



Environment and Social Compliance Audit Report

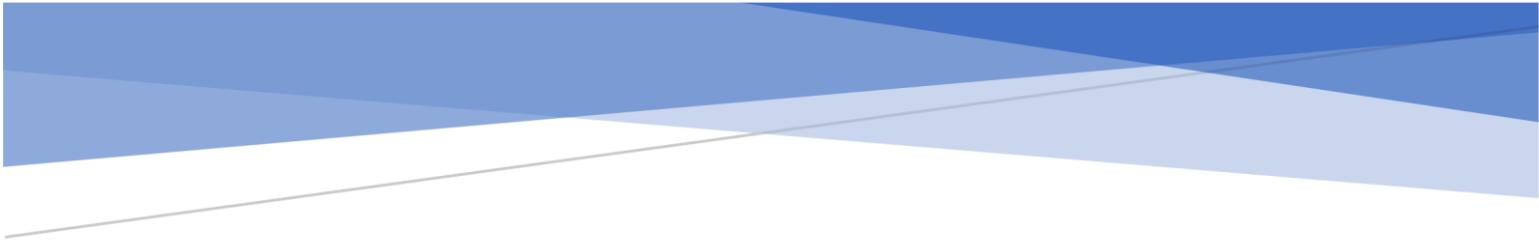
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Prepared by Nhava Sheva Freeport Terminal Private Limited as a requirement the Asian Development Bank.

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**Environmental and Social Compliance Audit Report
of Jawaharlal Nehru Port Container Terminal
Final Report**

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Abbreviations

AAQ	Ambient Air Quality
ARF	Applicable Reference Framework
ADB	Asian Development Bank
BMCT	Bharat Mumbai Container Terminal
BPCL	Bharat Petroleum Corporation Limited
BOT	Build-Operate-Transfer
CISF	Central Industrial Security Force
CWPRS	Central Water and Power Research Station
CIDCO	City and Industrial Development Corporation of Maharashtra Limited
CRZ	Coastal Regulation Zone
CA	Concessionaire Agreement
CTO	Consent to Operate
CSR	Corporate Social Responsibility
CAP	Corrective Action Plan
D.G.	Diesel Generator
DMP	Disaster Management Plan
EDI	Electronic Data Interchange
EAP	Emergency Action Plan
EPR	Emergency Preparedness and Response
ESCA	Environment and Social Compliance Audit
EC	Environment Clearance
EMMP	Environment Management and Monitoring Plan
EHS	Environment, Health & Safety
ESMS	Environmental and Social Management System
EIA	Environmental Impact Assessment
EBRD	European Bank for Reconstruction and Development
FY	Financial Year
GTI	Gateway Terminals India
GRM	Grievance Redressal Mechanisms
HIRA	Hazard Identification & Risk Assessment
HWA	Hazardous Waste Authorization
HR	Human Resource
IBA	Important Bird Area
IP	Indigenous Peoples
IT	Information Technology
IESE	Initial Environmental and Social Examination
IFC	International Finance Corporation
ILO	International Labour Organization
IMDG	International Maritime Dangerous Goods
JNPA	Jawaharlal Nehru Port Authority
JNPCT	Jawaharlal Nehru Port Container Terminal
JNPT	Jawaharlal Nehru Port Trust
MCZMA	Maharashtra Coastal Zone Management Authority

MJP	Maharashtra Jeevan Pradhikarn
MPCB	Maharashtra Pollution Control Bo
MSEDCL	Maharashtra State Electricity Distribution Company Limited
MoEFCC	Ministry of Environment, Forest and Climate Change
NH	National Highway
NSC	National Safety Council
NAD	Naval Armament Depot
NSFTPL	Nhava Sheva Freeport Terminal Private Limited
NSICT	Nhava Sheva International Container Terminal
NOC	No Objection Certificate
OISD	Oil Industry Safety Directorate
PESO	Petroleum and Explosives Safety Organizations
PAP	Project Affected Person
PPP	Public Private Partnership
QHSE	Quality, Health & Safety and Environment
RMQC	Rail Mounted Quay Crane
R&R	Resettlement & Rehabilitation
RTGC	Rubber Tyred Gantry Crane
SR	Safeguard requirement
SPS	Safety Policy statement
SVRS	Scheme of Voluntary Retirement
STP	Sewage Treatment Plant
SPV	Special Purpose Vehicle
SEP	Stakeholder Engagement Plan
SH	State Highway
TEU	Twenty-foot Equivalent Unit
UNESCO	United Nations Educational, Scientific and Cultural Organization
UOMT	Upgradation, Operation, Maintenance and Transfer
VTMS	Vessel Traffic Management System

Executive Summary

Introduction

The Jawaharlal Nehru Port Authority (JNPA) at Navi Mumbai (formerly known as the Jawaharlal Nehru Port Trust) is India's largest container port and handles more than half of the container cargo across all major ports in India. Jawaharlal Nehru Port Trust is planning to undertake re-development of Jawaharlal Nehru Port Container Terminal through Public Private Partnership (PPP) on Upgradation, Operation, Maintenance and Transfer (UOMT) basis ("the Project") to increase JNPCT's maximum capacity to 1.8 million TEUs annually. The upgradation works will be done in two phases and expected to be completed in 15 – 18 months' timeline. The maximum terminal capacity of JNPCT for Phase 1 will be 1.2 million TEUs and for phase 2 will be 1.8 million TEUs (terminal capacity for Phase 1 & 2).

The work has been awarded as a 30-year Built-Operate-Transfer (BOT) concession to Nhava Sheva Freeport Terminal Private Limited ("NSFTPL" or "the Client"), a consortium formed by M/s JM Baxi Ports & Logistics Limited and M/s CMA Terminals. NSFTPL intends to raise loan from Asian Development Bank ("ADB") to support the Project.

Project Overview

JNPCT is located at the eastern end of Mumbai on the Sheva Island and is situated at latitude 18° 56' 43" N and longitude 72° 56' 24" E. It is surrounded by NSICT towards the north, GTI towards south and rail yard towards east. Nearest habitation to JNPCT is Nhava village located at an aerial distance of ~ 1.5 km in north-east direction. The terminal is well connected by road and rail network.

UNESCO World Heritage Site, Elephanta Caves are located ~2 km from the terminal. A newly recognized Ramsar Site, Thane Creek (Thane Creek Flamingo Sanctuary) which supports more than 100,000 birds during winter is also present ~12.5 km from the terminal. Karnala Bird Sanctuary (also an Important Bird Area (IBA)) is present in the west of the terminal. The boundary of eco-sensitive zone of the sanctuary is about 10 km from the terminal.

JNPCT has connectivity to all major ports of the world either through direct calls or through transshipment. It is spread across total 54.74 ha of land and has 2 berths with a total quay length of 680 m and is capable to handle vessels up to 15 m draft. The current capacity of JNPCT is about 1.5 million TEUs. The existing container berth at JNPCT has been designed to accommodate vessel size of 6000 TEU. JNPCT is equipped with 36 no. of cranes (diesel and electrical) for loading/ unloading of containers. Containers are dispatched through either roads or rail to the container owners.

Jawaharlal Nehru Port Authority has been notified by Ministry of Ports, Shipping and Waterways in 2007 via notification No. G.S.R. 2009 (E) for handling of dangerous goods (arrival, receipt, transport and storage) for IMDG class explosives of classification 2 to 9. In addition, container berth No. 1 (JNPCT) has been notified by Minister of Defence for handling their own explosives (IMDG class 1.1 and 1.2) under the supervision of Naval Armament Depot (NAD) Karanja. Recently JNPA has been notified by Petroleum and Explosives Safety Organizations (PESO) for handling (for export) IMDG class 1.4S explosives (via notification dated 14th June 2022) at container berth No.1 (JNPCT) and 6.

JNPCT has a dedicated container scanning area where random check on entry and exit of containers at the terminal is carried out to ensure prevention of illegal import as per the Customs Act, 1962. Furthermore, JNPA has deployed Central Industrial Security Force (CISF) team at all the port entry gates for entering details of trucks and containers moving to and from the port.

Project Categorization

The Project has been categorized as Category "B" for environment, "C" for Indigenous People and Involuntary Resettlement as per ADB safeguard policy. The rationale for the project categorization is

based on assessment of limited environmental impacts associated with the operations of the terminal which can be mitigated by developing and implementing adequate management measures. Also, project does not require additional land, hence involuntary resettlement and impacts on indigenous people are not envisaged.

Key Findings & Corrective Action

A summary of the key finding and associated corrective actions have been defined below.

S.no.	Requirement	Gaps Identified	Corrective Actions
1.	Environmental and Management System	Social ESMS is yet to be developed for the Project	Develop and implement E&S ¹ policies and an ESMS for the project, aligned with JM Baxi, CMA and ADB policies. ESMS to cover construction and operation.
2.	Legal Permits	Applicable E&S for the Project are yet to be obtained.	Following permits/ registration certificates to be obtained: <ul style="list-style-type: none"> • Coastal Regulation Zone (CRZ) clearance • Environmental clearance (if requested by CRZ committee) • Fire NOC • Amended Consent to Operate (CTO) • Labour license and Permit under CLRA Act 1970 • Registration under Bombay Shops & Establishment Act 1948 • Labour permit and license under Contract labour regulation and abolition act 1970 • Registration under Provident Fund Act 1956 • Registration under ESIC Act 1948 • Registration under Inter State Migrant act • Workmen's Compensation Document procedure on legal EHS and labor requirements and evaluation of compliance during the Project construction and operation.

¹ E&S means environment, occupational and community health & safety, social aspects. Social includes labor and working conditions, labor aspects of contractor and suppliers' management, worker and external grievance mechanism, stakeholder engagement and information disclosure, gender and vulnerability (also impacts on people and their livelihoods arising from land acquisition, involuntary resettlement and impacts on indigenous peoples – as applicable).

S.no.	Requirement	Gaps Identified	Corrective Actions
			Maintain legal register and comply with all the legal conditions.
3.	HR Policy and Procedures	HR policies, procedures and management system is yet to be developed	Develop and implement HR policies, procedures and a management system, aligned with JM Baxi, CMA and ADB policies and addressing construction and operation phases.
4.	Environmental Assessment	IESE report is in process. Procedure on Hazard Identification and Assessment of Risk and environmental aspect impact analysis is yet to be developed	Prepare an Initial Environmental and Social Examination (IESE), and Environmental and Social Management Plan (ESMP) in accordance with ADB SPS (2009) and applicable IFC EHS guidelines. Implement ESMP and the recommendations of the climate change vulnerability assessment.
5.	E&S Management Plans	E&S Management plans to be implemented on Site by NSFTPL are yet to be developed.	The ESMP developed as part of IESE should cover construction and operation phase and take into account overlap between both the activities. It is recommended to develop E&S management plans to be implemented at JNPCT. Plans will include, but not limited to: <ul style="list-style-type: none"> • Pollution Prevention and Monitoring Plan (e.g. marine water quality, noise, air emissions, and GHG), including maintenance of diesel generators and vehicles Pollution Under Control (PUC) checks • Waste Management Plan. • Wastewater and Stormwater Management Plan. • Spill Prevention and Response Plan. • Resource Conservation and Energy Efficiency Plan, including calculations and disclosure of GHG emissions from the terminal operations on an annual basis. The Plan will consider the conversion of diesel RTGs to electrical-driven RTGs and where possible, installation of solar panels within the terminal • Traffic Management Plan. • Occupational Health and Safety Plan, procedures and manual.

S.no.	Requirement	Gaps Identified	Corrective Actions
			<ul style="list-style-type: none"> • Community Health and Safety and Security Plan. • Chance Find Procedure. • Change Management Procedure. • Construction Labour and Working Conditions Management Plan. • Code of Conduct. • Subcontractor and Supplier Management Plan. • Workers' Accommodation Management Plan. • Local Content (and Influx management) Plan. • Gender Management Plan.
			<p>It is to be ensured that E&S management plans to be implemented by NSFTPL and its contractors.</p>
			<p>NSFTPL to develop a mechanism and ensure that all E&S requirements of the project are implemented by contractors and subcontractors and to embed ESMP requirements in contracts with contractors, and relevant training.</p>
<p>6. Organizational Structure and Staffing including Skills and Competencies</p>	<p>Organization structure of NSFTPL, Project SPV responsible for management of the Project is yet to be established.</p>	<p>Appoint a dedicated E&S Manager responsible to assure compliance with ESMS, ESMP and this CAP throughout construction and operation.</p>	
			<p>Appoint HR staff and a communications expert for look after the social (HR, stakeholder engagement, GRM) performance of the project.</p>
<p>7. Emergency Preparedness and Response Plan</p>	<p>EPRP is yet to be developed</p>	<p>Develop and implement Emergency Preparedness and Response (EPRP) in line with JNPA's Emergency Action Plan (EAP) and Disaster Management Plan (DMP).</p>	
			<p>Identify emergency contact numbers, and safe assembly area and display at prominent locations within the Project.</p>
<p>8. Occupational Health and Safety (OHS)</p>	<p>Occupational health & safety manual with relevant SOPs proposed to be implemented at JNPCT is yet to be developed.</p>	<p>Develop occupational health & safety manual and procedures, in line with ADB's requirements and applicable WB EHS guidelines.</p>	

S.no.	Requirement	Gaps Identified	Corrective Actions
			Establish a safety committee on workplace safety for construction and operation.
9.	CSR	Develop implement a Local Content and Influx Plan (LCIP) for operations.	Develop and implement a corporate social responsibility (CSR) plan based on community need assessment
10.	LCIP	Currently NSFTPL is not having LICP	Develop implement a Local Content and Influx Plan (LCIP) for operations.

Note: The above table presents only the key gaps identified as part Environmental and Social Compliance Audit. For detailed gap assessment refer Section 5 of this report

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1 Introduction

1.1 Background and Purpose

The Jawaharlal Nehru Port Authority (JNPA) is India’s largest container port and handles more than half of the container cargo across all major ports in India. The port is located at the eastern end of Mumbai on the Sheva Island spread across 3,402 hectares of land. The port supports five container terminals, one liquid terminal and one shallow water berth. The total capacity of these terminals is 8.1 million TEUs. The terminals are operated by private companies through Build-Operate-Transfer (BOT) concessions except for Jawaharlal Nehru Port Container Terminal (JNPCT) which is currently operated by JNPA.

Jawaharlal Nehru Port Trust is planning to undertake re-development of Jawaharlal Nehru Port Container Terminal through Public Private Partnership (PPP) on Upgradation, Operation, Maintenance and Transfer (UOMT) basis (“the Project”) to increase JNPCT’s maximum capacity to 1.8 million TEUs annually. The upgradation works will be done in two phases and expected to be completed in 15 – 18 months timeline. The maximum terminal capacity of JNPCT for Phase 1 will be 1.2 million TEUs and for phase 2 will be 1.8 million TEUs (terminal capacity for Phase 1 & 2).

The work has been awarded as a 30-year Built-Operate-Transfer (BOT) concession to Nhava Sheva Freeport Terminal Private Limited (“NSFTPL” or “the Client”), a consortium formed by M/s JM Baxi Ports & Logistics Limited and M/s CMA Terminals. NSFTPL intends to raise loan from Asian Development Bank (“ADB”) to support the Project.

In this context, NSFTPL has engaged an Independent E&S Advisor to undertake Environmental and Social Compliance Audit of existing facilities and operations at JNPCT for the proposed upgradation works at JNPCT against the objectives, principles and requirements of ADB’s Safeguard Policy Statement and other applicable environmental and social requirements as per Applicable Reference Framework (“ARF”) as mentioned below in **Section 1.2.1**.

1.2 Scope of Work

The scope of work for Environment and Social Compliance Audit (ESCA) includes assessment of the existing operations of JNCPT, which provides a clear understanding of the Project’s past, current and required compliance in relation to the Reference Framework’s environment and social safeguard requirements and setting out clear time bound actions to address gaps identified. Detailed scope of work as per ToR is as presented below:

Table 1-1 Scope of Work as per ToR

Aspect	Details
Review of adherence with Applicable Reference Framework	<ul style="list-style-type: none"> • Review past and current performance of JNPCT to ascertain that environmental and social issues are identified and addressed at each stage of the project cycle against the objectives, principles, and requirements of the ARF; • Review compliance of the applicable local and national regulatory requirements including the EIA/ESIA, environmental and social management plans, permits/licenses related to regulatory compliance, land ownership/lease and land use rights, environmental and social monitoring requirements; • Review the existing Environmental and CRZ clearance of JNPCT, its validity and assess adherence to related compliances;

Aspect	Details
	<ul style="list-style-type: none"> • Review the status past and existing compliance of JNPCT in respect of the contractors and suppliers/ service providers, with the requirements of ARF; • Assess EHSS impacts and risks from previous ES inspections, litigation, claims, disputes, strikes, significant ES accidents, fines, their current status and progress with any relating mitigation measures and improvements in the management system as provided by JNPCT; • Assess environmental or social legacy issues which could have ongoing/future risks to the project or reputational risks to lenders as per the requirements of ARF; • Review, categorization and compliance with ADB SPS SR1 (environmental safeguards requirements); SR2 (involuntary resettlement requirements); and SR3 (indigenous peoples' requirements).
Review of Existing Project Design	<ul style="list-style-type: none"> • Review the environmental, health and safety and social (ES) risks associated with the current layout and operations of JNPCT in relation to environment i.e., drainage plan, location of sewage treatment plan, waste storage area, hazardous chemical storage area, etc. and assessment of ES impacts considering the other container terminals in the vicinity; • Assess any safety risks and impacts associated with other neighbouring terminals, for example, but not limited to maritime traffic management, dredging, emergency response arrangements etc.; • Assess if sufficient effort was made and documented to avoid and minimise ES risks and impacts during designing of the JNPCT.
Existing Environmental and Social Impact Assessment Studies	<ul style="list-style-type: none"> • Review JNPCT's environmental and social assessment and related environmental and social studies prepared for the project and JNPA port that are relevant to the upgradation and operations of the terminal. Review the social risks and impacts in the context of the existing operations and upgradation of the JNPCT; • Assess the environmental, health and safety and social management plans/procedures, monitoring programs and audit measures (including, timelines budgetary and staffing requirements) established and implemented for JNPCT existing operations. Assess if it prevent, mitigate or control the direct, indirect, induced and cumulative negative environmental and social impacts including but not limited to (i) impacts on biodiversity and natural resources (ii) marine sediment and water quality (iii) surface water resources and water quality (iii) noise and vibration (iv) waste generation (v) air emissions and discharges, including greenhouse gas emissions (vi) soil quality (vii) hazardous materials (viii) occupational and community health and safety impacts (ix) impacts to physical cultural resources within or near the project site (x) cumulative impacts (xi) labor and working condition impacts, including on contractors/suppliers, migrant labor (xii) impacts on land use, land rights and socio-economic impacts (e.g., livelihood and local economic formal and informal activities) (xii) gender-related impacts and (xiii) impacts on indigenous peoples and/or vulnerable ethnic groups, if applicable; • Assess and provide recommendations whether additional environmental, health and safety and social studies are required to be undertaken to verify impacts of the existing operations and additional impacts from the upgradation activities; • Review JNPCT's existing policies and procedures relating to (a) stakeholder engagement and community discussion process, worker and external grievance redress mechanisms, (b) human resources polices and labor practices, including commitments, code of conduct and any company's public reporting explicitly prohibiting use of child and forced labor and management and monitoring system relating to this, (c) worker unions, collective bargaining agreements and effectiveness of worker's representation, if such exists (d) equal opportunities and non-discrimination, (e) ES aspects of tendering and procurement of subcontractors and suppliers and (f) any other environmental and social issues relevant to company's operations; • Review the existing function structure to analyse availability of the capacity and skill sets of the JNPCT's management team for assumptions made with respect to (i) senior management expertise

Aspect	Details
	(ii) the outsourcing, turnover and manning levels (iii) the existing organisational structure (iv) the experience of key personnel and management, including ES personnel (v) the local labor force with regard to general skill levels, experience with similar operations, productivity, reliability and availability (vi) adequacy of training both pre-operational and on-going.
Biodiversity	<ul style="list-style-type: none"> Assess related impacts to biodiversity, including modified, natural and critical habitats, protected areas and rare, threatened and/or endangered flora and fauna. assess the significance of existing operational impacts and risks on terrestrial and marine biodiversity (including any potential threat to the destruction of habitat and introduction of invasive alien species) Review the existing operations and maintenance activities (e.g., access channel, turning basin maintenance dredging, wastewater discharge) and potential impacts to biodiversity and whether there are sufficient mitigation measures to avoid and/or minimize such impacts, and comply with applicable national regulations, IFC EHS Guidelines and applicable good international industry practices. Check if there were marine exclusion zones established and if there were any legacy issues related to its establishment and changes in navigational paths of fishing and other vessels when JNPA was established.
Water Quality	<ul style="list-style-type: none"> Review the effluent sources at the project site and assess the site water management plans and procedures implemented by JNPCT; Review of the stormwater drainage design and management and assessment to collect and treat runoff from the JNPCT container and bulk yard for existing operations and future expansion; Review of the port sewage system and wastewater treatment plant design and procedures, particularly if it's centralized and provides service to JNPCT. Assess the site water and wastewater management plan, or equivalent plans in such case; High level review and understanding of how sewage and wastewater from ships are handled by port authorities, and establish any interlinkages with the JNPCT operations to determine potential risks and impacts; Review the maintenance dredging strategy and implementation by Port authority to avoid and minimize sedimentation in the marine environment and assess compliance with applicable reference framework.
Noise and Vibration	<ul style="list-style-type: none"> Review the noise and vibration sources and the extent of JNPCT operations and cumulative impacts to workers, contractors/subcontractors, and communities; Review the noise and vibration monitoring data of JNPCT and determine the proposed mitigation measures for complying with ARF.
Waste Management	<ul style="list-style-type: none"> Review the types and volume of wastes generated on site and waste management including handling, storage, disposal by JNPCT. The involvement of JNPCT in waste management protocols and practices of ships berthing at the site to be understood and high-level cumulative impacts to be identified; Review the compliance of waste management plans against ARF.
Air Emissions	<ul style="list-style-type: none"> Review air emission sources on site, including fugitive emissions, emissions from dry bulk, and cumulative sources from JNPCT operations; Assess existing activities that contributes to climate change through the release of greenhouse gas (GHG) emissions; Assess data, maintained by client quantifying greenhouse gas emissions generated from its operations, if available, including cumulative emissions;

Aspect	Details
	<ul style="list-style-type: none"> Assess whether all potential hazards and risks have been identified and provided to reduce risks and applicable national regulations and good international industry practices.
Soil Quality	<ul style="list-style-type: none"> Review the volume of maintenance dredged soil generated during maintenance activities by JNPA, review the storage and disposal mechanism and identify any the associated risks; Review if there are legacy issues on disposal of dredge soils as per the available documentation; Assess existing Dredging Management Plans, or equivalent plan and assess compliance with ARF.
Hazardous Materials and Oil	<ul style="list-style-type: none"> Assess impacts related to the use, management, or disposal of hazardous substances, including fuels, chemicals and materials that can initiate hazardous environment during the operations of JNPCT; Review the hazardous materials and oil management plans, or equivalents plans, to manage accidental spills, leaks, fires in the container yard and understand the same as applicable to the port operations; Review port level emergency response plans and procedures (as made available by client) and coverage of other container terminals to understand commonalities and cumulative risks.
Occupational Health and Safety	<ul style="list-style-type: none"> Review the steps to prevent workers accidents, injuries, diseases; Assess occupational, health and safety plan, management and monitoring tools of JNPCT (e.g., forms, reports, accident and near miss registers etc.) to address operations and future activities and if recommended mitigating measures are aligned with good international industry practices; Review data on accidents and root-cause analysis reports; Review of policy, practice and risk associated with the project's emergency response procedure, or equivalent document, that is adopted in case of fire scenarios, leakages, spills, or natural calamities, pandemic in the area by the project for its alignment with ARF; Discussions with private security personnel, public security forces, and their interactions with workers and the public as well as that of the port in respect of emergency response procedures.
Community Health and Safety	<ul style="list-style-type: none"> Review the project's steps to prevent community accidents, injuries, diseases and assess risks to the nearby communities; Assess the community, health and safety plan of JNCPT, to address operations impacts and future construction activities, and if recommended mitigating measures are aligned with good international industry practices; Review the emergency preparedness and response plan or equivalent document, that is adopted in case of fire scenarios, leakages, spills, or natural calamities, pandemic in the area by affected communities. Check if the plan is communicated to them and if periodic discussions regarding emergency situations are conducted; Review of existing and planned security arrangements for JNCTP operations and upgradation, as well as record of any incidents and their resolution.
Stakeholder Engagement (Project Information Discussion and Participation)	<ul style="list-style-type: none"> Review the information disclosed (including a review of documents or information that were already disclosed to the public, affected persons and customers; and workers if applicable) and disclosure activities undertaken by JNPCT / JM Baxi / CMA Assess compliance with information disclosure requirements during project preparation and implementation (covering project preparation, construction/upgradation works and operations phase, as applicable for the project) based on applicable statutory requirements; Review stakeholder engagement and community discussion process undertaken (or ongoing) during project implementation.,

Aspect	Details
	<ul style="list-style-type: none"> • Review of compliance with public discussion and participation requirements based on relevant laws and regulations. • Review of existing documentation to determine if meaningful discussion with affected people and other concerned stakeholders, including civil society and vulnerable people, was/were or being conducted for the project. • Review of planned stakeholder engagement and information disclosure, including special consideration for vulnerable groups.
Grievance Mechanism	<p>Redressal</p> <ul style="list-style-type: none"> • Assess the grievance redress mechanism (GRM) of the JM Baxi and CMA to manage external grievances, including a procedure, management tools, their application in practice, e.g., receipt, handling and resolution of grievances. • Review of past or outstanding grievances, complaints, or court cases related to the project under review, and how they were addressed; • Analyse the common and repeated issues, problems or complaints received from the communities, customers or from employees or construction contractors' workers and determine how these were addressed; • Assess the compliance of existing or proposed mechanism to receive and facilitate resolution of concerns, complaints and grievances from the community, customers and workers against applicable reference framework requirements.
Climate Risk	<ul style="list-style-type: none"> • Assess high level risks related to climate change, such as temperature increase or decrease, altered precipitation regimes (more or less rainfall), more frequent and severe weather events such as storms and flooding, sea level rise etc. that were experienced by JNCPT since it started operations, and assess resilience of its existing design to climate change.
Physical Resources	<p>Cultural</p> <ul style="list-style-type: none"> • Assess if there were legacy issues related to archaeology and cultural heritage and determine company's plan to address them.
Land Acquisition and Resettlement	<ul style="list-style-type: none"> • Review of land acquisition process for existing and proposed operations, including any associated facilities (roads, rail tracks, proposed storage, disposal sites, substations etc.) • Review and report any legacy issues related to land rights, land use (by formal and informal land users) and how these were managed by JNPA during past land acquisition; • Assess if past or on-going land acquisition/transfer/use are done in compliance with the national and local laws and lender requirements basis review of available documentation and secondary research • Review outstanding issues, related to land acquisition and involuntary resettlement (; • Assess the information disclosure on the land rights acquisition and compensation process and type of information disclosed including the entitlements and compensation • Review of applicability of resettlement related safeguards (SR 2) to the proposed Project through above review of land documents, past land use, procurement/ acquisition process and pending legacy issues
Indigenous Peoples	<ul style="list-style-type: none"> • Review the ethnicity of people in the project area and assess land rights acquisition impacts to these groups and discuss corresponding mitigating measures taken against SR 3. • Discuss whether there are outstanding issues, complaints, or grievances related to ethnic minorities/Indigenous Peoples, and whether the measures implemented comply with SPS SR3 requirements.

Aspect	Details
	<ul style="list-style-type: none"> • Upon review of the processes and procedures, establish applicability of IP related safeguards (SR 3) to the proposed Project and identify gaps against applicable reference framework.
Labor Management	<ul style="list-style-type: none"> • Assess existing labor and working Conditions through review of: contracts between contractors/ subcontractors and the Project; human resources policy of the Company, its contractors and subcontractors; and compliance with applicable national labor laws and ILO core labor standards which may consist of (a) payment of mandated wages to technical, skilled and semi-workers and at least minimum wages to unskilled workers, (b) payment of insurance and other benefits, (c) work hours and overtime work are voluntarily rendered and are all in accordance with law, (d) exercise their right to freely organize. • Review of any child labor or forced labor or any form of discrimination amongst employees and non-employees; • Review the estimate of the number of permanent and temporary employees/laborers to be hired during mobilisation, construction/upgradation, and operation and maintenance as provided by Client; • Review existence of policy on priority hiring of locals and any retrenchment plans; • Review obligations of the contractors (and subcontractors) with respect to living and working conditions of workers. • Review procurement and supply management practices and how labor risks are considered and managed in a tendering, contracting and supply processes. • Review of the past and on-going employee reallocation/layover due to the terminal takeover
Gender	<ul style="list-style-type: none"> • Based on available sex-disaggregated socio-economic data, existing project policies and procedures and land-related documents, conduct high level gender analysis and identify potential beneficial or adverse impacts specific to women which need to be managed or mitigated through the Project and need to be covered in detail in IESE.

JNPCT, currently being operated by JNPA lies within the JN Port (spread across 3402 ha) along with other container terminals. This report (ESCA) will focus on the operations of the container terminal i.e., JNPCT not of the entire port. Also, after hand over of the terminal, NSFTPL (Project SPV) will be responsible for operations and management of E&S aspects related to the container terminal. Hence this report focusses on management systems of NSFTPL.

1.2.1 Reference framework

Applicable reference framework for this assignment includes:

- ADB's safeguard Policy statement (ADB SPS 2009)- Safeguard requirement (SR) 1 on Environment, SR 2 on Involuntary Resettlement (IR), and SR 3 on Indigenous People (IP).
- ADB's Social Protection Strategy (2001).
- ADB's Gender and Development Policy (1998).
- IFC's General Environmental, Health & Safety (EHS) guidelines, 2007.
- IFC's Environmental, Health, and Safety Guidelines for Ports, Harbours, and Terminals.
- Climate Risk Assessment in ADB Projects (2014).
- Operations Manual C3 on Incorporation of Social Dimensions (2010).
- ADB's Core Labor Standards Handbook 2006.

- IFC Performance Standards on Social and Environmental Sustainability (2012).
- The International Labour Organization (ILO) conventions covering core labour standards and the basic terms and conditions of employment.
- IFC/EBRD Guidance on Worker Accommodation.
- IFC's COVID-19 and Gender-Based Violence: Workplace Risks and Responses.
- Interim Advice for IFC Clients on Preventing and Managing Health Risks of COVID-19 in the Workplace.
- IFC's Interim Advice for IFC Clients on Safe Stakeholder Engagement in the Context of COVID-19.
- Other applicable laws and regulations pertaining to environment, health, safety, social, land acquisition and resettlement, and labour in India, including county obligations under relevant international treaties such as the UN Declaration on the Rights of Indigenous Peoples, and International Covenant on Economic, Cultural and Social Rights.
- ADB's guidance on Climate Risk and Vulnerability Assessment.
- ADB's Access to Information Policy, 2018
- ADB Involuntary Resettlement Good Practice Sourcebook (2012)

1.3 Approach & Methodology

A risk-based approach was adopted by the independent E&S Advisor, focusing on identifying gaps and areas of non-conformance that may represent a material E&S issue, legal non-compliance, an adverse EHS or social impact or may pose business continuity and reputational risk. The key activities undertaken are described subsequently:

1.3.1 Project Kick Off

The independent E&S Advisor organised a kick-off discussion with the Client (which comprised of representatives from both the consortium partners i.e. JM Baxi and CMA) to obtain an overview of the status of the project, and their expectations. Kick off meeting also included discussion on timelines for the site assessment and the deliverables. After project kick off, indicative list of details/ documents required to be reviewed were shared.

1.3.2 Document Review

The kick-off was followed by a desk-based review of information shared with independent E&S advisory firm/ E&S advisor. Documents reviewed as part of this assignment included Concession Agreement, Sample QHSE organogram, EIA report, Consent to Operate and associated environmental statement as per Form V, Sample QHSE manuals of JM Baxi and CMA CGM, HR related documents etc. Detailed list of documents reviewed is attached as **Appendix I**.

1.3.3 Site Assessment & Stakeholder Discussions

Team comprising of an EHS expert, biodiversity expert and a social expert conducted site visit to JNPCT site. The details of site visit and key activities undertaken during site assessment has been presented in below table:

Table 1-2 Details of Site Assessment

Date	Key Activities
15 th September 2022	<ul style="list-style-type: none"> Meeting with the NSFTPL’s representative² (team from JM Baxi) to understand Project and its status Site reconnaissance at the JNPCT berth, container yard and container entry gates. Meeting with JNPA team comprising of Environment Officer, Safety Officer, Chief Fire Officer to understand status of applicable EHS permits for the Project i.e. JNPCT (CRZ Clearance, EC, Fire NOC), environment management & monitoring plans of JNPA, fire safety arrangement at JNPCT and entire port, emergency response plan, etc.
16 th September 2022	<ul style="list-style-type: none"> Discussion with JM Baxi on proposed plans of expansion, existing EHS management system of JM Baxi at other ports which they propose to replicate at JNPCT HR Team of JM Baxi HR representative of JNPA Transit walk in the then affected village and consultations with local community Site walkthrough at the JNPCT berth, fire safety office, container yard, container scanning area, common hazardous bund area and common solid waste treatment plant to identify environmental, social and ecological sensitivities in and around the terminal Consultation with JNPA on the fire safety arrangement within JNPCT premises, disposal of dredged soil, handling of crude oil from vessels. Consultation with the Environment Manager of JNPA and Ecological survey to understand the surrounding habitats.

1.3.4 Reporting

This ESCA report has been prepared by an Independent E&S advisor based on the documents made available till 4th October by the client, on consultation with representatives from JNPA, JM Baxi, CMA and nearby communities. Further, assessment of information available in the public domain has been made during the preparation of this report by independent E&S advisory firm/ E&S advisor. The report includes overview of the project, categorisation of project, overview of available E&S systems, gap assessment against the applicable reference framework and corrective action plan (CAP) that summarizes the key actions required to be completed by the NSFTPL, against agreed timeline.

1.4 Limitations

While this assessment has endeavoured to provide a comprehensive review against the requirements of the applicable reference framework, there remain certain limitations to the assessment that should be considered:

- The proposed project will be developed and implemented by Nhava Sheva Freeport Terminal Private Limited, which is a consortium of JM Baxi and CMA Terminals. E&S management systems

² Project will be developed and implemented by NSFTPL (consortium formed by JM Baxi Ports & Logistics Limited and CMA Terminals). As on the date of site visit, organisation structure for NSFTPL was not established, hence site visit was facilitated by representatives from one of the consortium partners i.e. J M Baxi.

of the Client i.e. NSFTPL which includes policies, plans, procedures are yet to be developed and could not be reviewed as part of this assignment. Description of the proposed management system in the report is based on the discussion with the representatives from the consortium partners and review of the sample documents (of other sites) made available by the consortium partners. As reported by NSFTPL, environmental and social management system comprising of EHS related policies and procedures will be developed by 15th of December 2022.

- Currently the SPV is in the initial stages for formation and construction of proposed project yet to be started. Hence the SPV related E&S policies including HR and land is yet to be formed and in absence of policies the gap assessment with respect to the project couldn't be undertaken and recommendation are mostly forward looking
- Currently there is no workforce of NSFTPL at proposed site therefore labour management practices could not be assessed however inferences on labour management practices are derived from the existing operations of JM Baxi.
- The current terminal of JNPA's is operational for last 33 years and the proposed project involves the capacity augmentation and replacement of existing cranes with modern cranes to improve the overall capacity of terminal. The proposed project does not require additional land acquisition therefore there are no potential land-based impacts on the community. However, discussion with JNPA was carried out to understand the historical land legacy associated with land acquisition and R&R which was done in year 1986 for the construction of entire JNPA.
- As the site survey (for this report and IESE) was conducted in the monsoon season and during the survey period there were continuous rains in the study area; therefore, survey inside the mangroves, greenbelt and other plantation due to the rains could not be undertaken. The main objective of the survey was to verify the findings of the secondary information.
- Due to restriction, photographs of JNPCT were not taken during site visit
- Litigation and show cause notice, if any, have been requested from JNPA, however is yet to be shared as on date of this report.
- Due to the reservations of JNPA in allowing consultations with their workers, the consultation with rounded representation of (age, gender, occupation & skills) of workers could not be undertaken.

2 Project Description

2.1 Jawaharlal Nehru Port Authority

The Jawaharlal Nehru Port Authority (JNPA) at Navi Mumbai (formerly known as the Jawaharlal Nehru Port Trust) is handling 55% of the container cargo across all major ports in India. Commissioned on 26th May 1989, it is the second youngest and one of the most modern major ports of the country located on land measuring 3402 hectare. JNPT name was changed to Jawaharlal Nehru Port Authority (JNPA) by Central Government order reference No. JNP/MPA/367 dated 3rd November 2021 under Major Port Authorities 2021.

JNPA port has five container terminals, one liquid terminal and one shallow water berth. The total capacity of these terminals is 8.1 million TEUs. Out of the five container terminals, one of the terminals is operated by JNPA (i.e. JNPCT), whereas other four container terminals are operated by private players through BOT concession. List of terminals is as presented below:

1. Jawaharlal Nehru Port Container Terminal (JNPCT)
2. Nhava Sheva International Container Terminal (NSICT)
3. Gateway Terminals India (GTI) Container terminal
4. Bharat Mumbai Container Terminal (BMCT)
5. Nhava Sheva (India) Gateway Terminal
6. Bharat Petroleum Corporation Limited (BPCL)- Liquid Terminal

JNPA is running its day-to-day operations with the help of Information Technology (IT) including Electronic Data Interchange (EDI) and Vessel Traffic Management System (VTMS).

2.2 Nhava Sheva Freeport Terminal Private Limited

Nhava Sheva Freeport Terminal Private Limited (NSFTPL) is a special purpose vehicle (SPV) established as a consortium between JM Baxi Ports and Logistics Limited and CMA Terminals (100% subsidiary of CMA CGM Group). The SPV was formed for operation of JNPCT Terminal which is currently being operated by JNPA. Concessionaire Agreement (CA) was executed between JNPA and NSFTPL on 29 July 2022 for upgradation, operation, maintenance and transfer of JNPCT on Public-Private Partnership (PPP) basis.

As previously mentioned, currently the terminal is being operated by JNPA and handover is planned by end of December 2022 post which NSFTPL will undertake expansion as well operation in parallel for initial 15 to 18 months. As reported JNPA will hand hold NSFTPL for around 15 days before handing over all the operations to NSFTPL. Post-handover of the operations, JNPA will monitor operational performance of terminal. JNPA will also grant (permits those are within its authority)/ assist in obtaining all the applicable permits / approvals required by NSFTPL and make available all the records/ documents related to JNPCT on request.

2.3 Jawaharlal Nehru Port Container Terminal (JNPCT)

JNPCT has 2 berths with a total quay length of 680 m and is capable to handle vessels up to 15 m draft. The current capacity of JNPCT is about 1.5 million TEUs. Existing details of JNPCT are as presented in subsequent sections.

Proposed expansion plan of JNPCT includes

- Berth upgradation activity to increase capacity to 1.8 million TEUs

- Total land area will remain same
- Width of the berth will increase from 45.5 m to 60.5 m towards landside
- Relocation of Quay Substation and Fire Pump House
- Overall refurbishment of fenders and bollards, existing buildings, yards, if required
- IT infrastructure upgradation and installation of terminal operating system

Expansion details, as available till date, are presented in **Section 2.11**

2.3.1 Location & Site Settings

JNPCT is located at the eastern end of Mumbai on the Sheva Island and is situated at latitude 18° 56' 43" N and longitude 72° 56' 24" E. It is situated at an aerial distance of ~50 km and ~27 km from the Mumbai and Navi Mumbai cities, respectively. JNPCT is surrounded by NSICT towards the north, GTI towards south and rail yard towards east. Nearest habitation to JNPCT is Nhava village located at an aerial distance of ~ 1.5 km in north-east direction.

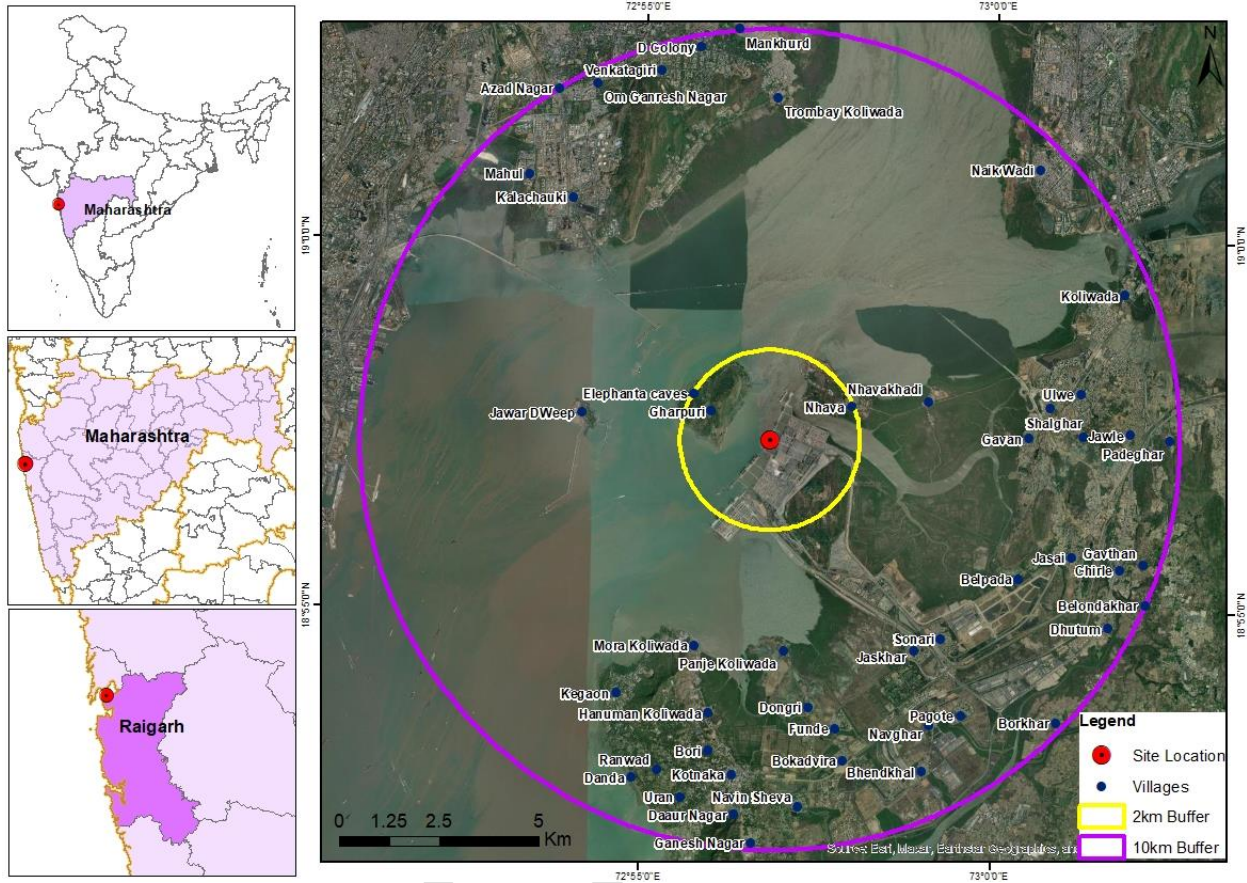
The terminal is well connected via major roads including NH4B (20 km road connecting Jawaharlal Nehru Port Trust to Palaspe in Maharashtra), NH4 (1253 km road connecting Mumbai in Maharashtra to Chennai in Tamil Nadu), NH17 (1269 km road connecting Panvel in Maharashtra to Edapally in Kerala), NH3 (1161 km road connecting Agra in Uttar Pradesh to Mumbai in Maharashtra) & NH8 (1375 km road connecting Delhi to Mumbai in Maharashtra) and State Highway 54.

It is also connected to the Indian Railway network through a lead line connecting the port with Central Railway division (Jasai), located ~ 9 km from the Project. The rail system at the port, which is operated and maintained by the Indian Railways, has 8 full-length railway lines serving the existing container terminals including the Project.

UNESCO World Heritage Site, Elephanta Caves are located ~2 km from the terminal. A newly recognized Ramsar Site, Thane Creek (Thane Creek Flamingo Sanctuary) which supports more than 100,000 birds during winter is also present ~12.5 km from the terminal. Karnala Bird Sanctuary (also an Important Bird Area (IBA)) is present in the west of the terminal. The boundary of eco-sensitive zone of the sanctuary is about 10 km from the terminal. Further details of the environment and social sensitivities are presented in **Section 2.12**.

Location Map showing Project location is presented below.

Figure 2-1 Project Location Map



2.3.2 Area Details

JNPCT is spread across total 54.74 ha of land which includes berth area, yards, common service roads. Break up of area is as presented in Table below:

Table 2-1 Area Break up

Sl. No.	Description of areas	Area in Ha
1	Gravel Yard CY -10 to 17 and 30 to 37	10.12
2	Yard Behind the SWB CY -40-50	9.7
3	Private Yard CY -90-98	7.78
4	Import Yard CY -80-88	7.3
5	ICD Yard including railway tracks	9.4

Sl. No.	Description of areas	Area in Ha
6	ICD Modification Work	0.3
7	Common Service Road	6.2
8	Berth Approaches	1.12
9	Berth area	2.822
Total area		54.742

Source: JM Baxi

Existing layout plan is attached as **Appendix 2**.

2.3.3 Shipping Routes

JNPCT has connectivity to all major ports of the world either through direct calls or through transshipment. Major regions covered are a) Middle East / Gulf b) Far East c) Red Sea d) US East Coast e) Europe f) Mediterranean region g) East Africa h) West Africa i) Sub-Continent Region.

Services / Shipping Routes that will be served by NSFTPL will only be known post commercial operations. Shipping routes to and from India are already established and are not expected to undergo any change.

2.3.4 Berth Details

JNPCT has two (02) operational berths capable of handling 1.5 million TEUs. Details of berths are as below:

- Length of the berth: 680 m (530 m berth + 150 m wharf)
- Width of the berth: 45.5 m
- Designed dredged depth: 15 m
- Design vessel size: 12200 TEU

2.3.5 Vessel

The existing container berth at JNPCT has been designed to accommodate vessel size of 6000 TEU. However, according to the feasibility report prepared by KPMG dated 26 January 2020, it has been assessed by JNPA that the existing berth can accommodate vessel size up to 9000 TEU.

The characteristics of the vessels that can be handled at the JNPCT berth has been provided below:

Table 2-2 Vessel Characteristics

Capacity	Displacement Tonnage	Length Overall (m)	Beam (m)	Loaded Draft (m)
6000 TEU	110,000	300	41	13.5

Capacity	Displacement Tonnage	Length Overall (m)	Beam (m)	Loaded Draft (m)
9000 TEU	150,000	340	51	14.5

Source: Feasibility Report prepared by KPMG dated 26 January 2020

As reported, depending on the size of the vessel, currently maximum two (2) vessels of capacity 6000 TEU each can moor at the same time.

As reported, size of vessels which are currently deployed will change as Indian exports grow to cater to the worldwide demand. It is expected that currently deployed vessels of 6500 to 8000 TEU will be phased out and 9000 to 11500 TEU vessels would be deployed in Indian trade lane going to European Union and east coast of US. Similarly, vessels going into Africa would also undergo upsizing in the coming period.

2.3.6 Type of Containers

Jawaharlal Nehru Port Authority has been notified by Ministry of Ports, Shipping and Waterways in 2007 via notification No. G.S.R. 2009 (E) for handling of dangerous goods (arrival, receipt, transport and storage) for IMDG class explosives of classification 2 to 9. In addition, container berth No. 1 (JNPCT) has been notified by Minister of Defence for handling their own explosives (IMDG class 1.1 and 1.2) under the supervision of Naval Armament Depot (NAD) Karanja. Recently JNPA has been notified by Petroleum and Explosives Safety Organizations (PESO) for handling (for export) IMDG class 1.4S explosives (via notification dated 14th June 2022) at container berth No.1 (JNPCT) and 6.

The classification of IMDG class goods which are handled at the Jawaharlal Nehru port and JNPCT has been presented below:

IMDG Class	Description
1	Explosives
2.1	Gases-Flammable
2.2	Gases- Non-Flammable
2.3	Gases- Poisonous
3	Flammable Liquid
4.1	Flammable Solids
4.2	Solids liable to spontaneous combustion
4.3	Solids which in contact with water emits inflammable gases
5.1	Oxidizing Substances
5.2	Organic Peroxides
6.1	Poisonous or toxic substances
6.2	Infectious Substances
7	Radioactive Substances

IMDG Class	Description
8	Corrosive Substances
9	Miscellaneous dangerous goods i.e., other substances which experience have shown or may show to be of such dangerous character, are to be treated as dangerous goods.

Source: Documents shared by JNPA

As per JNPA's sustainability report for FY 2022-21, the total container traffic in JNPA for the reporting period was 46,76,831 TEU. Out of the total container traffic, JNPCT handled 5,44,027 TEU containers which accounted for 11.63% of share.

JNPA also introduced container tracking system in association with Delhi Mumbai Industrial Corridor (DMIDC) in FY 2020-21 to track containers moving inward and outward of the port for smooth transit system.

2.3.7 Equipment Details

JNPCT is equipped with the following machinery & equipment for unloading/ loading of cargos.

Table 2-3 Details of Machinery / Equipment present at JNPCT

Sl. No.	Description of Machinery & Equipment	Number
1.	Rail Mounted Quay Crane (RMQC)	6
2.	Rubber Tired Gantry Crane (RTGC) (Electrical)	15
3.	Rail Mounted Gantry Crane (RMGC)	3
4.	RT Crane (Diesel)	12

Source: JM Baxi

2.3.8 Loading / Unloading Operations

Containers arriving at JNPCT are loaded and unloaded from the vessel through RMQCs and transported through trucks to the container yards or directly to the container owner. There are 6 RMQCs at one berth used for loading and unloading of containers from vessel to the trucks and vice versa. Furthermore, there are 36 trucks (assuming 6 trucks per RMQC) used per berth for internal transportation of containers from berth to container yards. The container stacking at the container yard is through RTGC, RMGC and RT cranes.

As per the Port Dwell time data for August 2022, dwell time at JNPCT for import and export cycle was 35 and 64 hours respectively.

2.3.9 Internal Cargo Conveyance

A network of internal roads is developed to facilitate the movement of containers. These roads are connected to yards within JNPCT premises and railway siding at a distance of ~1.5 km from JNPCT berth. Internal roads are built using bituminous concrete. Containers are transported using trucks and loaded /

unloaded using cranes and are transported through trucks to the container yards or directly to the container owner.

JNPCT has its own trucks for internal transportation of containers from berth to the container yard and from container yard to railway network where containers are stored till it is transported to the container owner. Furthermore, there is movement of trucks outsourced by container owners within the port for transportation of containers from berth to directly to the container owner.

2.3.10 Scanning & Security

JNPCT has a dedicated container scanning area where random check on entry and exit of containers at the terminal is carried out to ensure prevention of illegal import as per the Customs Act, 1962.

Furthermore, JNPA has deployed Central Industrial Security Force (CISF) team at all the port entry gates for entering details of trucks and containers moving to and from the port.

2.3.11 Internal Buildings

Buildings present within JNPCT include the following:

- Shift in-charge's building (G+1)
- Port canteen building
- Port canteen new building
- Spreader Maintenance Shed
- North Gate Complex
- Sub store shed
- Ambulance Room
- Public Toilets – 2 nos.

2.3.12 Facilities for Crew

Crew is not allowed to disembark from the vessel; however, support is provided on request.

2.3.13 Water & Wastewater Management

Source of water at JNPCT is piped water supply from Maharashtra Jeevan Pradhikarn (MJP) and City and Industrial Development Corporation of Maharashtra Limited (CIDCO). Water is used for domestic purpose, firefighting and landscaping. Sewage generated from the site is disposed through septic tank which is cleaned at regular intervals. Generation of trade effluent is nil.

2.3.14 Power Supply

Power requirement for the terminal is sourced from Maharashtra State Electricity Distribution Company Limited (MSEDCL). The terminal is equipped with four (04) D.G. sets of capacity 1000 kVA (2 no.s) and 1500 kVA (2 no.s) as a source of power back up. According to the JNPA Sustainability report for FY 2020-21, the port consumed 7,99,56,914 kWh of electricity in FY 2020-21, out of which 21,39,714 kWh of electricity was generated from rooftop solar installed within the entire port area. As understood from the discussion with ADB and JM Baxi the roof top solar component of the proposed project will not be financed by ADB and will be excluded from ADB's financing.

The current electricity consumption specifically for JNPCT is not available, however, as reported by representative of JM Baxi, the total electricity consumption at JNPCT after project handover to NSFTPL will be estimated during detailed engineering stage since the project plans to convert the existing diesel RTGCs to electrical RTGCs.

2.4 Road Connectivity

JNPA transport almost 84% of the containers through road. The major road linkages connecting JNPA with the hinterland road network are NH4B, NH4, NH17, NH 3 & 8 and a State Highway 54. NH 4B mainly serves the heavy traffic of containerized vehicles to and from JNPA. It has a length of 26.43 km and branches at km 108/800 of NH4. The port also utilizes Amarga Marg which begins at km 125/800 of Sion Panvel highway (SH42) and passes through Belapur, Nerul and Ulwa and ends at km 13/900 of SH54. The road is an important link between northern and southern parts of Navi Mumbai and JNPA.

In addition to the above, JNPA has initiated an infrastructural development project to enhance the existing road network connecting to the port for smooth container traffic management. These include:

- Widening of NH-4B, SH-54, and Amra Marg from 4 lanes to 6/8 lanes
- Widening of existing container road towards east side of 'Y' Junction to North Gate Complex
- Construction of Flyover near to North Gate Complex on Container Road in JN Port
- Construction of Flyover at Y Junction near Port Users Building.

2.5 Rail Connectivity

JNPA's 16% container transportation is through rail network. JNPA is linked with the Indian Railways through a lead line connecting the port with serving station Jasai. Jasai is located on the Panvel-Uran branch line section of Mumbai division of Central Railway at a distance of 9 km from the port. The rail system at the port, which is operated and maintained by the Indian Railways is located at a distance of ~ **1.5 km from JNPCT berth** and has 8 full-length railway lines serving all the container terminals.

Besides these, there is a 4 line intermediate holding yard between Jasai and the port. The 4 lines intermediate holding yard between Jasai and the port also serves to hold back and regulate traffic in the event of congestion at JNPA or at Jasai yard. The northern corridor from JNPA connects to Ludhiana and the north western corridor from JNPT connects to Rewari.

All terminals put together handle 15 to 17 trains per day. As reported with dedicated freight corridor which is scheduled to start operations in a year and half, frequency is expected to increase. Rail coefficient is expected to increase to more than 30 % with the dedicated freight corridor.

Proposed frequency of trains is to start with 20 trains which shall increase gradually to 25.

2.6 Dredging activities & disposal

JNPA has obtained Environmental and Coastal Zone Regulation Clearance from MoEFCC on deepening and widening of the existing Mumbai Harbour Channel and Jawaharlal Nehru Port Channel dated 31st March 2017. Details of dredging permitted to JNPA as per EC obtained are as below:

- Length: 35490 m
- Width: 450 m to 800 m
- Depth: 14.7 to 15.9 below CD

- Total soil to be dredged: 33.3 million cum
- Total rock to be dredged: 1.73 million cum

As per discussion with JNPA official it was noted that 20 million cubic metre of maintenance dredging is undertaken by JNPA annually and material is not tested prior to disposal. The dredged material is disposed off at the pre-designated site DS-3 (18° 55.000'N, 72° 42.000'E, offshore at an aerial distance of ~ 28 km from JNPCT) as per CWPRS recommendations. Reporting Water Injection Dredger / Bed Levellers along with Trailer Suction Hopper Dredger are used, no further details were shared.

Reportedly, no additional dredging is required for the terminal upgrade. After takeover by NSFTPL, dredging activities will continue to be the responsibility of JNPA. There will be no change in the depth of the channel and depth as permitted by MoEFCC i.e. 14.7 to 15.9 below CD will be maintained after upgradation work.

Pilling activity will lead to disturbance (temporary) in the marine work, which will settle down after some time. Pilling work won't lead to generation of spoil material which will require disposal.

2.7 Channel Dimensions

JNPA approach channel is a Common Harbour channel for JNPA and Mumbai Port. The characteristic of the approach channel is as below:

- Channel Length of 33.54 km
- Designed Channel depth (below CD)
 - 13.1 m in JNP channel
 - 14.2 m in outer harbour channel.
- Channel Width
 - 370 m at straight reach
 - 460 m at the berths.
- Turning Circle/ Anchorage of 600 m diameter

The existing JNPA channel has dredged to handle 15 m draft container ship taking tidal advantage of 2.2m.

2.8 Anchoring areas

Anchorage areas at JNPA are located at the pilot station about 27.8 to 29.6 km (15 to 16 knots) away from the terminal. Reportedly, adequate waiting area for the vessels has been provided, which are declared at the time of arrival of the vessels as per agreed time of arrival at the port.

As reported, vessels do not have to wait for a longer period of time since the berthing window concept ensures that there are no delays at the terminal.

With the expansion of the project (with additional capacity) it is expected vessels will have no waiting time unless there is a restriction of tide. It is likely that vessel will come alongside of arrival.

2.9 Workforce

Proposed workforce during the construction phase

As reported, by the *proposed* project, the project will require ~200 workers during the peak construction of the Project. The majority of the workers will be on a contractual basis (~150) appointed by the Engineering and Procurement contractors (EPC) and ~50 employees to supervise the work will be appointed as on-roll employees of the *Project*.

Proposed workforce during the phase of the project where the Construction and operation will go side by side

As reported, there will be ~200 workers employed during this phase. However, the proposed project has not finalized the requirement for the number of employees for the operation of the project.

Proposed workforce during the operation phase

As reported and considering the precedent of JM Baxi operating other multi-purpose terminals in India, it is envisaged that ~2,400 employees (100 on-roll employees of NSFTPL and 2,300 contractual employees) will be employed in the full-fledged operation phase of the Project.

Workers' Accommodation

Reportedly, during the construction and operation phase of the Project, contractual workers will be provided with accommodation. The responsibility of providing the workers' accommodation will be of the appointed contractors. However, as safeguard regular monitoring of workers' accommodation condition and development will be undertaken by the Project.

2.10 Land Details

The proposed project will require 54.742 Ha of land. The entire project area is brownfield. As per the discussions with JM Baxi project team and as per concession agreement, the proposed project will be developed/ upgraded on the existing land of JNPT (existing terminal) . There will be no additional land acquired /leased for the proposed project. The details of land requirement of the proposed project are given in section 2.3.2 Area Details. .

2.11 Expansion / Upgradation Plan

The following are the development activities that the Port is planning to implement at JNPCT through concessionaire i.e. NSFTPL:

- a) Re-development of 680 Meter Container berth which can handle vessel size of 12,200 TEUs.
- b) Provision of equipment consisting of quay cranes and yard equipment.
- c) Carrying out the operation of the terminal in the most efficient way.

Expansion is proposed to be undertaken in 2 phases as per concession, details as below:

Phase 1:

- Detailed engineering for berth upgradation activity
- Upgradation and strengthening of 400 m berth to accommodate design vessel of size 12200 TEU
- Upgradation of fenders and bollards
- Increase of rail span from 20 m to 30.5 m (breadth)
- Equipment Procurement: New Rail Mounted Quay Crane (RMQC)-2

Phase 2:

- Equipment Procurement: New Rail Mounted Quay Crane (RMQC)-3
- Upgradation and strengthening of 280 m berth to accommodate design vessel of size 12200 TEU
- Upgradation of fenders and bollards
- Increase of breadth of rail span from 20 m to 30.5 m

As part of the concession agreement, NSFTPL is required to deploy the following equipment.

Table 2-4 Proposed Equipment Details

S. No	Description	Cumulative Quantity	
		Phase I	Phase II
1	Rail Mounted Quay Crane (RMQC)	6 no. s	9 no. s
2	Rubber Tyred Gantry Crane (RTGC)	18 no. s	27 no. s
3	Rail Mounted Gantry Crane	3 no. s	3 no. s

Source: Concession Agreement

Proposed Vessel Details: Details of proposed vessel characteristics has been provided below.

Table 2-5 Proposed Vessel Characteristics

Capacity	Displacement Tonnage	Length Overall (m)	Beam (m)	Loaded Draft (m)
12200 TEU	215,000	398	56.4	15

Source: Feasibility Report prepared by KPMG dated 26 January 2020

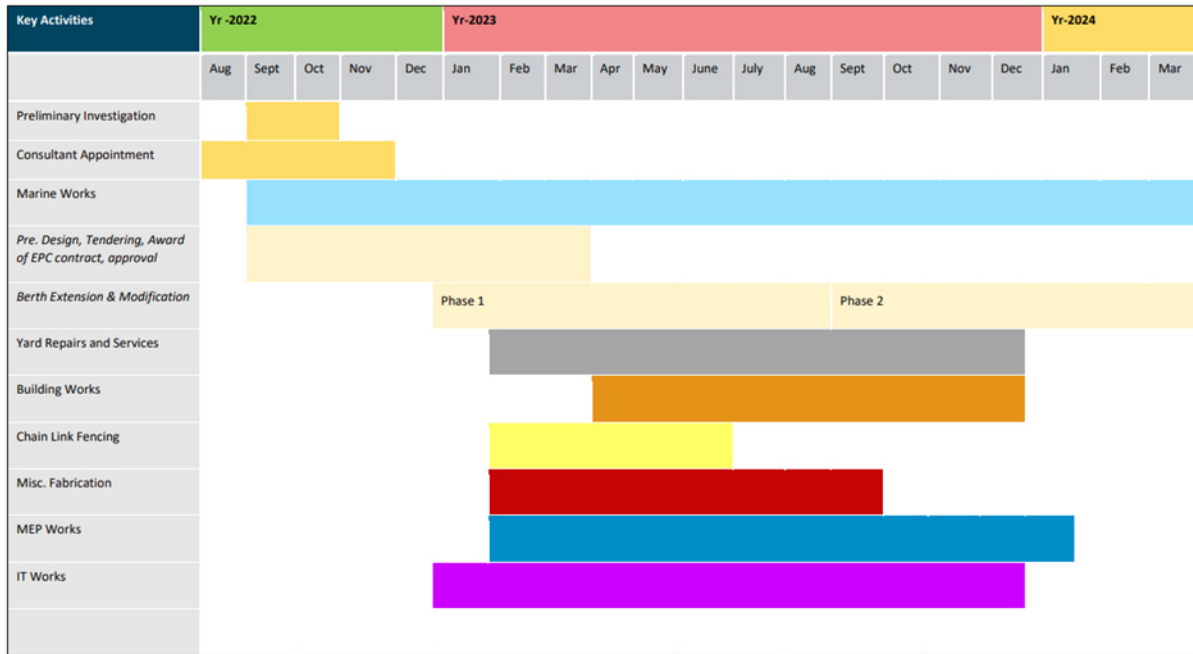
Other activities to be undertaken includes:

- Fine tune of traffic management plan within and to the terminal in consultation with JNPA
- Computer communication: automate the operations of the Container Terminal and provide for information to be available online
- Firefighting requirement: provide for adequate fire-fighting equipment, fire hydrants etc. at the berths and in the back up area
- Security arrangement: The security of the port is vested with Central Industrial Security Force (CISF). NSFTPL shall abide by the security regulations/procedures as stipulated by JNPA. However, shall make its own arrangements for security in the container terminal, CFS etc.

2.11.1 Implementation Schedule of NSFTPL

Upgradation of 1st 340 m berth length will be undertaken in Phase 1 to allow non-hindered operations in the balance 340 m berth length and remaining will be completed after handing over of 1st 340 m of berth length. Target completion of the entire 680 m of berth execution will be around 15 to 18 m as detailed below.

Figure 2-2 Implementation Schedule



Source: J M Baxi

Construction and operation phase will run in parallel for around 15 to 18 months by NSFTPL.

2.11.2 Project Expansion Activities

Proposed expansion activities are as presented below.

Table 2-6 Proposed expansion activities

Sr. Description No	Phase 1	Phase 2
A Preliminary Works (Tender)		
1 Structural Consultant		
2 Consultant for Master planning		
3 Topography Survey Agency.		
4 Soil Investigation		
B Marine Works		
1 Extension, Refurbishment, Modification & Upgradation of Berth		
C Yard Works		
1 Yard and services repairs/modification, IT & Watch tower foundation, Weighbridge and Crash Barrier works		
2 Jersey Barrier		
D Chain link fencing works		
1 Chain Link Fencing Works		

Sr. Description No	Phase 1	Phase 2
E Buildings (New Structures and Modification work)		
1 Toilet Block, Workshop, Labour Shed		
2 Relocation of E7 Substation, Seawater Room		
3 Refurbishment of existing Structures		
4 Workshop PEB		
5 Interior of Toilet block		
6 Porta Cabins		
F Misc. Works		
1 Reefer Platform, Gate Fabrication Works		
2 IT Tower Structural Work		
3 Watch Tower Structural Work		
G MEP Work		
1 Electrical Distribution System		
2 High mast (Repairing & New Luminaries)		
3 STP Works		
4 Weighbridge		
H Signages And Painting		
I Landscaping		
J IT works		
K Equipment		

Source: J M Baxi

	Phase I
	Phase II
	Both Phases

It is to be noted that

- All the buildings would be refurbished based on the assessment of the master planning consultant.
- No Facilities would be demolished or reconstructed.
- No facilities are envisaged to be shared with the Port.

Further details of existing and new structures are as presented in Table below.

Table 2-7 Building Works proposed at JNPCT

Sr.No.	Items	Remarks
1	ADMIN OFFICE (Incl. Civil and Interior) - New Construction	Near shift In-charge office
2	Existing Shift In charge office refurbishment	Existing structure

Sr.No.	Items	Remarks
3	TOILET – 4 nos (Incl. Civil and Interior) - New Construction	In the yard area
4	Existing Toilet Block Refurbishment	Existing structure
5	Existing GATE COMPLEX (Only repairs and painting)	Existing structure
6	Existing Canteen Building refurbishment	Existing structure
7	RE LOCATION OF SUBSTATION E7	New Superstructure Work
8	UG TANK	New construction
9	PUMP ROOM	New construction
10	Relocation of SEA WATER PUMP ROOM	New Superstructure Work
11	WORKSHOP (New Construction)	New construction
12	LABOUR SHED- 2 Nos (New Construction)	New construction
13	PORTA CABINS	
14	Watch Tower - (New Construction)	New construction
15	Spreader Maintenance Shed (Any other requirement to be specified)	Existing structure
16	Sub store Shed	Existing structure
17	Ambulance room	Existing structure

Source: J M Baxi

2.11.3 Layout Plan

Master layout plan of the proposed expansion is yet to be developed.

2.12 Environment and Social Sensitivities

2.12.1 Environment

UNESCO World Heritage Site, Elephanta Caves is located ~2 km from the terminal. Regular monitoring of AAQ and marine water quality is conducted by IIT Madras to understand impacts of the operations to the UNESCO World Heritage Site. Analysis of results are presented in Section 5.

Based on the request of JNPA via letter dated 1st April, Central Water and Power Research Station (CWPRS), Pune carried out study for shoreline change along the coastline of Mumbai and sediment movement pattern due to dumping of dredge material at site DS-3 Mumbai using remote sensing technique. As per the study, no significant change in the shoreline around Mumbai coast has occurred from 2010 to 2017.

2.12.2 Ecology

- A newly recognized Ramsar Site, Thane Creek (Thane Creek Flamingo Sanctuary) - A Marine Protected Area, which supports more than 100,000 birds during winter is also present ~12.5 km from the terminal.
- Karnala Bird Sanctuary (also an Important Bird and Biodiversity Area (IBA)) is present in the west of the terminal. The boundary of the eco-sensitive zone of the sanctuary is about 10 km from the terminal.
- No information regarding the marine exclusion zone in the study area is available in public domain.
- As per the available secondary information^{3,4,5,6}, the following threatened species may be present in the study area (5 km from the terminal):
 - Fourfinger Threadfin (*Eleutheronema tetradactylum*) – Endangered – Fish
 - Silver Pomfret (*Pampus argenteus*) – Vulnerable – Fish
 - Khaire's Black Shieldtail (*Melanophidium khairei*) – Endangered – Reptile
 - Indian Skimmer (*Rynchops albicollis*) – Endangered – Bird

³

https://www.inaturalist.org/observations?iconic_taxa=Actinopterygii&nelat=19.18619137385496&nelng=73.16207891935177&place_id=any&subview=map&swlat=18.84651261245172&swlng=72.90424343634369&view=species

⁴

https://www.inaturalist.org/observations?iconic_taxa=Reptilia&nelat=19.18619137385496&nelng=73.16207891935177&place_id=any&subview=map&swlat=18.84651261245172&swlng=72.90424343634369&view=species

⁵ <https://ebird.org/barchart?bmo=1&emo=12&byr=2011&eyr=2022&r=L2745852>;

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<https://ebird.org/barchart?bmo=1&emo=12&byr=2011&eyr=2022&r=L14861634>;

<https://ebird.org/barchart?bmo=1&emo=12&byr=2011&eyr=2022&r=L4008281>;

<https://ebird.org/barchart?bmo=1&emo=12&byr=2011&eyr=2022&r=L18148588>;

<https://ebird.org/barchart?bmo=1&emo=12&byr=2011&eyr=2022&r=L3148420>

⁶

https://www.inaturalist.org/observations?iconic_taxa=Mammalia&nelat=19.18619137385496&nelng=73.16207891935177&place_id=any&subview=map&swlat=18.84651261245172&swlng=72.90424343634369&view=species

- Steppe Eagle (*Aquila nipalensis*) – Endangered – Bird
 - Bristled Grassbird (*Schoenicola striatus*) – Vulnerable – Bird
 - Common Pochard (*Aythya ferina*) – Vulnerable – Bird
 - Greater Spotted Eagle (*Clanga clanga*) – Vulnerable – Bird
 - Indian Spotted Eagle (*Clanga hastata*) – Vulnerable – Bird
 - River Tern (*Sterna aurantia*) – Vulnerable – Bird
 - Indian Humpback Dolphin (*Sousa plumbea*) – Endangered – Mammal
 - Bonnet Macaque (*Macaca radiata*) – Vulnerable – Mammal
- As it is an operational terminal, it is unlikely to have a major, additional, adverse impact on the existing biodiversity due to the general operation and maintenance activities of the port terminal.

Scoped out Ecological sensitivities

- Only a single member of Anthozoa Subphylum of the coral group is recorded in the area. Since this is an operational project due to the anthropogenic movement there is no significant coral population in the study area. Thus, the exclusive impacts on corals due to project has been scoped out.
- Mudflats – Not applicable to the Project
- Fisheries – No significant impact on fish fauna is anticipated. Covered in IESE in detail.
- No secondary information regarding the feeding and breeding area of any species of conservation significance within the study area was reported. Most of the migratory birds' activities were reported from the Thane Creek Flamingo Sanctuary (present ~12.5 km from the terminal). As it is an operational port terminal, it is unlikely to have any significant feeding and breeding areas of any species of conservation significance during migration as well.

Note:

Near-shore habitats – Mangroves have been identified under this category, which are covered in detail in IESE report.

Wetland – Impacts on migratory bird species due to terminal activities has been identified and presented in IESE report. Impact significance is anticipated to be moderate.

2.12.3 Social Legacy – Land Acquisition and Involuntary Resettlement

Review of google satellite imagery indicates that there are no human settlements within 5 Kms of the proposed project site. The nearest village Sheva is located approximately 8km and Uran is located 14 kms from the project site. The existing port has been operational for more than 33 years. As the proposed project is located within the port area, the project itself is not expected to have a resettlement or economic displacement impact or negative social impact on the nearest communities. Legacy impacts with regard to land acquisition, however, exist and are described in section 2.13.1 below. The proposed project is expected to have positive impacts in terms of creating direct and indirect livelihood opportunities both for local communities and general public.

The current port area is 3,402 Ha. As per the discussion with the JNPA, land acquisition for JNPA was initiated in year 1984-85. The land was acquired under appropriate provisions of Land Acquisition Act

1894. The land acquisition was primarily done by CIDCO (City and Industrial Development Corporation of Maharashtra) and then handed over to JNPA for the construction and operations of port. Reportedly The land was acquired from 12 surrounding villages (Sheva, Karal, Sonari, Sawarkhar, Jaskhar, Pagote, Navghar, Jasai, Belpada, Funde, Dhutum, Chirle). Village Sheva including its hamlet Koliwada was displaced due to land acquisition and was shifted to two different locations near Uran, District : Raigad, one at Bokadvira (near Navin Sheva) and the other at Bori Pakhadi (Hanuman Koliwada).

World Bank (formerly known as IBRD) financed the JNPA (formerly known as Nhava Sheva Port Trust) in 1984. The total finance amount was \$250 million dollar. The land for the port was acquired in three (3) phases – Phase I (820 hectare), Phase II (420 hectare), and Phase III (412 hectare). The quantity of land acquired provided in the proposal was primarily of privately owned land (1,652 hectare) and rest of the land is government land. Per the proposal, the JNPA has paid ~INR 40,000 per acre of privately owned land in 1984. The price was finalized in negotiation with private owner (previously, the anticipated amount of land acquisition for privately owned land was lower than INR 40,000). Thus, to pay INR 40,000/acre JNPA has formally taken permission from Public Investment Board (presently known as Department of Investment and Public Asset Management, Ministry of Finance, GoI). After the receipt of permission, the Cabinet (Government of India) had directed Government of Maharashtra to acquire the land and then transfer it to the JNPA.

The due compensation for the acquired land and R&R cost was paid by JNPA to the concerned land acquiring body (CIDCO) and accordingly the land which was acquired was transferred in the name of JNPA.

Reportedly total 3,584 families were issued Project Affected Person (PAP) Certificates by Dy. Collector (Land Acquisition) who were entitled to receive R&R benefits. The R&R benefits broadly include employment of one of the family members in JNPA. As part of R&R benefits nearly 907 PAPs were provided direct employment and 840 people got employed indirectly. 150 PAPs were given free of cost space in Vending zone (Hawker zone). The remaining 1,687 PAPs were yet to be provided employment under R&R scheme. As per the consultations with JNPA and community it was understood that some PAPs (from the Sheva and Hanuman Koliwada community) have claims that the rehabilitation of displaced families was not done as per the agreement with the affected people. PAPs were claiming that land acquiring body had resettled them on the smaller land parcels (villages Sheva & Hanuman Koliwada) and as per R&R scheme they were to be provided with bigger land parcels. These claims are on-going and are addressed by the concerned District collector Raigarh. Besides that, there are some disputes regarding the rates of property tax levied by the respective Gram Panchayat. As informed, JNPA is due to reach the final settlement regarding property tax rates. JNPA did not provide further details of villages, plots, or claims so further detailed assessment on any aspect pending from past acquisition was not possible.

Out of the 3,402 Ha of land which is under possession of JNPA 54.74 Ha of land is under existing terminal (about 1.6% of total area). The concession authority (JNPA) will indemnify the concessionaire against any land related claims/ dispute. Any land related legacy does not affect the proposed project because the entire land ownership is vested with JNPA and only 54.74 Ha of land is given for 30 years of concession period.

Further, the overlay of map from WB's loan proposal on the existing land use map of JNPA. It is indicatively showing that the most impacted village is outside the Project Boundary and as well as the Project's associated facilities (road and railway). For more detail, please refer to the map given below:

Figure 2-3 Image from WB's Loan Proposal

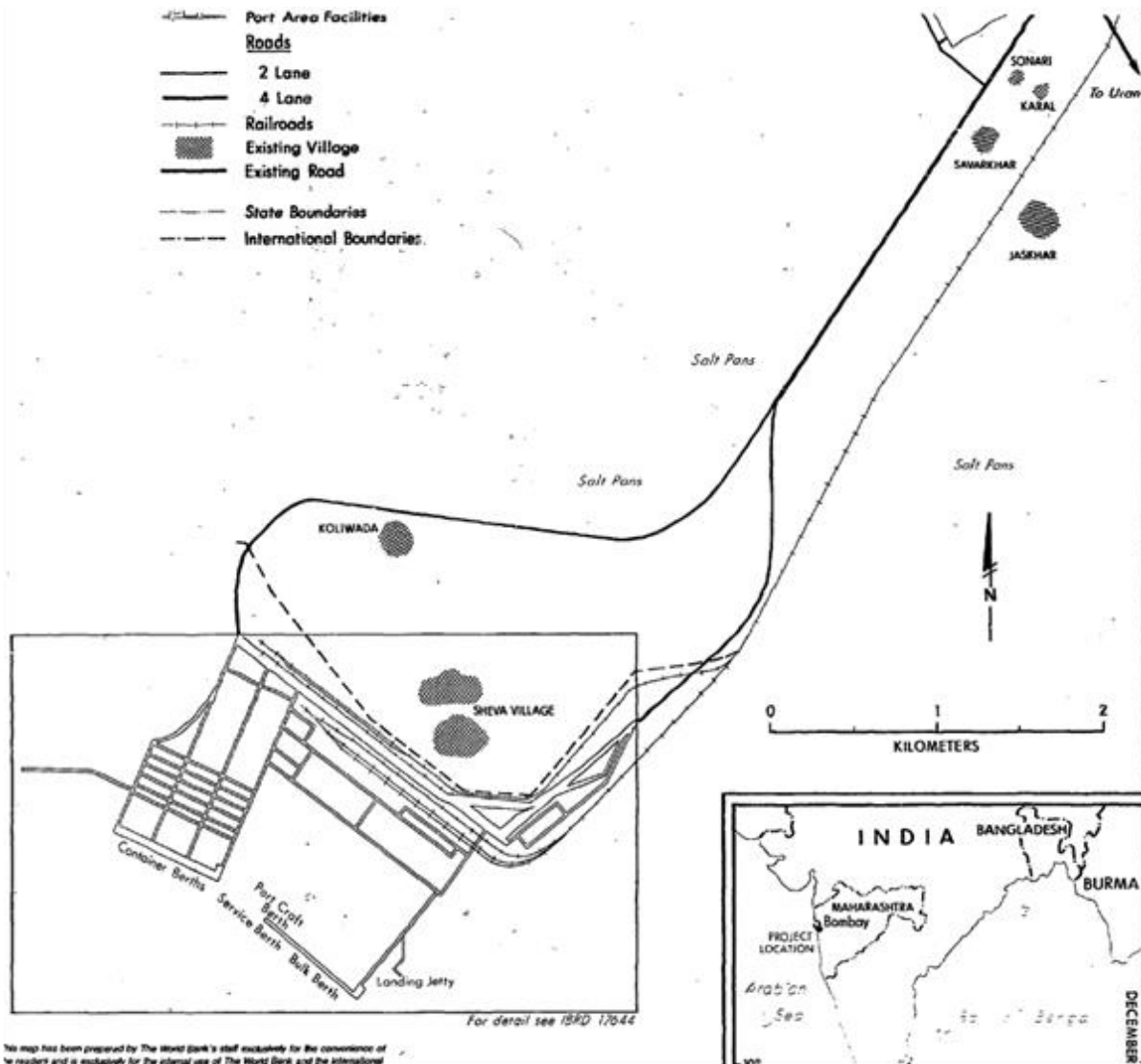
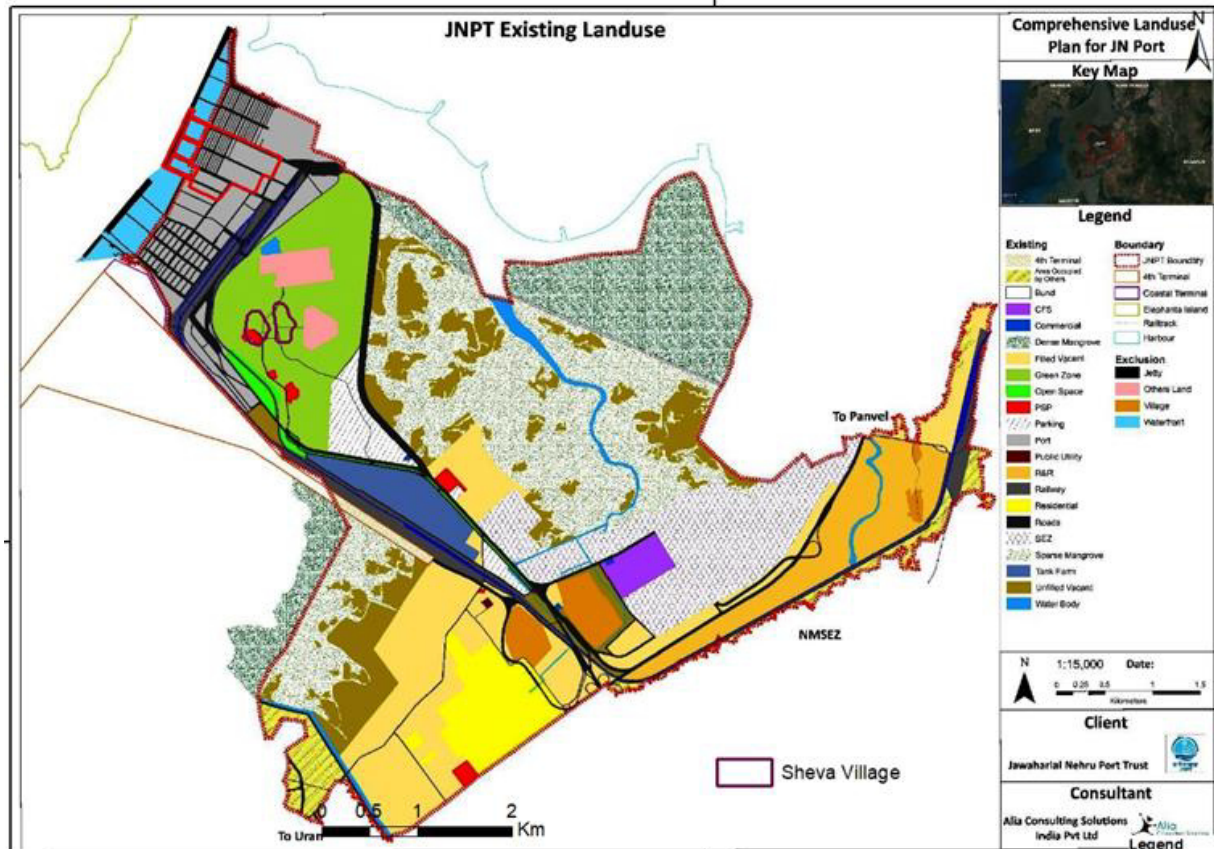


Figure 2-4: Overlay of Sheva village boundary into the existing JNPT Land use map shows that one of the displaced village Sheva by the land acquisition carried out for JNPA in 1984. Coordinates for other project affected village is not available. As shown in map the Sheva village is far from the existing JNPT (and the project area).

Figure 2-4 Overlay of Sheva village boundary on existing JNPT land use map



2.12.4 Social Legacy - Labour Management

As per the discussion carried out with the HR Head of JNPA, reportedly 820 on-roll employees (most were in the age of 52-55 years) and 212 contractual workers were working at the JNPT, out of which 460 on-roll employees have opted for SVRS (Scheme of Voluntary Retirement) on February 28, 2022 (details of retrenchment – end of contract and relocation process are provided below). And 37 on roll staff of JNPA already shifted to other operations of JNPA.

Presently, there are 323 on-roll employees, and 212 contractual workers are engaged in the JNPT’s operation.

Details of 323 on-roll employees with their designation is provided below:

Table 2-8 Details of On-Roll Employees

Designation	Number of employees
Officers (engaged administrative work)	34
Junior engineer	72
Technician	82
Assistant Technician	32
Checkers	84
Automobile Operators	12
Establishment staff	7
Total	323

Note: 37 staff have already been relocated to JNPA's other operation – details of relocation of employees are provided below.

Details of 212 contractual workers with their nature of work are provided below:

Nature of work	Number of workers
Rubber Tyre Gantry (RTG) cranes maintenance and operation	5
Gate Automation	7
Track Tower (TT) cranes' operation	200
Total	212

Relocation process of employees (on-roll employees and contractual workers) - Retrenchment

Under this scheme, 460 employees of JNPA retired on February 28, 2022. Reportedly, the SVRS (which was open for 6 months) entirely was voluntary in nature and there was no enforcement on employees to opt in for the scheme.

JNPA has divided all of its on-roll workers in four (4) categories- i) employee who have left with 3 years of working period before their retirement age (retirement age is 60 years); ii) employees who have completed their 30 years of job and have left working period of more than 3 years before their retirement age; iii) employees who have not completed their 30 years of job; and iv) contractual workers. Details of Retrenchment benefits (ex-gratia) provided to different category of employees:

Employees who have left with 3 years before retirement: this category of employees benefits from a 60 days' salary for a period of 3 years. Formula for calculation of retrenchment benefits is provided below:

Retrenchment benefits = 60 days' salary * 3 (years)

Employees completed their 30 years of job: this category of employee benefits from a 60 days salary per year for a maximum period of 5 years. Formula for calculation of retrenchment benefit is provided below:

Retrenchment benefits = 60 days' salary * 5 (years)

Employees who have not completed their 30 years of job: this category of employees benefits from a 45 days salary per year for a maximum period of 5 years. Formula for calculation of retrenchment benefits is provided below:

Retrenchment benefits = 45 days' salary * 5 (years)

In addition to the retrenchment (ex-gratia) benefits, on-roll employees also received other benefits such as balance in the Provident Fund (PF) account, cash equivalent of accumulated earned leaves (exact details of number of days of earned leave is not known), gratuity, pension, commutation and all medical benefits at par with regular employees.

After opting out of SRVS, 360 on-roll employees stayed at the JNPCT –360 on-roll employees decided to continue working and will be relocated to different operations of JNPA. Details of number of employees and JNPA's operation opted in for relocation are provided below:

Table 2-10 Details of employees opted for relocation

Number of Employees	JNPA's operation opted for relocation
180	Railway operation ⁹
50	Marine operation
70	Mechanical & engineering and Port planning development
60	JNPA statistic department (out of 60, 30 are those employees who will be retiring in March 2023)
360	Total employees

Source: JNPA

Contractual workers: As mentioned above 212 contractual workers were engaged at the JNPCT, these contractual workers are engaged through contractors. Reportedly, these contractors generally have one (1) year contract with the possibility of extending contracts. But due to leasing of JNPCT to NSFTPL, these contracts will not be extended after December 2022, hence as with other time bound contracts these contractors along with their respective staff have to look for other opportunities. Since the contractual engagement of contractor workers is temporary with contractors which are separate legal entities, their contracts are not regulated by the JNPA's lay-off provisions and the below legal provision applies

Applicability Retrenchment as per Indian Regulations

As per Section 2 of the Industrial Disputes Act, 147, retrenchment is defined as –

“The termination by the employer of the service of a workman for any reason whatsoever, otherwise than as a punishment inflicted by way of disciplinary action, but does not include -

1. *voluntary retirement of the workman, or*
2. *retirement of the workman on reaching the age of superannuating if the contract of employment between the employer and the workman concerned contains a stipulation in that behalf; or*
3. *termination of the service of the workman as a result of the non-removal of the contract of employment between the employer and the workman concerned on its expiry or of such contract being terminated under a stipulation in that behalf contained therein; or*
4. *termination of the service of a workman on the ground of continued ill-health”*

However, JNPA will operate the JNPCT till December 2022 (till this time the agreement with contractors is valid) so that the contractual workers will have sufficient prior notification. Furthermore, as reported by JNPA, there is a possibility these contractual workers may be contracted by other private terminal operators as these contractual workers have specific skill set and experience of working at port-terminal.

The process of management on-roll employees and contractors is solely the domain of the JNPA and the SPV does not have influence on the process. However, should there be interest from existing workers or contractors to work for the project, nothing prevents them from making corresponding applications with the SPV.

2.13 Status of Permits

List of approvals obtained/ applicable to the terminal are as presented in Table below:

Table 2-11 Status of Applicable Permits

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
1)	Environmental Clearance (EC)	J-11013/21/88-IA dated 16 th September 1988	Ministry of Environment & Forest	<p>JN Port was observed to be in compliance to the conditions mentioned in the EC.</p> <ul style="list-style-type: none"> According to the conditions of EC, the total land area of the port must not exceed 2584 hectare. However, the current land area of the port is 3402 hectare. Based on discussion with JNPA officials, it is understood that there have been past expansions in the terminals and EC for each expansion was obtained for individual terminal. As reported, no further cutting of hill slopes was undertaken and major blasting was not undertaken in the port area. Also, administration and operation building are two storied and new building was not constructed. Dredging is limited to operation and maintenance only and is 	<p>JNPA received environmental clearance for the entire JN port (formerly known as Nhava Sheva Port). However, based on discussion with JNPA officials, it is understood that Coastal Regulation Zone (CRZ) clearance will suffice proposed construction/ modification. However, if CRZ committee suggests requirement of EC for proposed expansion, JNPA accordingly will apply for EC.</p> <p>As per the Concession Agreement, environment clearance will be procured/ made available by the Concessioning Authority (i.e. JNPA) before the commencement of the Project. As discussed with JNPA, two separate agencies have been engaged, one for undertaking CRZ mapping and another for preparation and submission of CRZ application to Maharashtra Coastal Zone Management Authority (MCZMA) and they target to get the required permissions by December 2022, before start of the Project.</p>

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
				<p>done as per the EC (separate permit) obtained from MoEFCC and the dredged material is disposed off at the pre-designated site DS-3 as per CWPRS recommendations.</p> <ul style="list-style-type: none"> • As per the JNPA Sustainability Report (2020-21), the port authority complies with the guidelines of MoEFCC and has a total green area of about 33% of the port area. • Based on discussion with JNPA officials, it is understood that the vacant and hill areas of the Port was afforested, and the authority is still promoting the plantation activities in and around the port area • In accordance with the order of Bombay High Court (2004 and 2018), JNPA handed over 814 hectares of mangrove land on its property in Uran, Raigad district, to the state forest department for safekeeping it through 	

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
				declaring it a protected forest ⁷ <ul style="list-style-type: none"> Disaster Management Plan (DMP) for the entire port has been prepared through Indian Register of Shipping Based on discussion with JNPA officials, it is understood that the authority is not conducting tree cutting in the port area JNPA is undertaking environmental monitoring at various locations within and outside the port area, details presented in subsequent sections AAQ and marine water quality is being monitored by JNPA at Elephanta Caves JNPA has a dedicated environmental division to take care of environment related issues/concerns and to conduct the required environmental monitoring periodically. 	
2)	Coastal Regulation Zone (CRZ) Clearance				The proposed expansion will require CRZ clearance from Maharashtra Coastal Zone Management Authority (MCZMA). Obtaining CRZ clearance is in the purview of Jawaharlal Nehru Port Authority (JNPA). As reported JNPA is in process of applying for CRZ

⁷ <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1859272>

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
		clearance for the proposed expansion. As indicated by representative from J M Baxi, the Company is following up with JNPA and expect CRZ clearance to be secured before start of construction at site.			
3)	Consent to Operate (CTO)	RED/L.S.I (R46) No:- Format1.0/CAC/UAN No.0000097172/CR-2103001085 dated 19 th March 2021 valid up to 30 th September 2025	Maharashtra Pollution Control Board (MPCB)	<p>The CTO obtained is a combined permit for JNPCT and shallow berth terminal (adjacent to JNPCT). Therefore, the conditions specified in the CTO is applicable for both the terminals. According to the conditions of the CTO, JNPA is sharing environmental statement to MPCB annually. Based on review of the combined CTO, it is understood that JNPCT is in compliance to the majority of CTO conditions except for the following.</p> <ul style="list-style-type: none"> As per the CTO conditions, the terminal is required to establish sewage treatment plant (STP) for treatment of sewage. However, as observed, currently there is no STP constructed particularly for JNPCT. The domestic sewage generated are disposed through soak pits. As reported, NSFTPL, as part of the Project will establish its own STP at JNPCT for treatment of sewage in compliance to the conditions of the CTO. 	CTO is required to be amended as per the proposed construction and to be specifically for JNPCT. As reported JNPA plans to get the CTO amended after getting expansion related details from the Project SPV. It is understood that CTO is expected to be amended before start of construction.

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
				<ul style="list-style-type: none"> Additionally, the project proponent (JNPA) shall harvest rainwater from rooftop of the building and storm water drains to recharge the groundwater and utilize the same for different industrial applications within the terminal. However, currently no rainwater harvesting system is established at JNPCT and storm water from the drains and rooftop is discharged directly into the sea. However, as reported, NSFTPL will explore to establish rainwater/roof water harvesting during detailed engineering stage to comply with general condition of CTO. 	
4)	Hazardous Waste Authorization under Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016	RED/L.S.I (R46) No:- Format1.0/CAC/UAN No.0000097172/CR-2103001085 dated 19 th March 2021 valid up to 30 th September 2025	Maharashtra Pollution Control Board (MPCB)	JNPCT terminal was observed to be in compliance to the hazardous waste disposal conditions stipulated in the CTO.	Hazardous Waste Authorization (HWA) has been obtained for JNPCT and shallow berth as part of the CTO. However, as mentioned earlier, the CTO along with the HWA will be required to be amended specifically for JNPCT.
5)	Fire NOC	Based on discussion with Fire and Safety department of JNPA, it was reported that since the port is operational since 1989 and Maharashtra Fire Prevention and Life Safety Measures Act came into force in 2006, no consolidated Fire NOC for the entire port has been obtained by JNPA. However, Fire NOC has been obtained by individual terminals within the port. It was further reported,			

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
					that Fire NOC for the JNPCT terminal will be issued to NSFTPL under the Maharashtra Fire Prevention and Life Safety Measures Act after the project is handed over to the SPV. Also, Fire NOC issuing authority for JNPCT will be JNPA.
6)	Wildlife Clearance	-		Wildlife Warden, State Forest Department	If any protected floral and/or faunal species (listed in Schedules of Wildlife (Protection) Act, 1972) are found in the project area, the proponent should implement conservation measures for their protection
7)	Labour license and Permit under CLRA Act 1970	Nil	Department of Labour	Not available for NSFTPL	To be taken for NSFTPL before construction
8)	Registration under Bombay Shops & Establishment Act 1948		Department of Labour	Yet to be taken for NSFTPL	
9)	Labour permit and license under Contract labour regulation and abolition act 1970	Nil	Department of Labour	Yet to be taken for NSFTPL	To be taken for NSFTPL before construction
10)	Interstate Migrant workmen act 1979	Nil	Department of Labour	Yet to be taken for NSFTPL	
11)	Registration under Building and other construction workers act 1996 and payment of Cess	Nil	Department of Labour	Yet to be taken for NSFTPL	
12)	Registration under Provident Fund Act 1956	Nil	EPFO	Yet to be taken for NSFTPL	
13)	Registration under ESIC Act 1948	Nil	ESIC	Yet to be taken for NSFTPL	

Environment and Social Compliance Audit Report

S. No	Approval	Reference Number	Authority	Compliance Status	Remarks
14)	Workmen Insurance act 1923	Nil	Department of Labour		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
15)	Payment of wages act 1936	Nil	Department of Labour		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
16)	Payment of Minimum wages act 1936	Nil	Department of Labour		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
17)	Equal remuneration act 1976	Nil	Department of Labour		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
18)	Maternity Benefit Act 1961	Nil	Department of Labour		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
19)	Dock Workers, (Safety, Health and Welfare) Rules, 1990	Nil	Directorate General, Factory Advice Service and Labour Institute		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
20)	Industrial Dispute Act 1947	Nil	Department of Labour		NSFTPL to ensure the compliance of the act and maintain the record and file the returns
21)	The Trade union Act 1926		Registrar trade union, Department of Labour		NSFTPL to ensure the compliance of the of the act and promote or form or recognize trade union as per the provision of the act and ensure the collective bargaining as other aspects are met as per the act.

3 ADB's Requirements and Project Categorization

3.1 ADB Requirements

In July 2009, ADB's Board of Directors approved the Safety Policy statement (SPS) governing the environmental and social safeguards of ADB's operations. The SPS builds upon ADB's previous safeguard policies on the Environment, Involuntary Resettlement, and Indigenous Peoples, and brings them into one consolidated policy framework with enhanced consistency and coherence, and more comprehensively addresses environmental and social impacts and risks. The SPS applies to all ADB-supported projects reviewed by ADB's management after 20 January 2010. ADB works with borrowers to put policy principles and requirements into practice through project review and supervision, and capacity development support. .

ADB adopts a set of specific safeguard requirements that are required to address environmental and social impacts and risks:

- **Safeguard Requirements 1: Environment** – The Environmental safeguards are triggered if a project is likely to have potential environmental risks and impacts. The projects are initially screened to determine the level of assessment that is required. ADB categorises the projects into three project categories based on the severity, sensitivity, and the magnitude of its potential environmental impacts: Category A (if the project likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. An environmental impact assessment (EIA), including an environmental management plan (EMP), is required); Category B (if the project likely to have potential impacts are less adverse than category A and minor impacts expected can be mitigated. An initial environmental examination (IEE), including an EMP, is required); and Category C (if the projects likely to have minimal or no adverse environmental impacts. An EIA or IEE is not required).
- **Requirements for Existing Facilities:** For projects involving facilities and/or business activities that already exist or are under construction, the projects will undertake an environment and/or social compliance audit, including on-site assessment, to identify past or present concerns related to impacts on the environment, involuntary resettlement, and Indigenous Peoples. The objective of the compliance audit is to determine whether actions were in accordance with ADB's safeguard principles and requirements for projects and to identify and plan appropriate measures to address outstanding compliance issues. Where noncompliance is identified, a corrective action plan agreed on by ADB and the borrower will be prepared. The plan will define necessary remedial actions, the budget for such actions and the time frame for resolution of noncompliance. The audit report (including corrective action plan, if any) will be made available to the public in accordance with the information disclosure requirements of the Safeguard Requirements 1–3. If a project involves an upgrade or expansion of existing facilities that has potential impacts on the environment, involuntary resettlement, and/or Indigenous Peoples, the requirements for environmental and social impact assessments and planning specified in Safeguard Requirements 1-3 will apply in addition to compliance audit.
- **Safeguard Requirements 2: Involuntary Resettlement** – The policy is designed to avoid the risk of impoverishment among those displaced as a direct result of ADB investment. The policy recognizes that restoring the incomes and living standards of the affected people is complex, and requires a development strategy that encompasses compensation, resettlement and rehabilitation packages to improve, or at least restore, their social and economic base. The ADB's Policy on Involuntary Resettlement stipulates three important elements in involuntary resettlement: (i) compensation

- for lost assets and loss of livelihood and income, (ii) assistance in relocation including provision of relocation sites with appropriate facilities and services, and (iii) assistance with rehabilitation to achieve at least the same level of well-being with the project as before.
- **Safeguard Requirements 3: Indigenous Peoples⁸** – The Policy on Indigenous Peoples is triggered if a project directly or indirectly affects the dignity, human rights, livelihood systems, or culture of indigenous peoples or affects the territories or natural or cultural resources that indigenous peoples own, use, occupy, or claim as an ancestral domain or asset. The policy on states that the borrower/ client will ensure (i) that affected indigenous peoples receive culturally appropriate social and economic benefits; and (ii) that when potential adverse impacts on indigenous peoples are identified, these will be avoided to the maximum extent possible. Where this avoidance is not feasible, based on meaningful consultation with indigenous communities, the Indigenous Peoples Plan (IPP) will be prepared which outlines measures to minimize, mitigate, and compensate for the adverse impacts.
 - **Social Project Strategy (2001):** The key in ADB's Social Protection Strategy is that it requires compliance with the ILO's core labor standards. The four internationally recognized core labor standards (CLS) represent the eight ILO conventions which are covered in ADB's social protection strategy is governed by. These CLS include: 1. Freedom from child labour (No. 138, 182), 2. Freedom from forced labour (No.29, 105), 3. Freedom from discrimination at work (No. 100, 111)4. Freedom to form and join a union, and to bargain collectively (No.87, 98).
 - **Gender Development (1998):** ADB aims to operationalize its policy on gender and development (GAD) primarily through mainstreaming gender considerations into all ADB operations. However, ADB will continue to develop and finance stand-alone projects directed at correcting gender disparities and promoting the empowerment of women, especially in developing member countries (DMCs) with glaring gender inequalities
 - **Access to Information Policy (2018):** The policy reflects ADB's commitment to transparency, accountability, and participation by stakeholders in ADB-supported development activities in Asia and the Pacific. It also recognizes the right of people to seek, receive, and impart information about ADB's operations

The categorisation as defined by ADB's Safeguard based on the magnitude of associated risks and impacts is defined below:

Table 3-1 *Categorization by ADB's Safeguards*

a) Environment – A, B, C, FI

Category A.	Category B.	Category C.
A proposed project is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented. These impacts may affect an area larger	The proposed project's potential adverse environmental impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be	A proposed project is likely to have minimal or no adverse environmental impacts. An EIA or IEE is not required, although

⁸ Indigenous Peoples may be referred to in different countries by such terms as indigenous ethnic minorities, indigenous cultural communities, aboriginals, hill tribes, minority nationalities, scheduled tribes, or tribal groups. Such groups can be considered Indigenous Peoples

a) Environment – A, B, C, FI

than the sites or facilities subject to physical works. An environmental impact assessment (EIA), including an environmental management plan (EMP), is required. designed more readily than for category A projects. An initial environmental examination (IEE), including an EMP, is required. environmental implications need to be reviewed.

b) Indigenous People (IP) – A, B, C, FI

Category A.	Category B.	Category C.
A proposed project is likely to have significant impacts on indigenous peoples. An indigenous people's plan (IPP), including assessment of social impacts, is required.	A proposed project is likely to have limited impacts on indigenous peoples. An IPP, including assessment of social impacts, is required	A proposed project is not expected to have impacts on indigenous peoples. No further action is required

c) Involuntary Resettlement (IR) – A, B, C, FI

Category A.	Category B.	Category C.
A proposed project is likely to have significant ⁹ involuntary resettlement impacts. A resettlement plan, which includes assessment of social impacts, is required.	A proposed project includes involuntary resettlement impacts that are not deemed significant. A resettlement plan, which includes assessment of social impacts, is required.	A proposed project has no involuntary resettlement impacts. No further action is required.

In accordance with ADB's safeguard policies, the Project have been classified as:

Aspects	Categorization
a) Environment – A, B, C, FI	Operations at the terminal has limited environmental impacts which can be mitigated by developing and implementing adequate management measures, the Project is categorised as B
b) Indigenous People (IP) – A, B, C, FI	As the project does not require additional land acquisition and there is no potential adverse social impact on IPs due to the proposed project, the proposed project is categorized as C
c) Involuntary Resettlement (IR) – A, B, C, FI	As the project does not require additional land acquisition and there is no potential involuntary resettlement due to the proposed project therefore the proposed project is categorized as C

Rationale for categorisation include the following:

⁹ Cat A: significant means if 200 or more persons will experience major impacts, which are defined as (i) being physically displaced from housing, or (ii) losing 10% or more of their productive assets

- Environmental impacts associated with the terminal operations include air emissions due to operation of D.G. sets, machinery & equipment and vehicular movement; wastewater and waste (hazardous and non-hazardous) generation; contamination due to leakage and accidental spill of hazardous material; and occupational health & safety issues due to handling of dangerous goods. The impacts on ecology and existing biodiversity are associated with the dredging activities, water quality, accidental spill and increased anthropogenic activities. Most of these impacts are site specific and can be mitigated through implementation of mitigation measures. Also, IESE for the Project is being undertaken to understand E&S risks associated with the Project so that appropriate mitigation measures can be taken to prevent/ minimise these risks.
- Land & Involuntary Resettlement: As per the available information, the proposed project does not require additional land acquisition. The proposed project will be developed/upgraded on the existing land of JNPAT, which will be given to be NSFTPL for 30 years concession period. The land ownership will remain with JNPA and as per concession agreement claims if any arising out of previous land acquisition will be taken care off by JNPA and NSFTPL does not have obligations with respect to land legacy issues. As the proposed project does not have any land-based impacts on communities, therefore there will be no involuntary resettlement (IR) . Hence proposed project is categorised as C.
- Indigenous People: the proposed will be developed on the existing land of JNPT and the proposed project does not require additional land acquisition and project does not have potential negative impacts on IPs and there are no IPs within the close vicinity of the proposed project.

4 Overview of the Environmental and Social Management System

4.1 Jawaharlal Nehru Port Authority (JNPA)

4.1.1 Organisation Structure

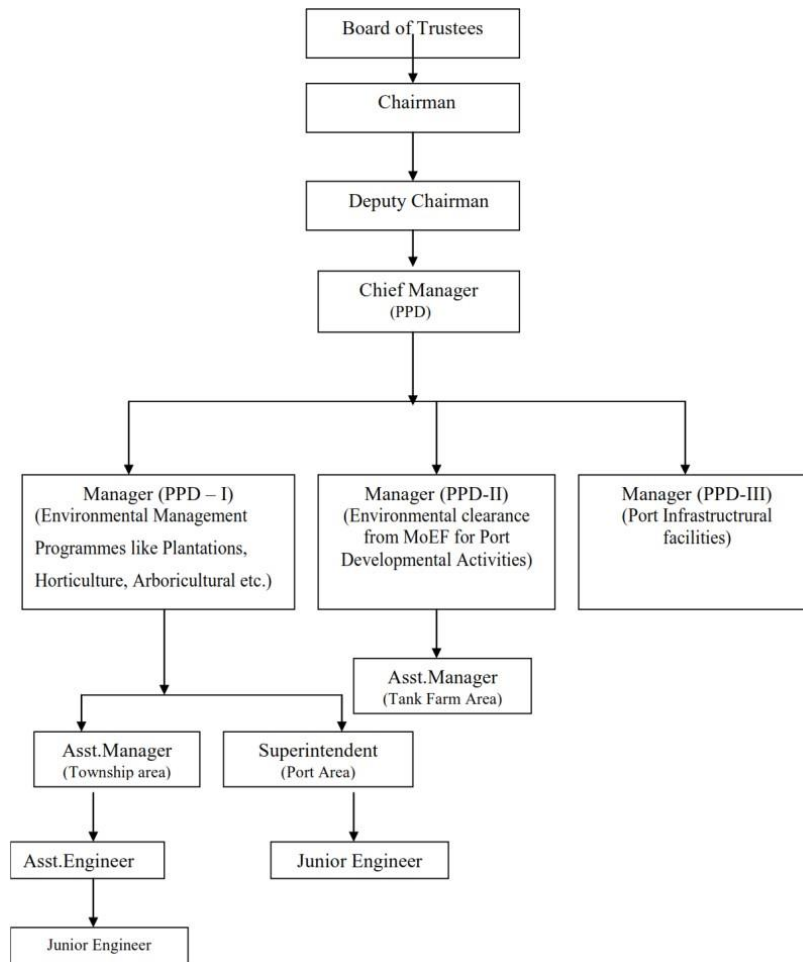
Chairman and Deputy chairman ensures that environmental issues are dealt responsibly and in accordance with legislative and internal requirements with the help of Environment Cell. Environment Cell ensure that environment related consent, licenses, approvals, permits and certificates from relevant regulatory authorities are obtained and maintained by the concerned departments. It also monitors that adequate resources are available to enable compliance with the requirements of Environment Management and Monitoring Plan (EMMP) and ensure that EMMP is implemented.

ISO department is responsible for maintaining all the records for environmental matters.

Organisation structure of JNPA's Environmental Division is as presented in Figure below.

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Figure 4-1 Organisation structure of Environment Division of JNPA



Source: JNPA

JNPA has a separate fire and safety department comprising of one (01) fire and safety Assistant Manager, one (01) Station Officer, seven (07) Class III sub officers, two (02) senior driver/pump operator, three (03) driver/pump operator and thirty (30) Firemen.

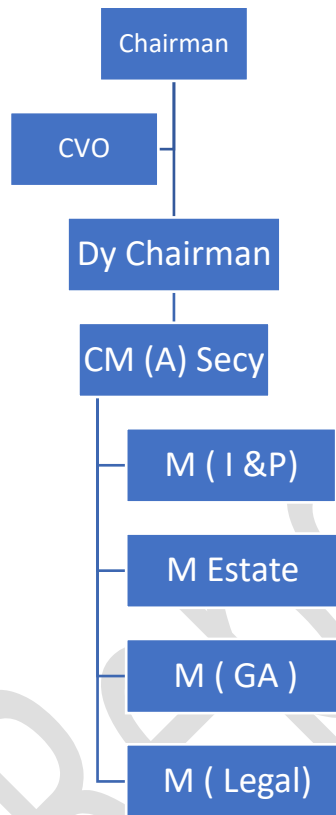
4.1.2 Environment Management System

JNPA has adopted the Industrial Procedures through ISO certification of Integrated Management System (IMS). JNPA has following certificates for the port facilities and personnel:

- ISO 9001:2–15 - Certification for Quality management system
- ISO 27001:2–13 - Certification for Information security management system
- ISO 14001:2–15 - Certification for Environmental management system
- ISO 45001:2–18 - Certification for Occupational health and safety management system

HR in organizational structure of JNPA is given in fig below:

Figure 4-2 Organisation structure of HR of JNPA



The Administration department Head is Secretary to the Board of Trustees. The department looks into the overall admin role at the Port which includes:

- Managing Transport Services
- Guest House Management
- Co-ordination and managing hospitality during Visit of VIPs
- Co-ordination with CISF.
- Conducting Official Functions
- Industrial Relation
- Welfare & Training
- Public grievances
- Liaison with Central/State Govt.
- Coordination with other departments
- Hospital JNPT-APEC TRAINING CENTRE/SKILL DEVELOPMENT CENTRE
- Administration Report Compilation Approval of film shooting in the Port.
- Arrangement of official functions.
- Supervision of JNP Gas Service.
- Marketing and media outreach for the Port.
- Employee relations.

Personnel Section

- Coordinates with other sections of Administration Department and other Departments for the execution of Personnel, Payroll and Industrial Relations policy and procedure.
- Responsible for maintenance of discipline and settlement of grievances of Personnel sub-section.
- Responsible for procurement of books, periodicals and newspapers for Library.

Workers Union & Collective Bargaining

JNPA recognizes five workers union and as per the provisions of the Trade Union Act 1926. Details of the workers union is given below

- JNPT Kamgar Ekta Sangathana
- Nawa Sheva Bandar Kamgar Sangathana
- JNPT Workers Union
- Nawa Sheva Port & General Workers Union
- JNPT General Workers Union







However, the detailed agreements with respective trade unions were not available for review.

4.1.3 Community and Stakeholder Engagement and External Grievance Redressal Mechanism

As per the review of available documents of JNPCT (Sustainability report) it was understood that the JNPA regularly engages with stakeholder which includes community snapshot of JNPA's stakeholder engagement process is given below, however detailed information with respect to SEP (stakeholder engagement plan) for JNPA is not available for review:

JNPA engages with a diverse set of stakeholders ranging from central and state authorities, employees, suppliers, local communities, and so on. Details of Stakeholder engagement process is given in figure below:

Figure 4-3 Stakeholder Engagement Process of JNPA

Terminal Operators	Employees	Contractors and Suppliers	Unions	Road transport Operators	Local Communities
					
Mode of Engagement					
<ul style="list-style-type: none"> • Online/ Offline trainings • JNPT website • Sustainability Newsletters 	<ul style="list-style-type: none"> • Trainings • Reports, JNPT Website • Sustainability Newsletters 	<ul style="list-style-type: none"> • In-person Interaction • JNPT Website • Sustainability Newsletters 	<ul style="list-style-type: none"> • In-person Interaction 	<ul style="list-style-type: none"> • In-person Interaction 	<ul style="list-style-type: none"> • In-person Interactions • CSR Initiatives • Sustainability Newsletter
Frequency of Engagement					
<ul style="list-style-type: none"> • Periodic • Monthly • Quarterly 	<ul style="list-style-type: none"> • Continuous • Monthly • Annually • Quarterly 	<ul style="list-style-type: none"> • Periodic • Quarterly 	<ul style="list-style-type: none"> • Regular • Quarterly 	<ul style="list-style-type: none"> • Regular • Quarterly 	<ul style="list-style-type: none"> • Periodic • Quarterly
Vehicles for Engagement					
<ul style="list-style-type: none"> • Regular business activities • Compliance – (e.g., monthly report on environmental monitoring) • Strengthening safety management system • Strengthening waste management system • Awareness of ESG issues 	<ul style="list-style-type: none"> • Grievance redressal • Talent development • Business performance reviews • Organization's communication • Awareness of ESG issues 	<ul style="list-style-type: none"> • Supplier/ Vendor conferences • Supplier audits • Awareness of ESG issues 	<ul style="list-style-type: none"> • Grievance redressal • Compliance • Welfare 	<ul style="list-style-type: none"> • Regular business activities 	<ul style="list-style-type: none"> • Community issues • Awareness of ESG issues

Source JNPCT Sustainability Report 2020-21

4.2 Nhava Sheva Freeport Terminal Private Limited (NSFTPL)

4.2.1 Environment, Health & Safety Organisation Structure

Organisation structure of NSFTPL with clear roles and responsibilities is yet to be established. As understood NSFTPL will have a dedicated QHSE Manager supported by QHSE assistant manager, HSE officers, environment officer and fire safety officer to manage day-to-day HSE functions.

4.2.2 Environmental, Health & Safety and Social Management System

4.2.3 E&S Policies

A brief description of the E&S policies applicable to the project has been summarised in subsequent sections.

4.2.3.1 HSE Policy

Policies related to Environment, Health & Safety and Social, to be adopted by NSFTPL are yet to be developed.

JM Baxi Ports and Logistics has a dedicated Quality, Health, Safety and Environment Policy at the corporate level. Furthermore, CMA Terminal has their own Quality, Health Safety, Social and Environment (QHSE) terminals and inland corporate policy. As understood, a dedicated QHSE policy applicable to JNPCT will be developed by NSFTPL on the basis of QHSE and QHSSE Policies of JM Baxi and CMA Terminal respectively.

4.2.4 HSE Management System

Environmental and Social Management System (ESMS) applicable to JNPCT (after handover) is yet to be prepared. Both the consortium partners (JM Baxi and CMA) have documented HSE related guidelines/ manuals which are being implemented at other terminals being operated/managed by them. As understood, similar set of guidelines/ manuals will be developed for the Project by NSFTPL.

Sample HSE manual (shared for review) adopted by JM Baxi (consortium partner) at one of its container terminals comprising of the following elements:

- Accident investigation, analysis and reporting
- Responsibilities for safety
- Emergency procedures
- Safety training
- Personal protective equipment
- Work permit system incorporates procedures
- Hazard Identification Plan (HIP)
- General approach to management of EHS issues at site level comprising of air emissions and ambient air quality, wastewater management, storm water management, sanitary waste, environmental monitoring, water conservation measures, Operational Control Procedure for Handling and storage of chemicals (Flammable/ Toxic/ Corrosive etc.), occupational health & safety, community health & safety, etc.

4.2.4.1 HSE Procedures

HSE related procedures to be adopted by NSFTPL are yet to be developed. The consortium partners i.e., JM Baxi and CMA Terminal have documented HSE procedures at the corporate level and site level (container terminals). A consolidated list of procedures available with either of the companies have been provided below.

- Hazard Identification and Risk Assessment
- Environmental Aspect Impact Assessment
- Legal Requirement and Evaluation of Compliance
- Competence, Training and Awareness
- Internal and External Communication
- Internal Audit Programme
- OHS&S Monitoring and Measurement
- Incident Investigation, Non-Conformity, Corrective and Preventive Action
- Fire Safety
- Maintenance Safety
- Procedure on Operating Machinery

- Chemical and Hazardous Substances Management
- Emergency Preparedness and Response
- Management Review
- Document Management
- Authority and Responsibility
- Operational Control Procedure on critical risks including natural disaster, fire and explosion, collisions, cargo handling, fall from height, environment management, vessel management, risk during maintenance operation and security issues.

As understood, procedures mentioned above will be used as a baseline for development of HSE procedures for the JNPCT Project by NSFTPL.

Both the companies (JM Baxi and CMA) maintain H&S statistics covering near misses, first aid cases, lost time injuries, etc. H&S statistics of both the companies for 2021-2022 is as presented below:

Table 4-1 H&S statistics (2021-2022) of both the Consortium Partners

S. No	Aspect	JM Baxi	CMA
1	Near misses	843	166
2	First aid cases	51	208
3	Lost time injury	4	45
4	Fatal accident	1	1
5	Occupational ill Health cases	0	5849
6	HSE training	4239	1051
7	HSE training participants	39596	6022
8	HSE training manhours	48247.5	27995

Source: JM Baxi and CMA

It was observed that 1 fatal accident was recorded in 2021-2022 in each company in which a pedestrian and security guard was hit by a truck. As reported, investigation was conducted, and corrective actions were taken however incident accident report was not shared.

Environment Management

JM Baxi is taking initiatives for energy reduction (use of alternative fuels and adoption of renewable energy source), water saving and composting of food waste. JM Baxi also inventories GHG emissions and disclose to the stakeholders in annual sustainability report.

CMA also have well document procedure for environmental management and is taking measures to mitigate the environmental impacts. Further details are not available.

4.2.5 Social Management System

The details of social management system for JNPCT are not available for review. However, based on the discussion with JNPCT, it was understood that HR management system is largely governed by the policies of Government of India and contracted labours are governed by the applicable labour laws specially the CLRA (Contract Labour (Regulation & Abolition) Act, 1980. Besides this JNPCT regularly

undertakes CSR activities in the adjoining villages (then affected villages). CSR activities are generally demand driven and no systematic need assessment was carried out to understand the potential community issues. Most of the CSR which were carried out relates to development of connecting roads, water, sewage, support to school and health camps etc. The HR team also looks after the issues related to R&R schemes especially providing employment to the PAPs. The social management system of JNPA is largely compliant with Indian regulatory requirement and is not aligned with ADB safeguards policies. However once NSFTPL takes over the port they will establish and implement their own systems and policies which will be aligned with Indian national requirements and ADBs safeguards polices. Although NSFTPL is yet to establish their social management system however as understood JM Baxi will be leading the process and most of their existing polices will be applied and will updated to meet the ABDs requirements. As informed the in the transition period (15- 30 days) JNPA will provide handholding support to NSFTPL in day-to-day management and after the transition period NSFTPL will operate with their polices and systems.

4.2.6 Labour Management

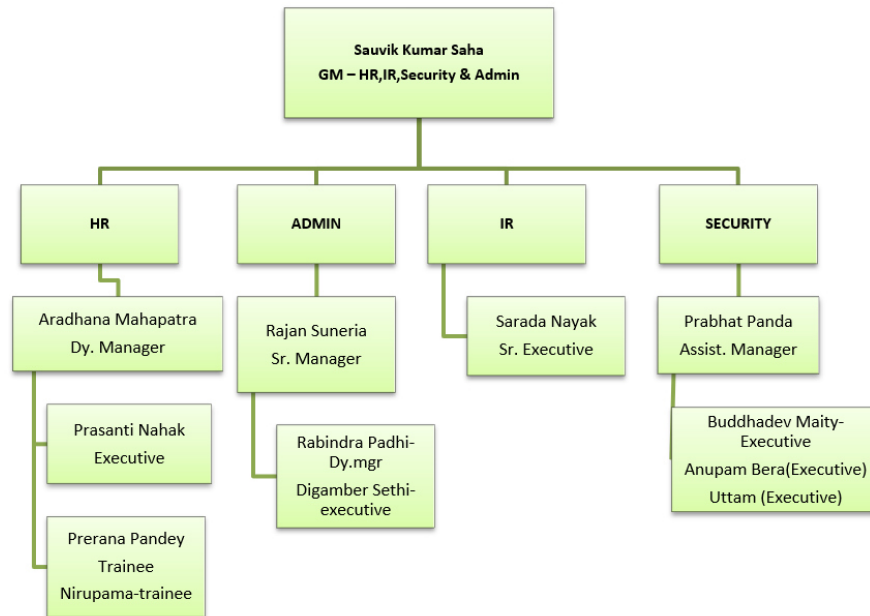
Currently the policies related to labour management by NSFTPL is yet to be formulated and accordingly organisational structure for social functions shall be made in line with ADB's requirement. however as discussed most of the polices will be line with the existing polices of JM Baxi and CMA. From the review of available documents, it was understood that JM Baxi¹⁰ is having detailed HR policy and procedure which are applicable for their own staff. The HR policy broadly covers the following aspects:

- Recruitment & Selection
- Attendance
- Leaves
- Insurance
- Provident Fund
- Gratuity
- Performance Appraisal
- Training & Development
- Transfers & Separation
- Code of Conduct
- Grievance Policy
- Sexual Harassment Policy
- Whistle Blower Policy
- IT Policy

The HR/admin functions at corporate level is looked after by HR Team and at site / project level HR/ Admin staff stationed at each location looks after the HR/Admin issues. The Corporate HR organogram is given below:

¹⁰ HR policies for CMA is not available for review

Figure 4-4 Organisation structure of Corporate HR



Source: JM Baxi HR Manual

Roles & Responsibilities

GENERAL MANAGER – HR & ADMIN

He directly reports to Terminal Head, his Specific Responsibilities includes:

- Resolve day-to-day shop floor industrial relationship issues and disciplinary matters
- Provide required support to departmental heads and Employees for resolution of grievances and other Employee related issues
- Renewal of Registration Certificate as per Orissa Shops & Commercial Establishment Act, 1956
- Submission of statutory returns (Quarterly, half yearly & yearly) in Employment Exchanges as per Employment Exchanges Act, 1959
- Maintain rapport with Labour, PF, ESI, Employment Exchange & other statutory authorities
- Annual appraisal to be completed in time
- Potential Appraisal/Identification of Hipots
- Ensure effective Management of Time Office
- Identifying training and development needs within an Organisation through job analysis, appraisal System and regular interaction with business managers
- Designing and developing training and development programmes based on both the organization's and the individual's needs
- Enhancing the quality of manpower by quality tools and role profiling with Functional Heads
- Ensuring robust processes in place for the acquisition of the best talent; recruitment tests and quality checks
- Vendor Management

- Guest House Management
- House Keeping
- General Administration
- Vehicle Management
- Travel Management
- Implementing CSR program designing, planning, budgeting and creation of affective mechanism for liaison with government representatives and partners as and when required
- To support Legal counsel in drafting and filing of written statement, reply, rejoinder, written argument in various courts with a target to close the case
- Security of Terminal and other Assets

The security arrangements of JM Baxi are looked after by AGM Security, who directly report to GM (HR and administration). Detailed roles and responsibilities of AGM security is given below:

Roles and Responsibilities of AGM – SECURITY includes

- Responsible for Terminal security including Access control of Man/Material
- Responsibility of VIP movement
- Responsibility of labour movement
- Responsibility of material movement
- Maintenance of law and order
- Vigilance and intelligence
- Investigation and report writing

The current HR management system of JM Baxi is complaint with Indian regulatory requirement and industry practice. The current HR polices of JM Baxi is not aligned with ADB's safeguards requirements as well as organisational capacity need to be strengthened to implement ADB's polices. Further The NSFTPL is yet to be formulate polices for labour management however most of these polices will be based on the policies and procedure of JM Baxi which will be aligned to ADBs requirements. As understood from the discussions the labour management system shall be developed in line with ADB's social safeguards policy such as ADB social protection strategy / ILO core standards, Gender & Development, covering aspects like equal opportunities and non-discrimination, collective bargaining/unionisation, worker GRM. In principally Labour management policies will be formed for the SPV and respective head of SPV and HR department SPV / HR executive will be responsible of the implementation of labour management plan. Further the organisational structure of NSFTPL is also not finalised at this stage of the project, however the proposed organisational structure will have separate resources for management and implementation required for social management plans and process as per ADBs safeguards policies (details of polices are enlisted in reference frameworks) and Indian regulatory requirements.

4.2.7 Community and Stakeholder Engagement

As per the discussion with JM Baxi's HR team it was understood that as part of corporate governance they undertake CSR activities as per the provisions of companies act 2013¹¹. As reported CSR activities are selected on the recommendation of the project heads. The CSR activities includes the plantation,

¹¹ Section 135 of the Companies Act 2013 provides the threshold limit for applicability of the CSR to a Company: (a) net worth of the company to be Rs 500 crore or more; or (b) turnover of the company to be Rs 1000 crore or more; or (c) net profit of the company to be Rs 5 crore or more

maintaining green spaces within city, capacity building and community development. However currently they don't have goal based/ or community needs-based CSR strategy.

Furthermore, JM Baxi is having generic stakeholder engagement process but most of the stakeholder's engagement is limited to their staff, contracted staff, workers and regulatory authority, as per the available information they have developed the reporting format of stakeholder engagement documents process however the complete set of SEP along with records of stakeholder engagement is not available for review. As part of the management plan SEP will be developed for the proposed project.

The Review of JM Baxi's ESG report suggests that as part of ESG generic stakeholder engagement is carried out on regular basis. Based on the ESG 20-21 report, The snapshot of stakeholder process is given below:

Stakeholder Group	Mode(s) of engagement	Frequency of engagement	Key Expectations
Investors	<ul style="list-style-type: none"> Annual General Meetings (AGM) Investor meetings Investor presentations 	Annually	<ul style="list-style-type: none"> Good corporate governance Compliance with regulatory norms (including those on ESG) Good return on investments
Employees	<ul style="list-style-type: none"> Employee interaction feedback and communication Performance appraisals Internal human resource management 	Quarterly	<ul style="list-style-type: none"> Healthy work culture and job satisfaction Competitive pay Equal growth opportunities
Suppliers/Vendors/ Contractors	<ul style="list-style-type: none"> Onboarding and screening 	Annually	<ul style="list-style-type: none"> Ethical practices and reasonable pricing Digital and secure engagement with vendors Fair procurement practices
Communities/ NGOs	<ul style="list-style-type: none"> Focus Group Discussions for CSR Initiatives 	Annually	<ul style="list-style-type: none"> Local employment generation Development interventions Community building
Regulators/ Government	<ul style="list-style-type: none"> Mandatory regulatory filings Quarterly and annual compliance reports 	Annually	<ul style="list-style-type: none"> Ethics and transparency Compliance with norms and regulations
Clients	<ul style="list-style-type: none"> Corporate communications (reports) Service requests, complaints and feedback 	Annually	<ul style="list-style-type: none"> Transparent information and communication Fair and responsive grievance redressal mechanism

The SEP (Stakeholder engagement plan) of the NSFTPL is yet to be formulated, the proposed SEP shall clearly identify the relevant stakeholders and their stake and influence on the project. Further the SEP should have the detailed engagement plan with each stakeholder group. The overall responsibility of the implementation of SEP will be with the SPV's HR/ Administration/ industrial dispute supported by other line departments.

4.2.8 Workers' Engagement and Grievance Redressal Mechanism

As per the discussion with representative of JM Baxi was understood different activities were undertaken for employee's engagement which includes regular training, annual performance appraisal, women support cell, Famina group to connect with female employees etc.

GRM Policy

JM Baxi has a dedicated EMPLOYEE GRIEVANCE POLICY, which covers its own employees, Grievance includes the grievances of personal/individual nature (concerning one individual employee only which

may be relating to job satisfaction, work environment, harassment etc). JM Baxi Follows two stage grievance process:

Stage 1: In the initial stage the approach to settling any issue is open communication. An employee first seeks to resolve any complaint with his/her immediate supervisor through informal discussion. If such discussion does not resolve the matter informally, then the employee may initiate a formal grievance as described in stage 2.

Stage 2: An aggrieved employee may present his/her grievance in writing into the respective Location/Branch/Business Head as the case may be. Respective Location/Branch/Business Head along with Head HR will try to resolve the grievance. In case it is not resolved, he/she shall forward the same with their comments on the grievance form within 3 days to the Grievance committee designated by the management by this purpose. Grievance Committee consist of 1) Business vertical Head 2) Business Vertical

- The grievance committee gives answer within 10 days of the presentation of grievance. If the action cannot be taken within that period, the reason for delay should be recorded.
- If the employee is not satisfied with decision of grievance committee or fails to receive an answer within the stipulated period, he shall forward his grievance to the Director through Corporate HR Head
- Corporate HR Head shall submit the grievance form immediately to the director's office for further procedure.
- The Director will review the decision/recommendation of grievance committee and give his final decision for redress the grievance raised by an employee.
- The final decision of the Director shall be communicated to the employee concerned by the Head HR within 7 days of the grievance committee's recommendations.

The current GRM is indicative of the JM Baxi existing management system which applies on their own on roll staff and contractors are not covered under the same and this GRM does not have the provision of anonymous complaint.

As part of ESMS, NSFTPL will have new GRM policies which will have the required element of the ADBs safeguards policies. The GRM should broadly include mechanism of handling grievances of their staff including subcontracted workers/staff, external stakeholders, and customers. The GRM should clearly describe the roles and responsibility of the concerned of department as well the nodal department who will be documenting, monitoring (tracking), reviewing and reporting of the grievances. Further the GRM should give the details and procedure for receiving grievances and clearly demarcate the timeline, escalation levels, feedback and feedforward process.

4.2.9 Security Arrangement

Currently site security is taken care off by Central Industrial Security force (CISF) which is special security force created for providing security of Industries by Government of India. The site port is under security of CISF 24X7 and no one can enter the port without valid permit and identity proof. Further the port is complaint with ISPS Code or the International Ship and Port Facility Security Code. The main security of the port shall remail with CISF and entry and exit into port will be managed by CISF in future as well. However as per concession agreement if concessionaire wants to have extra security within the port, they can hire/appoint additional security if required. The security management provisions will be

developed to manage any associated risks by NSFTPL. The current site security arrangements are adequately managed however in future NSFTPL can provide necessary training to manage the community health and safety aspects.

4.2.10 Subcontractor and Supplier selection, management, and monitoring

As per the available information the subcontractor management selection and monitoring for JNPA is not available for review and for JM Baxi the same is taken care off by the procurement department. Reportedly for JM Baxi the selection process of subcontractors and supplier is based on prior experience, quality and cost. As general practice tender or supply order is published/ notified and based on the above criteria subcontractors and suppliers were selected. further based on the prior experience and feedbacks, JM Baxi is having the list of preferred subcontractors and suppliers and sometimes work is given to preferred vendors directly. Reportedly after successful execution of work each subcontractor is evaluated for its performance (regulatory compliance, physical and financial) and experience certificate is issued on completion of works. However, the current JM Baxi subcontractor selection process does not specifically evaluate the EHS performance of their subcontractors and suppliers. However, during execution stage specifically for ports, the supervision consultant is appointed, who also monitors the project progress, regulatory EHS regulatory and other statutory compliances including HR and Labour. However, for NSPFTL the subcontractor and suppliers' selection process will be based on ABDs requirements and accordingly subcontractor management plan shall be prepared.

The management plan will define responsibilities of NSFTPL and provide requirements for selection and monitoring of subcontractors and suppliers. The purpose of the management plan is to minimize or eliminate risk to the environment and health & safety, and social (EHS&S) associated with the Project lifecycle This plan will contain information regarding the procedure of selection of sub-contractor and suppliers, contractual agreement, safeguards on EHS&S aspects, regular monitoring and reporting of EHS&S aspects. Detailed subcontractor, suppliers' selection and monitoring plan is given in IESE report. s

5 Gap Assessment against requirements of ADB

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
1	<p>Assessment of ESMS and E&S Policies</p> <p>The Client will conduct a process of environmental and social assessment and establish and maintain an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts.</p>	<p>The ESMS will incorporate the following elements: (i) environmental and social policies; (ii) screening, categorization, and review procedure; (iii) organizational structure and staffing including skills and competencies in environmental and social areas; (iv) training requirements; and (v) monitoring and reporting.</p>	<p>Existing</p> <p>JNPA has adopted the Industrial Procedures through ISO certification of Integrated Management System (IMS). JNPA has following certificates for the port facilities and personnel:</p> <ul style="list-style-type: none"> • ISO 9001:2015 - Certification for Quality management system • ISO 27001:2013 - Certification for Information security management system • ISO 14001:2015 - Certification for Environmental management system • ISO 45001:2018 - Certification for Occupational health and safety management system <p>Proposed</p> <p>It is reported that an ESMS comprising of policies, management plans, procedures, checklists to be implemented by NSFTPL on JNPCT site after handover, will be developed. NSFTPL reportedly plans to get ISO certification for JNPCT and will develop the required ESMS well prior to start of expansion activity.</p> <p>Both the consortium partners, JM Baxi and CMA has documented Quality, Health, Safety , Environment Manual for their other projects (terminals) and plans to develop the ESMS for JNPCT also, in line with the available documents and as per the Good Industry Practices. However, subcontracted labor management is done are per the Indian labor laws</p> <p>NSFTPL will be involved only in operations of the container terminal, which is not included in the prohibited activity list of ADB. As reported, NSFTPL will not be engaged in any activity listed in the Prohibited Investment Activities List (PIAL) of ADB.</p> <p>Random scanning of containers will be undertaken to ensure prevention of illegal import as per the Customs Act, 1962.</p>	<p>ESMS is yet to be developed for the Project</p>	<p>Develop and implement E&S policies and an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts. ESMS to include but not limited to the following:</p> <ul style="list-style-type: none"> • An organizational environmental, health and safety and social structure with clear roles and responsibilities, skills and competencies. • Procedures to identify E&S risks, unanticipated impacts, and required mitigation to manage construction and operation phases that are proposed to run in parallel for initial 15 to 18 months. • Checklists comprising items listed in ADB’s prohibited investment activity list (PIAL) and ensure checks are conducted when handling vessels at the NSFTPL terminal. • Procedure on selection, management, monitoring & supervision of contractors (including subcontractors), and periodic internal E&S audits and inspections. • Communication procedure for vessels operations incidents (air emissions, ballast, bilge water, discharge of oil, noxious liquid substances in bulk, harmful substances in packaged form, sewage, and terminal and vessels garbage and sewage. • Procedure on supplier selection and identification, management (incl. evaluation of suppliers in line with ADB social protection strategy, ADB’s PIAL and POSH), monitoring of supply chain risks. • Local content policy. • Accommodation policy for workers and/or contractors. • E&S training requirements and plan. • Monitoring, auditing, remedial action, reporting and management review procedure.

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
2	EHS Compliance Tracking & Legal Register	All applicable environmental and labour rules/acts	<p>Existing</p> <p>Reportedly JNPA has documented procedure on legal requirement & evaluation of compliance and legal register is being maintained. Environment Management and monitoring Plan of JNPA includes compliance of legal requirements. Review of the BSI audit report dated 2nd-10th May 2022 indicated that JNPA is compliant to the applicable legal permits. Further JM Baxi undertakes the annual third party audit for labor compliance.</p> <p>Proposed</p> <p>Procedure on legal requirements & evaluation of compliance is yet to be documented by NSFTPL. As reported procedure will be developed and legal register highlighting all the applicable permits and conditions to be adhered to will be maintained. And carry out regular monitoring and review of labor related compliances.</p>	Procedure on legal requirements & evaluation of compliance is yet to be documented.	<p>Stakeholder Engagement Plan (SEP) and external, i.e., customer and public Grievance Redress Mechanism (GRM). SEP to include information disclosure per ADBs Access to Information Policy. SEP to cover construction and operation.</p> <p>ESMS to be continually reviewed and updated.</p> <p>Legal permits to be obtained by NSFTPL includes:</p> <ul style="list-style-type: none"> • Coastal Regulation Zone (CRZ) clearance • Environmental clearance (if requested by CRZ committee) • Fire No objection Certificate (NOC) • Amended Consent to Operate (CTO) • Labour license and Permit under CLRA Act 1970 • Registration under Bombay Shops & Establishment Act 1948 • Labour permit and license under Contract labour regulation and abolition act 1970 • Registration under Provident Fund Act 1956 • Registration under ESIC Act 1948 • Registration under Inter State Migrant act • Workmen's Compensation <p>Procedure on legal requirements & evaluation of compliance during the Project lifecycle to be documented and compiled with.</p> <p>Legal register to be maintained and all the legal conditions to be compiled with.</p> <p>Carry out periodic review and monitoring of labor compliance in the entire life cycle of the project</p>
3	Environmental Assessment	ADB's Safeguard Requirement 1: The borrower/client will identify potential direct, indirect, cumulative and induced environmental impacts on and risks to physical, biological, socioeconomic, and physical cultural resources and determine their significance and scope, in consultation with stakeholders,	<p>Existing</p> <p>JNPCT is an operational facility which was commenced in 1988. Environmental Impact Analysis report for the Project was prepared and Environment Clearance (EC) from MoEF was obtained prior to start of construction. EC for the Project was facilitated by Ministry of Surface Transport. Environmental Impact Analysis (EIA) report includes impacts on marine, terrestrial and air environment and mitigation measures to prevent/ minimize the identified impacts. Environmental impact analysis report is dated November 1981 and baseline of the area has changed drastically in last 30 years.</p>	Procedure on Hazard Identification and Assessment of Risk and environmental aspect impact analysis is yet to developed	<p>Prepare an IESE and ESMP in accordance with ADB SPS (2009) and applicable IFC EHS guidelines.</p> <p>Ensure IESE to capture physical environmental, ecological and socio-economic profile of the area; impacts associated with both construction-operation interface and operation</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		<p>including affected people and concerned NGOs.</p> <p><u>IFC EHS Guidelines for Ports, Harbors and Terminals</u></p> <ul style="list-style-type: none"> As part of the design and siting of port facilities, surveys, assessment and modeling of metocean, hydrological, sedimentological and coastal geomorphological conditions should be carried out together with an identification of potential adverse impacts on coastal processes such as erosion and accretion, from the placement of new physical structures. Design, siting considerations and coastal protection measures (e.g., beach nourishment, sand bypassing, groynes, seawalls, coastal revegetation, etc.) should be considered to minimize adverse impacts from these structures. As part of a coastal processes monitoring and management plan, projects should conduct a risk assessment of littoral sediment transport, shoreline morphology and erosion patterns and trends, and coastal inundation profiles; define monitoring requirements (e.g., beach profiling, satellite imagery/remote sensing); and identify action triggers. Ports should implement systems for the proper screening, acceptance, and transport of dangerous cargo based on local and international standards and regulations. 	<p>Reportedly JNPA has a developed risk assessment framework as per the Marine Terminal Management and Self-Assessment (MTMSA) Guidelines and has documented procedure for identification & evaluation of aspects and hazards as per IMS. In compliance to this procedure, Environmental Impact Analysis for the container terminal (JNPCT) and equipment maintenance has been conducted and environmental impacts associated with various activities has been identified. Document also include risk rating, operational controls and monitoring & measurement. Document dated 13.01.2022 was shared with the independent E&S advisory firm/ E&S advisor during this assessment.</p> <p>JNPA has also undertaken Hazard Identification and Risk Assessment (HIRA) of container terminals and port equipment maintenance to identify hazards associated with activities, existing controls and further controls required.</p> <p>Proposed</p> <p>Initial Environmental and Social Examination (IESE) is being conducted to identify E&S related risks and hazards associated with the Project (both construction and operation phase).</p> <p>Procedure on Hazard Identification and Assessment of Risk is yet to be developed by NSFTPL. As reported, procedure for risk assessment and hazard identification will be developed and HIRA and environmental aspect impact assessment will be undertaken to identify hazards associated with all the activities proposed to be undertaken at JNPCT.</p> <p>The scale of proposed construction is small with respect to the overall size of the port, furthermore the construction works proposed for berthing area will remain within the existing boundary limits of the existing terminals. The proposed structures will have limited footprint in water and will remain inside the limits of existing piles and therefore will not have any significant influence on the current. It is envisaged that any influence on sediment transport will be negligible. Permanent structures that protrude into water influence the flow or current, leading to settling of sediments in areas, which is not expected in this case. Hence detailed modelling is not proposed.</p> <p>Proposed expansion / upgradation does not include dredging and blasting activity. Also, environmental monitoring is being undertaken by the Port at various locations (refer subsequent sections), hence the terminal is not required to undertake environmental monitoring to establish baseline.</p> <p>Since the proposed project is an upgradation of the existing terminal, impacts on land use of the area are not anticipated. Further impacts on topography and drainage are anticipated to be insignificant.</p> <p>Proposed expansion/ upgradation does not require additional land, hence impacts related to land acquisition, associated R&R and Indigenous Population are not anticipated. Also, beside mangroves, minimal impact on the surrounding terrestrial ecology due to the project activities is envisaged because it is an operational terminal.</p> <p>As it is an operational terminal, there is no need of vegetation removal for any kind of construction activities. Also impacts (direct/indirect) on wildlife are not envisaged.</p>		<p>phase to be identified and appropriate recommendations to be provided. Construction & Operation phase impacts to be scope in IESE to include:</p> <ul style="list-style-type: none"> Impacts on physical environment comprising of ambient air quality, noise & vibration, soil & sediment, water environment (water resource and water quality) and hazardous material handling. Impacts on biological environment comprising of impacts on marine ecology, mangroves and migratory birds. Impacts on socio-economic environment to capture impacts due to influx of migrant workers, stress on local resources, labour rights & welfare, contractor and supplier management, gender-based violations and harassment. <p>IESE to also include climate change vulnerability assessment and risks related with associated facilities like rail siding.</p> <p>Since the area has other terminals in surroundings, IESE to also include cumulative impacts due to operation of number of terminals in the area.</p> <p>Where unanticipated environmental impacts become apparent during project implementation, NSFTPL will update the IESE and EMP or prepare a new IESE and EMP to assess the potential impacts, evaluate the alternatives, and outline mitigation measures and resources to address those impacts.</p> <p>Procedure on Hazard Identification and Assessment of Risk to be developed and approved prior to start of expansion activity. The procedure to be based on specific storage of chemicals, fuel, movement of vehicles, etc. and specific handling requirements.</p> <p>HIRA and environmental aspect impact analysis for both expansion and operation phase to be conducted to identify risks associated with various activities proposed to be undertaken.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
4	<p>Management Programs/ Plans</p> <p>Application of management systems and application/adoption of Corporate EHS Policies and Practices at the project level.</p> <p>Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management.</p>	<p>ADB's Safeguard Requirement 1: The borrower/client will prepare an environmental management plan (EMP) that addresses the potential impacts and risks identified by the environmental assessment. The EMP will include the proposed mitigation measures, environmental monitoring and reporting requirements, emergency response procedures, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators. Key considerations for EMP preparation include mitigation of potential adverse impacts to the level of no significant harm to third parties, and the polluter pays principle.</p> <p>Implementation of the EMP and monitor its effectiveness. Document monitoring results, including the development and implementation of corrective actions, and disclose monitoring reports.</p> <p>MARPOL Annex VI</p> <ul style="list-style-type: none"> Any port State inspection may inspect whether the Ship Energy Efficiency Management Plan is duly implemented by the ship A ship to which this Annex applies may, in any port or offshore terminal of a Party, be subject to inspection by officers appointed or authorized by that Party for the purpose of verifying whether the ship has emitted any of the substances 	<p>Existing</p> <p>JNPA has documented environmental management and monitoring plan which includes potential impacts associated with various activities, proposed mitigation measures, responsibility. JNPA has also developed various SOPs as part of IMS documents, however, those were not made available for review except SOP on handling of explosives.</p> <p>Proposed</p> <p>E&S Management plans to be implemented on Site by NSFTPL are yet to be developed. Management plans proposed to be developed with IESE (for both phases) includes the following:</p> <ul style="list-style-type: none"> Water Quality and Wastewater Management Plan Hazardous Materials Management Plan Traffic Management Plan Waste Management Plan Pollution Prevention Plan Occupational Health and Safety Management Plan Community Health and Safety and Security Management Plan Construction Labour and Working Conditions Management Plan Subcontractor and Supplier Management Plan Emergency Preparedness and Response Plan for both onsite and offsite emergencies Stakeholder Engagement Plan (SEP) and information disclosure plan Grievance Redress Mechanism (both of staff and other stakeholder Chance finds procedure Worker Code of Conduct Accommodation Management Plan Gender Management Plan. <p>As reported by NSFTPL, ESMP developed as a part of IESE report will be shared with the EPC contractor for implementation. Project Management Consultant (PMC) will ensure implementation of ESMP on site and will report to NSFTPL.</p>	<p>E&S Management plans to be implemented on Site by NSFTPL are yet to be developed.</p>	<p>HIRA and aspect impact analysis to take into consideration construction and operation activities undertaken in parallel. Mitigation & control measures to be implemented accordingly.</p> <p>The ESMP developed as part of IESE should cover construction and operation phase and take into account overlap between both the activities.</p> <p>It is recommended to develop E&S management plans to be implemented at JNPCT. Management plans to cover both construction-operation interface and operation phase and to be compliant with the CPCB, ADB SPS and Social Protection Policies, and WB EHS guidelines (whichever is more stringent).</p> <p>Management plans to be developed (covering both construction and operation phase) to include but not limited to:</p> <ul style="list-style-type: none"> Pollution Prevention Plan Wastewater and stormwater management plan Waste Management Plan including hazardous waste Handling of hazardous chemicals/ materials covering spill prevention and response plan Occupational health & safety management Grievance redressal mechanism (for staff and other stakeholders) Stakeholder engagement plan and information disclosure Subcontractor and Supplier Management Plan including selection procedure Security Management Plan Emergency Preparedness and Response Plan for both onsite and offsite emergencies Worker Code of Conduct Accommodation Management Plan Gender Management Plan Local content (and Influx management) plan.

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		<p>covered by this Annex in violation of the provision of this Annex. If an inspection indicates a violation of this Annex, a report shall be forwarded to the Administration for any appropriate action</p> <ul style="list-style-type: none"> A tanker carrying crude oil shall have on board and implement a VOC management plan approved by the Administration. <p><u>IFC EHS Guidelines on Ports, Harbors and Terminals</u></p> <ul style="list-style-type: none"> Projects should conduct a risk assessment for dredging activities as part of the development of a Dredging Management Plan Port operators should prepare a spill prevention, control, and countermeasure plan consistent with the IMO Manual on Oil Pollution Section II—Contingency Planning 			<p>Plans to be developed for construction phase to include:</p> <ul style="list-style-type: none"> Construction Labour and Working Conditions Management Plan Community Health & Safety management Traffic management plan E&S monitoring Chance Find Procedure <p>Detailed SOPs should be developed as part of their ESMS for operation phase to cover:</p> <ul style="list-style-type: none"> Handling of containers with explosives <p>It is to be ensured that management plans proposed to be developed with IESE to be implemented by NSFTPL and its contractors.</p> <p>In addition to the above listed plans which are applicable during construction and operation phase, NSFTPL is recommended to develop Mobilization E&S Plan (MESP) to manage E&S risks during mobilization phase.</p> <p>NSFTPL to develop a mechanism and ensure that all E&S requirements of the project are implemented by contractors and subcontractors and to embed ESMP requirements in contracts with contractors, and relevant training.</p>
5	<p>Organizational Structure and Staffing including Skills and Competencies</p> <p>Institutional or organizational arrangements at the corporate and subproject level.</p>	<p>The borrower/ client to have institutional or organizational arrangement for implementing national laws and ADB's requirements and identify capacity development needs.</p>	<p>Existing</p> <p>JNPA has a dedicated Environment Cell and Fire & Safety Department, details presented in Section 4.2 above.</p> <p>Proposed</p> <p>Organization structure of NSFTPL, Project SPV responsible for management of the Project as per CA is yet to be established.</p> <p>As understood PMC to be appointed for construction activity will have HSE team to manage day to day HSE functions which will be supervised by HSE team of NSFTPL.</p> <p>As understood Project SPV will have a dedicated QHSE Manager supported by QHSE assistant manager, HSE officers, environment officer and fire safety officer to manage with day-to-day HSE functions during operation phase. Having qualified and experienced QHSE team for managing HSE aspects will be adequate for management of day-to-day HSE operations. Currently social activities related to CSR is taken care off by HR department and there is no dedicated team of person to monitor the social performance.</p>	<p>Organization structure of NSFTPL, Project SPV responsible for management of the Project is yet to be established.</p>	<p>Organization structure with clear roles and responsibilities to be established asap. It is to be ensured that dedicated HSE staff should be engaged for managing day to day HSE operations of JNPCT.</p> <p>HSE manager proposed to be appointed to have required qualification to meet ADB standards with minimum of 5 years of experience in the field of EHS and familiarity with terminal operations.</p> <p>Appoint a dedicated E&S Manager responsible to assure compliance with ESMS, ESMP and this CAP.</p> <p>Appoint HR staff and a communications expert to look after the social (HR, stakeholder engagement, GRM) performance of the project during</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
6	Training & Capacity Building	The borrower / client to develop mechanisms and measures for capacity building of the team to develop and strengthen their skills, abilities to perform their work, including current knowledge of the host country's regulatory requirements and the applicable requirements of international standards.	<p>Existing</p> <p>As reported by JNPA representative, trainings pertaining to health, safety and environment is imparted to employees as well as contract workers on regular basis and as and when need arises. Besides on job training is also provided to the employees for enhancement of safety at workplace.</p> <p>Proposed</p> <p>Reportedly Management System proposed to be developed by NSFTPL will have procedure on competence and training needs. HSE training calendar will be prepared. All direct and indirect workers will be provided training on the following but not limited to:</p> <ul style="list-style-type: none"> • Road Safety • Use of PPE's • Safe operation of mobile equipment • Terminal HSE rules and regulation • Training about Work Permit system • Practical demonstration of Use of Fire equipment • Safe operation of Reach stacker • Awareness Training for Safe operation of Forklift and Hydra Machine • Environment Awareness • Safe Handling of Hazardous Material • Working at Height • Electrical Safety • First Aid • GRM and other social Polices (POSH & Whistle blower etc.) <p>Reportedly toolbox talks will be undertaken.</p>	Procedure on competence and training needs is yet to be developed.	<p>construction and operation. social expert, the candidate should have 10 years' experience, in ADB /multilateral funded project and well-versed with ADB policies of social safeguards and inclusion.</p> <p>Provide and ensure sufficient resources to implement ESMS, ensure compliance with this CAP, including ESMP and subplans, and ADB's requirements.</p> <p>Ensure EPC contractor has sufficient E&S resources to manage ESMP and project's E&S requirements for construction.</p> <ul style="list-style-type: none"> • Procedure on competence and training needs to be developed and training need assessment to be undertaken. • Training calendar (annual) to be prepared and trainings as per the need assessment to be provided to all direct and indirect staff (subcontractors). • Training calendar to include training on <ul style="list-style-type: none"> ○ ABD safeguards which will help team in understanding and implementation of requirements of ADB safeguards ○ ESMS procedures, checklist and tools proposed to be developed ○ HR policies & procedures ○ Job specific trainings ○ Awareness sessions on health & safety and environment ○ GRM and other social Polices (POSH & Whistle blower etc.) ○ Spill prevention & spill control procedures ○ Dangerous goods handling ○ Awareness on physical hazards (slips and falls, manual handling accidents (e.g. lifting, setting down, pushing, pulling, carrying, or

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
7	Emergency Preparedness and Response (EPRP)	Establish preventive and emergency preparedness and response measures to avoid, and where avoidance is not possible, to minimize, adverse impacts and risks to the health and safety of local communities	<p>Existing</p> <p>Fire NOC. EAP comprises of</p> <ul style="list-style-type: none"> • Emergency Policy • Emergency Organization • Duty of key personnel • Identified emergency situations, action to be taken • Emergency Control Centre • Details of emergency equipment and facilities • List of emergency contact numbers <p>DMP includes:</p> <ul style="list-style-type: none"> • Hazard, Risk, Vulnerability & Capacity Analysis • Hazard specific prevention and mitigation measures • Mainstreaming Disaster Risk Reduction (DRR) • Inclusive DRR • Capacity Development & Communication • Coordination • Preparedness & Response, etc. <p>Reportedly, mock drills are conducted for various emergency scenarios. The firefighting system is in place as per OISD156 Guidelines, and mock drills are conducted on a monthly basis to check its operation. All the private terminals have their own risk management policies. As reported all the terminals are ISO 45001:2018/ OHSAS 18001:2017 compliant.</p> <p>JN port is equipped with fire hydrant system, high velocity water spray system, 5 fire tenders comprising of fire water tenders (02), fire foam tender, multipurpose fire tender and hazmat cum emergency rescue tender and self-contained breathing apparatus sets to combat fire emergency. Fixed fire extinguishers are also installed within buildings.</p>	EPRP is yet to be developed Fire NOC for the proposed expansion is yet to be obtained.	<p>moving weight by hand), and machine operation accidents); chemical hazards (loading and unloading of chemicals); confine space (to inspect, repair or clean tank or cargo holds); exposure to noise; security risks</p> <ul style="list-style-type: none"> ○ Working near water ○ Rail safety <ul style="list-style-type: none"> • It is to be ensured that training on all the potential EHS risks being provided. • Records of training to be maintained. • Evaluation of suppliers to also include E&S training and awareness. <hr/> <ul style="list-style-type: none"> • EPRP in line with EAP and DMP of JNPA to be developed and implemented. • EPRP to include all the potential emergencies, on-site emergency organization with roles and responsibilities, response / action plan for all kind of emergencies, list of emergency control equipment including details of fire safety arrangement and list of first aid trainers. • EPRP to include risks from handling of explosives and all type of hazardous / dangerous goods. • Emergency contact numbers to be identified and displayed at prominent locations within the Project. Safe assembly area to be identified and displayed. • Staff (direct and indirect) to be trained on the actions to be taken in case of emergency and regular mock drill (for all kind of emergencies) to be undertaken and records to be documented. • EPRP to also include off-site emergencies.

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
			<p>Port also has an occupational health centre with trained medical officers and 24X7 ambulance for rescue.</p> <p>Reportedly, in line with the goal of developing a robust oil spill response plan as outlined in Maritime India Vision (MIV) 2030, JNPA has updated its Local Oil Spill Disaster Contingency Plan. The Plan has been approved by the Coast Guard Regional Headquarter and has subsequently been forwarded to Coast Guard HQ, Delhi for vetting. In order to combat minor local oil spills at JNPA, a multipurpose utility launch has been hired on chartered basis.</p> <p>JNPCT (Project) is equipped with sea water and fresh water based fixed firefighting system installed at container berths, import & export yards & utility area and high velocity water spray system. 4 fire water tanks of capacity 25 liter are installed with JNPCT.</p> <p>Proposed</p> <p>NSFTPL is yet to develop Project Specific EPRP. As reported, EPRP in alignment to the EAP of JNPA will be developed and implemented by NSFTPL. Monthly mock drill will be conducted. Project will also participate in the mock drill conducted by JNPA. As reported mock drill will be conducted for emergency scenario including but not limited</p> <ul style="list-style-type: none"> • Rescue of person from waterfront • Fire in HAZ Container Yard • Flammable Gas Release • Serious Bodily Injury • Earthquake • Flood • Cyclone • Spillage of hazardous Chemical from container, etc. <p>Also, adequacy of the firefighting system will be checked and updated, as required, during expansion. Also, Fire NOC for the terminal will be obtained from the responsible authority.</p>		<ul style="list-style-type: none"> • Fire NOC for the terminal (existing and proposed expansion) to be obtained from JNPA.
8	<p>Monitoring, Review and Reporting (including Environmental and Social Management Performance)</p> <p>Identify and assess implementation of the EMP and monitoring its effectiveness, including compliance with national requirements. Documentation of monitoring results, including the development and implementation of corrective actions, and disclosure of monitoring reports.</p> <p>The extent of monitoring activities, including their scope and periodicity, commensurate with the project's risks and impacts. Implementation of safeguard measures and relevant safeguard plans, as provided in the legal agreements, and to submit periodic</p>	<p>The borrower/client will monitor and measure the progress of implementation of the EMP. In addition to recording information to track performance, the borrower/client will undertake inspections to verify compliance with the EMP and progress toward the expected outcomes. Preparation of periodic monitoring reports that describe progress with implementation of the EMP and compliance issues and corrective actions, if any.</p> <p>For projects likely to have significant adverse environmental impacts during operation, reporting will continue at the minimum on an annual basis. Such periodic reports will be posted in a location accessible to the public. Project budgets will reflect the</p>	<p>Existing</p> <p>JNPA undertakes environmental monitoring, details mentioned below in various sections. Environment statement in Form V is submitted to MPCB on annual basis in compliance to CTO.</p> <p>As reported, annual safety audit of container terminals and storage yards is conducted by National Safety Council (NSC) and that of jetty for flammable and hazardous cargo is conducted by Oil Industry Safety Directorate (OISD), and compliance to audit recommendations is ensured. Latest reports annual safety audits were not made available for review.</p> <p>Annual assessment of the existing ISO certification is conducted by third party to ensure the elements of the proposed scope of registration and the requirements of the management standard are effectively addressed.</p> <p>Reportedly, internal audits by trained auditors from JNPA are conducted on yearly basis. Audit report was not made available for review.</p> <p>Proposed</p> <p>Procedure on monitoring and reporting is yet to be developed by NSFTPL.</p> <p>NSFTPL will submit monthly progress report to independent engineer during both construction and operation phase as per the format included in the CA.</p>	<p>Monitoring and reporting procedure has not been developed</p>	<p>Commission an audit to verify the readiness of E&S plans, systems, and staff for construction and operation.</p> <p>Monitoring and reporting procedure to be developed. Internal audit / inspections to be undertaken at pre-defined frequency.</p> <p>Checklist for audits/ inspection to be prepared.</p> <p>External E&S consultant to be engaged to review E&S performance of the container terminal and compliance to ADB safeguards and CAP on periodic basis.</p> <p>Monitoring to be undertaken to evaluate that corrective actions are taken to address the gaps.</p> <p>E&S reports to be prepared at regular intervals (monthly) and on annual basis to measure EHS&S performance of the</p>

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	<p>monitoring reports on their implementation performance.</p> <p>Monitor and measure the progress of implementation of the EMP. The extent of monitoring activities will be commensurate with the project's risks and impacts. In addition to recording information to track performance, undertake inspections to verify compliance with the EMP and progress toward the expected outcomes.</p>	<p>costs of monitoring and reporting requirements.</p> <p>MARPOL Annex VI</p> <ul style="list-style-type: none"> An initial survey carried out before a new ship is put in service and before the International Energy Efficiency Certificate is issued. The survey shall verify that the ship's attained EEDI is in accordance with the requirements in chapter 4 of this Annex, and that the SEEMP required by regulation 26 of this Annex is on board A ship, when in a port or an offshore terminal under the jurisdiction of another Party, is subject to inspection by officers duly authorized by such Party concerning operational requirements under this Annex, where there are clear grounds for believing that the master or crew are not familiar with essential shipboard procedures relating to the prevention of air pollution from ships 	<p>Reportedly, JM Baxi and CMA conduct annual environmental monitoring at all their terminals in compliance to the requirements of the NOC from Pollution Control Board. Corporate safety audits (internals) are undertaken on annual basis and daily checkup are conducted by safety officers which are recorded and submitted to Head of Departments and Terminal Head.</p> <p>Also, third party audits are conducted by external agency for ISO certifications.</p> <p>Currently only HR and IR (Industrial relations) is being monitored by JM Baxi which largely includes the monitoring of compliance of applicable labor laws</p>		<p>terminal with respect to the requirements of this CAP, ESMS, HR MS, ESMP, climate change vulnerability assessment, and subplans.</p> <p>E&S performance report of the terminal to be submitted to ADB, as required, on annual basis using a template that will be agreed prior to signing</p> <p>Social performance which includes labor, information disclosure, stakeholder engagement grievance (direct staff, subcontracted workers and external stakeholder) gender and CSR should be monitored on monthly basis.</p>
9	<p>Pollution Prevention and Abatement</p> <p>Application of pollution prevention and control technologies and practices consistent with international good practice, as reflected in internationally recognized standards such as the World Bank Group's Environment, Health and Safety Guidelines, throughout the project cycle. These standards contain performance levels and measures that are normally acceptable and applicable to projects.</p> <p>Avoidance, or where avoidance is impossible, minimization or control of the intensity or load of pollutant emission and discharge. When the project has the potential to</p>	<p>Legal Obligations</p> <ul style="list-style-type: none"> The Air (Prevention and Control of Pollution) Act 1981 The Water (Prevention and Control of Pollution) Act, 1974 The Noise Pollution (Regulation and Control) Rules, 2000 <p>MARPOL Annex VI</p> <ul style="list-style-type: none"> The Administration of a Party may allow any fitting, material, appliance or apparatus to be fitted in a ship or other procedures, alternative fuel oils, or compliance methods used as an alternative to those required by this Annex if such 	<p>Existing</p> <p>JNPA has obtained CTO from MPCB dated 19/03/2021 which is valid till 30/09/2025. As mentioned, before it is a combined permit for JNPCT and shallow berth terminal (located adjacent to JNPCT). CTO is required to be amended as per the proposed construction and to be specifically for JNPCT.</p> <p>Air Emission</p> <p>Source of air emission at JNPCT are diesel sets (Two (02) DG sets of 1000 kVA and two (02) DG sets of 1500 kVA). Stack height of D.G. set of capacity 1000kVA and 1500 kVA was 10 m and 30 m respectively (as per stack emission report), was found to be adequate as per CPCB guidelines (national) and meet GIIP.</p> <p>Ambient Air Quality (AAQ) monitoring</p> <p>JNPA has nominated IIT Madras for monitoring AAQ and total of 9 fixed locations have been selected as per CBCB guidelines. Environmental Monitoring Plan of JNPA indicates that air monitoring locations are selected in port and outside including nearby residential and eco-sensitive areas. Locations of stations are selected to get representative data. Samples from port industrial activity, traffic movement, developmental activities, residential, archeological sites are being collected.</p>	<p>Pollution prevention and abatement plan is yet to be developed.</p>	<p>It is to be ensured that CTO is amended before start of expansion/ construction / operation activity and all the conditions to be complied with.</p> <p>Environment Statement in Form V to be submitted to MPCB on annual basis as per the terms & conditions of the CTO.</p> <p>Pollution prevention and abatement plan to be developed, considering construction and operation activity to run in parallel for initial 18 months.</p> <p>AAQ and noise quality to be monitored during construction phase and it is to be ensured to be within the prescribed standards of NAAQS and IFC/WB EHS Guidelines.</p> <p>D.G. sets installed within JNPCT to be maintained at regular intervals and PUC of the vehicles entering the terminal to be checked.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	constitute a significant source of emissions in an already degraded area, strategies that help improve ambient conditions, such as evaluating alternative project locations and considering emissions offsets, will be introduced.	<p>fitting, material, appliance or apparatus or other procedures, alternative fuel oils, or compliance methods are at least as effective in terms of emissions reductions as those required by this Annex, including any of the standards set forth in regulations 13 and 14</p> <ul style="list-style-type: none"> An International Air Pollution Prevention (IAPP) Certificate shall be issued, after an initial or renewal survey in accordance with the provisions of regulation 5 of this Annex, to: <ul style="list-style-type: none"> any ship of 400 gross tonnage and above engaged in voyages to ports or offshore terminals under the jurisdiction of other Parties; and platforms and drilling rigs engaged in voyages to waters under the sovereignty or jurisdiction of other Parties. <p><u>IFC EHS Guidelines for Ports, Harbours and Terminals</u></p> <ul style="list-style-type: none"> Validate ship engine performance documentation and certification to ensure compliance with combustion emissions specifications (including NOx, SOx, and PM), within the limits established by international regulations Where practicable, design port layouts and facilities to minimize travel distances and 	<p>The 24-hour average concentrations of PM10, PM2.5, SO2, NO2, CO, NH3, O3, Pb, As, Ni, C6H6 are monitored on monthly basis. Review of annual ambient air monitoring report indicated that PM 10 and PM 2.5 levels at all the locations exceeded the annual NAAQS standards of 60 µg/m³ and 40 µg/m³ and annual ambient air quality guidelines of 20 µg/m³ and 10 µg/m³ and interim targets as per IFC/WB EHS guidelines As per the monitoring report, the higher concentrations of particulate matter was attributed to the fact that construction activities was undertaken at the port during the monitoring period which resulted in increase in dust particles in ambient air. Other parameters were observed to be within the NAAQS and IFC/WB EHS guidelines permissible limit.</p> <p><u>Continuous Ambient Air Quality Monitoring</u></p> <p>In addition to the above-mentioned monitoring, real time continuous ambient air quality monitor has been installed at Port Operation Centre (POC). It monitors PM10, PM2.5, SO2, NO2, NH3, O3, CO, C6H6, C7H8, NO and NOx.</p> <p>Review of annual average real time continuous ambient air quality monitoring indicated that PM10 and PM 2.5 levels exceeded the annual NAAQS standards of 60 µg/m³ and 40 µg/m³ and annual ambient air quality guidelines of 20 µg/m³ and 10 µg/m³ and interim targets as per IFC/WB EHS guidelines at all the locations. Other parameters were observed to be within the NAAQS permissible limit.</p> <p><u>Sensor Based Continuous Monitoring</u></p> <p>Sensor based Air Quality monitoring was carried out at three stations i.e., in and around Port Operations, Residential Area and Administration Building during April, 2021 to March, 2022. Parameters such as PM 10, PM 2.5, CO, temperature and humidity was monitored as part of the continuous monitoring.</p> <p>Review of the annual average sensor based continuous monitoring indicated that the levels of PM 10 and PM2.5 exceeded the annual NAAQS level of 60 µg/m³ and 40 µg/m³ and annual ambient air quality guidelines of 20 µg/m³ and 10 µg/m³ and interim targets as per IFC/WB EHS guidelines at all the three locations.</p> <p><u>Meteorological Data Monitoring</u></p> <p>Microprocessor based automatic weather station has also been installed at POC station for collection of meteorological data including parameters like wind speed and direction, relative humidity and temperature, solar radiation, and rainfall.</p> <p><u>Stack Emission Monitoring</u></p> <p>Stack emission monitoring for stacks attached to RTG, eRTGC engines and D.G. sets installed for power back within the port premises is undertaken through third party environmental laboratory, M/s Mahabal Enviro Engineers Pvt. Ltd. Review of the test reports dated October 2021 shows that value of SO₂ exceeded the permissible limits as per CPCB for many samples and NOx exceeded for almost all the samples.</p> <p>As reported, in accordance with Maritime India Vision 2030, JNPA has identified few initiatives to improve air quality. These includes:</p> <ul style="list-style-type: none"> Feasibility of exploring bio-diesel for RTGs is being explored. JNPA has already hired 09 nos. electrically operated light motor vehicles for internal movement Real time continuous AAQ monitoring has been commissioned <p>Noise Emissions</p> <p>Source of noise emission at JNPCT include operation of D.G. sets & other equipment and vehicular movement. D.G. sets are installed within designated D.G. room. As</p>		<p>NSFTPL to ensure compliance with the CPCB and WB EHS standards, whichever is more stringent.</p> <p>Develop and implement Standard Operating Procedures (SOPs) compliant with the reference framework, and where applicable MARPOL requirements, and training of staff.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		<p>transfer points, for example from ships' off-loading and on-loading facilities to storage areas, and to avoid/minimize re-storage and re-shuffling of cargo</p> <ul style="list-style-type: none"> Maintain cargo transfer equipment (e.g., cranes, forklifts, and trucks) in good working condition to reduce air emissions. 	<p>reported D.G. sets are used only in case of power failure which is very rare. One D.G. set is installed with each crane.</p> <p>Noise Monitoring</p> <p>Review of annual monitoring report shows that during April 2021 to March 2022, noise level monitoring was carried out at twelve stations, in and around port operations and storage centers. The data for hourly values of Leq were recorded over 24 hours. The frequency of monitoring is once in 6 months as per approved EMP.</p> <p>Annual day & night-time average Leq values were recorded for 12 identified locations in the port area at 24-hour interval shows that overall average Ambient Noise Quality level is within the prescribed standards as per IFC/WB EHS Guidelines and NAAQS standards for industrial area for day and night monitoring respectively.</p> <p>Proposed</p> <p>As understood, JNPA will conduct environmental monitoring at the port including JNPCT after handing over the terminal to NSFTPL. NSFTPL will be responsible for pollution prevention after handover. Emission monitoring of cargo handling equipment and tractor trailers to be undertaken on quarterly basis and PUC of all the vehicles within the terminal will be checked on six monthly basis as per the requirement of the concessionaire agreement.</p> <p>Pollution prevention and abatement plan is yet to be developed.</p> <p>Details of impacts due to construction and operation of the Project will be covered in IESE.</p>		
10	<p>Resource Conservation and Energy Efficiency</p> <p>Incorporation in operations of resource conservation and energy efficiency measures consistent with the principles of cleaner production.</p>	<p>Legal Obligations</p> <ul style="list-style-type: none"> The Air (Prevention and Control of Pollution) Act 1981 The Water (Prevention and Control of Pollution) Act, 1974 The Noise Pollution (Regulation and Control) Rules, 2000 <p>MARPOL Annex VI</p> <ul style="list-style-type: none"> Any port State inspection may verify, when appropriate, that there is a valid Statement of Compliance related to fuel oil consumption reporting and operational carbon intensity rating, an International Energy Efficiency Certificate and a Ship Energy Efficiency Management Plan on board. <p><u>IFC EHS Guidelines on Ports, Harbours and Terminals</u></p> <ul style="list-style-type: none"> Where practicable, upgrade land vehicle and equipment 	<p>Existing</p> <p>The port has also taken up various initiatives towards the goal of being deemed as a Green Port. Some of the initiatives includes:</p> <ul style="list-style-type: none"> Switched from diesel to electrically powered e-RTGCs which also help in cost saving Inter-Terminal Transfer (ITT) of tractor-trailers Use of nine number of e vehicles inside the port area <p>JNPA don't estimates GHG emissions form its operations. Also, JN port is rail linked and has reduced the carbon footprint significantly.</p> <p>Proposed</p> <p>Reportedly, NSFTPL has plans to convert all diesel RTGs used within JNPCT to electrical driven RTGs. Solar panels will be installed on roof of buildings (~400 Kw capacity) and wherever feasible and energy conservation measures like installation of LED lights, will be implemented by NSFTPL. As reported, Project SPV will calculate GHG emissions from its operations.</p> <p>Measures will be taken to control water consumption and save freshwater requirement. Water audit will be undertaken and necessary actions on recommendations will be taken by the management.</p> <p>NSFTPL also plans to conduct energy audit and take steps for effective energy management.</p> <p>Details on source of solar panels is yet to be finalized. It is understood that ADB won't be funding installation of rooftop solar panels proposed to be installed in the terminal.</p>	<p>Resource conservation and energy efficiency plan is yet to be developed by NSFTPL</p>	<p>NSFTPL to develop resource conservation and energy efficiency plan. It is to be ensured that all efforts to be taken to reduce carbon footprint by conversion of diesel RTGs to electrical driven RTGs and installation of solar panels within the terminal.</p> <p>GHG emissions from the terminal operations to be calculated and disclosed.</p> <p>Water conservation measures to be identified and implemented.</p> <p>Water and energy consumption records to be maintained and audit (water & energy) by external agency to be conducted and effective measures to be taken to reduce water and energy consumption at JNPCT.</p> <p>Procedure on identification of supply chain risks to be established and it is to be ensured that suppliers are evaluated to ensure that no E&S risks are associated with the supply chain (including forced labor risks associated the solar panels) which may result in reputational risk in future.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		fleets with low emission vehicles, including use of alternative energy sources, and fuels/fuel mixtures (e.g., vehicle and equipment fleets powered by electricity or compressed natural gas, hybrid locomotives, etc.)			
11	Water Resources Management	<p><u>IFC EHS Guidelines on Ports, Harbors and Terminals</u></p> <ul style="list-style-type: none"> Port operators should provide collection, storage, and transfer and/or treatment services, and facilities of sufficient capacity and type for all wastewater generated by vessels at the port in accordance with MARPOL and national regulations. Ports should provide ship operators with details on the pertaining ballast water management requirements, including the availability, location, and capacities of reception facilities, as well as with information on local areas and situations where ballast water uptake should be avoided.³ 	<p>Source of water at JNPCT is piped water supply from Maharashtra Jeevan Pradhikarn (MJP) and City and Industrial Development Corporation of Maharashtra Limited (CIDCO). Water is used for domestic purpose, firefighting and landscaping. Sewage generated from the site is disposed through septic tank which is cleaned at regular intervals. Generation of trade effluent is nil.</p> <p>At present, stormwater from the terminal is collected through storm water drains present within the premises and is discharged into sea by JNPA.</p> <p>Reportedly, all ships bound for JNPA Port Terminals are registered in Swach Sager Portal and Port reception facility is being provided on request. Port facilitates disposal of sewage from the vessels on request from these vessels, through a third party agency. Crew is not allowed to disembark from the vessels harboring at the terminals.</p> <p>As reported, discharge of ballast water from the harbored vessels is not in control of JNPA and is not being monitored. JNPA also does not handle bilge water and does not provide facility for vessel cleaning, hence wastewater from vessel cleaning is also not applicable for terminal operations.</p> <p>Water Quality Monitoring</p> <p>Marine water quality is being monitored on monthly basis at total 10 locations to study physico-chemical, biological, ecological and sediment characteristics. Review of annual monitoring report (April 2021 – March 2022) shows that all the parameters are well within the prescribed standard limits for Primary Water Quality Criteria for Class IV Waters [for Harbour Waters] by CPCB for physico-chemical parameters and biochemical parameters. As per National Sanitation Foundation - Water Quality Index (NSFWQI) estimation, the overall quality of port's water is in good category.</p> <p>Drinking water quality is being monitored at 22 end user points in and around the port area. It is carried out as per IS 10500:2012: Drinking water – Specification, on monthly basis. As indicated in annual monitoring report, water was safe for human consumption at all the locations monitored.</p> <p>Proposed</p> <p>As reported, NSFTPL plans to install Sewage Treatment Plant (STP) of adequate capacity for treatment of sewage generated at Site. Also treated water from STP will be used for flushing purposes (if feasible) and landscaping purposes. Capacity and technology of STP and location for installation is yet to be finalized. Also, as reported rainwater/roof water harvesting will be explored during detailed engineering.</p> <p>NSFTPL will be responsible for management of water and wastewater at JNPCT after hand over. However, water and wastewater management plan is yet to be developed. Terminal has storm water drains and storm water will be discharged in the sea.</p>	NSFTPL is yet to develop water and wastewater management plan	<p>Water and wastewater management plan to be developed.</p> <p>STP of adequate capacity to be installed and amended CTO to include accurate capacity of STP. Treated sewage to be recycled for secondary purposes. Treated sewage to be monitored to ensure it is well within the prescribed standards.</p> <p>Marine water quality to be monitored during construction phase and it is to be ensured that water quality is not compromised, and all the parameters are well within the prescribed standards.</p> <p>Storm water drains to have oil - water separator and it is to be ensured that contaminated water is not discharged into the sea. Oil-water separators to be regularly monitored.</p>

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			Marine water quality and drinking water quality will be undertaken, as per current plan, by IIT Madras.		
12	Biodiversity Conservation and Natural Resource Management	<p>Legal Obligation</p> <ul style="list-style-type: none"> Wildlife (Protection) Act, 1972 	<p>JNPA has nominated IIT Madras for marine ecosystem monitoring. The marine ecosystem is being monitored on monthly basis at total 10 locations. The review of annual monitoring report (April 2021 – March 2022) shows the following results,</p> <p>Aquatic Flora The aquatic flora was assessed in the form of Chlorophyll-a and algal biomass. The annual mean concentration of Chlorophyll-a and algal biomass was recorded as 0.64 mg m⁻³ and 42.76 mg m⁻³ respectively at the port.</p> <p>Phytoplankton Total 34 genera of phytoplankton were recorded at the port during April, 2021 to March, 2022. The minimum number of phytoplankton (58910 no l⁻¹) were observed in March, 2022; while the maximum (150509 no l⁻¹) in July, 2021. The dominant species of the study area were, <i>Bidulphia</i> sp., <i>Coscinodiscus</i> sp., <i>Skeletonema</i> sp., <i>Melosira</i> sp., <i>Hemidiscus</i> sp., <i>Pleurosigma</i> sp., <i>Pseudonitzschia</i> sp., <i>Cyclotella</i> sp., <i>Thalassiosira</i> sp., <i>Rhizosolenia</i> sp. and <i>Thalassionema</i> sp. The annual mean count of phytoplankton was calculated as 2997 no ml⁻¹.</p> <p>Zooplankton Total 29 genera of zooplankton were recorded at the port during April, 2021 to March, 2022. The number of zooplankton count varied from 21357 no l⁻¹ to 50457 no l⁻¹. Among the zooplanktons, class Copepoda represented by species represented by <i>Paracalanus indicus</i> as dominant species followed by other copepods, <i>Acetus indicus</i>, nauplia, rotifers, <i>Favela</i> sp., <i>Calanus indicus</i>, <i>Tintinopsis tocanthensis</i> and <i>Tintinopsis orientalis</i>. The annual mean count of zooplankton was recorded to be 31918 no l⁻¹.</p> <p>Benthos Total 17 genera of benthos were recorded at the port during April, 2021 to March, 2022. The number of benthos count varied from 100 no m² to 415 no m². Polychaete is the dominant group of benthos followed by Pelecypods. Polychaete is further represented by five families such as Nereidae, Spionidae, Nephtyidae, Magelonidae. The annual mean count of benthic fauna was recorded as 25 no m².</p> <p>Consultations Consultation with the JNPA officials and local communities, indicates the presence of lesser avifaunal, fish, and mammal species from the study area. An Initial Environment and Social Examination (IESE) study is being undertaken for the proposed project, and such details will be part of the IESE report.</p> <p>Potential Impacts The potential impacts on the ecology due to the project activities have been identified as,</p> <ul style="list-style-type: none"> Impacts on benthos due to the dredging activities. Impacts on planktons and larger marine fauna due to the variations in water quality (turbidity, suspended solids, dissolve oxygen, nutrient content, oil spill, noise (surface/underwater), etc.). Impact on mangroves due to the oil spill and other anthropogenic activities. Impacts on wildlife due to the increased road transportation. 	<p>No recent records about the terrestrial plants and faunal species (amphibians, reptiles, birds, and mammals) were available.</p> <p>The only available information is the Environmental Impact Assessment (EIA) report of the port dated November 1981, which is too old to consider.</p> <p>Biodiversity Management Plan (as mentioned in the “Environmental and CRZ clearance of Deeping & widening of channel”) is not available.</p> <p>Periodic and Time Series assessment of Terrestrial and aquatic ecosystem (as mentioned in the Environmental Management and Monitoring Plan) is partially covered in the shared Annual Environmental Monitoring Report.</p>	<p>The mitigation measures to be suggested in the Initial Environment and Social Examination (IESE) should be implemented.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
			An Initial Environment and Social Examination (IESE) is in progress and details of potential impacts of the project on the ecology along with the mitigation measures for reducing the magnitude of impacts will be available in that report.		
13	<p>Hazardous Materials</p> <p>Avoidance of the manufacture, trade, and use of hazardous substances and materials subject to international bans or phaseouts because of their high toxicity to living organisms, environmental persistence, potential for bioaccumulation, or potential for depletion of the ozone layer and will consider the use of less hazardous substitutes for such chemicals and materials. Including pesticide use and management.</p>	<p>Legal Obligations</p> <ul style="list-style-type: none"> Manufacture, Storage and import of Hazardous Chemical Rules, 1989. <p>MARPOL Annex VI</p> <ul style="list-style-type: none"> Each Party shall take all reasonable steps to promote the availability of fuel oils that comply with this Annex and inform the Organization of the availability of compliant fuel oils in its ports and terminals. <p><u>IFC EHS Guidelines on Ports, Harbours and Terminals</u></p> <ul style="list-style-type: none"> Oil and chemical-handling facilities in ports should be located with consideration of natural drainage systems and the presence of environmentally-sensitive areas/receptors (e.g., mangroves, corals, aquaculture projects, and beaches, etc.). Siting of these facilities should include provisions for physical separation/distance to avoid and minimize adverse impacts. Hazardous materials storage and handling facilities should be constructed away from traffic zones and should include protective mechanisms (e.g., reinforced posts, concrete barriers, etc.) to protect storage areas from vehicle accidents. Ports should include secondary containment for above ground liquid storage tanks and tanker 	<p>Existing</p> <p>Jawaharlal Nehru Port Authority has been notified by Ministry of Ports, Shipping and Waterways in 2007 (notification No. G.S.R. 2009 (E)) for handling of dangerous goods (arrival, receipt, transport and storage) for International Maritime Dangerous Goods (IMDG) class explosives of classification 2 to 9. For handling IMDG class 6 and 7, a requisite permission needs to be obtained from Port for compliance of requisite SOPs. Container berth No. 1 (JNPCT) has been notified by Minister of Defence for handling their own explosives (IMDG class 1.1 and 1.2) under the supervision of Naval Armament Depot (NAD) Karanja. Recently JNPA has been notified by Petroleum and Explosives Safety Organizations for handling (for export) IMDG class 1.4S explosives (via notification dated 14th June 2022) at container berth No.1 and 6.</p> <p>JNPA has constructed hazardous bund to handle oil spill of dangerous goods. It is also equipped with oil spill dispersant, saw dust, skimmer, booms (containing the oil spill), different size of absorbents and pads etc. and relevant material for combating the Oil spill in a sea of minor in nature. The minor oil spill in a sea is arrested by the tugs equipped with OSD and its mechanism while major oil spill is handled by M/s. Sadhav Shipping.</p> <p>Reportedly, disposal of oily waste and bulk noxious liquid substances from vessels is facilitated by JNPA through MPCB authorized recyclers/ re-processors.</p> <p>Currently JNPCT does not have hazardous bund to capture any leaks or spillages from the containers, however, it is proposed to be constructed. Hazardous bund available with JNPA is at a distance of more than 500 m from JNPCT site.</p> <p>During site visit to the JNPCT, storage of cargo based on compatibility was not observed. As discussed with JM Baxi (QHSE General Manager), Project SPV will have SOP on handling and storage of cargo based on compatibility.</p> <p>Dedicated area for storage of hazardous cargo was not observed. Hazardous and nonhazardous cargo were observed stored together. Also warning signs were not observed to be displayed at the required locations.</p> <p>Signs of spillage were observed in the workshop present within the JNPCT premises; it was further observed that the area lacked oil/water separators.</p> <p>Proposed</p> <p>SOP on handling of all type of containers (inclusive of hazardous, explosives, etc.) to be developed.</p> <p>Any kind of repair and maintenance and refueling area for the ships/ vessels is not existing and will not be provided by the terminal.</p>	<p>There is no dedicated SOP on handling and storage of different type of cargo.</p> <p>JNPCT currently does not have a separate storage area for hazardous containers. As observed, hazardous and non-hazardous containers were stacked together in the yard.</p> <p>There is no dedicated Hazardous bund for JNPCT to manage hazardous chemicals in case of leakage or spills from containers.</p> <p>There is no provision of oil/water separators at JNPCT</p> <p>Adequate warning signs were not observed to be displayed at JNPCT.</p>	<p>SOP on handling of all type of containers (inclusive of hazardous, explosives, flammable substances, poisonous or toxic substances, infectious substances, corrosive substance & combustible substances) to be developed. It is to be ensured that all the SOPs should be compliant with the reference framework.</p> <p>Protocol of government and JNPA to be followed for handling of explosives, radioactive & other hazardous /dangerous goods. Staff to be adequately trained on handling and storage of different types of cargos.</p> <p>SOP on handling of spills from containers to be developed and JNPCT to be equipped with spill control kits.</p> <p>Hazardous bund to be constructed on priority within the premises and tie up with nearby Common Hazardous Waste Treatment Storage & Disposal facility, namely Mumbai Waste Management Limited (MWML) for handling leaked containers to be undertaken.</p> <p>Hazardous and nonhazardous containers should not be stored together. Designated storage area for hazardous and nonhazardous containers should be developed at the container yard.</p> <p>Storage of containers to be based on compatibility.</p> <p>Workshop to be equipped with oil/ water separators to make water safe to be discharged into storm water drains.</p> <p>Appropriate sign boards to be displayed within JNPCT.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		truck loading and unloading areas			
14	<p>Waste Management</p> <p>Avoidance, or where avoidance is not possible, minimization or control of the generation of hazardous and non-hazardous wastes and the release of hazardous materials resulting from project activities.</p> <p>Where waste cannot be recovered or reused, it will be treated, destroyed, and disposed of in an environmentally sound manner. If the generated waste is considered hazardous, the client will explore reasonable alternatives for its environmentally sound disposal considering the limitations applicable to its transboundary movement.</p> <p>When waste disposal is conducted by third parties, use contractors that are reputable and legitimate enterprises licensed by the relevant regulatory agencies.</p>	<p>Legal Obligations</p> <ul style="list-style-type: none"> Hazardous and other Wastes (Management & Transboundary Movement) Rules, 2016 Solid Waste Management Rules, 2016 E-Waste Management Rules, 2016 Construction and Demolition Waste Rules, 2016 Plastic Waste Management Rules, 2016 <p><u>IFC EHS Guidelines on Ports, Harbours and Terminals</u></p> <p>Discharge of solid waste from vessels should be prohibited while in port in accordance with MARPOL and national regulations; A collection and disposal system should be developed for ship-generated garbage for ships alongside and at anchor, consistent with the International Maritime Organization (IMO) Comprehensive Manual on Port Reception Facilities</p>	<p>Existing</p> <p>Type of waste being generated at JNPCT includes nonhazardous and hazardous waste. Municipal solid waste is collected and is disposed to solid waste facility of JNPA. JNPA facilitates disposal of solid waste/ garbage from vessels. It is collected and sent to the solid waste management facility of JNPA.</p> <p>Hazardous waste generation from JNPCT includes waste/ used oil from D.G. sets, equipment maintenance activity and oil-soaked cotton waste. As reported hazardous waste is disposed of through MPCB authorized vendor namely Mumbai Waste Management Limited (MWML).</p> <p>Dedicated space for storage of solid waste and hazardous waste was not observed within the premises of JNPCT.</p> <p>Material potentially containing asbestos was not observed by E&S advisor during site visit none was reported by the site representative.</p> <p>Proposed</p> <p>Going forward, NSFTPL will be responsible for management of solid waste (both hazardous and non-hazardous) generated within JNPCT. Waste management plan of NSFTPL is yet to be developed. In discussion with NSFTPL it was noted that existing waste management facility of JNPA will be used for disposal of solid waste generated from JNPCT. Scrap expected to be generated in the crane wire ropes, tires, etc. will be disposed through authorized scrap dealer. Batteries will be purchased on buy back arrangement. Also, hazardous waste will be disposed of through MPCB authorized vendor as per applicable hazardous waste rules. Construction and demolition waste will be disposed of as per Construction and Demolition Waste Rules, 2016.</p> <p>As discussed with NSFTPL, dredging for the proposed expansion/ upgradation will not be required.</p> <p>Since JNPA facilitates disposal of solid waste/ garbage from vessels on request, terminal will continue facilitation and will collect the garbage (on request) through authorized third party and sent to the solid waste management facility of JNPA.</p>	<p>Waste management plan is yet to be developed, also space for storage of solid waste and hazardous waste has not been demarcated.</p>	<p>Waste management plan (as part of ESMS) to be developed for both management of waste generation during construction and operation phase. Management of waste to be as per the applicable rules.</p> <p>JNPCT to have a dedicated waste storage area for storage of different types of waste – municipal solid waste, scrap waste, hazardous waste, batteries, etc.</p> <p>Hazardous waste to be stored on paved surface and equipped with secondary containment as per hazardous waste rules. It is to be ensured that hazardous waste to be disposed of within 90 days through MPCB authorized vendor.</p> <p>Records of hazardous waste generation to be maintained and annual return to be filled.</p> <p>NSFTPL to develop SOP on handling of garbage (on request) from the vessels.</p>
15	<p>Climate Change Risk</p>	<p><u>IFC EHS Guidelines on Ports, Harbours and Terminals</u></p> <p>1. Port and terminal facilities are vulnerable to the direct and indirect impacts of climate change. Given these risks, projected future climate change-related impacts and the development of adaptation measures to enhance resilience should be assessed in the design phase of new port projects (and significant port expansions), to allow for the identification,</p>	<p>Review of aqueduct’s riverine flood risk map prepared by World Resources Institute (WRI) in collaboration with several research partners indicates that riverine flood risk at JNPCT is extremely high. Furthermore, as per the WRI map for coastal flood risk, JNPCT is located in high to extremely high-risk zone. Review of flood risk scenario for 2030 indicated flood magnitude (return period in years) of 10 and inundation depth of 10 to 20 decimeter.</p> <p>As discussed with JNPA representative, any rise in sea water level has not been noticed since operation. It was reported that the Jetty is located at a height of 7.1 m from the sea level. It was further reported that there have been no incidents of coastal flood in the port due to rise in sea level in the past. As reported, recognizing the need to limit global warming, JNPA is working to lower its greenhouse gas emissions and transitioning to a low-carbon economy by:</p> <ul style="list-style-type: none"> pursuing energy management strategies to bring about efficiencies in its operations and energy use deploying energy-saving and enhancement techniques across its assets, infrastructure, and operations 	<p>Risk screening pertaining to cyclones is not available</p>	<p>Risk screening pertaining to cyclones and their frequencies in next 30-50 years need to be undertaken</p> <p>IESE to assess future scenario of sea level rise, rainfall pattern and frequency of cyclones and provide recommendations accordingly.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		<p>analysis, and evaluation of climate change vulnerabilities and risks as part of the consideration of project alternatives, design, and siting.</p> <p>2. In addition, changing climate conditions should be evaluated on a regular basis during the operational phase of port projects.</p>	<p>Based on 10 years data from IMD (1891 to 1994), it is observed that there has been 15 events of cyclonic storms and 32 events of depressions.</p> <ul style="list-style-type: none"> • 6 (3 depressions and 3 severe cyclonic storms) in April & May • 18 (13 depressions, 2 cyclonic storms and 3 severe cyclonic storms) in June & September • 23 (16 depressions, 3 cyclonic storms and 4 severe cyclonic storms) in October & November <p>Recent studies suggests that there is an increase in frequency of cyclonic storms in recent years driven by rise in sea level temperature. Therefore, risk screening pertaining to cyclones and their frequencies in next 30-50 years need to be undertaken.</p>		
16	<p>Occupational Health and Safety (OHS)</p> <p>Application of preventive and protective measures consistent with international good practice.</p> <p>Provision of safe and healthy working environment to workers, taking into account risks inherent to the particular sector and specific classes of hazards in the work areas, including physical, chemical, biological, and radiological hazards. Prevent accidents, injury, and disease arising from, associated with, or occurring during the course of work by (i) identifying and minimizing, so far as reasonably practicable, the causes of potential hazards to workers; (ii) providing preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) providing appropriate equipment to minimize risks and requiring and enforcing its use; (iv) training workers and providing them with appropriate incentives to use and comply with health and safety procedures and protective equipment; (v) documenting and reporting occupational accidents, diseases, and incidents; and (vi) having emergency prevention, preparedness, and response arrangements in place.</p>	<p>The Dock Workers (Safety, Health & Welfare) Regulation, 1990 in pursuance of Section 22 of The Dock Workers (Safety, Health & Welfare) Act, 1986</p> <p><u>IFC EHS Guidelines on Ports Harbours and Terminals</u></p> <ul style="list-style-type: none"> • Port operation activities should be conducted in accordance with applicable international regulations and standards, including: <ul style="list-style-type: none"> ○ International Labour Organization (ILO) Code of Practice for Safety and Health in Ports (2005); ○ General Conference of the International ILO Convention concerning Occupational Safety and Health in Dock Work, C-152, (1979); ○ General Conference of the ILO Recommendation concerning Occupational Safety and Health in Dock Work, R-160; ○ IMO Code of Practice for Solid 	<p>Existing</p> <p>JNPA has developed incident investigation system and keep record/ track of incident/accidents. Reportedly all fatal accidents and incidents of serious nature are investigated, and preventive/corrective measures and recommendations are provided to avoid occurrence of similar incidents in the future. As per the sustainability report for 2020-21, 4 fatal incidents were reported in the year however none was not reported to be at JNPCT. Incident investigation reports were not made available for review.</p> <p>Safety committee has been established by JNPA comprising of heads of all the departments, representatives from inspectorate dock safety, unions, private terminals, Central Industrial Security Force (CISF). As reported safety committee meeting is held on quarterly basis and minutes of the meeting are circulated to the concerns sections, departments, terminals for its compliance in a time bound manner.</p> <p>Work permit system (cold work permit, hot work permit, confined space entry permit, working at height etc.) has been developed and implemented by JNPA. Sample permits were not available for review.</p> <p>As reported trainings pertaining to health, safety and environment is imparted to employees as well as contract workers on regular basis and as and when need arises. Besides on job training is also provided to the employees for enhancement of safety at workplace. Training on safe driving and other H&S related aspects is also provided to truck drivers.</p> <p>It was noted that, after handover, all the representative from NSFTPL will also be member of the safety committee of JNPA. All the major accidents or dangerous occurrences will have to be reported to JNPA in Form 12.</p> <p>Reportedly, all the government guidelines related to COVID 19 were followed. Also, JNPT hospital provided facility to covid testing and treatment of people infected with COVID 19. This facility was not only limited to the JNPT staff but also to the surrounding community.</p> <p>Lighting and illumination was observed to be adequate. As reported lighting provided is as per the dock safety regulations and lux level is regularly monitored and illumination (lux) level reports are maintained.</p> <p>Proposed</p> <p>Occupational Health & Safety Manual which will be implemented going forward by NSFTPL at JNPCT is yet to be developed. Reportedly, incident investigation system will be developed and accident/ incident register comprising of near miss, first aid, loss time injury, medical treatment injury, etc. will be maintained. Also, HSE committee</p>	<p>Occupational health & safety manual with relevant SOPs proposed to be implemented at JNPCT is yet to be developed.</p>	<p>Occupational health & safety manual, in line with the requirements of ADB and applicable WB EHS guidelines, to be developed and implemented on JNPCT.</p> <p>OHS manual should identify hazards/ risks associated with undertaking construction and operation activities in parallel and proposed control measures to eliminate, prevent and minimize the hazards/ risks. SOP to be developed in OHS manual to be in compliance with the following regulations:</p> <ul style="list-style-type: none"> • International Maritime Dangerous Goods Code (IMDG Code) • Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code) • International Code for the Safe Carriage of Grain in Bulk (International Grain Code) • IMO Code of Practice for Solid Bulk Cargo (BC Code) • General Conference of the ILO Recommendation concerning Occupational Safety and Health in Dock Work, R-160 • General Conference of the International ILO Convention concerning Occupational Safety and Health in Dock Work, C-152, (1979) • International Labour Organization (ILO) Code of Practice for Safety and Health in Ports (2005) <p>Safety committee to be established to focus on safety of the workplace (construction and operation phase).</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
		<ul style="list-style-type: none"> Bulk Cargo (BC Code); ○ International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk (IBC Code); ○ International Code for the Safe Carriage of Grain in Bulk (International Grain Code); ○ Code of Practice for the Safe Loading and Unloading of Bulk Carriers (BLU Code); and ○ International Maritime Dangerous Goods Code (IMDG Code). 	<p>will be established to discuss HSE related aspects and performance of JNPCT. Appropriate PPEs will be provided, training calendar will be developed and HSE training will be imparted to all direct and indirect staff. NSFTPL also propose to have ambulance facility, first aid kit, paramedical staff with JNPCT and tie up with nearby hospital to handle medical emergencies, if any.</p> <p>As reported NSFTPL plans to deploy 6 to 7 H&S officers with 1 officer per shift.</p> <p>Reportedly, sodium vapour lamps would be replaced by LED's and lux level assessment would be carried out to improve the illumination. Further electrical installations with JNPCT would depend on the detailed assessment of the Master Planning Consultant.</p> <p>As reported, as a practice SOP on COVID 19 has been developed at all the terminals. Other measures implemented by both the companies at other terminals includes health screening, training & awareness, isolation facility, tie up nearby hospitals, etc.</p>		<p>Safety committee to meet at regular intervals to discuss H&S related issues/ concerns and implementation of corrective action plan. MoM of the safety committee meetings to be documented.</p> <p>Accident/ incident investigation procedure to be developed. Accidents/ incidents comprising of near miss, first aid, fall, slip& trip, etc. to be recorded and root cause analysis to be undertaken.</p> <p>Work permit system to be developed and implemented.</p> <p>Training calendar to be developed and trainings to be imparted to all (direct and indirect staff). Records of training to be documented.</p> <p>Toolbox talks to be undertaken.</p> <p>H&S risks associated with all the proposed activities to be identified and appropriate PPEs to be provided to the staff.</p> <p>Machinery including cranes to be operated by trained and licensed operators and safety check to be carried out prior to start of operation.</p> <p>Tools & tackles to be inspected for integrity at regular intervals.</p> <p>JNPCT to have provision of first aid facilities and tie up nearby hospital to be done to tackle medical emergencies, if any.</p> <p>Emergency response plan to be prepared and mock drills to be undertaken.</p> <p>SOP on management of COVID 19 to be developed.</p>
17	<p>Community Health and Safety</p> <p>Identification and assessment of risks to, and potential impacts on, the safety of affected communities during the design, construction, operation, and decommissioning of the project, and will establish preventive measures and plans to address them in a manner commensurate with the identified</p>	<p><u>IFC EHS Guidelines on Ports Harbours and Terminals</u></p> <p>In accordance with applicable international legal requirements, port security arrangements (e.g., access control) may be established through the completion of a Port Facility</p>	<p>As observed during site visit, JNPCT is surrounded by NSICT towards the north, GTI towards south and rail yard towards east. Nearest habitation to JNPCT is Nhava village located at an aerial distance of ~ 1.5 km in north-east direction (refer Figure 2-1). As understood, JNPCT has separate internal roads for commuting to the terminal which is not used by the community. Therefore, during upgradation and operation of the JNPCT, no adverse impact on nearby community is anticipated. However, transportation of construction material during upgradation work through national/state highway/village road may have potential risk of accidents to the nearby community.</p>	<p>A traffic management plan as part of ESMS is yet to be developed for NSFTPL</p>	<p>A dedicated traffic management plan should be developed as part of the ESMS highlighting transportation route, speed limit of vehicles, training requirement on defensive driving etc.</p> <p>Also surrounding community including nearby container terminals to be educated on EPRP of JNPCT.</p> <p>Security Management Plan to be prepared and implemented and the</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	risks and impacts. These measures will favor the prevention or avoidance of risks and impacts over their minimization and reduction. Consideration will be given to potential exposure to both accidental and natural hazards, especially where the structural elements of the project are accessible to members of the affected community or where their failure could result in injury to the community. Avoidance and minimization of the exacerbation of impacts caused by natural hazards, such as landslides or floods, that could result from land use changes due to project activities.	Security Assessment of port operations followed by the appointment of a Port Facility Security Officer and the preparation of a Port Facility Security Plan, depending on the outcome of the risk assessment.	Further only authorized persons having valid permission can enter the terminal /port area such risk is not anticipated Site Security: The site security is carried out by trained professionals of CISF (Central Industrial Security Force) which a specialized security agency of Government of India, the sole objective of CISF is to provide security to large Industrial setup which includes major shipping ports India, further JNPA security arrangement is complying to ISPS (International Ship & Port facility security Code). NSFTPL shall abide by the security regulations/procedures as stipulated JNPA. Also, additional security within the terminal will be provided through authorized security agency.		plan should have policies against trespassing
18	Stakeholder Engagement Review stakeholder engagement and community consultations process undertaken (or ongoing). Review the process and record keeping of the consultation and grievance process and the information provided to affected landowners and land users (formal and informal), relevant NGOs/CSOs, relevant government offices, and other stakeholders. Identify stakeholder groups, including indigenous peoples, and assess adequacy of stakeholder engagement activities. Describe environmental concerns/issues by stakeholders and measures/ actions by the Company.	ADB's Safeguard Policy Statement requires ADB's borrowers/clients to carry out meaningful consultation processes in all projects financed by ADB.1 For policy application, ADB will require borrowers/clients to engage with communities, groups, or people affected by proposed projects, and with civil society through information disclosure, consultation, and informed participation in a manner commensurate with the risks to and impacts on affected communities. For projects with significant adverse environmental, involuntary resettlement, or Indigenous Peoples impacts, ADB project teams will participate in consultation activities to understand the concerns of affected people and ensure that such concerns are addressed in project design and safeguard plans.	Existing JNPA is having detailed stakeholder process where they engage with relevant stakeholders as per the stakeholder engagement plan (SEP). Details of JNPAs Stakeholder engagement process are given in section 4.1.3 of this report. Proposed As informed, JM Baxi is also having Stakeholder engagement process, reporting format of stakeholder engagement was shared for review. However, the detailed procedure for JM Baxi is not available for review. Further, as the proposed project is in the initial stages SEP is not prepared for NSFTPL.	SEP and GRM for NSFTPL is yet to be prepared	NSFTPL should prepare the detailed SEP for the entire life cycle for the project. SEP should identify each stakeholder group along with their stake and influence on the project and develop detailed engagement plan for each stakeholder group. And accordingly develop systems for reporting and documentation Develop policy towards information disclosures shall be aligned with ADBs access to information policy Develop mechanism of handling external grievances including reporting and tracking mechanism
19	External Communications and Grievance Mechanisms Ensure that relevant project information (whether positive or negative) about social and environmental safeguard issues is made available in a timely manner,	The ADB's Safeguard Policy Statement emphasizes requirements for establishing a grievance mechanism that receives and facilitates the resolution of affected people's concerns, complaints, and	Proposed As per the discussion with the project team and HR representative and review of available documents, it was understood that JM Baxi does not have a dedicated system for external communication and grievance management. Currently external communication is limited to annual ESG reporting. The ESG reporting is carried out annually to inform the achievements to the relevant stakeholders and the ESG report is available on their website. Reportedly as part of stakeholder engagement process specific activities were carried out to communicate with each stakeholder group. The	NSFTPL does not have a system of external communication and grievance management	NSFTPL should develop and establish a formal system for external communication and designate a staff /department to carry out external communication on regular basis and all the communications should be properly documented with the concerned department/person.

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	<p>in an accessible place, and in a form and language(s) understandable to affected people and to other stakeholders, including the general public, so they can provide meaningful inputs into project design and implementation</p> <p>Establishment and maintenance of a grievance redress mechanism to receive and facilitate resolution of affected peoples' concerns and grievances regarding the project's environmental, affected persons and Indigenous Peoples concerns.</p> <p>The grievance redress mechanism should be scaled to the risks and impacts of the project. It should address affected people's concerns and complaints promptly, using an understandable and transparent process that is gender responsive, culturally appropriate, and readily accessible to all segments of the affected people.</p> <p>Identify any outstanding grievances, court cases and legacy issues and current risks and impacts associated with environment and social issues, including land acquisition for the relevant assets.</p>	<p>grievances about a Project's environmental and social performance. The grievance mechanism should be scaled to Project risks and adverse impacts, address affected people's concerns and complaints promptly. It should also ensure the process is understandable and transparent, gender responsive, culturally appropriate and readily accessible to all segments of affected people. It should also not impede access to judicial or administrative remedies.</p>	<p>major stakeholder group consist of investors, employee, NGO, regulators and clients. Details of stakeholder engagement activity and frequency in given in section 4.2.7.</p> <p>Currently JM Baxi does not have a formal system for external grievance management however if someone has complaints, they can reach out to the project head or corporate office to resolve the complaints. And the community can reach out to the CSR team for potential grievances.</p>		<p>Develop and establish formal system for handling external grievances (GRM should include specific provisions customers, and general public and communities). All the grievances should be routed though GRM and grievances should be tracked for open, closed and pending as per the defined frequency and report should be updated on monthly basis.</p>
20	<p>Review of Land Acquisition and Resettlement Safeguards</p> <p>The process by which company carries out screening, selection and acquisition of land, valuation of land, compensation and support provided to landowners and other affected persons and assess if these meet the requirements of national laws and ADB SPS. Review payment of compensation and document current status of affected persons, including their livelihoods;</p>	<p>Right to Fair Compensation Act, 2013</p> <p>Land Acquisition Act, 1896 and its subsequent amendments</p> <p>ABD social safeguards policy SPS SR 2</p>	<p>The proposed project will be developed on 54.7 ha of the existing land of JNPT which will be handed over to the concessionaire for 30 years concession period. There will no additional land acquisition or leasing will be required for the proposed project. As per the review of the land acquisition process was it understood that land was acquired for JNPA in year 1984 by CIDCO and then handed over to JNPA for construction in 1989. As informed verbally that the due compensation for land and assets were paid for details ref section 2.12.3, however there are still pending land related legacies with respect to R&R of affected people, but as per concession agreement such land legacies do not have any obligation on the concessionaires and concessioner is indemnified of claims arising out of previous land acquisition.</p>	<p>Currently there are no gaps however at any point time during the life cycle of the project if there are adverse impacts with respect to IR corrective action shall be prepared and implement in line with ADB's social safeguards policies</p>	<p>As part of the concession agreement NSFTPL needs to give job preference (without relaxation in qualification) to the then project affected persons and ex-employees of JNPA¹²</p>

¹² The land for entire JNPA was acquired in year 1986 and due to land acquisition two villages Shewa and Human Koti was displaced and as per the R&R schemes PAPs (3524) have to be provided with employment opportunity at JNPA

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	<p>The process undertaken to procure or acquire the land for its facilities and/or activities (whether permanent or temporary), and evaluate its compliance with national laws and regulations and consistency with ADB SPS requirements;</p> <p>How the project dealt with informal settlers and users of impacted land areas, assets, or project sites; measures adopted to avoid, and where avoidance is not possible, minimize, mitigate, and/or compensate for adverse impacts</p> <p>Consider Project Design/Siting; Land Ownership; Acquisition Process; Consultation and Grievance Mechanism; Resettlement Planning and Implementation; Physical Displacement and Economic Displacement; Compensation and Benefits for Displaced Persons; Private Sector Responsibilities under Government-Managed Resettlement.</p>				
21	<p>Review of Indigenous Peoples Safeguards</p> <p>Confirm that construction and operations of projects did/would not entail any impacts on indigenous peoples or ethnic minorities.</p> <p>Confirm presence and impacts, particularly if any Indigenous Peoples were affected by land acquisition or involuntary resettlement, and procurement activities); Avoidance of Adverse Impacts; Meaningful Consultation and Informed Participation; Free, prior and informed consent of Indigenous Peoples communities (as required for projects involving relocation of Indigenous Peoples or commercial use of intellectual property of Indigenous Peoples or commercial use of natural resources, customary/ ancestral/ traditional lands under use by IP</p>	<p>Legal Obligations: The Scheduled castes and the Scheduled Tribes (prevention of Atrocities) Act, 1989 The Scheduled Tribe and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006 or the Forest Rights Act, 2006 and amendments Panchayati Raj Extension in Scheduled Area Act (PESA), 1996 Constitutional provisions under Schedule V ABD social safe guards policy SPS SR 3</p>	<p>As mentioned above the proposed project does not have any anticipated adverse impact on IP.</p>	<p>Currently there are no gaps however at any point time during the life cycle of the project if there are adverse impacts on IPs corrective action shall be prepared and implement in line with ADB's social safeguards policies.</p>	<p>Nil</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	communities); Impacts on Ancestral, Traditional or Customary Lands under Use; Relocation of Indigenous Peoples from Traditional or Customary Lands; Cultural Resources.				
22	Gender and Development Impacts, risks and opportunities, particularly for women and vulnerable groups	Legal Obligation: <ul style="list-style-type: none"> The Sexual Harassment of Women at Workplace (Prevention, Prohibition and Redressal) Act, 2013 The Inter-State Migrant Workman (Regulation of Employment and Conditions of Service) Act, 1979 ADB's Gender and development policy 	As per the review of available documents and discussions with JM Baxi HR Team, the company is having policy against sexual harassment and whistle blower and compulsory training on POSH is provided to staff on periodic basis. Besides that, as informed JM Baxi is having special cell for "women support cell" to provide support to female employees in case of any emergency/ complaints/ grievances. Further a women group named Famina is there to discuss women related issues on regular basis. The reviewed labor audit report for Paradip port suggests that there are few subcontractors who are not in compliance with Interstate Migrant Workmen Act and not having valid registration under the same.	Currently there are no policies in place regarding gender, by NSFPTPPL	NSFTPL to develop and implement policies against gender-based violence and sexual harassment following the Vishakha Guidelines against Sexual Harassment at workplace as well as ADB policy on gender and development. And develop a training module for the same and provide periodic training to all the staff including subcontracted staff NSFTPL should encourage female requirement and promotion Develop gender development plan aligned with ADB's policy for Gender Development
23	Corporate Social Responsibility (CSR) Activities undertaken and opportunities for community development	Legal Obligations: Companies Act, 2013	As per the JM Baxi ESG report and discussion with HR it was informed that as part of corporate governance CSR activities were carried out on a regular basis. The core CSR intervention includes Health, Infrastructure Community Development and support during covid pandemic. Based on the discussions it was understood CSR activity is based on the principle of philanthropy instead of scientific need-based approach. Generally, CSR activities are based on the demand from the respective site or project head.	Currently NSFTPL does not have CSR Plan	It is a good practice measure to develop CSR plan based on community need assessment. Once NSFTPL comes under the ambit of CSR ¹³ can implement the plan to meet the community needs. Provide dedicated resource if required
24	Develop implement a Local Content and Influx Plan (LCIP) for operations	ADB safeguards policy and social protection strategy	Currently employment is provided as per the requirement of the company and recruitment is either done through placement agencies, advertisement in newspaper and social media and references as well. And there no specific policies with JM Baxi regarding local content and labor. influx	Currently NSFTPL is not having LICP	LCIP to cover: <ol style="list-style-type: none"> Commitment/policy on preferential recruitment (provided equal qualifications) to the project-affected persons and ex-employees of JNPA, if they apply. Skills assessment and preferential engagement plan for contractors and their workforce currently contracted by JNPA to service the terminal. Local procurement plan (assessment of local suppliers and contractors, procurement strategy). Address contractor influx Evidence of LCP implemented
25	Physical Cultural Resources Conservation of physical cultural resources and avoid destroying or damaging them by using field-	Legal Obligations: The Ancient Monuments and Archaeological Sites and Remains Act, 1958	Proposed project activity is limited to the updating and modernization of the existing facility and there is no potential impact on the physical cultural properties. However, project envisages piling and excavation works in seabed therefore there is a remote possibility of finding buried antiquity or anything of archeological importance.	NSFPTPPL is yet to develop chance find procedures to deal with the potential issues related to conservation of cultural properties	No recommendation however as good practice NSFTPL should develop chance find procedure to protect the cultural properties

¹³ if the net worth of such company exceeds Rs. 500 crores or more or having its turnover of Rs. 1000 crore or a net profit of Rs. 5 crores in a any financial year.

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	based surveys that employ qualified and experienced experts during environmental assessment. Provide for the use of “chance find” procedures that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.				
26	HR Policies and Procedures	ADB’s Social Protection Strategy (i.e., ILO’s core labor standards-CLS) and gender-related safeguards, such policies against gender-based violence and sexual harassment (POSH), equal opportunity	Currently there is no specific HR policy and management system for NSFTPL however the same will be developed on existing JM Baxi’s HR policies and procedure which will be updated to meet the ADB’s requirements	HR Policy & Procedures are yet to be developed	HR MS to include the following: <ol style="list-style-type: none"> Organisational chart and clear description of responsibilities between HR/Admin functions at the terminal and at the JM Baxi/CMA level. HR policy and HR procedures covering aspects required by law and the ADB’s Social Protection Strategy (i.e., ILO’s core labor standards-CLS) and gender-related safeguards, such policies against gender-based violence and sexual harassment (POSH), equal opportunity, etc. Code of Conduct. Tools, a set of forms and registers, labor contracts, supporting the implementation of HR policy and procedures. Worker GRM to cover permanent staff and non-employees (agency workers and contractors). HR and labor training plan and materials. Monitoring, auditing reporting arrangement. Policy on retrenchment and layoff of staff with a commitment to develop retrenchment plan if required at least 3 months prior to retrenchment. Recruitment schedule for key staff. Continually review and update HR MS.
27	Labour Management 2. Working Conditions, Policies and Procedures 3. Workers’ representation 4. Child and forced labour 5. Equal opportunity and non-discrimination 6. Migrant workers 7. Grievance Mechanism	Legal Obligations: <ul style="list-style-type: none"> The Building and Other Constructions Workers’ (Regulation of Employment and Conditions of Service) Act, 1996 The Minimum Wages Act, 1948 The Payment of Wages Act, 1936 	As per the review of available documents and discussions with HR team of JM Baxi it was understood that their staff is governed by their HR policy (for details HR policy ref section 4.2.6) and applicable labor laws and subcontracted staff are governed by their HR policies and applicable labor laws. As a part of governance, HR compliance audit is carried out periodically for each facility. After completing The HR Audit, the report is shared with the project head and corporate HR for corrective actions. Based on the review of the Audit report it indicates that major noncompliance was related to expiry of the labor licenses, on time payment of wages, PF deduction, not filing labor returns etc. As indicated in the legal register JM Baxi and its subcontractor needs to comply with the following act: <ul style="list-style-type: none"> Bombay Shops and Establishment Act, 1948 	The review of available documents and discussions with HR indicates that JM Baxi does not have retrenchment policy and existing GRM should cover the subcontracted workers as well.	<ul style="list-style-type: none"> NSFTPL should check with JNPA all the applicable labor laws for the construction and operation of the proposed project and develop a legal register Where necessary take the required licenses and permits before the construction and undertaking operations Ensure the compliance of the of the applicable labour laws for e.g

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	<p>Review the implementation of the human resources policy of the Company, its contractors and suppliers and ensure that project activities comply with applicable national labour laws and ILO core labour standards including but not limited to the following: pay mandated wages to technical, skilled and semi-workers and at least minimum wages to unskilled workers; pay insurance and other benefits, work hours and overtime work are voluntarily rendered and are all in accordance with law; as applicable, observance of other working standards such as workers' entitlements to social insurance, leave for illness, maternity, and/or holiday, labour accommodation and welfare facilities; exercise their right to freely organise and collectively negotiate; and confirm that there are no child labour or forced labour or any form of discrimination across project activities, including those in the supply chain. If there had been previous/are ongoing retrenchments, ensure compliance with applicable national labour laws. In addition, review of COVID-19 prevention procedures and support given to employees.</p> <p>Review accessibility of worker grievance redress mechanism and means of reporting grievances; Review procedures in managing, addressing, and monitoring grievances; Review working arrangements concerning women and prevention of sexual harassment.</p>	<ul style="list-style-type: none"> The Equal Remuneration Act, 1976 The Contract labour (Regulation and Abolition) Act, 1970 The Bonded Labour System (Abolition) Act, 1976 The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 The Child Labour (Prohibition and Regulation) Act, 1986 The Industrial Disputes Act, 1947 The Employees' Provident Funds and Miscellaneous Provisions Act, 1952 ADBs PAIL List ADB Social Protection Strategy 	<ul style="list-style-type: none"> Contract (Regulation & Abolition) Act, 1970, PF Act ESIC Act Workmen Compensation Act The Dock Workers (Safety, Health and Welfare) Act, 1986 Dock Workers (Regulation of Employment) Act, 1948 Payment of Wages Act Payment of Minimum Wages Act Equal Remuneration Act Bonded Labor Act Child Labor Act Interstate Migrant Workers Act, and Industrial Dispute Act etc. Trade union act 1926 <p>Over and abovementioned acts NSFTPL have to comply with the provisions of the Building and Other Construction Workers Act 1996. Currently the JM Baxi GRM procedure only covers their direct workers and subcontracted are not covered. The proposed social management system including labor management of NSFTPL is yet to be developed, the social management system shall be aligned with ADBs requirement and Indian regulatory requirement. The Head of SPV and HR will be responsible for the implementation of these management plans.</p>		<p>Bombay Shops and Establishment act 1948, Contract (Regulation & Abolition) Act 1970, PF act, ESIC Act, Workmen Compensation act, The Dock Workers (Safety, Health and Welfare) Act, 1986, dock workers (regulation of employment) act, 1948, payment of wages act, the payment of minimum wages act, the equal remuneration act, the bonded labor act, the child labor act, interstate migrant workers act and industrial dispute act etc.</p> <ul style="list-style-type: none"> And during construction comply with the provisions of the Building and Other Construction Workers Act 1996 Develop and establish the GRM (covering both direct and indirect workers) engaged in construction and operations at the early stage of the project. And GRM should have provisions for raising complaints anonymously. Provide training to workers on GRM and other welfare provisions Develop specific policies for retrenchment and layoff Develop policies for workers accommodation with IFC's guidelines on workers accommodation Develop policies towards zero tolerance against child labor and forced labor
28	<p>Contractor Management</p> <p>Procurement of services, contractors, subcontractors, and consultants should comply with the country's labour legislation as well as with the Core Labour Standards.</p> <p>Ensure that the company has a mechanism to ensure that all E&S</p>	<p>Legal Obligations:</p> <ul style="list-style-type: none"> The Minimum Wages Act, 1948 The Payment of Wages Act, 1936 The Equal Remuneration Act, 1976 The Contract labour (Regulation and Abolition) Act, 1970 	<p>Currently suppliers are assessed based on their quality and cost, procurement department looks the tendering and procurement issues. Further procedure for compliance check of the suppliers is not available for review Besides that currently main contractor for the constructions. and operations workers is yet to be identified</p>	<p>Procedure for compliance check of the suppliers & contractors is not available</p>	<p>Develop and implement standard E&S covenants for the EPC contractor and other contractors to ensure that all NSFTPL E&S requirements of the project (e.g. ESMP, ESMS, labor) are cascaded and implemented. It should include requirements to provide workers' accommodation aligned with IFC/EBRD guidelines.</p>

Ref.	Aspects	Requirements	Observations/Findings	Gaps/Risks	Recommendations/ Corrective Actions
	<p>requirements of the project are implemented by contractors and subcontractors, E&S requirements are incorporated as part of the contractual obligations to be fulfilled by contractors and subcontractors, and there is a monitoring mechanism in place to monitor E&S performance.</p>	<ul style="list-style-type: none"> • The Bonded Labour System (Abolition) Act, 1976 • The Inter-State Migrant Workmen (Regulation of Employment and Conditions of Service) Act, 1979 • The Child Labour (Prohibition and Regulation) Act, 1986 • The Industrial Disputes Act, 1947 • The Employees' Provident Funds and Miscellaneous Provisions Act, 1952 • ADB's PIAL, • Social Protection Strategy and ILO CLS 			<p>NSFTPL should develop procedure or checklist to monitor and review the E&S performance of their suppliers and contractors in line with ADB social protection strategy and ADB's PIAL List.</p> <p>ES aspects need to be addressed in tendering procurement, day-to-day management and monitoring, is given in IESE report, ES check list should broadly include the coverage of environmental risk related to pollution prevention and abatement, ecology and biodiversity and social risk includes child labor forced labor , and other ILO conventions.</p>

Final Report

6 Corrective Action Plan

Sr. No.	Corrective Action	Deliverable / Performance Indicator / Monitoring Requirement	Responsibility	Timeframe/ Target Date	Indicative Cost
1.	Develop and Implement a Project Mobilization E&S Plan (MESP).	<ul style="list-style-type: none"> • Mobilization E&S Plan addressing all relevant E&S aspects including but not limited to: <ul style="list-style-type: none"> ○ Organizational capacity and competency; ○ Environmental management; ○ Worker health and safety; ○ Waste management; ○ Labour and working conditions; ○ Temporary worker accommodation as applicable; ○ Worker and stakeholder grievance management; ○ External stakeholder engagement; ○ Emergency preparedness and response; and ○ Training, monitoring and reporting. • Implement MESP. 	<ul style="list-style-type: none"> • QHSE Team of NSFTPL • NSFTPL E&S team 	<ul style="list-style-type: none"> • Cleared by ADB prior to Mobilization/any physical works. • Until marine works construction starts. 	Management Time
2.	Develop and implement E&S ¹⁴ policies and an ESMS for the project, aligned with JM Baxi, CMA and ADB policies. ESMS to cover construction and operation.	<ul style="list-style-type: none"> • E&S Policy, including an explicit commitment to the prohibition of child and forced labor. • Environmental and Social Management System for NSFTPL satisfactory to ADB. ESMS to include the following: <ul style="list-style-type: none"> ○ An organizational environmental, health and safety and social structure with clear roles and responsibilities, skills and competencies. ○ Procedures to identify E&S risks, unanticipated impacts, and required mitigation to manage construction and operation phases that are proposed to run in parallel for initial 15 to 18 months. ○ Checklists comprising items listed in ADB's prohibited investment activity list (PIAL) and ensure checks are conducted when handling vessels at the NSFTPL terminal. ○ Procedure on Hazard Identification and Risk Assessment (HIRA). ○ Procedure on selection, management, monitoring & supervision of contractors (including subcontractors), and periodic internal E&S audits and inspections. ○ Communication procedure for vessels operations incidents (air emissions, ballast, bilge water, discharge of oil, noxious liquid substances in bulk, harmful substances in packaged form, sewage, and terminal and vessels garbage and sewage). 	<ul style="list-style-type: none"> • QHSE Team of NSFTPL • NSFTPL E&S team 	<ul style="list-style-type: none"> • Draft ESMS 1 month prior to the terminal takeover, and for construction related procedures, no later than 1 month prior to start of marine works construction¹⁵. • Final ESMS adopted by NSFTPL at the start of the terminal takeover, and for construction related procedures, prior to start of marine works construction and implemented from the start of marine works construction. • ESMS review and update – at least annually. 	Management Time

¹⁴ E&S means environment, occupational and community health & safety, social aspects. Social includes labor and working conditions, labor aspects of contractor and suppliers' management, worker and external grievance mechanism, stakeholder engagement and information disclosure, gender and vulnerability (also impacts on people and their livelihoods arising from land acquisition, involuntary resettlement and impacts on indigenous peoples – as applicable).

¹⁵ Mobilisation is not considered part of marine works construction.

Sr. No.	Corrective Action	Deliverable / Performance Indicator / Monitoring Requirement	Responsibility	Timeframe/ Target Date	Indicative Cost
3.	Develop and implement HR policies, procedures and a management system, aligned with JM Baxi, CMA and ADB policies and addressing construction and operation phases.	<ul style="list-style-type: none"> ○ Procedure on supplier selection and identification, management (incl. evaluation of suppliers in line with ADB social protection strategy, ADB’s PIAL and POSH), monitoring of supply chain risks. ○ Local content policy. ○ Accommodation policy for workers and/or contractors. ○ E&S training requirements and plan. ○ Monitoring, auditing, remedial action, reporting and management review procedure. ● Stakeholder Engagement Plan (SEP) and external, i.e., customer and public Grievance Redress Mechanism (GRM). SEP to include information disclosure per ADBs Access to Information Policy. SEP to cover construction and operation. ● Continually review and update ESMS. ● HR policy and management system for NSFTPL satisfactory to ADB’s requirement. ● HR MS to include the following: <ul style="list-style-type: none"> ○ Organisational chart and clear description of responsibilities between HR/Admin functions at the terminal and at the JM Baxi/CMA level. ○ HR policy and HR procedures covering aspects required by law and the ADB’s Social Protection Strategy (i.e., ILO’s core labor standards-CLS) and gender-related safeguards, such policies against gender-based violence and sexual harassment (POSH), equal opportunity, etc. ○ Code of Conduct. ○ Tools, a set of forms and registers, labor contracts, supporting the implementation of HR policy and procedures. ○ Worker GRM to cover permanent staff and non-employees (agency workers and contractors). ○ HR and labor training plan and materials. ○ Monitoring, auditing reporting arrangement. ○ Policy on retrenchment and layoff of staff with a commitment to develop retrenchment plan if required at least 3 months prior to retrenchment. ● Recruitment schedule for key staff. ● Continually review and update HR MS. 	<ul style="list-style-type: none"> ● JM Baxi and CMA HR/Admin teams ● NSFTPL HR/Admin team 	<ul style="list-style-type: none"> ● Recruitment schedule – 2 month prior to the start of marine works construction. ● Draft HR policy and MS - 1 month prior to start of marine works construction, including template employee contract and at least 2 weeks prior to terminal take over for operations. ● Final HR MS adopted by NSFTPL prior to marine works construction and implemented from the start of construction. ● Final HR MS adopted by NSFTPL prior to terminal take over for operations and implemented from the start of operation. ● HR MS review at least annually and update as required. 	Management Time
4.	Provide and ensure sufficient resources to implement ESMS, ensure compliance with this CAP, including ESMP and subplans, and ADB’s requirements.	<ul style="list-style-type: none"> ● Evidence of E&S budget is secured and provisioned annually ahead of activities. ● Evidence of material and staff resources sufficient and secured, any changes to staffing and resources. 	NSFTPL Management	<ul style="list-style-type: none"> ● First E&S construction budget – prior to the start of marine works construction, thereafter, reported in AESPR to ADB. First E&S operation budget – prior to terminal takeover . ● Reported in AESPR to ADB. 	Management time and cost

Sr. No.	Corrective Action	Deliverable / Performance Indicator / Monitoring Requirement	Responsibility	Timeframe/ Target Date	Indicative Cost
5.	<p>a) Legal compliance - get the following legal permits/ registrations:</p> <ul style="list-style-type: none"> • Coastal Regulation Zone (CRZ) clearance • Environmental clearance (if requested by CRZ committee) • Fire No objection Certificate (NOC) • Amended Consent to Operate (CTO) • Labour license and Permit under CLRA Act 1970 • Registration under Bombay Shops & Establishment Act 1948 • Labour permit and license under Contract labour regulation and abolition act 1970 • Registration under Building and other construction workers act 1996 • Registration under Provident Fund Act 1956 • Registration under ESIC Act 1948 • Registration under Inter State Migrant act • Workmen's Compensation <p>b) Document procedure on legal EHS and labor requirements and evaluation of compliance during the Project construction and operation.</p> <p>c) Maintain legal register and comply with all the legal conditions.</p>	<ul style="list-style-type: none"> • Procedure on Legal Compliance • Required permits • Legal register 	<p>QHSE Team and HR/Admin team of NSFTPL</p>	<ul style="list-style-type: none"> • As required by laws and regulations • Prior to start of marine works construction. • Draft to be provided to ADB no later than 1 month prior to start of marine works construction or two weeks prior to terminal takeover for operations. • Final procedure and register adopted by NSFTPL prior to start of marine works construction or terminal takeover for operations. 	<p>Management Time</p>
6.	<p>Prepare an Initial Environmental and Social Examination (IESE), and Environmental and Social Management Plan (ESMP) in accordance with ADB SPS (2009) and applicable IFC EHS guidelines.</p> <p>Implement ESMP and the recommendations of the climate change vulnerability assessment.</p>	<ul style="list-style-type: none"> • IESE report satisfactory to ADB and endorsed by NSFTPL (draft and final versions of the IESE report will be disclosed on ADB's website). • The IESE to capture physical environmental, ecological and socio-economic profile of the area; a climate change vulnerability assessment; impacts associated with construction, construction-operation interface, and operation phase; and appropriate recommendations. • The ESMP will include construction and operation plans to avoid, minimize, mitigate, or offset identified impacts. The plans will be compliant with the CPCB, ADB SPS and Social Protection Policies, and WB EHS guidelines (whichever is more stringent). Plans will include, but not limited to: <ul style="list-style-type: none"> ○ Pollution Prevention and Monitoring Plan (e.g. marine water quality, noise, air emissions, and GHG), including maintenance of diesel generators and vehicles ○ Pollution Under Control (PUC) checks ○ Waste Management Plan. ○ Wastewater and Stormwater Management Plan. ○ Spill Prevention and Response Plan. ○ Resource Conservation and Energy Efficiency Plan, including calculations and disclosure of GHG emissions 	<p>QHSE, HR/Admin and Procurement Team of NSFTPL</p>	<ul style="list-style-type: none"> • Final IESE and ESMP adopted prior to terminal takeover. • Construction ESMP rolled out prior to start of marine works construction. • Operation ESMP rolled out from terminal takeover. • Updates on the implementation of the recommendations of the climate change vulnerability assessment in monitoring reports to ADB. • GHG calculations disclosed annually 	<p>Management Time / Third-party consultants fees</p>

Sr. No.	Corrective Action	Deliverable / Performance Indicator / Monitoring Requirement	Responsibility	Timeframe/ Target Date	Indicative Cost
		<p>from the terminal operations on an annual basis. The Plan will consider the conversion of diesel RTGs to electrical-driven RTGs and where possible, installation of solar panels within the terminal</p> <ul style="list-style-type: none"> ○ Traffic Management Plan. ○ Occupational Health and Safety Plan, procedures and manual. ○ Community Health and Safety and Security management Plan. ○ Chance Find Procedure. ○ Change Management Procedure. ○ Construction Labour and Working Conditions Management Plan. ○ Code of Conduct. ○ Subcontractor and Supplier Management Plan. ○ Workers' Accommodation Management Plan. ○ Local Content (and Influx management) Plan. ○ Gender Management Plan. <ul style="list-style-type: none"> ● ESMS, SEP, worker and external GRM can cover construction phase and contractors if necessary. 			
7.	Commission an audit to verify the readiness of E&S plans, systems, and staff for construction and operation.	<ul style="list-style-type: none"> ● Evidence of commissioning the audit and consultant. ● Brief audit report. 	<ul style="list-style-type: none"> ● NSFTPL Management ● JM Baxi/CMA. 	<ul style="list-style-type: none"> ● At least 1 month prior to start of marine works construction. ● After 1 month from start of marine works construction. 	Consultant's cost. ADB may join the verification.
8.	Develop and implement standard E&S covenants for the EPC contractor and other contractors to ensure that all NSFTPL E&S requirements of the project (e.g. ESMP, ESMS, labor) are cascaded and implemented. It should include requirements to provide workers' accommodation aligned with IFC/EBRD guidelines.	<ul style="list-style-type: none"> ● E&S, and health safety covenants in EPC and other contractors' contracts. ● Mechanism of compliance assurance (i.e., warnings, payment retention, corrective actions) to be in-built to the contractor contracts. 	QHSE, HR/Admin Team of NSFTPL	<ul style="list-style-type: none"> ● 1 month prior to signing agreements with contractor and in any way, prior to marine works construction. ● Workers' accommodation to be addressed by respective contractors. 	Management Time
9.	Appoint a dedicated E&S Manager responsible to assure compliance with ESMS, ESMP and this CAP throughout construction and operation. Appoint HSE staff to manage day-to-day HSE project activities.	<ul style="list-style-type: none"> ● Dedicated E&S Manager Job description, selected candidate's CV, confirmation of appointment. ● HSE staff example job description, confirmation of appointment. ● Training records. 	Management, HR Team of NSFTPL	Prior to terminal takeover	Management Time
10.	Appoint HR staff and a communications expert for look after the social (HR, stakeholder engagement, GRM) performance of the project during construction and operation.	<ul style="list-style-type: none"> ● Job description, selected candidate's CV, confirmation of appointment. ● Training records as necessary. 	NSFTPL Management, JM Baxi/CMA	<ul style="list-style-type: none"> ● Before start of Marine work construction. ● Evidence of HR staff recruitment being on track/SPV being sufficiently supported by the Sponsors – 1 months prior to marine work construction . ● Evidence of staff at work – at least 1 month prior to start of Marine work construction. 	Management cost

Sr. No.	Corrective Action	Deliverable / Performance Indicator / Monitoring Requirement	Responsibility	Timeframe/ Target Date	Indicative Cost
11.	Ensure EPC contractor has sufficient E&S resources to manage ESMP and project's E&S requirements for construction.	<ul style="list-style-type: none"> EPC contractor E&S resourcing plan (EHS and HR staff). Evidence of appointment. 	<ul style="list-style-type: none"> NSFTPL Management QHSE team JM Baxi/CMA 	<ul style="list-style-type: none"> On award of contract to EPC Contractor. Prior to start of marine works construction. 	Management cost
12.	Develop procedures on competence and E&S training needs and undertake training needs assessment for construction and operation. Prepare an annual training calendar as per the needs assessment, ESMP, subplans, SOPs, EPRP, social requirements for construction and operation. Deliver training to all direct and indirect staff (EPC contractor and subcontractors) and maintain training records.	<ul style="list-style-type: none"> Procedure on competence and training. Annual training calendar. Apart from standard EHS topics, training procedure should cover awareness on ADB ES requirements for management of NSFTPL and contractors and their staff, HR policies & procedures, GRM& Whistle blower, SEP, gender-related and other social policies. 	QHSE and HR/Admin Team of NSFTPL	<ul style="list-style-type: none"> Prior to terminal takeover for operations, and prior to start of marine works construction for construction activities Prior to terminal takeover for operations, and prior to start of marine works construction for construction activities Implementation per training calendar 	Management Time
13.	Develop and implement Emergency Preparedness and Response (EPRP) in line with JNPA's Emergency Action Plan (EAP) and Disaster Management Plan (DMP). Identify emergency contact numbers, and safe assembly area and display at prominent locations within the Project.	Project-specific EPRP.	QHSE Team of NSFTPL	1 month prior to terminal takeover for operations, and start of marine works for construction	Management Time
14.	Monitoring and Reporting: <ul style="list-style-type: none"> Prepare E&S reports at regular intervals (monthly) and on annual basis to measure EHS&S performance of the terminal with respect to the requirements of this CAP, ESMS, HR MS, ESMP, climate change vulnerability assessment, and subplans. Prepare E&S monitoring reports for ADB using an agreed template. Reports will be disclosed on ADB's website. Engage external E&S consultant to review E&S performance of the container terminal and compliance with ADB safeguards requirements, including fire safety compliance, and this CAP on an annual basis. 	<ul style="list-style-type: none"> Template E&S report. Monthly and annual reports. Agreed AESPR template. Semi-annual reports during construction and annual reports post COD submitted to ADB. Audit ToR, ES auditor contract and budget secured. External audit reports at the following frequency: <ul style="list-style-type: none"> bi-annual audit during construction, annual audit for 3 years into operations, then frequency to be reviewed with ADB. <p>Note: CAP item 6 can be implemented by the same consultant.</p>	QHSE Team of NSFTPL	<ul style="list-style-type: none"> Template report included in the ESMS – prior to start of marine works construction. Reporting monthly and annually as described in the ESMS. AESPR template agreed prior to financial close. Reporting as described in the ADB agreement. ToR to be agreed with ADB prior to financial close. Auditing is per indicated schedule. 	Management Time
15.	Develop and implement Standard Operating Procedures (SOPs) compliant with the reference framework, and where applicable MARPOL requirements, and training of staff.	<ul style="list-style-type: none"> SOPs Training records. Staff to be train on: <ul style="list-style-type: none"> handling of all types of containers (inclusive of hazardous, explosives, radioactive, flammable substances, poisonous or toxic substances, infectious substances, corrosive substances, and combustible substances). 	QHSE Team of NSFTPL	<ul style="list-style-type: none"> SOPs to be completed before terminal handover Maintain training records 	Management Time for developing SOPs and training

Sr. No.	Corrective Action	Deliverable / Performance Indicator / Monitoring Requirement	Responsibility	Timeframe/ Target Date	Indicative Cost
		<ul style="list-style-type: none"> ○ handling of explosives, radioactive, and other hazardous or dangerous goods aligned with the government and JNPA protocols. ○ handling of spills from containers and JNPCT and installing spill control equipment. ○ handling garbage (on request) from vessels. ○ inspection of contractors' and workers' accommodation aligned with IFC/EBRD guidelines. ○ Health and safety ● Monitoring records. ● Photographs of installed spill control measures. 			
16.	<p>Sewage treatment plant (STP):</p> <p>Install STP of adequate capacity and ensure amended consent to operate to include the accurate capacity of STP.</p> <p>Install oil-water separator in the stormwater drains to avoid contaminated water discharge into the sea.</p>	Photos of installed STP and oil-water separators	QHSE Team of NSFTPL	Prior to COD	Installation of STP and oil-water separator are part of project cost
17.	Display appropriate sign boards within JNPCT.	Photos and locations of sign boards	QHSE Team of NSFTPL	From start of marine works construction and completed before COD	Part of project cost
18.	<p>Health and Safety:</p> <p>Develop occupational health & safety manual and procedures, in line with ADB's requirements and applicable WB EHS guidelines.</p> <p>Establish a safety committee on workplace safety for construction and operation.</p>	<ul style="list-style-type: none"> ● Occupational health & safety manual for construction and operations. ● Safety committee meeting memo with members. The committee will meet periodically to discuss H&S-related issues/ concerns and the implementation of corrective actions. Keep records of meeting minutes. ● Meeting minutes. 	QHSE Team of NSFTPL	<ul style="list-style-type: none"> ● To be delivered as part of ESMS. ● From the terminal takeover. ● On-going. 	Management Time
19.	Develop and implement a corporate social responsibility (CSR) plan based on community need assessment.	<ul style="list-style-type: none"> ● CSR plan. ● Dedicated resource if required. 	NSFTPL HR/CSR	<ul style="list-style-type: none"> ● To be undertaken in accordance with Applicable Law. ● Implementation per developed timeline. 	Management time
20.	Develop implement a Local Content and Influx Plan (LCIP) for operations.	<ul style="list-style-type: none"> ● LCIP to cover: <ul style="list-style-type: none"> ○ Commitment/policy on preferential recruitment (provided equal qualifications) to the project-affected persons and ex-employees of JNPA, if they apply. ○ Skills assessment and preferential engagement plan for contractors and their workforce currently contracted by JNPA to service the terminal. ○ Local procurement plan (assessment of local suppliers and contractors, procurement strategy). ○ Address contractor influx ● Evidence of LCP implemented. 	NSFTPL/ HR / Admin	<ul style="list-style-type: none"> ● LCIP 1 month from start of construction. ● Updates on LCP implementation to be provided in AESPR to ADB. 	Operation cost

7 Conclusion and Recommendations

The proposed expansion will require legal permits to be obtained which includes CRZ Clearance, Fire NOC and amendment to the CTO. Obtaining CRZ clearance and amendment in the CTO is in the purview of JNPA however Fire NOC is to be obtained by NSFTPL. CRZ clearance will suffice proposed construction/ modification. However, if CRZ committee suggests requirement of EC for proposed expansion, JNPA accordingly will apply and get EC for the Project.

NSFTPL will be responsible for undertaking operations and managing E&S aspects after project handover. Organisation structure of NSFTPL with clear roles and responsibilities is yet to be established however, as understood NSFTPL will have a dedicated HSE team to manage with day-to-day HSE functions. ESMS applicable for the Project is yet to be developed, however as understood ESMS in line with the requirements of ADB will be developed and implemented. Also, IESE is being conducted for the Project to identify E&S risks associated with the Project and mitigation/ control measures to be adopted to eliminate/ minimize risks. ESMP and E&S management plans to be prepared with IESE will be implemented to reduce E&S risks.

As it is an operational terminal, it is unlikely to have a major, additional, adverse impact on the existing biodiversity due to the general operation and maintenance activities of the port terminal.

The proposed project will be developed on the existing land of JNPT and it does not require additional land acquisition therefore no IR and IP related impacts were anticipated. As per the concession agreement, the concessioner is indemnified against land related claims arising out of legacy issues. As informed the current staff of JNPT will be absorbed in the existing operations of JNPA and the existing contracts with the subcontractors will be expired by December 2022 and it will not be extended. The subcontracted staff is aware of their contract terms, and they have required and prior information about the proposed project hence individuals are free take the informed decision about their employment and look for alternative jobs. As they are having the required skills and there is high possibility that they could be absorbed in the upcoming proposed project. The NSFTPL is yet to formulate policies and procedures for the review and monitoring with respect of HR, labour management, grievance handling, stakeholder engagement, information disclosure, gender, protection & welfare of workers. Gap with respect of social aspects were identified and accordingly corrective action plan is suggested. These polices will be developed and implement in line with ADBs social safeguards policy, ILO's conventions and UN sustainable development goals.

APPENDICES

Final Report

Appendix 1: List of Documents Reviewed

1. Environmental Organization structure – JNPA
2. Environmental Monitoring and Management Plan – JNPA
3. Green Port Initiatives – JNPA
4. JNPA Consent to Operate valid till Sept 2025
5. Procedure ISP 08 IDENTIFICATION _ EVALUATION OF ASPECTS AND HAZARDS
6. Environmental Aspect Impact analysis of Container Terminal
7. Environmental Aspect Impact analysis of Port Equipment Maintenance
8. Hazard Identification and risk assessment of Container Terminal
9. Hazard Identification and risk assessment of Port Equipment Maintenance
10. EPARP and DMP – JNPA
11. Risk and Opportunities Register
12. JNPA Annual (April 2021 to March 2022) progress report for Water Quality Monitoring (IITM/JNPA-REPORT/AEMR-1/2022). Department of Civil Engineering, IIT Madras, Chennai - 600 036.
13. Jawaharlal Nehru Port Trust (JNPA) Sustainability Report (2020-21).
14. Jawaharlal Nehru Port Trust (JNPA) Environmental Impact Assessment (November 1981).
15. Jawaharlal Nehru Port Trust (JNPA) Environmental and CRZ clearance - harbour channel.
16. Environmental Clearance to Nhava Sheva Port Project (Jawaharlal Nehru Port).
17. Area Statement of JNPCT
18. Details of existing building and equipment
19. Feasibility Report
20. JNPA Form B fire prevention and life safety measures June'22
21. JNPCT Stack emission report October 2021
22. JNPA Environmental Statement Form V MPCB Aug 2022
23. Gazette of MoPSW
24. JNPA Fire Team and Fire Fighting Equipments
25. Final sop for handling of explosives IMDG class (1.4s) 26.03.2022. – JNPA
26. Rahmani, A.R., Islam, M.Z. and Kasambe, R.M. (2016) Important Bird and Biodiversity Areas in India: Priority Sites for Conservation (Revised and updated). Bombay Natural History Society, Indian Bird Conservation Network, Royal Society for the Protection of Birds and BirdLife International (U.K.). Pp. 1992 + xii.
27. Sample HSE documents of JM Baxi and CMA

Appendix 2: Layout on Google Earth



Existing Layout Plan (combined layout for JNPCT and shallow water berth)

