Environmental Executive Summary
(English)
Proposed Expansion of Dharamtar Jetty Facility (Phase-III) in village Dolvi of District Raigad, Maharashtra

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Project Proponent

JSW Dharamtar Port Private Limited

JSW Centre, Bandra Kurla Complex (BKC),
Bandra East, Mumbai - 400051

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1. Introduction

JSW Dharamtar Port Private Limited (JSWDPPL) operates a jetty facility on the right bank of Amba river/Dharamtar creek at Beneghat in Raigad District of Maharashtra and about 23 Nautical Miles away from Mumbai Harbour by sea route. It is a Special Purpose Vehicle under the aegis of JSW Infrastructure Limited. It handles the inbound raw material and outbound products of JSW Steel Limited and JSW Cement Plant located at Dolvi.

Currently total cargo handling of the Jetty is 33.95 MTPA. This is handled in the existing jetty facilities which includes 9 nos. of operational berths (Berth Nos. 1 to 9) constructed over a length of about 1050m whereas the existing Environmental Clearance is for a total jetty length of 1750 m. To cater to the increase in the cargo need for proposed expansion of the steel plant to 15 MTPA the cargo handling at the jetty will increase upto 54 MTPA. This includes 50.5 MTPA of cargo for Dolvi steel plant and cement plant and 3.5 MTPA of third-party cargo. The main commodities to be handled at the facility after expansion includes Iron Bearing Raw Materials (IBRM), Coal Bearing Raw Materials (CBRM), fluxes, finished steel, slag, fly ash, cement, clinker, edible oil & liquid cargo, container, fertilizer, FRM and gypsum.

The existing facility at Dharamtar is presently handling barges up to 3700 DWT and Mini Bulk Carriers (MBC) of 8000 DWT. After expansion, upgradation and further mechanization of the jetty facilities, barges upto 6000 DWT and MBC of 8000 DWT shall be handled. The total jetty length in Phase-III will be 1750 m, which is within the existing environmental clearance (EC). Only the balance construction and mechanization of berth nos. 10, 11, 12 and 13 will be completed for handling the additional cargo. The material will be conveyed to the Steel Plant / Cement Plant by using a network of jetty conveyors, which will feed the outgoing conveyors of JSW Dolvi steel plant and JSW Cement plant.

For cargo handling in the fair weather, the mother vessels are moored at the Mumbai Offshore anchorage (Bravo East) and at Jaigarh Port. However, in the monsoon the inner anchorage opposite Nhava Island along with Jaigarh Port is used. The mother ships load the barges using ship's gears. The barges then move into the creek and travel to the berth and gets unloaded. The material is unloaded using 7 barge unloaders and 2 Mobile Harbour Cranes and sent to the raw material storage yard of the steel plant. To handle the increased cargo, in this expansion proposal, additional equipment will be added at the Jetty which includes 5 nos. of barge unloaders and 1 no. of Mobile Harbour Crane.

Environmental and CRZ Clearance for the existing Dharamtar Jetty facility comprising quay of 1750 m with cargo handling capacity of 33.95 MTPA has been obtained from MoEF&CC, New Delhi vide letter dated 26.11.2015 and was subsequently amended vide letters dated 26.03.2016 and 10.01.2020. The proposed project involves expansion in cargo handling capacity from 33.95 MTPA to 54 MTPA. The project falls under 7(e) category A as per EIA notification 2006. The project is located in CRZ IVB area as per approved CZMP 2019. Therefore project requires to obtain the environmental and CRZ clearance from MoEFCC.

2. Project Description

The existing JSW Dharamtar Jetty is located at Beneghat village South-East of Mumbai Harbour in Dharamtar Creek in the estuary of Amba River extending to about 12 nautical miles upstream of the river. The geographic coordinates of the project are Latitudes: 18°42'18" - 18°43'00" N Longitudes: 73°01'58" - 73°01'09" E. The jetty is located equidistant about 18 nautical miles from Jawaharlal Nehru Port and 23 nautical miles from Mumbai Port. The jetty is accessible by road and is 68 km from Mumbai city. It is well connected to national highway

NH-66 that joins the coastal highway. The region is well connected to railway as well. Pen railway station is in close proximity.

The proposed expansion will cater to the increase in the demand for raw material. The total cargo to be handled would increase from present 33.95 MTPA to 54 MTPA, which includes 50.5 MTPA of Cargo of the Dolvi steel plant and Cement plant and 3.5 MTPA of third-party cargo. The main commodities to be handled at the facility after expansion includes Iron Bearing Raw Materials (IBRM), Coal Bearing Raw Materials (CBRM), fluxes, finished steel, slag, fly ash, cement, clinker, edible oil & liquid cargo, container, fertilizer, FRM and gypsum.

The existing facility at Dharamtar is presently handling barges up to 3700 DWT and Mini Bulk Carriers (MBC) of 8000 DWT. After expansion, upgradation and further mechanization of the jetty facilities, barges upto 6000 DWT and MBC of 8000 DWT shall be handled.

This requires capital dredging of about 4,155,300 m^3. Out of this, the hard material dredged will be about 1,000,000 m^3, which will be used for filling low-lying areas behind the berths. The balance of about 3,155,300 m3 of soft material will be dumped at designated locations near Mumbai Port Area as identified by MMB through CWPRS Model Report. Maintenance Dredging quantity shall remain same as 2,000,000 m^3 as per existing MOEFCC clearance and the dredged material from maintenance dredging will also be dumped at the same identified locations near Mumbai Port Area.

The water requirement for the existing jetty is about 30 m^3/hr and after expansion the water requirement will increase to 45 m^3/hr. This water requirement is proposed to be met from the existing allocation to JSWSL from Amba river, Nagothane, K.T. Bandhara. Rain water harvesting system is provided where the rain water from terminal building terraces is collected and used for various port activities including flushing and gardening. The excess water is sent to recharge pits. Considering about 650 sqm of terrace area available and average rainfall of 3000mm in the region, the total rainwater which can be harvested is estimated to be 1950cum.

Solid and hazardous wastes will be segregated at this site and stored separately. Biodegradable waste will be disposed as municipal sewage while hazardous waste will be given to the MPCB approved recyclers. Sewage generated from toilet blocks etc would be collected by means of suitable sewer system for treatment in Sewage Treatment Plant (STP). STP of capacity 50 m^3/day has been installed at the Jetty and the same will cater for the proposed expansion of Jetty. Total connected load of the project is 8520 KW and power requirement of the port facility is 4500 KVA.

The existing manpower of 100 direct employees and 400 contract workers will increase to 150 direct employees and 600 contract workers after expansion of jetty. This includes unskilled, semi-skilled, skilled, clerical and managerial staff.

Proposed project will be implemented within 36 months after obtaining all the required NOCs. The likely period of start of project is June 2025. The estimated block capital cost outlay for the proposed project is about Rs. 950 crores. The capital cost includes cost of jetty development, barge unloader, jetty conveyor, extension of covered storage yard, cross country conveyor, civil work and structural steelwork, erection and commissioning.

3. Description of Environmental studies

The environmental baseline study has been carried out in post-monsoon season from October 2023 to December 2023. The baseline data has been collected through primary survey as well as secondary data. The baseline monitoring for air quality, noise, soil, marine water and

sediment, marine biology has been carried out. The baseline monitoring was carried out considering nature and magnitude of project activity. Also, the environmental setting and potential receptors of the impact were considered for determining monitoring locations. The primary study area is defined within 5 km and the secondary study area is defined within 15 km radius from proposed project location.

Soil Quality

The soils in the district are formed from the Deccan Trap which is predominating rock formation with small out crops of Laterite at a few places in the Poladpur taluka and Matheran hill. The soils are grouped as Forest, Varkas, Rice, Khar or Saline, Coastal Alluvium and Laterite as per the location and topographical situation. The soil from project location was sandy silt whereas the soil from surrounding agricultural areas was represented by the clay and sandy loam texture.

Rainfall, Temperature & Humidity

Annual rainfall over the district ranges from 2200 mm to more than 3000 mm. The seasonal maximum rainfall observed for period March to June is 24 mm in the month of June. The region experiences moderate temperature variations, the mean dry bulb temperature in the hottest (May) and in coldest (January) months being 31.1°C and 22.3°C respectively. During Pre-monsoon period, the monthly max relative humidity was observed to be 97% in the month of June. Whereas the minimum relative humidity was observed as 10% in the month of March. The study area has recorded the cloud cover to be 0 to 6 Oktas, which represents clear sky to cloudy sky during study period.

Ambient Air Quality

Ambient air quality monitoring was carried out during October 2023 to December 2023. Particulate matters and respirable particulate matters, Gaseous pollutants, organic pollutants and metals are within the prescribed Norms of NAAQS Norms-2009 because of continuous air flow in the area helps to proper dispersion of the emitted pollutants.

Ambient Noise

Ambient noise level monitoring carried out near proposed project location and village areas represented noise levels by vehicular movement and other human activities. Baseline noise levels have been found to be within CPCB limits.

Marine Environment

Marine water samples collected from study area indicated slightly basic pH. Dissolved oxygen levels were found to be higher which could be due to frequent tidal exchange of water in the region. Phosphate and nitrogen levels in water samples can be attributed to domestic waste discharges from local habitation. Sediment texture was sandy loam with slightly basic pH. Traces of heavy metals in creek sediment can be attributed to pollutant deposition from various port operations, ship navigation, fishing boat operations etc.

Ecology and Biodiversity

Terrestrial

Vegetation in study area was represented by common trees including Mango, Teak, Cashew, Jackfruit Karanj and Karvanda. Avifauna and mammals in the study area was presented by

common species associated with waterbody and mangrove vegetation. During survey garden lizard, common skink and common rat snake were the only species of reptiles observed.

Aquatic

Higher cell count of phytoplankton was observed from sample collected near open sea location. Total 22 genera of phytoplankton were identified during study. Higher percentage compositon was represented by *Trichodesmium sp.* Zooplankton groups identified from marine water samples showed copepods and fish larvae to be common at all sampling locations. Highest population of zooplankton was found in main creek area which could be attributed to higher phytoplankton availability in this region. Higher percentage composition of macrobenthos was represented by isopods followed by amphipods and anthozoans. Higher percentage composition of meiobenthos was represented by nematodes.

Major catch composition from coastal waters off Raigad include non-penaeid prawns, *Rastrelliger kanagurta, Lepturacanthus savala, Otolithus cuvieri, Harpodon nehereus, Coilia dussummieri, Arius maculatus*, Penaeid prawns, *Lactarius lactarius*, and *Scomberomorus guttatus*. About 112 fish species have been reported from catch obtained along Raigad coastal waters.

Socio-Economic Profile

The project and its influence area are marked – 15 km from the project boundary. Total 170 villages and 2 urban area is falling within the project and its influence areas. These villages are spread across 4 sub-districts (i.e. Uran, Pen, Alibaug, Panvel) in Raigad district. As per 2011 census, total population of the district is 2634200, of which 63% is rural population and rest is urban. Beneghat village in Pen taluka is the nearest village to project location. Total population of Beneghat village is 589 as per census 2011. Literacy rate is in the range of 66-76% in villages in differ talukas, and male literacy rate is higher than female literacy rate. In Pen municipal council, total workers constitute 36% of total population, while in Ambepur town it is 56%. Workforce is in the range from 35% to 48% as per census 2011. Male workforce is higher than female workforce in urban areas. Main workers constitute a larger percentage of total workforce than marginal workers. This indicates continual availability of income generating opportunities in villages. In Pen municipal council, main workers constitute 92% and in Ambepur town it is 88%.

The district has contributed in large scale to the State's development in terms of income, tourism, employment opportunities, forest, fisheries and transport. District is rich in terms of agricultural practices. Other than agriculture the district is also a home to many large chemical, petrochemical, steel and other industrial projects contributing to its urban growth. All villages falling within project influence area is having educational facilities. 93% villages are having pre-primary schools, 55% villages are having primary school. 47% villages have middle school, 15% villages have secondary schools and 5% villages are having senior secondary schools. villages under project influence areas don't have sufficient medical facilities. As noted, 15% of villages have primary health sub-centers, while rest of the facilities are minimally present in villages.

4. Anticipated Impacts and Mitigation Measures

4.1 Landuse/Land Cover

The current land use of the project site is port activity involving handling of cargo. The proposed expansion in cargo handling capacity does not require additional marine or land area.

Therefore the project would not lead to any impact on the landuse and landcover of the project area and surrounding region.

4.2 Soil Quality

4.2.1 Anticipated Impacts

- Impact on soil quality is anticipated from deposition of the cargo dust generated during cargo unloading at the port and its further conveyance.
- The vehicular movement also cause suspension of cargo dust in air which often disperses by wind action and deposits in soil in the surrounding region.

4.2.2 Mitigation Measures

- Water sprinkling system should be implemented at the cargo unloading hoppers to prevent dust generation.
- The conveyor belts should be covered and fitted with water sprinkling mechanism at intervals.
- Vehicles carrying cargo should be covered with tarpaulin sheet to prevent dust generation.
- Cargo carrying vehicle should be subject to tyre wash to prevent cargo dust generation in the surrounding region during vehicular movement.
- Cargo storage areas should be provided with wind barriers.
- Greenbelt should be maintained around port to prevent dust dispersion

4.3 Creek Water & Sediment

Anticipated Impacts

- The cargo handling in a port may have impact on marine environment generally due to spillages of cargo into creek water, surface run off from storage yards, discharge of waste from terminal or ships etc.
- The cargo is unloaded from barges with the help of barge unloaders and mobile harbor cranes onto the conveyor belt. The closed conveyor belt further carries the cargo to the adjacent Steel plant or the storage area. The spillage of cargo is anticipated into marine environment during cargo loading-unloading operations.
- The surface runoff from storage yards or berth is also source of pollution in marine environment. The berth area is required to be washed every time the new ship is berthed and requires new cargo to be loaded. During washing of the berth the earlier cargo residue may enter marine environment with runoff water which may affect quality of the marine water and sediment.
- The treated sewage disposal into sea also may affect the water quality in port area.
- Solid waste such as labour generated food waste garbage, debris, and left-over plastic items, containers, etc may enter marine environment if not managed properly at the terminal and affect water quality.
- Berthing MBCs also are one of the sources of marine pollution in port area. The berthing ships require to manage their bilge water containing oily wastes are disposed at reception facility of the port for further tratment through the authorised vendors. The discharge of bilge into marine environment may affect water quality in port area.
- As the ballast water is pumped in by empty MBCs the organisms prevalent at the source port are transported to the destination port. This will introduce non-native harmful organisms to the marine environment which may affect water quality.

- The capital dredging of 4,155,300 m^3 is involved in the project. The primary effect of dredging includes sediment suspension in water column and rise in turbidity of creek water.
- The suspended sediment along with organic matter may deplete dissolved oxygen in water during its decomposition.
- The bottom sediment resuspension shall also contaminate the waterbody due to resuspension of contaminants such as nutrients and heavy metals.
- Dredging may have impact on flow pattern of the creek water due to changes in depth of the waterbody.
- The mechanical dredging may have impact on sediment structure due to loss of fine sediments such as silt and clay.
- Disposal of the dredged sediment is proposed at 18° 52' 29.96" N, 72° 52' 17.98"E based on modelling studies conducted by CWPRS. However, the disposal of dredged material may have impact on water and sediment quality from sediment dispersion and deposition on sea bed.

Mitigation Measures

- Regular water sprinkling on cargo piles should be carried out to ensure reduction in dust generation during cargo unloading operations.
- Minimum possible drop height to be maintained while unloading /screening of material to prevent the cargo spillage.
- Occasional cargo spillage during unloading at the berth is collected and put back into the stack yard. Proper storm water drainage system should be provided to avoid draining of surface run off from berth entering the sea.
- Solid waste should be segregated into separate dust bins for dry and wet waste. The waste should be disposed to authorised landfill through authorised recyclers.
- Sewage should be treated into STP and treated sewage should be recycled for landscaping purpose.
- The bilge containing oily waste from ships is taken into reception facility of and disposed through authorised recyclers. The JSWDPPL should ensure that no bilge is disposed by ships into marine environment.
- JSWDPPL should ensure that the berthing barges are certified for ballast water management as per BWM convention by inspection of the ballast water record book, BWM plan and BWM certificate of the ship.
- The cutter suction dredging technology shall be used to minimise the sediment dispersion in waterbody thus reducing the impact on water and sediment quality.
- Silt curtains should be deployed along navigation channel during dredging to avoid dispersion of the suspended sediments.

4.4 Ambient Noise

Anticipated Impacts

- Cargo unloading operations using mobile harbor cranes as well as conveyor belt operations generate noise.
- Ship operations in port area may generate noise during its navigation or berthing.
- Vehicular movement in port area for transport of cargo may increase noise levels.

Mitigation Measures

- The electric driven cranes and ground vehicles to loading and unloading the goods from cargo vessel may reduce noise levels during cargo handling.
- Maintain the road condition properly inside and outside port and its nearby areas.
- Regular vehicle and equipment maintenance to be carried out to maintain it in good working conditions.
- Development of greenbelt along project boundary can reduce noise level to large extent.

4.5 Ecology and Biodiversity

Anticipated Impacts

- Spillage of cargo may occur during cargo unloading operations. The nature of the cargo, spillage quantity and duration of exposure are key factors determining significance of the impact on fish and other creek flora and fauna.
- The berth washing or surface runoff during rainy season may lead to draining contaminated water into marine water. Dust deposition during handling of bulk cargo also may contaminate the marine water.
- The aquatic flora may be affected due to turbidity of water column in case of accidental spillage of bulk cargo or draining of cargo residues in creek water.
- The suspended cargo material in creek water in case of accidental spillage may have impact on fishes and sedentary fauna. The impact of suspended sediment on fish is generally observed in terms of reduced growth rate, physiological stress, reduced survival rate etc.
- Juvenile fish and sedentary fauna may be affected by deposition of fine sediments resuspended during dreging activity. Benthic invertebrates such as molluscs, crustaceans which are filter feeders may be affected by altering respiration and ingestion mechanism due to fine sediment suspension in water column.
- Dredging and dredge disposal activity shall have direct impact on benthic fauna from habitat destruction and smothering effect from siltation.
- Dredging may affect fish fauna by deterring them away from disturbed area due to operation of dredger machinery.
- The sedimentation caused by deposition of cargo on sea bed may result in smothering and burial of benthic fauna. The change in substrate composition may affect distribution of infauna and epifauna.
- Discharge of bilge water from ships or discharge of untreated sewage into marine water may lead to anoxic conditions resulting from decay of organic matter may cause increase in hydrogen sulphide concentrations in sediment and affect the benthic fauna.
- Discharge of untreated ballast by cargo ships pose risk of introduction of foreign species. Generally the establishment of the foreign species lead to replacement of the native species or competing with the existing species for resources, survival etc.
- No impact on mangrove is anticipated as the project does not involves cutting of any mangrove.

Mitigation Measures

- To reduce dust generation water is sprayed at stockpiles and roadside at periodic intervals using water tankers. Mobile hoppers are provided with dust suppression system with water tank.
- Bulk cargo is handled in highly mechanised manner, and under covered shed facilitated with dust suppression system.

- Untreated sewage shall not be discharged into marine water. Sewage will be treated into existing STP of 50CMD capacity and treated sewage shall be used for greenbelt maintenance. The excess treated water will be discharged to drainage network in the port area.
- Storm water drainage network should be maintained in port area to contain and channelize the surface run off to sedimentation pit. Cargo deposition at the berth from occasional spillage during its unloading is collected and put back into the stack yard.
- The municipal solid waste generated by labour shall be collected in dry and wet waste bins separately and disposed designated site through authorised agency. Adequate sanitary facility will be provided with septic tank/soak pit for waste collection.
- The bilge water from berthing ships will be handed over to authorised agency for treatment and disposal. The municipal waste from ships shall be collected in separate containers and disposed to authorised agency.
- The ballast water management is ensured for every ship berthing at the port by inspection of the ballast water record book and valid certificate available on board for the same.
- The cutter suction dredging technology shall be used to minimise the sediment dispersion in waterbody thus reducing the impact on water and sediment quality.
- Silt curtains should be deployed along navigation channel during dredging to avoid dispersion of the suspended sediments.
- Dredging during breeding season should be avoided to prevent impact on fish fauna.

4.6 Ambient Air Quality

Anticipated Impacts

- Operations involving the combustion of fossil fuels by vehicles, ships and equipment release gaseous emission in air.
- The operation of cargo-handling equipment (e.g., cranes, forklifts, conveyor belts), trucks, and ships contribute to emissions of nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), volatile organic compounds (VOCs), and fine particulate matter (PM2.5).
- Spillage, wind-blown dust from cargo piles, and emissions from uncovered cargo during transit can result in fugitive emissions affecting air quality.

Mitigation Measures

- Regular maintenance, mechanical cleaning and PUC certifications to be promoted for related /engaged vehicles inside and outside the campus.
- Encourage use of vehicles complying with latest emission norms such as Euro VI.
- Plantation of air pollution reducing trees at the boundary of port area and along the approach roadside.
- Proper maintenance of the DG sets other machines and vehicles like Truck, dumpers, trailers and Cranes. Limited vehicular movement to be permitted on disturbed area.
- Truck, dumpers, and trailers and other heavy vehicles engaged to be covered during off site transportation.
- A minimum freeboard of six inches to be maintained by haul trucks when material is transported on any paved road.
- Minimum possible drop height to be maintained while unloading /screening of material.

- Paved roads to be cleaned regularly and un-paved roads to be stabilized and watered regularly.
- Water sprinkling must be required inside the port area specially between unloading and loading area of ship.
- Open burning of waste shall not be permitted.
- Physical barriers should be provided between the ship loading and unloading operations / operation site and other area of port and nearby residential areas to reduce the air dispersion.

4.7 Socio-Economic Environment

Anticipated Impacts

- The proposed project involves expansion in cargo handling capacity of the existing JSW Dharamtar port. The capacity expansion would provide employment opportunity to 150 staff and 600 contractual workers including unskilled, semi-skilled, skilled, clerical and managerial staff.
- The State Highway SH-166A (Pen-Alibag) passes on the south side of the Dharamtar port. The National Highway NH-66 (Mumbai-Goa) lies 5 km away from the plant on the south side of the port. The port bound vehicular traffic includes employee vehicles, cargo handling trucks and other vehicles which contribute to the existing traffic plying on these roads. The increased traffic load may have cumulative impact on social health in the surrounding region from dust generation and dispersion.
- The increased number of heavy vehicles may increase chances of accidents on highways.

Mitigation Measures

- The vehicular speed limit should be regulated for the heavy vehicles carrying cargo.
- Standard operating procedure or instructions regarding road safety should be given to contractor to ensure implementation of safety measures while cargo transport.
- Regular water sprinkling should be carried out on internal roads and particulate cargo to minimize dust generation.
- The vehicle exiting the port premises should be subjected to tyre wash to avoid dispersion of particulate matter/dust.

5. Environmental Monitoring Program

Half yearly compliance report in respect of the stipulated terms and conditions of EC&CRZ Clearance should be submitted by project proponent to the concerned regulatory authorities on 1st April and 1st October of each calendar year. The annual budget for environment monitoring is estimated to be 5.57 Lakhs.

6. Additional Studies (RA & DMP)

The risk assessment and disaster management plan (RADMP) are prepared for the proposed expansion of Dharamtar Jetty Facility. The approach for the study, risks identified in the project, preventive measures for the risks and anticipated disasters and its management is covered in the study. Various risks identified during project execution such as fire, noise and vibration, structural collapse, drowning, cyclone, floods, lightening etc. are evaluated as high risks. Preventive measures and precautions have been suggested to minimize risk while working on site. Disaster management plan provides on site as well as off site disaster management plan. On site DMP provides DMP cell structure along with responsibilities of the

individual roles in the DMP cell. The off-site disaster management plan provides details about different angencies to be contacted in the event of disaster and their responsibilities.

7. Project Benefits

- The proposed project shall satisfy the increased demands of the existing steel plant which has expanded its production capacity.
- It shall reduce the pollution as the cargo shall be brought in through the waterways instead of road, thereby reducing the air and noise pollution during transportation.
- The project provides new direct and indirect job opportunities during construction and operational phase of the project.
- The development of various activities, would not only improve the cash flow in the area, but would also provide an impetus to improvement in infrastructure at the local level.
- The project significantly contributes to the Socio-economic development of the area.

8. Environmental Management Plan

The environment management plan is prepared to implement during cargo handling operations to minimise environmental impacts. The Environmental Management Cell (EMC) is given responsibility for overseeing the implementation of the Environmental Management Plan (EMP) during the cargo handling. Abount 5.17 Cr of capital is spent on various environment management aspects and recurring cost toward environmental measures is allocated 0.71 Cr.

Oil spill contingency plan is prepared to ensure that immediate steps are taken to protect the environment, to contain and clean up any spill, and to restore any affected areas. In case of oil spill these plans assign immediate actions to designated individuals. Various scenarios have been considered to prepare the oil spill contingency plan such as collision, grounding, bunkering, fire onboard etc. The fate of oil spill has been studied for various situations such as during monsoon, non monsoon at various locations in Amba river. Oil spill response equipment are available at DPPL to contain the oil spill. The organisation structure has been formulated for oil spill response with specific roles and responsibilities.