Form -1 & Pre - Feasibility Report

Project Proposal

Development of a Jetty for Captive & Third Party Cargo

(Capacity : 10 MTPA)

Near Nate village, Taluka-Rajapur, District Ratnagiri, Maharashtra State.

Project Proponent

M/s. I Log Ports Private Limited
Vishwakarma 86C, Topsia Road (south), Kolkata - 700046

Environmental Consultant:

Bhagavathi Ana Labs Pvt. Limited
(A Bureau Veritas Group Company)
7-2-C-14, Industrial Estate, Sanathnagar,
Hyderabad 500018
040 – 23811535 /1545 / 0505

MAY - 2018

FORM- 1

(1) Basic Information

Sl. No.	Item	Details
1	Name of the Project	Development of a Jetty for Captive & Third Party Cargo near Nate Village, Taluka Rajapur, District Ratnagiri, Maharashtra State.
2	S. No. in the schedule	7 (e) of EIA Notification. As per the cargo handling capacity of the Jetty for Captive & Third Party Cargo i.e. 10 MTPA therefore Project is under Category 'A'
3	Proposed capacity / area / length / tonnage to be handled / command area / lease area / number of well to be drilled	Proposed Jetty for Captive & Third Party Cargo at Nate village will handle 10 Million TPA of cargo volume. In Phase 1, at peak capacity of 5 MMTPA throughput, at any given point in time, the port back-up may store the following quantities:- • 200,000 mt dry cargo (six turn arounds) appx 1.25 MMTPA • 150,000 mt liquids (8 turn arounds) appx 1.25 MMTPA • 125,000 mt liquefied gases (20 turn around) appx 2.5 MMTPA In Phase 2, at peak capacity of 10MMTPA throughput, at any given point in time, the port back-up may store the following quantities:- • 400,000 mt dry cargo (six turn arounds) appx 2.5 MMTPA • 300,000 mt liquids (8 turn arounds) appx 2.5 MMTPA • 250,000 mt liquefied gases (20 turn around) 5 MMTPA Proposed Jetty for Captive & Third Party Cargo will be set up in an area of 428.15 Ha (initial phase 100 Ha.)
4	New/Expansion/Modernization	New Project
5	Existing Capacity/Area etc.	Nil
6	Category of the project i.e. 'A' or `11'	Project is under Category 'A' as per MoEF&CC Notification 14th, September 2006 and its Amendments.
7	Does it attract the general condition? If yes, please specify.	No
8	Does it attract the specific condition? If yes, please specify.	No

Sl. No.	Item	Details
9	Location	Project site is located at Latitude 16°39'00" N and Longitude 73°20'00" E. Location Map and Site Layout Map is enclosed as Annexure -1 & 2.
	Plot/ Survey/ Khasra No.	The Proposed Jetty is in unsurveyed location. Back up land details of survey number and village map are enclosed as Annexure 1 & 4
	Village	Nate
	Tehsil	Rajapur
	District	Ratnagiri
	State	Maharashtra
10	Nearest railway station airport along with distance in kms.	Rajapur Railway Station is at 30 km which is on Konkan Railway which is part of Western Railways.
11	Nearest Town, City, District Head quarters along with the distance in kms.	Town is Rajapur at 20 km aerial distance City and District Headquarter is Ratnagiri which is at 38 km of aerial distance
12	Village Panchayats, Zilla Parishad, Municipal Corporation, Local body (complete postal addresses with telephone nos. to be given)	Gram Panchayat Sadapeth Nate, Post Nate, Taluka Rajapur, District Ratnagiri, Pin 415806, Phone Number — 02353-225090
13	Name of the Applicant	I Log Ports Pvt. Ltd.
14	Registered Address	Vishwakarma 86C, Topsia Road (south), Kolkata — 700046, Tel: 033 66027734
15	Address for Correspondence:	Vishwakarma 86C, Topsia Road (south), Kolkata — 700046, Tel: 033 66027734
	Name	Shiv Prakash Kedia
	Designation Owner/Partner/CEO)	Vice President
	Address	Vishwakarma 86C, Topsia Road (south), Kolkata
	Pin Code	700046
	E-mail	Ilog.ports@gmail.com
	Telephone No.	022 66284300 (B) 022 66284243 (D) 9903024747 (M)
	Fax No.	022 66284398
16	Details of alternative sites examined, if any. Location of these sites should be shown on a topo sheet.	Two alternative sites are examined. One of the site is at Ganeshgule in Ratnagiri district and another at Alewadi near Dahanu in Thane district. Both the sites were not considered due to non-availability of required back up land.
17	Interlinked Projects	No

Sl. No.	Item	Details
18	Whether separate application of interlinked project has been submitted?	Not Applicable
19	If yes, date of submission	Not Applicable
20	If no, reason	Not Applicable
21	Whether the proposal involves approval / clearance under: if yes, details of the same and their status to be given. (a) The Forest (Conservation) Act, 1980 (b) The Wildlife (Protection) Act, 1972 (c) The CRZ Notification, 1991	(a) No (b) No (c) Yes, The Proposed Project attracts the CRZ Notification, 2011 for their off-shore and foreshore facilities. Physical demarcation of HTL, LTL and delineation of CRZ boundaries for the project site has been carried out by Anna University, Chennai.
22	Whether there is any Government Order / Policy relevant / relating to the site?	I Log Ports Private Limited entered into the Deed of Lease with Maharastra Maritime Board on 24-2-2014
23	Forest land involved (ha)	Not Applicable
24	Whether there is any litigation pending against the project and / or land in which the project is proposed to be set up? (a) Name of the Court (b) Case No. Order/ directions of the Court, if any and its relevance with the proposed project.	None

(I) Activity

1. Construction, operation or decommissioning of the Project involving actions, which will cause physical changes in the locality (topography, land use, changes in water bodies, etc.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.1	Permanent or temporary change in land use, land cover or topography including increase in intensity of land use (with respect to local land use plan)	Yes	There will be a permanent change in land use, land cover and topography due to the development of the proposed Jetty for Captive & Third Party Cargo facilities. The green belt is proposed to be improved by developing green belt about 33% of the total Jetty area.
1.2	Clearance of existing land, vegetation and buildings?	No	As the land is barren land, there are no structures to be cleared.
1.3	Creation of new land uses?	Yes	Existing barren land will be utilized for development of Jetty.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.4	Pre-construction investigations e.g. bore houses, soil testing?	Yes	Geotechnical investigations were carried out as per the project requirements.
1.5	Construction works?	Yes	The site will be developed as a Jetty project, which involves • Berths • Dredging • Reclamation • Internal Roads • Cargo storage and handling facilities • Utilities, amenities and other services.
1.6	Demolition works?	No.	There are no structures in the proposed Jetty area.
1.7	Temporary sites used for construction works or housing of construction workers?	Yes	Construction worker camps with all amenities such as water supply, fuel, sanitation etc., will be provided.
1.8	Above ground buildings, structures or earthworks including linear structures, cut and fill or excavations.	Yes	Envisaged as a part of development.
1.9	Underground works including mining or tunneling?	No	Not Applicable
1.10	Reclamation works?	Yes	Proposed to be use dredged soil of quantity about 1.5 Lakhs cum.
1.11	Dredging?	Yes	Expecting dredged volume of material is about 1.5 Lakhs cum to be used for land reclamation.
1.12	Offshore structures?	Yes	• Berths • Approach Trestle
1.13	Production and manufacturing processes?	No	None
1.14	Facilities for storage of goods or materials?	Yes	Stockyards and warehouses shall be provided for the cargo storage such as : • Bauxite & other bulk Cargo • Sugar & other break bulk Cargo • Tank farm for Liquid cargo • Industrial raw materials, machinery, steel, project cargo • Tank farms for liquefied gas (LNG) • LPG

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.15	Facilities for treatment or disposal of solid waste or liquid effluents?	Yes	Wastewater: According to estimation during operation phase the quantity of wastewater generated from the activity will be — 100 KLD. Wastewater Treatment: The wastewater generated will be treated on site in the 'Sewage Treatment Plant' (STP) with a capacity of 100 KLD. Treated wastewater will be utilized on site for secondary purposes like flushing and gardening. Solid Waste: The liquid effluent that shall be generated from labor and construction camps will be treated in septic tank/ sedimentation tank before diverting it to soak pit.
1.16	Facilities for long term housing of operational workers?	No	No
1.17	New road, rail or sea traffic during construction or operation?	Yes	The construction phase of the project will generate road traffic which will carry the construction material and labor. During operation phase the Jetty for Captive & Third Party Cargo will received cargo from ships which will be transport to inlands through road and rail connections.
1.18	New road, rail, air waterborne or other transport infrastructure including new or altered routes and stations, ports, airports etc.?	Yes	Apart from the Jetty for Captive & Third Party Cargo facility, the project will create 300 m length of new road to connect to an existing two lane village road which in turn will connect the project site to the Maharashtra State Highway No. 4.
1.19	Closure or diversion of existing transport routes or infrastructure leading to changes in traffic movements?	No	No
1.20	New or diverted transmission lines or pipelines?	No	Power will be supplied by Maharashtra State Electricity Board; accordingly new transmission lines will be laid. However, new internal transmission lines and pipelines will be laid as per the requirement with prior permissions.

S.No.	Information/Checklist confirmation	Yes/No	Details thereof (with approximate quantities /rates, wherever possible) with source of information data
1.21	Impoundment, damming, culverting, realignment or other changes to the hydrology of watercourses or aquifers?	No	No
1.22	Stream crossings?	No	No
1.23	Abstraction or transfers of water from ground or surface waters?	Yes	The potable water requirement will be fulfilled by ground water, with prior permission from the Central Ground Water Board /Maharashtra Water Department and also from rainwater storage arrangements. The ground water reservoir of 500 cum capacity and elevated reservoir of 150 cum capacity will be constructed.
1.24	Changes in water bodies or the land surface affecting drainage or runoff?	No	No
1.25	Transport of personnel or materials for construction, operation or decommissioning?	Yes	Construction Phase Movement of construction material including cement, aggregates, sand and reinforcement, etc., Movement of construction workers by vans / buses. Operational Phase: Transport of cargo from the proposed facility, material handling. Movement of workforce to proposed Jetty for Captive & Third Party Cargo facility.
1.26	Long-term dismantling or decommissioning or restoration works?	No	No
1.27	Ongoing activity during decommissioning which could have an impact on the environment?	No	No
1.28	Influx of people to an area in either temporarily or permanently?	Yes	• Influx during construction phase which is temporary in nature. • Less influx during operation phase (local people shall be given preference based on the skill set)
1.29	Introduction of alien species?	No	No
1.30	Loss of native species or genetic diversity?	No	No
1.31	Any other actions?	No.	No

2. Use of Natural resources for construction or operation of the Project (such as land, water, materials or energy, especially any resources which are non-renewable or in short supply):

S. No	Information / checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
2.1	Land especially undeveloped or agricultural land (ha)	Yes	The project will use barren land measuring about 428.15 Ha (initial phase 100 Ha.) I Log is planning to be develop Captive & Third Party Cargo activities.
2.2	Water (expected source & competing users) unit: KLD	Yes	The total water requirement is initially expected to be around 140 cum per day. The ground water reservoir of 500 cum capacity and elevated reservoir of 150 cum capacity will be constructed.
2.3	Minerals (MT)	No	No
2.4	Construction material – stone, aggregates, sand / soil (expected source – MT)	Yes	Cement = 10500 Tonnes Aggregates = 26000 cum Reinforcement Steel = 3500 Tonne Structural steel = 150 Tonn Bricks = 150000 Nos. Steel Form work = 150 MT Timber = 30 cum (As per the pre-feasibility report prepared by M/s I Log Ports (P) Ltd.)
2.5	Forests and timber (source – MT)	Yes	Around 30 cum of timber will be used for this project.
2.6	Energy including electricity and fuels (source, competing users) Unit: fuel (MT), energy (MW)	Yes	The electrical supply will be taken from MSEDC Ltd. from a nearby substation installing transformer of required capacity. In the initial stages, the power requirement would be 0.9 MW which will get increased to about 2 MW at later stages. Standby / Emergency sources of Power are DG Sets of 500KVA
2.7	Any other natural resources (use appropriate standard units).	No	Not Required

3. Use, storage, transport, handling or production of substances or materials, which could be harmful to human health or the environment or raise concerns about actual or perceived risks to human health.

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
3.1	Use of substances or materials, which are hazardous (as per MSIHC rules) to human health or the environment (flora, fauna, and water supplies)	Yes	Fuels required for the proposed facility will be stored as per the required stipulations.
3.2	Changes in occurrence of disease or affect disease vectors (e.g. insect or water borne diseases)	No	No
3.3	Affect the welfare of people e.g. by changing living conditions?	Yes	Yes
3.4	Vulnerable groups of people who could be affected by the project e.g. hospital patients, children, the elderly etc.,	No	No
3.5	Any other causes	No	No

4. Production of solid wastes during construction or operation or decommissioning (MT/month)

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
4.1	Spoil, overburden or mine wastes	No	No
4.2	Municipal waste (domestic and or commercial wastes)	Yes	Details regarding quantifications, collection, handling and disposal / management shall be covered in the EIA study.
4.3	Hazardous wastes (as per Hazardous Waste Management Rules)	Yes	Used/waste oil and lubricants will be utilized in oiling and balance will be sold to authorized recyclers.
4.4	Other industrial process wastes	No	No
4.5	Surplus product	No	No
4.6	Sewage sludge or other sludge from effluent treatment	Yes	Generated sludge will be disposed off as per Maharashtra Pollution Control Board / CPCB guidelines / norms.

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
4.7	Construction or demolition wastes •	Yes	Construction waste to the extent possible will be utilized in the proposed Jetty for Captive & Third Party Cargo premises for site grading etc., and remaining waste will be disposed off suitably as per the Maharashtra Pollution Control Board / CPCB guidelines / norms.
4.8	Redundant machinery or equipment	No	No
4.9	Contaminated soils or other materials	No	No
4.10	Agricultural wastes	No	No
4.11	Other solid wastes	No	No

5. Release of pollutants or any hazardous, toxic or noxious substances to air (Kg/hr)

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
5.1	Emissions from combustion of fossil fuels from stationary or mobile sources	Yes	• Emissions from construction machinery, dredgers and vehicular movements during construction and operational phases. • All such vehicles will have Pollution under Control Certificate as applicable and DG sets will follow emissions norms as applicable.
5.2	Emissions from production processes	No	Nil
5.3	Emissions from materials handling including storage or transport	Yes	Fugitive dust may emit from material transportation by trucks. Construction material shall be transported through covered trucks. Dust will be suppressed by water sprinkling.
5.4	Emissions from construction activities including plant and equipment	Yes	Fugitive dust emissions are anticipated from unloading / loading / transfer points and stacking of cargo. The impacts due to emissions shall be covered in the EIA study.

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
5.5	Dust or odours from handling of materials including construction materials, sewage and waste	Yes	• Dust due to handling of construction material during construction phase. • Dust due to cargo handling Dust suppression measures will be proposed and the details will be provided in the EIA report.
5.6	Emissions from incineration of waste	No	Not Applicable
5.7	Emissions from burning of waste in open air (e.g. slash materials, construction debris)	No	No
5.8	Emissions from any other sources	Yes	Emissions of PM10, PM2 5 NO2, SO_2 and CO from vehicles used for transportation of construction materials and DG Sets

6. Generation of Noise and Vibration, and Emissions of Light and Heat:

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data with source of information data
6.1	From operation of equipment e.g. engines, ventilation plant, crushers	Yes	Noise generating sources during construction phase : • Vehicular movement • Diesel engines and DG sets Noise generating sources during operational phase : • Shore cranes • Pay loaders and earth movement equipment • Backup DG sets • Road trucks. However equipment will be deployed with noise mitigating devices and confirming to applicable standards. Mufflers will be used.
6.2	From industrial or similar processes	No	No
6.3	From construction or demolition	Yes	• Excavators • Dumpers • Compressors • Trucks etc. Personal Protection Equipment (PPE) will be provided during construction activities.

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data with source of information data
6.4	From blasting or piling	Yes	There will be a piling activity and susceptible work force will be provided with PPE.
6.5	From construction or operational traffic	Yes	Vehicular movements and inland cargo movement and other transport activities.
6.6	From lighting or cooling systems	No	Not Applicable
6.7	From any other sources	No	Not Applicable

7. Risks of contamination of land or water from releases of pollutants into the ground or into sewers, surface waters, groundwater, coastal waters or the sea:

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
7.1	From handling, storage, use or spillage of hazardous materials	Yes	The significant hazardous material would be the varnishes, paints, solvents and waste oil from DG sets. However, the hazardous material will be handled as per the Hazardous Waste (Management & Handling) Rules, 2016. The waste oil will be stored in sealed containers and will be sold to authorized recycling agents.
7.2	From discharge of sewage or other effluents to water or the land (expected mode and place of discharge)	Yes	The treated wastewater will be reused in greenbelt development.
7.3	By deposition of pollutants emitted to air into the land or into water	Yes	• Fugitive emissions due to cargo handling may effect the air pollutant concentrations. Oil spills, vessel wastes can impact the marine waters if not controlled. • Emissions control norms and spill contingency shall be adhered to in all the cases. EIA study will address the impacts and mitigation measures.
7.4	From any other sources	No	No

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
7.5	Is there a risk of long term build up of pollutants in the environment from these sources?	No	The hazardous waste generated from the construction and operational phase of the project would be of negligible quantity. Also, it will be treated and disposed off as per Hazardous Waste (Management & Handling) Rules, 2016. The sewage generated will be treated on site in the Sewage Treatment Plant. Treated wastewater will be used on site for secondary purposes. The DG sets may be used as a backup power supply, only in case of emergency. The details will be provided in the EIA report.

8. Risk of accidents during construction or operation of the Project, which could affect human health or the environment

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
8.1	From explosions, spillages, fires etc from storage, handling, use or production of hazardous substances	Yes	• During construction phase there will be requirement to store hazardous material like welding gases, paints, lubricants, etc., • During operational phase, there will be storage of cargo which may cause fire hazards. • The hazardous materials will be stored and handled as per the provisions of the Manufacture, Storage and import of Hazardous Wastes (Management and Handling) Rules and Amendments for avoiding accidents. As per Disaster Management Plan (DMP), the necessary measures will be followed to meet any eventuality and to combat hazards or disasters during proposed facility construction and operational phase.
8.2	From any other causes	No	No

S. No	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
8.3	Could the project be affected by natural disasters causing environmental damage (e.g. floods, earthquakes, landslides, cloudburst etc.)?	No	The site was selected in areas least affected by natural disaster.

9. Factors which should be considered (such as consequential development) which could lead to environmental effects or the potential for cumulative impacts with other existing or planned activities in the locality.

S. No.	Information / Checklist confirmation	Yes / No	Details thereof (with approximate quantities / rates, wherever possible) with source of information data
9.1	Lead to development of supporting facilities, ancillary development or development stimulated by the project which could have impact on the environment e.g.: • Supporting infrastructure (roads, power supply, waste or waste water treatment, etc.) • Housing development • extractive industries • supply industries • other	Yes	After implementation of this project the connectivity in the project area will be improved, this will result in better infrastructure facilities in the region. This in turn will pave way for economic development of the region.
9.2	Lead to after-use of the site, which could have an impact on the environment	No	The proposed project would be a permanent establishment.
9.3	Set a precedent for later developments	Yes	Proposed Jetty for Captive & Third Party Cargo would increase the commercial activities, secondary employment and livelihood in the region.
9.4	Have cumulative effects due to proximity to other existing or planned projects with similar effects	No	The project is situated at 6.5 kms from the proposed Jaitapur Nuclear Power Plant and is away from the area of influence due to the port activities.

II) Environmental Sensitivity

S. No	Areas	Name / Identity	Aerial distance (within 15 km.) from Proposed project location boundary

S. No	Areas	Name / Identity	Aerial distance (within 15 km.) from Proposed project location boundary
1	Areas protected under international conventions, national or local legislation for their ecological, landscape, cultural or other related value	No	No
2	Areas which are important or sensitive for ecological reasons - Wetlands, watercourses or other water bodies, coastal zone, biospheres, mountains, forests	Yes	As per the MoEF Letter Ref No: F.NO.1-4/2012 - RE (Pt.) / dated 13.11.2013, on Western Ghats - ESA, one declared village named as Bharade is at a distance of about 4.5 kms from the proposed Jetty. Madban Mangroves at 8 km's from proposed Jetty. Arabian Sea Adjacent
3	Areas used by protected, important or sensitive species of flora or fauna for breeding, nesting, foraging, resting, over wintering, migration	No	No
4	Inland, coastal, marine or underground waters	Yes	The project is situated on the sea shore.
5	State, National boundaries	No	No
6	Routes or facilities used by the public for access to recreation or other tourist, pilgrim areas	No	No
7	Defense installations	No	No
8	Densely populated or built-up area	No	The nearest densely populated city is Ratnagiri which is about 38 kms aerial distance from the proiect site.
9	Areas occupied by sensitive man-made land uses (hospitals, schools, places of worship, community facilities)	Yes	High School at Sakhre Nate - 5km. Private Clinics at Sakhre Nate — 5km Temples and Masjids at Sakhre Nate - 5 km
10	Areas containing important, high quality or scarce resources (ground water resources, surface resources, forestry, agriculture, fisheries, tourism, minerals)	No	No high quality or scarce resources.
11	Areas already subjected to pollution or environmental damage. (Those where existing legal environmental standards are exceeded.)	No	No
12	Areas susceptible to natural hazard which could cause the project to present environmental problems	Yes	Seismicity is Zone-III (as per IS-1983, Part I: 2002)

S. No	Areas	Name / Identity	Aerial distance (within 15 km.) from Proposed project location boundary
	(earthquakes, subsidence, landslides, erosion, flooding or extreme or adverse climatic conditions)		

(IV)PROPOSED TERMS OF REFERENCE FOR EIA STUDIES

Proposed Terms of Reference for EIA Studies are provided below.

Declaration

I hereby give the undertaking that data and information given in the application and enclosures are true to the best of my knowledge and belief and I am aware that if any part of the data and information submitted is found to be false or misleading at any stage, the project will be rejected and clearance given, if any to the project will be revoked at our risk and cost.

Date: 7-5-2018
Place: Kolkata

I LOG PORTS PRIVATE LIMITED Kolkata

Signature of the Applicant
With Name and Full Address
(Project Proponent/Authorised Signatory)

Shiv Prakash Kedia
Vice President
Vishwakarma 86C, Topsia Road (south),
Kolkata — 700046,
Tel: 033 66027734

Terms of Reference

F.No.11-10/2014-IA.III
Government of India
Ministry of Environment, Forests & Climate Change
(IA.III Section)

Indira Paryavaran Bhawan,
Jor Bagh Road,
New Delhi - 110 003.

Dated: 12th March, 2015

To
The President,
M/s. I Log Ports Pvt. Ltd.,
Vishwakarma 86C, Topsia Road (South),
Kolkata – 700 046, West Bengal

Subject: Development of a captive jetty (4.5 MTPA) at village Nate, Rajapur Taluka, Ratnagiri, Maharashtra by M/s I Log Ports Pvt. Ltd. – Terms of Reference (ToR) - Reg.

Sir,

This has reference to your letter No. ILPPL/MoEF-TOR/21014-15/061 dated 18.12.2014 forwarding along with application seeking for Terms of Reference for the aforesaid project.

2. The proposal was considered by the EAC in its 144th meeting held on 28th – 30th January, 2015 and the proponent has informed that:

i. The proposal is for developing a captive jetty in Phases to handle all type of cargo such bulk, container and liquid with projected throughput of 1.5 MTPA in initial years to about 4.5 MTPA. The infrastructure planned consists of a main berth about 700 m away from shore line connected by approach trestle / approach bund connecting to the shoreline.
ii. Two alternative sites are observed at Ganeshgule in Ratnagiri district and at Alewadi near the Dahanu in Thane district. Both the sites are rejected due to non-availability of required back up land, technical aspects and other considerations based on a detailed comparative evaluation of various locations.
iii. Project site has been finalized to be located at latitude 16 39 00 N and longitude 73 20 00E at a distance of 5 km from Nate village. 300 meter of new road to connect to an existing two-lane village road is proposed. The village road is connected to State Highway-4.
iv. Total area of the development will be 100 Ha barren land in initial phase. Total allotted area is 428.515 ha.
v. Dredge quantity is estimated to be 1.5 lakh Cum which will be used for land connection.
vi. Total water requirement is expected to be around 140 KLD. Ground water reservoir of 500 KL capacity and elevated reservoir of 150 KL capacity will be constructed. The water requirement will be fulfilled by ground water.
vii. The village Nate is not in the Western Ghat-ESA declared the list.

ToR_I-Log Port

Page 1 of 5

viii. Cargo handling capacity is less than 5 MTPA, therefore project is category B, However, falls within 10 km distance from village Bharade (4.5 km) a ESA, treated as 'A' category.
ix. **Forest land:** No forest land is involved in the project area.
x. **Cost:** Total investment planned in Phase-I is Rs. 1350 million.
xi. **Wildlife issues:** The project falls within the 10 km of Eco-Sensitive Area.
xii. There are no **court cases/violation** pending with the project proponent.

3. The Expert Appraisal Committee (EAC) has considered the proposal in its 144th meeting held on 28th – 30th January, 2015 and recommended for the TOR with the following specific TOR with general conditions for preparation of the Environment Impact Assessment (EIA) Report and Environment Management Plan (EMP) in respect of the **Development of a captive jetty (4.5 MTPA) at village Nate, Rajapur Taluka, Ratnagiri, Maharashtra by M/s I Log Ports Pvt. Ltd.:**

(i) The Nate village is not in high eroding site according to the study carried out by Indian Integrated Coastal and Marine Area Management (ICMAM) Project Directorate, Chennai and Indian National Centre for Ocean Information Services (INCOIS), Hyderabad. Therefore, the PP shall carryout shoreline change study to ensure that the site is not in high eroding coast where development is not permissible.

(ii) 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.

(iii) 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.

(iv) Examine and submit the 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.

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

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

(vii) 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.

(viii) Submit details regarding R&R involved in the project.

(ix) 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.

(x) Submit the status of shore line change at the project site.

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

(xii) Details of handling of each cargo, storage, transport along with spillage control, dust preventive measures.

(xiii) Submit the details of fishing activity and likely impacts on the fishing activity due to the project.

(xiv) Details of oil spill contingency plan.

(xv) Details of bathymetry study.

(xvi) Details of ship tranquillity study.

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

(xviii) Details of rainwater harvesting and utilization of rain water.

(xix) Examine details of Solid waste generation treatment and its disposal.

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

(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 possibilities of relocating the existing trees.

I-Log Port

Page 3 of 5

(xxvi) 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.

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 in TOR and that raised in Public Hearing. 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 Ministry and the issue raised in the P.H. have been incorporated. 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) Grant of TOR/EC to the present project does not mean grant of approvals in other regulations such as the Forest (Conservation) Act 1980 or the Wildlife (Protection) Act, 1972.

(x) Grant of EC is also subject to Circulars issued under the EIA Notification 2006, which are available on the MoEF&CC website: www.envfor.nic.in.

(xi) 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.

(xii) 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) have been complied with and the data submitted is factually correct (Refer MoEF office memorandum dated 4th August, 2009).

(xiii) 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 office memorandum dated 4th August, 2009). The project leader of the EIA study shall also be mentioned.

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

4. A detailed draft EIA/EMP report should be prepared in terms of the above additional ToRs and should be submitted to the State Pollution Control Board for conduct of Public Hearing. Public Hearing to be conducted for the project in accordance with the provisions of Environmental Impact Assessment Notification, 2006 and the issues raised by the public should be addressed in the Environmental Management Plan. The Public Hearing should be conducted based on the ToR letter issued by the Ministry and not on the basis of Minutes of the Meeting available on the web-site.

5. You are required to submit the detailed final EIA/EMP prepared as per ToRs including issues raised during Public Hearing 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.

6. 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 data provided by other Organization(s)/Laboratories including their status of approvals etc. vide notification of the MoEF dated 19.07.2013.

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

(Dr.Manoranjan Hota)
Director

Copy to:
The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Points, 3rd & 4th floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai - 400 022, Maharashtra

F.No.11-10/2014-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: 22nd March, 2018

To,

The President,
M/s I Log Ports Pvt Ltd,
Vishwakarma 86C, Topsia Road (South),
Kolkata - 700 046 (West Bengal)

Subject: Development of Captive Jetty (4.5 MTPA) at village Nate, Rajapur Taluka, Ratnagiri, Maharashtra by M/s I Log Ports Pvt Ltd - Extension of validity of ToR - reg.

Sir,

This has reference to your online proposal No.IA/MH/S/MH/23794/2014 dated 16th February, 2018 submitted to this Ministry for extension of validity of Term of Reference issued vide File No. 11-10/2014-IA.III dated 12th March, 2015, in terms of the provisions of the Environment Impact Assessment (EIA) Notification, 2006 under the Environment (Protection) Act, 1986.

2. The proposal for extension of validity of Terms of Reference (ToR) dated 12th March, 2015 was examined in the Ministry accordance with OM No. J-11013/41/2006-IA-II(I) (part) dated 29th August, 2017. As per the said OM, the validity period of ToR can be extended by the concerned Regulatory Authority for a maximum period of one year without referring the proposal to the EAC/SEAC concerned, provided an application is made by the applicant before expiry of the validity period, together with an updated Form-1 and proper justification and there is no change in terms and conditions of the ToRs.

3. In the light of OM dated 29th August, 2017, and justification given by the project proponent, the Ministry of Environment, Forest and Climate Change hereby extends validity of the ToR from 13th March, 2018 to 12th March, 2019.

4. All other conditions stipulated in the Terms of Reference dated 12th March, 2015 shall remain unchanged.

5. This issues with the approval of Competent Authority.

(Kushal Vashist)
Director

Copy to:

1. The Member Secretary, Maharashtra Pollution Control Board, Kalpataru Points, 3rd & 4th Floor, Opp. Cine Planet, Sion Circle, Sion (E), Mumbai - 400 022, Maharashtra.
2. The APCCF (C), MoEF&CC, Regional Office (WCZ), Ground Floor, East Wing, New Secretariat Building, Civil Lines, Nagpur - 440001.

Pre - Feasibility Report

Project Proposal

Development of a Jetty for Captive & Third Party Cargo

(Capacity : 10 MTPA)

Near Nate village, Taluka-Rajapur, District Ratnagiri, Maharashtra State.

Project Proponent

M/s. I Log Ports Private Limited
Vishwakarma 86C, Topsia Road (south), Kolkata - 700046

Environmental Consultant:

Bhagavathi Ana Labs Pvt. Limited
(A Bureau Veritas Group Company)
7-2-C-14, Industrial Estate, Sanathnagar,
Hyderabad 500018
040 – 23811535 /1545 / 0505

MAY - 2018

CONTENTS

1. EXECUTIVE SUMMARY: 25
2. INTRODUCTION / BACKGROUND: 27
2.1 IDENTIFICATION OF PROJECT & PROJECT PROPONENT 27
2.2 BRIEF DESCRIPTION OF NATURE OF PROJECT: 27
2.3 NEED FOR THE PROJECT: 27
2.4 DEMAND-SUPPLY GAP: 27
2.5 IMPORTS VS INDIGENOUS PRODUCTION: 28
2.6 EXPORTS POSSIBILITY: 28
2.7 DOMESTIC / EXPORT MARKETS: 28
2.8 EMPLOYMENT GENERATION (DIRECT & INDIRECT) DUE TO THE PROJECT 28
3. PROJECT DESCRIPTION: 29
3.1 TYPE OF PROJECT (INCLUDING INTERLINKED & INTERDEPENDENT PROJECTS) 29
3.2 LOCATION 29
3.3 DETAILS OF ALTERNATE SITES CONSIDERED AND SELECTION CRITERIA. 29
3.4 SIZE OR MAGNITUDE OF OPERATION 29
3.5 PROJECT DESCRIPTION WITH PROCESS DETAILS 30
3.6 RAW MATERIALS REQUIRED AND QUANTUM 30
3.7 RESOURCE OPTIMIZATION / RECYCLING 30
3.8 (A) AVAILABILITY OF WATER & SOURCE 30
3.9 QUANTITY OF WASTES 30
3.10 SCHEMATIC REPRESENTATIONS OF FEASIBILITY DRAWINGS GIVING INFORMATION FOR EIA PURPOSE 30
4. SITE ANALYSIS: 32
4.1 CONNECTIVITY: 32
4.2 LAND FORM / LAND USE / LAND OWNERSHIP 32
4.3 TOPOGRAPHY 32
4.4 EXISTING LAND USE PATTERN 32
4.5 EXISTING INFRASTRUCTURE: 32
4.6 SOIL CLASSIFICATION: 32
4.7 CLIMATIC DATA FROM SECONDARY SOURCES: 33
4.8 SOCIAL INFRASTRUCTURE AVAILABLE: 35
5. PLANNING BRIEF: 36
6. PROPOSED INFRASTRUCTURE: 37
7. REHABILITATION & RESETTLEMNET (R & R) PLAN: 39
8. PROJECT SCHEDULE & COST ESTIMATES: 40
9. ANALYSIS OF PROPOSAL & RECOMMENDATIONS 41
ANNEXURE 1: SURVEY NO'S OF PROPOSED PROJECT 42
ANNEXURE 2 LOCATION MAP 63
ANNEXURE 3 LAYOUTPLAN 64
ANNEXURE 4 VILLAGE MAP 66
ANNEXURE 5 ALTERNATIVE SITES 68
ANNEXURE 6 SENSITIVITY MAP 69
ANNEXURE 7 MMB LEASE DEED 70
ANNEXURE 8 EXTRACT FROM MMB PORT POLICY 90

1. EXECUTIVE SUMMARY:

Srei Infrastructure Finance Ltd., the leading corporate group in infrastructure project finance and lease finance for equipment & machinery is already engaged in developing & financing of BOT projects in road infrastructure. In the port sector, it is proposed to do the development through its special purpose vehicle (SPV) I Log Ports (P) Ltd and have already started preliminary activities of identification of various sites for port developments in coastal states of India.

In pursuant to its vision to make long term investments in ports and harbour sector, **I Log Ports (P) Ltd.** were looking for a suitable site on west coast of India, preferably in Maharashtra. Accordingly, the team of I Log Ports (P) Ltd. and their consultants studied various locations along 720 kms. Coastline of Maharashtra and found that the waterfront near village Nate in Rajapur Taluka of Ratnagiri district was prima facie suitable as a potential site for development of a port.

The proposal is for developing a Jetty for captive & third party cargo, modern all weather port, in phases, at village Nate, Tal: Rajapur, Dist: Ratnagiri, Maharashtra to handle all type of cargo such as bulk, break bulk, container, liquid, gases (LPG, LNG) and other captive & third party cargo with projected throughput of 1.50 million tonnes per annum in initial years to about 10 million tonnes per year, in the later years.

Proposed Jetty for Captive & Third Party Cargo at Nate village will handle 10 Million TPA of cargo volume.
In Phase 1, at peak capacity of 5 MMTPA throughput, at any given point in time, the port back-up may store the following quantities:-

- 200,000 mt dry cargo (six turn arounds) appx 1.25 MMTPA
- 150,000 mt liquids (8 turn arounds) appx 1.25 MMTPA
- 125,000 mt liquefied gases (20 turn around) appx 2.5 MMTPA

In Phase 2, at peak capacity of 10MMTPA throughput, at any given point in time, the port back-up may store the following quantities:-

- 400,000 mt dry cargo (six turn arounds) appx 2.5 MMTPA
- 300,000 mt liquids (8 turn arounds) appx 2.5 MMTPA
- 250,000 mt liquefied gases (20 turn around) 5 MMTPA

Proposed Jetty for Captive & Third Party Cargo will be set up in an area of 428.15 Ha (initial phase 100 Ha.)

The infrastructure planned consists of a main berth about 1000m away from shoreline connected by an Approach trestle / Approach bund connecting to the shore line.

In addition to available back up land of about 430 hectares, it is proposed to develop additional area of about 1,50,000 sq.m^3 in intertidal/water area by reclamation using dredged material and excavated material from grading of backup land.

It is proposed to provide storage area for bulk, container, liquid, gases, general cargo and other captive & third party cargo along with area for administrative block and utility services.

The total investment planned in Phase I is Rs. 1350.00 million for project to be developed in 24 months. The financial analysis gives internal rate of return (IRR) of about 20.0% +.

In addition to economic viability, the project has considerable benefits from social cost benefit aspect. The project is coming in undeveloped/under developed area of Konkan covering southern part of Ratnagiri district and will result in economic upliftment of region through creation of new jobs, improvement in social and other infrastructure and living standard of people.

The project is viable from technical, economic and social consideration and is recommended for implementation after taking necessary permission from various statutory and local authorities.

2. INTRODUCTION / BACKGROUND:

2.1 Identification of project & project proponent

Srei Infrastructure Finance Ltd., the project proponent is the leading corporate group in infrastructure project finance and lease finance for equipment & machinery and is already engaged in developing & financing of BOT projects in road infrastructure. In the port sector, it is proposed to do the development through its special purpose vehicle (SPV) I Log Ports (P) Ltd and have already started preliminary activities of identification of various sites for port developments in coastal states of India.

In pursuant to its vision to make long term investments in ports and harbour sector, I Log Ports (P) Ltd were looking for a suitable site on west coast of India, preferably in Maharashtra. Accordingly, the team of I Log Ports (P) Ltd. and their consultants studied various locations along 720 kms. Coastline of Maharashtra and found that the waterfront near village Nate in Rajapur Taluka of Ratnagiri district was prima facie suitable as a potential site for development of a port.

2.2 Brief description of nature of project:

The project is for development of a modern all weather port on BOOT basis on west coast near Nate, Dist: Ratnagiri, for handling all types of cargo such as bulk, general, containerized, liquid, gases (LPG, LNG) and other captive & third party cargo which will be required to be handled for I Log Ports (P) Ltd, and other associate companies being promoted by group for developing port based industries such as power plants, steel plants, sugar plant, cement bagging plant through backward and forward integration at a location to be identified suitably for which necessary approvals as required would be taken.

2.3 Need for the project:

Maharashtra has a coast line of 720 km with only 2 major ports concentrated of Mumbai i.e. Mumbai Port and Jawaharlal Nehru Port. Although 7 ports were identified by Maharashtra Maritime Board under policy of green field port, no port has been commissioned in yet.

Considering port sector growth projected for India as a whole and of Maharashtra, and reported figures of actual handling, there is considerable gap in port infrastructure to handle projected cargo. In addition, I log port has plans to develop port based industries through backward/forward integration giving rise to captive cargo need. Out of total cargo demand gap of about 300 million tonne per annum about 2 to 5 million tonnes per annum is planned initially through this port.

2.4 Demand-Supply Gap:

At present, Indian ports are handling about 560 million tonnes against projected cargo of about 950 million tonnes in 2011-12 and 1600 million tonnes by 2025-26 which is considered very conservative estimate. The projected demand-supply gap on west coast alone is in excess of 300 million tonnes.

Therefore, the projected demand of about 2 to 5 million tonnes per annum in initial years in quite reasonable.

2.5 Imports vs Indigenous production:

The proposed port is planned to be developed for handling of cargo for both import as well as export.

The existing industries in hinterland as well as proposed industries through backward / forward integration would be able to effectively use the port.

2.6 Exports Possibility:

The proposed port would be suitable for export of materials / products which are presently exported through distant ports as well as future products being manufactured in the hinterland.

2.7 Domestic / Export Markets:

There is existing demand from the existing / proposed industries for import of materials for domestic use as well export of materials/products.

2.8 Employment Generation (Direct & Indirect) due to the project

Based on the preliminary estimates, the direct employment due to proposed project will be about 600 during the construction period and about 150 in the initial stages which will get increased progressively as further stages are implemented. The indirect employment due to proposed project is expected to be in excess of 350.

3. PROJECT DESCRIPTION:

3.1 Type of Project (including interlinked & interdependent projects)

The proposal is for development of a port with provision for developing port based industries through forward /backward integration which will provide for captive cargo as well.

3.2 Location

The site for the proposed port is on west coast of Maharashtra, located near Nate, Taluka: Rajapur, Dist: Ratnagiri.

The site is about 14 kms from junction of Nate, off coastal highway and 30 kms from Rajapur on NH-17. The present access road would need widening as part of first phase of port development and before commercial operations are started after initial trial runs.

The nearest main railway station on Konkan Railway is Ratnagiri at about 63 kms from the proposed port site. The site lies in southern part of Ratnagiri district of coastal Konkan division of Maharashtra on latitude 16°38'54" N & 16°39'30" N and longitude 73°19'45" E & 73°20'00" E. The site is 136 nautical miles south of Mumbai port by sea and 422 kms from Mumbai city.

3.3 Details of alternate sites considered and selection criteria

The alternative sites considered were Ganeshgule in Ratnagiri district and Alewadi near Dahanu in Thane district as well as few other locations.

Both the sites as well as other locations were not considered due to non-availability of required back up land technical aspects and other considerations as per detailed comparative evaluation of various locations.

3.4 Size or magnitude of operation

The proposed port is planned to handle cargo of about 2 to 5 million tonnes per year in the initial years. Further expansion with additional cargo demand will be considered in future when such need arises. The cargo to be handled will be bulk, break bulk liquid cargo, gases(LPG, LNG).

In Phase 1, at peak capacity of 5 MMTPA throughput, at any given point in time, the port back-up may store the following quantities:-

- 200,000 mt dry cargo (six turn arounds) appx 1.25 MMTPA
- 150,000 mt liquids (8 turn arounds) appx 1.25 MMTPA
- 125,000 mt liquefied gases (20 turn around) appx 2.5 MMTPA

In Phase 2, at peak capacity of 10MMTPA throughput, at any given point in time, the port back-up may store the following quantities:-

- 400,000 mt dry cargo (six turn arounds) appx 2.5 MMTPA
- 300,000 mt liquids (8 turn arounds) appx 2.5 MMTPA
- 250,000 mt liquefied gases (20 turn around) 5 MMTPA

Proposed Jetty for Captive & Third Party Cargo will be set up in an area of 428.15 Ha (initial phase 100 Ha.)

3.5 Project description with process details

The project is for development of a modern fair weather port initially and to be converted in to all weather port in future as need arises. There is no process involved except loading/unloading of various cargo items and the transportation from the berths to transit storage and to their destinations or receipt of cargo from hinterland to transit storage and transport to berths and loading area.

3.6 Raw materials required and quantum

The raw materials are required only for port development and will be mainly in the form of construction materials given below.

Cement	–	10500 Tonnes
Aggregate (Coarse/fine)	–	26000 Cum
M. S. Plates	–	2700 tonne
Reinforcement steel	–	3500 Tonne
Structural Steel	–	150 Tonne
Bricks	–	150000 Nos.
Steel form work	–	150 MT
Timber	–	30 Cum

3.7 Resource optimization / recycling

The proposed project is development of a port and its operation. Therefore, resource optimization will be mainly in the form of effective use of infrastructure created and optimization of berth occupancy and utilities and services.

3.8 Availability of water & source

The water will be taken from state water Board (Jeevan Pradhikaran) or any other local source. The ground water reservoir of 500 m^3 capacity and elevated reservoir of 150 m^3 capacities will be constructed. Water consumption will be 150 KLD.

(b) Energy / Power requirement & source

Power will be taken from Maharashtra State Electricity Distribution Company.

Initial Power requirement will be 900 KVA which will get increased to about 2000 KVA or more in the later stages.

Standby / Emergency sources of Power are DG Sets of 500KVA

3.9 Quantity of wastes

The estimated quantity of waste water generated from port operation will be approximately 100 KLD.

The estimated quantity of solid waste generated during the operations will be 50 KG.

3.10 Schematic representations of feasibility drawings giving information for EIA purpose

Drawing giving development plan of proposed port along with location plan, CRZ map and land map are enclosed.

4. SITE ANALYSIS:

4.1 Connectivity:

The site is easily accessible by a village road from coastal highway connecting Ratnagiri & Rajapur at Nate junction covering a distance of about 14.00 kms. However, the provision will be required to be made for widening to two lanes initially to four lanes in future to take care of the increased traffic intensity.

The railway siding can be planned in future near Ratnagiri station of Konkan Railway at 63.00 kms from the proposed port site.

The nearest Rajapur Railway station on Konkan Railway is at 30.00 km.

4.2 Land Form / Land use / Land ownership

At present the land is waste land / barren without any agriculture activity or other use.

The land is owned by private parties.

Additional land will be developed by reclamation in intertidal / water area as per development plan imposed using dredged material / excavated material.

4.3 Topography

The land is at an elevation of about 35 m above MSL and is with gradient varying from gradual to steep.

The elevated land portion will be graded and excavated material will be used for land to be developed in intertidal/water area by reclamation.

4.4 Existing land use pattern

The existing land is barren without any cultivation or other use.

4.5 Existing Infrastructure:

There is no infrastructure available at present at proposed site.

4.6 Soil classification:

No subsoil investigation has been carried out at the proposed port site. However, based on the secondary sources, which include general soil stratification observed during construction of nearby bridges and other nearby locations, the generalized soil stratification is expected to be as under.

Generalized soil profile

Bed level to -14.00 m	Silty sand to lose sand mixed with clay.
-14.00m to -22.00m	Medium sand/ clay mixture
-22.00m to -25.00m	Weathered rock
-25.00m onwards	Soft to moderately hard rock.

4.7 Climatic data from secondary sources:

The meteorological and oceanographic data based on the various studies carried out by the Maharashtra Maritime Board through National Institute of Oceanographic Studies (NIO) and other specialist agencies are as given below.

4.7.1 Datum:

The datum to which all levels shall be referred for the purpose of work is the mean sea level. The chart datum (0.0) is about 1.45 m below the mean sea level at Musakaje which is the nearest minor port with a passenger jetty.

4.7.2 Temperature & relative humidity:

The climate is tropical as in the other Konkan area and the region experiences moderate to extreme temperature variations. The temperature in the proposed port area of Nate is expected to be ranging between 22°C to 36°C.

The relative humidity is expected to be low to moderate and may vary relative humidity 40% and 70%.

4.7.3 Rainfall:

Rainfalls mainly occur in this area during the south-west monsoon in the months June-September. The mean annual rainfall in whole rainy season is around 2950 mm.

In view of the area prone to heavy rains and floods during the monsoon, the construction activities will be planned giving due considerations to these factors. Similarly, during operation stage, the monsoon activities and targets cargo handling will be specially planned taking into account possible disruptions.

4.7.4 Winds & tides:

Wind speeds of 45 kms/hour are known to accompany the monsoon waves offshore but inshore winds are thought to be lower than this. Wind conditions recorded by the offshore anemometer during a field measurement exercise carried out in 1994 by NIO were up to 40 kms. /hour in September which suggests that this speed can be taken as an approximate upper limit during non-monsoon operations. The admiralty pilot suggests non monsoon wind speeds are about 60% of monsoon wind speeds implying 30 to 40 kms. /hour which also fits in with the measurements.

CWPRS had conducted some study earlier for wind speed in the area north of Vijaydurg which is close to the proposed port site near Nate and reported wind speed up to 60 kms./hour maximum at Vijaydurg. This information suggests that during the operational period of the heavy cargo vessel extreme wind speeds of up to 60 kms./hour should be examined as a precaution.

The typical wind rose diagrams based on the observations of the Indian Meteorological Department and Marine Climatological summaries is shown in figures on page no. 6, 7, 8.

4.7.5 Visibility:

Visibility is generally good for most part of the year. There is possibility of lesser visibility during monsoon. On an average the visibility is expected to be over 4.0 kms for about 300 days in a year.

4.7.6 Currents:

The current near proposed port near Nate area are tide induced and with possible reversal at high and low waters. The current strength combined with wave effect is very high during monsoon and currents with moderate strength are also expected during non-monsoon months. The range in non-monsoon and monsoon months is expected to be 0.15 to 0.70 knots and 1.50 to 2.00 knots or more respectively.

4.7.7 Waves:

Information regarding waves in the Arabian Sea is documented in IDWR published in the Indian Meteorological Department, Pune, based on weather reports received from ships on passage at sea. Wave data over previous years as available and pertaining to the sea off the coast of Sindhudurg district were separately analysed during earlier studies by two organizations viz. the CWPRS, Pune and the MERI, Nasik, whereas the analysis carried out by the former was for observations covering a sea area of dimensions 5° of latitude by 5° of longitude (15°48'N to 20°48'N and 68°E to 73°E). The Nasik study confined its observation to a smaller and closer area of dimensions 3° of latitude (16°8'N to 19°8'N) by 3° of longitude (71°E to 74°E).

The findings of the two studies were by and large mutually supportive. Rose diagrams showing wave characteristics month by month as presented by CWPRS are reproduced on page nos. 6, 7, 8. The proposed location at area covered by these studies.

The wave rose diagrams show that the southwest monsoon during the months of May to September whips up waves about 4.00 m in height and of periods ranging from 12" to 14". The directions from which these waves travel are predominantly from southwest to west. Waves of heights in excess of 2.00m occur frequently. However, the wave energy gets dampened progressively from open sea inside the river and the area in the vicinity of the existing jetty at Vijaydurg is found to be generally tranquil.

The proposed port site (north of Vijaydurg fort) is exposed to open sea waves from the predominant SW/W directions. Construction of a breakwater is hence necessary for rendering protection and shelter to the berthed vessels during monsoon.

During the fair weather months, waves travel in the area from west-northwest to north-northwest direction in the open sea. These waves however rarely exceed a height of 1 m.

The National Institute of Oceanography (NIO), Goa has conducted a study to determine the design waves at Vijaydurg which is about 15 nautical miles from proposed site. The NIO concluded a maximum design wave height of 4.67 m for 100 years return period based on measured data and 7.22m based on ship's observed data. The latter data being influenced by human errors in observation and judgment is not considered reliable to the same degree as the measured data. Hence, using measured data for this feasibility study, a design wave height of 4.50 m with a wave period of 10 sec in monsoon season can be assumed for preliminary technical feasibility study.

4.7.8 Hydrographic data:

The naval hydrographic chart no. 213 is referred for planning. The proposed port at Nate lies between latitude 16020'00" N & 16040'00" N and longitude $73^0$19'00" E and $73^0$39'00". A close grid confirmatory bathymetric survey will be carried out in the proposed port area.

4.8 Social Infrastructure available:

The proposed location is about 5 to 6 KM from village Nate where primary and secondary school and local medical centre is available with a small market.

5. PLANNING BRIEF:

5.1 Planning concept:

The port planning is made based on following parameters.

Based on the largest vessel likely to use port, the design draft requirement considered is initially 12.00 m which may increase to 14.00 m later (depth 15.00 m)

- Channel width considered is about 160 m.
- Turning circle diameter considered is 380 m.
- Initially only fair weather operations are considered.
- In subsequent phases breakwater will be provided for all weather operations

All other parameters such as navigational aspects, berth occupancy, Rate of cargo handling are also duly considered in planning.

5.2 Population Projection:

The population projection for the proposed project is only related to direct and indirect employment generation.

In construction stage, the temporary population will be about 600 and in the initial stage of operation direct and indirect population will be 150 and 350 respectively.

5.3 Land use planning:

As per the land use plan enclosed.

5.4 Assessment of Infrastructure Demand:

The infrastructure needs are assessed with respect to cargo demand and proposed to be developed in phases as per need.

5.5 Amenities / Facilities:

The Amenities/facilities proposed are in relation to the infrastructure proposed to be developed in phases.

6. PROPOSED INFRASTRUCTURE:

6.1 Industrial Area (Processing Area):

The proposed project is for development of a port as per the development plan given.

6.2 Residential Area:

The staff quarters will be provided outside the port complex in separate residential colony with related infrastructure developed few kilometres from proposed site near village Nate.

6.3 Green Belt:

The given belt will be provided as per specified norms.

6.4 Social Infrastructure:

In addition to develop social infrastructure related to residential area proposed to be developed, a medical centre provided with latest equipments will be developed for use of staff as well as locals.

6.5 Connectivity :

It is proposed to develop a two lane road initially connecting coastal highway to proposed port which will be widened at a later stage.

6.6 Drinking Water Management:

The drinking water and other water will be arranged locally through state water Board. (Jeevan Pradhikaran) or local bodies. The total water requirement is initially expected to be around 140 m^3 per day. The ground water reservoir of 500 m^3 capacity and elevated reservoir of 150 m^3 capacities will be constructed.

6.7 Sewerage System

Storm water drainage system using rational method with R.C.C drains of various sizes is proposed. The drains will ultimately discharge into sea through outfalls at various locations.

The sewerage system will be provided using sewage treatment plant of required capacity as per the design using the standard manual on sewage and sewage treatment. Waste water of 100 m3KLD is generated

6.8 Industrial Waste Management:

There is no industrial waste except waste water and solid waste the details of which are given in para 3.9.

The waste water will be treated in sewerage treatment plant (STP) of 100 m^3.

6.9 Solid Waste Management:

The biodegradable part of solid waste would be treated in organic waste converter at site. The remains of this treatment would be then used as manure in garden. The

non-biodegradable part generated from building will be disposed off to dumping ground.

6.10 Power Requirement & supply / source:

The electrical supply will be taken from MSEDC Ltd. from a nearby substation installing transformer of required capacity. In the initial stages, the power requirement would be 900 KVA which will get increased to about 2000 KVA at later stages.

Alternatively, a provision is made for a captive power plant of required capacity in the port complex itself.

Standby generators of about 300 KVA to 500 KVA will be provided for continuing critical operations in case of power failure.

7. REHABILITATION & RESETTLEMNET (R & R) PLAN:

7.1 Policy to be adopted (Central / State)

As there is no rehabilitation or resettlement of people, there is no need for any a plan for Rehabilitation & Resettlement under central or state policy.

8. PROJECT SCHEDULE & COST ESTIMATES:

8.1 Start of construction & completion

The bar chart showing construction schedule is enclosed.

8.2 Estimated project cost

Estimated project cost is 1350.00 million for development to be implemented in initial years i.e. Phase 1.

9. ANALYSIS OF PROPOSAL & RECOMMENDATIONS

9.1 Financial Assessment

Based on the preliminary financial assessment of Phase 1. Investment, the internal rate of return post depreciation is about 20.00 %, which is as per acceptable norms and therefore, project is financially viable.

9.2 Social Cost benefits

However, apart from the cost-benefit analysis from economic considerations, the project has considerable benefits from the point of view of social cost benefit analysis. The project is coming up in the undeveloped/ underdeveloped area of Konkan covering southern part of Ratnagiri district and nearby area is economically backward due to its interiorness and non-existence of any industry in the vicinity.

The population is mainly dependent on agricultural income, which is seasonal, grossly inadequate and uncertain due to dependency on vagaries of nature.

The proposed project will have major impact on social and economic upliftment of the region by overall improvement in living standard through creation of new jobs, increase in volume of general trade, general improvement in infrastructural facility with better transport and communication network.

9.3 Recommendations

As project is viable from techno-economic considerations as well as social aspects. The project is recommended for implementation after completing necessary formalities with respect to various permissions from statuary and local bodies.

ANNEXURE 1: SURVEY NO'S OF PROPOSED PROJECT

I Log Ports Private Limited

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1	141	1	0.4700
2	141	2	1.0900
3	141	3	5.4200
4	141	4	0.2200
5	141	5	0.3600
6	141	6	0.7300
7	141	7	2.1500
8	142	1	1.9000
9	142	2	1.7800
10	142	3	0.6100
11	142	4	2.0400
12	142	5	1.4200
13	142	6	0.0800
14	142	7	0.4700
15	142	8	1.2500
16	142	9	0.0600
17	142	10	0.3600
18	142	11	0.7700
19	143	1/1	0.0290
20	143	1/2	0.0140
21	143	1/3	0.0080
22	143	1/4	0.0110
23	143	1/5	0.0100
24	143	1/6	0.0160
25	143	1/7	0.0050
26	143	1/8	0.0050
27	143	1/9	0.0080
28	143	1/10	0.0100
29	143	2	0.0150
30	143	3	0.0150
31	143	4	0.1350
32	143	5	0.0080
33	143	6A	0.0100
34	143	6B	0.0130
35	143	7	0.0100
36	143	8	0.0050
37	143	9	0.0100
38	143	10	0.0130
39	143	11A	0.0130
40	143	11B	0.0080
41	143	12	0.0290
42	143	13A	0.0050
43	143	13B	0.0050
44	143	13C	0.0100
45	143	14/1	0.0050
46	143	14/2	0.0020
47	143	14/3	0.0080
48	143	14/4	0.0130
49	143	14/5	0.0080
50	143	14/6	0.0100
51	143	14/7	0.0100
52	143	14/8	0.0020
53	143	14/9	0.0020
54	143	14/10	0.0100
55	143	14/11	0.0020
56	143	14/12	0.0020
57	143	14/13	0.0050
58	143	14/14	0.0050
59	143	14/15	0.0050
60	143	14/16	0.0020
61	143	15	0.2590
62	143	16	0.0050
63	143	17	0.0100
64	143	18	0.0100
65	143	19/1	0.0020
66	143	19/2	0.0020
67	143	19/3	0.0050

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
68	143	19/4	0.0050
69	143	19/5	0.0050
70	143	19/6	0.0020
71	143	20	0.0080
72	143	21A	0.0080
73	143	21B	0.0100
74	143	21C	0.0100
75	143	22/1	0.0020
76	143	22/2	0.0050
77	143	22/3	0.0050
78	143	22/4	0.0100
79	143	22/5	0.0050
80	143	22/6	0.0050
81	143	22/7	0.0080
82	143	23	0.0020
83	143	24A	0.0020
84	143	24B	0.0020
85	143	24C	0.0020
86	143	24D	0.0020
87	143	24E	0.0200
88	143	25A	0.0050
89	143	25B	0.0050
90	143	25C	0.0050
91	143	25D	0.0050
92	143	25E	0.0050
93	143	26	0.0150
94	143	27A	0.0100
95	143	27B	0.0100
96	143	27C	0.0100
97	143	27D	0.0080
98	143	28	0.0250
99	143	29A	0.0050
100	143	29B	0.0080
101	143	30/1	0.0310
102	143	30/2	0.0310
103	143	30/3	0.0300
104	143	30/4	0.0100
105	143	30/5	0.0050
106	143	30/6	0.0050
107	143	30/7	0.0050
108	143	30/8	0.0230
109	143	30/9	0.0100
110	143	30/10	0.0050
111	143	30/11	0.0050
112	143	30/12	0.0200
113	143	31A	0.0050
114	143	31B	0.0080
115	143	32A	0.0080
116	143	32B	0.0050
117	143	33/1	0.0020
118	143	33/2	0.0050
119	143	33/3	0.0020
120	143	33/4	0.0050
121	143	33/5	0.0020
122	143	33/6	0.0020
123	144	1	0.0080
124	144	2A	0.0100
125	144	2B	0.0080
126	144	2C	0.0050
127	144	3A	0.0050
128	144	3B	0.0080
129	144	3C	0.0080
130	144	3D	0.0050
131	144	4/1	0.0100
132	144	4/2	0.0200
133	144	5	0.0100
134	144	6A	0.0050
135	144	6B	0.0020
136	144	6C	0.0050
137	144	7/1	0.0100

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
138	144	7/2	0.0050
139	144	7/3	0.0020
140	144	7/4	0.0050
141	144	7/5	0.0020
142	144	7/6	0.0050
143	144	7/7	0.0020
144	144	7/8	0.0080
145	144	7/9	0.0050
146	144	7/10	0.0050
147	144	7/11	0.0080
148	144	7/12	0.0020
149	144	8/1	0.0130
150	144	8/2	0.0020
151	144	8/3	0.0020
152	144	8/4	0.0050
153	144	8/5	0.0050
154	144	8/6	0.0020
155	144	8/7	0.0080
156	144	8/8	0.0050
157	144	8/9	0.0050
158	144	8/10	0.0020
159	144	8/11	0.0020
160	144	9	0.0260
161	144	10A	0.0050
162	144	10B	0.0050
163	144	10C	0.0050
164	144	11	0.0050
165	144	12A	0.0020
166	144	12B	0.0020
167	144	13	0.0080
168	144	14	0.0050
169	144	15	0.0080
170	144	16	0.0100
171	144	17	0.0080
172	144	18	0.0050
173	144	19	0.0170
174	144	20A	0.0020
175	144	20B+20C	0.0020
176	144	21	0.0050
177	144	22/1	0.0050
178	144	22/2	0.0020
179	144	22/3	0.0020
180	144	22/4	0.0050
181	144	22/5	0.0020
182	144	22/6	0.0100
183	144	22/7	0.0020
184	144	22/8	0.0020
185	144	22/9	0.0020
186	144	23	0.0300
187	144	24	0.0050
188	144	25A	0.0100
189	144	25B	0.0080
190	144	26A	0.0020
191	144	26B	0.0050
192	144	26C	0.0050
193	144	27A	0.0020
194	144	27B	0.0020
195	144	28A	0.0080
196	144	28B	0.0020
197	144	29	0.0050
198	144	30A	0.0020
199	144	30B	0.0020
200	144	30C	0.0020
201	144	30D	0.0020
202	144	31	0.0230
203	144	32	0.0020
204	144	33A	0.0050
205	144	33B	0.0050
206	144	34	0.0380
207	144	35	0.0150

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
208	144	36	0.0080
209	144	37A	0.0360
210	144	37B	0.0170
211	144	38/1	0.0200
212	144	38/2	0.0100
213	144	38/3	0.0100
214	144	38/4	0.0100
215	144	38/5	0.0100
216	144	39	0.0280
217	144	40	0.0050
218	144	41/1	0.0020
219	144	41/2	0.0050
220	144	41/3	0.0050
221	144	41/4	0.0020
222	144	41/5	0.0050
223	144	41/6	0.0050
224	144	41/7	0.0050
225	144	41/8	0.0080
226	144	41/9	0.0080
227	144	42	0.0100
228	144	43	0.0100
229	144	44	0.0190
230	144	45	0.0080
231	144	46	0.0050
232	144	47	0.0050
233	144	48	0.0080
234	144	49	0.0050
235	144	50	0.0080
236	144	51A	0.0050
237	144	51B	0.0050
238	144	51C	0.0080
239	144	51D	0.0080
240	144	52A	0.0020
241	144	52B	0.0080
242	144	53A	0.0050
243	144	53B	0.0080
244	144	54/1	0.0100
245	144	54/2	0.0080
246	144	54/3	0.0080
247	144	54/4	0.0080
248	144	54/5	0.0050
249	144	54/6	0.0050
250	144	54/7	0.0160
251	144	54/8	0.0080
252	144	54/9	0.0100
253	144	54/10	0.0190
254	144	54/11	0.0020
255	144	54/12	0.0020
256	144	54/13	0.0080
257	144	54/14	0.0020
258	144	54/15	0.0020
259	144	54/16	0.0290
260	144	55/1	0.0020
261	144	55/2	0.0140
262	144	55/3	0.0020
263	144	55/4	0.0140
264	144	55/5	0.0050
265	144	55/6	0.0020
266	144	55/7	0.0050
267	144	55/8	0.0080
268	144	55/9	0.0050
269	144	55/10	0.0080
270	144	55/11	0.0020
271	144	55/12	0.0020
272	144	55/13	0.0020
273	144	55/14	0.0080
274	144	55/15	0.0050
275	144	55/16	0.0100
276	144	55/17	0.0100
277	144	55/18	0.0020

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
278	144	55/19	0.0020
279	144	55/20	0.0020
280	144	56/1	0.0080
281	144	56/2	0.0050
282	144	56/3	0.0050
283	144	56/4	0.0080
284	144	56/5	0.0050
285	144	56/6	0.0080
286	144	56/7	0.0020
287	144	56/8	0.0020
288	144	56/9	0.0020
289	144	56/10	0.0020
290	144	57	0.0100
291	144	58	0.0220
292	144	59A	0.0050
293	144	59B	0.0080
294	144	59C	0.0050
295	144	59D+60A	0.0100
296	144	59E+60B	0.0080
297	144	61/1	0.0020
298	144	61/2	0.0020
299	144	61/3	0.0020
300	144	61/4	0.0050
301	144	61/5	0.0020
302	144	62/1	0.0050
303	144	62/2	0.0020
304	144	62/3	0.0050
305	144	62/4	0.0050
306	144	62/5	0.0080
307	144	62/6	0.0020
308	144	62/7	0.0020
309	144	62/8	0.0020
310	144	62/9	0.0110
311	144	62/10	0.0140
312	144	62/11	0.0050
313	144	62/12	0.0050
314	144	62/13	0.0110
315	144	62/14	0.0080
316	144	62/15	0.0050
317	144	62/16	0.0050
318	144	62/17	0.0020
319	144	62/18	0.0080
320	144	62/19	0.0080
321	144	62/20	0.0100
322	144	62/21	0.0020
323	144	62/22	0.0050
324	144	62/23	0.0020
325	144	62/24	0.0020
326	144	62/25	0.0080
327	144	62/26	0.0020
328	144	62/27	0.0050
329	144	62/28	0.0020
330	144	62/29	0.0050
331	144	63/1	0.0050
332	144	63/2	0.0020
333	144	63/3	0.0020
334	144	63/4	0.0020
335	144	63/5	0.0020
336	144	63/6	0.0020
337	144	63/7	0.0020
338	144	63/8	0.0020
339	144	63/9	0.0050
340	144	63/10	0.0050
341	144	63/11	0.0080
342	144	64/1	0.0170
343	144	64/2	0.0020
344	144	64/3	0.0050
345	144	64/4	0.0020
346	144	64/5	0.0050
347	144	64/6	0.0080

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
348	144	64/7	0.0080
349	144	64/8	0.0080
350	144	65A	0.0080
351	144	65B	0.0100
352	144	65C	0.0080
353	144	65D	0.0100
354	145	1/1	0.2310
355	145	1/2	0.0230
356	145	1/3	0.0150
357	145	1/4	0.0440
358	145	1/5	0.0300
359	145	1/6	0.0640
360	145	1/7	0.0400
361	145	1/8	0.0450
362	145	2/1	0.1200
363	145	2/2	0.0050
364	145	2/3	0.0080
365	145	2/4	0.0050
366	145	2/5	0.0050
367	145	2/6	0.0250
368	145	2/7	0.0020
369	145	2/8	0.0050
370	145	2/9	0.0050
371	145	2/10	0.0050
372	145	2/11	0.0050
373	145	2/12	0.0050
374	145	2/13	0.0100
375	145	2/14	0.0100
376	145	2/15	0.0100
377	145	2/16	0.0050
378	145	2/17	0.0050
379	145	2/18	0.0050
380	145	2/19	0.0050
381	145	2/20	0.0100
382	145	2/21	0.0050
383	145	2/22	0.0080
384	145	2/23	0.0100
385	145	2/24	0.0100
386	145	2/25	0.0050
387	145	2/26	0.0050
388	145	2/27	0.0130
389	145	2/28	0.0050
390	145	2/29	0.0050
391	145	2/30	0.0150
392	145	2/31	0.0400
393	145	2/32	0.0400
394	145	2/33	0.0690
395	145	3A+7B	0.0330
396	145	3B	0.0100
397	145	3C	0.0150
398	145	3D	0.0080
399	145	3E	0.0150
400	145	9+4A	0.0200
401	145	4B	0.0020
402	145	4C	0.0100
403	145	4D	0.0180
404	145	5/1	0.0380
405	145	5/2	0.0130
406	145	5/3	0.0280
407	145	5/4	0.0150
408	145	5/5	0.0130
409	145	5/6	0.0150
410	145	6/1	0.0100
411	145	6/2	0.0050
412	145	6/3	0.0080
413	145	6/4	0.0080
414	145	6/5	0.0020
415	145	6/6	0.0050
416	145	6/7	0.0050
417	145	6/8	0.0080

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
418	145	6/9	0.0250
419	145	6/10	0.0130
420	145	6/11	0.0280
421	145	6/12	0.0380
422	145	6/13	0.0300
423	145	6/14	0.0280
424	145	6/15	0.0130
425	145	6/16	0.0130
426	145	7A	0.0200
427	145	8	0.0280
428	145	10A	0.0050
429	145	10B	0.0020
430	145	11	0.0080
431	145	12	0.0200
432	145	13	0.0130
433	145	14	0.0100
434	145	15	0.0150
435	145	16	0.0050
436	145	17	0.0050
437	145	18	0.0050
438	145	19A	0.0080
439	145	19B	0.0050
440	145	19C	0.0080
441	145	20A	0.0080
442	145	20B	0.0050
443	145	20C	0.0080
444	145	21/1	0.0020
445	145	21/2	0.0050
446	145	21/3	0.0020
447	145	21/4	0.0020
448	145	21/5	0.0020
449	145	21/6	0.0020
450	145	22A	0.0080
451	145	22B	0.0050
452	145	22C	0.0080
453	145	23/1	0.0050
454	145	23/2	0.0050
455	145	23/3	0.0080
456	145	23/4	0.0080
457	145	23/5	0.0080
458	145	23/6	0.0080
459	145	23/7	0.0150
460	145	23/8	0.0130
461	145	24/1	0.0080
462	145	24/2	0.0080
463	145	24/3	0.0080
464	145	24/4	0.0080
465	145	24/5	0.0020
466	145	24/6	0.0180
467	145	24/7	0.0050
468	145	24/8	0.0100
469	145	24/9	0.0200
470	145	24/10	0.0150
471	145	24/11	0.0300
472	145	24/12	0.0230
473	145	25	0.0080
474	145	26	0.0080
475	145	27	0.0660
476	145	28/1	0.0050
477	145	28/2	0.0050
478	145	28/3	0.0050
479	145	28/4	0.0080
480	145	28/5	0.0080
481	145	28/6	0.0100
482	145	28/7	0.0020
483	145	28/8	0.0020
484	145	28/9	0.0150
485	145	28/10	0.0150
486	145	28/11	0.0020
487	145	28/12	0.0020

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
488	145	28/13	0.0080
489	145	28/14	0.0100
490	145	28/15	0.0020
491	145	28/16	0.0100
492	145	28/17	0.0050
493	145	28/18	0.0080
494	145	28/19	0.0050
495	145	29	0.0050
496	145	30	0.0050
497	145	31	0.0100
498	145	32A	0.0100
499	145	32B	0.0100
500	145	33A	0.0500
501	145	33B	0.0400
502	145	33C	0.0100
503	145	33D	0.0080
504	145	33E	0.0180
505	145	34A+35B	0.0080
506	145	34B	0.0020
507	145	35A	0.0020
508	145	35C	0.0020
509	145	36A	0.0020
510	145	36B	0.0020
511	145	36C	0.0050
512	145	36D	0.0020
513	145	37A	0.0080
514	145	37B	0.0020
515	145	37C	0.0020
516	146	1	0.4500
517	146	2	0.0200
518	146	3	0.0500
519	146	4	0.0900
520	146	5	0.0400
521	146	6	0.3200
522	146	7	0.0200
523	146	8	0.0100
524	146	9	0.0500
525	146	10	0.0100
526	146	11/1	0.0400
527	146	11/2	0.0100
528	146	11/3+34A	0.0240
529	146	11/4	0.0200
530	146	11/5	0.0060
531	146	11/6	0.0060
532	146	12	0.0200
533	146	13	0.0100
534	146	14	0.0300
535	146	15	0.0100
536	146	16	0.0400
537	146	17	0.0300
538	146	18	0.0200
539	146	19	0.0300
540	146	20	0.0480
541	146	21	0.0100
542	146	22	0.0100
543	146	23	0.0200
544	146	24	0.0100
545	146	25	0.0300
546	146	26	0.0100
547	146	27	0.0200
548	146	28	0.0300
549	146	29	0.0100
550	146	30	0.0500
551	146	31	0.0200
552	146	32	0.0100
553	146	33A	0.0100
554	146	33B	0.0100
555	146	33C	0.0100
556	146	34B	0.0020
557	146	34C	0.0100

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
558	146	34D	0.0020
559	146	34E	0.0020
560	146	35	0.1800
561	146	36	0.3600
562	146	37A	0.0200
563	146	37B	0.0300
564	146	38A	0.0400
565	146	38B	0.0100
566	146	38C	0.0100
567	146	39/1	0.0100
568	146	39/2	0.0300
569	146	39/3	0.0100
570	146	39/4	0.0100
571	146	39/5	0.0200
572	146	39/6	0.0100
573	146	39/7	0.0100
574	146	40A	0.0100
575	146	40B	0.0100
576	146	40C	0.0100
577	146	41A	0.0500
578	146	41B	0.0200
579	146	41C	0.0100
580	146	41D	0.0100
581	146	42A	0.0200
582	146	42B	0.0200
583	146	42C	0.0100
584	146	43	0.0200
585	146	44	0.3500
586	146	45	0.0400
587	146	46	0.0500
588	146	47	0.0400
589	146	48/1	0.1500
590	146	48/2	0.0100
591	146	48/3	0.0100
592	146	48/4	0.0100
593	146	48/5	0.0100
594	146	48/6	0.0100
595	146	49	0.9600
596	146	50	0.0800
597	146	51	0.1100
598	146	52	0.1000
599	146	53	1.8400
600	146	54	0.1700
601	146	55	0.8200
602	146	56	0.2600
603	146	57	0.1200
604	146	58	0.0500
605	146	59	3.0900
606	146	60	0.0200
607	146	61	0.0700
608	146	62	0.0900
609	146	63	0.1600
610	146	64	0.0100
611	146	65	0.0400
612	146	66	0.0400
613	146	67	0.0300
614	146	68	0.0100
615	146	69	0.0800
616	146	70	0.0300
617	146	71	0.0300
618	146	72	0.0300
619	146	73	0.0800
620	146	74	0.0300
621	146	75	0.0100
622	146	76	0.0200
623	146	77/1	0.0050
624	146	77/2	0.0100
625	146	77/3	0.0050
626	146	77/4	0.0050
627	146	77/5	0.0050

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
628	146	78	0.0300
629	146	79	0.0200
630	146	80	0.0300
631	146	81	0.0800
632	146	82	0.2700
633	146	83	0.2400
634	146	84	0.8800
635	146	85	0.1200
636	146	86	0.2400
637	146	87	0.1200
638	146	88	0.2800
639	146	89	0.0100
640	146	90	0.0800
641	146	91	0.0300
642	146	92	0.0400
643	146	93	0.0500
644	146	94/1	0.0200
645	146	94/2	0.0300
646	146	94/3	0.0300
647	146	94/4	0.0700
648	146	95	0.0400
649	146	96/1	2.5900
650	146	96/2	0.0100
651	147	1/1	0.0080
652	147	1/2	0.0130
653	147	1/3	0.0100
654	147	1/4	0.0240
655	147	1/5	0.0190
656	147	1/6	0.0100
657	147	1/7	0.0050
658	147	1/8	0.0080
659	147	1/9	0.0050
660	147	1/10	0.0080
661	147	1/11	0.0050
662	147	1/12	0.0080
663	147	1/13	0.0100
664	147	1/14	0.0050
665	147	1/15	0.0020
666	147	1/16	0.0020
667	147	1/17	0.0080
668	147	1/18	0.0100
669	147	1/19	0.0210
670	147	1/20	0.0020
671	147	1/21	0.0050
672	147	1/22	0.0020
673	147	1/23	0.0080
674	147	1/24	0.0130
675	147	1/25	0.0050
676	147	1/26	0.0130
677	147	1/27	0.0050
678	147	1/28	0.0020
679	147	1/29	0.0020
680	147	1/30	0.0100
681	147	1/31	0.0020
682	147	1/32	0.0020
683	147	1/33	0.0020
684	147	1/34	0.0100
685	147	1/35	0.0080
686	147	1/36	0.0080
687	147	1/37	0.0020
688	147	1/38	0.0130
689	147	1/39	0.0020
690	147	1/40	0.0100
691	147	1/41	0.0020
692	147	1/42	0.0080
693	147	1/43	0.0020
694	147	1/44	0.0050
695	147	1/45	0.0100
696	147	1/46	0.0020
697	147	1/47	0.0020

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
698	147	1/48	0.0020
699	147	1/49	0.0020
700	147	1/50	0.0050
701	147	1/51	0.0050
702	147	1/52	0.0020
703	147	1/53	0.0020
704	147	1/54	0.0050
705	147	1/55	0.0020
706	147	1/56	0.0020
707	147	1/57	0.0100
708	147	2A	0.0130
709	147	2B	0.0100
710	147	2C	0.0160
711	147	3/1	0.0050
712	147	3/2	0.0100
713	147	3/3	0.0100
714	147	3/4	0.0050
715	147	3/5	0.0020
716	147	3/6	0.0020
717	147	3/7	0.0050
718	147	3/8	0.0140
719	147	3/9	0.0100
720	147	3/10	0.0130
721	147	3/11	0.0080
722	147	3/12	0.0080
723	147	3/13	0.0100
724	147	3/14	0.0050
725	147	3/15	0.0080
726	147	4A	0.0190
727	147	4B	0.0130
728	147	4C	0.0100
729	147	4D	0.0150
730	147	5	0.0260
731	148	1	1.9900
732	148	2	0.1600
733	148	3	0.3300
734	148	4	0.4600
735	148	5	0.2000
736	148	6	0.2000
737	148	7	0.0500
738	148	8/1	0.1000
739	148	8/2	0.0100
740	148	8/3	0.0100
741	148	8/4	0.0100
742	148	8/5	0.0100
743	148	8/6	0.0100
744	148	9/1	0.0800
745	148	9/2	0.0100
746	148	9/3	0.0100
747	148	9/4	0.0100
748	148	9/5	0.0100
749	148	9/6	0.0100
750	148	10	0.0300
751	148	11	0.0100
752	148	12	0.0100
753	148	13	0.0300
754	148	14	0.0200
755	148	15	0.0400
756	148	16	0.0200
757	148	17A	0.0100
758	148	17B	0.0100
759	148	17C	0.0100
760	148	17D	0.0100
761	148	18	0.0500
762	148	19	0.1000
763	148	20	0.0300
764	148	21A	0.0200
765	148	21B	0.0100
766	148	22	0.0500
767	148	23A	0.0400

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
768	148	23B	0.0300
769	148	24A	0.0200
770	148	24B	0.0200
771	148	24C	0.0500
772	148	25A	0.0100
773	148	25B	0.0200
774	148	25C	0.0200
775	148	25D	0.0100
776	148	25E	0.0100
777	148	26	0.2900
778	148	27	0.0600
779	148	28	0.2400
780	148	29A	0.0200
781	148	29B	0.0100
782	148	29C	0.0200
783	148	29D	0.0100
784	148	29E	0.0200
785	148	30	0.1000
786	148	31	0.0900
787	148	32A	0.0300
788	148	32B	0.0200
789	148	32C	0.0100
790	148	33	0.0600
791	148	34A	0.0300
792	148	34B	0.0200
793	148	34C	0.0200
794	148	35A	0.0300
795	148	35B	0.0100
796	148	35C	0.0200
797	148	36	0.0500
798	148	37/1	0.0400
799	148	37/2	0.0200
800	148	37/3	0.0100
801	148	37/4	0.0200
802	148	37/5	0.0100
803	148	37/6	0.0300
804	148	37/7	0.0100
805	148	37/8	0.0300
806	148	37/9	0.0100
807	148	37/10	0.0200
808	148	37/11	0.0100
809	148	37/12	0.0100
810	148	37/13	0.0100
811	148	37/14	0.0100
812	148	38/1	0.0100
813	148	38/2	0.0100
814	148	38/3	0.0100
815	148	38/4	0.0200
816	148	38/5	0.0200
817	148	38/6	0.0100
818	148	38/7	0.0100
819	148	38/8	0.0100
820	148	38/9	0.0100
821	148	38/10	0.0200
822	148	38/11	0.0200
823	148	38/12	0.0100
824	148	38/13	0.0100
825	148	38/14	0.0100
826	148	38/15	0.0100
827	148	38/16	0.0300
828	148	38/17	0.0100
829	148	38/18	0.0100
830	148	38/19	0.0200
831	148	38/20	0.0100
832	148	38/21	0.0100
833	148	38/22	0.0100
834	148	38/23	0.0200
835	148	38/24	0.0400
836	148	39A	0.1300
837	148	39B	0.0500

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
838	148	39C	0.0800
839	148	39D	0.0500
840	148	40A	0.0900
841	148	40B	0.0900
842	148	41A	0.0300
843	148	41B	0.0100
844	148	41C	0.0100
845	148	41D	0.0050
846	148	41E	0.0050
847	148	42	0.0600
848	148	43	0.0300
849	148	44A+45D	0.0200
850	148	44B	0.0200
851	148	45A	0.0500
852	148	45B	0.0200
853	148	45C	0.0200
854	148	46/1	0.0020
855	148	46/2	0.0200
856	148	46/3	0.0020
857	148	46/4	0.0020
858	148	46/5	0.0100
859	148	46/6	0.0020
860	148	46/7	0.0100
861	148	46/8	0.0060
862	148	46/9	0.0100
863	148	46/10	0.0060
864	148	46/11	0.0100
865	148	47/1	0.0100
866	148	47/2	0.0100
867	148	47/3	0.0100
868	148	47/4	0.0100
869	148	47/5	0.0100
870	148	47/6	0.0100
871	148	48	0.0500
872	148	49	0.0100
873	148	50	0.0100
874	148	51	0.0100
875	148	52	0.0100
876	148	53	0.0100
877	148	54	0.0400
878	148	55A	0.0200
879	148	55B	0.0400
880	148	55C	0.0300
881	148	55D	0.0300
882	148	56	0.0300
883	148	57	0.0300
884	148	58	0.1100
885	148	59A	0.0100
886	148	59B	0.0200
887	148	59C	0.0100
888	148	60A+ 67B	0.0300
889	148	60B	0.0300
890	148	61/1	0.0100
891	148	61/2	0.0100
892	148	61/3	0.0100
893	148	61/4	0.0100
894	148	61/5	0.0100
895	148	61/6	0.0100
896	148	61/7	0.0100
897	148	61/8	0.0050
898	148	61/9	0.0050
899	148	62A	0.0200
900	148	62B	0.0100
901	148	62C	0.0100
902	148	62D	0.0300
903	148	62E	0.0100
904	148	63	0.3100
905	148	64	0.7200
906	148	65	2.4700
907	148	66	0.0600

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
908	148	67A	0.0500
909	148	67C	0.0400
910	148	68	0.0800
911	148	69	0.0500
912	148	70	0.0300
913	148	71	0.0250
914	148	72	0.0200
915	148	73	0.0250
916	148	74	0.0800
917	148	75	0.1000
918	148	76	0.0400
919	148	77	0.1200
920	148	78	0.0560
921	148	79	0.0400
922	148	80	0.0200
923	148	81	0.0160
924	148	82	0.0100
925	148	83	0.0100
926	148	84	0.0250
927	148	85	0.0170
928	148	86	0.0100
929	148	87	0.0090
930	148	88	0.0090
931	148	89	0.0060
932	148	90	0.0020
933	148	91	0.0200
934	148	92	0.0700
935	148	93	0.0100
936	148	94	0.0100
937	148	95	0.0600
938	148	96	0.0700
939	148	97	0.0400
940	148	98	0.0900
941	148	99	0.0500
942	148	100	0.0200
943	149	1	2.3200
944	149	2	0.1800
945	149	3	1.5900
946	149	4/1	0.4300
947	149	4/2	0.0100
948	149	4/3	0.0100
949	149	4/4	0.0300
950	149	4/5	0.0100
951	149	4/6	0.0100
952	149	5A	0.0100
953	149	5B	0.0100
954	149	5C	0.0100
955	149	5D	0.0100
956	149	6	0.0100
957	149	7	0.0100
958	149	8	0.0600
959	149	9	0.0300
960	149	10	0.0300
961	149	11/1	0.0300
962	149	11/2	0.0100
963	149	11/3	0.0300
964	149	11/4	0.0100
965	149	11/5	0.0100
966	149	11/6	0.0100
967	149	11/7	0.0500
968	149	12	0.0100
969	149	13	0.1100
970	149	14	1.0500
971	150	1	1.9000
972	150	2	6.8400
973	151	1	8.0200
974	151	2	0.2600
975	151	3	1.4800
976	151	4	1.1700
977	151	5	0.0300

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
978	151	6	0.0100
979	151	7	0.0600
980	151	8	0.0700
981	151	9	0.0500
982	151	10	0.0100
983	151	11	0.0200
984	151	12	0.0500
985	151	13	0.0100
986	151	14	0.0100
987	151	15	0.0100
988	151	16	0.1300
989	151	17	0.0300
990	151	18	0.0300
991	151	19	0.0100
992	151	20	0.0100
993	151	21	0.0400
994	151	22	0.0900
995	151	23	0.0100
996	151	24	0.0050
997	151	25	0.0400
998	151	26	0.0100
999	151	27	0.0050
1000	151	28	0.1000
1001	151	29	0.0400
1002	151	30	0.2200
1003	151	31	0.0200
1004	151	32	0.0100
1005	151	33	0.0300
1006	151	34	0.0300
1007	151	35	0.0600
1008	151	36	0.7600
1009	151	37	0.1400
1010	151	38	0.5400
1011	151	39	0.2000
1012	151	40	0.0900
1013	151	41	0.1800
1014	151	42	0.1200
1015	151	43	0.0100
1016	151	44	0.0200
1017	151	45	0.0100
1018	151	46	0.0100
1019	151	47	0.0100
1020	151	48	0.3200
1021	151	49	0.1200
1022	151	50	0.0800
1023	151	51	0.1600
1024	152	1	0.3260
1025	152	2	0.1290
1026	153	1	0.7900
1027	153	2	0.2000
1028	153	3	4.9400
1029	153	4	3.7000
1030	153	5	0.4500
1031	153	6	0.2600
1032	153	7	0.0500
1033	154	1	0.4500
1034	154	2/1	16.6100
1035	154	2/2	0.0200
1036	154	3	1.2500
1037	155	1	11.7900
1038	155	2	0.9300
1039	155	3	4.5700
1040	155	4	1.2600
1041	155	5	3.3600
1042	155	6	0.3200
1043	155	7	4.5500
1044	155	8	0.8900
1045	155	9	0.1800
1046	155	10	0.1400
1047	155	11	0.1200

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1048	155	12	0.2400
1049	155	13	0.3200
1050	155	14	0.6100
1051	155	15	1.2500
1052	155	16	0.6900
1053	156	1A	0.1000
1054	156	1B	0.1000
1055	156	2A	0.0600
1056	156	2B	0.0600
1057	156	3	5.7900
1058	156	4A	0.4600
1059	156	4B	0.2300
1060	156	5A	7.4900
1061	156	5B	12.3700
1062	156	6	0.4900
1063	156	7A	0.5900
1064	156	7B	0.5900
1065	156	8	0.0300
1066	156	9	0.0200
1067	156	10	0.0200
1068	156	11	0.5700
1069	156	12	0.2000
1070	156	13	0.1500
1071	156	14	0.0800
1072	156	15	0.1700
1073	156	16	0.0800
1074	156	17	2.1400
1075	156	18	1.0900
1076	156	19	0.9300
1077	157	1	0.1600
1078	157	2	0.3800
1079	157	3	0.2400
1080	157	4	0.9400
1081	157	5	0.1600
1082	157	6	0.2000
1083	157	7	0.1400
1084	157	8	0.0400
1085	157	9	0.9000
1086	157	10	0.2100
1087	157	11	0.1200
1088	157	12	0.0600
1089	157	13	0.6100
1090	157	14	0.7800
1091	157	15	0.1200
1092	157	16	0.0400
1093	157	17	0.0200
1094	157	18	0.1000
1095	157	19	0.0200
1096	157	20	0.0600
1097	157	21	0.0200
1098	157	22	0.0400
1099	157	23	0.0400
1100	157	24	0.0400
1101	157	25	0.0200
1102	157	26	0.0200
1103	157	27	0.4200
1104	157	28	0.0600
1105	157	29	0.0400
1106	157	30	0.0600
1107	157	31	0.0100
1108	157	32	0.0100
1109	157	33	0.5800
1110	157	34	0.1500
1111	157	35	0.0600
1112	157	36	0.5500
1113	157	37	0.2400
1114	157	38	0.1300
1115	157	39	0.0300
1116	157	40	0.0300
1117	157	41	0.0300

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1118	157	42	0.1500
1119	157	43	0.0500
1120	157	44	0.0700
1121	157	45	0.0400
1122	157	46	0.1200
1123	157	47	0.0200
1124	157	48	0.0400
1125	157	49	0.0500
1126	157	50	0.0350
1127	157	51	0.0420
1128	157	52	0.1700
1129	157	53	0.0330
1130	157	54	0.0400
1131	157	55	0.3600
1132	157	56	0.1400
1133	157	57	0.1200
1134	157	58A	0.0900
1135	157	58B	0.0500
1136	157	59	0.1600
1137	158	1	0.0230
1138	158	2	0.0500
1139	158	3	0.0380
1140	159	1	0.2890
1141	159	2	0.0900
1142	159	3	0.0510
1143	159	4	0.0100
1144	159	5	0.0080
1145	159	6	0.0250
1146	159	7	0.0830
1147	160	1	1.4400
1148	160	2A	1.3200
1149	160	2B	0.0900
1150	160	3A	0.5300
1151	160	3B	0.5200
1152	160	4	0.5400
1153	160	5	2.4000
1154	160	6A	0.2200
1155	160	6B	0.1400
1156	160	7	0.0900
1157	160	8	0.1200
1158	160	9	0.3400
1159	160	10	0.3400
1160	160	11	0.2200
1161	160	12	0.3000
1162	161	1A	0.0700
1163	161	1B	0.4050
1164	162	1	0.0400
1165	162	2	0.1320
1166	163	1	0.1800
1167	163	2	2.7600
1168	163	3	10.3400
1169	163	4	1.9900
1170	163	5	0.1200
1171	163	6	0.1400
1172	163	7	1.1300
1173	163	8	0.4900
1174	163	9	0.2600
1175	163	10	0.0200
1176	163	11	0.0400
1177	163	12	0.0500
1178	163	13	0.0600
1179	163	14	0.0400
1180	163	15	0.0300
1181	163	16	0.0300
1182	163	17	1.3400
1183	163	18	0.6900
1184	163	19	0.3000
1185	163	20	0.2600
1186	163	21	0.4000
1187	163	22	0.4000

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1188	163	23	0.2800
1189	163	24	0.5300
1190	163	25	0.1200
1191	163	26	0.2600
1192	163	27	1.0500
1193	163	28	0.2400
1194	163	29	0.2000
1195	163	30	0.2200
1196	163	31	0.4500
1197	164	1	0.2800
1198	164	2	0.1200
1199	164	3	0.3200
1200	164	4	0.8500
1201	164	5	2.4300
1202	164	6	2.0600
1203	164	7	0.8100
1204	164	8	0.3500
1205	164	9	4.0700
1206	164	10	0.1400
1207	164	11	0.1600
1208	164	12	0.4200
1209	164	13	0.2400
1210	164	14	0.1200
1211	164	15	2.0600
1212	164	16	1.7000
1213	164	17	0.5700
1214	164	18	1.4600
1215	164	19	3.0900
1216	164	20	1.6800
1217	164	21	0.0100
1218	164	22	2.6300
1219	164	23	0.6100
1220	164	24	0.1800
1221	164	25	0.2100
1222	165	1	1.1300
1223	165	2	2.0200
1224	165	3	3.1600
1225	165	4	3.3600
1226	165	5	2.8500
1227	165	6	2.5100
1228	165	7	1.5000
1229	166	1A	1.0600
1230	166	1B	1.0650
1231	166	1C	1.0650
1232	166	1D	1.0650
1233	166	1E	1.0550
1234	166	2/1	1.2600
1235	166	2/2	1.2600
1236	166	3	1.1700
1237	166	4	0.7900
1238	166	5	1.5600
1239	167	1A	0.0070
1240	167	1B	0.0070
1241	167	1C	0.0060
1242	167	1D	0.0060
1243	167	1E	0.0070
1244	168	0	0.0660
1245	170	1A	0.1650
1246	170	1B	0.1650
1247	170	1C	0.1800
1248	170	1D	0.1600
1249	170	1E	0.1600
1250	170	2	0.2900
1251	170	3	0.1400
1252	170	4	0.2500
1253	170	5	0.1400
1254	170	6	0.1800
1255	170	7A	0.6270
1256	170	7B	0.6260
1257	170	7C	0.6260

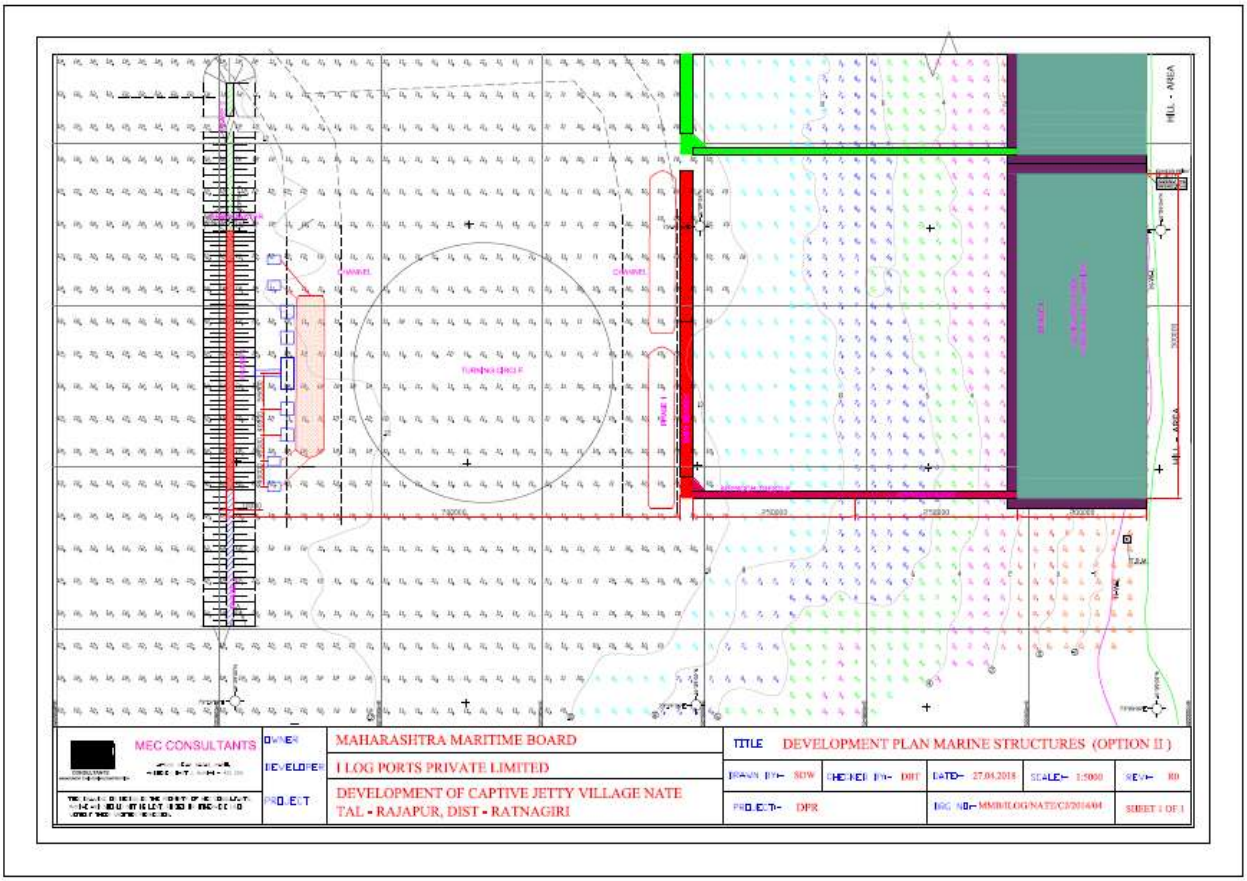
Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1258	170	7D	0.6280
1259	170	7E	0.5970
1260	170	8	0.4000
1261	170	9	1.2000
1262	170	10	0.2200
1263	171	1	0.1800
1264	171	2	0.1500
1265	171	3	0.1600
1266	171	4	0.1400
1267	171	5	0.0900
1268	171	6	0.0800
1269	171	7	1.6500
1270	171	8	0.0800
1271	171	9	0.5500
1272	171	10	0.2400
1273	171	11A	1.3100
1274	171	11B	1.3100
1275	171	11C	1.3100
1276	171	11D	1.3100
1277	171	11E	1.3100
1278	171	11F	4.6100
1279	171	12	0.1800
1280	171	13	0.3300
1281	171	14	3.0000
1282	171	15	0.1400
1283	171	16A	0.5000
1284	171	16B	0.5200
1285	171	16C	0.5100
1286	171	16D	0.5100
1287	171	16E	0.5100
1288	171	17	0.5100
1289	171	18	0.2600
1290	171	19	0.2400
1291	171	20	0.9100
1292	171	21	1.1600
1293	171	22	0.3200
1294	171	23	0.1200
1295	171	24	0.1400
1296	171	25	0.1200
1297	171	26	0.6900
1298	171	27	0.0500
1299	171	28	0.1000
1300	172	1	0.1010
1301	173	1	0.1850
1302	174	1	0.2000
1303	174	2	0.3600
1304	174	3A	3.0260
1305	174	3B	3.0260
1306	174	3C	3.0260
1307	174	3D	3.0260
1308	174	3E	3.0260
1309	174	4	0.7900
1310	175	1A	0.1220
1311	175	1B	0.1220
1312	175	1C	0.1220
1313	175	1D	0.1220
1314	175	1E	0.1220
1315	175	2	0.5500
1316	175	3	0.0400
1317	175	4	0.0600
1318	175	5	0.0100
1319	175	6	0.0100
1320	175	7	0.0100
1321	175	8	0.0200
1322	176	1A	0.0230
1323	176	1B	0.0230
1324	176	1C	0.0230
1325	176	1D	0.0230
1326	176	1E	0.0220
1327	177	1	0.1920

Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1328	177	2	0.0300
1329	177	3	0.0510
1330	178	1A	0.0480
1331	178	1B	0.0510
1332	178	1C	0.0530
1333	178	1D	0.0510
1334	178	1E	0.0500
1335	179	1	0.1890
1336	179	2	0.0080
1337	179	3	0.0080
1338	179	4	0.0050
1339	179	5	0.0080
1340	179	6	0.0080
1341	179	7	0.0100
1342	179	8	0.0130
1343	179	9	0.0100
1344	179	10	0.0130
1345	179	11	0.0150
1346	179	12	0.0180
1347	179	13	0.0100
1348	179	14	0.0100
1349	179	15	0.0100
1350	179	16	0.0100
1351	179	17	0.0380
1352	179	18	0.0080
1353	179	19	0.0080
1354	179	20	0.0080
1355	179	21	0.0150
1356	179	22	0.0080
1357	179	23	0.0150
1358	179	24	0.0130
1359	179	25	0.0480
1360	179	26	0.0050
1361	179	27	0.0050
1362	179	28	0.0150
1363	179	29	0.0280
1364	179	30	0.0300
1365	179	31	0.0050
1366	179	32	0.0300
1367	179	33	0.0350
1368	179	34	0.0510
1369	179	35	0.0250
1370	179	36	0.0330
1371	179	37	0.0180
1372	179	38	0.0150
1373	179	39	0.3150
1374	179	40	0.1230
1375	179	41	0.0150
1376	180	1	0.0130
1377	180	2	0.0100
1378	180	3	0.0350
1379	180	4	0.0100
1380	180	5	0.0100
1381	180	6	0.0180
1382	180	7	0.0130
1383	180	8	0.0300
1384	180	9	0.0100
1385	180	10	0.0100
1386	180	11	0.0100
1387	180	12	0.0230
1388	180	13	0.0200
1389	180	14	0.0200
1390	180	15	0.0200
1391	180	16	0.0180
1392	180	17	0.0200
1393	180	18	0.0200
1394	180	19	0.0230
1395	180	20	0.0200
1396	180	21	0.4690
1397	180	22	0.0280

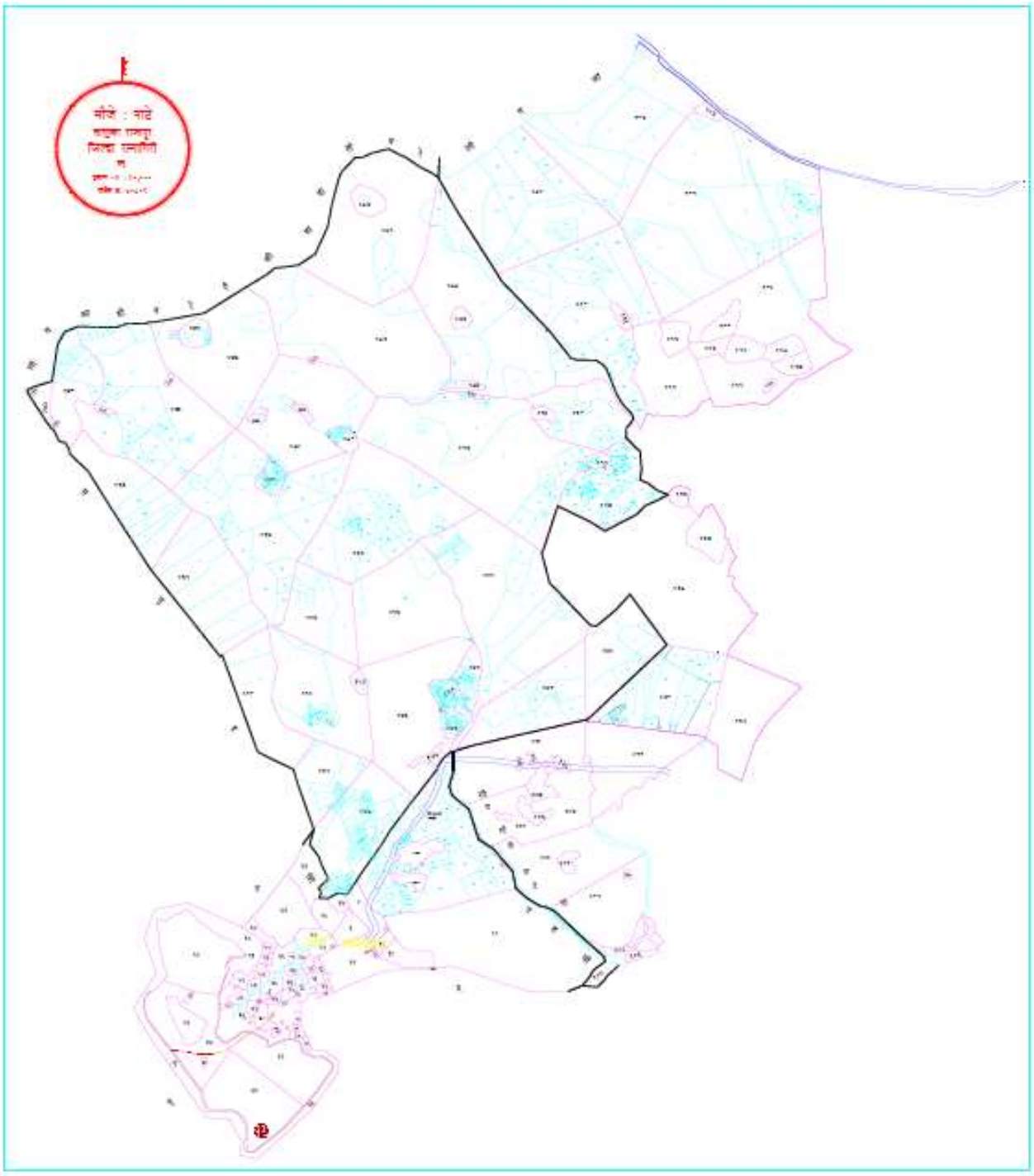
Sr.No.	Survey No.	Hissa No.	Total Area in Hectre
1398	181	1	6.9400
1399	181	2	0.4000
1400	181	3	7.7700
1401	181	4	0.1600
1402	181	5	0.4500
1403	181	6	1.0900
1404	182	1A	0.0130
1405	182	1B	0.0120
1406	182	1C	0.0120
1407	182	1D	0.0130
1408	182	1E	0.0130
1409	183	1	2.7300
1410	183	2A	19.1700
1411	183	2B	0.8100
1412	183	3	1.8500
1413	183	4	1.2500
1414	183	5	0.1100
1415	183	6	0.1100
1416	184	0	1.3800
1417	185	1	0.3200
1418	185	2	1.2900
1419	185	3	0.8900
1420	185	4A	10.8900
1421	185	4B	3.2000
1422	185	4C	3.2000
1423	185	4D	3.2000
1424	186	1A	0.3100
1425	186	1B	0.2600
1426	187	1	0.0830
1427	187	2	0.0680
1428	187	3	0.2540
1429	188	1	0.7700
1430	188	2	7.1000
1431	188	3	1.0900
1432	188	4	3.3400
1433	188	5	0.2000
1434	188	6A	7.8300
1435	188	6B	3.2400
1436	188	7A	0.2000
1437	188	7B	0.4700
1438	188	8	0.2400
1439	188	9	1.3800
1440	188	10	0.6900
1441	188	11	0.2400
1442	188	12	0.2400
1443	188	13A	0.2800
1444	188	13B	0.2800
1445	188	14	0.5700
1446	188	15	0.1600
TOTAL			**428.515**

ANNEXURE 2 LOCATION MAP

ANNEXURE 3 LAYOUTPLAN



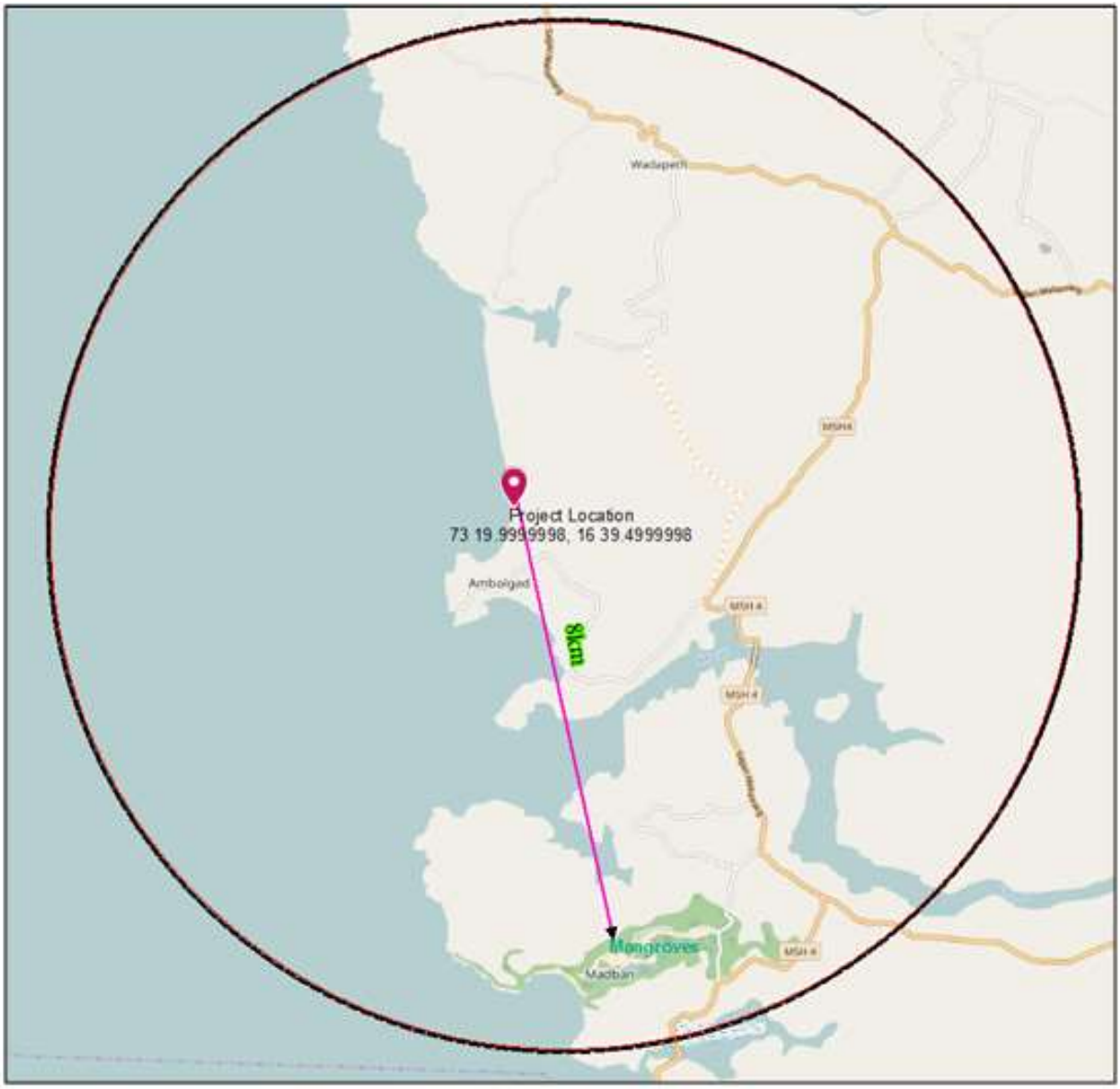
ANNEXURE 4 VILLAGE MAP




WATER FRONT
185
188
187
181
156
170
171
166
154
150
149
148

ANNEXURE 5 ALTERNATIVE SITES

ANNEXURE 6 SENSITIVITY MAP



ANNEXURE 7 MMB LEASE DEED

(Company Copy)

LEASE DEED

(05 YEARS)

MAHARASHTRA MARITIME BOARD

AND

M/S. I LOG PORTS PVT. LTD.,

(Captive jetty facility at Nate Tal. Rajapur, Dist. Ratnagiri)

{ DATE:- 24TH DAY OF FEBRUARY 2014 }

भारतीय गैर न्यायिक

एक सौ रुपये Rs. 100

रु. 100 ONE HUNDRED RUPEES

सत्यमेव जयते

भारत INDIA

INDIA NON JUDICIAL

महाराष्ट्र MAHARASHTRA

KM 077183

MAHARASHTRA MARITIME BOARD
(A GOVT. OF MAHARASHTRA UNDERTAKING)
Indian Mercantile Chamber, (3rd Floor),
Ramajibhai Kamani Marg, Ballard Estate
Mumbai - 400 038.

परवाना धारक मुद्रांक विक्रेता

DEED OF LEASE

THIS INDENTURE OF LEASE made at Mumbai on this 24th day of **FEBRUARY- 2014** between the **MAHARASHTRA MARITIME BOARD** (a Board constituted under the Maharashtra Maritime Board Act 1996, Maharashtra Act No.XV of 1997) acting through it's Chief Executive Officer being authorized to enter into the agreement as per Section 24 of MMB Act 1996 having its Office at Indian Mercantile Chambers (3rd Floor), Ramjibhai Kamani Marg, Ballard Estate, Mumbai – 400 001, hereinafter called **"Lessor"** (which expression shall, unless the context otherwise requires, include the Govt. of Maharashtra and its successors in office and assigns) of the **One Part**

AND

M/s. I LOG Ports Pvt. Ltd., a Company registered under the Indian Companies Act, 1913 Act (VII of 1913), having its Registered Office at Vishwakarma 86C, Topsia Road (South), Kolkata - 700046 hereinafter called the **"Lessee"**, (which expression shall, unless the context otherwise requires, include its successors in business and assigns) through its authorized person as per the Board of Directors Resolution passed during the board meeting held on 15.11.2011 of the **Other Part**.

1

Chief Executive Officer
Maharashtra Maritime Board, Mumbai

WHEREAS

a) Lessor is the prescribed/statutory authority constituted under the Maharashtra Maritime Board Act 1996, which inter alia, is authorized to grant permission to development of an captive jetty facility for captive use within the jurisdiction of non-major ports on the coastline of Maharashtra;

b) The Lessee vide letter no. NIL, dtd.16.04.2010 had applied to the Lessor for allotting an appropriate and adequate waterfront at Nate Tal. Rajapur, Dist. Ratnagiri for the purpose of development of an all-weather captive jetty facility (hereinafter referred to as "terminal facilities") for captive use.

c) The Lessor considered the request of the Lessee and in the Lessor's 58th Board Meeting held on 07.01.2011 approved the proposal submitted by the Lessee. Accordingly, it was resolved to issue a Letter of Intent (LoI) initially to the Lessee containing necessary terms & conditions. It was further resolved to sign a lease agreement for a period of 5 years on compliance of conditions of LoI by the Lessee and forward a proposal to the Government for obtaining approval to extend the lease for a period of thirty years;

d) Accordingly, the Lessor had issued LoI to the Lessee vide its letter no. MMB/Planning/ILOG Ports (LoI)/1765, dtd.02.08.2012 valid for a period of twenty four (24) months from the date of issue, copy whereof is hereto annexed as Annexure 'A'.

e) In compliance of the terms and conditions of the LOI, the Lessee vide its letters dtd.08.02.2013 and dtd.12.9.2012 has submitted to the Lessor Development Guarantee in the form of a Bank Guarantee for a sum of Rs.2,70,00,000/- (Rupees Two crore seventy lakhs only) and one-time non-refundable payment of Rs.10,00,000/- (Rupees Ten lakhs Only) in favour of the Lessor.

f) The Lessee has now approached the Lessor and requested them to grant lease of the aforesaid waterfront for a period of 5 years, on terms and conditions and covenants as contained hereunder;

g) This lease deed agreement is executed in Duplicate and will be registered with the appropriate authority and the original thereof, will be kept with the Lessor and the duplicate to be handed over to the Lessee.

2

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mumba

I. NOW THIS INDENTURE WITNESSETH as follows:-

(a) Lessor DOTH HEREBY grant UNTO the Lessee, as and by way of Lease, the said area shown bounded red on the plan hereto annexed **as Annexure "A"** and also more particularly described in the **Schedule-I** hereunder written (hereinafter for brevitys sake shall be referred to as "Demised Premises") to HOLD the Demised Premises UNTO the Lessee for the term and at the rent specified hereunder and on the terms and conditions contained in this Deed of Lease.

(b) It is agreed that the term of the lease in respect of demised premises shall be a period of 5 years commencing from the date of execution of the Deed of Lease for the purpose of construction of terminal facilities on the demised premises at Village -Nate, Tal. Rajapur, Dist. Ratnagiri. It is further agreed that it shall be the discretion of the Lessor to recommend to the Government for extension of the aforesaid lease for a further period of upto 30 years as per the current policy of the Government for captive jetties.

(c) It is agreed that the Lessee shall pay Annual Lease Rent, in accordance with the rates, more appropriately set out in Schedule II to the Lease Deed. It is further agreed that in the event of the said Lease Rent being increased in the future, or any such rates that may be imposed in future, either by the State Government or by the Lessor, with the approval of the State Government, the same shall be paid by the Lessee.

(d) It is agreed that the Lessee shall obtain necessary environmental clearance within 24 months from the date of sanctioning of this Lease Deed and shall commence construction within 30 months from the date of sanctioning of this Lease Deed. In the event of failure on the part of Lessee to comply/adhere to any of the aforesaid conditions, in such an event, the present Deed of Lease shall stand cancelled with no liabilities of whatsoever nature on the Lessor. However, in the event of the Lessee not being in a position to obtain environmental clearance within the agreed period of 24 months from the date of execution of this lease and approaches the Lessor for an extension, in such an event, the Lessor shall not unreasonably deny extension and the Lessor may consider the request of the Lessee for extending the date for obtaining environmental clearance provided that such extension, if granted, shall not exceed two (2) years.

3

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mum

II. The Lessee doth hereby covenant with Lessor as follows:-

(a) During the term of lease, to pay to Lessor, without any deduction regularly, every year the aforesaid annual rent herein reserved or the increased annual rent as may be fixed by the Government or by the Lessor with the approval of the Government. The said annual rent shall be paid by the Lessee on or before the 10th day of April of each year commencing from February- 2014. The Lessee will however, deduct TDS and/or any other amount towards Government levy/taxes as may be applicable and in force from time to time. The Lessee shall be liable to pay interest on outstanding amount of annual lease rent at the rate of 18% per annum from the date on which it became due and payable till the amount is received by the Lessor. The Lessee shall be liable to pay service tax or any other tax as may be applicable. The annual rent along the applicable taxes shall be paid to the Port Inspector/ Assistant Port Inspector, Jaitapur Port under intimation to the Head office of the Lessor;

(b) To pay during the said term, the land taxes (including N.A. Assessment) and cesses in respect of, and/or relating to the Demised Premises which are levied and /or imposed at present and all increases therein and also all further and other taxes, cesses/rates, levies, dues, duties and other imposts either on development of land or on the structures that may be constructed and as may be standing on the Demised Premises or otherwise that may be levied or imposed hereafter by the Collector, the Municipality or such other statutory authority in respect of, and/or relating to the Demised Premises and all buildings and structures that may be constructed or standing thereon from time to time;

(c) The Lessee shall use the Demised Premises for constructing terminal facilities and all activities ancillary thereto and/or connected therewith and also to use the Demised Premises as a jetty for captive use.

Without prejudice to the generality of the above, it is specifically clarified and declared that the Lessee shall provide all the services at or around the terminal facilities including dredging, navigational aids, water supply, fire-fighting equipment, electricity, installation of fixed and/or mobile cranes, telephone, Very High Frequency (VHF) sets, reception facilities and such other services and facilities that may be required at or around the terminal facilities and also such other services and facilities which Lessor would

4

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mum

require the Lessee to keep available at or around the terminal facilities which would be as per the safe working practices in the Port. The Lessee declares and confirms that all the above shall be done by, on account of and at the risk and cost of the Lessee and the Lessor shall in no way be responsible for the same.

(d) To pay to the authorities concerned charges for electric supply, water supply and the other facilities that may from time to time be supplied / made available to the Lessee at the Demised Premises. Lessor may assist in getting the above utilities at the terminal facilities.

(e) The Lessee shall;

(i) Obtain due clearances / permissions / approvals from concerned Ministries / Govt. Departments / Authorities both for setting up and operations of the terminal facilities prior to commencement of construction;

(ii) Within 30 months from the date hereof or within such further time as may be granted by the Lessor or the State Government, get the alignment and detailed engineering drawings of the terminal facilities approved by the Lessor who will get it vetted through a Proof Consultant at the cost of the Lessee;

(iii) Within 30 months from the date hereof or within such further time as may be granted by the Lessor or the State Government, commence construction of the terminal facilities at the place and in accordance with the Plan approved / to be approved by the Lessor and shall commission the terminal facilities upon completion of construction thereof;

(iv) The Lessor shall not undertake the construction of the terminal facilities unless the Lessee has acquired adequate back-up area for servicing the Jetty;

(v) Ensure that the terminal facilities construction and other civil constructions shall be of international standard or as per the guidelines of Bureau of Indian Standards;

(vi) Preserve mangroves, if any, in and around the Demised Premises;

(vii) The Lessee shall comply with and abide by the safety regulations as may from time to time be stipulated by Indian Registrar of Shipping (I.R.S.) or by any internationally recognized classification society;

5

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mur

(viii) Carry out analytical studies and environmental impact assessment studies as may from time to time be required by Lessor in the event of any change in the parameters subject to which the Environment Clearance is granted to the Lessee by the appropriate authority;

(ix) Abide by the Rules & Regulations of the Indian Port Act 1908 and other prevailing Central and State Maritime legislation and Rules;

(x) Abide by the directions of Navigational Safety in Ports Committee (NSPC).

(f) The Lessee shall bear the entire cost of construction of approach road from the terminal facilities up to the nearest Tar road and, if required, acquire land for the construction of approach road at its own;

(g) The Lessee at all times and for all reasonable purposes permit the Lessor and their authorised representatives and/or officers to enter upon the Demised Premises.

(h) The Lessee shall comply with the provisions of this Deed of Lease so far as it relates to the obligations to be fulfilled and performed by the Lessee;

(i) The Lessee agrees and undertakes that they shall at their cost, charges and expenses construct, maintain and repair the terminal facilities during the Lease Period;

(j) On the expiry of the term of lease hereby created and as extended as contemplated by clause I (b) or earlier termination thereof, the Lessee shall yield and deliver up, free of cost, to the Lessor or the State Government as the case may be, the Demised Premises including permanent structures together with the jetty constructed thereon by the Lessee;

(k) Stamp duty, registration charges and other expenses of and incidental to the registration of this Deed of Lease shall be borne and paid by the Lessee.

ILOG PORTS PRIVATE LIMITED Kolkata

6

Chief Executive Officer
Maharashtra Maritime Board, Mum

III. The Lessor doth hereby covenant with the Lessee as follows:-

(a) That on the Lessee paying to Lessor the rent hereby reserved and observing and performing the several covenants and conditions on the part of the Lessee herein contained, to the satisfaction of Lessor, the Lessee shall quietly enjoy the Demised Premises in peaceful manner during the said term;

IV. PROVIDED ALWAYS AND IT IS HEREBY MUTUALLY AGREED AND DECLARED as follows:-

(a) If, the rent payable by the Lessee to the Lessor shall be in arrears and remains unpaid as a consequence of any default on the part of the Lessee, for a period of two months after becoming due (whether legally demanded or not) or if default is made by the Lessee in observing and performing the terms and conditions of this Deed of Lease, and if such default is not set right within six months of notice in writing to be served by the Lessor on the Lessee in that connection, then in either of such events, it shall be lawful for the Lessor, at any time thereafter, to terminate this Deed of Lease PROVIDED ALWAYS that the power of termination hereinbefore contained shall not be exercised unless and until the Lessor shall have given to the Lessee one calendar month's notice in writing addressed to the Lessee and served on the Lessee under Registered Post at its declared Registered Office in Mumbai informing Lessor's intention to terminate the Deed of Lease and specifying the amount in arrears or the outstanding breach, as the case may be, and if default shall have been made by the Lessee in paying the amount in arrears and /or remedying the breach within aforesaid notice period of one calendar month. If the amount in arrears specified in the notice is paid-up or the breach is rectified, as the case may be, by the Lessee within such notice period, the notice shall stand withdrawn. All notices contemplated by this Deed of Lease or under the law shall be in writing addressed to the declared Registered Office of the Lessee. It shall be the responsibility of the Lessee to inform the Lessor in writing any change in declared registered office address;

I LOG PORTS PRIVATE LIMITED Kolkata

7

Chief Executive Officer
Maharashtra Maritime Board, Mu

(b) **Rights of Lenders to Rectify:**

If Notice of Intent to Terminate is issued by Lesser for non-payment of any amount due and payable by Lessee then, at any time following the service of Notice of Intent to Terminate, the Lenders may on behalf and instead of Lessee pay all the sums then due and payable to Lesser. On payment by Lenders of such outstanding amounts:

(a) Such notice of Intent to Terminate shall be revoked by Lessor (but without prejudice to rights of Lessor to issue similar notice for any subsequent breach or any other breach by the Lessee); and

(b) Lessor shall allow to Lessee/Lenders to perform their duties under this Agreement.

(c) the Lessee shall not transfer the terminal facilities constructed on the Demised Premises to any other person by way of sale or lease and shall also not mortgage or create charge on the same provided however that the Lessee shall be entitled to mortgage / create charge in respect of the Lessee's interest in the Demised Premises and /or to otherwise create security, encumbrance and /or charge on the Lessee's interest in the Demised Premises and the installation set-up thereon in favour of any recognized financial institution subject to the Lessee obtaining prior written permission of the Lessor on such terms and conditions as the Lessor may deem fit.

(d) the Lessee shall at its own cost and on its own account insure the installation(s) that may be put up by the Lessee on the Demised Premises.

V. (a) The Lessee hereby covenants with the Lessor that the Lessee shall, during the period of this Lease, abide by and comply with the Rules and Regulations that may from time to time, be framed and the directions that may from time to time, be given, by the Lessor in accordance with the provisions of the Maharashtra Maritime Board Act 1996 and as amended from time to time so far as they relate to (i) the terminal facilities to be constructed by the Lessee on the Demised Premises **AND** (II) the activities permissible to be carried out by the Lessee at and from and those in respect of and/or concerning and /or pertaining to, such terminal facilities;

8

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mur

Without prejudice to the generality of the above, it is further agreed that:-

(1) The Lessee shall provide all necessary ancillaries on the Demised Property such as water supply, fire fighting, electricity and very high frequency (VHF) radio sets and such other facilities as may be specified by any classification society approved by the Government of India under section 450 of the Merchant Shipping Act, 1958;

(2) The Lessee shall maintain the terminal facilities in good order in accordance with existing practice employed generally by Lessor in respect of similar marine structures. On failure of the Lessee to do so, the Lessor by a notice in writing, shall call upon the Lessee to carry out the maintenance to a reasonably acceptable standard. On the failure of the Lessee to maintain the jetty to a reasonable accepted standard, the Lessor shall be entitled to maintain the terminal facilities at the cost of the Lessee and in such an event, the Lessee shall have to pay to the Lessor such amount of repair charges as may have been reasonably incurred by the Lessor for the purpose;

(3) The Lessee shall duly comply with the provisions of all environmental legislation, which is applicable to it, and any rules that may be made thereunder, in so far as such legislation relates to the construction, operation, maintenance and use of the terminal facilities;

(4) In the event of the terminal facilities being required by the Lessor / State Government, due to exigencies of war in operations connected with National security, the Lessee shall forthwith hand over control of the terminal facilities to the Lessor, provided that upon the cessation of the circumstances requiring such control, the Lessor shall restore possession of the terminal facilities to the Lessee;

(5) The Lessee shall ensure that the terminal facilities are not used for any illegal or anti-national activities at any time;

(6) The Lessee shall be solely responsible for maintaining safety and security of the terminal facilities and vessel as per International Ship and Port Facility Security (ISPS) code. The Lessee shall submit to the Lessor, detailed plan of security systems implemented for the terminal facilities and vessel at the terminal facilities approved by the Directorate General of Shipping;

9

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mu

(7) The rights to all mines and minerals below that part of the sea bed over which this lease is granted shall vest in the State Government;

(8) If the Lessee does any act while constructing, operating, maintaining of using the terminal facilities which creates a serious and real risk of endangering the lives of the public at large or endangering National security, the Lessor shall be entitled to suspend the Lessee's right to operate the terminal facilities forthwith and to take over the operation of the terminal facilities until such time as they are satisfied that the said risk no more exists at which time the Lessor shall restore the operation of the terminal facilities to the Lessee. Pursuant to this clause during the period the operation of the terminal facilities is under control of the Lessor, the Lessor may allow the Lessee the unloading /loading of cargo at the terminal facilities under its supervision;

(9) The Lessee shall have no right in or over the land between the high water and low water mark. The ownership of the said land shall always be with the Lessor;

(10) The Lessee shall (as required by law from time to time) obtain necessary permissions from the Commissioner of Customs to export and import cargo mentioned hereinabove from the said terminal facilities and shall comply with all terms and conditions, if any, on which such permission is granted;

(11) The Lessee undertakes not to export or import from the said terminal facilities non captive cargo without prior written permission of the Customs Department and the Lessor. The Lessor reserves the right to grant or not to grant such permission for handling cargo of other party/parties. If deemed fit, Lessor may grant such permission on such terms and conditions as may be mutually agreed. The decision of Lessor shall be final and binding on the Lessee;

(12) The Lessee shall at their costs, charges and expenses provide such labour as may be necessary for handling cargoes and shall comply with provisions of labour laws as applicable from time to time;

10

ILOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mu

(13) The Lessee may allow handling of cargoes during nighttime in consultation with Lessor after making adequate arrangements. The Lessee shall be permitted night navigation by barges/vessels after marked light buoys are provided by the Lessee in consultation with Lessor;

(14) The Lessee shall give, in advance at least 24 hours prior commencement of cargo operations, the name of the vessel /barge, date and time of handling said cargoes to the Port Inspector / Assistant Port Inspector, Jaitapur Port;

(15) In the event it is noticed by Lessor that the Lessee is unable to utilize the terminal facilities to its full capacity for a continuous period of more than 6 months (except for reasons beyond the control of the Lessee) then and in such an event the Lessor, at its discretion, may direct the Lessee to allow use of the terminal facilities by a third party who is an actual importer or exporter on such terms and conditions as the parties may mutually agree upon, which terms shall not in any manner prejudice the interests or rights of the Lessee under this Deed of Lease. Such use by the Third Party shall be entirely at the costs and risks of such Third Party, as to consequences thereof;

(16) The Lessee shall be solely responsible for any loss or damage or injury caused to any person or property as a result of the Lessee's failure to comply with any of the provisions of this Deed of Lease;

(17) The Lessee shall be solely responsible for pollution, if any, caused by Lessee, to the water and /or air and the Lessee shall take all steps to ensure that the barges / vessels and /or all users of the port comply with the Maharashtra Pollution Control Act and the rules framed there under. The Lessee shall also from time to time comply with direction given by Lessor to prevent pollution;

(18) The Lessee shall not handle any hazardous waste / hazardous chemical defined under Hazardous Waste (Management & Handling) Rule 1989 and Manufacture, Storage and Import of Hazardous Chemicals under the said Rules 1989 unless No Objection Certificate from the Chief Controller of Explosive is obtained;

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, M

(19) In consideration of Lessor granting this lease to the Lessee, the Lessee agrees and undertakes to pay to the Lessor, cargo related charges as per the existing scale of rates fixed by Government / Lessor for captive jetty and /or at such rates as may be revised from time to time. Such charges shall be paid by the Lessee on or before 15th of each month to the Port Inspector / Assistant Port Inspector, Nawapur Port for the vessel/s /cargo handled in the previous month. The Lessee shall be liable to pay interest on outstanding amount of charges at the rate of 18% per annum from the date on which it became due and payable till the amount is received by the Lessor. The Lessee shall be liable to pay service tax or any other tax as may be applicable;

(20) It is declared and confirmed that Lessee shall not be liable to pay to Lessor or to any other public body or authority any port dues, pilotage, towage and berth hire for any vessel, which may berth at the terminal facilities.

V, DISPUTE RESOLUTION

(1) Every dispute, differences, or questions which may at any time arise between the parties hereto during the continuance of this Agreement and touching or arising out of or in respect of this Agreement shall as far as possible be resolved amicably within 60 days of receipt of notice by a party from the disputing party.

(2) If any such dispute raised by any party is not amicably resolved between the parties within the time fixed as above, then either of the party may give notice to the other party informing its intention to commence arbitration, provided that arbitration clause shall be deed to be invoked only on the party intending to invoke informs the other party by a notice in writing.

(3) Every dispute, difference or any issue relating to the present Agreement shall be referred to a Sole Arbitrator, who shall be mutually agreed upon by the parties. On failure of the parties at arising at an Agreement in respect of appointment of a Sole Arbitrator, in such an event each party shall nominate/appoint one Arbitrator each and the two Arbitrators in turn with the consent of the parties to dispute appoint a third Arbitrator, who shall act as a Presiding Arbitrator. It is agreed that the Award passed by the Arbitrator/Arbitrators as the case may be shall be final and binding on the parties.

12

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mum

(4) The arbitration shall be conducted in English language. All such arbitration proceedings shall be held in Mumbai and shall be in accordance with and subject to the provisions of Indian Arbitration and Conciliation Act, 1996 or any statutory modification (s), re-enactment thereof for the time being in force.

(5) The fees of the Arbitrators and all other expenses of the arbitration shall be initially borne and paid by the respective parties.

VI. Any disputes, differences and doubts whatsoever which may arise between the parties hereto during the continuance of this Agreement and touching upon this Agreement shall be resolved amicably within 60 days, failing which, the same shall be referred to the arbitration of 3 arbitrators, one Arbitrator each will be appointed by the parties hereto and the third Arbitrator to be appointed by both the Arbitrators for presiding the Arbitration and whose decision and Award shall be final and binding on both the parties. The arbitration shall be conducted in English language. All such arbitration proceedings shall be held in Mumbai and shall be in accordance with and subject to the provisions of Indian Arbitration and Conciliation Act, 1996 or any statutory modification (s), re-enactment thereof for the time being in force. The fees of the Arbitrators and all other expenses of the arbitration shall be initially borne and paid by the respective parties.

VII. The parties hereto have agreed to render all the necessary cooperation and assistance to each other and to take appropriate action for giving effect to the terms of this Deed of Lease.

VIII. **Rectification**

In case of any default or breach by either Party (unless arising as a result of a Force Majeure Event or Impact due to change in Law) of the terms of this Agreement, the non-defaulting Party shall issue notice to the defaulting Party, specifying with reasonable detail the defaults committed by the defaulting Party and shall require the defaulting Party to cure/rectify the default within 180 days. If the defaulting Party rectifies/cures the default within such period of 180 days, the said notice shall stand automatically withdrawn. However, if the defaulting Party fails to rectify/cure the default within such period of 180 days, the matter shall be referred to the Arbitration, as stated in this Agreement.

13

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mum

IX. **Force Majeure**

a. "Force Majeure" means any event or circumstance or combination of events or circumstances beyond the reasonable control of either Party which event or circumstance (a) cannot by exercise of reasonable diligence be prevented or caused to be prevented, (b) cannot despite the adoption of reasonable precautions and reasonable alternative measures (where sufficient time to adopt such precautions or alternative measures before the occurrence of such event or circumstance is available) be prevented and (c) which materially and adversely affects such Party's performance of its duties or obligations or enjoyment of its rights under this Agreement including Acts of God and nature including epidemic; incidences including explosion, accident, blockade, sabotage, breakdown/failure of plant or equipment, structural collapse, chemical contamination, air crash, shipwreck, train wrecks; strikes, lock-outs and such other matters/ similar labor difficulties; Governmental force majeure occurring inside India or directly involving India, including act of war, civil commotion or act of terrorism, radioactive contamination, enactment, amendment, suspension or repeal of any Laws of India/State, change in Law; delay due to unavailability of land, geological, subsurface or ground conditions as a result of which the Project no longer financially or technically viable; agitation, disruptions, challenges and placement of legal and judicial impediments by third parties which delays/ materially adversely affects the Project.

b. Neither Party shall be responsible or liable for any failure or delay in complying with or performing its duties and obligations under this Agreement to the extent such failure or delay is due to one or more events of Force Majeure.

c. In the event of a Force Majeure causing a failure or delay in the compliance with or performance of any obligation of the Parties under this Agreement, the period allowed for the compliance or performance by the Parties, as the case may be, of such obligation shall be extended by the period of existence of any such event of Force Majeure.

d. The Party claiming Force Majeure shall give Notice to the other Party with reasonable documentation, evidencing the occurrence of any event of Force Majeure as soon as reasonably practicable, but not later than thirty (30) Days after the date on which such Party knew or could reasonably have known of

I LOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mu

the commencement of the event of Force Majeure. The Party claiming Force Majeure shall give Notice to the other Party of (i) the cessation of the relevant event of Force Majeure, and (ii) the cessation of the effects of such event of Force Majeure on such Party as soon as practicable after becoming aware thereof.

f. The Party claiming Force Majeure shall use its reasonable efforts to mitigate the effects of any event of Force Majeure and the Parties shall cooperate in the development and implementation of the Project containing reasonable alternative measures to mitigate the effects of the event of Force Majeure.

X. **Impact due to Change in Law**

a. Change in Law shall mean the occurrence of any of the events after execution of this Agreement including the enactment of any new applicable law; the modification, repeal or re-enactment of any existing applicable law; the commencement of any applicable law which had not at the execution of this Agreement entered into effect and such applicable law; a change in the interpretation or application of any applicable law by judicial or other authority (including a court, tribunal or any other regulatory authority) having the authority to interpret or apply that applicable law or any interpretation of any applicable law by such authority which is contrary to the existing generally accepted interpretation thereof; the revocation or cancellation (other than for cause) of any permit, to the extent that such Change in Law has a material adverse effect on the rights and obligations of the Lessee under this Agreement and that such event has not been caused due to the fault or negligence of the Lessee.

b. The Lessee shall, on the occurrence of a Change in Law, give notice of such Change in Law to the Lessor as soon as it may be reasonably practicable, with the details of the Change in Law and the effect thereof on the Lessee.

c. In the event that a Change in Law renders exercise by the Lessee of any of its material rights or performance by the Lessee of any of its material rights and obligations, unless such obligation is waived by a person having the power to do so, the Lessor agrees that the Lessee is entitled to terminate this Agreement. However prior to termination, the Parties shall consult in good faith for a period of 180 days to mitigate the material adverse impact of the Change in Law. In the event the Parties are unable to agree to changes to

15

ILOG PORTS PRIVATE LIMITED Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mu

this Agreement to mitigate the impact of the Change in Law during the 180 day period, either Party may refer the matter to the Arbitration as stated elsewhere in this Agreement.

XI. Any variation or amendments to this Deed of Lease may be done by way of exchange of letters between the parties hereto in writing, which correspondence shall form part and parcel of this Deed of Lease, if the same is accepted by the Lessor and shall bind the parties in the same manner and to the same extent as if contained herein. Before any amendments are brought into effect, approval shall be obtained by the Lessor from appropriate competent authorities.

IN WITNESS WHEREOF the parties hereto have hereunto and to the duplicate hereof set and subscribed their respective hand and seal the day and the year first hereinabove written.

THE COMMON SEAL OF **MAHARASHTRA MARITIME BOARD** has been affixed in the presence of **SHRI. PARAAG JAIIN NAINNUTTIA, IAS, CHIEF EXECUTIVE OFFICER, MAHARASHTRA MARITIME BOARD.**

Chief Executive Officer
Maharashtra Maritime Board, Mumbai

In the presence of

Captain JB Rohilla

THE COMMON SEAL OF **I LOG PORTS PVT. LTD.** has been hereunto affixed in the presence of **Mr. K. Muralidharan, President** of the company.

I LOG PORTS (P) PRIVATE LIMITED
Kolkata

In the presence of

1. Mr. Shiv Prakash Kedia

Shiv Prakash Kedia

Schedule – I

(Storm)

All that waterfront alongside the Captive jetty Terminal facilities to be installed and erected by M/s. I LOG PORTS PVT. LTD. at village - Nate, Taluka - Rajapur, Dist. Ratnagiri along with land i.e. bed of sea admeasuring (a) inter Tidal Area (between HTL & LTL) and (b) Under Water Area (between LTL & sea limits) as certified by the Hydrographer, Maharashtra Maritime Board. A plan showing the Demised Premises bounded red is annexed hereto and forms part hereof.

The above-mentioned pieces of land form part of the Demised Premises, in the State of Maharashtra, in the registration Sub-District and District of Ratnagiri.

ON THE NORTH WEST BY	:	16° 39' 30" N	73° 19' 51" E
ON THE SOUTH WEST BY	:	16° 39' 14" N	73° 19' 52" E
ON THE SOUTH EAST BY	:	16° 39' 14" N	73° 20' 00" E
ON THE NORTH EAST BY	:	16° 39' 30" N	73° 20' 00" E

Schedule – II

Calculation of Annual Lease Rent

Waterfront along with Inter Tidal Area & Under Water Area is calculated as below:

(a)	**Inter Tidal Area** (between HTL & LTL @ Rs. 0.40 per Sq. Mtrs. per week)	**54700** Sq. Mtrs.	Rs. 0.40 X 52 Weeks X **54700** Sq. Mtrs.	**Rs. 11,37,760/-**
(b)	**Under Water Area** (between LTL & sea limits @ Rs.0.10 per Sq. Mtrs. per week)	**53400** Sq. Mtrs.	Rs.0.10 X 52 Weeks X **53400** Sq. Mtrs.	**Rs. 2,77,680/-**
		107100 Sq. Mtrs.	**Total Annual Rent**	**Rs. 14,15,440/-**

17

Kolkata

Chief Executive Officer
Maharashtra Maritime Board, Mumbai

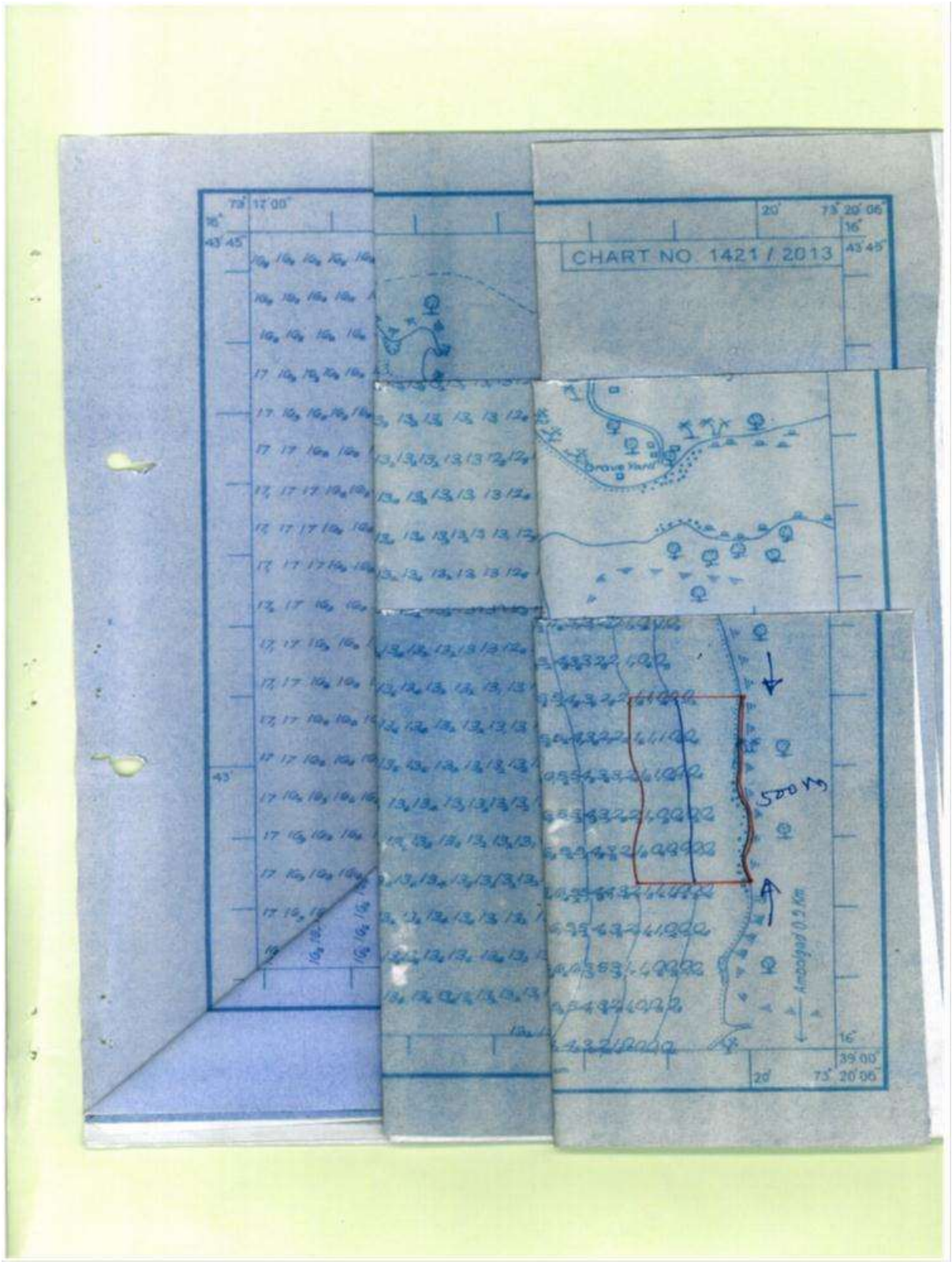


CHART NO. 1421 / 2013
500 Mts
Amboigad 0.5 Km

Policy in respect of captive Jetty in the State of Maharashtra

---

Government of Maharashtra
Home Department
Number: JET 1303/Pra.Kra.163/Bandre-2,
Mantralaya, Mumbai 400 032, Date: 19th August, 2005.

Introduction: The State of Maharashtra has been gifted with a coast line of a total of 720 km length and as indicated in the first schedule of the Indian Port Act 1908 there are 48 minor ports on this coast line. Considering the increasing industrial development on the Konkan coast line, in order to develop minor ports as all weather ports, after fixing the policy as per the Home Department, Government Resolution no.JET-1095/Pra.Kra.147/Pari.-5dated 15.03.1996 it had been decided to develop ports with the participation of private sector. On the basis of this policy in respect of ports, in order to develop a total of 7 ports in the first phase tenders at global level were called after the study of Techno Economic Feasibility. Afterwards revised port development policy was finalized as per the Government Resolution of date 28.11.2000.

2. In addition to the above port development policy, policy has been decided in respect of construction of Captive Jetties as per the Home Department, Government Resolution no.JET-1093/Pra.Kra.99/Pari-5dated 26th June, 1995. Accordingly, as some companies having industrial projects had asked for permission to construct captive jetties to handle their cargo, such permission has been granted to them. Now a demand has come up from the entrepreneurs to grant them permission to handle cargo of other companies from those captive jetties in addition to handling of their own cargo. Incidental to that the Government has taken the following decision:-

Government Resolution:- Permission will be granted to the entrepreneurs to handle cargo of other companies in addition to the handling of their own cargo from the captive jetties in use on the sea coast of the State of Maharashtra subject to the following conditions:-

1) The rates for handling cargo of other companies from the captive jetties shall be one and a half times the rates fixed through Government Resolution/Notification for captive jetties from time to time.

2) The said permission will be applicable only up to the period of the agreement entered with the Maharashtra Maritime Board in respect of the captive jetties.

ANNEXURE 8 EXTRACT FROM MMB PORT POLICY

शासन निर्णय क्र. धोरण १०१५/ प्र.क्र. २६५/बंदरे-१, दि. ४.२.२०१६ च्या सोबतचे परिशिष्ट

Maharashtra Maritime Board

Maharashtra Maritime Development Policy

5. Jetties

This section details the provisions for the development of three categories of jetties in Maharashtra:

- Captive jetty
- Multipurpose jetty
- MMB-owned jetty

5.1 Captive jetty

The port based industries require huge movement of Exim goods, to facilitate the same, the MMB will allow the construction of captive jetties by such industries. The MMB will award projects to develop captive jetties to eligible mining industries and industries classified under secondary sectors[6], on a nomination basis, to facilitate import of raw materials and export of finished goods by such industries, provided they fulfill certain conditions as defined in the eligibility criteria. The location of the jetty should not overlap with a Port Exclusivity Zone and conform to extant laws and regulations. The contract period for allotment of captive jetties will be concurrent with the operations of the industry to which it is awarded.

5.1.1 Eligibility criteria

- Type of industries :
  - Mining industry and industries classified under secondary sectors, having manufacturing facilities/production units dependent on port facilities.
- Location
  - Konkan region of Maharashtra
- Operational status
  - Fully functional facilities/industries
  - Proposed/ upcoming industries, given the industry to be set up has achieved financial closure and obtained all the required approvals.

5.1.2 Awarding

- Proposals for development of captive jetties from eligible industries will be evaluated by MMB and a LoI will be issued on approval.
- The developer will then be required to set up a captive jetty within the stipulated time as specified in the LoI. Failure to comply with the conditions in the LoI will lead to cancellation of award and imposition of other penalties and damages.

5.1.3 Key provisions for operations

- Captive jetties will be allowed to handle third-party cargo subject to the following conditions:

[6] *As classified by Central Statistical Organization*

- The cargo from a third party should not exceed 25% of the total cargo handled by the awarded captive jetty in a year;
- The charges applicable on the cargo handled for third party will be 1.5 times the charges specified in the schedule of rates; and,
- There is no non-major port available, with desired facility, within a distance prescribed by MMB through a notification.

5.2 Multipurpose jetty

- As per government resolution No. JET 1303/M.NO.163/Ports-2, dated August 19, 2005, the Government of Maharashtra has permitted establishment of multipurpose jetties/ terminals for handling of cargo through small boats, barges etc.
- Through this policy, multipurpose jetty is redefined as small jetties or terminals that will handle only non-Exim cargo and passengers.
- Non-major ports may be allowed to establish satellite multipurpose jetties in the vicinity of the port on a nomination basis.
- The process for identification, procurement, development, operation and exit of greenfield multipurpose jetties will similar to that of greenfield ports.

5.3 MMB-owned jetties

- As provided under Section 4.1.1.1. c), greenfield port projects that are not feasible on a PPP or joint venture basis may be developed as a jetty by the MMB. Such jetties will be termed as MMB-owned jetties.
- The MMB will allow allotment of such jetties for captive purposes to existing and upcoming eligible mining industries and industries classified under secondary sectors[7] located in Maharashtra, through a competitive bidding process. The location of such a jetty should not overlap with a Port Exclusivity Zone and should conform to the extant laws and regulations. The contract for allotment of MMB-owned jetties will be for a maximum of 15 years.

5.3.1 Eligibility criteria

The industries eligible for allotment of captive jetty as specified in Section 5.1.1

[7] *As classified by Central Statistical Organisation*