The learned counsel for the appellants relied upon the judgment of the Hon'ble Apex Court in **AIR 2008 SUPREME COURT 876** in **"New India Assurance Co.Ltd. Vs. KLM Engineering Co.Pvt. Ltd.& Ors.,:"** to the effect that in case of a notice of eviction is issued the person who received the notice not only entitled to show cause but also entitle to produce any evidence in support of cause shown. Herein this case the appellants claim that the 2nd and 3rd respondents are not the revenue officers, they have no jurisdiction to pass the Order of eviction. When such being so, as laid down by the Hon'ble High Court of Karnataka and also the Hon'ble Apex Court, action of the 2nd and 3rd respondents not being the revenue officers are not entitled to pass any order, contrary as directed by the Hon'ble High Court of Karnataka in W.P.No.100908-934/2016(GM-RES) dated 10.2.2016, the writ petitions challenging the Government Order No.LOE 119 PSP 2010 Bangalore dated 22.9.2010 and also on the basis of notices issued in No.BHUMI/CR-22/2015-16 dated 19.10.2015 and 24.11.2015 issued by the 3rd respondent. The Hon'ble High Court of Karnataka after discussing the facts elaborately held that the claim of the appellants before the High

Court as well as the District Court simultaneously is not maintainable and the jurisdiction of the Hon'ble High Court of Karnataka cannot be invoked simultaneously other than the rare and exceptional case. However, the Hon'ble High Court of Karnataka dismissing the writ petitions as not maintainable has observed thus:

> **".... In view of the aforesaid reasons, the writ petitions filed by the petitioners are dismissed as premature. However, the respondents are directed to consider the representations of the petitioners and pass appropriate orders in accordance with law. Till such consideration of the representations, the respondents shall not dispossess the petitioners from the lands in question..."**

12. Upon the order of the Hon'ble High Court of Karnataka the 1st respondent has conducted enquiry on the representation of the appellants and passed the order confirming the eviction of the appellants from the property in question. Now the appellants are not challenging the order of the 1st respondent, dismissing their representation and direction for eviction of the appellants from the unauthorized occupants of the revenue lands. Upon the order of the 1st respondent all the appellants were already evicted and that action has not been challenged by any of the appellants. When the 1st respondent has complied the Order of the Hon'ble High Court of Karnataka and the appellants who are evicted from the premises, the Order of

the 3rd respondent in directing the appellants for eviction of the property is merged with the Order of the 1st respondent and as such the irrespective of the legality of the Order of the 3rd respondent, in view of the appellants being evicted from the property, all the appeals become infructuous and going enquiry into the Order of the 3rd respondent will not serve any purpose and as such, the contention of the appellants and also the arguments canvassed on behalf of the appellants by the learned counsel finds no force and therefore, these appeals stand infructubus and not maintainable. In the result, point No.1 and 2 are answered accordingly.

Point No.3:

13. In view of my findings on points No.1 and 2, my finding on this point is as per the following final order:

O R D E R

The appeals filed by the appellants U/Sn.10 of Karnataka Public Premises (Eviction of Unauthorized Occupants) Act, 1974 are hereby dismissed.

Having regard to the facts and circumstances of the case the parties to bear their own costs.

Keep the original Order in Misc.Appeal No.1/2016 and the copies in other cases.

(Dictated to the Stenographer, transcribed by her, revised and corrected by me, signed and then pronounced in the Open Court on this the 7th day of January- 2019)

(***T.G.Shivashankare Gowda***)
Prl.District & Sessions Judge,
Uttara Kannada, Karwar.

"True copy"

(SSG)

Chief Administrative Officer,
District & Sessions Court,
Uttara Kannada, Karwar.

the 3rd respondent in directing the appellants for eviction of the property is merged with the Order of the 1st respondent and as such the irrespective of the legality of the Order of the 3rd respondent, in view of the appellants being evicted from the property, all the appeals become infructuous and going enquiry into the Order of the 3rd respondent will not serve any purpose and as such, the contention of the appellants and also the arguments canvassed on behalf of the appellants by the learned counsel finds no force and therefore, these appeals stand infructuous and not maintainable. In the result, point No.1 and 2 are answered accordingly.

Point No.3:

13. In view of my findings on points No.1 and 2, my finding on this point is as per the following final order:

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The appeals filed by the appellants U/Sn.10 of Karnataka Public Premises (Eviction of Unauthorized Occupants) Act, 1974 are hereby dismissed.

Having regard to the facts and circumstances of the case the parties to bear their own costs.

Keep the original Order in Misc.Appeal No.1/2016 and the copies in other cases.

(Dictated to the Stenographer, transcribed by her, revised and corrected by me, signed and then pronounced in the Open Court on this the 7th day of January- 2019)

7/1/2019

(***T.G.Shivashankare Gowda***)
Prl.District & Sessions Judge,
Uttara Kannada, Karwar.

"True Copy"

Chief Administrative Officer,
District & Sessions Court,
Uttara Kannada, Karwar.

Item No.01:

BEFORE THE NATIONAL GREEN TRIBUNAL
SOUTHERN ZONE, CHENNAI

Dated this the 26th day of September, 2023.

(Through Video Conference)

Original Application No.76 of 2022 (SZ)&
I.A. Nos.116, 144 and 146 of 2022 (SZ)

IN THE MATTER OF

Damayanti Subray Mesta
Tonka – 1, Kasarkod, Honnavar,
VTC: Kasarkod, P.O.: Kasarkod,
Uttar Kannada District,
Karnataka – 581 342.

...Applicant(s)

Versus

1) Department of Public Works, Ports & Inland Water Transport
Government of Karnataka
Rep. by the Additional Chief Secretary to Govt.
Room 28, Vikasa Soudha
Bangalore – 560 001.

2) M/s. Honnavar Port Private Limited (HPPL)
Through its Director
#103, Lalehzar Apartments,
45/I-2, Palace Road, Bangalore – 560 001.

3) Karnataka State Coastal Zone Management Authority
Through its Chairman &
Additional Chief Secretary to Government,
Forest, Ecology and Environment Department,
4th Floor, M.S. Building, Bengaluru - 560 001.

4) State Level Environment Impact Assessment Authority Karnataka
Through its Member Secretary
Department of Ecology & Environment
Room No.709, 7th Floor, IV – Gate,
M.S. Building, Bangalore – 560 001.

5) Karnataka Forest Department
Through the Principal Chief Conservator of Forest (PCCF)
Head of Forest Force (HoFF)
4th Floor, Aranya Bhavan, Malleshwaram
Bangalore – 560 003.

6) Ministry of Environment, Forest and Climate Change (MoEF&CC)
Integrated Regional Office, Bangalore
Through the Deputy Director General of Forests (C)
Kendriya Sadan, 4th Floor, E & F Wings,
17th Main Road, Koramangala II Block,
Bangalore – 560 034.

7) Directorate of Fisheries
Through the Director
3rd Floor, Podium Block,
Visvesvaraya Centre
Dr. Amebdkar Veedhi,
Bengaluru – 01.

8) Office of the Deputy Commissioner & District Magistrate
Uttar Kannada District
Karwar P.O. – 581 301.

...Respondent(s)

For Applicant(s): M/s. Sreeja Chakraborty.

For Respondent(s): Mr. Rajat Jonathan Shaw represented
Mr. Darpan K.M. for R1 & R8.
Mr. R. Ramasubramaniam Raja and
Mr. Aravind A.S. for R2.
Mr. H.K. Vasanth for R3 & R4.
Mr. Y. Kavitha for R6.

Judgment Reserved on: 03rd August, 2023.

CORAM:

HON'BLE SMT. JUSTICE PUSHPA SATHYANARAYANA, JUDICIAL MEMBER

HON'BLE DR. SATYAGOPAL KORLAPATI, EXPERT MEMBER

JUDGEMENT

Delivered by* Smt. Justice Pushpa Sathyanarayana, *Judicial Member.

1. The Government of Karnataka had accorded sanction to the 2nd Respondent viz., M/s. Honnavar Port Private Limited (HPPL) to develop the infrastructure as specified and carry on anchorage operations in respect of the project proposed and carry on anchorage operations in Honnavar Port and Kasarkod side of

Honnavar Port for a period of 30 years. Based on the same, the 2nd Respondent had obtained Environmental Clearance from the State Environmental Impact Assessment Authority (SEIAA) – Karnataka dated 21.09.2012. The total land requirement for the proposed facility is 44 Hectares, out of which, the coal stack yard area, iron ore stack yard area, general cargo storage area, general cargo storage closed area, liquid cargo storage area, etc. were earmarked for operations and for future expansion. The Environmental Clearance was issued on specific conditions and general conditions.

2. While so, the above Original Application is filed by the applicant residing in Kasarkod Village seeking a direction to the respondent authorities to remove the red soil, boulders, tar, jally stone, etc. used for the construction of the road on the Coastal Regulation Zone (CRZ) area of Kasarkod village and restore the CRZ III No Development Zone (NDZ) area (within 200 M from HTL) and initiate violation proceeding against the 1st Respondent and direct the Karnataka Forest Department not to issue work order under Section 2 of the Forest (Conservation) Act, unless the CRZ Clearance obtained from the 3rd Respondent which is the Karnataka State Coastal Zone Management Authority (KSCZMA) for construction of the road in CRZ I area.

3. According to the applicant, the impugned road is constructed through CRZ – I and III on NDZ up to 200 M from the High Tide Line (HTL) on the landward side of Kasarkod Beach without obtaining prior CRZ Clearance which is a violation of the CRZ Notification, 2011.

4. It is stated that the project has impacted the livelihood of 2,000 women engaged traditionally in drying, processing and selling fish, as their only means of livelihood. The CRZ area of the Kasarkod Village is used as a fish drying area by the fisherwomen of Kasarkod, while so the impugned road is being constructed to provide to the port a **"dedicated road corridor"** from the port project of M/s. HPPL to the National Highway 66. The total length of the impugned road is said to be 4 Km, of which, 3.8 Km is through the CRZ III NDZ area and the

remaining 0.2 KM is through the CRZ I A area on forest land in Forest Survey No.233 and 237 of Kasarkod Beach and Village.

5. It is stated further that as per the lease agreement dated 11.10.2010 with M/s. North Canara Sea Ports - GVPREL Consortium, Hyderabad for the use of port land and port related activities, a road measuring 130 x 12 Meters to give entry to the port from NH 17 was proposed to be constructed by filling up the pond space in the corner of the Sharavathi bridge.

6. The said subject matter of the lease was transferred with all the same recitals in favour of the 2nd Respondent viz., M/s. HPPL on 07.04.2011. The Government of Karnataka, while approving the Honnavar Port, granted the approval for an entirely different port connectivity road to connect the Honnavar Port to the NH 17.

7. According to the applicant, the 2nd Respondent had applied for embedded Environment and CRZ Clearance for a project from the SEIAA – Karnataka and the Karnataka SCZMA respectively. Subsequently, the Port Department started the preparatory work for the construction of a 4 Km long, 25 M wide port connectivity road by deploying heavy machinery and boulders and reclamation of the sandy beach of Kasarkod. The said construction of the road has led to encroachment and pollution of the coastal commands on the Kasarkod beach who were using as a fish drying yard.

8. Hence, the above Original Application is filed by the applicant who is a fisherwoman raising the following grounds:-

I. The 4 Km long, 25 – 40 M wide road is constructed in the CRZ area without prior CRZ Clearance in violation of the CRZ Notification, 2011.

II. The impugned road is a private road specifically built for the port authority creating a dedicated road corridor, as the inhabitants of the Kasarkod Village already have access to the 4 M wide existing road which connects the Honnavar fisheries harbour to NH 66 (NH 17). Therefore, the

requirement for the local inhabitants as mentioned in the CRZ is inapplicable in this case.

III. While natural fish drying is a permissible activity in the CRZ area, the construction of a road through the coastal beaches for the private interest of the 2nd Respondent on CRZ III NDZ is not a permissible activity.

IV. Construction of the impugned road without prior approval under the Wildlife Protection Act will lead to the destruction of the habitat and nesting ground of the Olive Ridley Turtle at Kasarkod Beach.

V. Construction of the said impugned road would alter the natural landscape, remove the native vegetation, flatten the dunes, etc.

9. In response to the above application, **the Department of Public Works, Ports & Inland Water Transport (Respondent No.1) and the Deputy Commissioner & District Magistrate, Uttar Kannada District (Respondent No.8) have filed a common reply,** wherein it is stated that

9.1 The issues regarding the Olive Ridley Turtle nesting grounds and the validity of the Environmental Clearance and the CRZ Clearance which includes the port connectivity road were raised before the Hon'ble High Court of Karnataka in W.P. No.4039 of 2021. The issues were dealt with comprehensively and the writ petition was dismissed on 24.11.2021. Aggrieved, a challenge is made before the Hon'ble Supreme Court of India in SLP No.8586 of 2022 and is pending adjudication. Hence, it is alleged that the present proceeding is nothing but an abuse of the process of law.

9.2 It is alleged that when already the applicant has moved the Hon'ble High Court on the same issue, they have approached the Tribunal which amounts to forum shopping.

9.3 It is stated that the allegation that the Olive Ridley Turtle nesting grounds along Kasarkod Beach would be destroyed has already been dealt with by the Hon'ble High Court of Karnataka in W.P. No.4039 of 2021 in detail and also analysed the Environmental Clearance and other clearances relating to the port project including the connectivity road threadbare.

9.4 The Hon'ble High Court had directed that unless the Stage – I approval under Section 2 of the Forest Act was granted, no work shall be carried out. The Stage – I Clearance was granted on 20.01.2022, based on which, the construction work had commenced. Hence, it is false to allege that the construction of the connectivity road was commenced not in accordance with law.

9.5 The W.P. No.4039 of 2021 which assailed the Environmental Clearance and the CRZ Clearance and also the issue of turtle nesting ground was disposed of by the Hon'ble High Court on merits vide Order dated 24.11.2021, after elaborately considering all the issues. Once the said issues have reached finality, the applicant ought not to have taken up the same issue once again.

9.6 The National Centre for Sustainable Coastal Management (NCSCM) report has recorded that there are no turtle nesting grounds in the area in question. The above averment is placed on the report filed by the NCSCM in W.P. No.4039 of 2021 before the Hon'ble High Court of Karnataka.

9.7 The 2nd Respondent has obtained all the statutory clearances required under the law. The Environmental Clearance was obtained from the SEIAA – Karnataka upon recommendation from the Karnataka SCZMA on 21.09.2012. The Consent to Establish was also obtained from the Karnataka State Pollution Control Board on 06.02.2013 and a NOC from the Tourism Department was obtained on 03.04.2021. The validity of the

Environmental Clearance is extended up to 20.09.2022. Further, the extension was granted up to 20.09.2023.

9.8 Even as per the applicant, clearances were obtained only for the approach road to NH 17 and the construction of connectivity road to NH 66 is without statutory clearance. The said argument is misconceived as NH 17 has now been renumbered as NH 66.

9.9 The construction of the port connectivity road is a permissible activity under the CRZ Notification, 2011, as these require foreshore facilities.

9.10 The local community has been apprised of the project including the connectivity road. It is stated that the proposed dedicated road corridor to provide road connectivity from HPPL at Kasarkod Tonka to NH 66 is clearly mentioned in the Karnataka SCZMA Meeting held on 28.05.2012.

9.11 The Forest Clearance for the road was also duly obtained and the Stage – I Clearance was already granted. Finally, the local fishermen also will benefit from the port project, as the HPPL will construct two parallel breakwaters to stabilize the tidal inlets that are the existing gut at the confluence and estuary of the Sharavathi and Badagani Rivers and undertake dredging of the harbour basin and approach channel at their own cost to ensure safe and sufficient depth of water for smooth navigation of vessels, boats and barges. Additionally, the fishermen would be provided 24 x 7 free access to use the approach channel which would boost their fishing activity.

9.12 It is further pointed out that the local fishermen and fisherwomen are drying fish illegally in an unauthorized manner by constructing the sheds. The Deputy Commissioner, Uttar Kannada District had already issued an eviction order dated 29.11.2016 and were evicted on 07.12.2016.

10. Besides the above submissions, it was stated that the maritime trade in India is 95% by volume and 70% by value. Therefore, ports play a vital role and very important role in trade commerce and industries. Therefore, the 1st and 8th Respondents sought for dismissal of the application.

11. The **2nd Respondent which is M/s. Honnavar Port Private Limited (HPPL)**, in its reply, had submitted that

11.1 The EIA study for the port was conducted by L & T Ramboll who is the authorized agency of the MoEF&CC. The said EIA Report had clearly stipulated the road connectivity to the barge/vessel loading facility from NH 17 (New NH 66).

11.2 Besides raising the question of maintainability and limitation, the 2nd Respondent has stated that the construction of the road will not affect the livelihood of the fishermen community.

11.3 It is stated that of the total length of the 4 Km of the impugned road, 3.8 Km is through the CRZ III NDZ area and the remaining 0.2 Km is through the forest land in Forest Sy. No.233 and 237 and necessary approvals were obtained from the MoEF&CC.

11.4 The Principal Chief Conservator of Forest also recommended wildlife mitigation measures in respect of the conservation of the forest land and the Project Proponent has already paid the net present value of the forest land and the cost of raising plantation of 10 times of the tree for compensatory afforestation. The remaining road connectivity i.e. 3.8 Km within the Honnavar Port Limits declared as per the Government Notification dated 09.12.2013 is issued as per Section 5 of the Indian Ports Act, 1908. Therefore, the allegation that the proposed connectivity road is constructed in the absence of prior CRZ Clearance and is in violation of the CRZ Notification, 2011 is absolutely false and untenable.

11.5 Regarding the turtle nesting grounds, the NCSCM in its final report found that there was not even a single turtle nesting site in Karnataka. The report of the NCSCM on turtle nesting grounds in the year 2018 – 19 which was after the specific survey undertaken pursuant to the orders of the Hon'ble High Court of Karnataka observed that there was no nest, turtles, dead carcass observed in the entire 45 Hectare area of the proposed site during the survey. Further, it was found that the southern tip of the proposed HPPL project site had one nesting site in the year 2020 that too fell 3 Km land area from the shore.

11.6 So far as the forest area is concerned, the project site is having only a 200 M stretch in the port connectivity road in Forest Sy. No.233 and 237. It is also pointed out that there was no objection during the public hearing conducted in the year 2012 as per the EIA Notification regarding the Olive Ridley Turtle or fish drying.

11.7 Regarding the allegation of the applicant that the port connectivity road (130 x 12 M) to connect the port site to NH 17 was permitted by filling up the sand in the corner of Sharavathi bridge at Honnavar relates to the port to be developed at Honnavar side and not at Kasarkod side. It is specifically stated that two separate ports were to be developed, one on the Kasarkod side and another on the Honnavar side. The allegation made by the applicant relates only to the Honnavar side and not the Kasarkod side, for which, the application is filed.

11.8 The 2nd respondent further stated that the application filed itself is mischievous as the Public Interest Litigation filed before the Hon'ble High Court of Karnataka was already dismissed on the same grounds raised. The applicant is trying to reagitate the same issues before this Tribunal.

12. The **status report was filed by the Karnataka State Coastal Zone Management Authority (Respondent No.3)**, wherein it is stated that the project proposal was placed before them on 28.05.2012. The authority, after discussion and deliberation, recommended the proposal to the SEIAA – Karnataka as it requires clearance as per Para 4 (i) (b) of the CRZ Notification, 2011. The CRZ clearance had been issued for the activities mentioned within 44 Hectares of land in CRZ I B and CRZ III areas and breakwater construction in CRZ IV areas. It is further stated that nowhere approval for the construction of new roads outside the area mentioned i.e. 44 Hectares has been given by the Karnataka SCZMA. The Karnataka SCZMA also noted the information with regard to the proposal wherein regarding the connectivity, the road corridor connecting the project site to NH 17 is specifically mentioned.

13. From the above pleadings, the question that arises for determination is:

Whether the 4 Lane (4 Km long 25 M wide) dedicated road corridor undertaken by the 1st Respondent to provide port connectivity is permissible or not.

14. The application revolves around the 4 Km long dedicated road corridor. The dedicated road corridor mentioned in the application for a length of 4 Km and 25 M wide road is intended for port connectivity under the *'Bharatmala Pariyojana Scheme'* and the clearance from the MoEF&CC for the same is pending before the Expert Appraisal Committee for the project related to the Coastal Regulation Zone. The road that is now in dispute is the Kaccha road which is sought to be strengthened to construct a seawall and this is not a dedicated road corridor of 4 Lane which is referred to in the application.

15. It is categorically pointed out by the learned Senior Advocate Mr. T.K. Baskar that the Karnataka SCZMA has approved the 4 Lane and recommended the proposal for the dedicated road corridor under the *'Bharatmala Pariyojana Scheme'* and the proposal is being considered by the MoEF&CC.

16. He also produced the document relating to the Proceedings of the 40th Meeting of the Karnataka SCZMA dated 27.02.2023 which relates to the request for issue of NOC for 4 Laning of Honnavar Port connectivity road from 0 Km – 2.58 Km connecting Honnavar Port with NH - 66 at Km 195.986 and improve the NH - 66 from 195 Km to 197 Km to integrate port connectivity on EPC mud under *'Bharatmala Pariyojana Scheme'* Phase – I in Kasarkod Village of Honnavar Taluk of Uttar Kannada District by the Assistant Executive Engineer, Port Sub Division, Honnavar. The said request indicates the activities proposed as ***"Proposed for 4 lane road connectivity to port from NH 66, Length of 2.58 Km average width 25 M, improvements to existing NH 66, length of 2 Kms, service road and construction of flyover".***

17. In the said meeting, the HTL, hazard line from CRZ Notification, an alternate construction of a road on stilt, etc. were analyzed and discussed and found that there are no issues of re-habitation and resettlement in the execution of the project, as the proposed road is not passing through the high-density areas and will be constructed along the beach of the Kasarkod in port land. Finally, the authority had after detailed discussion and deliberation, recommended the proposal to the MoEF&CC with a condition that adequate mitigation measures need to be taken to protect the Olive Ridley Turtle nesting within port limits and to provide adequate medical facilities to the local fishermen and villagers. Regarding the CRZ Clearance for the usage of Kaccha Road along the seashore as a connecting road at Kasarkod Village for the development of Honnavar Port by M/s. HPPL, the activities proposed was ***"Usage of existing Kaccha Road along the seashore at Kasarkod Village for development of Honnavar Port"***. Whether the permitted activity is as per the CRZ Notification, it is found that as per Para 3 (i) a - Port is waterfront activity, Para 4 (i) a– Clearance for waterfront and foreshore activities, Para 4 (ii) f - Foreshore requiring facility for transport of raw materials, Para 3 (iv) a -Setting up of foreshore facilities and then as per Para 8 III (A) (i) - NDZ shall not applicable for area falling in port limits of CRZ Notification, 2011.

18. The following were the objections raised by the applicant:-

i. There was no Kaccha Road that existed along the seashore in Kasarkod Village before January 2022.

ii. The villagers of the Kasarkod used a mud path or Kaludhari to access their homes on the seashore and the same was used as a fish drying area during the day.

iii. The said path existed in patches and did not provide connectivity for a length of 4 Km.

iv. Most of the laid road was washed during the high tide and what existed today is a 2 - Lane broken path that was laid by the Port Department.

19. To the above objections, the 2nd Respondent furnished the following clarifications:-

i. The existing Kaccha Road runs parallel to the beach from NH - 66 at Kasarkod up to the proposed port area in CRZ III (road with gravel mixture) which was developed while forming the construction of seawalls for protection from sea erosion.

ii. The proposal of usage of Kaccha Road along the seashore as a connecting road at Kasarkod Village for the issue of CRZ Clearance was considered in the DCZMC Meeting held on 25.11.2022.

iii. The proposal was recommended to the Karnataka SCZMA on 29.11.2022. In the said recommendation, it was clearly stated that the existing Kaccha Road was formed for the construction of seawalls to protect the area from sea erosion and the potholes have been made good using murram and jally.

iv. However, presently this road is being used by the local inhabitants as an access road to their houses which is admitted by the applicant. Therefore, it is clear that the said road was not formed originally for the local inhabitants, but was formed for the transportation of construction materials like boulders, granite stones and other materials to the construction site for the formation of seawalls.

20. The learned Senior Advocate also referred to the Notification dated 09.12.2013 issued by the Government of Karnataka prescribing the port limits of the Honnavar Port. In the said Notification, the limits on the eastern side are stated as the seashore of Honnavar 50 M above the high water mark between the North and South boundary mark. Thus, the 2nd Respondent submitted that the alternate alignment which is after the seawall protection and the existing Kaccha Road and there is no remote threat to the turtle nesting even presuming that there is sporadic turtle nesting.

21. Further, the learned counsel for the applicant pointed out that the existing Kaccha Road was in existence even prior to 2000. The said Kaccha Road was developed for the purpose of transporting seawall materials like Granite, Boulders, sandbags, and Murram for forming the road. The said Kaccha Road was developed as a pre-requisite for the movement of tippers and dumpers to carry the materials required for seawall protection and the Kaccha Road was constructed on the landward side in order to facilitate the smooth movement of vehicles and machinery. The said fact is even admitted by the applicant stating that it was used by the fisherwomen for drying fish.

22. A Letter dated 08.09.2022 issued by the Karnataka Infrastructure Development, Ports and Inland Water Transport Department to the Director, Port and Member, Karnataka Water Transport Board furnishing the details of the works undertaken in Kasarkod Tonka Village of Honnavar Taluk clarifies that the construction of the seawall work from Chainage 185.420 to 185.670 Km (i.e. 300 M) in Kasarkod Tonka area, Honnavar Taluk was completed on 31.03.2010. The said fact was also admitted by the applicant by producing the document, in which, the details of the contractors and cost incurred for sea erosion works in the past three years was furnished. In Uttar Kannada District for providing coastal protective works at Kasarkod Tonka, Chainage 184.180 to 184.230 Km, etc. and in Honnavar Taluk, the work is said to be in progress.

23. It is further pointed out that the existence of the seawall was also evident from the CRZ Map of 2019 and also the photographs produced by the 2nd Respondent.

24. It is the said Kaccha Road which is already in existence was being strengthened by the Ports & IWT Department to make it motorable for being used by the Project Proponent / 2nd Respondent to carry the materials to the project site. The said road is what was permitted by the Karnataka SCZMA by strengthening the same and using all the access roads as permitted in the Environmental Clearance.

25. To be noted in this regard is that on 21.10.2022, this Tribunal had given liberty to the 2nd Respondent to approach the authorities for the usage of the existing road by making an application to the Karnataka SCZMA and the application to the SEIAA – Karnataka to be examined by the authorities and pass appropriate orders. This is based on the submissions made by the 2nd Respondent with particular reference to the Final EIA Report regarding the connectivity. Clause 1.3.2 refers to the connectivity.

> "The site has good road connectivity. NH 17 passes through Honnavar towards the East of the project site at a distance of 1 Km. The site is connected to Bellary through NH 63 and NH 17. NH 17 meets NH 63 near Ankola at about 45 Km from the site. Presently, the site can be approached from a single lane blacktop road that runs in continuation of NH 17 and then lies parallel to the shoreline."

26. In the same report, the proposed dedicated rail/road corridor has been mentioned, in which, following options have been given by the HPPL.

> **"2.6.16.1 Road Connectivity Option : I**
>
> The road in this option takes off from NH 17 at Topalgaere and then traverses southeast a distance of around 0.90 km. A proposed bridge passing over River Bagdani will connect the road to the project site. Thus the overall length of this connectivity option will be around 1 km with a width of 25 m with a provision of double lane road.
>
> **2.6.16.2 Road Connectivity Option : II**
>
> In this option the proposed road starts from NH 17 at Kasarkod. This road will then run south east for some distance and then aligns parallel to the shoreline till it reaches the proposed project site. This option will be parallel to the existing

single lane road at an offset distance of 100 m. The total length of this road from NH 17 to the proposed site is 4 km. This road connectivity will have a width of 25 m."

27. In response to the application for usage of the existing road for the development of Honnavar Port by the 2nd Respondent, the Karnataka SCZMA passed an order on 04.03.2023 which is as follows:-

> "After perusing the materials on record and averments made there under, the Karnataka SCZMA discussed and decided to exempt the use of the existing Kaccha road in **as is where is basis** only, as the proposed area falls in notified port limits where the NDZ is not applicable in such areas falling within the notified port limits as per the provisions in Para 4 (1) (a) of the CRZ Notification, 2011."

28. Thereafter, the SEIAA – Karnataka was approached for the same purpose by the 2nd Respondent. In response, the SEIAA – Karnataka sent a communication to the Karnataka Maritime Board vide Letter dated 28.03.2023, the relevant portion is as follows:-

> "Your proposal regarding usage of the existing road for development of Honnavar Port by M/s. Honnavar Port Private Limited with 2.1 Km length was deliberated and it was observed that your proposal does not fall in the screening and scoping by SEIAA as it is not covered under EIA Notification, 2006 issued by the MoEF&CC vide S.O. No.1533 dated 14th September 2006 and wherein it is stated that "project activities listed under 7 (f) of 2 & 7 of the Schedule of Projects or Activities requiring prior Environmental Clearance are applicable only for A Category Projects – (i) New national Highway Projects (ii) Expansion of National Highways greater than 100 KM involving additional right of way or land acquisition greater than 40 M on existing alignment and 60 M on re-alignment or by-passes and for B Category Projects – (i) All new State Highway Projects and (ii) State Highway expansion projects in hilly terrain (above 1000 M AMSL) and or ecologically sensitive areas."

29. Thus, the Karnataka SCZMA as well as the SEIAA – Karnataka had permitted the 2nd Respondent to use the road which is referred to as Kaccha Road in ***'as is where is basis'***.

30. Additionally, it is also stated that the 2nd Respondent was permitted to use the said Kaccha road as per the lease deed and the Environmental Clearance. The lease agreement for the use of port land for port related activities, and anchorage operations

at Honnavar Port was executed on 11.10.2010. In Clause 43 of the lease agreement, it is stated that *"the lessee shall use the road available on Kasarkod side as shown in Map C".* This is further clarified in the proceedings of the 231st Meeting of the SEIAA – Karnataka dated 10.03.2023, wherein the online proposal of the 2nd Respondent for the usage of the existing road for the development of the Honnavar Port was considered in the following words:-

> "Therefore, it is the opinion of the authority that the usage of the existing road for the development of the Honnavar Port by M/s. HPPL with 2.1 Km length does not come under the ambit of scheduled activities listed in the EIA Notification, 2006 and its amendment for prior Environmental Clearance."

31. Even in the EIA Report, Chapter (5) which deals with the 'Anticipated Environmental Impacts and Mitigation Measures', it is reported as follows:-

> "To mitigate impacts from transportation of stones and construction materials, existing roads will be strengthened and widened to enable movement of dumpers. Hence, impacts would not be significant as quarries are accessible.
>
> Also, as a part of infrastructure development for Honnavar Barge/ vessel loading facility, it is proposed to develop 4 Km of road from NH – 17 to Kasarkod and a new railway of 14.6 Km from Manki railway station to the proposed project site. New Proposed railway line will run parallel to existing railway line for a length of about 8 Km and then will take a turn towards sea coast which will then run parallel to the sea coast till the proposed project site for the remaining 6.6 Km. In order to minimize the strain on the existing infrastructure in the region, dedicated road corridor will be developed at the earliest. Until then existing road will be strengthened and widened to ease the traffic movement."

32. The same report further states that the temporary approach roads may be developed with prior permission from the competent authority and all approach roads shall be blacktopped and the internal roads and major haul rocks shall be blacktopped or concreted and swept regularly with mechanical sweepers.

33. In view of the above, it is pointedly argued by the learned Senior Advocate appearing for the 2nd Respondent that permission was given to blacktop all the approach roads, as the Kaccha road was not blacktopped. If the Kaccha road was already blacktopped,

such direction would not have been given by the SEIAA – Karnataka. Therefore, all the approach roads can be blacktopped, including the existing Kaccha road which is a gravel / mud top road for use at the construction stage.

34. The learned Senior Advocate also further referred to the issues raised during the public hearing regarding the anticipated potential impact due to the proposed road alignment and the respective mitigation measures. He further pointed out that the proposed connectivity starts from NH 17 at Kasarkod. This road will then run southeast for some distance and then aligns parallel to the shoreline till it reaches the proposed project site. This will be parallel to the existing single lane road at an offset distance of 100 M. The total length of this road from NH 17 to the proposed site is 4 Km. This road connectivity will have a width of 25 M.

35. The next objection of the applicant that the impugned 4 Km long road constructed on the CRZ area is violative of the CRZ Notification, 2011 is assailed by the 2nd Respondent by stating that there is no CRZ violation, as the said Kaccha road was formed even prior to the issuance of the Environmental Clearance in the year 2012. Besides, the said Kaccha road falls in the CRZ III as per the CRZ Map which is within the port limits and as per the CRZ Regulation 8 (I) (III) (i), the NDZ shall not be applicable in such areas falling within the notified port limits.

36. It is also specifically stated that the NCSCM report which superimposes the Kaccha road on the CRZ Map clearly shows that the Kaccha road falls within the CRZ III NDZ which is not applicable to any notified port area. Hence, the objection raised by the applicant is not sustainable.

Turtle Nesting Zone:

37. The objection of the applicant is that the impugned road is without prior approval under the Wildlife Protection Act, 1972, leading to the destruction of the habitat and nesting ground of the Olive Ridley Turtle at Kasarkod Beach. According to the applicant, the coastal development and the construction of ports,

jetties, resorts, industries, etc. are a threat and disturbance that attribute to the loss of nesting beaches.

38. In response to the said objection, the learned Senior Advocate for the 2nd respondent would submit that as already a seawall was constructed and there is a Kaccha road in place, the Kaccha road cannot be said to be a turtle nesting ground. The alternative alignment of 4 Laning of Hannavor Port connectivity road from 0.00 Km of Kasarkod side to 2.580 Km connecting Honnavar port with NH 66 under the Bharatmala Phase – I is already coming on the landward side, there is no threat to the turtle nesting grounds even if there exists the Olive Ridley turtle nesting. It is also pointed out that in Karnataka, there is sporadic nesting only. The Kasarkod beach is only a potential or occasional nesting site and not a turtle nesting ground.

39. The entire stretch of the beach is not an ecologically sensitive area under the CRZ Notification except the area of 0.76 Ha. notified as an ecologically sensitive area coming under the CRZ I A, in which, there is no road. The said Kaccha road is only in CRZ III NDZ between the HTL to 200 M on the landward side. Therefore, the absence of any ecologically sensitive area indicates the scope for improvement. In this regard, it was vehemently opposed by the 2nd Respondent that the applicant is re-agitating the same issue which has already reached the finality before the Hon'ble High Court of Karnataka.

40. Before the Hon'ble High Court of Karnataka, the Honnavar Taluk Hasimeenu Vyparastara Sangha had filed a writ petition as **W.P. No.4039 of 2021 (GM-POL) PIL [Honnavar Taluk Hasimeenu Vyparastara Sangha Rep. by its President Vs. M/s. Honnavar Port Pvt. Ltd. and Ors.]** seeking a direction to the respondents therein not to continue with the construction of the port on the beaches of Kasarkod, Malukurva, Pavinkurve, Karki and Honnavar in Honnavar Taluk, Uttar Kannada District and also to quash the Environmental Clearance granted dated 21.09.2012 and the further extensions for the same. The said writ petition was disposed of on 24.11.2021 by the First Division Bench, as it was filed in the public interest.

41. The challenge in the writ petition was to the location and the construction of the port on the beaches of Kasarkod, Honnavar, etc. contending that certain forest lands in the said beaches, for which, no approval from the MoEF&CC was obtained by the 2nd Respondent herein. Secondly, it was contended that the construction is carried out in CRZ I area and the beach is a turtle nesting ground.

42. Regarding the site which has been leased for development of the port which is alleged to be a nesting area of turtles, the Hon'ble High Court had perused the survey report of the NCSCM and found that no nest, turtle or dead carcass was found during the survey of the entire 45 Hectare of the proposed site and directed the concerned authorities to ensure that no damage is caused to the nesting turtles or any other endangered species found in the area.

43. The Hon'ble High Court had specifically directed the Project Proponent to obtain approval from the MoEF&CC and other necessary approvals / sanctions/ permissions from the concerned authorities. The above said writ petition was disposed of giving liberty to the petitioner therein to approach the Principal Secretary – Department of Public Works, Ports and Inland Water Transport Department, Government of Karnataka to consider the grievance of the petitioner therein, if approached and pass appropriate orders. In view of the above directions given by the Hon'ble High Court, the Karnataka Forest Department is actively ensuring that there is no damage to the turtle nesting grounds caused.

44. A letter dated 28.06.2023 issued by the Deputy Conservator of Forest, Honnavar Division to the Karnataka Biodiversity Board was pressed into service by the 2nd Respondent stating that the area does not fall under the jurisdiction of the Forest Department. However, the Forest Department has undertaken the work of in-situ conservation of turtle eggs and release of hatchlings into the sea since 2012 – 2013 till date. This area is being used by the local fishermen for fishing activities and therefore, in case this area is declared as a Heritage Biodiversity area, the local people may likely oppose the same. Stating so,

the Deputy Conservator of Forest has specifically stated that the area is not suitable for declaring as a Heritage Biodiversity area.

45. From the above facts, it is made clear that the allegation of the applicant that the 2nd Respondent is proceeding with the dedicated road corridor is not correct and it is only the existing Kaccha road which is being strengthened by the 2nd Respondent for transporting the construction materials. The Karnataka SCZMA has permitted the 2nd Respondent to use the Kaccha road on *'as is where is basis'* only.

46. Regarding the Olive Ridley Turtle nesting grounds, already the Hon'ble High Court of Karnataka in **W.P. No.4039 of 2021 (GM-POL) PIL** held that the concerned authority to ensure that no damage is caused for the same. Accordingly, the NCSCM as well as the Forest Department are concerned about the same and granted necessary permission to the 2nd Respondent.

47. It is already made clear that the dedicated road corridor for the port connectivity under the *'Bharatmala Pariyojana Scheme'* is still pending clearance from the Expert Appraisal Committee (EAC) of the MoEF&CC and that is a different road from the Kaccha road which is now being considered by MoEF&CC.

48. From the records, it is seen that the original Environmental Clearance granted was extended and is said to be valid till 20.09.2023. Therefore, necessarily, the 2nd Respondent has to get the same renewed for proceeding with further. While considering the renewal of the Environmental Clearance, the SEIAA – Karnataka and the Karnataka SCZMA have to consider the question of using the Kaccha Road which was permitted by the Karnataka SCZMA for usage of the 2nd Respondent in *'as is where is basis'*, as per rules in vogue.

49. In such circumstances, we have left with no other alternative, excepting to reject the application, however, with the following directions:-

(I) While considering the renewal of the Environmental Clearance, the State Environmental Impact Assessment Authority (SEIAA) – Karnataka and the Karnataka State Coastal Zone Management Authority (SCZMA) are directed to consider the question of using the Kaccha Road which was permitted by the Karnataka SCZMA for usage of Respondent No.2 (M/s. Honnavar Port Private Limited) in *'as is where is basis'*, as per rules in vogue.

(II) The Expert Appraisal Committee of MoEF&CC to consider the issues of turtle nesting sites, nature of CRZ category etc., if the project is likely to impact the same.

50. As a corollary, the interlocutory applications [I.A. Nos.116, 144 and 146 of 2022 (SZ)] are also disposed of.

Sd/-
Smt. Justice Pushpa Sathyanarayana, JM

Sd/-
Dr. Satyagopal Korlapati, EM

Internet – Yes/No
All India NGT Reporter – Yes/No

O.A. No.76/2022 (SZ)
I.A. Nos.116, 144, 146/2022 (SZ)
26th September 2023. Mn.

7. PRESENTATION COPY WITH TOR & PH COMPLIANCE

ToR Compliance

Environment and CRZ Clearance for Development of Barge/Vessel Loading Facility for 4.9 MTPA at Honnavar, Uttara Kannada

Proposal No. SIA/KA/INFRA1/496848/2024 and State File No.: SEIAA 02 IND 2024

Presentation to the Hon'ble Chairman and Members of State Expert Appraisal Committee (SEAC), SEIAA

ENVIRONMENTAL/CRZ CLEARANCE

ToR Compliance

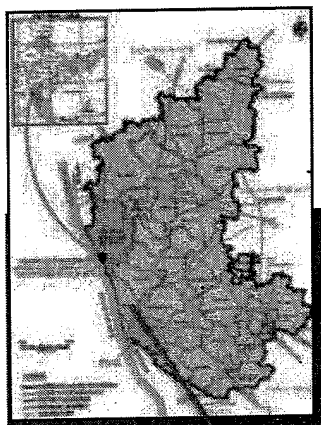
October 2024

HONNAVAR PORT PRIVATE LIMITED (HPPL)

Assystem India Ltd.
(Formerly known as L&T Infrastructure Engineering Ltd.)

QCI-NABET Accredited EIA Consultant
Certificate No: **NABET/EIA/2326/RA 0299 (Rev.02)**

PROJECT DETAILS



Development of Barge/Vessel Loading Facility for 4.9 MTPA at Honnavar	
Location	Near mouth of Sharavati River in Honnavar Taluk of Uttara Kannada district in Karnataka
Coordinates of project	Latitude 14°17'15" N and Longitude 74°25'32.30" E
Land Availability	44 ha
SEIAA approved ToR	ToR vide letter No: SEIAA 02 IND 2024 dated August 12, 2024 with Exemption to Public Hearing
Land Use	Coastal sand pit
CRZ Recommendations	CRZ Recommendations were obtained on October 25, 2024
Project Cost	INR 607.03 crore

Approved ToR

File No: SEIAA 02 IND 2024
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment Authority(SEIAA), KARNATAKA)
***

Approved ToR Cond..

State Level Environment Impact Assessment Authority-Karnataka

(Constituted by MoEF, Government of India, under section 3(3) of EP(A)Act, 1986)

No. SEIAA 01 CFO 2024

To,

Sri. G. Raghavendra Reddy
Executive Director,
M/s. Hanseatic Port Pvt. Ltd.
109, Infantry Apartments,
45/1-2, Palace road,
Bangalore, 560001,
Karnataka, India.

Sir,

Sub: Development of Barge vessel loading facility from 4.9 MTPA of cargo volume to which 3 MTPA of iron ore and 1.5 MTPA of Thermal Coal Project at Kaudival Taluk Village, Honnavar Taluk, Uttara Kannada District by M/s. Hanseatic Port Pvt. Ltd.- Issue of ToRs and additional ToRs Regarding.

Ref: 1. Proceedings of the 312th SEAC meeting held on 6th June 2024.
2. Proceedings of the 283rd SEIAA meeting held on 9th July 2024.

****

With the reference to your application dated 28.03.2024 bearing Proposal No. SEIAA/HPBA/CAT/5/2024 addressed to SEIAA, Karnataka on the subject mentioned above along with CAF and Form-1 as per the EIA Notification, 2006.

2. It is proposed inviting the Environment clearance for the development of Barge vessel Loading facility from 4.9 MTPA of cargo volume to which 3 MTPA of iron Ore and 1.5 MTPA of Thermal Coal Project at Kaudival Taluk Village, Honnavar Taluk, Uttara Kannada District by M/s. Hanseatic Port Pvt. Ltd. This is a Project covered under 7(i)(a)(Ports) of the Schedule Under Ports, Harbours Projects of EIA Notification 2006 and amendments made there on. The project details are as follows:

Sl. No	Name of the project	Development of Barge vessel loading facility to handle 4.9 MTPA of cargo at Coastal Sand Spit, Kaudival Taluk Village, Honnavar Taluk, Uttara Kannada District, Karnataka.
1.	Screening Category	Category 7(i)(a) Port, Harbour
2.	New/Expansion/Modernization/ Amendment	New/Extension of the validity of the Environment Clearance granted earlier by SEIAA-Karnataka
3.	Land Ownership	Port Department, Government of Karnataka.
4.	CRZ applicability	Yes as proposed project falls in CRZ area. CRZ-IB,IIB,IVA,IVB and attract CRZ notification 2019.
5.	Cargo Handling capacity	4.9 MTPA
6.	Project Cost	Rs. 607.93 Crores
7.	Land Area	46 Ha (~56.84 acres)
8.	Berthing facilities	Berth of length 440 m and width 30 m
9.	Length of Northern Breakwater	820 m (may vary depending upon bathymetry at the time of execution)
10.	Length of Southern Breakwater	505 m (may vary depending upon bathymetry at the time of execution)

3. The State Expert Appraisal Committee (SEAC), Karnataka has considered the proposal during its meeting held on 6th June 2024. Based on the presentation of the documents submitted and the presentation made by you and the information available in Parivesh Soft, 3rd& Midfloors Complex, Road No. 5, Banjara Hills, Hyderabad-500034, Telangana (India).

4. **The Proponent in 312th SEAC meeting informed the there is no change in the original proposal for which E.C. is in currency and no changes in pollution load and the CCE from MoEF&CC dated 29.05.2024 mentions that about five percent of the project has been undertaken. Further, it was informed that MoEF&CC had accorded EC to M/s. Mumbai Port Trust without PH vide letter F.No. 10-10-2017-IA-III dated 11.07.2017 considering the earlier PH conducted in 2005 as a similar case. It was further informed that all the litigation cases were disposed by the Hon'ble Court in favor of the proponent and no litigation were pending as on date. Hence, the Proponent requested the Committee to consider the application for granting ToR without PH by considering the concerns/issues raised in the earlier PH held on 27.01.2012.**

5. **The Committee after detailed deliberation and discussion accepted the request made by the proponent based on precedence and explanation given and decided to recommend the proposal to SEIAA for issue of standard ToR along with the following additional ToR to conduct EIA studies without Public Hearing and informed the Proponent to include a chapter on queries and comments raised by the participants during the earlier PH suitably documented in the form of a management plan drawn to address the concerns expressed.**

6. The SEIAA, Karnataka, in its meeting held on 9th July 2024, consideration of the relevant documents submitted by the project proponent, and the recommendation of the SEAC, decided to accord the 'Standard Terms of Reference (TOR) along with additional Terms of Reference in accordance with the provisions of Environmental Impact Assessment Notification, 2006 and its subsequent amendments made there on.

STANDARD TERMS OF REFERENCE FOR CONDUCTING ENVIRONMENT IMPACT ASSESSMENT STUDY FOR PORTS, HARBOURS AND INFORMATION TO BE INCLUDED IN EIA/EMP REPORT

1) Reasons for selecting the site with details of alternate sites examined/proposed and selected as per norms with comparative statements and reasons/basis for selection. The examination proposed

justify the suitability in terms of environmental angle, resources accessibility associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short listing selected site.

2) Details of the land use break up for the proposed project. Details of land use around 10 km radius of the project site. Examine and submit detail of land use around 10 km radius of the project site and zone of the project uses and 10 km area from boundary of the proposed/existing project area, delineating protected areas notified under the wild life (Protection) Act, 1972,critically polluted areas as identified by the CPCB from time to time,notified eco-sensitive areas,historical, archaeological and international boundaries. Attempts should be made to avoid or minimize the land use with rare category.

3) Submit the present land use and provisions required for any conversion such as forest, agriculture use, land acquisition status, rehabilitation of communities/ villages and present status of such activities.

4) Examine and submit the water bodies including the seasonal ones within the vicinity of project along with their status, volumetric capacity, quality details present on form due to the project.

5) Submit a copy of the contour plan with bigger drainage pattern of the site and surrounding area.

6) Submit the details of terrain, level with respect to MSL, filling requirements, source of filling materials and transportation details etc.

7) Examine combined connectivity to the project site and impact on the existing traffic network due to the proposed project activities. A detailed traffic and transportation study should be made for existing and projected passengers and cargo traffic.

8) Submit details regarding R&R involved in the project.

9) Submit a copy of layout arrangement on the HFL/LWL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA.

10) Submit the status of above five clearance in the project site.

11) Details of the layout plan including details of channel, breakwater, dredging disposal and reclamation.

12) Details of handling of each cargo, storage, transport along with facilities created, dust prevention measures in case of coal, mineral cargo, details of storage and diesel requirement, their management and operation scheme.

13) Submit the details of fishing activity and likely impacts on the fishing activity due to the project. Specific study on impact of construction activity and pile driving on marine life.

14) Details of oil spill contingency plan.

15) Details of tidal energy study.

16) Details of ship manoeuvring study.

17) Examine the details of water requirement, impact on competitive uses, treatment details, use of treated waste water. Prepare a water balance chart.

18) Details of rainwater harvesting and utilization of rain water.

19) Examine details of solid waste generation treatment and its disposal.

20) Details of desalination plant and the study for outfall and intake.

Approved ToR Cond..

xxi) Examine baseline environmental quality along with projected incremental load due to the proposed project activities.

xxii) The air quality monitoring should be carried out according to the notification issued on 16th November, 2009.

xxiii) Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters.

xxiv) Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disasters.

xxv) Submit details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation. Explore the possibility of relocating the existing trees.

xxvi) Examine the details of after-care measures indicating land and financial outlay. Landscape plan, green belts and open spaces may be described. A thick green belt should be planned all around the market settlement to mitigate noise and vibrations. The identification of species/ plants should be made based on the terrestrial studies.

xxvii) A detailed draft EIA/EMP report should be prepared in accordance with the above additional TOR and should be submitted to the Ministry in accordance with the Notification.

xxviii) Details of litigation pending against the project, if any, with direction order passed by any Court of Law against the Project should be given.

xxix) The cost of the Project (capital and recurring) as well as the cost towards implementation of EMP should be clearly spelt out.

xxx) Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measures, project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/downloads/public-info/model-toR.pdf".

Additional terms of References:

1. To Obtain CRZ Clearance from for the applied extent from competent authorities.
2. Proponent shall explore constructing jetty towards the sea side instead of river side during the land phase.
3. Dredging:
4. Dredged material should not be used for commercial purpose or stocked in the Project Site. It shall be used for reclamation if handed over to concerned authorities.
5. Prepare an action plan to minimize the impact of dredging on water quality and hydrological connectivity within and adjacent to project site.
6. Avoid sensitive periods / breeding season for fishes and marine animals – select proper time period.
7. Monitor the turbidity and sediment concentration due to dredging.
8. Special studies:
9. To prepare Disaster management Plan.
10. Should prepare a management plan for faunal communities of project area by reputed institutes.
11. CSIR-NIO / reputed institute to conduct a detailed marine ecological assessment study
12. To conduct study on carrying capacity of the estuaries.
13. Study on Restoration of water bodies, affect on the ecological integrity and biological productivity.
14. Conduct post-dredging impact assessments on the flora, fauna, local community livelihood and hydrological in project locations.
15. NDZ: Non development zone identification.
16. Proper turtle conservation plan should be prepared immediately in order to conserve turtle nesting sites adjacent to project site in consultation with Concerned Forest / Wildlife department for implementation at project cost.
17. No Permanent Labour camp in CRZ.
18. Storm water management plan.
19. Coastal soil erosion control plan.
20. Top Soil Conservation plan.
21. Material handling Plan.
22. Mitigation plan for partial Loss of bottom habitat and fishery resources and other significant problems.
23. Conservation plan for Mangroves, sand dunes and turtle nesting ground.
24. Marine Conservation Plan.
25. Marine Ecology Impact Assessment study should be carried out from expertise institute in the field.
26. Marine studies is conducted by National Institute of Oceanography, GOA and
27. Terrestrial studies are conducted by Building Environment India Pvt. Ltd, Mumbai.
28. CRZ maps are prepared by NCSCM, Chennai.
29. SWOT Analysis to be conducted.
30. Socio economic benefits of the project need to be elaborated in detail.
31. To provide elaborated cost benefit analysis.
32. General
33. Clearing construction material
34. No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase.
35. Setting up Solar/ wind RE sources
36. Community resource augmentation plan (CRAP).
37. Compensatory Conservation Plan (CCP)
    a. Water quality:
    b. Coastal Hydrology: current, currents, wave, tides, littoral drifts, beach erosion, water exchange, sediment deposition, groundwater flow, and other physical parameters in the flora zone.
    c. Bottom contamination: contamination of bottom sediments by toxic or harmful substances, oils, oily mixtures and other hazardous materials.
    d. marine and coastal ecology: aquatic flora and flora comprised of a large number of species of bacteria, phytoplankton, zooplankton, benthonic organisms, coral, seaweed, shellfish, fish and other aquatic biota, terrestrial flora such as mangroves and
38. Waste management: both liquid and solid, likely to be disposed of in the port area. These wastes include dredged materials, garbage and oily mixtures discharged from ships, wastes from cargo operations, and all types of discharges from municipal and waterfront industry activities.
39. Visual quality: the view of port facilities, the nuisance of bright lights used for night operations in a port, and other visual problems.
40. Socio-cultural impacts: Relocation of villages, industrialization, population growth nearby, and the formation of slums.
41. All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time.
42. Status of EC with regard to Four Lane road (IA/KA/CRZ/49852/2022, F. NO.11/23/2021-IA-III).
43. The National Centre for Sustainable Coastal Management (NCSCM) report.
44. NOC from the Tourism Department.
45. Comprehensive Impact study by Centre for Ecological Studies, Indian Institute Science, Bangalore.

The consultants involved in the preparation of EIA/EMP report after accreditation with Quality Council of India/National Accreditation Board of Education and Training (QCI/NABET) would need to include a certificate in this regard in the EIA/EMP reports prepared by them and the data provided by other Organizations/Laboratories including their status of approvals etc. in this regard Office Memorandum No. F. No. J-11013/77/2010-IA.II(I) dated 30th June, 2011 available on the MoEF, GoI website http://www.moef.nic.in may please be referred.

The Terms of References (ToR) prescribed by the State Expert Appraisal Committee (SEAC), Karnataka should be considered for the preparation of EIA / EMP report for the above mentioned project in addition to all the relevant information as per the General Structure of EIA given in Appendix III and IIIA in the EIA Notification, 2006.

The ToRs prescribed will be valid for a period of four years for submission of the EIA/EMP report.

Yours sincerely,

(Vijay Mohan Raj V)
Member Secretary
SEIAA, Karnataka

Copy to-

1. Chairman, Karnataka State Pollution Control Board, KSPCB, Parisarabhavan, 4th & 5th Floor, church street, Bangalore for information.

2. Guard File

Compliance to ToR

Standard Terms of Reference

PROJECT STANDARD TOR POINT – 1:

Reason for selecting the site with details of alternate sites examined/rejected/selected on merit with comparative statement and reason/basis for selection. The examination should justify site suitability in terms of environmental angle, resources sustainability associated with selected site as compared to rejected sites. The analysis should include parameters considered along with weightage criteria for short-listing selected site.

The following are the advantages of identified project site which favours the development of barge/vessel loading facility:

- EC & CRZ Clearance was obtained vide No. SEIAA: 22: IND: 2011 dated 21st Sep 2012 and construction activity initiated
- Honnavar PWD, GoK recommended the breakwater construction for the benefit of the local fishermen boat movements
- Sufficient Land Availability.
- No R&R is envisaged.
- Better Connectivity
- There is no change in the proposal for which EC & CRZ clearance and regular compliance being submitted. Certified compliance report from RO, MoEF&CC has been obtained (Attachment). Present proposal is to get the valid EC for completion of the initiated construction activity.

Standard Terms of Reference

PROJECT STANDARD TOR POINT – 2:

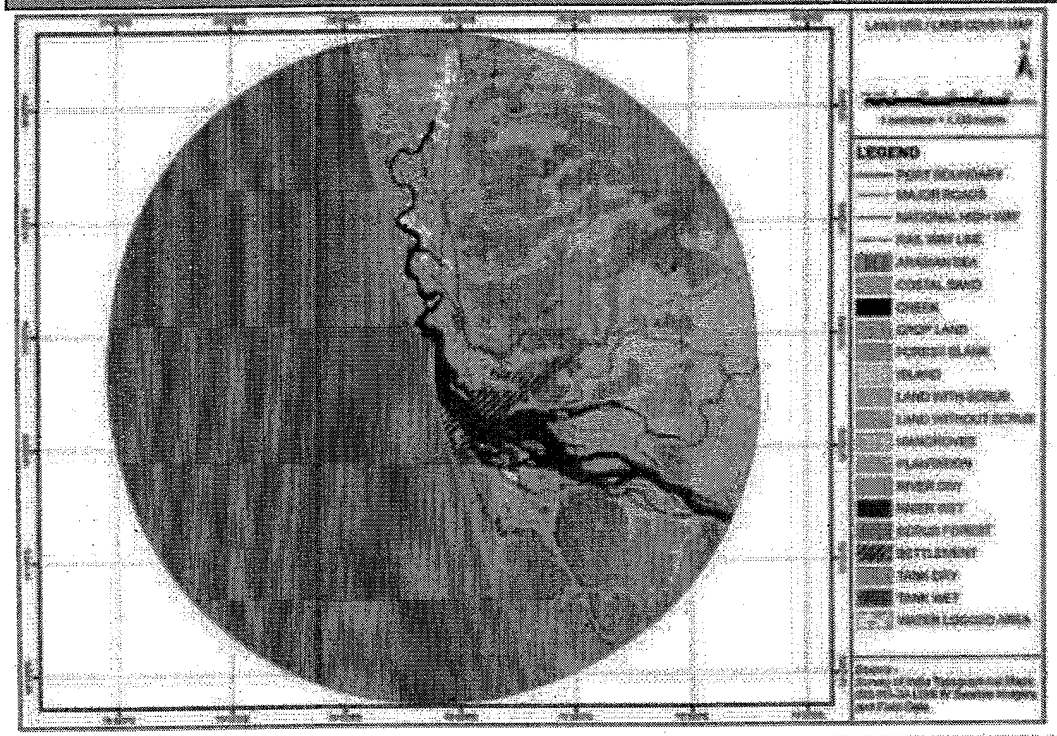
Details of the land use break-up for the proposed project. Details of land use around 10 km radius of the project site. Examine and submit detail of land use around 10 km radius of the project site and map of the project area and 10 km area from boundary of the proposed/existing project area, delineating project areas notified under the wild life (Protection) Act, 1972/ critically polluted areas as identified by the CPCB from time to time/notified eco-sensitive areas/interstate boundaries and international boundaries. Analysis should be made based on latest satellite imagery for land use with raw images.

- The land identified for development of Barge / Vessel loading facility is about 44 ha falls in survey number 305 within the port limits issued by Government of Karnataka.
- HPPL proposing the rail and road connectivity along the coast area within the port limits (within port land of 50m width from hightide line).
- Four lane road with a length of 2.58km is being proposed under Bharathmala Pariyojana Phase I and land for the road and rail corridor is under the Honnavar port limits
- Proposed location does not contain environmentally sensitive areas such as National parks / marine parks, sanctuaries, wildlife habitats, corals / coral reefs.
- It also does not include breeding and spawning grounds of fish and other marine life, area of outstanding natural beauty / historically / heritage area, area rich in genetic diversity.

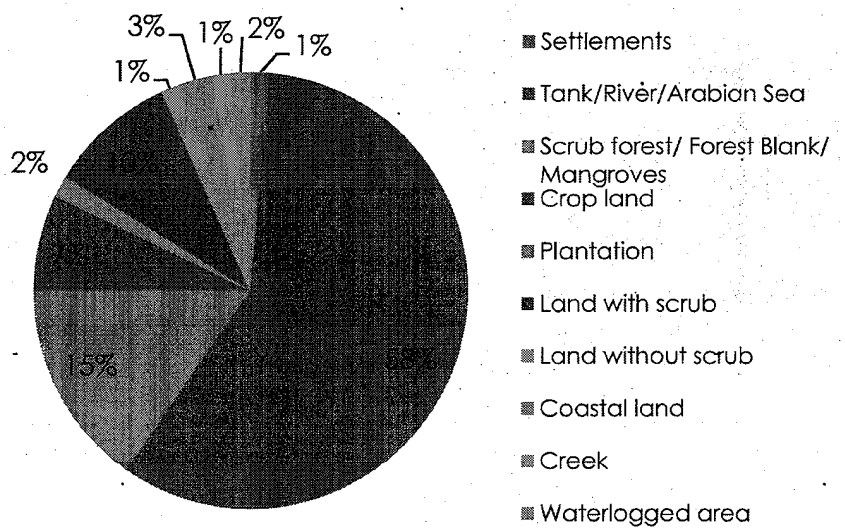
S. No	Description	Area (Ha)
1.	Coal Stockyard	7.00
2.	Iron Ore Stockyard	1.80
3.	General Cargo Storage (Open)	4.00
4.	General Cargo Storage (Closed)	2.00
5.	Liquid cargo storage	0.10
6.	Roads and Circulation Area	8.15
7.	Operation Building	0.05
8.	Canteen	0.02
9.	Vehicle Parking	0.09
10.	Substation	0.02
11.	Gate House/Security/Weigh Bridge	1.50
12.	Truck Parking	5.40
13.	Fuel Station	0.02
14.	Control Tower	0.01
15.	Green Belt	3.10
	Sub total	33.26
16.	Area available for other Operations and area earmarked for future expansion	6.72
17	Rock armour area (approx)	4.00
	Total	44.00

Standard Terms of Reference

PROJECT STANDARD TOR POINT – 2: (Cond...)



- ✓ **Land use of Project site – Coastal Sand**
- ✓ **Land use of the study area is as below**



- The proposed project site of 108 acres (~44Ha) of land is completely coastal sand devoid of major vegetation.
- 10kmR landuse includes the Built up, Water bodies, Forest, Crop land and Waste lands dominated by marine environment

PROJECT STANDARD TOR POINT – 3:

Submit the present land use and permission required for any conversion such as forest, agriculture etc. land acquisition status, rehabilitation of communities/ villages and present status of such activities

PROJECT STANDARD TOR POINT – 8:

Submit details regarding R&R involved in the project

- Project site is on coastal sand pit devoid of any encroachments and in the procession of HPPL
- Portion of proposed road corridor is falling in the forest lands of ~0.76 ha with a length of 220m for the which Stage I clearance and final approval (Stage II) was also proposed by PC office, GoK.
- No R & R is envisaged.

PROJECT STANDARD TOR POINT – 4:

Examine and submit the details of water bodies including the seasonal ones within the corridor of impacts along with their status, volumetric capacity, quality likely impacts on them due to the project.

- Details of water bodies are discussed in **section 3.4** and impacts on the water bodies due to the project are provided in **section 4.3.** Carry capacity studies for Sharavathi river is discussed in **Section 4.5.4**

Sharavati River	Adjacent
Badgani River	~ 0.98 km, N
Akshumi Thirth (Water body)	~2.25 km, E
Arabian sea	Adjacent

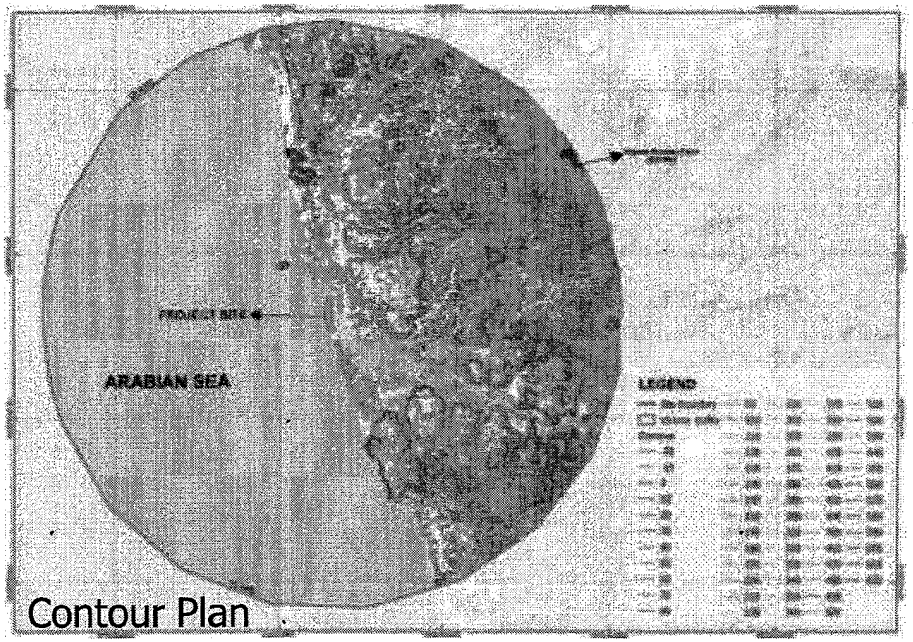
PROJECT STANDARD TOR POINT – 4: Cond..

- The construction of marine structures such as breakwaters will change the current patterns and results in tranquil conditions suitable for the operation of the facility.
- Generally, reclamation of low laying areas with capital dredged material is likely to affect groundwater quality due to intrusion of sea water. But predominantly the barge/vessel loading facility land proposed to be reclaimed is coastal sand which is saline in nature and is separated by Sharavati River from the land located towards East
- Carrying Capacity studies has been carried out
- The construction of marine structures such as breakwaters will change the current patterns and results in tranquil conditions suitable for the operation of the facility.
- The storage area will be provided with an extensive drainage system so that the contaminated water from the stockyard area does not flow directly into the natural water bodies or into the groundwater system.
- The sewerage system will be provided to collect the sewage from administration building; canteen and operation buildings and sent to septic tanks followed by soak pits

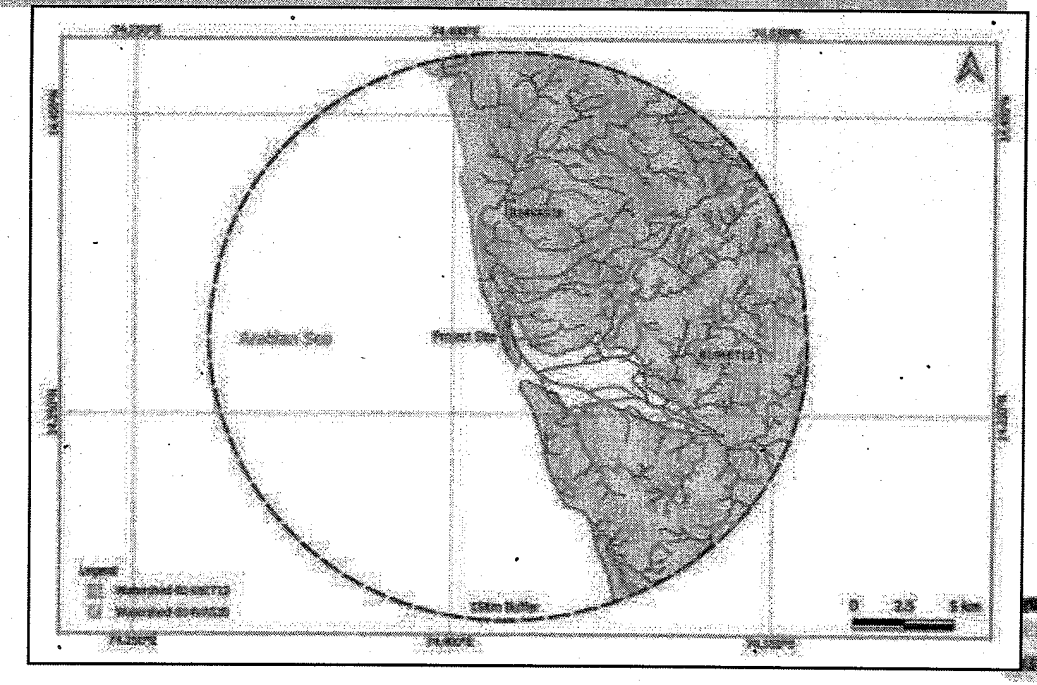
PROJECT STANDARD TOR POINT – 5:

Submit a copy of the contour plan with slopes, drainage pattern of the site and surrounding area.

- The elevation within the project site is almost 0m and highest elevation in the study area is 620m.
- The slope in the project site and surrounding areas are nearly 0-1 %
- The drainage system is well developed in the taluk by Sharavati and Badagani river basins. Study area falls in two watersheds namely B14NET12 and B14VAS38. The general drainage pattern is dendritic to sub-dendritic in nature



Contour Plan



PROJECT STANDARD TOR POINT – 6:

Submit the details of terrain, level with respect to MSL, filling required, source of filling materials and transportation details etc.

- Construction material shall be sourced from Government approved quarries and vendors/agencies
- Transportation of raw materials from nearby areas is likely to result in increased road traffic but only temporary during construction phase.
- Details of the Raw materials

Material	Unit	Breakwater	Tetrapod	Berth and Approach Trestle
Cement	Bags	41,587	1,27,170	2,17,199
Sand	Cum	2,201	6,732	6,09,372
Aggregate 10mm	Cum	2,302	7,040	5,50,882
Aggregate 20mm	Cum	2,160	6,606	3,50,570
Water	Ltr	9,13,824	27,94,411	21,54,52,080
Admixture	Ltr	1,450	4,434	28,54,023
Steel	Mt	-	-	4,363
Concrete Grade		M30	M30	M10,M40

1150

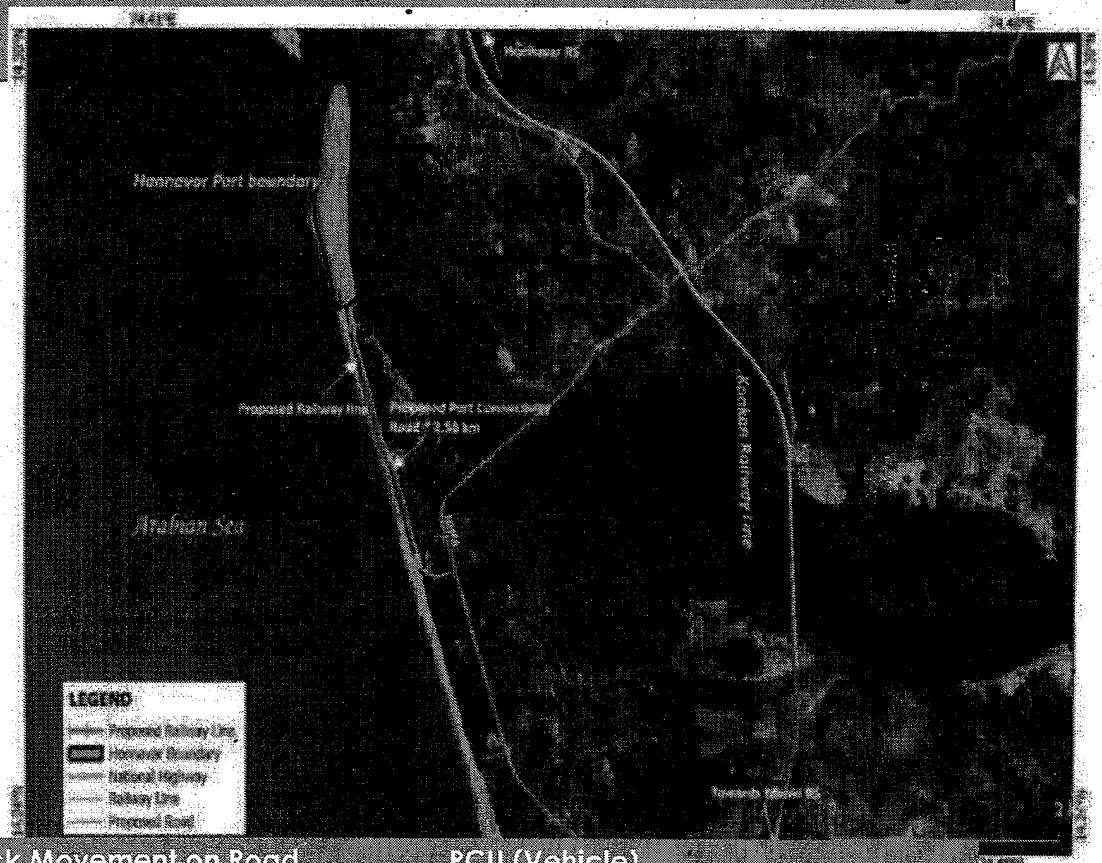
PROJECT STANDARD TOR POINT – 7:

Examine road/rail connectivity to the project site and impact on the existing traffic network due to the proposed project/activities. A detailed traffic and transportation study should be made for existing and projected passenger and cargo traffic.

- 2.58km long road connectivity is being proposed from Honnavar Port to NH 66 as part of Bharatmala Pariyojana Phase I programme
- The rail connectivity to the Port site is proposed to be provided with Broad gauge Single line from a new railway station proposed at Hosapattana under section of Konkan Railway broad gauge line, which is 8.5 km from the Port site.

Traffic and Transportation Study

- It is anticipated that total yearly forecast for Honnavar Port is around 4.9 MTPA.
- The traffic forecast in terms of PCU's is around 4722 PCU's for Cargo Quantity of 4.9 MTPA.
- Four lane with Paved Shoulders (4L+PS), has been proposed.
- The estimated truck movement on road for the proposed port is given in

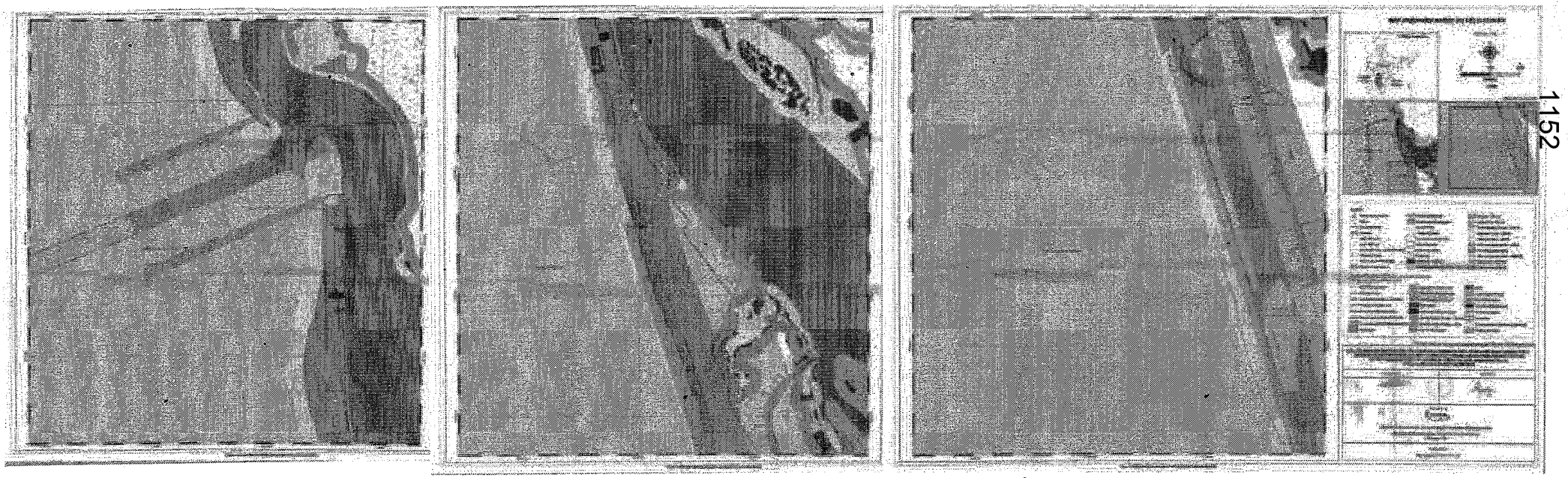


S.No	No of Truck Movement on Road		PCU (Vehicle)		Total PCU
	2 Axle	MAV	Up	Down	
1.	564	149	2361	2361	4722

PROJECT STANDARD TOR POINT – 9:

Submit a copy of layout superimposed on the HTL/LTL map demarcated by an authorized agency on 1:4000 scale along with the recommendation of the SCZMA

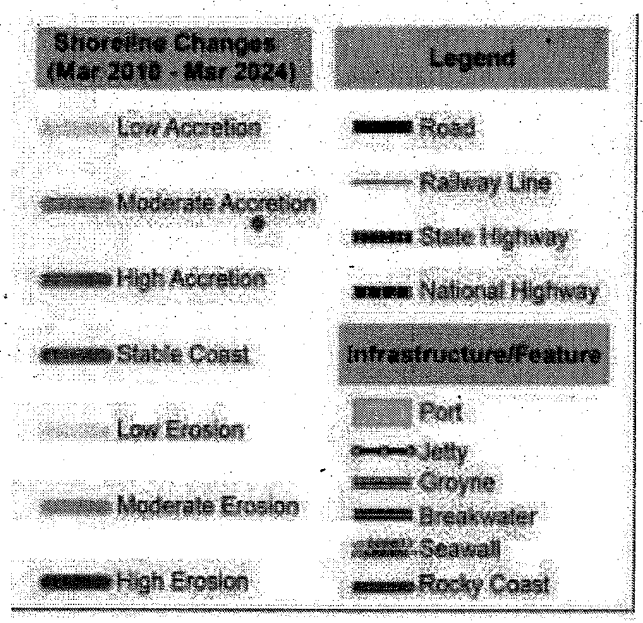
- Demarcation studies were conducted by NCSCM
- KSCZMA recommended the project on October 25, 2024

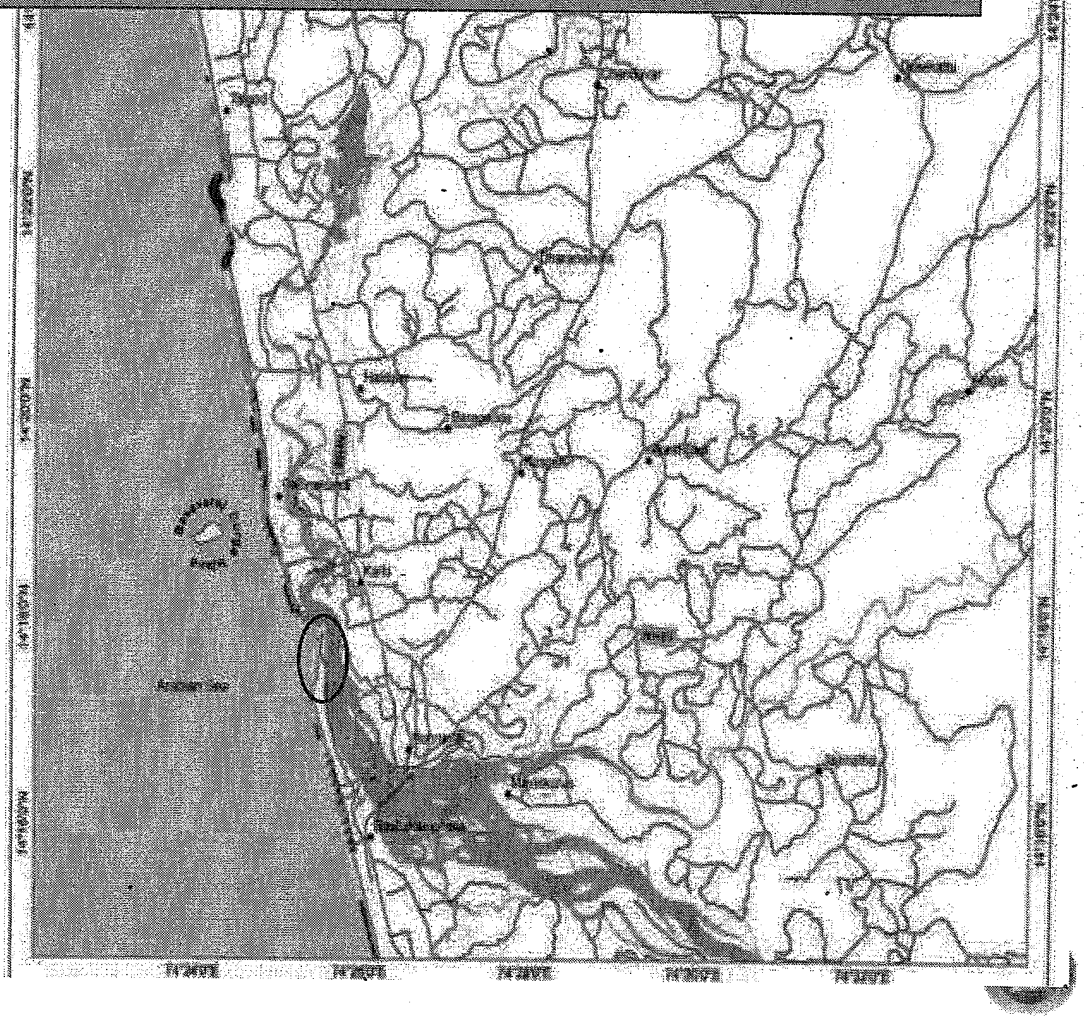


PROJECT STANDARD TOR POINT – 10:

Submit the status of shore line change at the project site

- As per the NCSCM report on shoreline Management Plan, September 2024 the proposed project is in low Erosion & Moderate Accretion

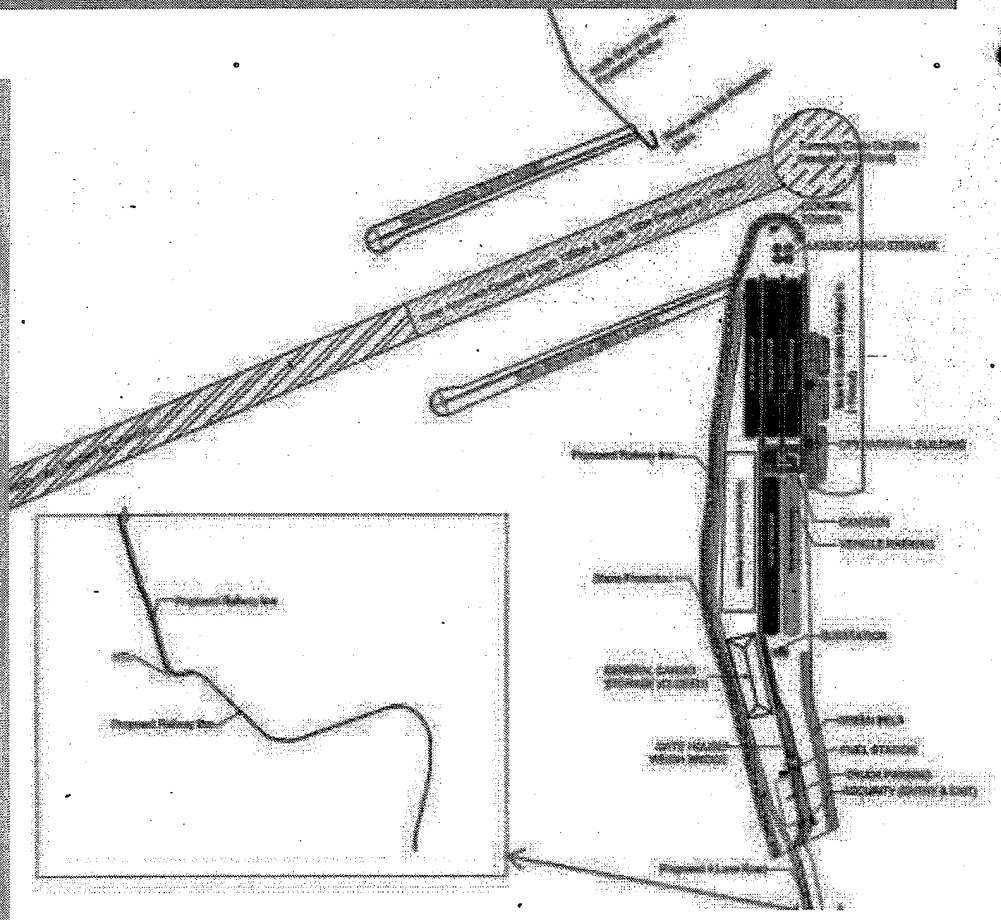




PROJECT STANDARD TOR POINT – 11:

Details of the layout plan including details of channel, breakwaters, dredging, disposal and reclamation.

- Approach channel: (length of approach channel inner: 1395m & outer 2280m, width of the channel 100m and depth of the channel: (-)10 m),
- Two parallel breakwaters (Southern Break Water: 865 m and northern break water: 820 m)
- Berth of 440m long and 30m wide with backup area of 44 Hectares,
- Turning circle (diameter of the turning circle - 250m, dredged to a depth of (-) 10 m),
- Estimated dredging quantity 3.9 million cum
- Estimated reclamation quantity 1 million cum
- The total maintenance dredging quantity is estimated to be around 10,300m^3/year
- Disposal at 2km to the north of port entrance channel during non-monsoon season



PROJECT STANDARD TOR POINT – 12:

12. Details of handling of each cargo, storage, transport along with spillage control, dust preventive measures. In case of coal, mineral cargo, details of storage and closed conveyance, dust suppression and prevention filters.

Parameter	Description
Land Area	44 Ha (108 acres)
Cargo to be handled and handling capacity	Handling Capacity: 4.9 MTPA • Coal - 2.7 MTPA • Iron Ore – 1.0 MTPA • General cargo – 1.2 MTPA (Granite – 0.16 MTPA; Fertilizer – 0.2 MTPA; Molasses with Agro Products – 0.15 MTPA; Steel Products – 0.4 MTPA; Sugar – 0.29 MTPA)
Cargo Storage	• Iron Ore – 1.8 Ha • Coal – 7.0 Ha (an open storage system with compacted mud flooring is planned for the proposed facility to handle/store Coal and iron ore) • General Cargo storage (Open) – 4.0 Ha • General Cargo storage (Closed) – 2.0 Ha
Cargo handling equipment	Barge/Vessel loader, mobile harbor cranes, pay loaders
Spillage control	Spillage and Contingency Plan shall be implemented in case of any spillage Barges/vessels are prohibited from discharging wastewater, bilge, oil wastes, etc. into the near-shore and harbour waters. Barges/vessel will comply with the MARPOL convention. Provision of waste reception facility by Port Authorities
Dust suppression	Dust suppression measures at loading and unloading points; Water sprinkling at berths & internal roads; Scientific and regulated stacking of cargo;; Periodic cleaning of cargo spills; Use of tarpaulin/HDPE covers and speed regulations for vehicles engaged in transportation; Greenbelt Development

PROJECT STANDARD TOR POINT – 13:

Submit the details of fishing activity and likely impacts on the fishing activity due to the project. Specific study on effects of construction activity and pile driving on marine life.

- No fishing activities are being carried out in project site
- There are no major fishing zones in the study area.
- There are 17 fishing villages in study area
- Fishing vessels will be passing through the river mouth for landing/parking only
- Safe navigation routes will be earmarked for movement of fishing vessels and the route will be finalised in consultation of fishing harbour authorities and fishing communities

PROJECT STANDARD TOR POINT – 14:

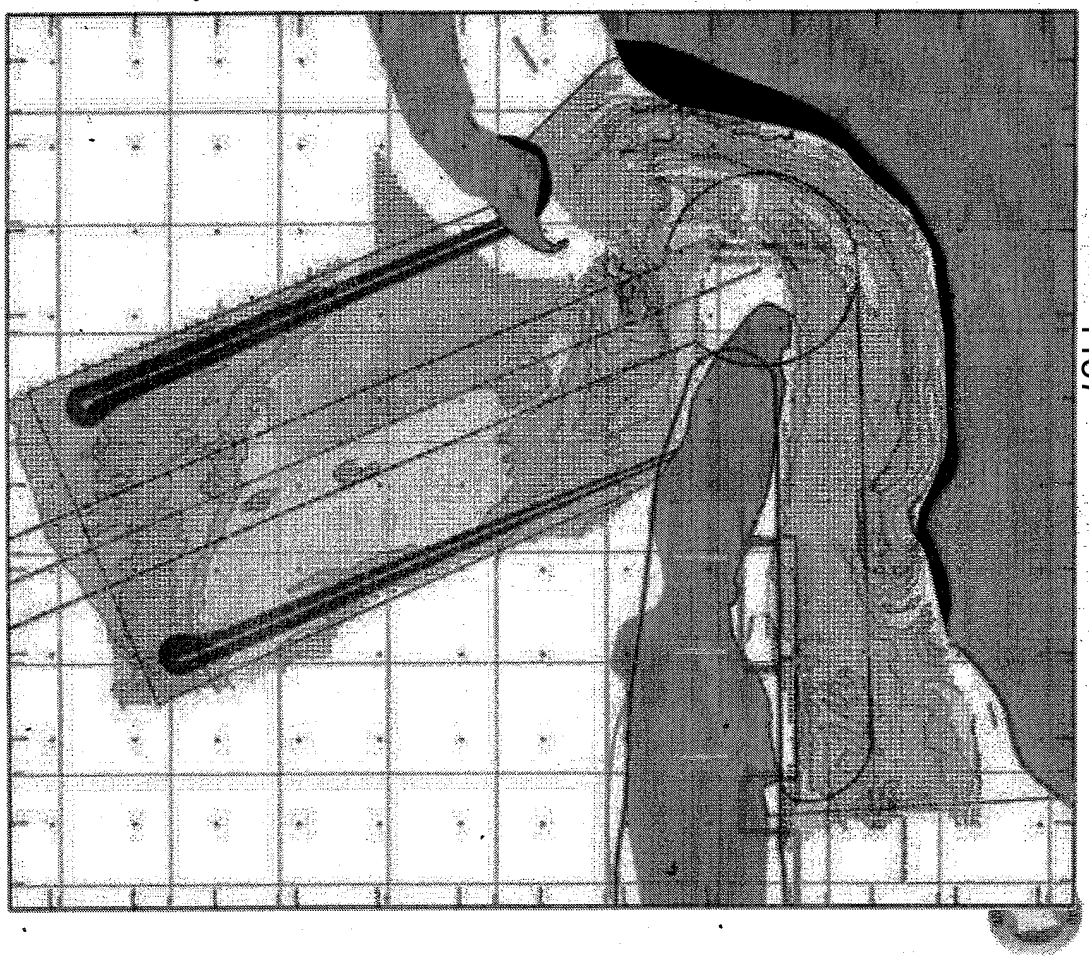
Details of oil spill contingency plan

- The barge/vessel loading facility will be equipped with minimum equipment to contain and recover oil spills. In addition, HPPL will develop a customised Oil Spill Contingency Plan to cope with any accidental oil spill during bunkering if any. The contingency plan will be prepared by HPPL in consultation with the Department of Ports, GoK.

PROJECT STANDARD TOR POINT – 15:

Details of bathymetry study

- Bathymetry studies were carried out
- Bathymetry of the study area exhibits a gentle bed slope of 1:180 up to 5 m contours beyond which it flattens to 1:350. The 10 m water depth occurs at a distance of approximately 3350 m from the coast.
- A maximum river depth of 3-4 m is observed, otherwise the whole of the bed seems to be very shallow and few islands in the river course.
- Mouth/estuary of the river also seems very shallow with maximum water depth of 2-3 m in the river mouth.
- Large area of shallow depth of 0.7 m is observed on either side of the river mouth which is mainly due to the deposition of the sediments brought by the river.



PROJECT STANDARD TOR POINT – 16:

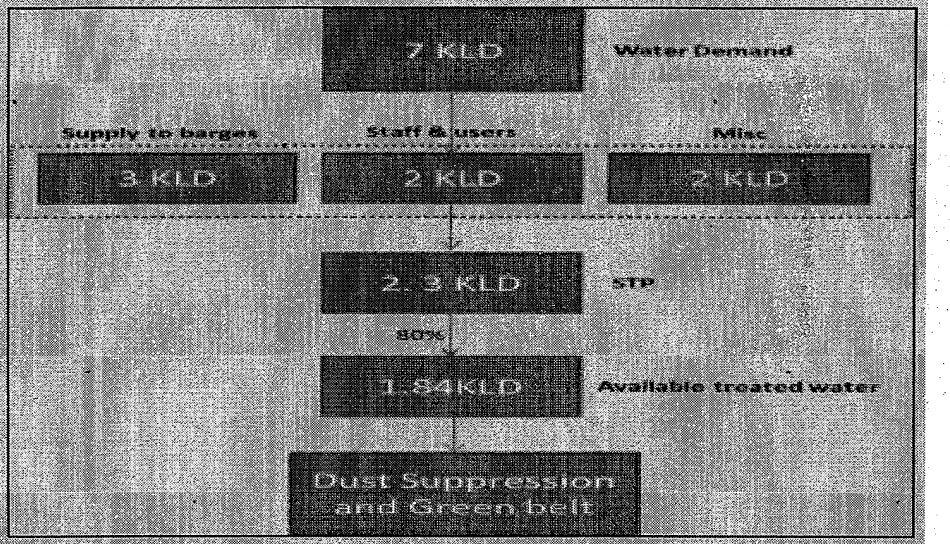
Details of ship tranquillity study

- Tranquillity model studies for the Honnavar port area have been conducted using MIKE 21 wave model for the existing conditions (case-I) as well as for future conditions with the proposed breakwaters (case-II).
- During the non-monsoon season when W and WNW waves prevail, the transmission coefficients are quite low (0.15) and the tranquillity conditions are quite good
- During monsoon months when WSW and SW waves prevail the transmission coefficients are significantly higher (>0.3) near the entrance channel; but the values rapidly decrease on the riverside of the channel.
- For case II, with breakwaters, the transmission coefficients are generally less than 0.15 indicating good tranquillity conditions for non-monsoon months
- But during monsoon months when S and SSW waves prevail, the inlet channel adjoining the breakwaters show higher transmission coefficients (>0.75) and the tranquillity conditions are not so good
- The effective working days are considered as 260 days considering the weather downtime including monsoon and public holidays
- The proposed dredge depth at the Approach Channel (Inner/ Outer), Turning Circle and Berthing area will be (-) 10.0 m CD.

PROJECT STANDARD TOR POINT – 17:

Examine the details of water requirement, impact on competitive user, treatment details, use of treated wastewater. Prepare a water balance chart.

- Water requirement during the construction is expected to be around 15m^3/day. Water demand during operational phase of barge/ vessel loading facility is estimated as 7m^3/day.
- The water requirement will be met from Karnataka Rural water supply and sanitation agency which includes supply to Barge/vessels, staff and users. In addition to that water required for dust suppression system and fire fighting will be sourced from Sharavati River
- Sewage generation of ~2.3KLD is envisaged and STP of Advanced SMART SBR sewage treatment Technology shall be proposed designed to treat sewage water with influent characteristics BOD – 400mg/l and COD – 800mg/l.



S. No.	Activity	Water Requirement (m^3/day)
1.	Supply to barges	3
2.	Supply to barge loading facility staff and users	2
3.	Miscellaneous	2
	Total	7

PROJECT STANDARD TOR POINT – 18:

Details of rainwater harvesting and utilization of rain water

- Rainwater collected from roof of buildings will be channelized through rainwater down comers and routed to garland drain around the buildings. These garland drains are connected to the plant storm water drainage network system all around the proposed barge/ vessel loading facility area. Recharge wells will be located at strategic locations within the site and will be interconnected to the storm water drain network system.
- As per IMD data of Honnavar station (1991-2020), the total annual rainfall is 3732.4 mm and number of rainy days is 110.4 per year. Based on these data, the rainwater harvesting potential of the project area is estimated as 0.208 MCM per year.

S. No	Land Use	Total Area (m^2)	Coefficient	Area after coeff	Rainfall (mm)	Volume (m^3/year)
1.	Roof top area	350.0	0.75	262.5	3732.4	980
1.	Road Area	61298.2	0.825	50571.0	3732.4	188751
1.	Green area	32981.6	0.15	4949.9	3732.4	18475
	Total	61648.2		55783.4		208206

PROJECT STANDARD TOR POINT – 19:

Examine details of Solid waste generation treatment and its disposal

- Solid waste from the utilities such as canteen shall be segregated as biodegradable and non-biodegradable waste and collected separately by providing bins at respective places.
- The collected biodegradable waste shall be subjected to composting and the compost will be used as manure for the development of green belt within the facility
- The non-biodegradable waste like plastic shall be disposed off to approved vendors of KSPCB/CPCB in a scientific manner.
- Construction waste will be re-used within project site for filling of low lying areas

PROJECT STANDARD TOR POINT – 20:

Details of desalination plant and the study for outfall and intake

- There is no desalination plant in the present proposal.

PROJECT STANDARD TOR POINT – 21:

Examine baseline environmental quality along with projected incremental load due to the proposed project activities.

- Air quality are well within the National Ambient Air Quality Standards for Residential areas at all monitoring locations during the study period
- Day and night-time equivalent noise levels at all locations are within NAAQS standards for Industrial, residential and silent zones except near Sharavati circle slightly exceeds day level noise limits could be due to traffic
- All ground water sample collected within the study area are well within the permissible limits of drinking water standards IS 10500:2012 (as amended).
- Surface water quality as per CPCB classification, the samples fall under classification C (Drinking water source after conventional treatment and disinfection)

Incremental Load

Receptor	Annual Average Incremental Concentration (µg/m³)			
	PM_{10}	$PM_{2.5}$	SO_x	NO_x
AAQ-1	0.09	0.04	0.70	1.80
AAQ-2	0.02	0.01	0.21	0.56
AAQ-3	0.22	0.09	2.60	6.63
AAQ-4	0.05	0.02	0.69	1.75
AAQ-5	0.05	0.02	0.53	1.35
AAQ-6	0.01	0.01	0.20	0.50
NAAQ Standard	60	40	50	40

PROJECT STANDARD TOR POINT – 22:

The air quality monitoring should be carried out according to the notification issued on 16th November, 2009

- The air quality has been carried out according to the notification issued on 16th November, 2009 provided

PROJECT STANDARD TOR POINT – 23:

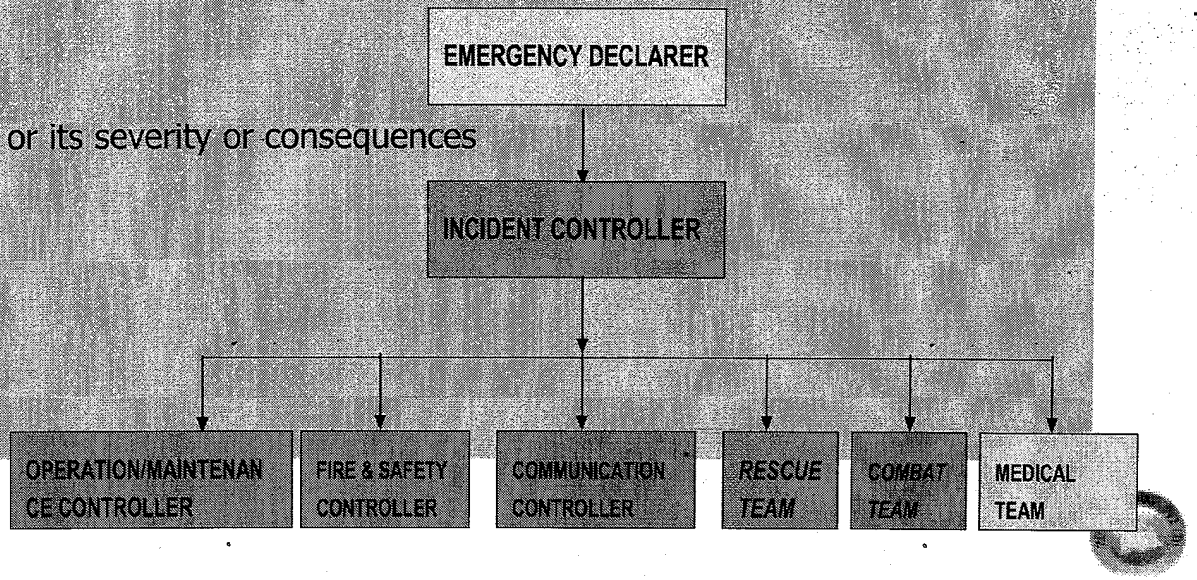
Examine separately the details for construction and operation phases both for Environmental Management Plan and Environmental Monitoring Plan with cost and parameters

- Monitoring of Air Quality, Noise Levels, Water Quality, Soil, Marine Water/sediment Quality shall be monitored as per the prescribed standards in and around the project site during bith constructin and operation periods.
- The budgetary estimate (Capital Cost) for Environmental Management is INR (25.73 Crores) and the annual recurring cost is INR (3.7 Crores).
- Estimate for Environmental management includes
- Air pollution and Noise Abatement; Solid Waste Management; Capacity Building; Oil spill control; STP; Environmental monitoring during construction and operation phase; EMC running expenditure; Maintenance of Greenbelt, STP, solid waste management; Maintenance of sprinkler, dust sweeping, tugboats, skimmers, etc.

PROJECT STANDARD TOR POINT – 24:

Submit details of a comprehensive Risk Assessment and Disaster Management Plan including emergency evacuation during natural and man-made disasters

- Risk assessment for project components including construction and operations were carried out including Mechanical Hazards; Transportation Hazards; Physical Hazards; Storage and Handling of Hazardous of Materials and Hazards due to Natural Calamities were considered
- The possible accidents from the proposed barge/vessel loading facility are envisaged and safety mitigation measures are proposed such Fire protection, Fire alarms, Fire-fighting equipment, Means of escape in case of fire and risk reduction measures
- Disaster Management Plan
  - Prevention of loss of life
  - Damage litigation
  - Mitigation or reduction of risk of any disaster or its severity or consequences
  - Capacity building
  - Preparedness to deal with any disaster
  - Return to normal working after the crisis
- Onsite Emergency Plan
- Off site Emergency Plan



PROJECT STANDARD TOR POINT – 25:

Submit details of the trees to be cut including their species and whether it also involves any protected or endangered species. Measures taken to reduce the number of the trees to be removed should be explained in detail. Submit the details of compensatory plantation. Explore the possibilities of relocating the existing trees.

- Project Site is on coastal sand pit and there is no significant natural vegetation and site clearence as per the project requirement.

PROJECT STANDARD TOR POINT – 26:

Examine the details of afforestation measures indicating land and financial outlay. Landscape plan, green belts and open spaces may be described. A thick green belt should be planned all around the nearest settlement to mitigate noise and vibrations. The identification of species/ plants should be made based on the botanical studies.

- An area of about ~3.10 Ha is proposed to be developed as greenbelt.
- Greenbelt will be developed at stockyards, administration building and along the road areas. The tree species to be used for the green belt development will be in line with the local ecology (indigenous species).
- In the proposed greenbelt, about 7750 trees will be planted (2500 trees/Ha) with a capital cost of about INR 1 Million will be earmarked for this purpose

PROJECT STANDARD TOR POINT – 27:

A detailed draft EIA/EMP report should be prepared in accordance with the above additional ToR and should be submitted to the Ministry in accordance with the Notification..

- Complied

PROJECT STANDARD TOR POINT – 28:

Details of litigation pending against the project, if any, with direction /order passed by any Court of Law against the Project should be given.

- All the court cases pertaining to turtle nesting grounds in project area, connectivity corridor and land ownership with Honourable Karnataka State High Court, Dharwad branch, Karnataka; Honourable Court of Deputy Commissioner, Uttara Kannada, Karwar, Karnataka; Honourable Karnataka State High Court, Bengaluru; Honourable Court of the PRL. District & Sessions Judge, Uttara Kannada, Karwar, Karnataka; Honourable the National Green Tribunal, Southern Zone, Chennai;
- All the court cases were Dismissed/ Disposed in favour of Govt. of Karnataka and Project Proponent HPPL.
- Presently no litigation is pending against the project proponent

PROJECT STANDARD TOR POINT – 29:

The cost of the Project (capital cost and recurring cost) as well as the cost towards implementation of EMP should be clearly spelt out.

- The capital cost estimate for development proposed barge / vessel loading facility is estimated at **607.03 Crores.**
- The budgetary estimate (Capital Cost) for Environmental Management is INR (25.73 Crores) and the annual recurring cost is INR (3.7 Crores).

PROJECT STANDARD TOR POINT – 30:

Any further clarification on carrying out the above studies including anticipated impacts due to the project and mitigative measure, project proponent can refer to the model ToR available on Ministry website "http://moef.nic.in/Manual/Port and harbour".

- Noted and shall be complied.

PROJECT ADDITIONAL TOR POINT – 1:

To Obtain CRZ Clearance from for the applied extent from concerned authority

- KSCZMA recommendations were obtained through File No. KA/CRZ/UK/05/2024 dated October 25, 2024

PROJECT ADDITIONAL TOR POINT – 2:

Proponent shall explore constructing jetty towards the sea side instead of river side during the initial phase

- Present EC application is to obtain the valid EC for completion of initiated construction work, which was delayed due to various court cases and all the court verdicts are in favour of HPPL and now HPPL is intended to complete the initiated construction work. In the present proposal there is no change from the original proposal for which EC/CRZ was obtained from SEIAA and no changes in pollution load and the CCR from RO, MoEF&CC dated 29.05.2024 obtained which mentions that about five percent of the project has been undertaken.
- Shall explore the seaside facilities during expansion proposal based on the demand

PROJECT ADDITIONAL TOR POINT – 3,4:

Dredging: Dredged materials should not be used for commercial purpose or stocked in the Project Site. It shall be used for construction / handed over to concerned authorities.

PROJECT ADDITIONAL TOR POINT – 5:

Prepare an action plan to minimize the impact of dredging on water quality and hydrological connectivity within and adjacent to project site.

PROJECT ADDITIONAL TOR POINT – 6:

Avoid sensitive periods / breeding season for fishes and marine animals – select proper time period.

PROJECT ADDITIONAL TOR POINT – 7:

Monitor the turbidity and sediment concentration due to dredging.

- The capital dredging quantity will be ~3.9 mcm. The total maintenance dredging quantity is estimated to be around 10,300m^3/year,.
- Suitable material will be utilised for reclamation and remaining will be dumped into sea at the designated at 2km to the north of port entrance channel.
- Dredging Management Programme shall be implemented including ideally avoiding the dredging activities during the notified fish breeding season and turtle nesting season.
- Regular monitoring of Marine water and sediment parameters including turbidity shall be carried out during construction and operation phase.

PROJECT ADDITIONAL TOR POINT – 8,9:

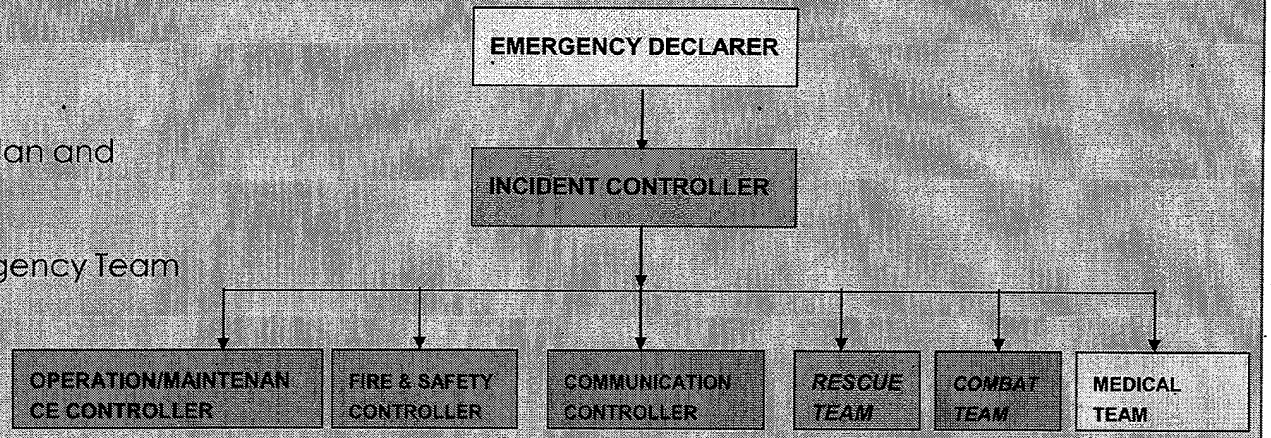
Special Studies: To Prepare Disaster Management Plan

DISASTER MANAGEMENT PLAN

Disaster Management Plan

- Causes of Disaster
- Categorisation of Emergency
  - Onsite Emergency Plan
  - Offsite Emergency Plan
- Onsite Emergency Plan
- Formulation of Disaster Management Plan and Emergency Services
  - Organization Structure
  - Roles and Responsibilities of Emergency Team
  - Emergency Co-ordinators
  - Communication
  - Emergency Control Centre
  - Alarm Systems
  - Mutual Aid Scheme
  - Evacuation plan for Emergency and Assembly Points
  - Spillage and Contingency Plan
- Management Plan for Natural Hazards
- Fire Protection Facilities
- Offsite Emergency Plan

EMERGENCY ORGANISATION CHART



PROJECT ADDITIONAL TOR POINT – 10:

Should prepare a management plan for faunal communities of project area by reputed institutes.

PROJECT ADDITIONAL TOR POINT – 11:

CSIR NIO / reputed institute to conduct a detailed marine ecological assessment study

PROJECT ADDITIONAL TOR POINT – 14:

Conduct post-dredging impact assessments on the flora fauna, local community livelihood and hydrological in project location.

PROJECT ADDITIONAL TOR POINT – 24:

Marine Conservation Plan.

PROJECT ADDITIONAL TOR POINT – 25:

Marine Ecology Impact Assessment study should be carried out from expertise Institute in the field.

PROJECT ADDITIONAL TOR POINT – 26:

Marine studies is conducted by National Institute of Oceanography, GOA and

PROJECT ADDITIONAL TOR POINT – 10, 11, 14, 24, 25, 26, 37:

PROJECT ADDITIONAL TOR POINT – 37:

a. Water quality
c. Bottom contamination; contamination of bottom sediments by toxic or harmful substances, oils, oily mixtures and other hazardous materials.
d. Marine and coastal ecology; aquatic fauna and flora composed of a large number of species of bacteria, phyoplankton, zooplankton, benthonic organisms, coral, seaweed, shellfish, fish and other aquatic biota, terrestrial flora such as mangroves and

- Report on Water Quality and Biological Parameters Related to Rapid Marine Environmental Impact Assessment Studies in connection with Port development at Honnavar is carried out by NIO
- Water and sediment Physico-chemical parameters were analysed
- Biological parameters including plankton, benthos, fishes, marine birds, turtles, mangroves etc. were studied and organisms of significant conservation importance were identified within the project site
- Results Indicate that marine environment is free from any significant pollution
- In study area, mangroves and turtle nesting were reported and conservation measures were provided including the buffer from mangroves, protection of turtle nesting areas and hatcheries etc.
- Biodiversity conservation plan was formulated to be implemented during construction and operational phases

PROJECT ADDITIONAL TOR POINT – 12:

To conduct study on carrying capacity of the estuaries.

PROJECT ADDITIONAL TOR POINT – 13:

Study on Restoration of water bodies, affect on the ecological integrity and biological productivity.

- Indomer Coastal Hydraulics (P) Ltd., Chennai has conducted mathematical modelling study on estimating the carrying capacity study of Sharavathi River Estuary.
- DHI - MIKE 21 HD module has been used to study the variation of tides and currents in the project region.
- In order to assess the influence of breakwaters in the nearshore region, the flow field has been simulated over the project region for the existing scenario (without the presence of breakwater) and the scenario after the construction of the breakwater.
- The hydrodynamic model indicates that the current speed remains below 0.57 m/s under various conditions, including fair weather and monsoon seasons.
- There is no significant change in the flow field outside the port facilities before and after the construction of breakwater & associated facilities. While the direction of flow varies with tidal conditions and monsoon influences, the overall flow field at the project location remains largely unchanged.
- The construction of the proposed port facilities results in only a minor change in current speed near the project region. However, some current variation is observed at the river mouth between the breakwaters which is located in the navigational channel attributed to dredging activities.
- Based on the flow model for both scenarios, with and without the construction of port facilities, it is inferred that there is no significant change in the overall flow conditions, and a stable condition would prevail after the construction of the port facilities.

PROJECT ADDITIONAL TOR POINT – 15:

NDZ: Non development zone identification.

PROJECT ADDITIONAL TOR POINT – 28:

CRZ maps are prepared by NCSCM, Chennai.

PROJECT ADDITIONAL TOR POINT – 43:

The National Centre for Sustainable Coastal Management (NCSCM) report.

- National Centre for Sustainable Coastal Management (NCSCM), Chennai has carried out demarcation of High Tide Line (HTL), Low Tide Line (LTL) and Coastal Regulation Zone (CRZ) classification of the project site
- The Port facilities fall in CRZ-IB, CRZ III NDZ, CRZ-IV A and CRZ-IV B as per the approved CZMP 2019 and as per the NCSCM.
- The proposed activities are permissible as per CRZ Notification 2019, amended till date, as it requires waterfront and foreshore facilities

PROJECT ADDITIONAL TOR POINT – 16:

Proper turtle conservation plan should be prepared immediately in order to conserve turtle nesting sites adjacent to project site in consultation with Concerned Forest / Wildlife department for implementation at project cost.

- The following measures shall be adopted for birds.
  - Avoid using of high sound producing equipment's for longer duration
  - Minimise using of light in locations near to mangrove habitats
  - Locate dumping sites away from bird residing habitats such as mangrove areas.
- The green belt area proposed by HPPL is about 3 Ha as a part of development. The plants which have to be selected for plantation must be indigenous, preferably perennial and evergreen and fast-growing trees. Trees should also be planted along the roadside in such a way that they act as a sink for air pollution.
- The Government of India, MoEF&CC has accorded approval "in-principle" Stage -I for diversion of 0.76 Ha of forest land in Sy.No. 233 and 237 of Kasarkod village, Honnavar Taluk, Uttara Kannada District approach road from NH-66 to Kasarkod side of Honnavar port.
- An amount Rs. 4.00 lakhs were allocated towards protection of turtle nesting i.e to build barricades around the nesting area during breeding season and watch and ward during breeding season.

PROJECT ADDITIONAL TOR POINT – 17:

No Permanent Labour camp in CRZ

- Noted and labour camps are not provided in CRZ area.

PROJECT ADDITIONAL TOR POINT – 18:

Storm water management plan.

- Storm water runoff will be directed into open concrete lined channels alongside the roads and paved areas in the cargo storage areas and other areas of the barge/vessel loading facility.
- The polluted runoff from berths and stockpiles of cargo storage areas will be intercepted and directed to septic tank.
- The runoff from uncontaminated areas will be discharged into the greenbelt area & contaminated storm water will be collected and conveyed to settling tank for removing grit.
- The oil contaminated water will be sent to oil water separator, separated oil will be sent to KSPCB approved vendors and water will be sent to soak pits.
- Rain Water Harvesting Techniques and Potential is estimated.

PROJECT ADDITIONAL TOR POINT – 19:

Coastal soil erosion control plan

- Shoreline change simulations have been carried out by considering the two scenarios:
  - Scenario I: With breakwaters and without shore protection on the northern side of inlet
  - Scenario II: With breakwaters and with sea wall on the northern side of inlet
- Continuous monitoring of shoreline with the help of high resolution satellite imageries shall be carried out, during operation phase and validated with ground truthing/Shoreline surveys.

PROJECT ADDITIONAL TOR POINT – 20:

Top Soil Conservation plan

- Good housekeeping and best practices of waste material handling shall be adopted to eliminate/minimise the risks of soil contamination.
- The provision for temporary storage of hazardous and other waste will be developed for a period of 90 days. The hazardous wastes generated at the Port will be disposed at nearby Treatment, Storage and Disposal Facility (TSDF). The nearest TSDF is located at Ramky Enviro Engineers, Dabaspet, Nelamangala, at a distance ~330km aerial.
- Accidental spills if any, it will be attempted to contain and recover at the earliest. However, possible waste minimisation techniques will be adopted in order to minimise the generation of wastes.

PROJECT ADDITIONAL TOR POINT – 21:

Material handling Plan

- Basic raw material (such as water, steel, cement, rock for construction of breakwater, aggregate required for concrete structures such as berths, yard, buildings, etc) for construction is available near the vicinity of the Port
- During the operation phase the only raw materials to be used are mostly oil and water which will be sourced locally
- Transportation of raw materials from nearby areas is likely to result in increased road traffic but only temporary during construction phase
- To mitigate impacts from transportation of stones and construction materials, existing roads will be strengthened and widened to enable movement of dumpers
- Temporary approach roads may be developed with prior permission from competent authority.
- Trucks with construction material susceptible for fugitive suspension will be covered with tarpaulin.
- Vehicles deployed will conform to emission norms (air/noise) of CPCB and with valid Pollution Under Control (PUC) certificates
- If there are any accidental spillages of hazardous substances on soil that may pose the risk of contaminating run off, such areas will be immediately remediated
- Proper lighting, signboards shall be provided at required locations

PROJECT ADDITIONAL TOR POINT – 22:

Mitigation plan to prevent Loss of bottom habitat and fishery resources and other significant problems

- Appropriate selection of equipment for pile driving and dredging
- Uniform disposal of dredged material at identified disposal location
- While reclaiming the existing area, bunds will be provided with a suitable overflow facilities so that only clean water will be returned to the sea.
- Spill contingency plan as a part of Disaster Management Plan will be prepared in accordance to the cargo will be handled.
- Spill recovery/immediate response measures will be displayed at cargo handling areas.
- Material Safety data Sheet (MSDS) of cargo being handled will be displayed.
- Mock drills will be conducted at periodic intervals.

PROJECT ADDITIONAL TOR POINT – 23:

Conservation plan for Mangroves, sand dunes and turtle nesting ground

- Awareness will be given to workers in the port about the importance of mangroves and their conservation
- Discharge of waste/wastewater during the construction and operation without treatment in mangrove areas would not be allowed
- Illegal cutting of mangroves for firewood by workers during the construction and operation phases of port would be strictly prevented
- Fuelling stations, petroleum products and hazardous material storage units must be located at minimum 50m distance away from the northern mangrove areas
- Necessary steps should be taken in case of any oil spill or leakage of any hazardous substances in the port area to minimize its impact as per contingency plan.
- Significant habitats of turtles lying outside the protected areas should not be disturbed.
- Low sound producing equipment may be used for the purpose of dredging and other such activities.
- Care should be taken in ship movements with regard to turtle conservation.
- An amount Rs. 4.00 lakhs were allocated towards protection of turtle nesting i.e to build barricades around the nesting area during breeding season and watch and ward during breeding season.

PROJECT ADDITIONAL TOR POINT – 27:

Terrestrial studies are conducted by Building Environment India Pvt Ltd, Mumbai

PROJECT ADDITIONAL TOR POINT – 45:

Comprehensive Impact study by Centre for Ecological Studies, Indian Institute Science, Bangalore.

- Terrestrial Biodiversity of core and study area were studied by Building Environment India Pvt Ltd, Mumbai
- In study area, mangroves and turtle nesting were reported and conservation measures were provided including the buffer from mangroves, protection of turtle nesting areas and hatcheries etc.
- Biodiversity conservation plan was formulated to be implemented during construction and operational phases
- Conservation strategies for the species of importance
  - Habit and habitat assessment; Population status assessment; Identification of major threats; Identification of Stress Factors; Mitigation and management planning; Implementation of conservation strategies; Habitat improvement programme; Water availability
  - Awareness programmes (community and school level)

PROJECT ADDITIONAL TOR POINT – 29:

SWOT Analysis to be conducted.

STRENGTHS	OPPORTUNITIES
The Port understands its business model; operates in a good business environment; and is willing to pursue opportunities.	Movement of cargo from Hinterland
Established trading partners	Investment in transport chain
Value- added logistics services	Rail and Road connectivity
Congestion free port environment	Environment and pollution management
	Major cargo handled at the port are coal, Iron ore and general cargo
	Improves relation with local governments
	Promote the Port's overall impact on the local economy.
	Funding for the community development
	Supporting industrial activities will be developed and economy of the region will be developed
WEAKNESSES	**THREATS**
Limited Port capacity	Private ports
Land Lease	Competition from the other Major & Minor Ports
Involvement of forest land for the road connectivity	Bureaucracy
Perceived need for improvement in service levels to retain the clients, avoid them being lost to other ports and for developing new ones	Four lane road was under litigation. After hearing the proceedings, the judgment has been delivered by court in favour of HPPL

PROJECT ADDITIONAL TOR POINT – 30:

Socio economic benefits of the project need to be elaborated in detail

PROJECT ADDITIONAL TOR POINT – 40:

Socio-cultural impacts: relocation of villages, industrialization, population growth nearby, and the formation of slums.

- The employment potential from the construction phase is 500 persons and during operation phase direct employment of 50 and indirect development in the region
- HPPL is planning to undertake the following activities in the project region as part of Corporate Social Responsibility (CSR)
- A total of 6.5 Million INR was spent for CSR activities
- HPPL has been allotted to use government land of 44 hectares by Government of Karnataka near Sharavati river mouth in Kasarkod Tonka village to develop a barge/vessel loading facility. Hence, further no land acquisition envisaged.
- The project activities are limited to the construction phase and will cease upon completion of the construction. Hence, this impact is considered to be negligible and therefore can be classified as insignificant.
- Necessary marker buoys shall be installed and interactions shall be initiated with the fishing community about the marker buoys indicating the areas of operation

PROJECT ADDITIONAL TOR POINT – 31:

To provide elaborated cost benefit analysis.

- Disposal of dredge spoil study reveals that there is no movement of dredged spoil towards the river mouth from where it can reach mangrove and island area during dredging. Change in morphodynamic of the river mouth/inlet due to the proposed breakwater is also not observed.
- The land allotted is not habituated and hence no land acquisition.
- The dust suppression measures such as sprinkling of water and suitable enclosures around the high noise generating areas within construction area will be provided.
- minimal hindrance to fishing activity is anticipated during construction phase of the proposed barge/vessel loading facility which will be in temporary nature
- The employment potential from the construction phase of the proposed facility is estimated as 500 persons & operation 50 persons
- As part of Environmental Management Plan for the proposed project an amount of Rs. 25.73 Crores has been allotted as an Environment Management Capital cost for carrying out the various Mitigative measures during the operations of the project.
- In addition to the EMP capital funds an amount of Rs. 3.7 crores will also be spent towards EMP recurring cost for monitoring and management of all the environment parameters due to operations.
- Further, an amount of Rs.70 lakhs was spent to improve the environment in the surrounding villages. An amount of Rs. 150 lakhs shall be spent towards the CSR activities in the surrounding villages.
- Additionally, an amount of Rs.1.1 crores towards forest diversion of 0.76 ha for the connectivity to port (NPV & afforestation cost) has also been spent. Rs. 4.00 lakhs is allocated towards turtle conservation plan.
- It can be concluded that due to the implementation of the various environmental measures and welfare activities for the development of the surrounding communities the project will have overall positive benefit.

PROJECT ADDITIONAL TOR POINT – 32, 33:

General: Clearing construction material

- Construction material will be used for levelling and excess material will be disposed to authorised vendors.
- Martial handling plan will be implemented

PROJECT ADDITIONAL TOR POINT – 34:

No groundwater shall be extracted within the CRZ area to meet the water requirements during the construction and/or operation phase

- Noted and groundwater is not proposed to be used.

PROJECT ADDITIONAL TOR POINT – 35:

Setting up Solar/ wind RE sources

- Solar power harnessing details are given in section 10.6

PROJECT ADDITIONAL TOR POINT – 36:

Community resource augmentation plan (CRAP)

- HPPL proposed to take up following activities for improving the way of living of people in the nearby villages:
  - Providing better health services
  - Providing better educational facilities for children of employees and students studying in schools in Kasarkod & around project area and nearby villages
  - Creating job opportunities
  - Facilitate self-employment through training and credit linkage
  - Outsourcing opportunities to Self Help Groups (SHG)
  - Providing protected water supply system to Kasarkod Tonka and Apsarkonda villages.
  - Strengthening area Government hospitals by assisting them in procurement of essential medical equipment.
  - Providing quality health care through regular medical camps.
- CSR Activities carried out from 2019 to 2024
  - In Tonka village, road repair work was carried out inside the village fisheries harbour
  - Road protection work at Tonka village housing area was carried out.
  - Donation was given for Ganesothsawa Samithi, Veera Hanuman Jayanti and Vardanti Utsava
  - A total of 6.5 Million INR was spent for CSR activities
- The budget allocated for CSR for further 5 years is INR 150 laks

PROJECT ADDITIONAL TOR POINT – 39:

Visual quality; the view of port facilities, the nuisance of bright lights used for night operations in a port. and other visual problems

- All outdoor lighting, roadway lighting, wharf lighting, and lighting mounted on masts or other elevated structures will include no other luminaries except full cut-off luminaries
- All outdoor lighting, roadway lighting, wharf lighting, and lighting mounted on masts or other elevated structures will be of the minimum lamp wattage to achieve required safety within the lighted area.
- No area lighting or any lighting mounted on masts or other elevated structures will include fluorescent lamps, mercury vapour (MV) lamps, metal halide (MH) lamps, or other broad-spectrum high-intensity discharge lamp types.
- No lighting of grounds, building walls, signs, cranes, or other elevated structures will employ flood lighting, up lighting, or other forms of directional lighting aimed above the horizon.
- Lighting of elevated walkways or conveyors will use luminaries that are <70 W HPS and shielded, so that candela intensity above an angle of 90° above nadir is 10% or less.
- Wherever possible, use low-pressure sodium vapour lamps or other light sources that exclude wavelengths less than 520 nm.

PROJECT ADDITIONAL TOR POINT – 38:

Waste management; both liquid and solid, likely to be disposed of in the port area. These wastes include dredged materials, garbage and oily mixtures discharged from ships, wastes from cargo operations, and all types of discharges from municipal and waterfront industry activities

- The wastewater and sewage generated during construction at site and at labour camp will be collected in holding tank and periodically transferred to nearby Treatment Plant.
- During operation, the sewerage system will be provided to collect the sewage from Barge/ vessel loading facility administration building, canteen and operation buildings and it will be collected in septic tank followed by soak pits.
- The cargo storage area will be provided with an extensive drainage and treatment system so that the contaminated water from the stockyard area does not flow directly into the natural water bodies or into the groundwater system.
- Sewage generation of ~2.3KLD is envisaged and STP of Advanced SMART SBR sewage treatment Technology shall be proposed designed to treat sewage water with influent characteristics BOD – 400mg/l and COD – 800mg/l.
- The collected biodegradable waste shall be subjected to composting and the compost will be used as manure for the development of green belt within the facility.
- The non-biodegradable waste like plastic shall be disposed off to approved vendors of KSPCB/CPCB in a scientific manner.

PROJECT ADDITIONAL TOR POINT – 41:

All construction shall be strictly in accordance with the provisions of the CRZ Notification, 2011, as amended from time to time

- Noted and shall be adhered

PROJECT ADDITIONAL TOR POINT – 42:

Status of EC with regard to Four Lane road (IA/KA/CRZ /404527/2022; F .NO. 11/22/2023 -IA.III).

- EC letter clarified that proposed Four lane connectivity is part of an earlier integrated EC+CRZ clearance granted for the project
- In the present proposal road was included as part of development

PROJECT ADDITIONAL TOR POINT – 44:

NOC from the Tourism Department.

- NoC from Tourism Department, Govt. of Karnataka was obtained for the proposed development

THANK YOU

Public Hearing Action Plan

Public Hearing Action Plan

Name of the Speaker & Place	Issues Raised	Response from HPPL
Smt. Laxmi Algod	She stated that, 90% of the local populations are fishermen. They are practicing traditional fishing and depend on it for their livelihood. She stated that, the project proponents have not given clear information about the project.	• The details of the project and its components were well described in Chapter 2 of Draft EIA report as well as in Executive Summaries both in English and Kannada Languages were displayed by KSPCB as per the law of the country. During Public Hearing also the project development details were spelt in vernacular language out clearly and presented. • The details of the Fishing villages, Fish landing centres, number of families, Fishermen population etc., in the study area and fish catch details were provided in the DEIA report. The details have been collected from the Department of Fisheries and National Information Centre.
	She expressed concern about adverse effect on public health in case of accidents occurring due to loading of cargo from barges to ship, dust pollution and other problems due to handling of different cargo.	• Proposed facility is barge/vessel loading facility and planned to handle coal, Iron Ore and General Cargo. The loading/ unloading of Barges to ship will not be carried out at the Harbour and will be done at deep waters where the mother ship used to be anchored by taking necessary well accepted pre cautionary measures and adopting best available Technologies and when concerned with the Berth/Vessel loading of cargos, technologically advanced mobile loader cranes will be used which suppress the dust to a maximum extent/captures the dust. • In the event of accidental spills of cargo during transfer from/to the ships, the Spill contingency plan provided in the EIA will be adopted to contain and recover the same at the earliest possible. If the accidental spills will be in harboured waters, since the harbour will be protected by Breakwaters, it would not spread spatially and the response time, containment and recovery (i.e, remedial measures) will be quicker. • If the accidental spills due to liquid cargo such as Edible oil and fuels for barges/vessel, the oil spill contingency plan provided in the EIA report will be adopted. Depends on the quantities of spill, necessary assistance will be sought from the nearby ports/ coast guard. • The necessary mitigation measures such as Green Belt development and Water Sprinkling etc., to suppress the dust while handling and storage will be followed as a part of Environmental Management Plan. Proper dust suppression will be ensured in the port premises and carried during the construction phase
	She also expressed that, the study on the said project has been carried out by outside agencies instead of local agencies and University.	• As per MoEF&CC Requirement, QCI NABET Accredited and Experienced consultant in Port EIA studies has carried out EIA Study for Proposed Barge/Vessel Loading facility. • Baseline terrestrial and marine monitoring has been carried out by NABL accredited labs.

Name of the Speaker & Place	Issues Raised	Response from HPPL
		• CRZ/HTL/LTL demarcation studies has been carried out by NCSCM which is one of the seven agencies authorised by MoEF&CC.
	She expressed doubts on whether the study has been carried out properly or not.	• The study has been carried out as per the ToR prescribed by KSEIAA and the Guidance Manual for Ports and Harbours published by MoEF&CC.
	She also stated that, there was no clear information in the presentation regarding road, railway track etc. made by the project proponent. She also expressed that, they were already put into a lot of inconveniences due to the Sharavati project and felt that they are again being made a scape goat and felt it was not justifiable.	• Proposed Dedicated Rail/Road Corridor details are provided in the EIA report, Executive Summaries disclosed for public scrutiny before Public Hearing as per the EIA Notification, 2006 (as amended). • Proposed Rail corridor connecting project site from Konkan Railway line of 8.5 km and proposed road connecting project site to NH-66 of 2.58 km will be constructed as a part of proposed development. • New Railway Station at Hosapattana is proposed between existing Manki and Honnavar Railway stations • The proposed facility will be developed strictly adhering the Environmental Management Plan suggested in the EIA to ensure the development as a sustainable one.
	She further expressed that it was justified to give good health facilities as assured by the project proponent after spoiling the health of the local community by establishing this kind of project.	• As a part of Corporate Social Responsibility (CSR), to improve the medical facilities and Health Environment conditions, HPPL has proposed to provide better health services such as Strengthening area Government hospitals by assisting them in procurement of essential medical equipment's and Providing quality health care through regular medical camps. • An amount of INR 70 Lakhs has been allocated for health camps and strengthening of Government hospitals. • The impacts due to the proposed development and necessary mitigation measures to render these impact as insignificant was addressed in the EIA report and the respective budgetary provision to implement the mitigation measures is made as a part of EMP.
	She expressed that, the project proponent has mentioned that, the main cargo handled in the project is coal, but at present situation, there is already scarcity of coal to the industries that use it as raw material, in this situation the coal handling as main activity is false and they have hidden plans to handle Iron Ore.	• The proposed barge/vessel loading facility is planned to handle coal, Iron Ore and Other General cargo and the same was mentioned in the EIA report, Executive Summaries and During Public Hearing Presentation also. The developer is committed to the national regulations and therefore Iron ore will be handled as and when the handling is legally permitted. • As true to the report submitted handling coal will be major cargo and which is imported to fulfil the requirement of the hinterland coal dependent industries. This will cater to the scarcity of the coal in the hinterland.

Name of the Speaker & Place	Issues Raised	Response from HPPL
	She further expressed the project cost INR 450 Crores will be collected from local community and fishermen in the form of taxes.	• The project will be developed by HPPL and the company is registered under the laws of the country. HPPL is committed to follow all the regulatory requirements of the country only. Entire investment of Rs.450 Crores is made by HPPL only. The government is not investing anything therefore the question of imposing taxes does not arise. • Cost estimate for the present proposal as per existing rates is INR 607.03 Crores.
	She also informed that, they have seen fishing activity suffered due to discharge of wastewater by fish processing unit in the areas during earlier days.	As per our EIA/EMP commitments, no discharge of wastewater/waste from the Barges/vessel calling at Honnavar Barge loading facility will be permitted into the area. There will not be any discharge in to the sea from the proposed barge/vessel loading facility.
	Further, she also expressed that, public hearing notification is given like tender notification & failed to attract attention of the public.	Advertisement regarding the date of public hearing, venue and project detail etc, were given in Newspapers in local and English Languages by KSPCB as per the procedure for conduct of public hearing given in the EIA Notification 2006 (as amended).
	She expressed that; the project proponents have planned to establish the project without giving information to public. Hence, on behalf of public and women organizations is opposing the said project.	
Smt. Laxmi Naik, Snehakunja, Honnavar	She expressed that; it is not right to organize public hearing without giving proper report of the project to the public.	Advertisement regarding the date of public hearing, venue and project detail etc, were given in Newspapers in local and English Languages by KSPCB as per the procedure for conduct of public hearing given in the EIA Notification 2006 (as amended). The necessary Document such as Executive Summaries (Both in English and Kannada), Copy of DEIA were submitted to KSPCB and the same were displayed in following Govt. Offices o Deputy commissioner's office, Karwar o Chief Executive officer - Karwar o District Industries Center,Karwar o Thasildhar's office - Karwar. o Thasildhar's Office - Honnavar. o Taluk/Town Panchayat - Honnavar.

Name of the Speaker & Place	Issues Raised	Response from HPPL
		○ Gram Panchayat – Kasarkod, ○ Zilla panchayat - Karwar. ○ Library – Karwar, ○ Library - Honnavar. ○ KSPCB - Karwar. ○ KSPCB – Bengaluru, ○ CRZ office - Karwar. ○ Asst Commissioner - Bhatkal. ○ Asst Commissioner - Kumta. (Acknowledgement for the same is also obtained by KSPCB)
	Further she expressed that, this project will create local employment only during the construction phase and is doubtful whether locals will be employed once the project is operational.	• It is estimated that during construction stage & operation stage the employment generation will be about 500 & 50 people respectively. • Based on the skill set of the people such as skilled, semi-skilled and unskilled, the preference will be given to the local people during the operation stage.
	Further she mentioned that the project proponent is misleading the public by stating this project will help local fishing boats in their activity because once the project is completed and is in full operation, this area will become prohibited area and local fishing boats will not have access to the area.	• Fishing boat/Vessel movements and access will not be prohibited during both construction/operation phases. This is one of the commitments to the state and HPPL bound to follow these and more over need support and well wishes of all sections of the local communities • There is a capsizing of fishing vessels near the river mouth due to insufficient depth. Creation of approach channel and provision breakwater as a part of the development which will rule out the capsizing incidence. • Safe navigation routes will be earmarked for movement of fishing vessels and the route will be finalized in consultation of fishing harbour authorities and fishing communities.

Name of the Speaker & Place	Issues Raised	Response from HPPL
		• Awareness will be given to fisherman about the barge/vessel movement's time schedule and clearances required for safe manoeuvring etc., During berthing of barges/vessels, necessary clearances shall be made available to ensure the fishing vessels movements.
	She informed that, the proposed project proponent have not given clear picture of survey number of the 109 acres of land to be acquired by the project.	Survey no. 305 was allotted by revenue department.
	She also shared her experiences during the health survey conducted by their organization in the Kaiga area and stated that, the local people of the Kaiga area were not provided medical facilities by Kaiga authorities, though there is a very good hospital in Kaiga established by Kaiga authorities. She expressed fear that the same will be repeated in the present project.	• HPPL is not aware of the Kaiga situation but are committed to provide the promised services to the local communities. • As a part of Corporate Social Responsibility (CSR), to improve the medical facilities and Health Environment conditions, HPPL is proposed to provide better health services such as Strengthening area Government hospitals by assisting them in procurement of essential medical equipment's and providing quality health care through regular medical camps. • An amount of INR 70 Lakhs has been allocated for health camps and strengthening of Government hospitals.
	She objected to the acquisition of land for development of railway line and road for the project as land holdings of local people are very less.	• A new independent access road is being developed for the traffic to and from the facility, without disturbing the existing roads by the facility traffic • The alignment is planned in such a way that it has minimum disturbance to the local communities. Moreover the road is not an access controlled therefore the local public also can use the road for their needs.
	She insisted to give detail project report of the said project to the local fishermen community.	Before Public Hearing, the necessary Documents such as Executive Summaries (Both in English and Kannada), copy of DEIA were submitted to KSPCB and the same were distributed by KSPCB and displayed at Thashildhar's office, Honnavar, Town Panchayat Honnavar, Gram panchayat, Kasarkod (Acknowledgement for the same is also obtained by KSPCB) for Public access.
Shri. K. Ramesh, Snehakunja, from Ankola	He stated that, project proponents are misleading the locals by stating that, the proposed project is only for barge and vessel loading facility, instead they are trying to handle hazardous cargo like Iron ore, Oil, Coal etc	The proposed facility is a Barge/Vessel Loading facility only and planned to handle 4.9 MTPA of cargo. This facility will handle coal, Iron Ore and Other General cargo and the same was mentioned in the EIA report, Executive Summaries and During Public Hearing Presentation also.

Name of the Speaker & Place	Issues Raised	Response from HPPL
	• Trying to conduct public hearing under heavy police protection creating fear among local people to express their factual opinions. • He complained that the activities viz. handling of iron ore, coal, oil are not mentioned in the paper notification published.	Advertisement regarding the date of public hearing and venue and project detail etc, were given in Newspapers in local Kannada and English Languages as per the procedure for conduct of public hearing given in the EIA Notification 2006 (as amended). The Public Hearing was conducted by KSPCB as per the procedures and the proceedings of the same were forwarded to respective authorities.
	He explained that, while he was residing at Ankola he has experienced the adverse effect on the environment and safety problems faced during handling of iron ore at Belekeri. He explained details of environmental pollution and nuisance to public during handling of iron ore at Belekeri Port which has caused financial loss to Govt and other problems faced by common public is well known to the entire nation. He complained that the local people who handed over their land to project like Kaiga, Sea bird did not get benefit from the project and also are not made a part of the decision making process in the said project and expressed fear that, same will be repeated in the said project also. He stated that he totally oppose the proposed project, which is proposed to handle commodities like iron ore and coal because this activities will create environmental damage in the area and also health problems to the local people besides traffic congestion in the area and affect traditional fishing activity of local fishermen on which they depend for their livelihood.	• The proposed facility will be developed strictly adhering the Environmental Management Plan suggested in the EIA to ensure the development as a sustainable one. • The EMP and monitoring programme as mentioned in Chapter 10 and Chapter 6 is being followed during construction phase and shall be followed during operation phase also. • Monitoring of air quality in five locations, noise levels in five locations, water quality in four locations, soil quality in three locations and marine water & sediment quality in 6 locations is being carried out as a part of the monitoring programme and the certified compliance report is also attached with the EIA report. • Fishing Vessel movements and access will not be prohibited even during the construction/operation phase. • Safe navigation routes will be earmarked for movement of fishing vessels and the route will be finalized in consultation of fishing harbour authorities and fishing communities. • Awareness will be given to fisherman about the barge/vessel movement's time schedule and clearances required for safe manoeuvring etc., During berthing of barges/vessels, necessary clearances shall be made available to ensure the fishing vessels movements.
Shri Abdul Hussain, Masjid	He stated that, project proponents have not given detailed report regarding the requirement and usability of land for the proposed project.	The land required for the development of Barge/ Loading Facility is 44 Ha. The layout showing the same is presented in the DEIA report. The proposed land use Pattern is given below.

Name of the Speaker & Place	Issues Raised	Response from HPPL
Secretary, Honnavar		

S. No	Description	Area (Ha)
1.	Coal Stockyard	7.00
2.	Iron Ore Stockyard	1.80
3.	General Cargo Storage (Open)	4.00
4.	General Cargo Storage (Closed)	2.00
5.	Liquid cargo storage	0.10
6.	Roads and Circulation Area	8.15
7.	Operation Building	0.05
8.	Canteen	0.02
9.	Vehicle Parking	0.09
10.	Substation	0.02
11.	Gate House/Security/Weigh Bridge	1.50
12.	Truck Parking	5.40
13.	Fuel Station	0.02
14.	Control Tower	0.01
15.	Green Belt	3.10
	Sub total	33.26
16.	Area available for other Operations and area earmarked for future expansion	6.72
17	Rock armour area (approx..)	4.00

Name of the Speaker & Place	Issues Raised	Response from HPPL
		Total 44.00
	He added that, the project proponents have not included mitigation measures for oil spillages problem due to operation of project in the area.	Mitigation measures for oil spillages were addressed in the EIA report. The barge/vessel loading facility will be equipped with minimum equipment to contain and recover oil spills. Oil spill control equipment such as booms / barriers will be provided for containment and skimmers will be provided for recovery. In case of any cargo spillage during transfer from/to mother ships, Barges/ Vessels, it will be attempted to recover the spills. If the accidental spills will be in harbour waters, it would not spread spatially and the Response time for shutting down the fuelling, containment and recovery will be quicker.
	He expressed concern that the sea eco system in vicinity of the project would be disturbed due to operation of said project and there may lead to extinction of certain species of fishes which are observed only in this area.	• The impact on Biological Environment (Estuarine, Coastal and Marine Ecology) due to the proposed barge/vessel loading facility and respective mitigation measures is addressed in the EIA report. The proposed port will be developed strictly adhering the Environmental Management Plan suggested in the EIA to ensure the development as a sustainable one. • The post project monitoring covering marine environment monitoring will also be carried out.
	He complained that, the project proponents have not informed the local Panchayat, so as to prevent public from attending the public hearing and expressed strong objection to the proposed project in the area.	• Advertisement regarding the date of public hearing and venue and project detail etc, were given in Newspapers in local and English Languages as per the procedure for conduct of public hearing given in the EIA Notification 2006 (as amended). • Before Public Hearing, the necessary Documents such as Executive Summaries (Both in English and Kannada), Copy of DEIA were submitted to KSPCB and the same was distributed and displayed at following Govt. offices o Deputy commissioner's office, Karwar o Chief Executive officer – Karwar o District Industries Center, Karwar o Thasildhar's Office - Karwar. o Thasildhar's Office - Honnavar. o Taluk/Town Panchayat - Honnavar.

Name of the Speaker & Place	Issues Raised	Response from HPPL
		o Gram Panchayat - Kasarkod. o Zilla panchayat - Karwar. o Library – karwar o Library - Honnavar. o KSPCB - Karwar. o KSPCB - Bengaluru. o CRZ office - Karwar. o Asst Commissioner - Bhatkal. o Asst Commissioner - Kumta. (Acknowledgement for the same is also obtained by KSPCB) by KSPCB for Public. • English & Kannada Executive Summary, DEIA report were placed in the respective office on 22nd December 2011. • Pamphlet distribution and Auto announcement was conducted in the local region (specifically giving more priority to Kasarkod area) on 25th January 2012.
Shri M. N. Subramanya, Advocate, Honnavar	• He stated that the location is ecologically sensitive as it is an estuary point of Sharavati river joining the Arabian Sea and that the location is critically sensitive for marine ecology as big fish and particular species of fishes depend on this area for their breeding activity. • He expressed fear that there would be ecological imbalance of marine ecology due to development and operation activities of the project and requested presiding officer not to allow such project	• Impact on River Confluence Point/River Mouth due to the proposed barge/vessel loading facility is studied by appropriate mathematical modelling and other marine biological studies and addressed in the EIA report. • Breakwater construction will lead to accretion/erosion on coast adjacent to that. These will change the morpho dynamics of the river mouth/inlet which leads to reduction in tidal water flow in the water body. Reduction in tidal exchange will affect the biodiversity. Hydrodynamic Model Studies and other model studies ensure that changes the morpho dynamic of the river mouth is not significant. This will ensure the tidal water exchange and thereby maintain the biodiversity. • However, as a part of EMP, both water quality monitoring and shoreline monitoring is being carried out during construction phase and the same shall be carried out during operation phase also.

Name of the Speaker & Place	Issues Raised	Response from HPPL
	in the area in the larger interest of sustaining ecological balance of marine life in the region.	
	• He also expressed that the project proponent have not mentioned about the applicability of CRZ Notification, 2011 for the said project at the said area. • He questioned that the CRZ notification was applied to construction of houses for fishermen and not done in the case of big projects like this.	• Coastal Regulation Zone compatibility of the proposed barge/vessel loading facility is discussed in Chapter 2 of EIA report. • Physical demarcation of HTL, LTL and delineation of CRZ setbacks for the project site were carried out by Centre for Earth Science Studies (CESS). Based on the perusal of the CRZ Notification, 2011 and the HTL/LTL survey outcome, following are the inferences arrived: o Proposed site falls on the sandy beach near the river mouth. o CRZ Setback lines indicate that the proposed barge/ vessel loading site falls within the CRZ-IB, CRZ-III NDZ, CRZ-IVA, CRZ-IVB o Proposed location does not contain environmentally sensitive areas such as National parks / marine parks, sanctuaries, wildlife habitats, corals / coral reefs. It also does not include breeding and spawning grounds of fish and other marine life, area of outstanding natural beauty / historically / heritage area, area rich in genetic diversity. • Based on perusal of Coastal Regulation Zone (CRZ) Notification, 2011 and Karnataka Coastal Zone Management Plan (CZMP), Proposed Honnavar barge/vessel loading is a permissible activity in CRZ as it requires waterfront and foreshore facilities. • For the present proposal, CRZ/HTL/LTL demarcation studies have been carried out by NCSCM as per CRZ notification 2019. The project is a permissible activity as per CRZ notification 2019 (as amended). • The project falls under CRZ-IB, CRZ-III, CRZ-IVA and CRZ-IVB as per CRZ notification 2019 (as amended). • The project layout superimposed on HTL, LTL and CRZ setbacks are given the EIA Report.
	He expressed fear that, the operation of such project would create shortage of electricity in the entire Honnavar Taluk.	Power requirement during construction phase is expected to be around 1 MVA. The power demand is estimated at 1 MVA during operation. Construction phase power requirement will be met from DG sets and operation phase power will be drawn from Substation located at Honnavar (~2 km) after obtaining the necessary permissions from respective Electricity department. Hence, no competitiveness with the local people is envisaged.

Name of the Speaker & Place	Issues Raised	Response from HPPL
	He expressed his dissatisfaction over absence of information on rehabilitation, alternative business to affected fisherman community due to the proposed project. He also expressed dis-satisfaction over the information given with regard to employment generation to local people and expressed strong objection to proposed project in the area.	• HPPL has been allotted to use the government land of 44 hectares by Government of Karnataka near Sharavati river mouth in Kasarkod Tonka village to develop a barge/vessel loading facility. There are no land acquisition and encroachers involved. • It is estimated that during construction stage & operation stage the employment generation will be about 500 & 50 people respectively. • Based on the skill set of the people such as skilled, semi-skilled and unskilled, the preference will be given to the local people during the operation stage.
Shri. Nivel Fernadis, Secretary Pershian Boat owners association, Honnavar	• He expressed pollution of the sea and surrounding area due to operation of said project, which would directly affect the fishing activity in the area. • He opined that, project will create water scarcity in the area.	• No discharge of wastewater/waste from the Barges/vessel calling at Honnavar Barge loading facility will be permitted into the area. There will not be any discharge in to the sea from the proposed barge/vessel loading facility. • Water requirement during the construction is expected to be around 15m^3/day. Water demand during operational phase of barge/ vessel loading facility is estimated as 7m^3/day. The water requirement will be met from Karnataka Rural water supply and sanitation agency which includes supply to Barge/vessels, staff and users. In addition to that water required for dust suppression system and firefighting will be sourced from Sharavati River. Hence, no competitiveness with the local people is envisaged.
	He expressed doubt of controlling generation of dust by proposed tarpaulin cover on ore storage heaps as wind velocity in the area is very high and expressed fear of dust nuisance to the surrounding areas	• Dust suppression equipment will be provided for efficient control of dust pollution on environment during storage and handling of Coal and Iron ore at berth and stockyard. An efficient dust suppression system will contain dust particles before it is airborne. • A common system consisting of suitable pump, storage tank, nozzles have been proposed for efficient dust control system. Dust control is envisaged at following locations: o Barge/ vessel loading /unloading area o Stockyards • Water sprinkling system at high pressure with swivelling type nozzles will be installed to cover entire stockpile. Nozzles will be installed on pipes at different levels from ground. Nozzles will be installed along stockpile at regular intervals to cover stockpile height and width.

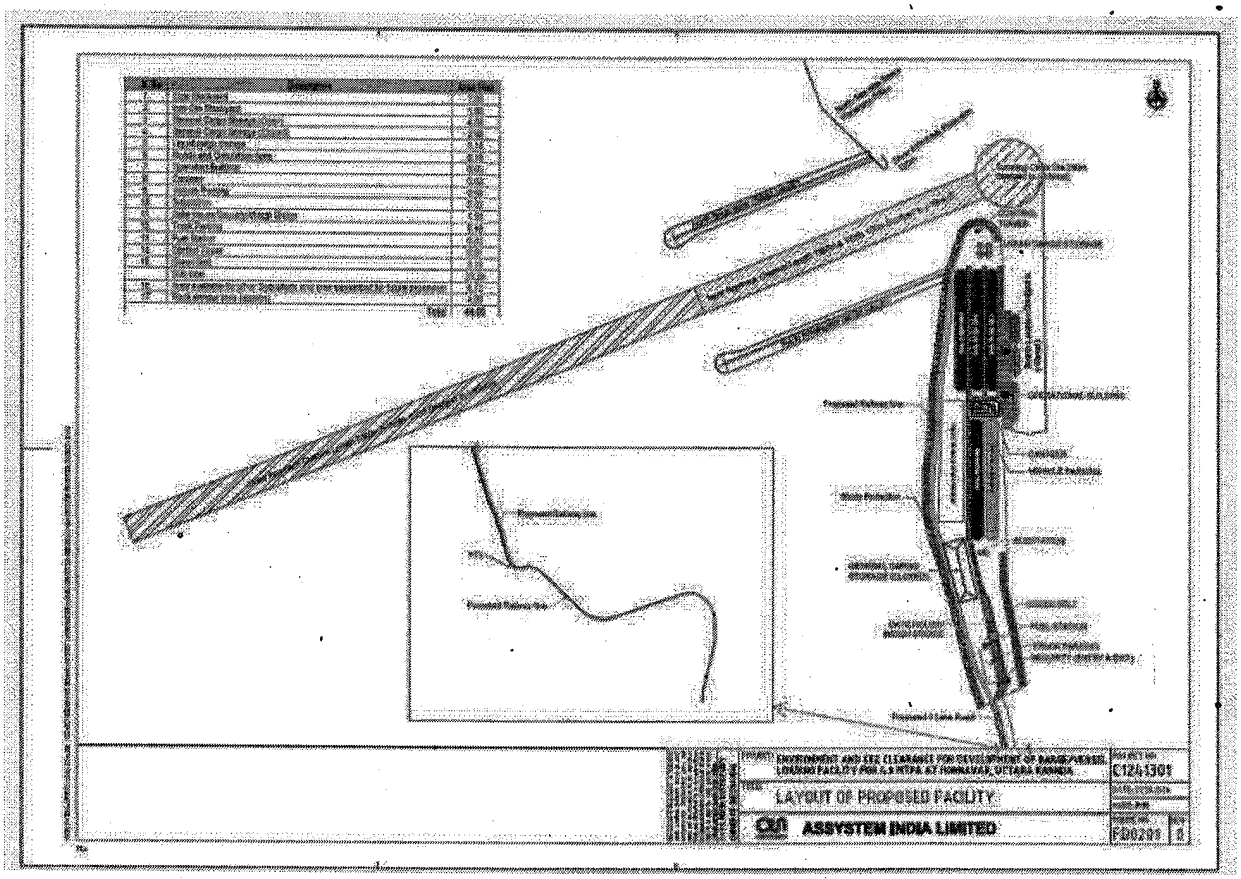
Name of the Speaker & Place	Issues Raised	Response from HPPL
	He requested to construct break water in the alive area (River joining Sea) area which would facilitate the fishermen.	As a part of development, construction of Southern and Northern Breakwater are envisaged and navigational channel was planned in between the breakwater as well as in the said alive area (river joining sea). Hence this arrangement of breakwater as well as navigation channel will help the fisher folk to navigate their fishing vessels very safely.
	• He pointed out that, project proponent have not given a clear picture of vehicular movement and proposed route for the project area and proposed mitigation methods to avoid nuisance created due to movement of heavy vehicles during development and operational phase • He objected to the said project in order to avoid environmental damage and to avoid problems that would be created due to vehicular movement of the project.	• Proposed road connectivity starts from NH 66 at Kasarkod. This road will then run southeast for some distance and then aligns parallel to the shoreline till it reaches the proposed project site. This will be parallel to the existing single lane road at an offset distance of 100 m. The total length of this road from NH 66 to the proposed site is 2.58 km. This road connectivity will have a width of 30 m. • The rail connectivity to the Port site is proposed to be provided with Broad gauge single line of 8.5km long, from a new railway station proposed at Hosapattana under section of Konkan Railway broad gauge line. • Anticipated Potential impacts due to the proposed Rail/Road alignment and respective mitigation measures are provided in the EIA report.
Shri. Abdul Khadar, local resident, Honnavar:	• He stated that, maximum fisherman living in this area have migrated from Mallukurva area which was destroyed due to flood and till date have not obtained their land rights from the Govt. • He informed that, most of the fishermen in the area are holding small lands and expressed fear that, their land may be acquired for the said project and they may be evacuated from the area without suitable rehabilitation as they do not have land records in their names.	As there is no land acquisition, rehabilitation is not envisaged.
	He expressed his dis-satisfaction on preparation of project report by the people who have no knowledge of local geology.	QCI NABET Accredited and experienced consultant in port EIA studies is engaged to carry out EIA Study for Proposed Barge/Vessel Loading facility.

Name of the Speaker & Place	Issues Raised	Response from HPPL
	Further, he questioned the permission given for the project since the same is denied for local poor people since 1974.	• Directorate of Ports and Inland Water Transport Department, Government of Karnataka signed a lease agreement with HPPL to develop Honnavar Port. • Based on perusal of Coastal Regulation Zone (CRZ) Notification, 2019 and Karnataka Coastal Zone Management Plan (CZMP), Proposed Honnavar barge/vessel loading is a permissible activity in CRZ as it requires waterfront and foreshore facilities.
Shri. Basha Ahmed Patel, Gram Panchayat Member, Honnavar	He informed that, he came to know about the proposed project very recently as a result of which he could not understand the project as there was lack of publicity given about the proposed project.	• Advertisement regarding the date of public hearing and venue and project detail etc, were given in Newspapers in local and English Languages as per the procedure for conduct of public hearing given in the EIA Notification 2006 (as amended). • Before Public Hearing, the necessary Documents such as Executive Summaries (Both in English and Kannada), Copy of DEIA were submitted to KSPCB and the same were distributed and displayed at following Govt. offices o Deputy commissioner's office, Karwar o Chief Executive officer – Karwar o District Industries Center, Karwar o Thasildhar's office - Karwar. o Thasildhar's Office – Honnavar o Taluk/Town Panchayat - Honnavar. o Gram Panchayat - Kasarkod. o Zilla panchayat - Karwar. o Library - karwar. o Library - Honnavar. o KSPCB - Karwar. o KSPCB - Bengaluru.

Name of the Speaker & Place	Issues Raised	Response from HPPL
		○ CRZ office - Karwar. ○ Asst Commissioner - Bhatkal. ○ Asst Commissioner - Kumta
	• He also informed that school, masjid, temples and residential area are situated on the way to the proposed project as well as the proposed road and railway track. • He also informed that the school, religious places and residential areas will be affected if the project is allowed to come up. • He objected to the development of road and railway track as it will affect local ecosystem. • He expressed surprise over Govt. officers attending the public hearing when they failed to visit the area during the recent floods. He welcomed the Deputy Commissioner for her first visit to the area and requested for basic infrastructure for the fishing activities and also strongly objected to the proposed project.	• Proposed road connectivity starts from NH 66 at Kasarkod. This road will then run southeast for some distance and then aligns parallel to the shoreline till it reaches the proposed project site. This will be parallel to the existing single lane road at an offset distance of 100 m. The total length of this road from NH 66 to the proposed site is 2.58 km. This road connectivity will have a width of 30 m. • The rail connectivity to the Port site is proposed to be provided with Broad gauge single line of 8.5km long, from a new railway station proposed at Hosapattana under section of Konkan Railway broad gauge line. • Rail/road corridor shall be developed within the allocated port land and small portion of forest land for which Stage I clarence was obtained and recommendation for Stage II by PC, Forest department, Govt. of Karnataka details are provided in EIA report. • Proposed road/rail alignment will traverse across the coastal sand and barren land. The alignment is selected such a way that there will not be any disturbance to the existing structures. The proposed road connectivity is not an access controlled private facility and hence local people will be allowed to use as required. • Anticipated Potential impacts due to the proposed Rail/Road alignment and respective mitigation measures are provided in the EIA report.
Shri. Umesh Mesta, Society Chairman, Honnavar	He stated that, project proponent have not obtained clearance from CRZ as CRZ notification is applicable to the project. He also expressed that the proponents have failed to present clear picture of the proposed project. He also objected for the project on behalf of the Society.	• Final EIA report is prepared based on the proceedings of the public hearing with necessary responses for the clarifications raised by the public. The same will be submitted to the respective CZMA authorities to obtain CRZ Clearance. • The proponent is legally bound to obtain all clearances as per the regulatory frame work of the country. This public hearing is also part of the legal process to obtain all clearances required for the project.

Name of the Speaker & Place	Issues Raised	Response from HPPL
		• The details of the project and its components were well described in Chapter 2 of Draft EIA report as well as in Executive Summaries both in English and Kannada Languages. During Public Hearing also the project development details were spelt out clearly and presented.
Shri. J.D.Naik, MLA, Honnavar	• He informed that, he was attending the public hearing as a public representative. • He expressed that he was in support of the project if it fulfils long pending demand for development works such as construction of break water, Dredging, harbor development which will facilitate the local fishermen community in their fishing activity.	As a part of proposed development, construction of breakwater, dredging etc., will be carried out.
	• However, he was opposed to the project if the life of the local community, their profession & business are likely to be affected. • He also informed that the final say on the proposed project was entirely dependent on the will of the local community and that he would stand by their decision.	• Construction activities involve dredging, construction of cargo berths which may likely to disturb the fishing activity at nearby villages. However, necessary marker buoys shall be installed and interactions shall be initiated with the fishing communities about the marker buoys indicating the areas of operation so that they may avoid those areas during construction period. • During operation phase, barges/vessels movements may hinder the fishing vessels approach to the fish landing wharf and to the sea. Awareness will be given to the fishermen about the barges/vessels movement's time schedules and clearances required for safe manoeuvring etc., During berthing of barges/vessels, necessary clearances shall be made available to ensure the fishing vessels movements.

8. CLEAR LAYOUT PLAN DEMARCATING 44HA OF LAND AREA WITH LEGEND


LAYOUT OF PROPOSED FACILITY
ASSYSTEM INDIA LIMITED

9. EIA REPORT WITH COMPIANCE TO ToR COMPLIANCE

EIA REPORT WITH TOR COMPLIANVCE IS ATTACHED AS A SEPARATE DOCUMENT

10. DREDGING MATERIAL DISPOSAL COORDINATES AND WHETHER CRZ CLEARANCE HAS BEEN OBTAINED FOR THE SAME

10. Dredging material disposal coordinates and whether CRZ clearance has been obtained for the same.

Dredge Disposal Study

Mathematical model study has been carried out to assess the fate of dredged spoil during dredging and dumping and its impact on the project area and near-shore regions. The dredging quantity during the proposed development is estimated to be 3.9 million m^3. Around 1.0 million cum of dredging quantity will be used for reclaiming purpose and the remaining quantity will be disposed in sea. MIKE 21 hydrodynamic model (with mud transport) has been used to simulate the suspended sediment concentration (SSC) and bed level changes when the dredged material is discharged into the sea.

As the sediment transport and littoral drift studies revealed that the net transport along this coast is towards north, an appropriate disposal site towards north of the northern breakwater were chosen such that the disposed material does not come back towards the port entrance and at the same time it could be helpful in nourishing the eroding beaches in the area. After examining several locations along the northern coast, the most suitable site for dredge disposal is recommended at a distance of about 2 km to the north of port entrance channel located at latitude 14.308^{0}N and longitude 74.415^{0}E. It is observed that during wet season, the suspended sediment concentration (SSC) is relatively high for a few days after dredge disposal but later it spreads along the coast towards north without any impact to the port entrance area and the nearby environment. However, during dry season with WNW waves, the discharged sediment (SSC) spreads along the coast towards south, but it does not extend up to the entrance channel. It is evident from the rate of bed level changes that during wet season, there is very little increase in bed level in the nearshore regions at the disposal site. During dry season, the supplied sediment is carried towards south supplying sediment to the northern part of the north breakwater. This positive feedback from the natural nearshore current system is quite helpful for nourishing the northern beaches.

During periods of strong near shore currents (during peak wet season), it is suggested to dispose the sediment offshore at greater depths (>30 m). Based on the studies it is concluded that the dredge disposal at the recommended site will not cause any natural imbalance to the nearby shoreline and will not affect the coastal eco-system in any way.

Maintenance Dredging and Disposal

The total maintenance dredging quantity is estimated to be around 10,300 m^3/year. The material collected will be dumped in the identified disposal ground.

Generally, coarse material quickly settles to the bottom, while fine material is removed during its descendent to the bottom and transported by currents to adjoining areas.

The disposed material will settle down depending on its own bulk size and grain size with different settling velocity. Hence, the environmental conditions at the location of the disposal site should be such that it is not subjected to high near-bottom current velocities which would cause the disposed material to return to areas of interest like the approach channel. Moreover, the shuttle distance between the disposal site and the areas of dredging should not be too large, as this would increase cost of disposal and consequently the dredging cost. Hence, the selection of the

disposal site has to be the result of a balance between the environmental factors and economy of cost.

The dredge spoils will be disposed through a hopper or suitable dredger at the disposal site. The impacts due to disposal of dredged material such as the spreading of turbidity at disposal location, suspension & re-suspension of sediment in the bulk of water column.

Numerical modelling studies for Dredge disposal

The dredging schedule will be covering both the wet season and the dry season. Numerical modelling studies have been conducted with a view to determine the ideal site for the dredge disposal. The studies have been carried out for the predominant waves in the respective seasons; SW waves for wet season and WNW waves for dry season. The peak river discharge values corresponding to wet and dry seasons are set to 300 m^3/s and 50 m^3/s respectively. Boundary conditions and other required parameters (bed resistance, eddy viscosity etc) are set in a way similar to the simulations described in Sediment transport study sections.

As the sediment transport and littoral drift studies revealed that the net transport along this coast is towards north, an appropriate disposal site towards north of the northern breakwater is chosen such that the disposed material does not come back towards the port entrance and at the same time it could be helpful in nourishing the eroding beaches in the area. After examining several locations along the northern coast, the most suitable site for dredge disposal is recommended at a distance of about 2.0 km to the north of port entrance channel located at latitude 14.308°N and longitude 74.415°E as shown in **Figure Error**! No text of specified style in document.**-1**.

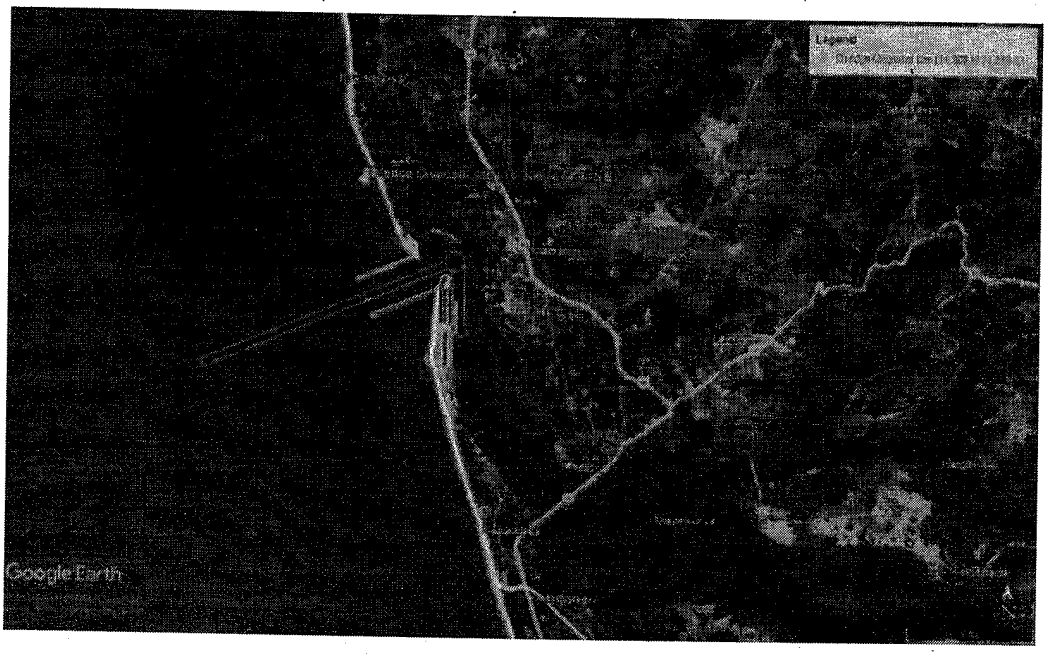


Figure Error! No text of specified style in document.**-1: Location of the proposed disposal site (Image courtesy: Google Earth)**

MIKE 21 hydrodynamic model (with mud transport) has been used to simulate the suspended sediment concentration (SSC) and bed level changes when the dredged material is discharged at a rate of 150 m^3/s with a velocity of 5 m/s in the outlet direction of 10° relative to true North.

Earlier EC Clearance

EC & CRZ Clearance for Honnavar Port was obtained vide No. SEIAA: 22: IND: 2011 dated 21st Sep 2012. Further, EC & CRZ clearance validity extension for three years was obtained vide File No. SEIAA: 22: IND: 2011 dated July 01, 2019 and further EC & CRZ clearance validity extension for further one year was obtained vide File No. SEIAA: 22: IND: 2011 dated September 20, 2023. Total land requirement for the proposed facility is 44 Ha. EC & CRZ clearance accorded for the port activities including dredging and disposal.

There is no change in the earlier proposal for which EC & CRZ clearance was obtained and regular compliance is being submitted. HPPL has obtained fresh Terms of Reference (ToR) from SEIAA, Karnataka through vide File No: SEIAA 02 IND 2024 dated August 12, 2024 and accordingly EIA study has been carried out.

Present Proposal

Present EC application is to obtain the valid EC for completion of initiated construction work, which was delayed due to various court cases and all the court verdicts are in favour of HPPL and now HPPL is intended to complete the initiated construction work. In the present proposal there is no change from the original proposal for which EC/CRZ was obtained from SEIAA and no changes in pollution load and the CCR from RO, MoEF&CC dated 29.05.2024 obtained which mentions that about five percent of the project has been undertaken.

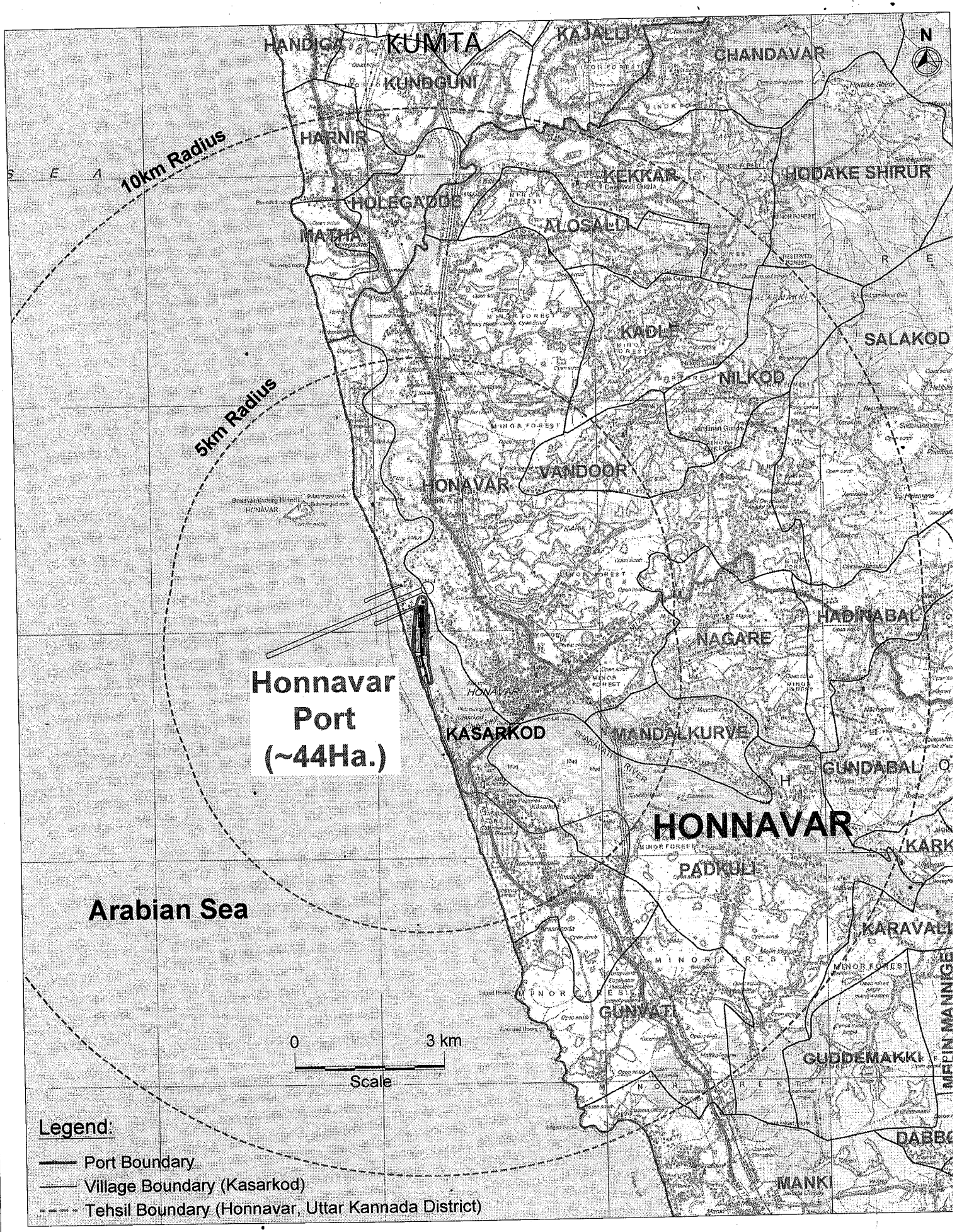
CRZ recommendations were obtained for the present proposal including dredging and disposal vide File No. KA/CRZ/UK/05/2024 dated October 25, 2024. As per the File No. IA 3 -12/1/2022-IA.III OM dated 29th November, 2022, any Project requiring CRZ Clearance and also Environmental Clearance as per EIA notification 2006, any project located in CRZ area that requires EC under Category B clearance for combined EC & CRZ shall be obtained from SEAC/SEIAA.

Hence, application has been submitted for combined EC & CRZ clearance.

Communication Address

Assystem India Limited
(Formerly Known as L&T Infrastructure Engineering Limited)
6-3-348, Midtown Complex, Road No. 1, Banjara Hills, Hyderabad-500034

Village Map with Boundary Markings of Proposed Area


HANDIGA
KUMTA
KAJALLI
CHANDAVAR
KUNDGUNI
HARNIR
10km Radius
KEKKAR
HODAKE SHIRUR
HOLEGADDE
ALOSALLI
MATHA
KADLE
SALAKOD
NILKOD
5km Radius
HONAVAR
VANDOOR
HADINABAL
NAGARE
Honnavar
Port
(~44Ha.)
KASARKOD
MANDALKURVE
GUNDABALA
HONNAVAR
PADKULI
Arabian Sea
KARAVALI
GUNAVATI
GUDDEMAKKI
MANKI
0
3 km
Scale
Legend:
Port Boundary
Village Boundary (Kasarkod)
Tehsil Boundary (Honnavar, Uttar Kannada District)

Baseline Data Reports

1 Baseline Monitoring Results

The Monitoring locations were selected based on the following:

- Topography/Terrain
- Meteorological conditions
- More sites in downwind side/ impact zone
- Residential and sensitive areas within the study area
- Representatives of regional background air quality/pollution levels and
- Representation of likely impacted areas

1.1 Ambient Air Quality Monitoring Stations

To evaluate the baseline air quality of the study area, *Six (06)* monitoring locations have been identified. The details of the locations are given in **Table 1**.

Table 1: Ambient Air Quality Monitoring Locations

S. No.	Location Name	Distance	Azimuth Direction	Environmental Setting
1	Honnavar Near Port Office	1.8 km	SE	Residential Area
2	Kasarkod Village Near Sub Station	4.2 km	SE	Residential Area
3	Karki Village, Havyka Sabha Bhavan	0.9 km	E	Residential Area
4	Ramtirth Village, Near RTO Office	3.0 km	E	Residential Area
5	Kulkod Village, Near Govt School	4.3 km	E	Residential Area
6	Hosad Village, Near Primary School	7.0 km	SE	Residential Area

1.1.1.1 Ambient Air Quality Monitoring Techniques and Frequency

Ambient air quality was monitored twice a week for complete one season. PM_{10}, $PM_{2.5}$, SO_2, NO_2 were monitored on 24 hourly basis and CO, HC were monitored on eight hourly basis. Sampling was carried out as per Central Pollution Control Board (CPCB) monitoring guidelines at each location for all twelve parameters.

1.1.2 Results

The variations of PM_{10}, $PM_{2.5}$, SO_2 and NO_2 are graphically presented in the **Figure 1 to Figure 4** and remaining parameters such as CO, NH_3, C_6H_6, Pb, BaP, As, Ni are within limits.

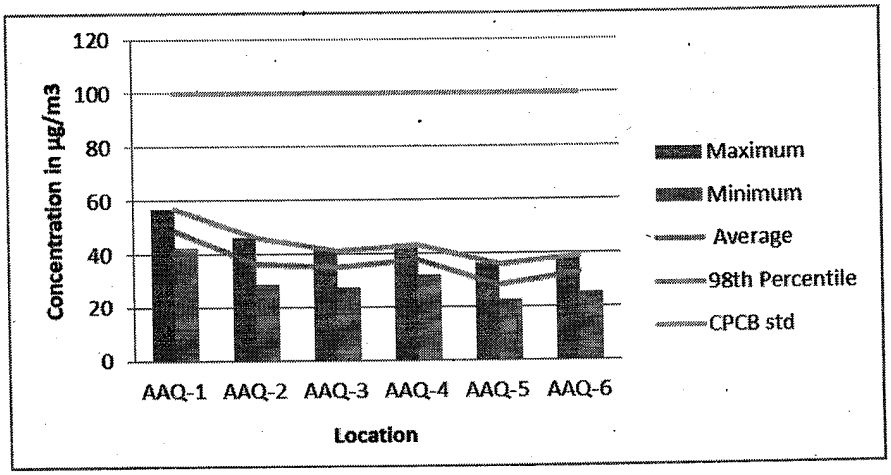


Figure 1: Ambient PM_{10} Levels

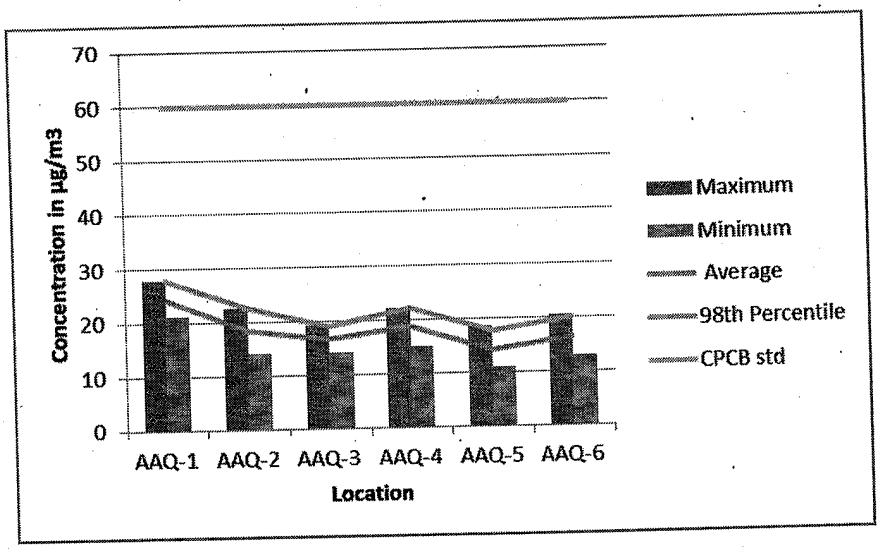


Figure 2: Ambient $PM_{2.5}$ Levels

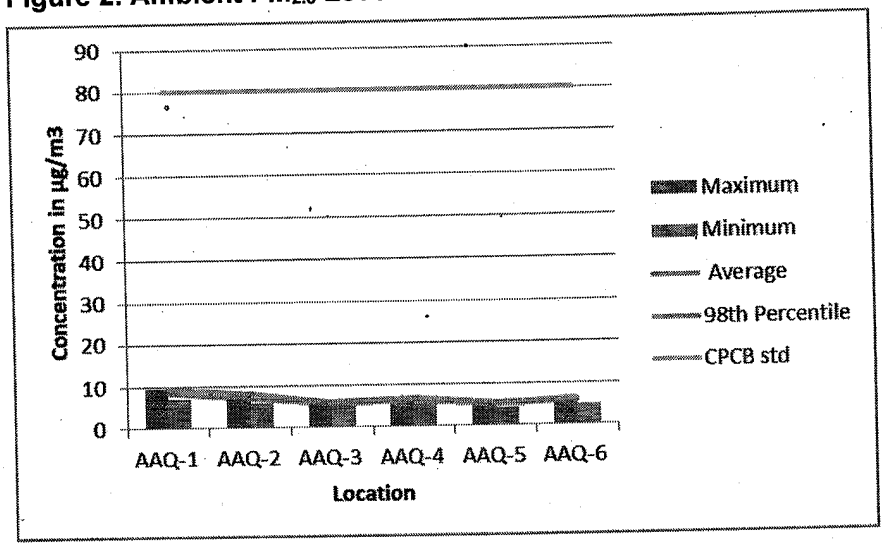


Figure 3: Ambient SO_2 Levels

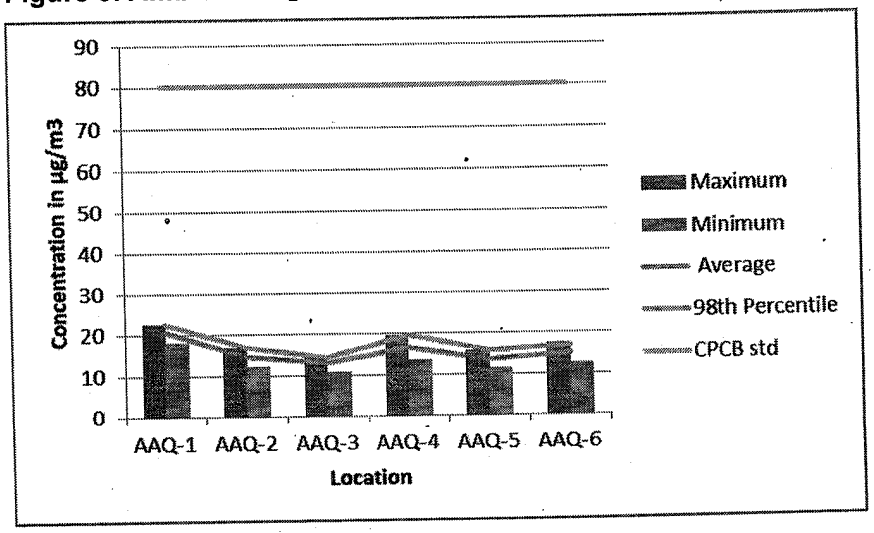


Figure 4: Ambient NO_2 Levels

1.1.3 Observations and Interpretation

Maximum concentrations of Sulphur Dioxide (SO_2), Nitrogen Dioxide (NO_2), Particulate Matter ($PM_{2.5}$), Particulate Matter (PM_{10}), Carbon Monoxide (CO), Ozone (O_3), Ammonia (NH_3), Lead (Pb), Benzene (C_6H_6), Benzo (a) Pyrene (BaP) – Particulate phase only, Arsenic (As), Nickel (Ni), are well within the National Ambient Air Quality Standards for Residential areas at all monitoring locations during the study period.

- PM_{10} ranged between 22.7 µg/m^3 and 56.9 µg/m^3. NAAQ stipulated standard for PM_{10} for 24 hr. average is 100 µg/m^3.
- $PM_{2.5}$ ranged between 11 µg/m^3 and 27.8 µg/m^3. NAAQ stipulated standard for $PM_{2.5}$ for 24 hr. average is 60 µg/m^3.
- SO_2 ranged between 4.3 µg/m^3 and 9.6 µg/m^3. NAAQ stipulated standard for SO_2 for 24 hr. average is 80 µg/m^3.
- NO_2 ranged between 10.8µg/m^3 and 22.6 µg/m^3. NAAQ stipulated standard for NO_2 for 24 hr. average is 80 µg/m^3.
- O_3, CO, NH_3, Pb, C_6H_6, BaP, As, and Ni were observed below CPCB limits in all the locations.

1.1.3.1 Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, ambient air quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Station code	Location	Max/Min	$PM_{2.5}$ µg/m^3	PM_{10} µg/m^3	SO_2 µg/m^3	NO_2 µg/m^3	CO µg/m^3
A1	Project Site	Minimum	36	64.1	10.2	19.9	0.01
		Maximum	47	73.5	17.5	27	0.16
A2	Honnavar Village	Minimum	36.6	64.4	12.1	19.1	0.03
		Maximum	44.2	73.2	16.7	27.7	0.13
A3	Shanthi Nagar	Minimum	28.5	67.4	11.3	24.7	0.01
		Maximum	39.6	74.5	16.9	33.9	0.17
A4	Khariveri village	Minimum	32.5	62.1	12.2	24.7	0.01
		Maximum	43.5	72	17.2	29.8	0.15
A5	Kaladanape village	Minimum	32.4	64.6	11.3	22.2	0.02
		Maximum	42.6	72	16.2	27	0.15
A6	Hosapattana Village	Minimum	31	62	10	21.6	0.01
		Maximum	40.5	73.3	15.7	29.3	0.12
A8	Nachageri village	Minimum	30.2	63.3	11.6	20.5	0.01
		Maximum	41.2	72.7	16.3	29.9	0.12
A9	Haldipur village	Minimum	32.2	63.7	11.4	17	0.01
		Maximum	40.2	73.4	15.1	21.9	0.16

1.2 Ambient Noise Levels

Ambient noise levels have been established by monitoring noise levels at six (06) locations in the study area during study period using precision noise level meter. The noise monitoring locations in the study area were selected after giving due consideration to the various land use categories. Noise levels were recorded on an hourly basis for one complete day at each location using pre- calibrated noise levels. A combined map showing the Noise monitoring locations is given as **Figure FD0301** and the details of the sampling locations are given in **Table 2**.

Table 2: Baseline Noise Monitoring Locations

S. No.	Location Name	Distance	Azimuth Direction	Environmental Setting
1	Honnavar Near Port Office	1.8 km	SE	Residential Area
2	Kasarkod Village Near Sub Station	4.2 km	SE	Residential Area
3	Karki Village, Havyka Sabha Bhavan	0.9 km	E	Residential Area
4	Ramtirth Village, Near RTO Office	3.0 km	E	Residential Area
5	Kulkod Village, Near Govt School	4.3 km	E	Residential Area
6	Hosad Village, Near Primary School	7.0 km	SE	Residential Area

1.2.1 Results and Discussion

Based on the recorded hourly noise levels at each monitoring location, the day equivalent (Ld) and night equivalent (Ln) were calculated,

- L_d: Average noise levels between 46.6 to 58.5 dB(A) 6:00 hours to 22.00 hours.
- L_n: Average noise levels between 36.5 to 46.5 dB(A) 22:00 hours to 6.00 hours.

The Day-Night (L_{dn}) equivalent noise levels were calculated using the US Environmental Protection Agency formula:

$$L_{dn} = 10 \text{ Log } [0.0416 \{16 (10L_d/10) + 8 (10L_n+10/10)\}]$$

The comparison of day equivalent noise levels (Ld) and night equivalent noise levels (Ln) with the respective CPCB stipulated noise standards for various land use categories are shown in the **Figure 5.** The summary of the results are given in **Table 3.**

Table 3: Ambient Noise Monitoring Results Summary

S. No	Location	Environmental Setting	L_d	CPCB Standard Ld	L_n	CPCB Standard Ln
NQ1	Honnavar, Near Sharavathi Circle	Residential Area	58.5	55	46.5	45
NQ2	Kasarkod, Near Primary school	Residential Area	48.6	55	38.6	45
NQ3	Karki, Near Primary School	Residential Area	49.8	55	40.7	45
NQ4	Ramtirth, Near RTO Office	Residential Area	50.8	55	41.4	45
NQ5	Kulkod, Near Church	Residential Area	47.5	55	37.6	45
NQ6	Hosad, Near Bus Stop	Residential Area	43.8	55	36.5	45

1.2.2 Observations

It is observed that day and night-time equivalent noise levels at all locations are within NAAQS standards for Industrial, residential and silent zones.

- Day equivalent noise levels (Ld) ranged between 43.8 to 58.5 dB(A)
- Night equivalent noise levels (Ln) ranged between 36.5 to 46.5 dB(A)
- Noise levels are slightly high in the project site due to the traffic and construction activities.

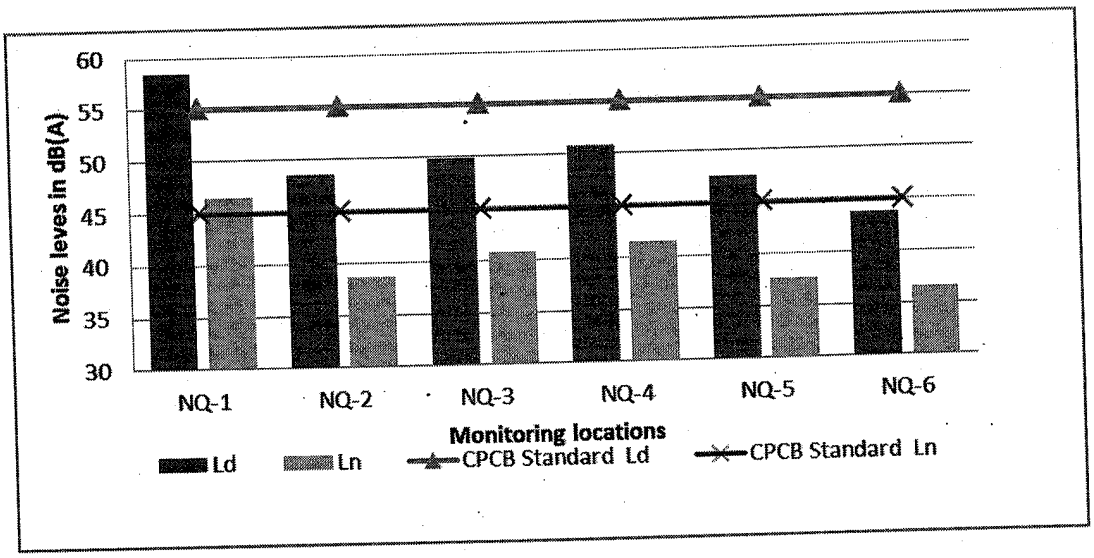


Figure 5: Noise Monitoring Results

1.2.2.1 Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, noise quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

- Ambient Noise levels during the day ranged between 44.1 to 54.7 dB(A)

Noise monitoring results reveal ambient noise levels are well within the limits as per CPCB standards.

1.3 Inland Surface and Ground Water Quality

The baseline status of water quality has been assessed through the identification of water resources and appropriate sampling locations for surface and groundwater in the study area. The water samples were collected once during the study period and were analysed for physical, chemical and bacteriological parameters. Standard methods prescribed for sampling and analysis were adopted. Sampling protocol was based on the hydrogeological conditions of the region and also based on the competitive usage of the respective water source from which the sample has been collected.

1.3.1 Ground Water Quality

Total Six (03) ground water monitoring locations were identified for assessment in different villages around the project site based on the usage of ground water by the settlements/ villages in the study area. The groundwater results are compared with the desirable and permissible water quality standards as per IS: 10500 (2012) (as amended) for drinking water. Groundwater quality monitoring locations are given in **Table 4**.

Table 4: Groundwater Monitoring Locations

S. No.	Location Name	Co-Ordinates	
		Latitude	Longitude
1	Honnavar, Near Coastal Police Station	14°16'37"N	74°26'25" E
2	Kasarkod, Near Ganesh Mandir	14°14'58"N	74°26'51" E
3	Karki, Near Bus Stop	14°17'46"N	74°26'12" E

1.3.1.1 Results and Discussion

Summary of the results are given below.

- Temperature ranged between 25.6 to 26.4°C.
- pH ranged between 6.86 to 7.3.
- Salinity ranged between 0.02 to 0.07 ppt.
- Electrical Conductivity (EC) ranged between 66 to 286 µs/cm
- BOD ranged less than 02 mg/l at all locations
- COD ranged less than 04 mg/l at all locations
- DO ranged less than 01 mg/l at all locations
- Residual free chlorine varied less than 0.02 mg/l at all locations.
- Total dissolved solids ranged between 43 mg/l to 186 mg/l
- Total alkalinity (as $CaCO_3$) varied between 10 mg/l to 60 mg/l
- Total hardness (as $CaCO_3$) ranged between 10 mg/l to 80 mg/l
- Calcium ranged between 02 mg/l to 20 mg/l.
- Chlorides (as Cl^-) ranged between 10 mg/l to 40 mg/l
- Fluorides as (F^-) ranged less than 0.1 to 0.5 mg/l at all locations.
- Sulphates as (SO_4) ranged between 6.6 to 20.8 mg/l.
- Nitrates value ranged between 1.2 to 5 mg/l.
- Manganese (Mn), Zinc as (Zn), Cadmium (Cd), Arsenic (As), Mercury (Hg), Total Chromium (Cr), Phenol Compounds, Cyanide (CN) found to be below 0.001 mg/l at all the locations.
- Coliforms not detected at any of the locations. Faecal Coliforms were below 2 MPN/ml in all the water samples.

It is observed that all ground water sample collected within the study area are well within the permissible limits of drinking water standards IS 10500:2012 (as amended).

1.3.1.2 Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, surface water quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Test Parameters	Unit	max	min
Colour Hazen Units	Hazen	<5	--
Odour	---	Agreeable	Agreeable
Conductivity	µs/c	1467	893
pH Value	---	7.38	6.89
Turbidity	NTU	<1	-
Total Dissolved Solids	mg/L	935	572
Chloride as Cl	mg/L	220	110
Total Hardness as $CaCO_3$	mg/L	520	290
Calcium as Ca	mg/L	124.2	76.1
Magnesium as Mg	mg/L	51	24.3
Sulphate as SO_4	mg/L	34.8	11.6
Fluoride as F	mg/L	0.7	0.3
Total Alkalinity as $CaCO_3$	mg/L	360	140
Total Alkalinity as $CaCO_3$	mg/L	360	140
Nitrate as NO_3	mg/L	6.1	4.2
Iron as Fe	mg/L	<0.1	-

Test Parameters	Unit	max	min
Total Coliform, MPN/100ml	mg/L	Not Detected	Not Detected
E. Coli, MPN/100ml	mg/L	Not Detected	Not Detected

1.3.2 Surface Water Quality

Three (03) surface water monitoring locations were identified for assessment in different villages around the project site based on the usage of surface water by the settlements/ villages in the study area.

Water sample analysis with respect to physico-chemical, nutrient demand and bacteriological parameters having relevance to public health and aesthetic significance are selected to assess the water quality status with special attention. Standard methods prescribed for surface sampling and analysis were adopted.

Descriptions of sampling locations are given in **Table 5**.

Table 5: Surface Water Monitoring Locations

S. No.	Code	Location Name	Co-Ordinates	
			Latitude	Longitude
1	SW-1	Sharavati River Near Honavar	14°16'34"N	74°26'24" E
2	SW-2	Badgane River Near Pavinkurve	14°15'53"N	74°29'15" E
3	SW-3	Sharavati River Near Hosad	14°20'25"N	74°25'10" E

1.3.2.1 Results and Discussion

The summary of the results are given below.

- Temperature ranged between25 to 26.1°C.
- pH ranged between 6.88 to 6.75 indicating the surface waters are neutral to slightly acidic in nature
- Electrical Conductivity (EC) ranged between 80 to 128 µs/cm
- Total Dissolved Solids (TDS) ranged between 52 to 84 mg/l
- Total Solids (TDS) ranged between 52 to 84 mg/l
- Turbidity ranged between 13.5 to 22.8 mg/l
- Total Hardness (as $CaCO_3$) ranged between 20 to 30 mg/l
- Total Alkalinity (as $CaCO_3$) ranged between 10 to 30 mg/l
- Calcium ranged between 4 to 8 mg/l
- Magnesium ranged 2.4 mg/l at all locations.
- Chlorides ranged between 10 to 15 mg/l
- Sulphates ranged between 8.5 to 14.3 mg/l
- Nitrates ranged between 2.5 to 3.7 mg/l
- BOD ranged between 5 to 6 mg/l
- COD ranged between 20 to 30 mg/l
- Dissolved Oxygen (DO) ranged between 4 to 4.8 mg/l
- Mercury (Hg), Zinc (Zn) Lead (Pb) Arsenic (As), Cadmium (Cd) is <0.01 mg/l at all locations
- Total Coliforms recorded were 130 to 210 MPN/100 ml
- Faecal Coliforms recorded were 20 to 30 MPN/100 ml

As per CPCB classification, the samples fall under classification C (Drinking water source after conventional treatment and disinfection)

1.3.2.2 Secondary Data Analysis

To understand the surrounding environment in a comprehensive manner, surface water quality secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Test Parameters	Unit	SW1	SW2
Colour	Hazen	25	30
Odour	....	Disagreeable	Disagreeable
Conductivity, µs/cm	...	921	2840
pH Value	...'	7.86	7.71
Turbidity	NTU	21.4	22.4
Total Dissolved Solids	mg/L	597	1980
Chloride as Cl	mg/L	120	500
Total Hardness as $CaCO_3$	mg/L	210	580
Calcium as Ca,	mg/L	56.1	160
Magnesium as Mg	mg/L	17	84
Sulphate as SO_4	mg/L	15.9	351.4
Fluoride as F	mg/L	0.3	1.1
Total Alkalinity as $CaCO_3$	mg/L	220	290
Nitrate as NO_3	mg/L	4.1	12.1
Iron as Fe	mg/L	<0.1	0.3
Dissolved Oxygen	mg/L	3.4	4.2
Total Coli form,	MPN/100ml	12	60
E. Coli, MPN/100ml	MPN/100ml	<1	<1

1.4 Soil Quality Monitoring

Soil plays a vital role in EIA study because disturbance in the soil will leads to deterioration of other components of environment such as air, water quality and health. It is essential to determine the potential of soil in the area and identify the current impacts of urbanization on soil quality and also predict impacts due to the proposed construction. Accordingly, a study of assessment of baseline soil quality carried out.

The Baseline monitoring for soil quality has been conducted during the study period at 5 locations. The soil collection was carried out once during the study period based on which the Physio-Chemical were analysed. The soil quality monitoring locations are given in **Table 6**.

Table 6: Soil Quality Monitoring Locations

S. No.	Code	Location Name	Co-Ordinates	
			Latitude	Longitude
1	S-1	Project Site	14°16'55"N	74°25'34" E
2	S-2	Honnavar, Near fish Market	14°16'36"N	74°26'25" E
3	S-3	Kasarkod, Near Ganesh Temple	14°14'50"N	74°26'53" E
4	S-4	Karki, Near sharadha Hospital	14°17'58"N	74°26'03" E
5	S-5	Apsarakonda, Near Beach	14°14'17"N	74°26'34" E

1.4.1.1 Results and Discussion

The summary of the results are given below:

- Sand -40-60% and Silt – 16-28%, Clay 22-35% at monitored locations
- pH of soil ranged between 6.5 and 7.12 showing slightly acidic to slightly alkaline nature
- Electrical Conductivity varied between 126 µs/cm and 176 µs/cm.
- Water holding capacity varied between 2.3 inch/foot and 5.8 inch/foot
- Infiltration rate varied between 15.2 mm/hr and 20.5 mm/hr
- Bulk density varied between 1.5 gm/cc and 2.62 gm/cc
- Permeability varied between 3.2 and 4.2 cm/hr
- Porosity varied between 0.36 % and 0.52%
- Organic Matter varied between 0.64 % and 1.1 %
- Organic Carbon varied between 0.36 % and 0.64 %
- Zinc (Zn) varied between 0.32 mg/kg and 0.92 mg/kg
- Copper (Cu) varied between 0.08 mg/kg and 0.16 mg/kg
- Iron as Fe varied between 0.48 mg/kg and 0.64 mg/kg
- Sodium Absorption Ratio SAR ranged between 1.05 and 1.46 meq/kg
- Available Nitrogen varied between 398 mg/kg and 454mg/kg
- Available Phosphorus as P varied between 126 mg/kg and 185 mg/kg
- Available Potassium as K varied between 75 mg/kg and 91 mg/kg
- Nickel as Ni, Manganese as Mn, Chromium as Cr ranged below 1mg/kg

1.4.1.2 Secondary data analysis

To understand the surrounding environment in a comprehensive manner, soil quality-secondary data comparison is assessed from the baseline data of "EIA/EMP for Proposed Four Laning of Honnavar Port connectivity road from km 0.00 (Kasarkod side of Honnavar port) to Km 2.580 (towards NH – 66) connecting Honnavar Port with NH - 66 at Km 195.986 and to improve NH – 66 from Km 195.00 to Km 197.00" which was collected during post-monsoon season 2022.

Test Parameters	units	Max	Min
Coarse Sand	%	17	10.5
Fine San	%	25.8	22.5
Silt	%	28.9	24.5
Clay	%	36.6	32.7
Cation Exchange capacity	Mg/kg	29.5	24.3
pH (1 : 2.5)	-	7.58	7.12
Electrical Conductivity (1 : 2.5)	µs/cm	186	119
Organic Matter	%	1.56	1.2
Nitrogen as N	Kg/ha	91.4	75.9
Phosphorous as P	Kg/ha	37.4	30.3
Potassiumas K	Kg/ha	35.2	28.6
Calcium as Ca	mg/kg	29.6	25.4
Chloride as Cl	mg/kg	89	72.9
Moisture Content	%	10.8	8.4
Magnesium as Mg	mg/kg	17.2	12.8
Sulphates as SO4	mg/100g	14.7	12.1
Zinc as Zn	mg/kg	5.5	3.8

1.5 Marine Environment

The Marine sampling locations were carried out at 14 locations including estuarine area of Sharavati River.

S. No	Location Code	Latitude	Longitude	Depth (m)
1	MSL-1	14°16.890'N	74°25.917'E	2.3
2	MSL-2	14°17.571'N	74°25.649'E	2.5
3	MSL-3	14°18.008'N	74°25.500'E	2.0
4	MSL-4	14°18.595'N	74°24.668'E	5.5
5	MSL-5	14°18.079'N	74°24.929'E	4.5
6	MSL-6	14°17.409'N	74°25.027'E	5.0
7	MSL-7	14°16.748'N	74°25.312'E	5.5
8	MSL-8	14°16.954'N	74°24.605'E	8.0
9	MSL-9	14°16.348'N	74°23.751'E	11.5
10	MSL-10	14°15.447'N	74°22.397'E	16.5
11	MSL-11	14°16.564'N	74°20.142'E	20.0
12	MSL-12	14°18.652'N	74°21.830'E	13.5
13	MSL-13	14°18.193'N	74°23.359'E	10.0
14	MSL-14	14°17.842'N	74°24.4016'E	8.2

1.5.1 Sea/Harbour Water Quality

1.5.1.1 Physico-Chemical Parameters

Temperature: The water temperature was recorded from 30.16°C to 31.88°C. The lowest water temperature was found in MSL-11 and the highest temperature was found MSL-1

Salinity: The salinity varied from 4.52 PSU to 35.39 PSU. The lowest salinity was found in MSL-1 and the highest salinity was found in MSL-4

Turbidity: The turbidity ranged from 0.84 NTU to 8.97 NTU (average: 2.23±1.55 NTU). The lowest turbidity was observed in MSL-11 and the highest turbidity was observedin MSL-5

Dissolved Oxygen: The dissolved oxygen varied from 4.43 to 8.34 mg/l (average: 6.98±0.98 mg/l). The lowest DO was found in MSL-11 (bottom) and the highest DO was found in MSL14

Biochemical oxygen demand: The BOD varied from 1.08 mg/l to 2.86 mg/l (average: 1.66±0.60 mg/l). The highest BOD was found in MSL-14. In two stations (MSL-10 and MSL-12)

The Results of Physico-chemical parameters of marine water is shown in the **Figure 6** to **Figure 7**.

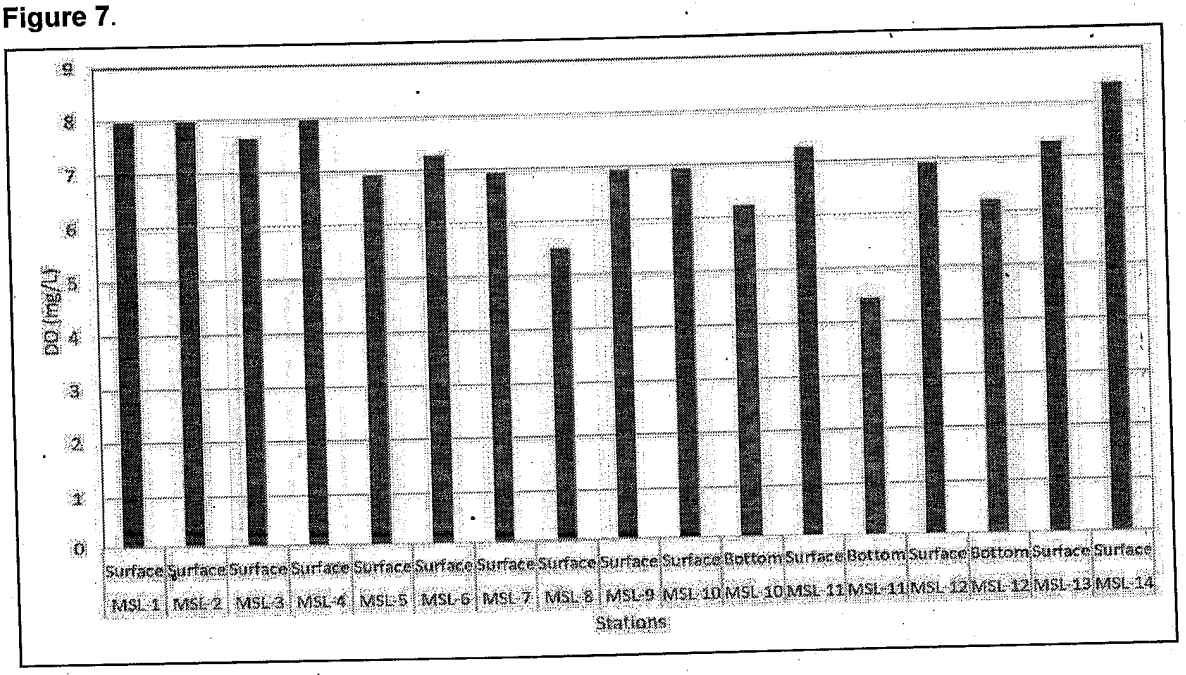


Figure 6: DO in the water samples of study locations

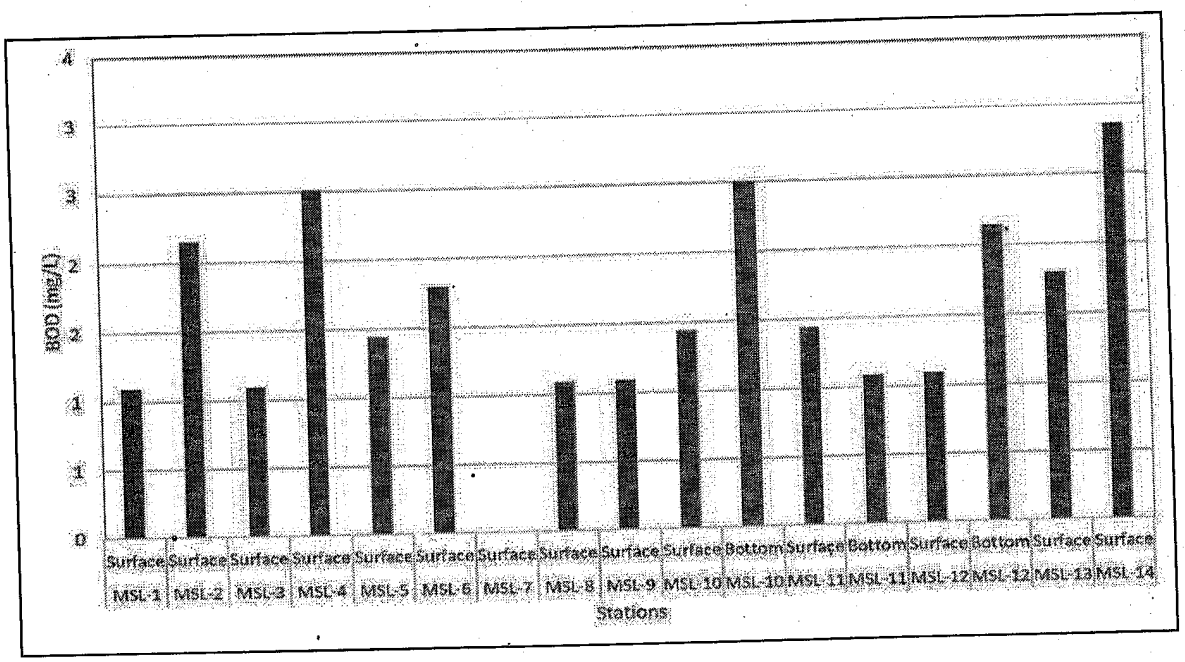


Figure 7: BOD in the water samples of study locations

1.5.1.2 Nutrients

Nitrate: Concentration of Nitrate ranged between 0 to 0.32 µmol/l, minimum was recorded in the MSL-7 and maximum was recorded in MSL-10

Nitrite: Concentration of Nitrite ranged between 0.01 to 0.06 µmol/l, minimum was recorded in the MSL-11 and maximum was recorded at MSL-9 & MSL-1

Total Phosphate: Concentration of total phosphate ranged between 0.14 to 0.45 µmol/l, where the minimum level was recorded in MSL-3 & MSL-2 and maximum was recorded in MSL-14.

Silicate: Concentration of Silicates ranged between 17.96 to 111.72 µmol/, minimum level was recorded in MSL-12 and maximum was recorded in MSL-1.

Ammonia: Concentration of Ammonia ranged between 0.71 to 2.07 µmol/l minimum level was recorded in MSL-3 and maximum was recorded in MSL-1.

The Results of Nutrients in marine water are shown from **Figure 8** to **Figure 12.**

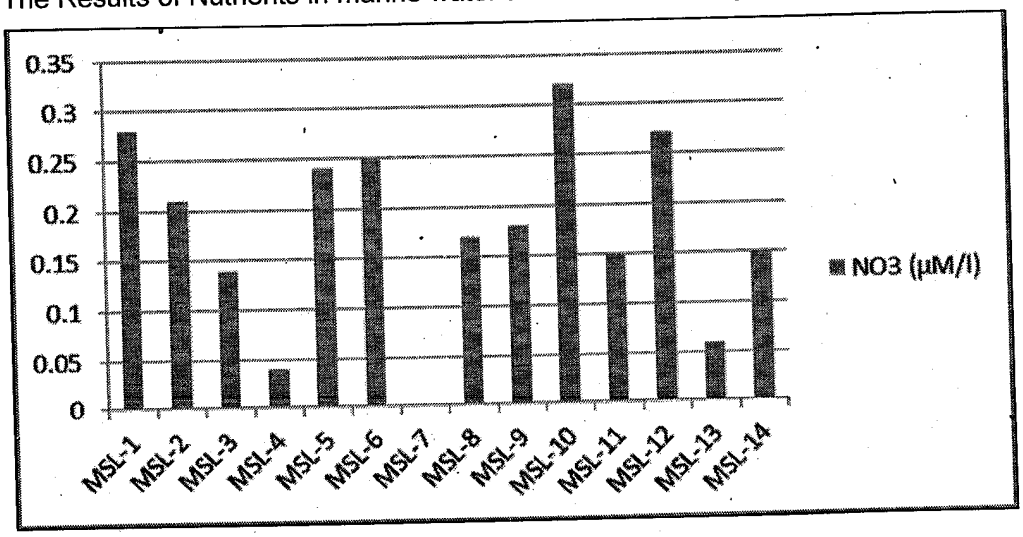


Figure 8: Nitrates in the study locations

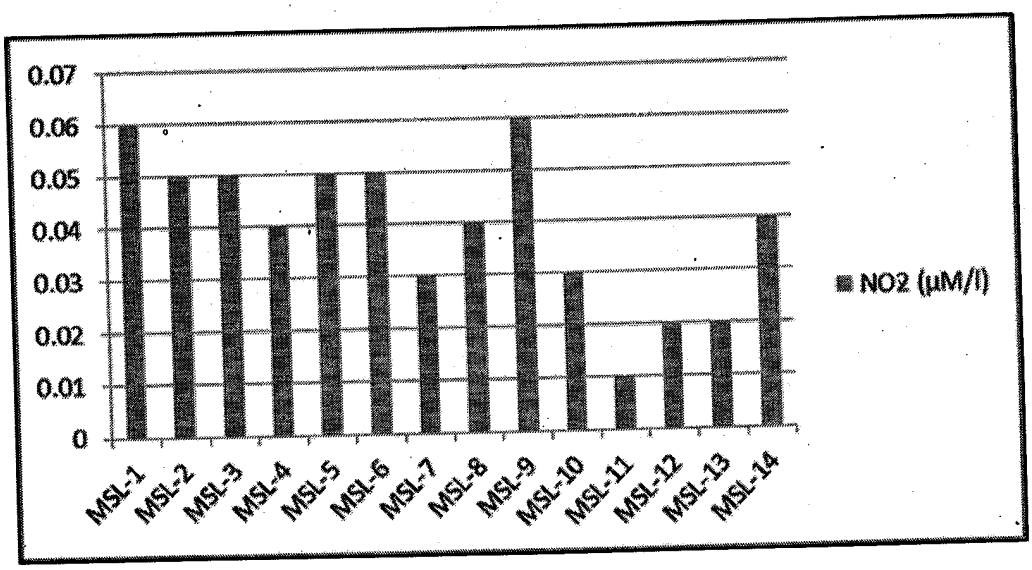


Figure 9: Nitrites in the water samples of study locations

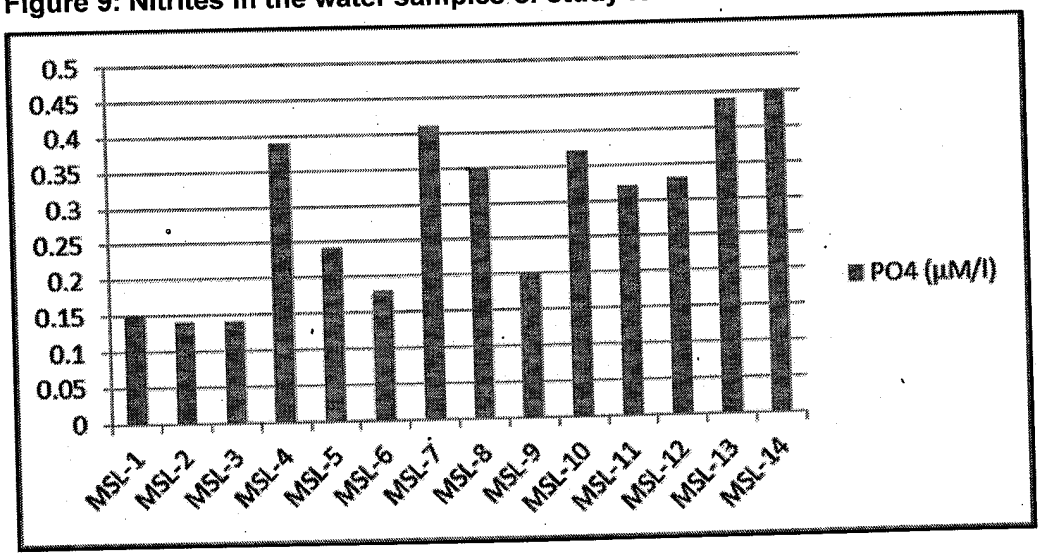


Figure 10: Total Phosphate in the study locations

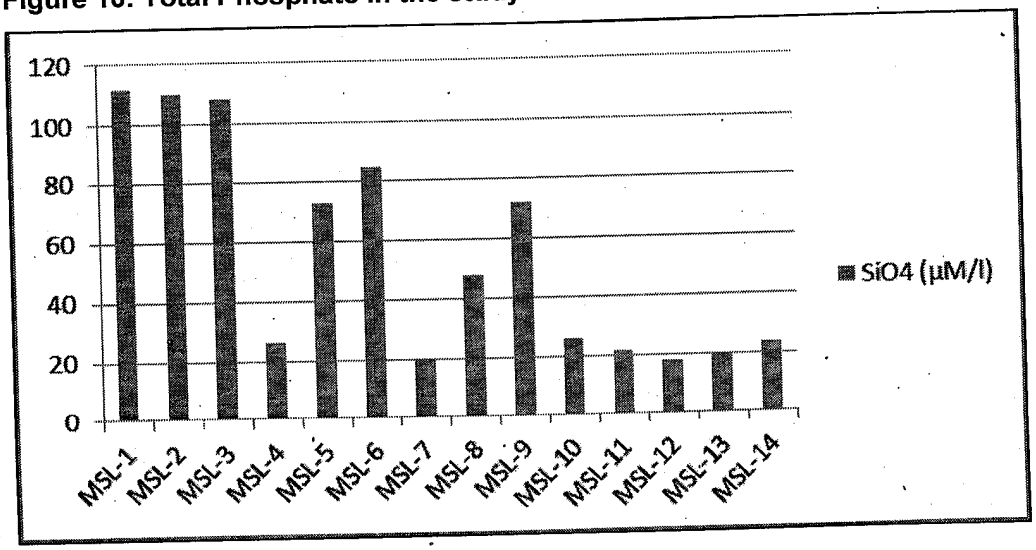


Figure 11: Silicates in the water samples of study locations

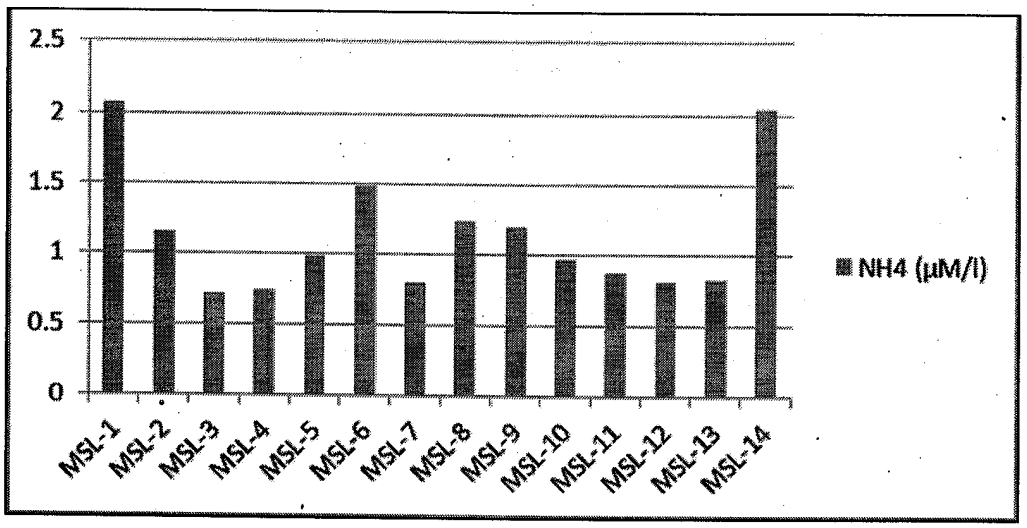


Figure 12: Ammonical Nitrogen in the study locations

1.5.2 Marine Sediment

The marine environment of the project region has been studied for the evaluation of baseline information and the existing marine environmental conditions around the site were established through collection and analysis of water and sediment samples in the project region.

The potential impacts due to the construction and operation of the proposed project components will be felt on the marine environment. Therefore, existing marine environmental conditions were monitored to establish the baseline status. This will remain as benchmark data for monitoring environmental impacts due to various project activities. The locations in the marine monitoring network were selected such that the existing baseline conditions in the area likely to be affected by the effect of potential environmental impacts of the project activities.

1.5.2.1 Physico-chemical parameters

Sediment texture analysis indicates that sand, silty sand and sandy silt and clay were observed in the study area. The sand fraction ranged from 0.02 to 97.44%, silt fraction ranged from 2.16% to 99.32 and clay fraction ranged from 0.08 to 1.69% as shown below.

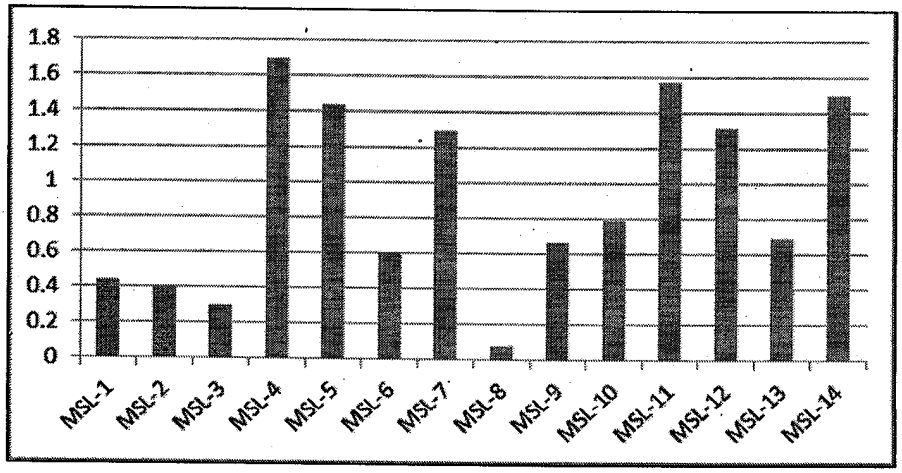


Figure 13: Clay concentration % in marine sediment

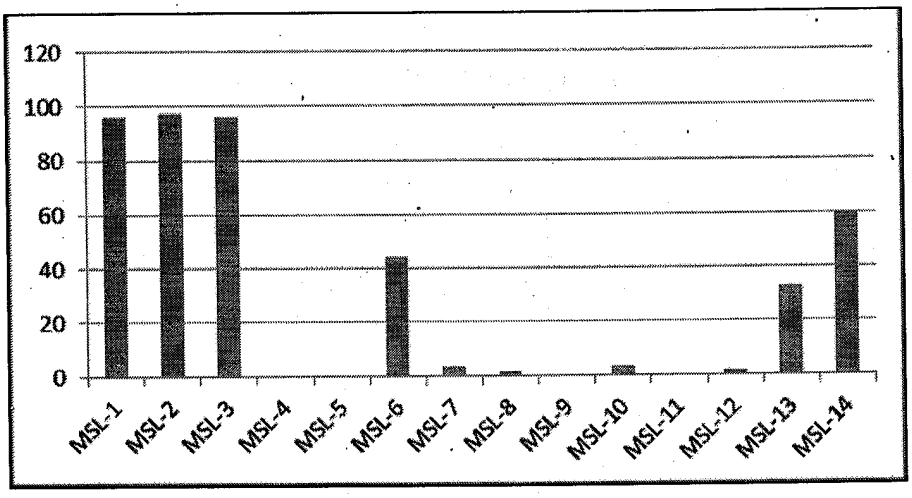


Figure 14: Sand concentration % in marine sediment

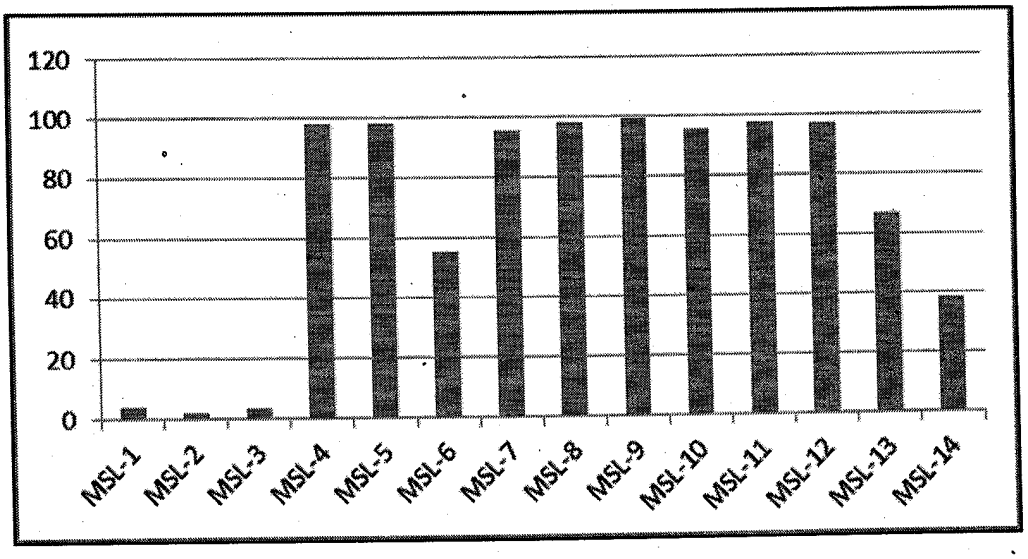


Figure 15: Silt concentration % in marine sediment

1.5.2.2 Trace Metals

Aluminium: Concentration of Al ranged 7.27 to 14.43 %, min at MSL-3 and Max at MSL-8 respectively.

Calcium: Concentration of Ca ranged 0.36 to 2.26 %, min at MSL-2 and Max at MSL-8 respectively.

Iron: Concentration of Fe ranged 0.6 to 6.35 %, min at MSL-2 and Max at MSL-8 respectively.

Magnesium: Concentration of Mg ranged 0.03 to 2.38 %, min at MSL-3 and Max at MSL-8 respectively.

The Results of Nutrients in marine sediment is shown from **Figure 16** to **Figure 19**

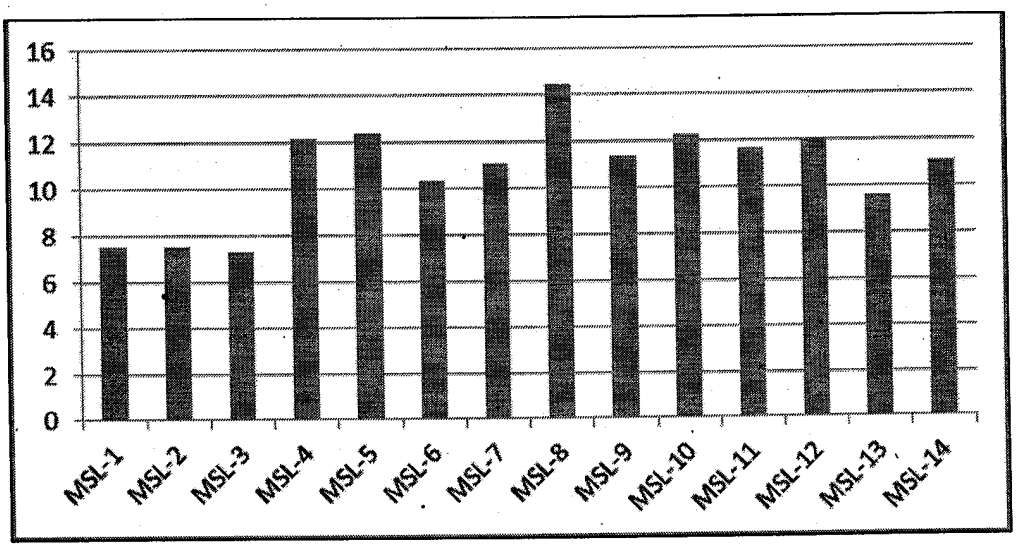


Figure 16: Aluminium % in the sediment samples of study locations

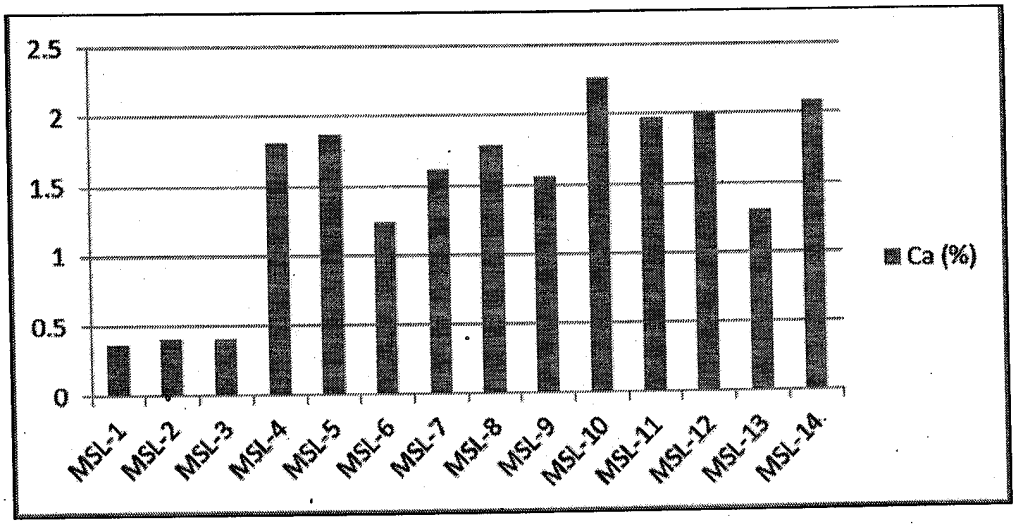


Figure 17: Calcium % in the sediment samples of study locations

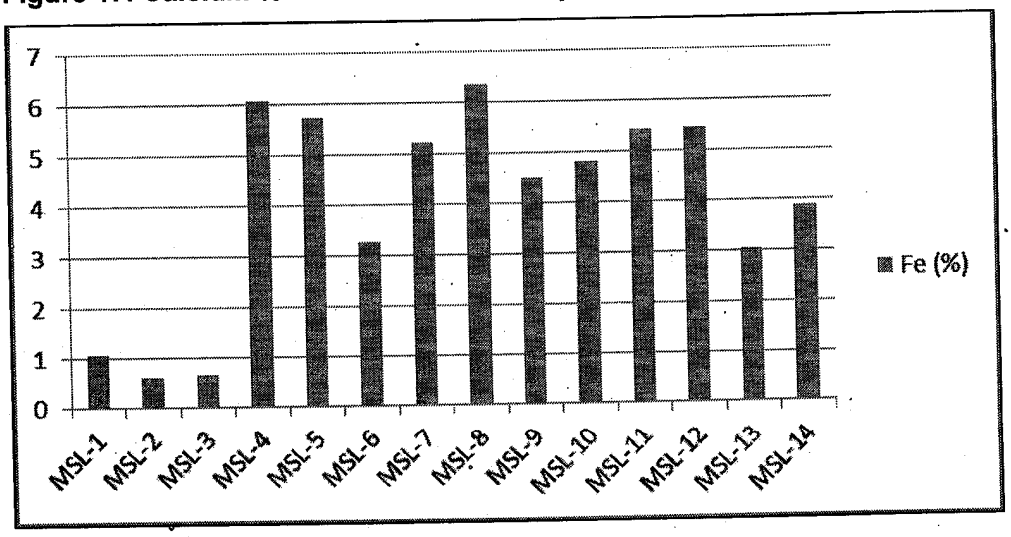


Figure 18: Fe % in sediment samples in the study locations

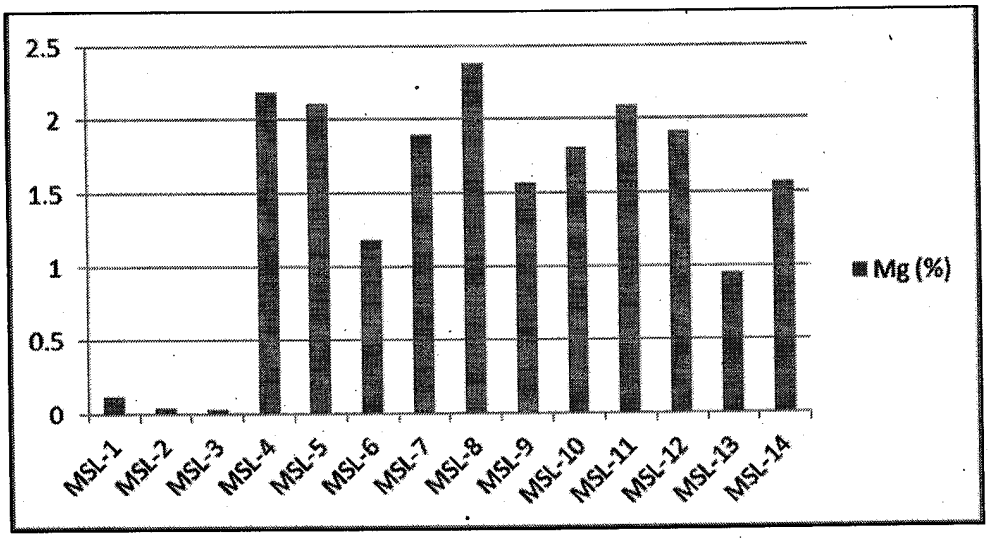


Figure 19: Magnesium % in the sediment samples of study locations

1.5.2.3 Heavy Metals

Mercury: Concentration of Hg ranged upto 0.05 µg/g at MSL-11.
Chromium: Concentration of Cr ranged 14.55 to 217.65 µg/g, min at MSL-2 and Max at MSL-8 respectively.
Zinc: Concentration of Zn ranged 21.8 to 115.9 µg/g, min at MSL-2 and Max at MSL-5 respectively.
Nickel: Concentration of Ni ranged 18.33 to 98.2 µg/g, min at MSL-2 and Max at MSL-8 respectively.
Copper: Concentration of Cu ranged 9.45 to 53.37 µg/g, min at MSL-2 and Max at MSL-8 respectively.
Cobalt: Concentration of Co ranged 0.78 to 22.38 µg/g, min at MSL-3 and Max at MSL-4 respectively
Lead: Concentration of Pb ranged 3.14 to 19.75 µg/g, min at MSL-2 and Max at MSL-8 respectively.
Arsenic: Concentration of As ranged 4.18 to 29.52 µg/g, min at MSL-2 and Max at MSL-4 respectively.
Cadmium: Concentration of As ranged 4.18 to 29.52 µg/g, min at MSL-2 and Max at MSL-4 respectively.
Manganese: Concentration of As ranged 4.18 to 29.52 µg/g, min at MSL-2 and Max at MSL-4 respectively.

The Results of Heavy Metals in marine sediment is shown from **Figure 20** to **Figure 27.**

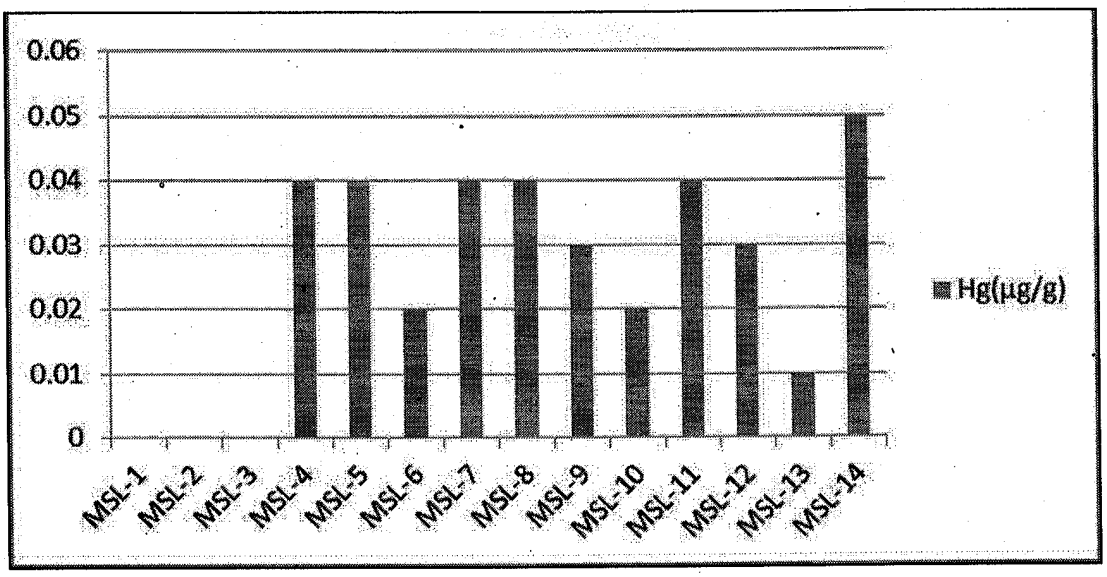


Figure 20: Mercury concentration in the Marine sediment

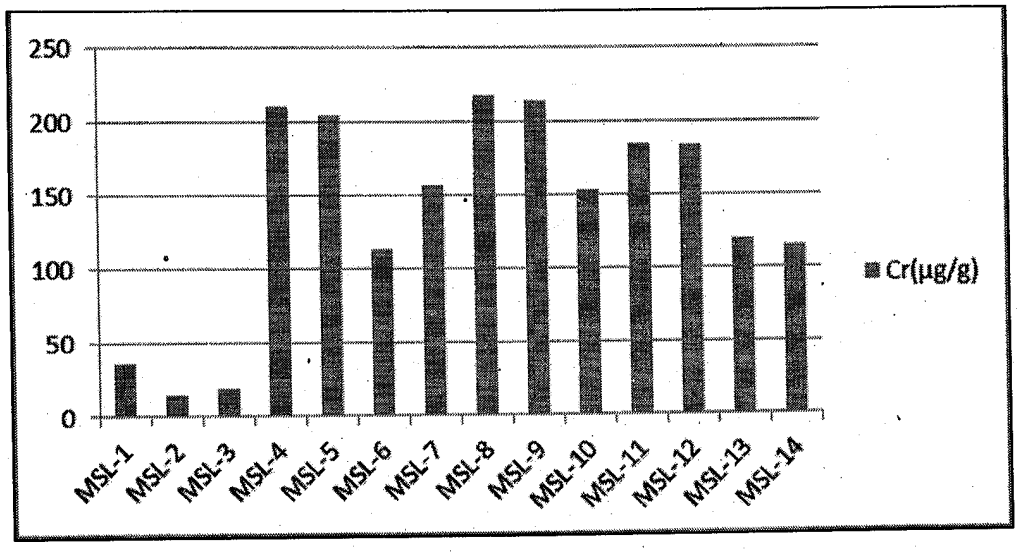


Figure 21: Chromium concentration in the Marine sediment

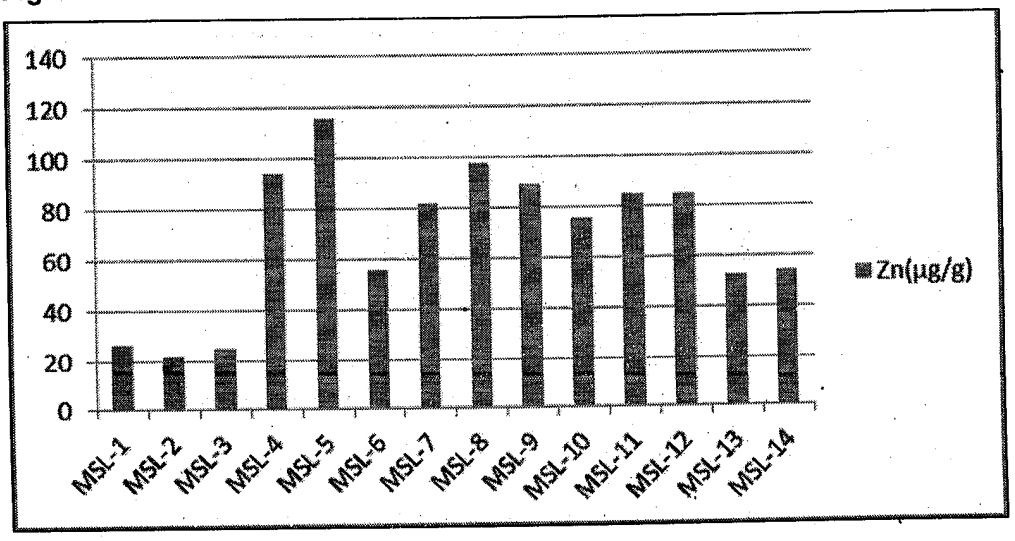


Figure 22: Zinc concentration in the Marine sediment

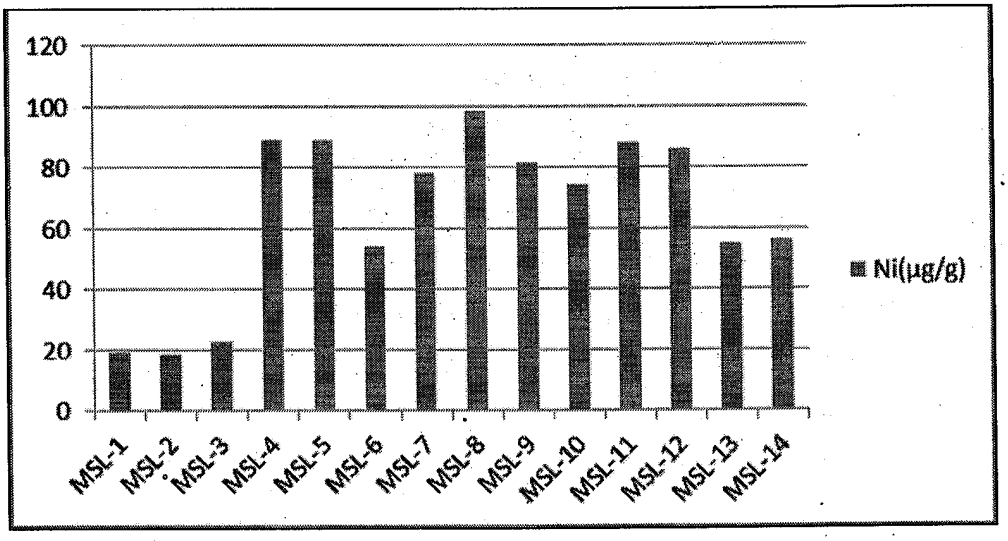


Figure 23: Nickel concentration in the Marine sediment

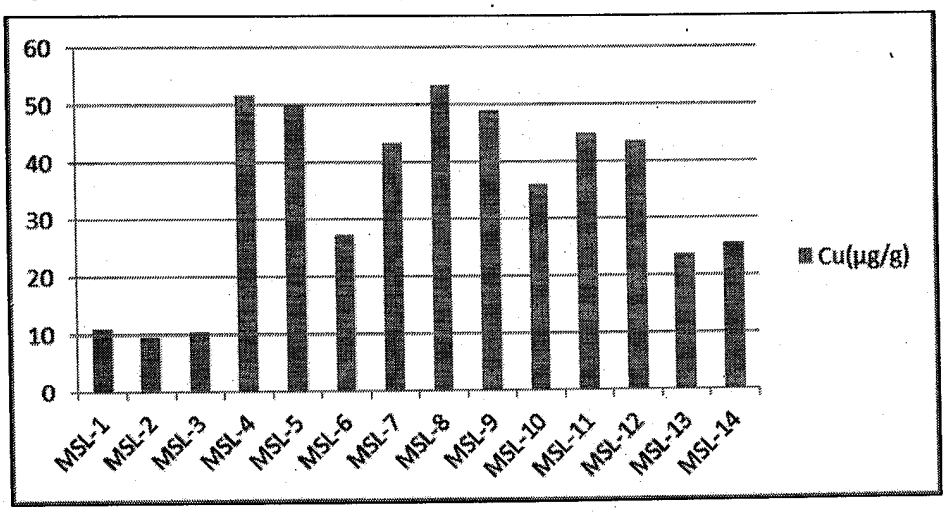


Figure 24: Copper concentration in the Marine sediment

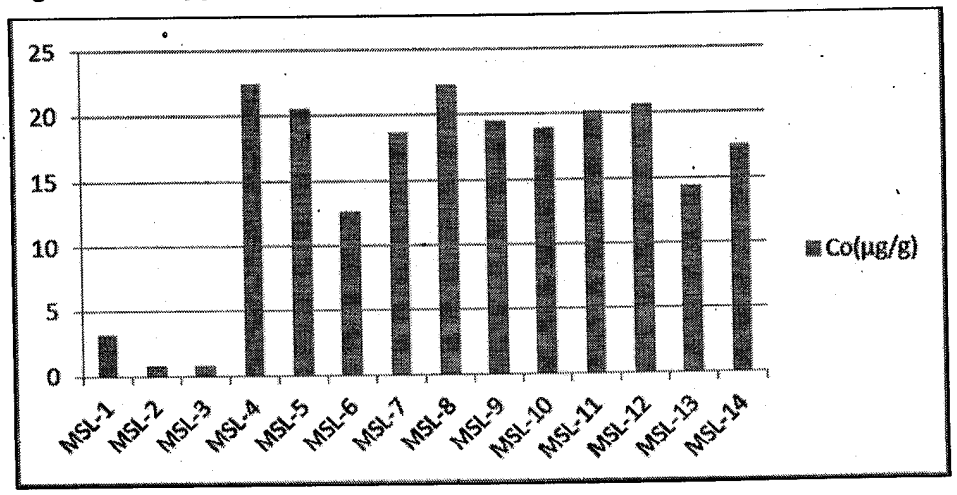


Figure 25: Cobalt concentration in the Marine sediment

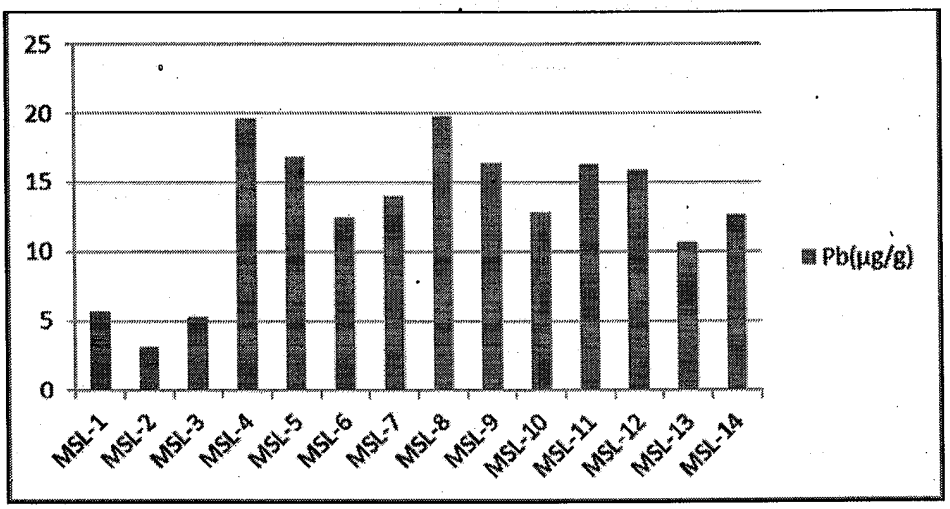


Figure 26: Lead concentration in the Marine sediment

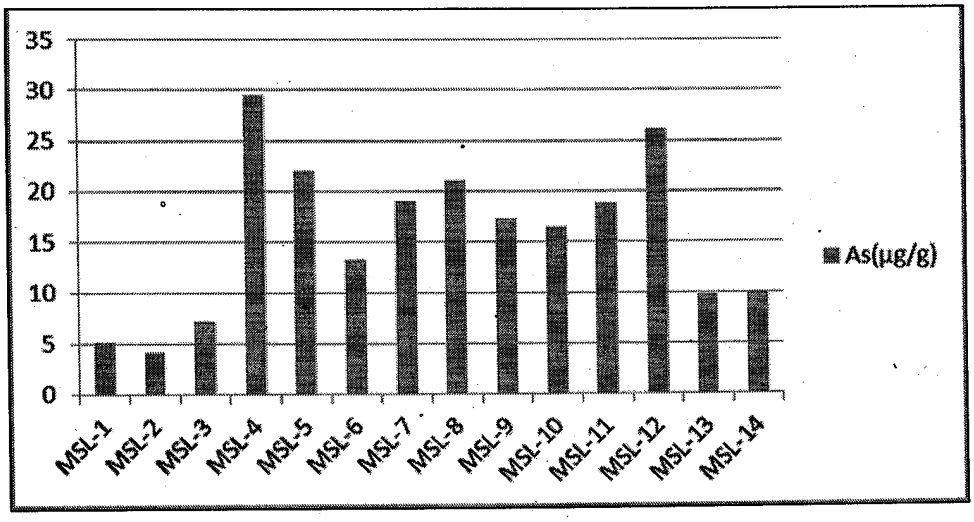


Figure 27: Arsenic concentration in the Marine sediment

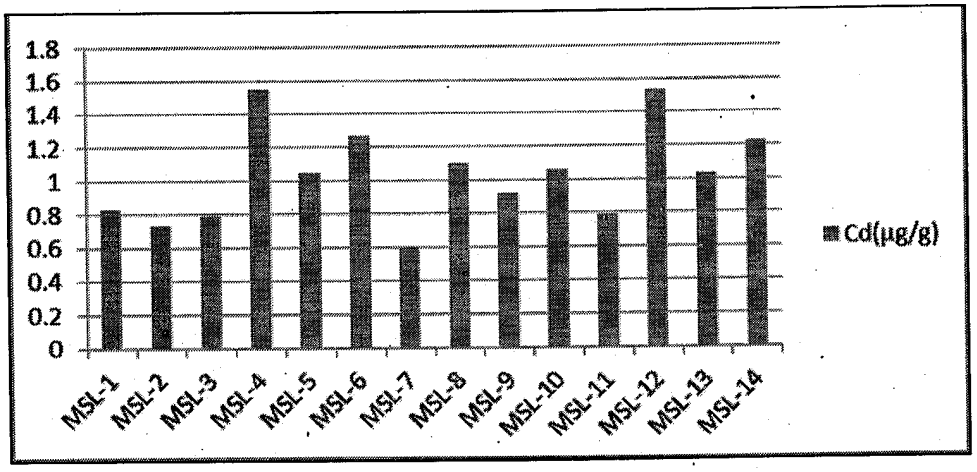


Figure 28: Cadmium concentration in the Marine sediment

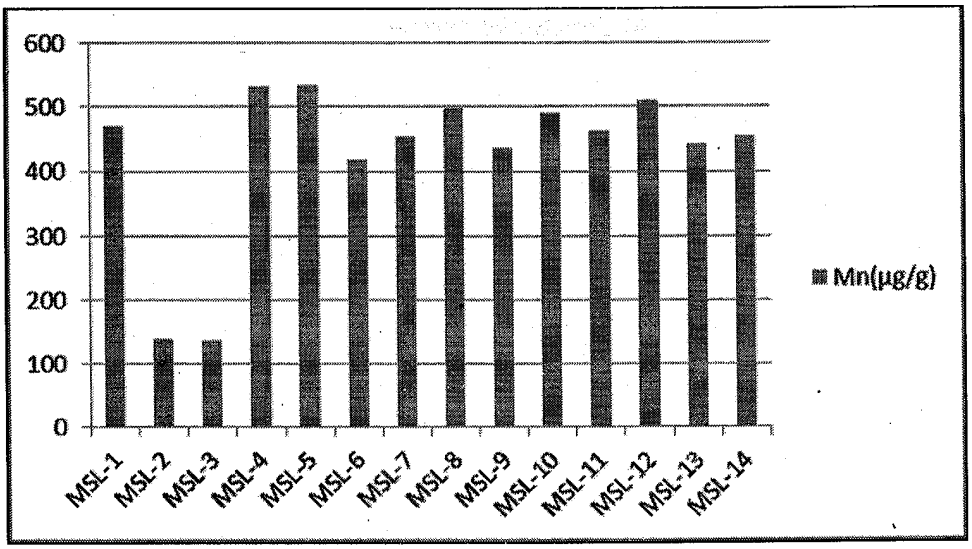


Figure 29: Manganese concentration in the Marine sediment

1.5.3 Marine Biology

1.5.3.1 Bacterial population

1.5.3.1.1 Total viable count of Bacteria

Total viable count of bacteria varied between 3 x 10^3 CFU 100mL^{-1} at MSL-13 and MSL-14 and 4 x 10^4 CFU 100mL^{-1} at MSL-5 as shown in following table.

Table 7: Total viable count of bacteria

Locations	Source	Total viable Count (CFU 100mL^{-1})
MSL-1	Surface Water	2 x 10^4
MSL-2	Surface Water	3 x 10^4
MSL-3	Surface Water	3.9 x 10^4
MSL-4	Surface Water	2 x 10^4
MSL-5	Surface Water	4 x 10^4
MSL-6	Surface Water	1.2 x 10^4
MSL-7	Surface Water	2 x 10^4
MSL-8	Surface Water	1.9 x 10^4
MSL-9	Surface Water	7 x 10^3
MSL-10	Surface Water	1.9 x 10^4
MSL-10	Bottom Water	5 x 10^3
MSL-11	Surface Water	1.3 x 10^4
MSL-11	Bottom Water	7 x 10^3
MSL-12	Surface Water	2.5 x 10^4
MSL-12	Bottom Water	6 x 10^3
MSL-13	Surface Water	3 x 10^3
MSL-14	Surface Water	3 x 10^3

1.5.3.1.2 Total E. coli and Other Coliforms Count

Total E. coli count of bacteria varied between 1 x 10^1 CFU 100mL^{-1} at MSL-3 and MSL-9 and 2 x 10^1 CFU 100mL^{-1} at MSL-6 and MSL-8 as shown in following table. No E. coli growth was observed in other marine sampling locations.

Other coliforms count varied between 3 x 10^1 CFU 100mL^{-1} at MSL-9 and 8.2 x 10^2 CFU 100mL^{-1} at MSL-3. No coliforms growth was detected in marine sampling locations MSL-4,

MSL-10, MSL-12, MSL-13 and MSL-14. At MSL-11, other coliforms were observed in surface water sample which were absent in bottom water.

Table 8: Total *E. coli* and Other Coliforms Count

Locations	Source	Total Count (CFU 100mL^{-1})	
		E. coli	Other Coliforms
MSL-1	Surface Water	Nil	1.4×10^2
MSL-2	Surface Water	Nil	3.7×10^2
MSL-3	Surface Water	1×10^1	8.2×10^2
MSL-4	Surface Water	Nil	Nil
MSL-5	Surface Water	Nil	2.6×10^2
MSL-6	Surface Water	2×10^1	2.6×10^2
MSL-7	Surface Water	Nil	1×10^2
MSL-8	Surface Water	2×10^1	4.3×10^2
MSL-9	Surface Water	1×10^1	3×10^1
MSL-10	Surface Water	Nil	Nil
MSL-10	Bottom Water	Nil	Nil
MSL-11	Surface Water	Nil	4×10^1
MSL-11	Bottom Water	Nil	Nil
MSL-12	Surface Water	Nil	Nil
MSL-12	Bottom Water	Nil	Nil
MSL-13	Surface Water	Nil	Nil
MSL-14	Surface Water	Nil	Nil

1.5.3.1.3 Total Faecal Coliforms Count

Total faecal coliforms count varied between 1×10^1 CFU 100mL^{-1} at MSL-9 and 7×10^1 CFU 100mL^{-1} at MSL-6 as shown in following table. Faecal coliforms growth was observed only at five marine sampling locations viz. MSL-2, MSL-3, MSL-6, MSL-8 and MSL-9

Table 9: Total Faecal Coliforms Count

Locations	Source	Total Faecal Coliforms Count (CFU 100mL^{-1})
MSL-1	Surface Water	Nil
MSL-2	Surface Water	4×10^1
MSL-3	Surface Water	3×10^1
MSL-4	Surface Water	Nil
MSL-5	Surface Water	Nil
MSL-6	Surface Water	7×10^1
MSL-7	Surface Water	Nil
MSL-8	Surface Water	5×10^1
MSL-9	Surface Water	1×10^1
MSL-10	Surface Water	Nil
MSL-10	Bottom Water	Nil
MSL-11	Surface Water	Nil
MSL-11	Bottom Water	Nil
MSL-12	Surface Water	Nil
MSL-12	Bottom Water	Nil
MSL-13	Surface Water	Nil
MSL-14	Surface Water	Nil

1.5.3.1.4 Total Vibrio Count

Total Vibrio count varied between 1×10^1 CFU 100mL^{-1} at MSL-12 and 5.2×10^3 CFU100 mL^{-1} at MSL-7 as shown below.

Table 10: Total *Vibrio* Count in water samples

Locations	Source	Total Vibrio Count (CFU 100mL^{-1})
MSL-1	Surface Water	6×10^1

Locations	Source	Total Vibrio Count (CFU 100mL^{-1})
MSL-2	Surface Water	1.6 x 10^2
MSL-3	Surface Water	1.18 x 10^3
MSL-4	Surface Water	5 x 10^1
MSL-5	Surface Water	9 x 10^2
MSL-6	Surface Water	5.9 x 10^2
MSL-7	Surface Water	5.2 x 10^3
MSL-8	Surface Water	8.4 x 10^2
MSL-9	Surface Water	2 x 10^1
MSL-10	Surface Water	4 x 10^1
MSL-10	Bottom Water	1.27 x 10^3
MSL-11	Surface Water	4.5 x 10^2
MSL-11	Bottom Water	6.2 x 10^2
MSL-12	Surface Water	1 x 10^1
MSL-12	Bottom Water	1.7 x 10^2
MSL-13	Surface Water	1.2 x 10^2
MSL-14	Surface Water	1.78 x 10^3

1.5.3.1.5 Total Pseudomonas Count

Pseudomonas growth was observed only at six marine sampling locations viz. MSL-1, MSL-5, MSL-8 (1 x 10^1 CFU 100mL-1), MSL-2 (3 x 10^1 CFU 100mL^{-1}), MSL-3 and MSL-6 (4 x 10^1 CFU 100mL^{-1}) as shown

Table 11: Total Pseudomonas Count in marine water samples

Locations	Source	Total *Pseudomonas* Count (CFU 100mL^{-1})
MSL-1	Surface Water	1 x 10^1
MSL-2	Surface Water	3 x 10^1
MSL-3	Surface Water	4 x 10^1
MSL-4	Surface Water	Nil
MSL-5	Surface Water	1 x 10^1
MSL-6	Surface Water	4 x 10^1
MSL-7	Surface Water	Nil
MSL-8	Surface Water	1 x 10^1
MSL-9	Surface Water	Nil
MSL-10	Surface Water	Nil
MSL-10	Bottom Water	Nil
MSL-11	Surface Water	Nil
MSL-11	Bottom Water	Nil
MSL-12	Surface Water	Nil
MSL-12	Bottom Water	Nil
MSL-13	Surface Water	Nil
MSL-14	Surface Water	Nil

1.5.3.1.6 Total Salmonella & Shigella Count

Salmonella growth was observed only at six marine sampling locations viz. MSL-2, MSL-5, MSL-6, MSL-8 (1 x 10^1 CFU 100mL^{-1}), MSL-7 (2 x 10^1 CFU 100mL^{-1}) and MSL-3 (9 x 10^1 CFU 100mL^{-1}) as shown in following table.

Total *Shigella* count varied between 1 x 10^1 CFU 100mL^{-1} at MSL-5, MSL-10 and MSL-12 and 1.36 x 10^3 CFU 100mL^{-1} at MSL-8 as shown in following table. No *Shigella* growth was observed at MSL-4, MSL-9 and MSL-13. At the same time, at MSL-10, MSL-11 and MSL-12 growth of *Shigella* was observed only in bottom water sample.

Table 12: Total Salmonella and Shigella Count in water samples

Locations	Source	Total Count (CFU 100mL^{-1})	
		Salmonella	*Shigella*
MSL-1	Surface Water	Nil	1.9×10^2
MSL-2	Surface Water	1×10^1	2.3×10^2
MSL-3	Surface Water	9×10^1	8.3×10^2
MSL-4	Surface Water	Nil	Nil
MSL-5	Surface Water	1×10^1	1×10^1
MSL-6	Surface Water	1×10^1	1.8×10^2
MSL-7	Surface Water	2×10^1	1.35×10^3
MSL-8	Surface Water	1×10^1	1.36×10^3
MSL-9	Surface Water	Nil	Nil
MSL-10	Surface Water	Nil	Nil
MSL-10	Bottom Water	Nil	1×10^1
MSL-11	Surface Water	Nil	Nil
MSL-11	Bottom Water	Nil	5.4×10^2
MSL-12	Surface Water	Nil	Nil
MSL-12	Bottom Water	Nil	1×10^1
MSL-13	Surface Water	Nil	Nil
MSL-14	Surface Water	Nil	5×10^1

1.5.3.2 Phytoplankton community structure and biomass

As total 34 genera of phytoplankton were observed in the water samples collected from the estuarine and coastal region of Honnavar in April 2024. The abundance was varied between 375 - 35100 cells/litre. The number species found in each sample had a range of 3-18. The Shannon diversity was ranged between 0.8-1.6. Out of 17 samples, 7 had high evenness (uniform abundance among species) and 10 samples had less evenness (dominance of few species). The biomass (chlorophyll-a) was ranged between 0.19 and 2.33 µg/L. Out of 34 genera observed, 15 were dominated by abundance (>5% contributed). Only 7 genera (Coscinodiscus spp., Pleurosigma spp., Ornithocercus spp., Trichodesmium spp., Leptocylindrus spp., Staurastrum spp., Skeletonema spp.) had >20% of cell abundance.

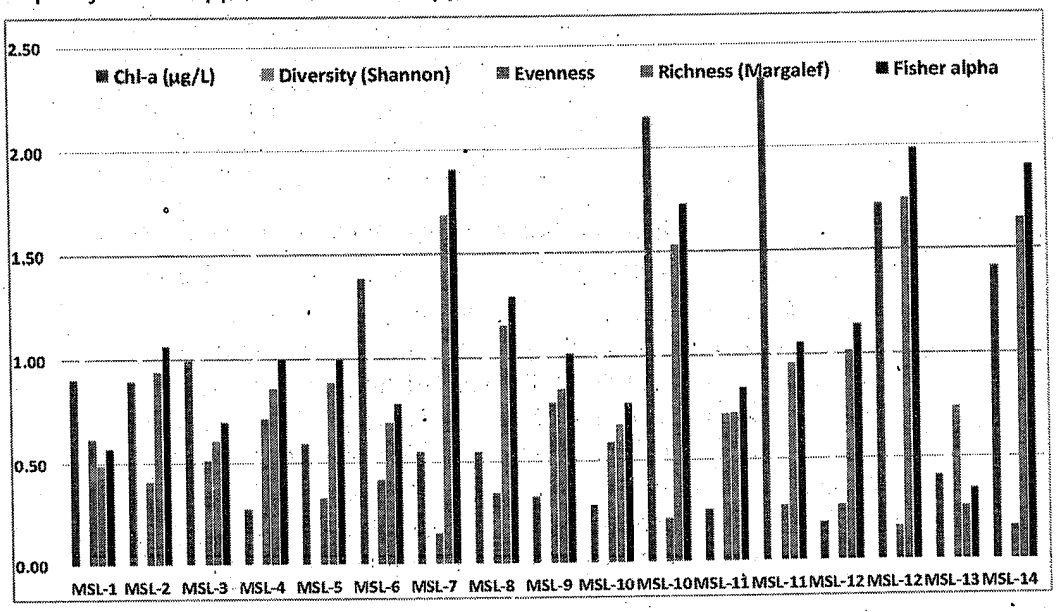


Figure 30: The graph shows the phytoplankton biomass (Chl-a) and different diversity indices at each location around Honnavar estuary and coastal region.

Note: The repeated labels in x-axis indicate the bottom water sample of same location

Table 13: The percentage contribution of dominant phytoplankton species (cell abundance > 5%) observed at different locations around Honnavar estuary and coastal region

% of phytoplankton	MS L-1	MS L-2	MS L-3	MS L-4	MS L-5	MS L-6	MS L-7	MS L-8	MS L-9	MS L-10	MS L-10	MS L-11	MS L-11	MS L-12	MS L-12	MS L-13	MS L-14
Coscinodiscus spp.	54.5	53	60.8	45.5	67.9	68.6	79.0	57.6	33.3	55.6	63.1	50.0	63.4	13.1	74.2	45.3	23.0
Pleurosigma spp.	-	-	6.3	-	-	-	-	-	6.7	-	8.1	15.4	24.8	-	-	-	-
Ornithocercus spp.	-	-	-	9.1	-	-	-	-	6.7	25.0	19.3	11.5	-	-	10.1	52.0	-
Rhizosolenia spp.	-	-	-	-	-	-	-	6.6	-	-	-	-	-	-	-	-	-
Nitzschia spp.	-	-	7.6	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Prorocentrum spp.	-	-	-	9.1	-	-	-	-	6.7	5.6	-	7.7	-	-	-	-	-
Chaetoceros spp.	-	-	-	-	-	-	-	-	-	-	-	11.5	-	-	-	-	-
Thalassiosira spp.	-	-	-	-	-	-	-	5.5	-	-	-	-	-	-	-	-	-
Protoperidinium spp.	-	-	-	-	-	-	-	-	-	5.6	-	-	-	-	-	-	-
Oscillatoria spp.	-	-	-	-	-	-	-	16.2	-	-	-	-	-	73.8	-	-	69.9
Leptocylindrus spp.	11.7	-	22.8	18.2	16.7	9.6	-	-	-	-	-	-	-	-	-	-	-
Staurastrum spp.	28.6	9.0	-	-	7.7	12.8	-	-	33.3	5.6	-	-	-	-	-	-	-
Skeletonema spp.	-	28.0	-	-	-	-	-	7.9	-	-	-	-	-	-	-	-	-
Pseudonitzschia spp.	-	-	-	-	-	-	-	-	13.3	-	-	-	-	-	-	-	-
Eucampia spp.	-	-	-	9.1	-	-	-	-	-	-	-	-	-	-	-	-	-

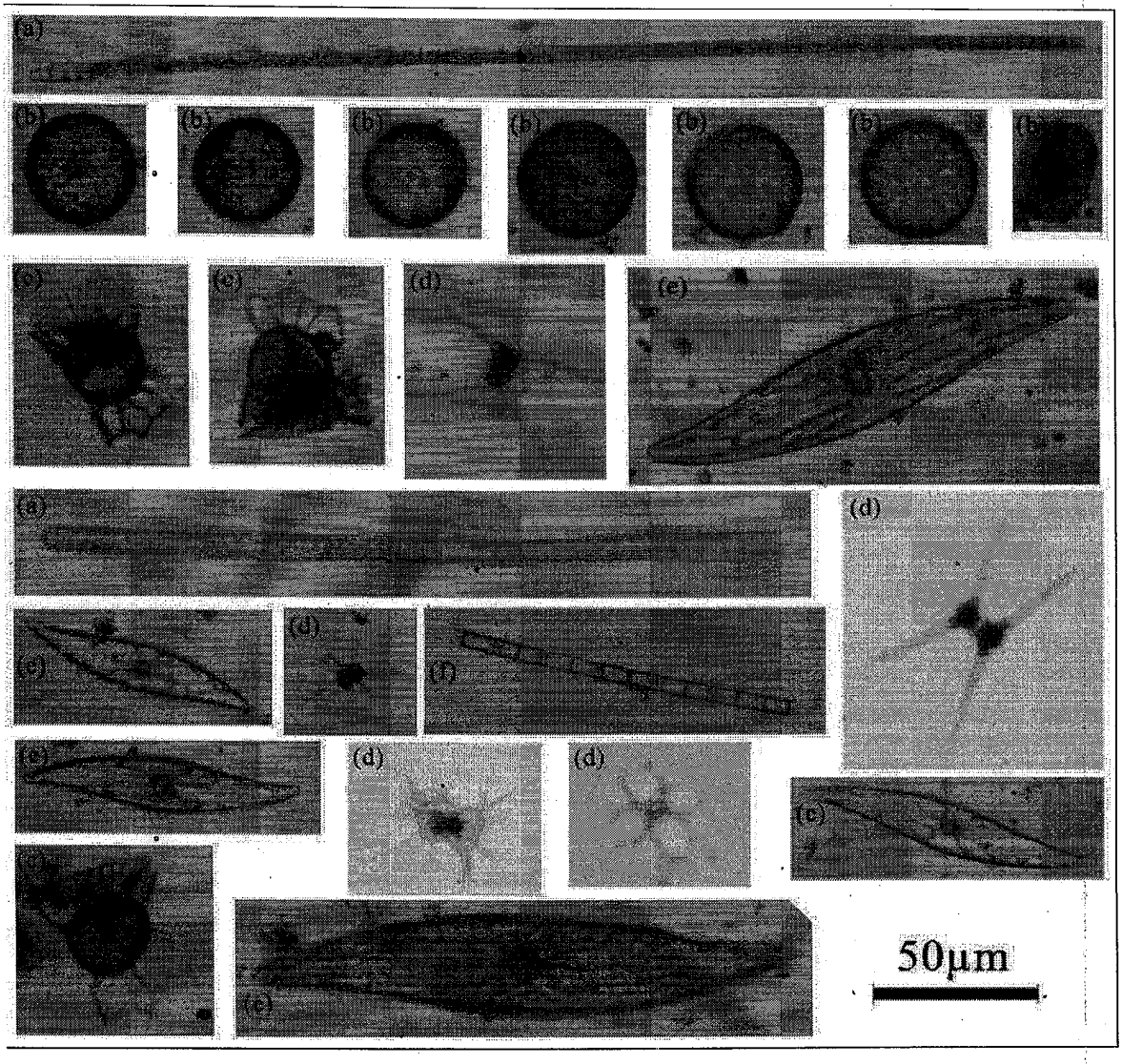


Exhibit 1: The microscopic images of dominant phytoplankton observed at Honnavar estuarine and coastal waters

Where (a) *Trichodesmium* spp. (b) *Coscinodiscus* sp. (c) *Ornithocercus* sp. (d) *Staurastrum* spp. (e) *Pleurosigma* spp. (f) *Leptocylindrus* sp.

1.5.3.3 Zooplankton

The zooplankton abundance varied from 852 Nos./m^3 to 15537 Nos./m^3 (average: 7237±4032 Nos./m^3). The lowest abundance was found in MSL-1 and the highest was observed in MSL-12. The zooplankton biomass varied from 0.06 ml/m3 to 0.98 ml/m3 (average: 0.58±0.29 ml/m^3). The lowest biomass was found in MSL-1 and the highest was observed in MSL-12. The dominant zooplankton groups observed were copepods, appendicularia, chaetognatha, gastropods. In stations MSL-10 and MSL-14, high number of echinoderm larvae was observed compared to other stations. The highest number of taxa was observed in MSL-8 (19 taxa) and MSL-12 (20 taxa). The number of taxa was lower in estuarine region compared to coastal regions.

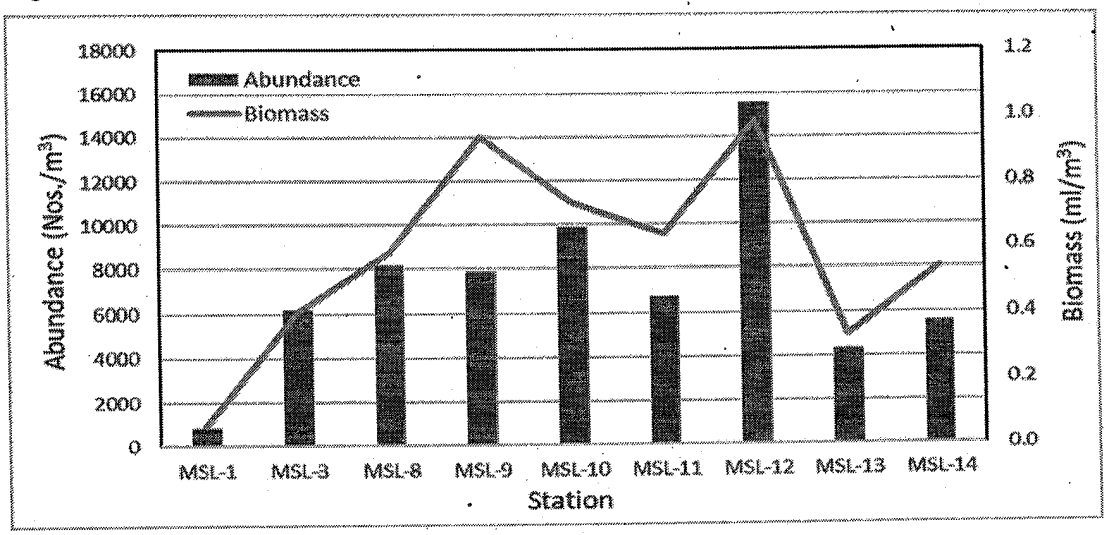


Figure 31: Zooplankton abundance and biomass in estuarine and coastal areas of Honnavar during April 2024

1.5.3.4 Benthos

Benthic fauna is a crucial component of the marine ecosystem with multiple ecological roles. They are broadly divided into three distinct groups based on their size namely macrobenthos (>500 µm), meiobenthos (500 – 63 µm) and microbenthos (< 63 µm). Due to their size range and various feeding habits they contribute to different levels in the marine food chain. Additionally, their limited mobility, and diverse species with different tolerances to stress and environmental perturbation make them important biomarkers in assessing the health of the marine ecosystem at spatial and temporal scales.

Macro benthos

During the present survey of coastal regions of Honnavar, a total of 30 taxa of benthic fauna were recorded belonging to a wide range of taxonomic groups viz., Polychaeta, Amphipoda, Cumacea, Bivalvia, Gastropoda, Ophiuroidea, and Chaetognatha. Polychaeta, with 19 taxa (63%), was the most dominant group, followed by Crustacea 5 taxa (16.6%) and Gastropoda, 4 taxa (13%).

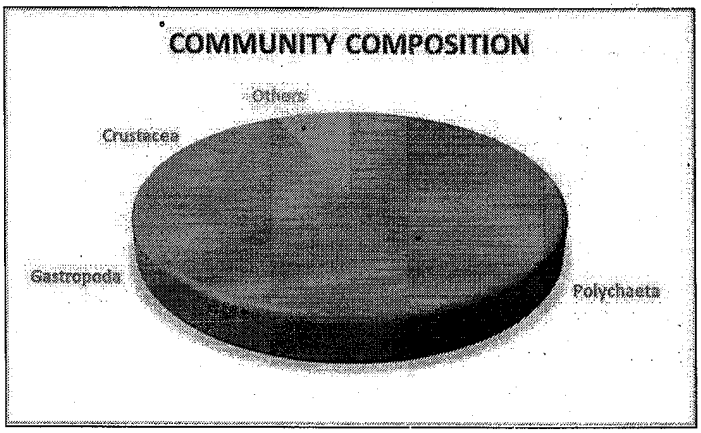


Figure 32: Taxonomic composition (%) of Macrobenthos in Honnavar coastal region

The abundance of macro benthic fauna varied between 119 ind.m^{-2} to 928 ind.m^{-2}. The lowest abundance was found in MSL-2 and the highest was observed in MSL-7.

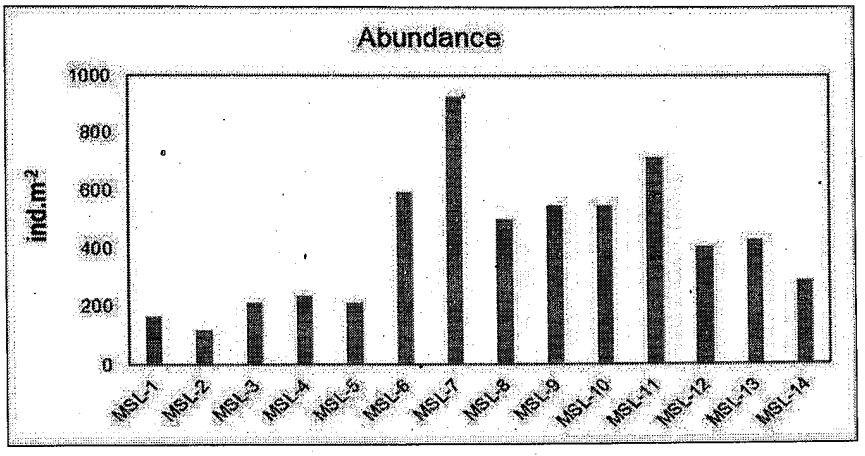


Figure 33: Abundance of benthic fauna in the coastal region of Honnavar

Each station represented a variable abundance of particular fauna and few taxa were specific to one or two particular stations. For the assessment of diversity, three diversity indices viz., Margalef's index (d), Pielou's evenness (J') and Shannon-Wiener index (H') were calculated. All the indices revealed MSL-6 as the most diverse station concerning benthic fauna whereas MSL-8 was the least diverse.

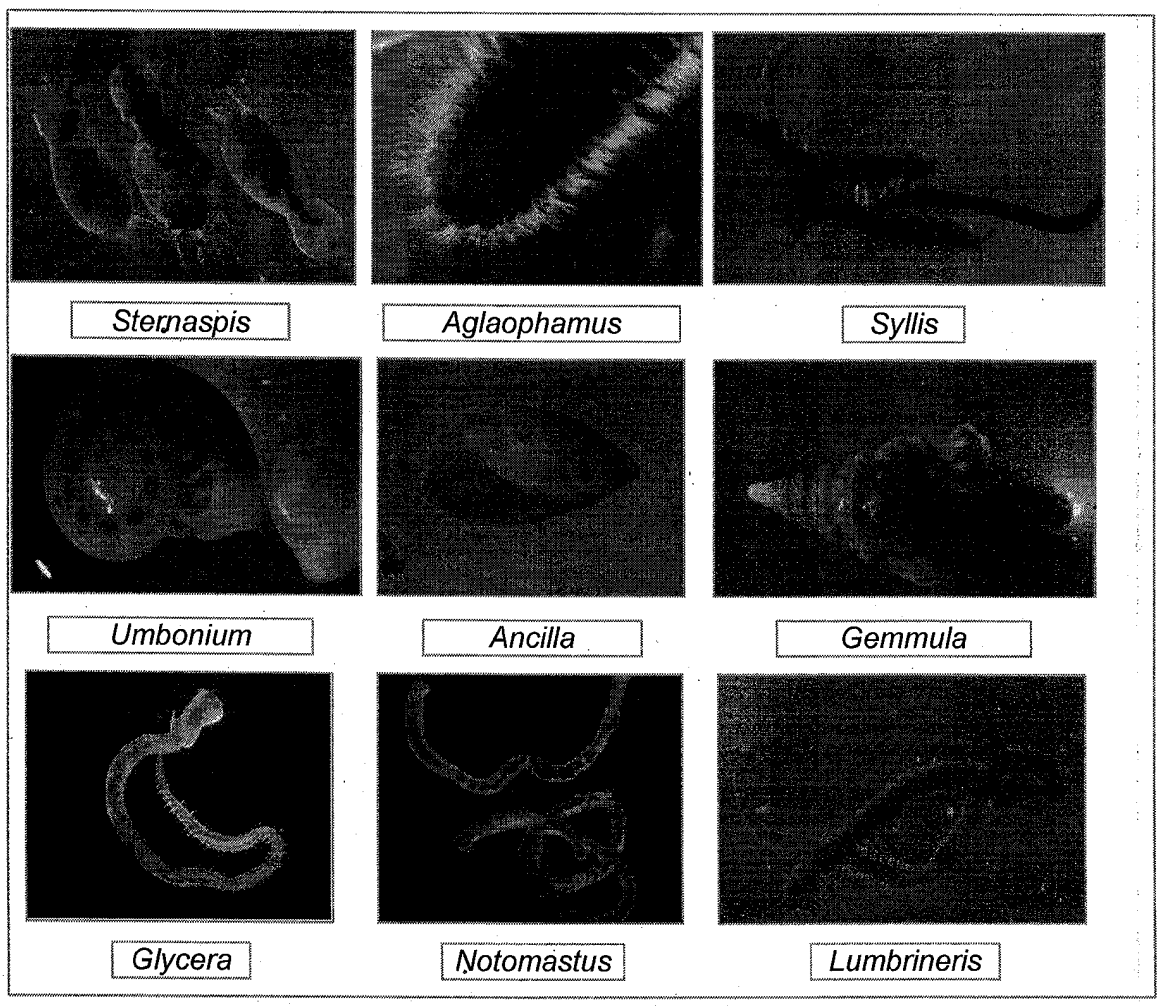


Exhibit 2: Some selected macrobenthic species from coastal regions of Honnavar

Meibenthos

Meiobenthos are considered as an important link between macro and microbenthos in the sediments. It indirectly improves the rate of carbon mineralization in sediments by encouraging microbial activity through predation, and/or directly through feeding of detritus material contributed by larger deposit-feeding invertebrates. Meiobenthic community are also known in helping stabilization of the sediment through their mucus secretion and thus act as a potential microbioturbators. They increase productivity of shallow waters by enhancing recirculation of nutrients, augment energy flow, and mineralization of organic matter.

During the present survey of coastal regions of Honnavar, meiobenthos recorded belonged to a wide range of taxonomic groups viz., Nematoda, Oligochaeta, Copepoda, Amphipoda, Cumacea, and Polychaeta. Nematoda, was the most dominant group, followed by Oligochaeta.

The abundance of meiobenthic fauna varied between 1 ind/10 cm^2 to 151 ind/10 cm^2, with the highest and lowest abundance found in MSL-10 and MSL-1 respectively. There was no meiobenthic fauna in 4 stations, namely – MSL-2, MSL-3, MSL-4 and MSL-14. Percentage composition of meiofaunal group from study site is presented below.

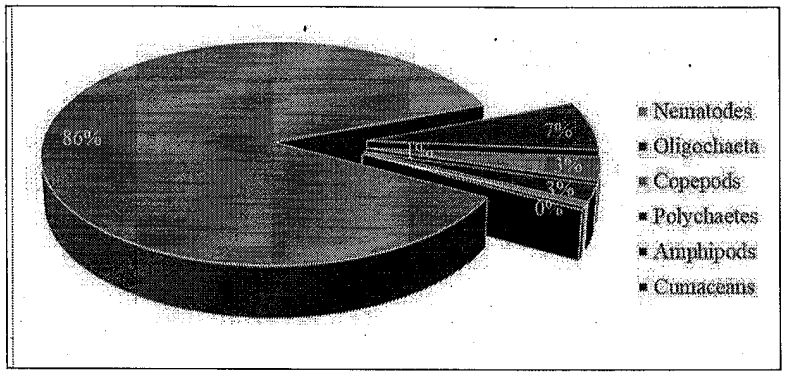


Figure 34: Percentage composition of meiofauna at Honnavar coastal region

Nematoda was found dominant and was the major organism in meiofaunal composition at all the stations. Oligochaeta was the next dominant group followed by Copepods and Polychaetes. Amphipoda and Cumaceans contributed less than 2 percentages to meiofaunal composition.

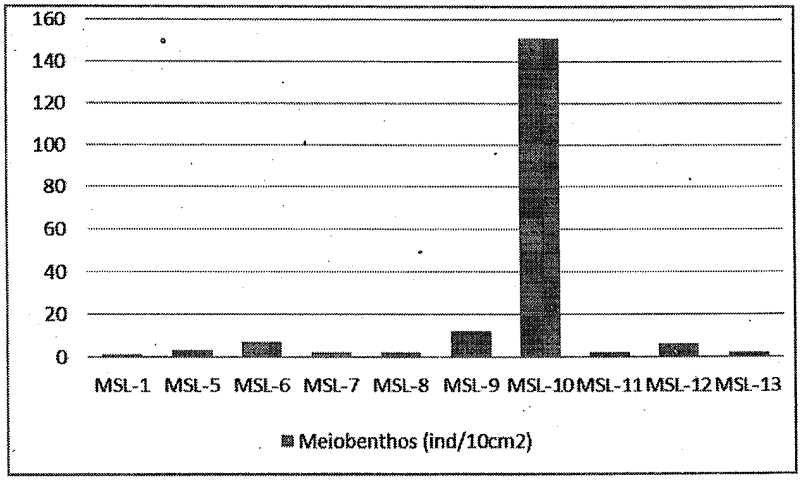


Figure 35: Abundance of meiofauna at each sampling location

1.5.4 Marine Flora & Fauna

1.5.4.1 Marine Turtle Nesting areas

Man Made turtle breeding / hatchery sites are present near the project area. Report on Water Quality and Biological Parameters Related to Rapid Marine Environmental Impact Assessment Studies in connection with Port development at Honnavar carried out by NIO.

1.5.4.2 Marine Flora

In the sand dune area ten species were recorded belonging to ten different families **Table 14**. Spinifex littoreus and Ipomoea pes-caprae was found to be the common species occurring in both core and project influence area.

Table 14: List of sand dune flora species recorded during survey

Family	Species
Aizoaceae	*Sesuvium portulacastrum*
Asteraceae	*Launaea sarmentosa*
Casuarinaceae	*Casuarina equisetifolia*
Convolvulaceae	*Ipomoea pes-caprae*
Fabaceae	*Crotalaria pallida*

Family	Species
Myrtaceae	*Syzygium* sp.
Pandanaceae	*Pandanus sp.*
Poaceae	*Spinifex littoreus*
Rubiaceae	*Oldenlandia* sp.
Verbenaceae	*Lantana camara*

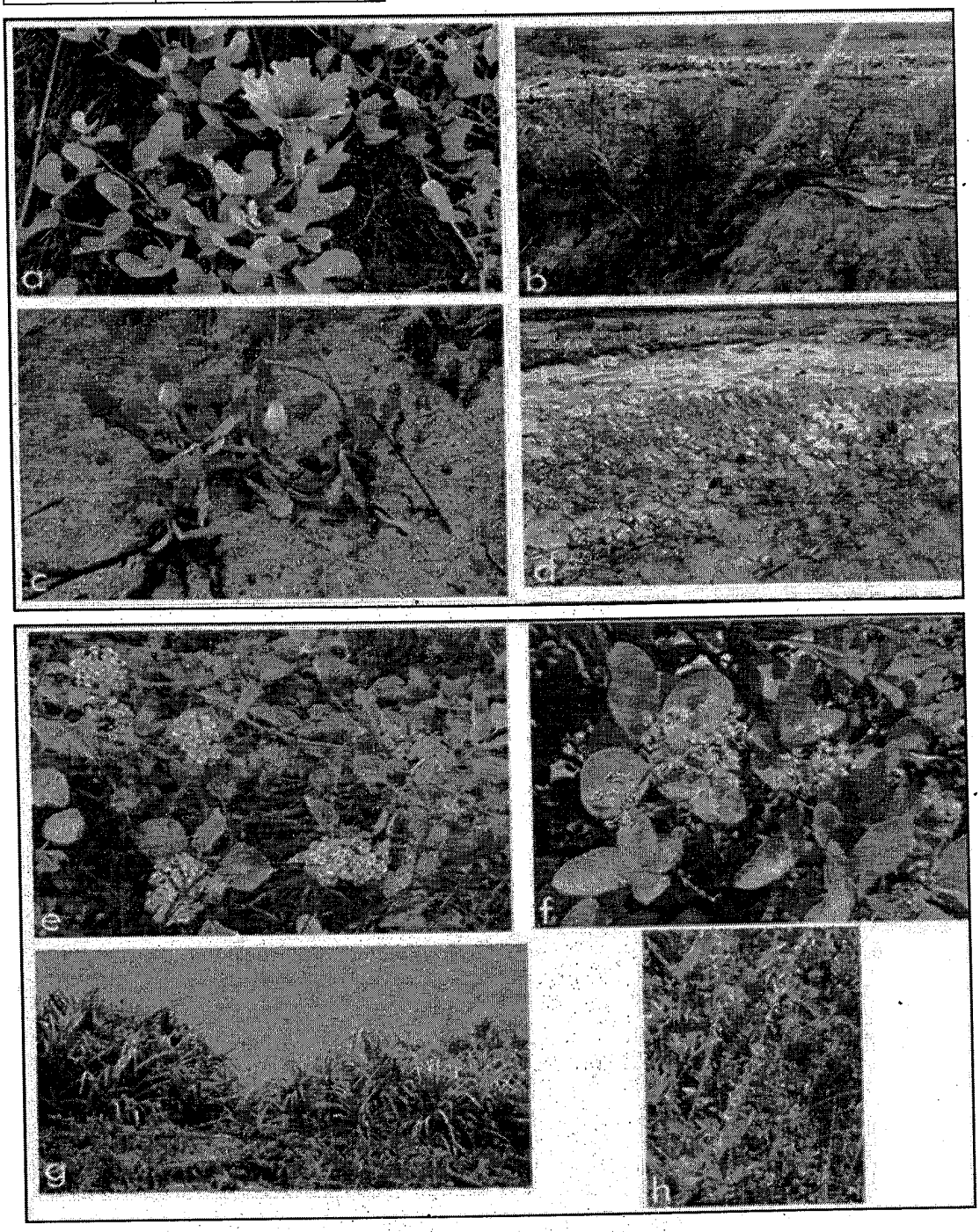


Exhibit 3: Observed Sand dune floral species

Where: **a.** *Ipomoea pes-caprae* **b.** *Spinifex littoreus* **c.** *Launaea sarmentosa* **d.** *Sesuvium portulacastrum* **e.** *Lantana camara* **f.** *Syzygium* sp. **g.** *Pandanus* sp. **h.***Crotalaria pallida*

Table 15: Location of sand dune flora observed at the proposed core site