
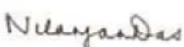


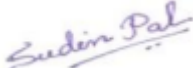





# Environmental and Social Due Diligence of Tuticorin International Container Terminal, Tamil Nadu, India

Tuticorin International Container Terminal (TICT)

December 13, 2022

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# List of Abbreviations

Abbreviations	Definition
AITUC	All India Trade Union Congress
AZE	Alliance for Zero Extinction Sites
CAP	Corrective Action Plan
CEMS	Continuous Emission Monitoring System
CESMP	Construction Environmental & Social Management Plan
CH	Critical Habitat
CISF	Central Industrial Security Force
CITU	Centre of Indian Trade Unions
COO	Chief Operating Officer
CPCB	Central Pollution Control Board
CPGRAMS	Centralized Public Grievances Redress and Monitoring System
CSR	Corporate Social Responsibility
CTE	Consent to Establish
CTO	Consent to Operate
DMP	Disaster Management Plan
EC	Environmental Clearance
EIA	Environment Impact Assessment
EMP	Environment Management Plan
EPC	Engineering, Procurement, and Construction
EPRP	Emergency Preparedness and Response
ERT	Emergency Response Team
ESA	Eco-Sensitive Area
ESDD	Environment and Social Due Diligence
EHS	Environmental, Health, Safety and Social
ESMP	Environmental and Social Management Plan
ESZ	Eco-Sensitive Zone
GHG	Greenhouse Gas
GIIP	Good International Industry Practice
GoI	Government of India
HIRA	Hazard Identification and Risk Assessment
IAS	Invasive Alien Species
IBA	Biodiversity Areas
IBAT	Integrated Biodiversity Assessment Tool
IFC	International Finance Corporation
IMS	Integrated Management System
ISO	International Organization for Standardization
ISPS	International Ship and Port Facility Security
ISPS	International Ship and Port Facility Security

<b>Abbreviations</b>	<b>Definition</b>
ITV	Internal Transport Vehicles
IUCN	International Union for Conservation of Nature
JMB	JM Baxi
KBA	Key Biodiversity Areas
LPF	Low Power Field
MAB	Man and Biosphere
MoEF&CC	Ministry of Environment, Forest, and Climate Change
MPTA	Million Tonnes Per Annum
MSDS	Material Safety Data Sheets
MT	Metric Tonne
NCB	North Cargo Berth
NH	National Highway
OHS	Occupational Health and Safety
PA	Protected Areas
PESO	Petroleum And Explosives Safety Organization
POSH	Prevention of Sexual Harassment
QHSE	Quality, Health, Safety, and Environment
QMS	Quality Management System
RMQC	Rail Mounted Quay Crane
RTGC	Electric-Rubber Tyre Gantry Crane
SEP	Stakeholder Engagement Plan
SMS	Security Management System
SPV	Special Purpose Vehicle
TANGEDCO	Tamil Nadu Generation and Distribution Corporation
TFH	Thoothukudi Fishing Harbour
TICTPL	Tuticorin International Container Terminal Private Limited
TNPCB	Tamil Nadu Pollution Control Board
VOCPT	V.O. Chidambaranar Port Trust
VOPA	V.O. Chidambaranar Port Authority

# 1. Introduction

Tuticorin International Container Terminal Private Limited (hereinafter referred to as 'Client' or 'TICT') is a special purpose vehicle (SPV) promoted by JMB Group for the development and operation of existing Berth 9 as container terminal of V.O. Chidambaranar Port Trust (VOCPT) in the state of Tamil Nadu.

TICT is seeking an investment from potential lenders for development of the container terminal. To assess the Environmental & Social (E&S) risks as per the requirements of potential investors, TICT has engaged AECOM India Private Limited (hereinafter referred to as 'AECOM') to undertake an Environment and Social Due Diligence (ESDD) and provide corrective actions to address the identified gaps linked to the planning and implementation of the proposed project.

AECOM team comprising four (4) E&S specialists undertook a site visit from 8<sup>th</sup> to 11<sup>th</sup> November 2022 for primary assessment of the site conditions and obtained feedback from the stakeholders of the proposed project.

This report is being submitted as Final report after addressing all comments provided by IFC and JMB/TICT on the initial and revised version of the draft ESDD reports.

## 1.1 Project Background

Tuticorin International Container Terminal (Private) Limited (TICT), a Special Purpose Vehicle (SPV) promoted by JMB Group was formed on 24<sup>th</sup> August 2022 for the development and operation of Berth 9 as container terminal. A Concessionaire Agreement was signed between VOCPT and TICT on 3<sup>rd</sup> September 2022 to develop and operate the existing Berth 9 as Container Terminal for a period of 30 years on DBFOT basis. The capacity of the proposed container terminal is 0.60 million TEUs (twenty-foot equivalent unit). This proposed project will enhance container handling capacity of VOCPT to 1.77 million TEU from the existing 1.17 million TEU.

## 1.2 Objective

The main objectives of the Environmental and Social Due Diligence study are as follows:

1. To assess scope and adequacy of the Project's environmental, social, safety and human resources management systems, policies and resources in line with the national legal requirements and IFC Performance Standards.
2. To understand the relevant characteristics of the Project related to environmental, social, health, and safety ("ESHS") aspects based upon a review of existing information and site visit. Relevant characteristics would include project description; institutional and legal framework; environmental and social conditions; environmental, social, health and safety impacts and issues; mitigation and monitoring measures; health and safety procedures; contingency/emergency procedures; management review and management of contractors.
3. To evaluate the adequacy of the environmental, social, health, and safety assessment, plans and procedures and present conclusions and recommendations associated with identified deficiencies or issues. These are to include, but not limited to, impacts not identified or properly evaluated, impacts not properly mitigated, insufficient monitoring programs, potential environmental risks and liabilities, etc.
4. To identify gaps with respect to compliance with Performance Standards.
5. To develop Environmental and Social Action Plan (ESAP), recommending appropriate actions required at different phases of the proposed project to address the gaps identified and ensure compliance with National Statutory requirements and IFC Performance Standards.

## 1.3 Scope of the Study

The broad scope of work for the assignment is given below.

- Review of the status of compliance of the Project and associated facilities (if any), with applicable host country and IFC PS requirements related to environment, social, health and safety.



- Review of the Project's Environment Management Plan (EMP), EHS plans and policies, occupational health and safety arrangements and other procedures and plans relative to the reference framework including Contractor and Stakeholder Management.
- Review of the adequacy of environmental and social mitigation measures and monitoring procedures for the Project.
- Review the adequacy of existing measures to address the environmental and social standards and statutory compliance requirements and associated budgetary allocations.
- An evaluation of the Company's labour policies and practices and their implementation for the Project.
- Development of Environmental and Social Action Plan (ESAP) to address any gaps with compliance as identified through the ESDD.

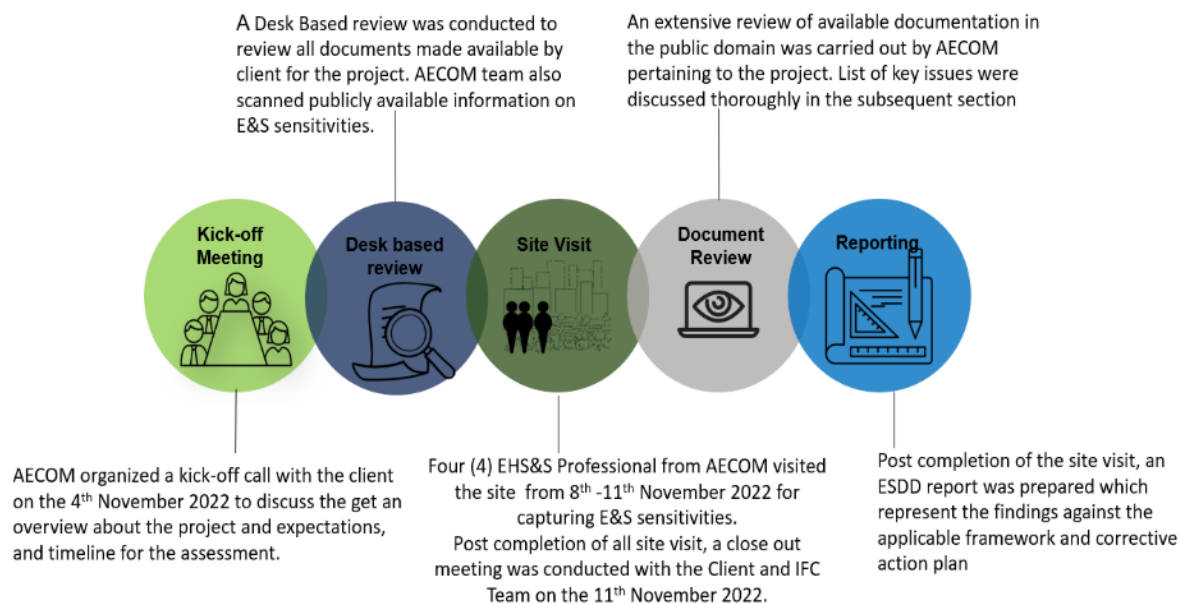
## 1.4 Applicable Reference Framework

The reference framework for the ESDD is as below:

- International Finance Corporation (IFC) Sustainability Framework and Performance Standards, 2012.
- Applicable World Bank Group/IFC Environment Health and Safety (EHS) Guidelines, 30th April 2007
- IFC Performance Standards and Guidance Notes - 2012 Edition; GN6 edition of June 2019
- WBG EHS Guideline for Ports, Harbors and Terminals, February 2017
- Applicable National and Social E&S legislation.

## 1.5 Approach and Methodology

The overall approach of the assignment involved desk-based analysis of documents, review of external factor and site assessment for screening of E&S risks for assessing key non-conformances and areas of non-compliance of the environmental and social considerations in comparison to the applicable national and IFC standards identified for the scope of the ESDD. Following approach and Methodology has been adopted:



**Desktop Review:** AECOM as part of the assessment, undertook review of documents as shared by client and review of secondary information. The following are the documents reviewed: -

- Detailed Project Report

- TICT Master Plan Model
- Concessionaire Agreement
- Environment Impact Assessment (EIA)
- Environment Management Plan (EMP) and Disaster Management Plan of VOCPT
- Environmental and CRZ Clearance
- Six Monthly Compliance Report, June 2022 and Environmental Statement
- Seabed Monitoring Report, 2021
- Dredging the Dock Basin for Coastal cargo Berth by VOCPT, Comprehensive Environmental Monitoring, 2018
- Baseline Study on Benthic Assemblages, 2016
- Demarcation of High Tide and Low Tide Report for the Proposed Deepening of Harbour Basin and Approach Channel to handle 15.2 draught Vessels, Construction of 6 nos. of berths and Modification/Upgradation of existing berthing facilities at VOCPT, 2018
- Sample corporate EHS and HR documents
- Risk Assessment and Disaster Management Plan, VOCPT
- NoC and Consent Documents
  - Consent to Establish
  - Consent to Operate under Air and Water Act and its subsequent renewal
  - Biomedical and Hazardous waste authorisation

**Stakeholder Consultations:** As part of the site assessment, following stakeholders have been consulted:

- Chief Engineer, VOCPT
- Chief Mechanical Engineer, VOCPT
- Executive Engineer (Civil), VOCPT
- Harbour Master/Port Facility Security Officer, VOCPT
- Traffic Manager and Deputy Traffic Manager, VOCPT
- Corporate HR Team, JM Baxi
- Fishermen Community, Thoothukudi

## 1.6 Limitation

- This due diligence has been undertaken based on the documents made available by TICT, site assessment and consultation with key stakeholders and information available in the public domain.
- Presently the project is still at the conceptual stage, a high-level due diligence was undertaken to assess the key E&S risks in compliance with IFC Performance standards and National Regulatory requirement. The adequacy of the layout plan as per the site context could not be ascertained.
- This report is confidential to the Client and AECOM accepts no responsibility of whatsoever nature to third parties to whom this report, or any part thereof, is made known. Any such party relies on the report at their own risk.
- AECOM findings are accurate and complete only to the extent that the information provided to AECOM was itself accurate and complete.
- AECOM's assessment is based on the present applicable regulations in India as well as our professional judgment on reasonably foreseeable regulations, and the project is in operation and our findings are necessarily limited to the information available at this stage

## 1.7 Use of the Report

This report has been prepared by AECOM for the benefit of its client, Cube. AECOM's client may release the information to third parties, who may use and rely upon the information at their discretion. However, any use of or reliance upon the information by any party shall be solely at the risk of such party and without legal recourse against AECOM, its parent, its subsidiaries, and affiliates; or their respective employees, officers, or directors; regardless of whether the action in which recovery of damages is sought is based upon contract, tort (including the sole, concurrent, or other negligence and strict liability of AECOM), statute, or otherwise. The professional judgments expressed herein are based on facts and information provided to AECOM. Wherever AECOM has not been able to make a judgment or assess any process, it has been highlighted as an information gap.

## 2. Project Description

### 2.1 Project Overview

Tuticorin International Container Terminal is located at V O Chidambaranar Port (formerly known as Tuticorin Port) which is one of the major ports of India, located in the state of Tamil Nadu. The VOC port is impounding sheltered waters between two breakwaters namely the northern breakwater and south breakwater of lengths 4086m and 3876m respectively. The breakwater in the south is divided into south break water of length 2738m and eastern breakwater of length 1138m. The entrance channel width is of 153m length, and the outer channel of the port is having a width of 230m and length of 3800m. As per the EC, the permitted cargo handling capacity of VOCPT is 46.78 MTPA and reportedly, the present cargo handling capacity is 35 MPTA of the bulk cargo.

Presently, VO port has sixteen cargo berths including ten alongside berths, one oil jetty, shallow draught berth, coastal berth and three coal jetties including NCB-II.

The Berth 9 at present can handle vessels up to 14.20m draft, during day light hours utilizing the tidal advantage of at least 0.65m and in rising tide. However, the berth can be dredged up to a maximum depth of (-) 16.50m. in case it required. Only capital dredging was undertaken till date, the last capital dredging in Berth 9 was undertaken in the year 2012. Due to the rocky nature of the seabed, deposition of sediment is minimal and thus no maintenance dredging is reportedly required. Capital dredging is responsibility of VOCT till 14.20m draught. As per Concessionaire Agreement, Concessionaire are permitted to undertake capital dredging for achieving draught beyond (-)14.2m and up to (-)16.5m at their own cost to address future requirement. However, it will be restricted only to the deepening of the berth pockets and would be in the tune of 30000 cum. The dredged material will be disposed of as per the plan of the Port.

The proposed container berth is located adjacent to Berth 8 which has a maximum draught of 14.2m. The overall length of Berth 9 (quay) is 334.50m and 29.10m breadth.

The terminal have a total backup area of 10 hectare (ha) which is developed on reclaimed land. The berth and the 4-ha backup yard is paved, while the remaining 6 ha is unpaved and will have to be developed by TICT.

The Port assets to be handed over to TICT in phased manner as follows: -

- Phase I: Phase 1 area comprises of the 6-hectare (ha) yard area. Reportedly, VOCPT will hand over the Phase I area by March 2023.
- Phase –II: Phase II comprises of remaining 4 ha back up area including berth area. This will be handed over to TICT 11 months after handing over of Phase 1 area.

The scope of work for the development of the Berth 9 as container terminal is as follows: -

- Strengthening/Upgradation of existing berth towards west side of Berth 9. This includes extending the berth by length 35.5m X width of 60m.
- Stone pitching and construction of rubble bund in the area adjoining the extended portion of Berth 9 along the NE-SW orientation.
- Paving the yard area under phase II.
- Installation of container handling equipment including 9 Nos. Electric Rubber Tyred Gantry Crane (e-RTGCs), 3 Nos. Rail Mounted Quay Crane, 18 Nos Internal Transport Vehicle and 1 No. Reach Stacker.
- Provision of fenders, bollards, mooring rings, firefighting system, water supply system, electrification etc. at suitable locations.

The Berth 9 is presently operated by third party contractors handling bulk cargo such as fertilizers, limestone, coal etc. The contract with the existing terminal operator is till March 2023. Reportedly, all decommissioning activities including removal of the existing structure and equipment from Berth 9 will be undertaken by Port authority post which the terminal will be handed over to TICT. The project schedule to complete its construction for development of the existing Berth 9 as container terminal within 21 months from the Date of Award.

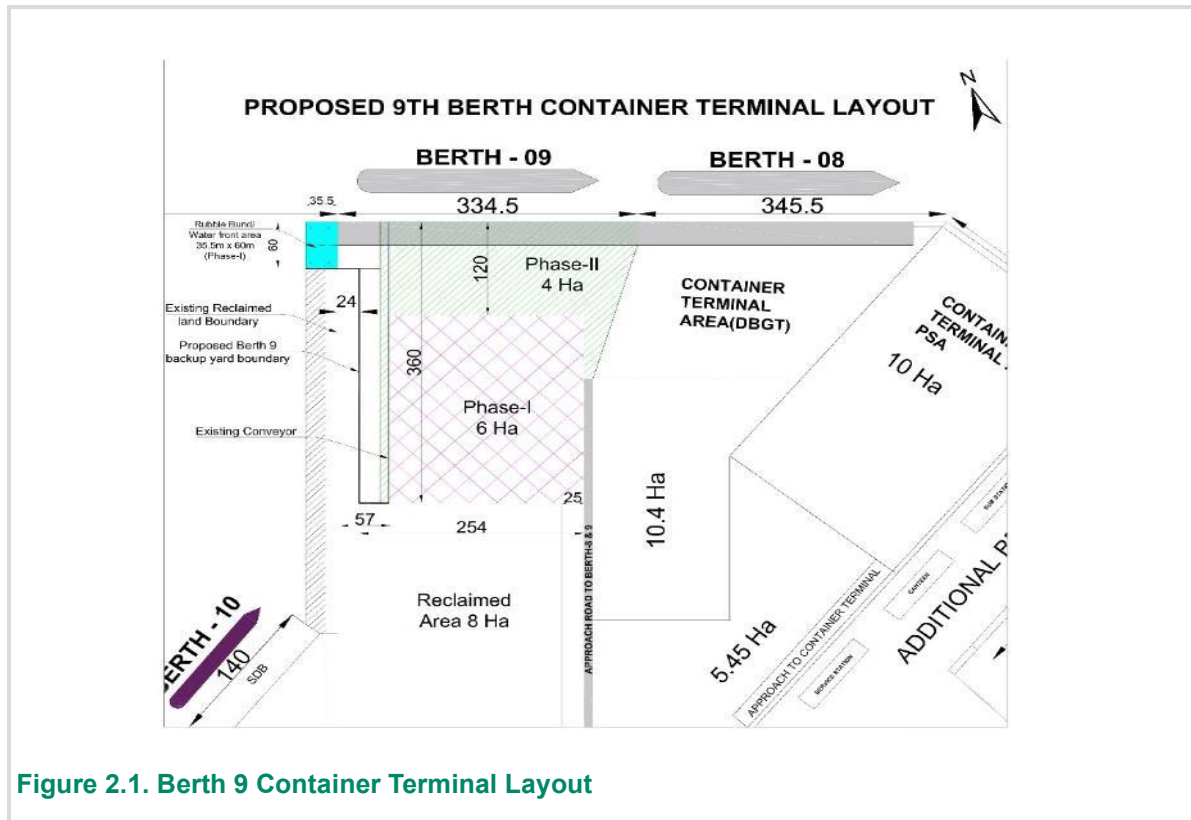


Figure 2.1. Berth 9 Container Terminal Layout

### 2.1.1 Proposed Utilities

The proposed Terminal will comprise of the following:

- Berth
- Container Yard
- Container Handling Equipment such as RMQC, e-RTGs, ITVs.
- Reefer Yards
- Other buildings and Support facilities such as site office, canteen facility etc.

The key utilities available at the TICT Terminal facility are as provided in **Table 2-1**.

**Table 2-1. Details of Proposed Utilities and Container Handling Equipment**

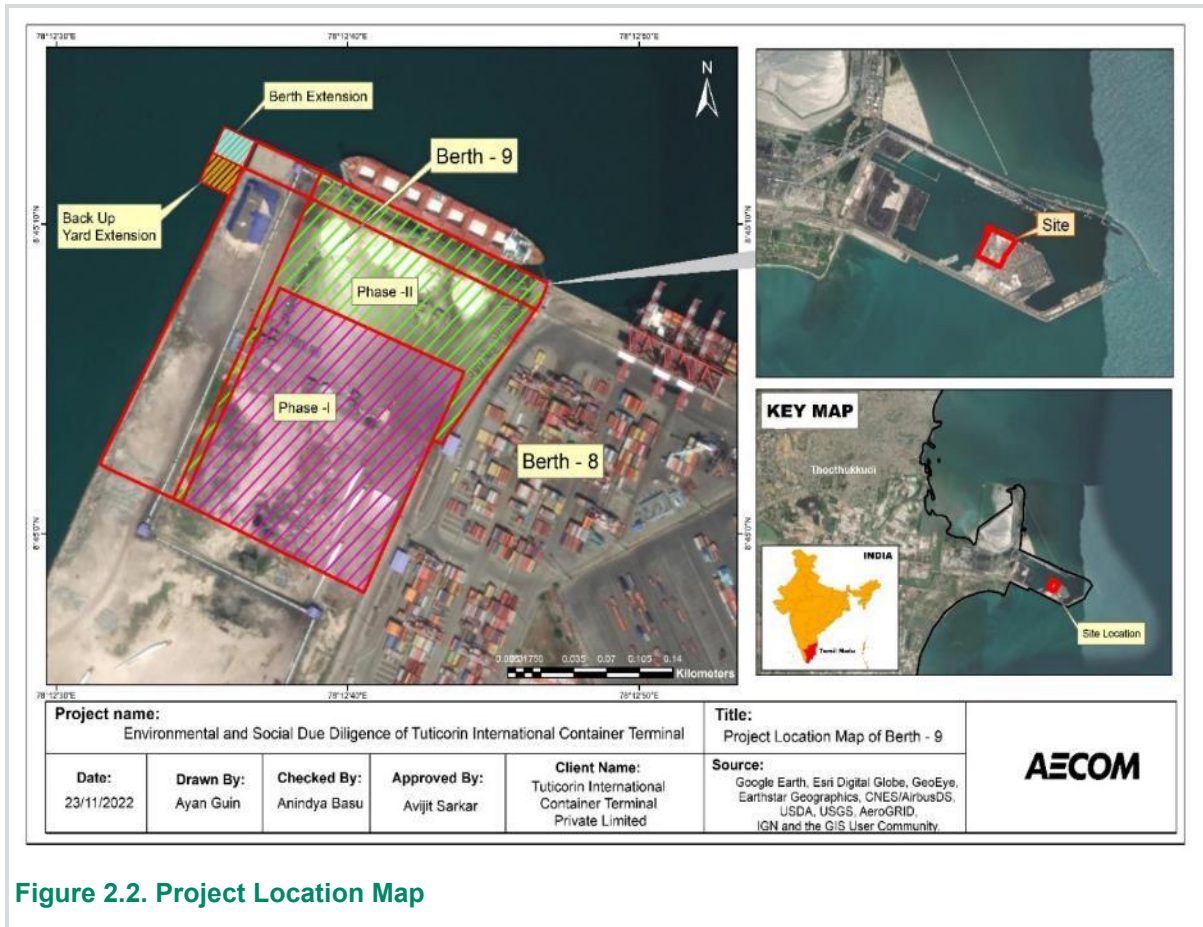
Utilities	Description
Rail Mounted Quay Crane (RMQC)	3 Nos.
e-Rubber Tyre Gantry Crane (RTGC)	9 Nos.
Reach Stacker	1 No.
Internal Transport Vehicles (ITV)	18 Nos.
D.G. Sets	DG sets of 1X 1500 KVA and 1 X 500 KVA
Sewage Treatment Plants	1 (capacity would be finalised during Design & Engineering stage)
Transformers	One 22 KV HT Line
First Aid Centre	1 No
Fuel Dispenser and Storage Tank	Within the site premises, fuel dispenser and storage tank will not be installed. The required fuel will be source from fuel terminal located outside the port premises.

Source: Concessionaire Agreement, 2022

## 2.2 Location and Accessibility

The proposed container terminal is located within VOCPT premises in Thoothokudi district Tamil Nadu state. The port is access controlled by Government security i.e., Central Industrial Security Force (CISF). The port is connected to NH 138 and also well connected by SH49 road link which connects the port to NH138. Within the port premises, the road is having a 6-lane divided carriageway with paved shoulder.

The VOC port is also well connected by railway line. Presently a Broad-Gauge single line connects the Port area originating from Milavattan Railway station. The total length of this railway line is 17.60 km. The nearest airport is Tuticorin Airport which is 21 km from VOCPT. The project location map is provided in **Figure 2.2** and accessibility map in **Figure 2.3**.



**Figure 2.2. Project Location Map**



Figure 2.3. Accessibility Map

## 2.3 Environmental Setting

- TICT Terminal (Berth 9) is surrounded by the following: Berth 8 towards the NE, NCB I and II towards the north and Coal Stockyard towards the western side of the project boundary.
- The Project Site fully overlaps a Designated Area, namely the Gulf of Mannar UNESCO Man and Biosphere (MAB) Reserve (GoMBR). The Project Site is part of a highly modified marine habitat constituted by the pre-existing VOC Port within the GoMBR, while the Project's estimated AoI overlaps slightly to moderately modified marine habitats beyond the premises of the said port.
- The Project Site is situated within 5-7 km of 2 other Designated Areas, in terms of the legally protected area of the Gulf of Mannar Marine National Park & the internationally recognized area of the Gulf of Mannar Ramsar Wetland.
- Thoothukudi fishing harbour (TFH) is located towards the Northwest direction of VOCPT, about 10 km by road and at about 5 km aerial distance by sea from the fishing harbour to Port complex.

The environmental setting map is provided in **Figure 2.4**.

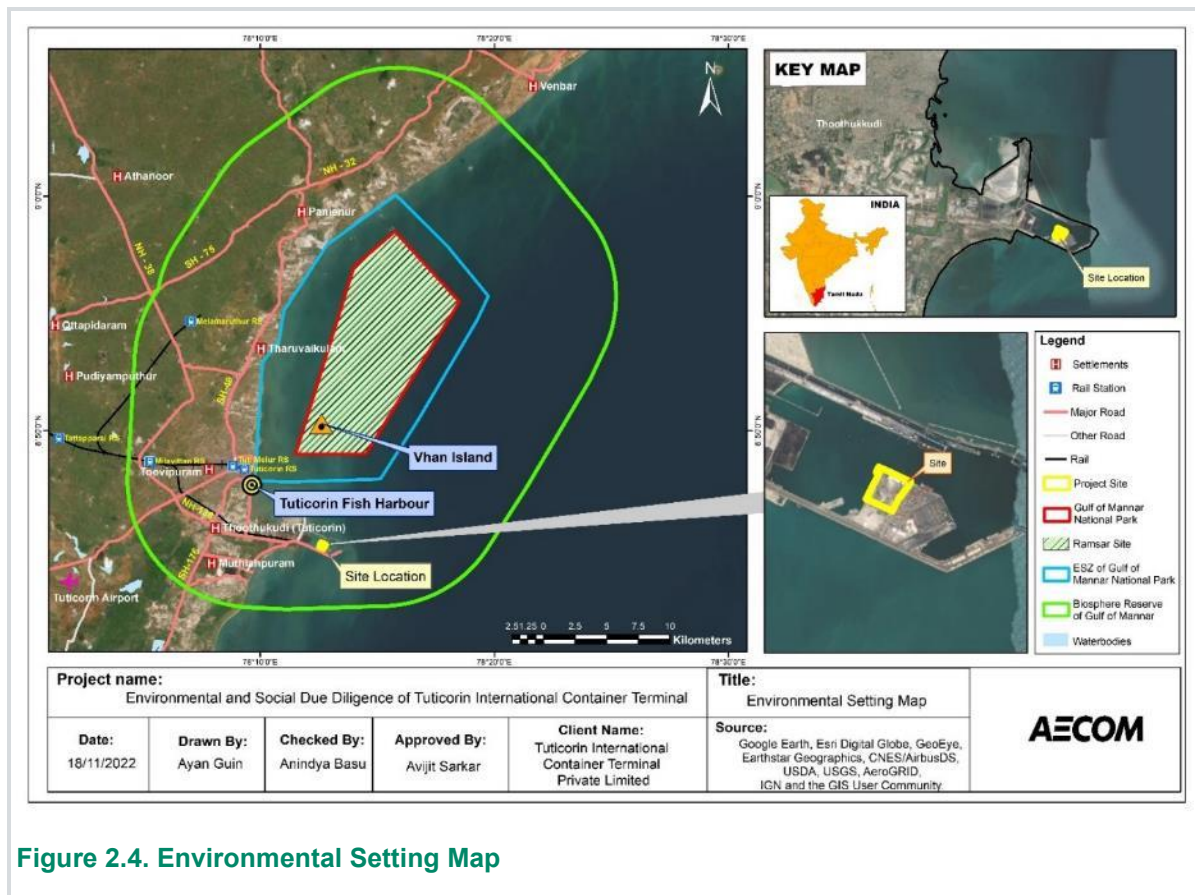


Figure 2.4. Environmental Setting Map

## 2.4 Detail of Resource Requirement

### 2.4.1 Water Requirement

Water would be mainly sourced through a piped water supply from VOCPT. During construction and operational phase, total estimated water requirement will be approximately 25 KLD and 30 KLD respectively excluding water consumption in the worker accommodation who will be staying outside VOCPT premises. Water for firefighting of the terminal would be drawn from sea. Drinking water (packaged water) would be made available from authorised vendor.

### 2.4.2 Contractor Details and Workforce

Presently, the project is in the process of finalising design consultant, EPC contractor for Marine works, and other contractors for IT, electrical work, yard development, building, structural work. The required workforce for construction would be approximately 270 workers and during operation total workforce would be of the order of 360 heads.

### 2.4.3 Power

During Construction phase, power will primarily be sourced from Tamil Nadu Generation and Distribution Corporation Limited (TANGEDCO). The estimated electricity consumption is 1,26000 KWH per year. Additional power will be met through DG sets of 1 X 125 KVA and 1 X 62.5 KVA.

For operational stage, the estimated annual electricity consumption would be ~ 39,60000 KWH during peak operations. Power requirement for operation would be source from the VOCPT Substation under TANGEDCO. The power would be drawn through 22KV HT line.



### 2.4.4 Fuel

During construction phase, approximately 216 KL per annum of diesel consumption is estimated while approximately 487 KL per annum of diesel consumption is estimated for operational phase.

### 2.4.5 Construction Equipment

Details regarding construction equipment is not available at this stage. This would be available once detailed engineering is completed and methodology of construction is finalised.

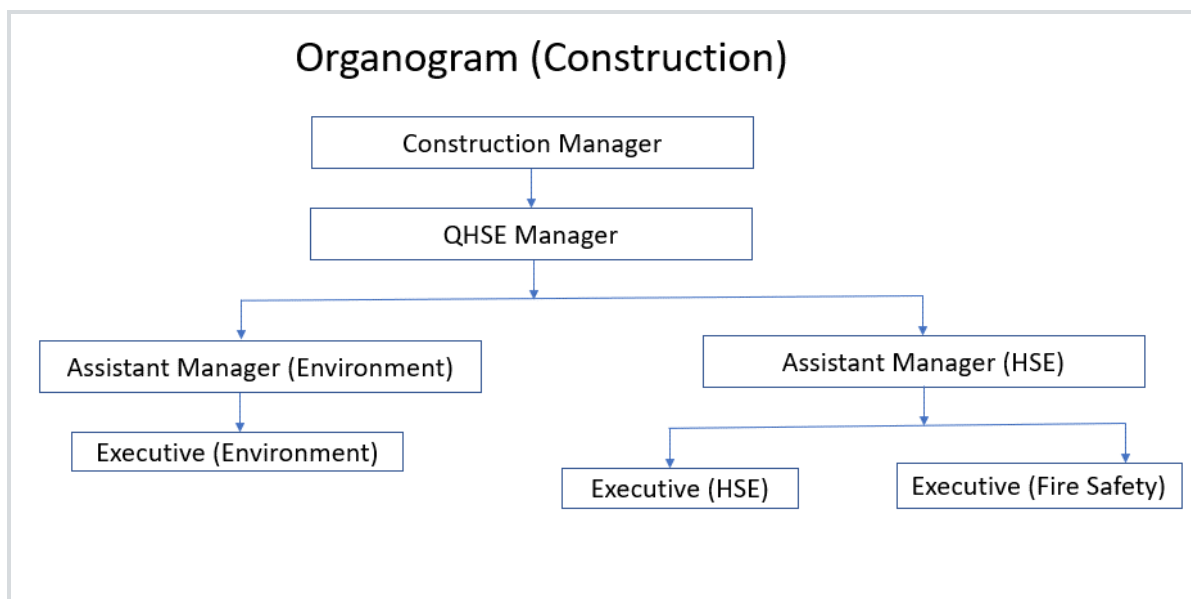
For the construction of the rubble bund, stone aggregate for construction would be obtained from approved stone quarries/vendors of VOCPT.

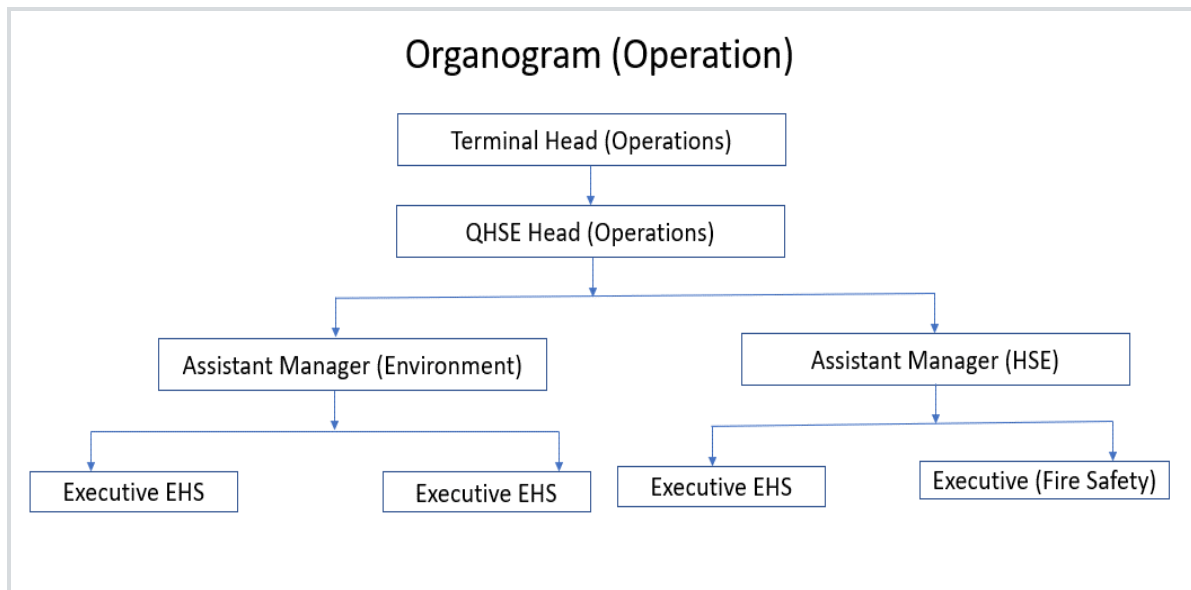
### 2.4.6 Land

The total land area of the port premises is 870.75 hectares. The proposed container terminal is located within VOCPT premises. As per Concessionaire Agreement the total area for the proposed container terminal is 10 hectare including berth area. For the proposed project, no land acquisition would be required. The land is available and to be allotted by VOCPT to TICT on lease period of 30 years. Presently, TICT is yet to obtain physical possession of Berth 9. Reportedly, this would be handed over to TICT in March 2023.

## 2.5 EHS management and Organisational Structure

After the project development plan is finalised by the Technical Consultant, EHS management and Organisational Structure will be drawn up in accordance with the corporate JMB plan and procedures and existing similar terminals promoted by JMB Group across other locations in India. The indicative Organisational Structure for construction and operational phase is provided in Figure below based on discussion with JMB.





## 2.6 External Factor Review

An extensive review of available documentation in the public domain was carried out by AECOM pertaining to the project reveal that there were multiple protest and agitation against the Major Port Act, 2015. These were pan-India strikes and nothing specific to VOCPT operations. Hence, the likelihood of any major agitation impacting the proposed project on a long-term basis is negligible.

### 3. Applicable EHS and Social Framework

#### 3.1 Applicable Regulatory Clearance and Permits

The status of applicable regulatory Environmental, Health, Safety and Social permits and licenses for TICT terminal are outlined in **Table 3-1**. This is based on the site assessment and subsequent review of the information shared with AECOM.

**Table 3-1. Applicable Clearance and Permits**

S. No	Permit Name	Issuing Authority	Status	Relevance to the Proposed Project
1	Environmental Clearance	Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India (GoI)	Environmental Clearance for Deepening the Harbour Basin and Approach Channel to handle 15.20m draught vessels, Modification of Port entrance, Construction of 6 Nos. of Berths and Strengthening / Upgradation of existing Berths-1 to 9, NCB-I and NCB-II at V.O. Chidambaranar Port has been obtained vide letter number F.NO. 10-55/2017-IA-III dated 25th February 2019.  Prior to that, EC was obtained for construction of existing Berth 9 vide document No.10/7/2005-IA-3 dated 9th May 2006.	<b>Applicable</b> The Container Terminal at Berth No. 9 is an integral part of VOCPT, and its development and operation would be regulated by the conditions stipulated in the Environmental and CRZ Clearance obtained by VOCPT for the port.
2	Coastal Regulation Zone (CRZ) Clearance	Ministry of Environment, Forest and Climate Change (MoEF&CC), Government of India (GoI)	VOCPT had obtained Coastal Regulation Zone (CRZ Clearance) for the port complex vide letter No. 7798/EC.3/2018-1 dated 2nd May 2018.  Prior to that, CRZ clearance for the port including construction of Berth 9 was obtained vide document No.10/7/2005-IA-3 dated 9th May 2006.	<b>Applicable</b> The Container Terminal at Berth No. 9 is an integral part of VOCPT, and its development and operation would be regulated by the conditions stipulated in the Environmental and CRZ Clearance obtained by VOCPT for the port.
3	Consent to Establish	Tamil Nadu Pollution Control Board (TNPCB)	As per direction issued by Central Pollution Control Board (CPCB) notification number F. No. B-29012/MSMEs/IPC-VI/2017-18/12189-12230 dated 1st November 2018 stated that all projects requiring Environmental Clearance may be exempted from obtaining Consent to Establish (CTE). Only Consent to Operate would be required for the project.	This is exempted.
4	Consent to Operate	Tamil Nadu Pollution Control Board (TNPCB)	VOCPT has renewed its CTO Consent to Operate by Tamil Nadu Pollution Control Board has been issued vide Consent Order No. 1908220349827 dated 20th March 2019 and valid till 31st March 2023 under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974) and under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981).  This consent includes handling of dry cargo of capacity 42 MTPA for the entire port facility. As per the EC, the permitted cargo handling capacity of VOCPT is	<b>Applicable</b> The Container Terminal at Berth No. 9 is an integral part of VOCPT, and its operation would be regulated by the conditions stipulated in the CTO under Air Act and Water Act obtained by VOCPT for the port.

S. No	Permit Name	Issuing Authority	Status	Relevance to the Proposed Project
			46.78 MTPA and reportedly, the present cargo handling capacity is 35 MPTA. With the development of existing Berth 9 as container terminal for handling 0.6 million TEUs per year, the cargo handling capacity of port is likely to exceed the permitted CTO capacity. VOCPT would ensure that CTO for the port premises is renewed taking into account the additional increase in cargo handling capacity.	
5	Hazardous Waste Authorisation	Tamil Nadu Pollution Control Board (TNPCB)	VOCPT has obtained the authorisation for handling storage, transportation, and disposal of hazardous waste from TNPCB. The authorisation number 20HFC20507773 dated 1st April 2020 valid till 31st March 2025. As per the annual returns (Form IV) submitted by VOCPT to TNPCB vide letter no.CIV-OFCQS-PLC-HAZARD-VI-18/D/402 dated 17th May 2022 the total hazardous waste generated for the year 2021-22 was 2900 Ltrs of used oil.	<b>Applicable</b> The proposed container terminal will generate hazardous waste during construction and operational phase. These wastes would be handled, stored and disposed under blanket authorisation of VOCPT.
6	License for the Storage of Diesel	Joint Chief Controller of Explosive, Mumbai	To be determined during project development plan finalisation by the Technical Consultant based on site specific storage requirement, if any.	This will not be applicable considering their will not be any bulk storage of fuel within the proposed container terminal.
7	PESO License	Petroleum and Explosives Safety Organisation	To be determined during project development plan finalisation by the Technical Consultant based on site specific storage requirement, if any.	Applicable, if Class B petroleum product (HSD) is stored at site at a quantity in excess of 2500 litres in non-bulk form and 1000 litres in bulk form.
8	Dock Safety Certification	Inspectorate Dock Safety, VOC Port	TICT has yet to obtained Safety Certificate of the terminal from the Assistant Director (Safety), Inspectorate Dock Safety, Tuticorin.	<b>Applicable</b> The master layout prepared for the proposed container terminal will require approval from Inspectorate Dock Safety, VOC Port.
9	Fire No Objection Certificate (NOC)	Tamil Nadu State Fire Prevention Services, Tuticorin	This would be initiated prior to commissioning stage	Fire NOC would be applicable.
10	Principal Employer's Registration under Contract Labour (Regulation and Abolition) Act, 1970	Labour and Employment Department, Government of Tamil Nadu	Yet to be obtained. This would be initiated prior to commencement of construction.	<b>Applicable</b> TICT will require to obtain principal employer registration under for engaging contractor(s).
11	Labour Licenses of Contractor	Labour and Employment Department, Government of Tamil Nadu	Yet to be obtained. This would be initiated prior to commencement of construction.	<b>Applicable</b> All contractor(s) engaged by TICT during construction and operational would require to obtained Contract Labour License under Contract Labour (Regulation and Abolition) Act, 1970

S. No	Permit Name	Issuing Authority	Status	Relevance to the Proposed Project
12	Building and Construction Workers (BOCW) Licence, 1996	Labour and Employment Department, Government of Tamil Nadu	Yet to be obtained. This would be initiated prior to commencement of construction.	BOCW would be applicable during construction stage.
13	Inter State Migrant Workmen (ISMW), 1979	Labour and Employment Department, Government of Tamil Nadu	Yet to be obtained. This would be initiated prior to commencement of construction and operational	<b>Applicable</b> The contractor(s) engaged by TICT would engage migrant labour from outside Tamil Nadu state. Hence ISMW license would be applicable for the project.

### 3.2 Applicable IFC Performance Standards

The applicability of the IFC Performance Standards (2012) have been explored and the details are provided below.

**Table 3-2. IFC Performance Standards**

Performance Standards	Description	Applicability
IFC PS 1: Assessment and Management of Environmental and Social Risks and Impacts	This PS aims to assess the existing social and environmental management systems of a company/ project and to identify the gaps with respect to their functioning, existence and implementation of any Environmental and Social Management Plan (ESMP) and procedures, a defined EHS Policy, institutional structures with defined roles and responsibilities, risk identification and management procedures as well as processes like stakeholder engagement and grievance management.	<b>Applicable</b> PS 1 is applicable to project with respect to environment and/or social risks and/or impacts. As the project would include construction of yard area, berth extension and handling & movement of containers, it is essential to have a defined mechanism towards assessment and management systems of associated environmental and social risks and impacts.
PS 2- Labour and Working Conditions	This IFC PS is guided by several international conventions and instruments on labour and workers' rights. It recognizes that the pursuit of economic growth (through employment creation and income generation) should be accompanied by protection of fundamental rights of workers. Key themes are the following - <ul style="list-style-type: none"> <li>• Human resource policy and management; Workers' organization.</li> <li>• Non-discrimination and equal opportunity,</li> <li>• Retrenchment; Protecting the workforce; and</li> <li>• Occupational health and safety.</li> <li>• It applies to workers directly engaged by the employer (direct workers), workers engaged through third parties to perform work related to core business processes of the project for a substantial duration (contracted workers), as well as workers engaged by the client's primary suppliers (supply chain workers).</li> </ul>	<b>Applicable</b> The project would engage workers during construction and operational phase for loading, unloading and maintenance work for day-to-day operational of the terminal. This includes both employees of TICT as well as contract workers engaged by TICT. Thus, compliance to IFC PS is required.
PS 3: Resource Efficiency and Pollution Prevention	The objective of PS-3 is to avoid or minimize adverse impacts of pollution on human health and the environment by avoiding or minimizing pollution from project activities; to promote	<b>Applicable</b> The project would involve activities such as operation of D.G. sets, generation,

Performance Standards	Description	Applicability
	<p>more sustainable use of resources, including energy and water, and to reduce project-related GHG emissions. The assessment covers requirements related to mitigation measures, management plans, and conservation and efficient use of resources. Key themes include the following -</p> <ul style="list-style-type: none"> <li>• Pollution prevention;</li> <li>• Resource conservation and energy efficiency;</li> <li>• Wastes management;</li> <li>• Hazardous materials handling and storage</li> <li>• Emergency preparedness and response;</li> <li>• Greenhouse Gas emissions;</li> <li>• Pesticide use and management.</li> </ul>	<p>storage and handling of hazardous wastes and hazardous materials, generation of wastewater, and emission from vehicles, which is likely to impact humans and the baseline environment adversely during construction as well as operational stage.</p>
<p>PS 4 Community Health Safety and Security</p>	<p>PS-4 requires due diligence to anticipate and avoid adverse impacts on the health and safety of the affected community during the project life from both routine and non-routine circumstances. It also requires ensuring that the safeguarding of personnel and property is carried out in accordance with relevant human rights principles and in a manner that avoids or minimizes risks to the affected community.</p> <ul style="list-style-type: none"> <li>• Key themes include the following -</li> <li>• Infrastructure/equipment safety;</li> <li>• Hazardous material safety;</li> <li>• Natural resource issues;</li> <li>• Exposure to disease;</li> <li>• Emergency preparedness and response;</li> <li>• Security personnel.</li> </ul>	<p><b>Applicable</b></p> <p>The project is assessed to have limited impact on the local communities as there are no human settlement nearby to the project site. The nearest human settlement is located at an aerial distance of approximately 3 km southwest of the port boundary. However, the project will engage both direct and contractual workers during construction and operational phase. In addition, internal security personnel would be engaged to safeguard the terminal. I. Thus, PS 4 aim to assess risks and security management systems for the proposed project.</p>
<p>PS 5 Land Acquisition and Involuntary Resettlement</p>	<p>PS-5 requires project proponents to anticipate and avoid, or where avoidance is not possible, minimize adverse socio-economic impacts from land acquisition or restrictions on land use.</p> <p>The key themes covered under this are</p> <ul style="list-style-type: none"> <li>• Compensation and benefits for displaced persons</li> <li>• Consultation and grievance mechanism,</li> <li>• Resettlement planning and implementation, physical displacement, economic displacement.</li> </ul>	<p><b>Not Applicable</b></p> <p>This PS is not applicable as the TICT is located within VOCPT complex and will not require any additional land. In addition, no impact on fishing activity is reported hence impact on livelihood also is not envisaged</p>
<p>PS 6 Biodiversity Conservation and Sustainable Management of living Resources</p>	<p>The requirements of PS6 apply to projects (i) that are situated in modified, natural, and critical habitats; (ii) that potentially impact on or are dependent on ecosystem services over which the client has direct management control or significant influence; or (iii) that include the production of living natural resources e.g., agriculture, animal husbandry, fisheries, and forestry.</p> <p>PS-6 considers relevant threats to biodiversity and ecosystem services, owing to project-related direct and indirect impacts, with a focus on habitat loss, degradation and fragmentation, introduction or spread of invasive alien species and loss or degradation of priority ecosystem services, while recognizing the differing values</p>	<p><b>Applicable</b></p> <p>The project site overlaps moderately to highly modified habitats and the port expansion itself will occur within the footprint of existing facilities. The port is located on the southern edge of Thoothukudi Bay which lies on the Gulf of Mannar between the south-eastern edge of India and Sri Lanka. The port itself lies within the buffer area of the Gulf of Mannar Man and Biosphere Reserve (GoMBR). Approximately 10 km to the north and extending for a further 100 km to the northeast is the Gulf of Mannar Marine National Park which constitute the core of the GoMBR. These areas have</p>

Performance Standards	Description	Applicability
	attached to biodiversity and ecosystem services by Affected Communities and any other stakeholders, especially Indigenous Peoples	been extensively modified during the port's operation over at least 20 years and it is not expected that the container terminal expansion will increase impacts to biodiversity. However, given that the port is located within the GoMBR, PS 6 is considered applicable.
PS 7: Indigenous Peoples	PS-7 applies to communities or groups of Indigenous Peoples who maintain a collective attachment, i.e., whose identity as a group or community is linked, to distinct habitats or ancestral territories and the natural resources therein. PS-7 endeavour to ensure that the development process fosters full respect for the human rights, dignity, aspirations, culture, and natural resource-based livelihoods of Indigenous Peoples. Key themes covered include consultation and informed participation, impacts on traditional or customary lands under use, relocation of IPs from traditional or customary lands, cultural resources.	<b>Not Applicable</b> The operation of TICT within the existing VOC port premises does not have any impacts on any communities, including indigenous communities. Thus PS 7 is not applicable for the proposed project.
IFC PS-8: Cultural Heritage	PS 8 applies to any tangible forms of cultural heritage; unique natural features or tangible objects that embody cultural values or certain instances of intangible forms of culture that are proposed to be used for commercial purposes. The PS applies to any type of features which has cultural importance to local population. It may or may not be notified.	<b>Not Applicable</b> The proposed container terminal is within the VOCPT premises, and there are no buildings and structures of cultural, archaeological and religious significance. Hence PS 8 is not applicable for the proposed project.

### 3.3 Applicable National EHS and Social Regulations

**Table 3-3** provides a list of applicable EHS and social regulations under the host country legal framework.

**Table 3-3. Applicable EHS and Social Regulations**

Key EHS Acts and Rules	Key Social Acts and Rules
<ul style="list-style-type: none"> <li>Water (Prevention and Control of Pollution) Act, 1974 as amended up to 1988.</li> <li>Water (Prevention and Control of Pollution) Rules, 1975.</li> <li>Air (Prevention and Control of Pollution) Act, 1981 as amended up to 1987.</li> <li>Air (Prevention and Control of Pollution) Rules, 1982</li> <li>Environmental Protection Act, 1986.</li> <li>Environment (Protection) Rules, 1986 and Amendment Rules</li> <li>Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016</li> <li>Bio-Medical Waste Management Rules, (BMW) 2016</li> <li>Solid Waste (Management) Rules 2016</li> <li>E-Waste (Management) Rules, 2016</li> <li>Battery Waste Management Rules, 2022</li> <li>Petroleum Act, 1934</li> <li>Dock Workers Safety Act</li> <li>The Fire &amp; Emergency Service, Fire Prevention and Fire Safety Act, 2016.</li> <li>Major Port Act, 2020</li> </ul>	<ul style="list-style-type: none"> <li>Contract Labour (Regulation and Abolition) Act, 1970.</li> <li>Payment of Wages Act, 1936 (amendments thereafter).</li> <li>Employees Provident and Miscellaneous Provisions Act, 1952 (amendments thereafter).</li> <li>Maternity Benefit Act, 1961 (amendments thereafter).</li> <li>Payment of Gratuity Act, 1972.</li> <li>Employees State Insurance Act, 1948.</li> <li>Child Labour (Prohibition and Regulation) Act, 1986.</li> <li>Bonded Labour System (Abolition) Act, 1976.</li> <li>Industrial Disputes Act, 1947</li> <li>Minimum Wages Act, 1948.</li> <li>Central Minimum Wages Rules, 1950 and Tamil Nadu Minimum Wages Rules 1961</li> <li>Equal Remuneration Act, 1976.</li> <li>Interstate migrant workmen act 1979</li> <li>Private Securities Agencies Regulation Act. 2016</li> </ul>

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#### Key EHS Acts and Rules

#### Key Social Acts and Rules

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- Transport, handling and Storage of Dangerous Goods in the port of Tuticorin Regulations, 1991
  - Construction and Demolition Waste Management Rules, 2016
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### 3.4 Other International Regulations

#### 3.4.1 ISPS Code

The International Ship and Port Facility Security (ISPS) Code is an amendment to the Safety of Life at Sea (SOLAS) Convention (1974/1988) on maritime security including minimum security arrangements for ships, ports and government agencies. The code lays down rules and regulation for shipping companies, shipboard personnel, and port/facility personnel to "detect security threats and take preventive measures against security incidents affecting ships or port facilities used in international trade. The ISPS Code mandates that shipping lines, ports and terminals are required to place appropriate security officers/personnel on each ship, in each port facility and in each shipping company to prepare and to put into effect the security management plans.

The ISPS codes also mandate three level of security system:

**Security Level 1 - Normal:** This is the level at which the ships and port facilities operate under normal conditions. Minimum protective measures are maintained at all times in this category.

**Security Level 2 - Heightened** – This is a level that applies whenever there is a heightened risk of a security incident. At this level, additional security measures are implemented and maintained for that period of time. This includes use of central forces such as CISF and marine forces. This time frame is determined by the security experts on the ship or at the port facility.

**Security Level 3 – Exceptional** – At this level, it is considered that a security incident is imminent and specific security measures will have to be implemented and maintained for that period of time. At this level, the security experts will work in close conjunction with government agencies and follow specific protocols and instructions.

The Tuticorin port is a Security Level 2 Port. Thus, the security of the port is managed by Central Industrial Security Force (CISF) on the land side and Marine Police on the seaside. The internal security provision for TICT will be managed by its own unarmed security personnel for overseeing the security of the terminal area only and its immediate entrance area.



## **4. Gap Assessment and Project Categorisation**

A gap assessment of the environmental and social performance of TICT operation has been undertaken vis-à-vis the applicable reference framework and presented in this section 4.1 to 4.6 provides a description of key issues and observations against the applicable IFC performance standards.

## 4.1 Gap Assessment-Regulatory Compliance

S. N	Assessment Parameter	Observations/Gaps	Recommendation
1.	Environmental Permits	<p><b><u>Environmental Clearance:</u></b></p> <p>Environmental Clearance for Deepening the Harbour Basin and Approach Channel to handle 15.20m draught vessels, Modification of Port entrance, Construction of 6 Nos. of Berths and Strengthening / Upgradation of existing Berths-1 to 9, NCB-I and NCB-II at V.O. Chidambaranar Port has been obtained vide letter number F.NO. 10-55/2017-IA-III dated 25th February 2019.</p> <p>The existing EC has provisions for development of Berth 9 to new container terminal alongside development of shallow Berth 10 in the adjoining area. However, it was understood that an expansion of existing Berth 9 by approximately 35.5 m x 60m is proposed on the area permitted for development of shallow Berth 10. This would also involve construction of additional rock bund for stability of extended berth area of Berth 9. VOCPT has not checked the requirement of intimating MoEF&amp;CC regarding the above change. VOCPT need to check that the above expansion work is acceptable under the current EC ambit. However, considering both strengthening and upgradation of Berth 9 is already included in the latest EC of VOCPT, the risk is envisaged to be low.</p> <p>Prior to 2019 Environmental Clearance, an EC was obtained for construction of existing Berth 9 vide document No.10/7/2005-IA-3 dated 9<sup>th</sup> May 2006.</p> <p><b><u>Coastal Regulation Zone (CRZ Clearance):</u></b></p> <p>CRZ clearance for the project has been obtained vide letter No. 7798/EC.3/2018-1 dated 2ndMay, 2018.</p> <p>Prior to that, CRZ clearance for the port including construction of Berth 9 was obtained vide document No.10/7/2005-IA-3 dated 9th May 2006.</p> <p><b><u>Consent to Establish:</u></b></p> <p>As per direction issued by Central Pollution Control Board (CPCB) notification number F. No. B-29012/MSMEs/IPC-VI/2017-18/12189-12230 dated 1st November 2018 stated that all projects requiring Environmental Clearance may be exempted from obtaining Consent to Establish (CTE). Only Consent to Operate would be required for the project.</p> <p><b><u>Consent to Operate under Air and Water Act:</u></b></p> <p>CTO Consent to Operate by Tamil Nadu Pollution Control Board has been issued vide Consent Order No. 1908220349827 dated 20<sup>th</sup> March 2019 and valid till 31<sup>st</sup> March 2023 under Section 25 of the Water (Prevention and Control of Pollution) Act, 1974 as amended in 1988 (Central Act 6 of 1974)</p>	<ul style="list-style-type: none"> <li>TICT to ensure that the Quarry site have a valid EC and CTO</li> </ul>

S. N	Assessment Parameter	Observations/Gaps	Recommendation
		<p>and under Section 21 of the Air (Prevention and Control of Pollution) Act, 1981 as amended in 1987 (Central Act 14 of 1981).</p> <p>This consent includes handling of dry cargo of capacity 42 MTPA. As per the EC, the permitted cargo handling capacity of VOCPT is 46.78 MTPA and reportedly, the present cargo handling capacity is 35 MPTA. With the development of existing berth 9 as container terminal for handling 0.60 TEUs the cargo handling capacity of port is likely to exceed the permitted CTO capacity. VOCPT to ensure that CTO for the port premises is renewed taking into account the additional increases in cargo handling capacity.</p> <p><b><u>CTO and EC for Quarry Site</u></b></p> <p>It is understood from discussions at site that minimal quarry materials would be required for construction and finishing of new container terminal. Reportedly, the quarry materials required for expansion of Berth 9 and development of new container terminal would be sourced from an authorised quarry with a valid permit. However, at this stage availability of valid EC and CTO documents for the quarry could not be verified as the source quarry has not yet been identified at this stage.</p> <p><b><u>Hazardous Waste Authorisation:</u></b></p> <p>Hazardous waste authorisation under Hazardous waste (Management and Handling) Rules, 1989 as amended in 2003 has been obtained with authorisation number 20HFC20507773 dated 1<sup>st</sup> April 2020. The authorization is valid till 31<sup>st</sup> March 2025.</p> <p><b><u>Biomedical Waste Authorisation:</u></b></p> <p>Biomedical waste authorisation under Bio-Medical Waste Management) Rules, 2016 has been obtained with authorisation number 219BAD12980430 dated 20<sup>th</sup> December 2019. The authorization is valid till 31<sup>st</sup> March 2023.</p>	
2	Labour Licenses and Permits	The Project is still at a conceptual stage, EPC Contractors and other contractors' selection and onboarding is yet to be initiated.	<ul style="list-style-type: none"> <li>• TICT to ensure that all applicable labour licenses and permits are obtained prior to commencement of construction and operational stage.</li> </ul>
3	Approval of site and plan layout	Presently, TICT is yet to finalise the design consultant for preparing the design layout of the proposed project. Hence the project is yet to obtain the approval from the Chief Inspector of Dock Safety. Reportedly, the plan will be finalised by January 2023.	<ul style="list-style-type: none"> <li>• TICT to obtain the required permission from the concerned authority.</li> </ul>
4	Fire NOC	The Project is still at a conceptual stage, EPC Contractors and other contractors' selection and onboarding is yet to be initiated.	<ul style="list-style-type: none"> <li>• TICT to obtain the required permission from the concerned authority before commissioning stage.</li> </ul>

S. N	Assessment Parameter	Observations/Gaps	Recommendation
5	DG set installation and operation	During Construction phase, DG sets of 1 X 125 KVA and 1 X 62.5 KVA would be used. However, as the project is still at the conceptual stage and contractor is yet to be finalised, the exact number and capacity of DG set cannot be determined at this stage.	<ul style="list-style-type: none"> <li>TICT to ensure the contractor obtains the required CTO for operating the DG sets along with stack as per the statutory requirements.</li> </ul>
6	Statutory Environmental Monitoring	<p>As part of EC condition, VOCPT carried out periodical environmental monitoring for air, emission, water quality, Noise emission. Marine water biological quality and seabed sediment. The latest EC compliance report was submitted on the 07<sup>th</sup> June 2022.</p> <p>Review of the seabed monitoring data indicates that parameters such as marine phytoplankton, zooplankton and benthos were monitored. However, monitoring of other parameter as stipulated in the EC condition, such as sea weeds, sea grasses, mudflat, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangrove, and other marine biodiversity components has not been carried out.</p>	<ul style="list-style-type: none"> <li>TICT would require discussing with VOCPT regarding the last monitored status of sea weeds, sea grasses, mudflat, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangrove and other marine biodiversity components.</li> </ul>
7	Fire and Electrical Safety Infrastructure for RMQC, e-RTGs etc.	The Project is still at a conceptual stage. The project is yet to obtain the required clearance and certification.	<ul style="list-style-type: none"> <li>TICT to obtain the required permission from the competent authority.</li> </ul>

## 4.2 IFC PS-1: Assessment and Management of Social & Environmental Risks and Impacts

S. N	Aspects	Observations/Gaps	Recommendation
1.	<p><b>Environment and Social Assessment and Management System (ESMS)</b></p> <p>As per PS 1, the client should establish and maintain an Environmental and Social Management System (ESMS) appropriate to the nature and scale of the project and commensurate with the level of social and environmental risks and impacts throughout the life cycle of the project. The ESMS should incorporate elements pertaining to policy, identification of risks and impacts, management programs, organizational capacity and competency, emergency preparedness and response, Monitoring and review, stakeholder</p>	<ul style="list-style-type: none"> <li>The proposed project is still in the conceptual stage and does not have any Environmental and Social plans and procedures of its own. TICT being a Special Purpose Vehicle of M/s JM Baxi Group (JMB), it will adopt all the Environmental, Health, Safety, Security and Social (EHSS&amp;S) policies of JMB. JMB also has other SPVs with similar operations across different regions of India and these SPVs have their own site-specific EHSS&amp;S plans and procedures aligned to JMB requirement. TICT will formulate their own site-specific EHSS&amp;S plans and procedures in line with SPVs for similar operating container terminal ensuring all the IFC PS requirements are incorporated for all stages of the project.</li> <li>Review of sample IMS documents prepared for another Container Terminal promoted by JMB Group cover aspects such as QHSE Policy, Departmental Procedures Manuals,</li> </ul>	<ul style="list-style-type: none"> <li>TICT will (i) adopt the QHSE policy of the Group; (ii) develop and implement a site-specific Environmental Health and Safety (EHS) management system/Integrated Management System (IMS) compliant with IFC Performance Standards and develop QHSE/OH&amp;SMS manuals which will include an assessment of environmental, occupational health and safety risks and impacts from its operations, and operational control procedures to mitigate the identified risks and impacts.</li> </ul> <p>The manuals will include Standard Operating Procedures (SOPs)/work instructions aligned with applicable sections of the IFC EHS guidelines incorporating the following elements, at a minimum:</p> <ul style="list-style-type: none"> <li>(a) identification procedure of risks, impact</li> </ul>

S. N	Aspects	Observations/Gaps	Recommendation
	engagement, and external communications and grievance mechanisms.	<p>HSE Manual, Standards Operating Procedures, QMS, EMS and OH&amp;S risk Assessment and Registers etc. Other management systems for JMB group are found to be in place which include Security Management System (SMS) Manual, HSE Construction Manual etc.</p> <ul style="list-style-type: none"> <li>• In addition, the Integrated management manual/ESMS for the project is yet to be developed. <ul style="list-style-type: none"> <li>- An Environment Impact Assessment was carried out by third party agency in January 2018 for Deepening the Harbour basin and Approach Channel to handle 15.20m draught vessels, modification of port entrance Construction of Berth 6 and strengthening and Upgradation of existing Berth 1 to 9, NCB-I and NCB-II at VOC port, Thoothukudi.</li> </ul> </li> </ul>	<p>assessment and EHS&amp;S management procedures for entire project cycle; (b) framework for developing site specific E&amp;S management programs; (c) organizational structure for EHS management system implementation; (d) training and capacity building; (e ) monitoring and review mechanism; (f) stakeholder engagement; and (g) grievance mechanism; and (iii) implement a security management system (SMS) certified to ISO 28000:2007 standards and develop a security management plan as per International Ship and Port Facility Security (ISPS) protocol including security management policy, access point security deployment, CCTV monitoring, parameter patrolling and cargo security.</p> <ul style="list-style-type: none"> <li>• Schedule for periodic review and update of the document.</li> </ul>
2.	<p><b>Policy</b> The Client will establish an overarching policy defining the environmental and social objectives and principles that guide the project to achieve sound environmental and social performance.</p>	<ul style="list-style-type: none"> <li>• JMB have at their corporate level, a QHSE policy endorsed by the company management and signed by the President and COO. The policy was last reviewed on 14th July 2021.</li> <li>• As TICT is yet to start its operation, site specific QHSE and Corporate Social Responsibility (CSR) policy is yet to be formalized.</li> </ul>	<ul style="list-style-type: none"> <li>• TICT to develop site-specific QHSE&amp; CSR policy in line with IFC requirements.</li> </ul>
3.	<p><b>Identification of Risks and Impacts:</b> The client will establish and maintain a process for identifying the environmental and social risks and impacts of the project. The type, scale, and location of the project guide the scope and level of effort devoted to the risks and impacts identification process. The scope of the risks and impacts identification process will be consistent with good international industry practice and will determine the appropriate and relevant methods and assessment tools</p>	<p>VOCPT has carried out an EIA for the entire port augmentation which also includes upgradation and strengthening of Berth 9. The assessment covers the following aspects: -</p> <ul style="list-style-type: none"> <li>- Baseline Data was collected through secondary and primary sources.</li> <li>- The impacts and risk covered in the EIA reports cover aspects such as impact on Air, Noise environment and quality. Modelling of air impacts resulted from emission from cargo ships, coal stockpiles, Vehicular emission was also undertaken as part of the risk and impact assessment. Other impacts include land environment, traffic, impact on Marine environment and Marine ecology, oil &amp; liquid cargoes spillage, impact due to dredging including rock dredging etc.</li> <li>- Analysis of Alternatives for technology.</li> <li>- An impact assessment due to site reclamation on marine biodiversity was undertaken. As per the assessment, the diversity and density of flora and fauna near the reclamation</li> </ul>	<ul style="list-style-type: none"> <li>• TICT shall require preparing site-specific EHSS&amp;S Legal Register and HIRA in line with QHSE manual with respect to hazards and risks associated with storage area and handling of hazardous waste if any.</li> <li>• TICT is recommended to conduct detailed aspect impact analysis covering the non-significant and significant impacts. The above register needs to be updated at regular intervals based on internal audit findings.</li> </ul>

S. N	Aspects	Observations/Gaps	Recommendation
		<p>sites are very less. Also, the modelling study conducted during the environment impact assessment clearly shows that no impact of sedimentation and turbidity is foreseen due to the use of geo-membrane at reclamation sites.</p> <p>TICT is yet to develop an aspect-impact register since the site is yet to start the construction and operational.</p>	
4.	<p><b>Management Programs</b></p> <p>Consistent with the client's policy and the objectives and principles described therein, the client will establish management programs that, in sum, will describe mitigation and performance improvement measures and actions that address the identified environmental and social risks and impacts of the project.</p> <p>Depending on the nature and scale of the project, these programs may consist of some documented combination of operational procedures, practices, plans, and related supporting documents (including legal agreements) that are managed in a systematic way. The programs may apply broadly across the client's organization, including contractors and primary suppliers over which the organization has control or influence, or to specific sites, facilities, or activities.</p>	<ul style="list-style-type: none"> <li>• As mentioned, the EIA prepared also has in place an Environmental Management Plan (EMP) applicable for Construction and Operation Phases which include Dust Control Management Plan, Diesel Engine Emission Management Plan, Wastewater Quality Management, Storm Water Management, Workers Health and Safety, Solid and Hazardous Waste Management Plan, Marine Water Quality Management Plan, Management Plan for Dredging, Oil spill Contingency Plan, and Demolition and Construction Waste management Plan etc.</li> <li>• The EMP mandates that all contractors are required to incorporate the minimum environmental management requirements into their work method statement and the same must be shared with VOC Port. The required EMP must cover the following aspects: -             <ul style="list-style-type: none"> <li>– Contractor's Health, Safety Environmental (EHS) management manual including waste management and emergency preparedness plan.</li> <li>– Construction schedule</li> <li>– Responsible employees at site for EHS aspects</li> <li>– Deploying a site Health, Safety and Environmental (EHS) officer</li> <li>– List of equipment to be used</li> <li>– List and Material Safety Data Sheets (MSDS) of hazardous materials/substances to be used on the site</li> <li>– Construction work method statements covering the following risk mitigation measures and environmental management plan.</li> </ul> </li> <li>• During site visit it was informed that site specific Construction Environmental &amp; Social Management Plan (CESMP) would be developed considering the above aspects, as the project is still at conceptual stage.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to contractor engagement process, TICT is recommended to develop a Contractor Management Plan incorporating EHSS&amp;S aspects.</li> <li>• Similarly, TICT is recommended to contractually engage the EPC contractor to develop and implement a CESMP (duly approved by TICT) aligned with Environmental Management Plan of VOCPT latest EC (2019), IFC Performance Standards and TICT IMS manual for the proposed construction works. This shall include the following:             <ul style="list-style-type: none"> <li>– Dust Emission Control and Management Plan and Procedure</li> <li>– Air Quality Management Plan and Procedure</li> <li>– Waste Management Plan and Procedures including MSW, HW, C&amp;D, BMW, e-Waste and Battery waste.</li> <li>– Spill Prevention and Control Plan and Procedure</li> <li>– Wastewater Management Plan and Procedure</li> <li>– Water Conservation Plan and Procedure</li> <li>– Energy Conservation Plan and Procedures including reduction of GHGs</li> <li>– Hazardous Material Management Plan and Procedure</li> <li>– Occupational Health and Safety Management Plan and Procedure</li> <li>– Worker Accommodation Management Plan and Procedure</li> <li>– Traffic Management Plan and Procedures</li> <li>– E&amp;S Monitoring Plans and Procedures</li> </ul> </li> </ul>

S. N	Aspects	Observations/Gaps	Recommendation
5.	<p><b>Organizational Capacity and Competency</b> The client, in collaboration with appropriate and relevant third parties, will establish, maintain, and strengthen as necessary an organizational structure that defines roles, responsibilities, and authority to implement the ESMS. Specific personnel, including management representative(s), with clear lines of responsibility and authority should be designated key environmental and social responsibilities should be well defined and communicated to the relevant personnel and to the rest of the client's organization. Sufficient management sponsorship and human and financial resources will be provided on an ongoing basis to achieve effective and continuous environmental and social performance.</p>	<ul style="list-style-type: none"> <li>• There is a dedicated team at the corporate level who are engaged in managing and supervising the EHSS&amp;S aspects. As a normal practice by JMB, each SPV operating container terminal have a dedicated EHS member team. The site EHS team during construction and operational phase would comprise of 6-7 professionals the detail of which has been provided in section 2.5. However, as the project is still at a conceptual stage, hence, no dedicated EHS personnel have been deployed for TICT as on date.</li> </ul>	<ul style="list-style-type: none"> <li>• TICT to ensure periodic monitoring, and reporting mechanism to assess level of compliance at periodic intervals and allocate adequate resources and budget to implement the actions at site. The EHS Management program needs to be reviewed periodically to incorporate any new EHS and social aspects.</li> <li>• TICT is recommended to deploy an environment professional and a health &amp; safety professional for the project during construction stage and will suitably enhance its EHS organization for the operational phase with clearly defined roles and responsibilities and reporting lines for staff managing EHS issues. TICT HR team will have a dedicated team members to look into the social aspects related to the project.</li> <li>• TICT is recommended to have a structured EHS training program for all TICT staff and contractors' worker covering aspects such as occupational health and safety, work permits, first aid, fire safety and vehicle safety etc.</li> <li>• TICT will ensure that the EPC contractor deploys adequate EHS and HR personnel to comply all the specific requirements during construction. TICT will require the EPC contractor to implement an EHS training program for the construction workers including induction training, daily toolbox talk, training on emergency response and construction safety. TICT will require third party audit during the project construction phase, commencing within two months of start of construction.</li> </ul>
6.	<p><b>Emergency Preparedness and Response (EPRP)</b> Where the project involves specifically identified physical elements, aspects and facilities that are likely to generate impacts, the ESMS will establish and maintain an emergency preparedness and response system so that the client, in collaboration with appropriate and relevant third parties, will be prepared to respond to accidental and</p>	<ul style="list-style-type: none"> <li>• VOCPT has in place Disaster Management Plan including Emergency Contingency and Business Continuity Plan, prepared by the Marine Department of VOCPT. The DMP was vetted by the District Collector and Superintendent of Police, Tuticorin. The DMP was last reviewed in August 2012. The plan covers the entire port area and outlines the steps required for the management of responses to Natural and Man-Made disasters that are the responsibility of the V.O Chidambaranar Port Trust and private companies within</li> </ul>	<ul style="list-style-type: none"> <li>• TICT to develop and implement EPRP taking into consideration the site conditions and project specific eventualities. The EPRP shall formulate all the measures to be adopted in case of any on-site and off-site emergency including periodic drilling exercises and public warning system. The emergency preparedness and response activities should be periodically reviewed and updated. TICT</li> </ul>

S. N	Aspects	Observations/Gaps	Recommendation
	<p>emergency situations associated with the project in a manner appropriate to prevent and mitigate any harm to people and/or the environment.</p>	<p>port premises. The DMP is a comprehensive document covering all possible hazards such as cyclone, tsunami, flood, chemical/oil disaster (fire/explosion/pollution) due to collision/grounding, spill, bomb threat, war, fire and crane accidents etc. The DMP includes elements at risk and level of impacts. The plan provides role and responsibility of each VOC personnel for management of possible disaster.</p> <ul style="list-style-type: none"> <li>• During site visit it was informed that site specific management plan is yet to be developed as the project is still at the conceptual stage. Review of sample Onsite Emergency Plan adopted by container terminal SPV promoted by JMB which includes details on: <ul style="list-style-type: none"> <li>– Key personnel, their responsibilities and communication,</li> <li>– Type of Emergencies sand their Response Processes such as Fire, Gas release, Explosion, Industrial Accident, Spills or leaks from Containers, Vehicle/People fall in Water, Cyclone/Heavy Winds, Earthquakes, Tsunami and Medical emergencies.</li> <li>– Emergency contact numbers</li> </ul> </li> </ul>	<p>to established Emergency Response Team (ERT) at site to deal with any kind of emergency.</p> <ul style="list-style-type: none"> <li>• During construction and operational phases, the site personnel will be made aware of the procedure through regular trainings.</li> </ul>
7.	<p><b>Monitoring and Review</b></p> <p>The client will establish procedures to monitor and measure the effectiveness of the management program, as well as compliance with any related legal and/or contractual obligations and regulatory requirements. The client’s monitoring program should be overseen by the appropriate level in the organization. For projects with significant impacts, the client will retain external experts to verify its monitoring information. The extent of monitoring should be commensurate with the project’s environmental &amp; social risks and impacts along with compliance requirements.</p>	<ul style="list-style-type: none"> <li>• The Port authority carries out annual safety audit of the entire port premises. However, the report was not made available for review.</li> <li>• VOCPT undertakes periodic monitoring for air, water, noise and seabed including of oily water through third party on monthly basis. VOCPT has installed CEMS for online monitoring of Ambient Air Quality at three (3) locations within port area for continuous monitoring by TNPCB.</li> <li>• JMB conducts both inter-terminal audits and external safety audits once in a year. The audits are conducted to evaluate the effective implementation of Quality Management System, EMS, OHS and Integrated Management System etc.</li> <li>• TICT is yet to put in place the E&amp;S monitoring mechanism for the container terminal as the project is under conceptual stage.</li> </ul>	<ul style="list-style-type: none"> <li>• TICT is recommended to formulate site-specific monitoring procedures and maintain periodic records for construction as well as operational phases which should cover for all source emissions, ambient air quality, ambient noise level, illumination, drinking water quality, treated wastewater quality, hazardous wastes generated and disposed, energy and water consumption and CO<sub>2</sub> emissions, marine water physical and biological parameters and sediment characteristics.</li> <li>• Occupational Health and Safety (OHS) lead and lag indicators including lost time incidents (LTI), first aid cases, property damages, near miss/dangerous occurrence, hazardous conditions etc.</li> <li>• The Monitoring Plan and program shall align with the EC and CTO conditions issued for the project.</li> </ul>



S. N	Aspects	Observations/Gaps	Recommendation
8.	<p><b>Stakeholder Engagement</b></p> <p>Clients should identify the range of stakeholders that may be affected by port activities and consider how external communications might facilitate a dialog with all stakeholders. Where projects involve specifically identified physical elements, aspects and/or facilities that are likely to generate adverse environmental and social impacts to Affected Communities, the client will develop and implement a Stakeholder Engagement Plan that is scaled to the project risks and impacts and development stage and be tailored to the characteristics and interests of the Affected Communities.</p>	<ul style="list-style-type: none"> <li>• Stakeholder Engagement by VOCPT was limited to public hearing conducted on 22nd December 2017 at Maria Mahal, Tiruchendur Road, Muthiahpuram. Some of the concern raised during the last public hearing which may be applicable to the project include the following: -               <ul style="list-style-type: none"> <li>– Emissions from trucks plying through the community areas.</li> <li>– Effect on fishing activity due to discharge of wastewater to the sea.</li> <li>– Increased in traffic jam in an around the city</li> <li>– Employment opportunities for local communities</li> <li>– Local area development through Corporate Social Responsibility</li> <li>– Concern about the loss of traditional fishing and restriction on the fishing community to reside within 200m from the shoreline.</li> <li>– Concerns for increase in pollution due to port activity which may result in rise in cancer and skin diseases.</li> </ul> </li> <li>• As per discussion with the VOCPT representatives, port undertakes CSR programs for the local community including</li> </ul>	<ul style="list-style-type: none"> <li>• TICT to coordinate with JMB for undertaking both inter-terminal audits and external safety audits once in a year during operational phase.</li> <li>• As part of ensuring compliance to the statutory EHS and IFC PS requirements, TICT is recommended to undertake third-party Environmental Health Safety and Social audit in first two quarters post commencement of construction to check compliance of the E&amp;S Action Plan and Corrective Acton Plan specified in the previous E&amp;S audit findings. Based on outcome of the second quarterly E&amp;S audit, the requirement of further compliance audit will be determined. As part of ensuring compliance to the statutory EHS and IFC PS requirements, TICT is recommended to undertake annual third-party Environmental Health Safety and Social audit, and monthly internal inspection at the site throughout the operational phase.</li> <li>• TICT needs to develop a SEP scaled to their project risks and ensures implementation of the same.</li> <li>• The SEP so developed should document stakeholder analysis, planned stakeholder engagement activities based on short, medium and long-term planning timetables, responsibilities, grievance redressal mechanism and reporting procedures.</li> <li>• The SEP implementation status should be reported to the QHSE Department every quarter</li> </ul>

S. N	Aspects	Observations/Gaps	Recommendation
9.	<p><b>External Communications and Grievance Mechanisms:</b> Clients will implement and maintain a procedure for external communications. In addition, Clients will establish a grievance mechanism to receive and facilitate resolution of Affected Communities concerns and grievances about the Client's environmental and social performance.</p>	<p>fishermen. However, there is no formalized Stakeholder Engagement Plan.</p> <ul style="list-style-type: none"> <li>• TICT is yet to develop SEP for the container terminal as the project is under conceptual stage.</li> <li>• VOCPT has in place Public Grievance Redressal Mechanism, headed by the Secretary of the Port Trust as Director for redressal of grievances. Grievances are raised both manually and electronically through website called Centralized Public Grievances Redress and Monitoring System (CPGRAMS). The mechanism is also made available to local community.</li> <li>• As reported during consultation with the Chief Engineer and Harbour master of VOCPT, the local fishermen undertaking fishing activity around the channel area being informed of the daily incoming vessels in order to avoid any accidents. The fishermen community area aware of the safety protocols i.e., no fishing allowing within the 5-8 nautical miles from the port boundary.</li> </ul>	<ul style="list-style-type: none"> <li>• Even though local communities are located far away, TICT is recommended to put in place a formal procedure to receive concerns and grievances from members of local communities as per IFC PS requirement.</li> </ul>

### 4.3 IFC PS-2: Labour and Working Conditions

S. N.	Aspects	Observations	Recommendation
1.	<p><b>Human Resource Policies and Procedures</b> The Client will adopt and implement human resource policies appropriate to its size and workforce that sets out an approach to managing workers consistent with the requirements of this performance standard and the national law.</p>	<ul style="list-style-type: none"> <li>JMB has a corporate level Employee Policy Manual applicable for all its container terminals. The manual cover aspects such as Whistle Blower Policy, Equal Opportunity, Recruitment, Transfer, Leave policy and Employees Grievance.</li> <li>Other corporate policy includes POSH Policy, Child Labour Policy etc.</li> <li>Based on consultation with the corporate HR personnel it is found that all SPVs under JMB adopts Group Policy on Prevention of Sexual Harassment (POSH) for ensuring a safe workplace for women. For this a Sexual Harassment Committee has been formed at the corporate level with representation from each SPV.</li> <li>TICT is yet to develop site-specific HR policy. This will be developed prior to commencement of the project.</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to develop site specific HR procedures as per JMB corporate HR policy compliant with national statutory and IFC PS 2 requirements and ensuring that the following IFC requirements are included in same for both employee and contractors' personnel: <ul style="list-style-type: none"> <li>Working hours and Overtime management.</li> <li>Retirement benefits such as gratuity, leave encashment, Provident Fund etc.</li> <li>Leaves entitlement</li> <li>Prevention of harassment.</li> <li>Termination of employment.</li> <li>Reward and recognition policy.</li> <li>Prohibition of Child Labor.</li> <li>Prohibitions of Forced Labor.</li> <li>Retrenchment policy.</li> <li>Non-discrimination policy.</li> <li>Freedom of association and Collective bargaining policy.</li> <li>Update the existing grievance redress policy of JMB for TICT, in line with IFC PS 2 requirements.</li> </ul> </li> </ul>
2.	<p><b>Working Conditions and Terms of Employment</b> The client will provide reasonable working conditions and terms of employment. Conditions in the workplace include the physical environment, health, and safety precautions, and access to sanitary facilities. Terms of employment include wages and benefits, wage deductions, hours of work, breaks, rest days, overtime arrangements and overtime compensation, medical insurance, pension, and leave for illness, vacation, maternity, or holiday.</p>	<ul style="list-style-type: none"> <li>As mentioned above, no site personnel have been deployed as the project is still at the conceptual stage. Details regarding the contractors and required workforce is yet to be ascertained.</li> <li>However, as per discussion with the Corporate HR personnel, TICT will adopt the general working hours practice of 8 hours in a day and 48 hours in a week limited to 6 days in a week. This includes three shifts (6 AM- 2PM, 2 PM-10 PM and 10 PM – 6 AM) and a general shift for 8 hrs. From review of corporate code of conduct, it was found that details about working hours including overtime is not mentioned explicitly.</li> <li>During construction period, workers would be engaged by contractor(s) and will be housed in the accommodation to be provided by VOCPT on rent.</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to comply to all applicable labour law and obtain the required registration, medical insurance and permits prior to start of construction and operational stage.</li> <li>TICT is recommended to put in place mechanism to monitor clock in clock out and maintaining of registers.</li> <li>TICT to ensure issuance of the contractual appointment letter to the applicable workers at the time of appointment.</li> <li>TICT is recommended to contractually ensure that its EPC and Operation and Maintenance (O&amp;M) contractors have HR policies and procedures that meet the requirements of relevant national laws and IFC PS2 including principles of non-discrimination, prevention of child and forced labour and ensuring</li> </ul>

S. N.	Aspects	Observations	Recommendation
3.	<p><b>Worker's Organization</b></p> <p>In countries where national law recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively, the client will comply with national law. Where national law substantially restricts workers' organizations, the client will not restrict workers from developing alternative mechanisms to express their grievances and protect their rights regarding working conditions and terms of employment.</p>	<ul style="list-style-type: none"> <li>As reported during consultation with VOC representative, total port workforce is 700 of which 400 are permanent employee and 300 contractual staff. Within VOCPT, there are 5 worker unions that have been declared as Recognized unions. These are Tuticorin Port Trust Democratic Staff Union (ii) Tuticorin Port Employees Trade Union (iii) Tuticorin Port Mariners &amp; General staff Union (iv) Tuticorin National Harbour Workers Union (v) Tuticorin Port United General Workers Union.</li> <li>Review of secondary information available in public domain indicates that there were a series of pan-India protest and agitations by port employees against the new Major Port Authorities Act, 2021. Reportedly, the major concern of the protest was the privatization of port terminal and stalling of pension schemes to port employees. For the proposed project i.e., for development of Berth 9 as container terminal and its operation, TICT would employ their own workers or labourers. Engagement of existing workers or labourers of VOCPT is not envisaged (<b>Appendix 11 of the CA document.</b>) The same was confirmed during site assessment. Hence, no major risk is envisaged at this stage.</li> <li>TICT has a corporate HR policy, but the policy does not mention about the freedom of the employee to be part of any union.</li> </ul>	<p>adherence to applicable labor laws provisions on working hours, overtime provisions and availability of grievance mechanism</p> <ul style="list-style-type: none"> <li>Regular Medical Check-up for workers during construction and operational phase</li> <li>Workers during both the construction and operational stage are to be provided with canteen facility, drinking water, toilet, rest area</li> <li>TICT to ensure the workers accommodation are in compliance with EBRD/IFC guidelines.</li> </ul> <p>TICT to formulate a policy on freedom of association as part of the company HR policy.</p>
4.	<p><b>Non-Discrimination and Equal Opportunity</b></p> <p>The client will base the employment relationship on the principle of equal opportunity and fair</p>	<ul style="list-style-type: none"> <li>TICT has in place a corporate policy for non-discrimination and equal opportunity. However, as the</li> </ul>	<ul style="list-style-type: none"> <li>TICT to adopt the corporate policy for non-discrimination and equal opportunity applicable for both construction and operational phases and</li> </ul>

S. N.	Aspects	Observations	Recommendation
	<p>treatment and will not discriminate with respect to any aspects of the employment relationship, such as recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.</p>	<p>project is at the conceptual stage, site specific policy is yet to be formulated.</p>	<p>regularly monitor for compliance throughout project life cycle.</p>
5	<p><b>Retrenchment</b> Client to identify viable alternatives to retrenchment, a retrenchment plan will be developed and implemented to reduce the adverse impacts of retrenchment on workers.</p>	<ul style="list-style-type: none"> <li>As the project is at the conceptual stage, TICT is yet to develop retrenchment plan.</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to have in place a retrenchment plan in line with IFC requirements and lay down rules for Employee termination and dismissal (retrenchment) in case of any lay-off. The same to be regularly monitored for compliance throughout project life cycle.</li> </ul>
6	<p><b>Grievance Mechanism</b> The client will provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The client will inform the workers of the grievance mechanism at the time of recruitment and make it easily accessible to them</p>	<ul style="list-style-type: none"> <li>A Corporate Employee Grievance Policy is in place. The Policy has outlined a two-stage approach with timelines for resolving complain/grievances raised by employee. The corporate GRM Committee comprising of Business Vertical Head and HR Head.</li> <li>No site specific GRM is in place.</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to develop a GRM for TICT employees and Contractors' workers. The Mechanism shall include scope for raising anonymous complaint.</li> <li>All grievance to be recorded and grievance register to be maintained.</li> <li>All resolved and unresolved grievances to be reported to Safety Committee in a periodic manner.</li> <li>All workers to be made aware of the GRM process.</li> </ul>
7	<p><b>Protecting the Work Force</b> <u>Child Labour</u> The client will not employ children in any manner that is economically exploitative or is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. The client will identify the presence of all persons under the age of 18. <u>Forced Labour</u> The client will not employ forced labourers, which consists of any work or service not voluntarily performed.</p>	<ul style="list-style-type: none"> <li>TICT has in place a corporate child labour policy. However, as the project is still at a conceptual stage, site specific policy is yet to be formulated.</li> </ul>	<ul style="list-style-type: none"> <li>TICT to develop site specific Child and Forced Labour Policy prior to start of construction.</li> </ul>
8	<p><b>Occupational Health and Safety</b></p>	<ul style="list-style-type: none"> <li>The project is still in conceptual phase, OHS at site is not applicable at the time of site visits. The site does not</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to prepare an OH&amp;SMS manual which will include an assessment of occupational health and safety risks and impacts from</li> </ul>

S. N.	Aspects	Observations	Recommendation
	<p>The client will provide a safe and healthy work environment, taking into account inherent risks in its particular sector and specific classes of hazards in the client's work areas, including physical, chemical, biological, and radiological hazards, and specific threats to women. The client will take steps to prevent accidents, injury, and disease arising from, associated with, or occurring in the course of work by minimizing, as far as reasonably practicable, the causes of hazards.</p>	<p>have any site-specific OHS plan and procedures for construction and operational phase.</p>	<p>its operations and operational control procedures to mitigate the identified risks and impacts. It is understood that TICTL will have in place a safety committee comprised of both worker and management staff, which would meet every month. Mock drills will be conducted, opportunities for improvement identified and corrective measures implemented.</p> <ul style="list-style-type: none"> <li>• TICT is recommended to implement a permit-to-work system based on Job Safety Analysis for all routine and non-routine operations and organize regular training program, toolbox talk for both TICT employees and contractors' workers on H&amp;S aspects. Usage of personal protective equipment (PPE), safety signage, vehicle speed and movement plan on the terminal will be implemented.</li> <li>• Aligned with corporate requirements, TICT will implement a safety training program to ensure that all employees and contracted workers are properly trained in the relevant hazards, fire and other safety procedures and emergency response. Accident, incident and near misses, including those involving contractors' workers, will be recorded, investigated, and corrective action implemented.</li> <li>• TICT to develop a dedicated First-aid centre within Berth 9 terminal. The centre should be equipped with trained personnel for handling emergency case and accidents.</li> <li>• Adequate fire system to be installed at site and inspected periodically.</li> <li>• Regular checking of RMQC Cranes, Hydra, Hoists and associated gear.</li> <li>• Conduct annual health check-up for all workers during construction and operational phases.</li> </ul>
10	<p><b>Workers Engaged by Third Party</b>                      With respect to contracted workers the client will take commercially reasonable efforts to ascertain that the third parties who engage these workers are reputable and legitimate enterprises and have an appropriate ESMS that will allow</p>	<p>No site personnel have been deployed as the project is still at the conceptual stage. Presently, the project is in the process of finalizing design consultant, EPC contractor for Marine works, and other contractors for IT, electrical work, yard development, building, structural work. The required workforce for construction would be approximately 270</p>	<ul style="list-style-type: none"> <li>• TICT will ensure the inclusion of EHS and labour statutory compliance components as well as company's priority EHS policy components in the contractual agreement with the contractors and vendors.</li> </ul>

S. N.	Aspects	Observations	Recommendation
	them to operate in a manner consistent with the requirements of this Performance Standard.	workers and during operation total workforce would be of the order of 360 heads.	<ul style="list-style-type: none"> <li>• TICT will ensure compliance to safety requirement and conduct regular monthly meetings and safety performance check for all contractors. A checklist for evaluation of contractor’s safety performance will be developed including aspects such as provision of PPE, availability of supervisors, awareness of emergency response plan (ERP) and emergency exits/evacuation procedures and training undertaken on EHS aspects.</li> <li>• TICT is recommended to develop a contractor management plan with detailed procedures to monitor, audit and document contractor compliance with national requirements and IFC Performance Standards.</li> <li>• In case Migrant labourers are engaged during construction or operational phase, TICT to ensure that contractor(s) obtain the inter-state Migrant Labour License.</li> <li>• TICT should ensure to conduct periodical audits for their registered contractors to ensure the compliance status against the relevant EHS and Labour regulatory requirements as well as company’s priority EHS and Social policy components.</li> </ul>

## 4.4 IFC PS-3: Resource Efficiency and Pollution Prevention

S. N.	Aspects	Observations	Recommendation
1.	<p><b>Resource Efficiency</b></p> <p>The client will implement technically and financially feasible and cost-effective measures for improving efficiency in its consumption of energy, water, as well as other resources and material inputs, with a focus on areas that are considered core business activities. Such measures will integrate the principles of cleaner production into product design and production processes with the objective of conserving raw materials, energy, and water. Where benchmarking data are available, the client will make a comparison to establish the relative level of efficiency.</p>	<ul style="list-style-type: none"> <li>TICT is in the process of developing Detailed Project Report for the proposed development due to which resource efficiency measures and material conservation efforts to be adopted for this project could not be ascertained.</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to consider measures for conservation of energy, water and optimal use of other raw materials so that any losses can be prevented.</li> <li>Equipment with high energy efficiency to be selected for container terminal development and operational.</li> <li>All standard operating procedures related to resource utilization, waste management, air quality management, water conservation &amp; management, energy management to be prepared, implemented and periodically monitored at site during construction and operational phases.</li> <li>TICT is recommended to consider Rainwater harvesting and sustainable drainage system in their Sustainable Design Initiative.</li> </ul>
2	<p><b>GHG Emission</b></p> <p>In addition to the resource efficiency measures described above, the client will consider alternatives and implement technically and financially feasible and cost-effective options to reduce project related GHG emissions during the design and operation of the project.</p>	<ul style="list-style-type: none"> <li>Reportedly, TICT will deploy e-RTGCs instead of diesel based RTGC as part of energy conservation measures during operational phase. However, TICT does not have the following: -                             <ul style="list-style-type: none"> <li>Greenhouse gases emissions reduction plan for construction and operational phases</li> <li>Plan for replacement for conventional energy with alternative clean energy</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to prepare and implement the following throughout the project life cycle: -                             <ul style="list-style-type: none"> <li>Greenhouse gases emissions reduction plan</li> <li>Plan for replacement for conventional energy with alternative clean energy (e.g., street and admin area lighting using solar LED lights, installation of rooftop solar panels).</li> <li>Green Belt Development Plan for carbon sequestration.</li> </ul> </li> <li>Estimation of GHGs emissions during construction and operational phases and formulate future reduction measures.</li> </ul>
3	<p><b>Water Consumption</b></p>	<ul style="list-style-type: none"> <li>Water requirement for construction and operational phase will be approximately 25 KLD and 30 KLD respectively excluding water consumption in the worker accommodation who will be staying outside VOCPT premises. Water would be mainly sourced through a piped water supply from VOCPT. No groundwater shall be abstracted throughout the project life cycle.</li> </ul>	<ul style="list-style-type: none"> <li>TICT is recommended to adopt the following measures during project life cycle: -                             <ul style="list-style-type: none"> <li>Preparation of water balance</li> <li>Installation of water meter at all supply and distribution points within the site along with plan with periodic inspection and maintenance.</li> <li>During construction phase, provide adequate numbers of truck mounted toilets with captive</li> </ul> </li> </ul>



S. N.	Aspects	Observations	Recommendation
			<p>storage of wastewater and centralised remote treatment facility.</p> <ul style="list-style-type: none"> <li>- Installation of Sewage Treatment Plant of approximately 30 KLD &amp; reuse of treated wastewater for non-potable consumption during operational phase.</li> </ul>
<p><b>4</b></p> <p><b>Pollution Prevention</b></p> <p>The client will avoid the release of pollutants or, when avoidance is not feasible, minimize and/or control the intensity and mass flow of their release. This applies to the release of pollutants to air, water, and land due to routine, non-routine, and accidental circumstances with the potential for local, regional, and transboundary impacts.</p> <p>Where historical pollution such as land or ground water contamination exists, the client will seek to determine whether it is responsible for mitigation measures.</p>	<p><b>Potential Soil Contamination</b></p> <p>During site walk-through, multiple stains and sheen on unpaved surface were observed in various locations within the Phase I and Phase II reclaimed area adjoining to Berth 9, where development of container terminal is proposed. These stains need further investigation since visual observation could not confirm whether these stains are of Hydrocarbons or any other spillage materials. However, in one of the locations towards the western part of Phase I area (adjoining to packaging wastes dumping yard), presence of VOCs was evident. This would require further examination of the soil samples in phase I area to ascertain any potential for soil contamination.</p> <p>During site visit following are the gaps observed: -</p> <ul style="list-style-type: none"> <li>• Both Phase I and Phase II area proposed for development of container yard, has been reclaimed from the sea using dredge materials. While Phase II area development is already completed with paved surface above the reclaimed compacted materials; Phase I development is yet to be completed, requiring additional cutting, and filling for grading followed by paving of the reclaimed surface. For this purpose, additional dredge material and quarry materials would be required.</li> <li>• However, it is understood that no assessment/testing of dredge materials was undertaken to determine presence of any contaminants (e.g., Poly-aromatic hydrocarbons, heavy metals, poly-chlorinated bi-phenyl, pesticides etc.) in the dredge materials due to historical port operations. Therefore, potential for any legacy contamination at the site due to land reclamation of the Phase I and Phase II Development area cannot be ruled out.</li> </ul> <p>In the absence of any baseline quality report of the dredge materials, this risk is assessed to be moderate in nature; however, if after testing, contamination in the reclaimed land is established, the same could have</p>	<ul style="list-style-type: none"> <li>• TICT is recommended to carry out one-time testing of fill materials (dredge materials) historically used for reclamation of terminal area and planned to be used in future for levelling of the container terminal and berth expansion activities. The testing shall check presence of contaminants like pesticides, Total Petroleum Hydrocarbon, PCBs, PAHs, and heavy metals and measure this with respect to Dutch Intervention (DIV) standards and report in mg/kg for assessing potential contamination of the site soil.</li> <li>• In case contamination is detected from sample investigations findings further delineation for extent of such contamination need to be established and informed to VOCPT for clean-up.</li> <li>• TICT is recommended to prepare Hazardous Material Management Plan including testing of external fill material.</li> <li>• Preparation of Effluent Management Plan during construction phase.</li> <li>• Preparation of Air quality Management Plan.</li> </ul>	

S. N.	Aspects	Observations	Recommendation
		<p>significant impact on future operations resulting in penalty, disruption of operations and potential clean-up of the reclaimed land.</p> <ul style="list-style-type: none"> <li>TICT does not have any project specific Hazardous material management plan, Effluent and Air quality management plan.</li> </ul>	
<p><b>5</b></p> <p><b>Waste Management</b></p> <p>The client will avoid the generation of hazardous and non-hazardous waste materials. Where waste generation cannot be avoided, the client will reduce the generation of waste, and recover and reuse waste in a manner that is safe for human health and the environment. Where waste cannot be recovered or reused, the client will treat, destroy, or dispose of it in an environmentally sound manner that includes the appropriate control of emissions and residues resulting from the handling and processing of the waste material. If the generated waste is considered hazardous, the client will adopt GIIP alternatives for its environmentally sound disposal while adhering to the limitations applicable to its transboundary movement.</p> <p>When hazardous waste disposal is conducted by third parties, the client will use contractors that are reputable and legitimate enterprises licensed by the relevant government regulatory agencies and obtain chain of custody documentation to the final destination.</p>	<ul style="list-style-type: none"> <li>TICT currently, does not have any waste inventory for both construction and operational phase as the project is still at conceptual stage.</li> <li>TICT does not have any project specific waste management plan and procedure for handling, storage and disposal for construction and operational phase.</li> <li>The project is currently in conceptual stage and TICT will prepare waste management plan and procedures in line with similar plans and procedures prepared for other operating container terminal of JMB.</li> </ul>	<ul style="list-style-type: none"> <li>TICT will develop and implement a waste management plan comprising of the following aspects: <ul style="list-style-type: none"> <li>Construction &amp; Demolition Waste Management</li> <li>Municipal Solid Waste Management</li> <li>Hazardous and other Waste Management</li> <li>Biomedical Waste Management</li> <li>Batteries Waste Management</li> <li>E-waste Management</li> <li>Oil-Spill Management</li> <li>TICT to provide VOCPT the compliance status against relevant CTO to help VOCPT submit Form V (Environment Statement) to TNPCB.</li> <li>TICT to obtain valid HW authorization from VOCPT for its record and compliance.</li> <li>Provide appropriate storage and handling practices (e.g., contained storage on paved surface with provision for leachate collection drain and sump) and ensure segregated storage for hazardous and non-hazardous waste. All hazardous waste generated to be recorded (in Form 3) and submitted to VOCPT. Similarly, Hazardous waste disposed to CPCB authorized recycler/TSDF shall be recorded in Form 10 (Manifests) and submitted to VOCPT. TICT to maintain record of Form 4 submitted by VOCPT to TNPCB annually.</li> </ul> </li> </ul>	

## 4.5 IFC PS4: Community Health and Safety

S. Aspects N.	Observations/ Gaps/ Risks	Recommendation
<p>1. <b>Community Health and Safety</b>  <u>Infrastructure and Equipment Design and Safety</u>                      The client will design, construct, operate, and decommission the structural elements or components of the project in accordance with GIIP, taking into consideration safety risks to third parties or affected Communities. When new buildings and structures will be accessed by members of the public, the client will consider incremental risks of the public's potential exposures to operational accidents and/or natural hazards and be consistent with the principles of universal access.</p>	<ul style="list-style-type: none"> <li>• The proposed container terminal at Berth 9 is located within the VOCPT premises. The nearest human settlements are located beyond 5 km from the TICT site. Thus, there is no interface with the local community. In addition, TICT is a restricted area, and no unauthorized persons are allowed inside VOCPT area. The main entry gate to the port is manned by CISF. The community health and safety aspect will be limited to the health and safety of TICT employee and contractor workers. No interface with the fishermen community is anticipated. During consultation with fishermen, it was found that the fishing trawlers are not allowed to undertake any fishing activity near to the approach channel of VOCPT. The fishing community maintained the required navigational distance of 6-8 nautical miles from the port Harbour.</li> <li>• The Port Fire Service of VOCPT presently has a strength of 17 fully trained regular personnel and 39 trained Fireman (on contract) for attending Fire and Emergency calls. VOCPT has One Water Bowser, one water tender, three foam Tenders, two Trailer, Pumps, one Portable Pump, one Fire Jeep, three Ejector Pumps and two Motorcycles are available with the Port Fire Service. VOCPT also carry out combined Fire Mock Drill with port user.</li> <li>• The proposed terminal would be equipped with fire alarms to be installed in strategic locations at the berth area and in the back up area including terminal building, storage areas etc. Other fire safety equipment to be installed at site includes Fire extinguishers of ABC, CO<sub>2</sub>, CA and Foam as appropriate, fire hose reels, underground yard and above ground yard hydrant. A fire water tank of adequate capacity would be constructed within the terminal premises.</li> <li>• TICT does not have any site-specific Traffic Management Plan for both construction and operational phases.</li> </ul>	<ul style="list-style-type: none"> <li>• TICT to develop a Road Traffic Management Plan aligned to overall Traffic Management Plan of VOCPT to ensure smooth flow of traffic.</li> <li>• TICT to prepare Community Health and Safety Management Plan for prevention of spread of communicable diseases in line with similar plans prepared for other JMB container terminal.</li> <li>• TICT is recommended to make provisions for fire protection system including fire extinguishers, fire alarm system and fire hydrants at key locations such as fuel dispenser, container stackyard, dock area, and administrative building. Fire safety certificate will have to be obtained from the Inspectorate of Fire Service as per the regulatory requirements. Regular internal inspections for all fire equipment will need to be conducted.</li> </ul>

S. Aspects N.	Observations/ Gaps/ Risks	Recommendation
	<ul style="list-style-type: none"> <li>The project may experience an influx of migrant workers and drivers during project cycle which may increase the risk of communicable diseases within the community. Presently, TICT does not have management plan for safeguarding Community Health and Safety against spreading of contagious diseases since the project is in conceptual stage.</li> </ul>	
<p>2. <b><u>Emergency Preparedness and Response</u></b>                      The client will also assist and collaborate with the Affected Communities, local government agencies, and other relevant parties, in their preparations to respond effectively to emergency situations, especially when their participation and collaboration are necessary to respond to such emergency situations. If local government agencies have little or no capacity to respond effectively, the client will play an active role in preparing for and responding to emergencies associated with the project.</p> <p>The client will document its emergency preparedness and response activities, resources, and responsibilities, and will disclose appropriate information to Affected Communities, relevant government agencies, or other relevant parties.</p>	<ul style="list-style-type: none"> <li>Refer Point 6 of PS 1</li> </ul>	<ul style="list-style-type: none"> <li>Refer Point 6 of PS 1</li> </ul>
<p>3. <b><u>Security Personnel</u></b>                      The client retains direct or contracted workers to provide security to safeguard its personnel and property, it will assess risks posed by its security arrangements to those within and outside the project site. In making such arrangements, the client will be guided by the principles of proportionality and good international practice in relation to hiring, rules of conduct, training, equipping, and monitoring of such workers, and by applicable law. The client will make reasonable inquiries to ensure that those providing security are not implicated in past</p>	<ul style="list-style-type: none"> <li>TICT is yet to formulate a Security Management Plan. In addition, no security personnel are presently deployed at site as construction is yet to be started. Reportedly, TICT will engage its own security personnel for providing security services. This will be limited to Berth 9 premises.</li> </ul>	<ul style="list-style-type: none"> <li>TICT to develop Security Management Plan/Port Facility Security Plan. The Plan to be develop in consultation with Port Facility Security Department of VOCPT.</li> <li>The SMS should include procedures to regulate safe movement of vessels, navigational aids, provision of firefighting services, prevent events that may results in injury to workers. The SMS should be in line with ISPS Protocol.</li> <li>The Security Management Plan should include detailed standard operating procedures for security personnel to adhere to and such that security incidents are recorded, investigated and corrective action implemented.</li> </ul>

<b>S. Aspects</b> <b>N.</b>	<b>Observations/ Gaps/ Risks</b>	<b>Recommendation</b>
	<p>abuses; will train them adequately in the /use of force (and where applicable, firearms), and appropriate conduct toward workers and Affected Communities; and require them to act within the applicable law. The client will not sanction any use of force except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.</p>	<ul style="list-style-type: none"><li>• Provide security awareness training to all TICT employees and contractors' workers.</li><li>• The recruitment process for TICT security personnel shall include scope for screening of past records of security personnel.</li><li>• Put in place procedure for disciplinary action against security personnel who violate standard operating procedures aligned with corporate procedures implemented at the Group level.</li></ul>

## 4.6 IFC PS – 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources

Sl. Aspects No.	Observations/ Gaps/ Risks	Recommendation
<p>1. <b>Biodiversity Impact &amp; Risk Assessment &amp; Management Framework:</b> -</p>	<p><b>Observations:</b></p> <ul style="list-style-type: none"> <li>The biodiversity-related policy framework of the Company is limited to 1 general commitment in its QHSE Policy (dated Jul 2021), which commits identification &amp; evaluation of all environmental aspects of existing/future projects and establishment of controls to limit environmental impact.</li> <li>Review of the Company's ESG Report (dated 2020-21) indicates that the Company assigns high priority to Biodiversity as a material topic. Biodiversity also reflects as a high materiality aspect in the Company's materiality matrix, weighing impact on business against influence on stakeholders. The rationale stated for the materiality is that the Company's operations adversely impact species, thereby necessitating actions to minimize such impacts.</li> <li>Review of the EIA Report (dated Jan 2018), prepared for the VOC Port Expansion, of which the Project is a component, indicates that the Project has been subjected to a biodiversity impact assessment process that is only partially aligned with PS6 requirements.</li> <li>Review of the conditional Environmental Clearance (dated Feb 2019), granted to the VOC Port Expansion indicates anticipation of significant adverse biodiversity impacts leading to stipulation of regular marine biodiversity monitoring during construction &amp; operation phases of the said overall Port expansion. The Project itself is expected to contribute only a part of the said biodiversity impacts. Review of the Monitoring Report (dated Apr 2021 - Mar 2022) prepared for the VOC Port Expansion indicates that the concerned monitoring has not covered several species groups stipulated to be monitored. The results of the limited scope covered by the monitoring indicate that at least 30 aquatic species groups occur in the marine water &amp; seabed within the VOC Port. Major species groups excluded by the said monitoring are sea grasses, corals, shrimps, echinoderms, fishes &amp; marine turtles.</li> </ul> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>The Company lacks an appropriately nuanced Biodiversity Management Framework that can adequately support PS6-aligned biodiversity impact &amp; risk assessment and management for the Project.</li> <li>The biodiversity baseline and monitoring reports currently available to the Project are inadequate to adequately support PS6-aligned assessment &amp; management of any Project-induced biodiversity impacts.</li> </ul>	<ul style="list-style-type: none"> <li>TICT must include appropriate biodiversity management measures in the ESMS instituted for the Project.</li> <li>TICT must obtain from the VOC Port authorities, any marine ecology monitoring data on sea grasses, corals, shrimps, echinoderms, fishes &amp; marine turtles.</li> </ul>

SI. Aspects No.	Observations/ Gaps/ Risks	Recommendation
2. <b>Protection and Conservation of Biodiversity:</b>	<ul style="list-style-type: none"> <li>• Review of Google Earth imagery &amp; public domain information, as also the EIA Report, indicates that the estimated AoI of the Project, consisting of the marine waters &amp; seabed of the Port, including a shipping channel extending approximately 10 km into the marine waters off the Thoothukudi coast, is composed of moderately to highly modified habitats.</li> <li>• The habitats of the estimated Project AoI include marine supra-tidal, inter-tidal &amp; neritic habitats, as also, marine anthropogenic structures &amp; salt exploitation sites.</li> <li>• Review of the Detailed Project Report (DPR) (dated Oct 2019) prepared for the Project indicates that Project construction is less likely to result in significant loss of natural habitats, though Project-induced approximately 50% increase in shipping traffic, mainly involving very large container ships, is more likely to result in incremental degradation of near-natural marine neritic habitats in the vicinity of the VOC Port's shipping channel.</li> <li>• Review of the Concession Agreement (CA) (dated Sep 2022) indicates that the Project is bound to carry out plantations at the Project Site, with plantation locations &amp; selection of species left to the Client's discretion. However, the CA does not mandate or recommend any species to be used in the plantation.</li> <li>• Review of IBAT data indicates that 74 species are Critical Habitat (CH) candidate species with respect to the Project Site. Based on IUCN Red List data on the population, distribution, suitable habitat types &amp; elevation range of the said species, as well as consultations with appropriate subject matter experts (SMEs), the said species are less likely to trigger CH with respect to the Project.</li> <li>• The Project Site fully overlaps a Designated Area, namely the Gulf of Mannar UNESCO Man and Biosphere (MAB) Reserve (GoMBR). The Project Site is part of a highly modified marine habitat constituted by the pre-existing VOC Port within the GoMBR, while the Project's estimated AoI overlaps slightly to moderately modified marine habitats beyond the premises of the said port.</li> <li>• Review of the GoMBR Management Plan (dated 2018-2027) indicates that the VOC Port, of which the Project is a component, is identified as one of the main causes of pollution in the MAB Reserve, while effective management planning by ports in GoMBR is recommended as a corresponding management action.</li> <li>• The Project Site is situated within 5-7 km of 2 other Designated Areas, in terms of the legally protected area of the Gulf of Mannar Marine National Park &amp; the internationally recognized area of the Gulf of Mannar Ramsar Wetland.</li> </ul>	<ul style="list-style-type: none"> <li>• TICT must consult the MAB Secretariat as a stakeholder, to understand any mitigation requirements emerging from the Project Site overlap with the Gulf of Mannar MAB Reserve, with respect to conservation of species &amp;/or habitats.</li> <li>• It is recommended that TICT opt for species native to the Thoothukudi coast while planning for any Project-related plantation in &amp; around the Project Site</li> <li>• TICT must institute a system to record compliance of Project-related container ships with regulatory requirements related to Ballast Water Management.</li> </ul>

Sl. Aspects No.	Observations/ Gaps/ Risks	Recommendation
	<ul style="list-style-type: none"> <li>Review of media articles (dated 2015-22) indicates significant damage to coral reefs of the Gulf of Mannar by at least 2 marine invasive alien species (IAS), namely <i>Kappaphycus alvarezii</i> &amp; <i>Terpios hoshinota</i>. Reportedly, the VOC Port, of which the Project is a component, is governed by regulatory Ballast Water Management, which is expected to avoid potential Port-related introduction or spread of marine IAS.</li> </ul> <p><b>Gaps:</b></p> <ul style="list-style-type: none"> <li>The Client is yet to institute PS6-aligned biodiversity management measures to address potential Project-induced impacts on at risk species/habitats occurring within the estimated Project Aol.</li> <li>The Client has not conducted a stakeholder consultation with the managing authority of the Designated Area overlapped by the Project Site, namely the MAB Secretariat, regarding potential Project-related impacts on any significant species &amp;/or habitats of the GoMBR area.</li> <li>The Project lacks a system to record compliance of Project-related container ships with regulatory requirements related to Ballast Water Management.</li> </ul>	
<p><b>3. Management of Ecosystem Services:</b></p>	<p><b>Observation:</b></p> <ul style="list-style-type: none"> <li>Review of the minutes of the Public Hearing Meeting (dated Dec 2017) conducted towards the regulatory Environmental Clearance process for the VOC Port Expansion, of which the Project is a part, indicates that impact thereof on traditional fishing was one of the concerns recorded by the local community.</li> <li>Review of the GoMBR Management Plan indicates that traditional fishing supports over 18,800 of the approximately 20,000 fishing families of the Thoothukudi coast, making the concerned capture fishery a priority provisioning ecosystem service.</li> <li>Project-induced incremental shipping traffic, especially involving very large container ships, is more likely to impact the fisheries in the vicinity of the Port through sediment disturbance, leading to increased turbidity, reduced sunlight penetration &amp; decreased primary productivity.</li> </ul> <p><b>Gap:</b></p> <ul style="list-style-type: none"> <li>The Client has not conducted a stakeholder consultation with the managing authority of the Designated Area overlapped by the Project Site, namely the MAB Secretariat, regarding potential Project-related impacts on priority provisioning ecosystem services accrued by the local community from the MAB area.</li> </ul>	<ul style="list-style-type: none"> <li>TICT must consult the MAB Secretariat as a stakeholder, to understand any mitigation requirements emerging from the Project Site overlap with the Gulf of Mannar MAB Reserve, with respect to management of any priority provisioning ecosystem services related to capture fishery.</li> </ul>



## 4.7 Project Categorisation

The ESDD ascribes to the IFC Sustainability Framework (2012), which requires projects to be categorized according to the magnitude of potential impacts as Category A, B or C, which respectively represent high, medium and low levels of risks.

IFC E&S	Definition
Category A	Projects with potential significant adverse social or environmental impacts that are diverse, irreversible or unprecedented;
Category B	Projects with potential limited adverse social or environmental impacts that are few in numbers, site-specific, largely reversible, and readily addressed through mitigation measures;
Category C	Projects with minimal or no adverse social or environmental impacts.

AECOM has considered the following issues and observations for the project categorization:

- The project will require no additional land; Hence no land acquisition would be required.
- The project does not pass through any Nationally Protected Area and Internationally Recognized areas with ecologically high importance.
- No legacy issues were observed in the existing berth and proposed container terminal area except findings of potential hydrocarbon stains in the proposed container terminal area which was undertaken during historical site reclamation of the terminal area by VOCPT.
- The E&S risks and impacts during construction and operational phase, if any, will likely be limited within existing berth 9 premises and its immediate vicinity. From the visual observation and consultations, the proposed project is not anticipated to result in any new irreversible impacts.

Based on the above points, the proposed project may be categorized as **Category B** i.e., 'Projects with potential limited adverse social or environmental impacts that are few in number, site-specific, largely reversible, and readily addressed through mitigation measures'

## 5. Environmental and Social Action Plan

This section also summarizes the key recommendations in the form of Environmental and Social Action Plan (E&S Action Plan) that has emerged from the above gap assessment sections. The E&S Action Plan separately outlines an overview of actions and recommendations with an indicative timeframe for Pre-construction, Construction and Operational Phases. The E&S Action Plan is provided in **Table 5-1** to **Table 5-3** for three phases. For the decommissioning after useful operational life of the proposed project, TICT is recommended to prepare a suitable decommissioning plan duly approved by VOCPT so as to handover the site as per conditions laid down in Concessionaire Agreement.

**Table 5-1. E&S Action Plan-Pre-Construction Phase**

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
1	<p><b><u>Permits:</u></b></p> <p>I. TICT to Obtain Principal Employer Registration under Contract Labour Regulation and Abolition Act 1970.</p> <p>II. Examine the Contractor/vendors for sourcing of quarry materials having a valid EC and CTO of the quarry(s)/crusher(s)</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Copy of Valid Registration</li> <li>• Valid EC and CTO</li> </ul>	Prior to commencement of construction
2	<p><b><u>QHSE Policy and ESMS:</u></b></p> <p>I. Develop site-specific QHSE &amp; CSR policy for construction and operational phase.</p> <p>II. Develop and implement a site-specific Environmental Health and Safety Management system/Integrated Management System (IMS) compliant with IFC Performance Standards. The manuals will include Standard Operating Procedures (SOPs)/work instructions aligned with applicable sections of the IFC EHS guidelines incorporating the following elements, at a minimum: (a) identification procedure of risks, impact assessment and EHS&amp;S management procedures for entire project cycle; (b) framework for developing site specific E&amp;S management programs; (c) organizational structure for EHS management system implementation; (d) training and capacity building; (e ) monitoring and review mechanism; (f) stakeholder engagement; and (g) grievance mechanism. TICT is also recommended to include appropriate biodiversity management measures in the ESMS.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Approved QHSE Policy, CSR policy, ESMS/IMS by the TICT Management</li> </ul>	Prior to commencement of construction
3	<p><b><u>HR policy</u></b></p> <p>I. Develop site-specific HR rules &amp; procedures for both employee and contractors' personnel cover the following aspects:</p> <ul style="list-style-type: none"> <li>- Working hours and Overtime management.</li> <li>- Retirement benefits such as gratuity, leave encashment, Provident Fund etc.</li> <li>- Leaves entitlement</li> <li>- Prevention of harassment.</li> <li>- Termination of employment.</li> <li>- Reward and recognition.</li> </ul>	TICT EHS Department	<ul style="list-style-type: none"> <li>• HR Manual incorporating all IFC PS requirement and approved by TICT Management</li> </ul>	Prior to commencement of construction

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	<ul style="list-style-type: none"> <li>- Prohibition of Child Labor.</li> <li>- Prohibitions of Forced Labor</li> <li>- Retrenchment policy.</li> <li>- Non-discrimination policy.</li> <li>- Freedom of association and Collective bargaining.</li> </ul>			
4	<p><b><u>EPC contractor: Requirements – contractual obligations, Contractor management plan, HR policy, accommodation guidelines etc</u></b></p> <ol style="list-style-type: none"> <li>I. Develop a Contractor Management Plan (also applicable for sub-contractors) including all EHS and Social aspects in line with IFC PS requirements.</li> <li>II. EPC contractors engaged for the project to have HR policies and procedures that meet the requirements of relevant national laws and IFC PS2 including principles of non-discrimination, prevention of child and forced labour and ensuring adherence to applicable labor laws provisions on working hours, overtime provisions and availability of grievance mechanism.</li> <li>III. Ensure Workers' accommodation are in compliance with EBRD/IFC guidelines.</li> </ol>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Approved Contractor Management Plan</li> <li>• Contractor Approved HR Policies in line with TICT policies</li> <li>• Physical Verification of the worker accommodation</li> </ul>	Prior to commencement of construction
5	<p><b><u>Phase II contamination assessment</u></b></p> <p>Undertake testing of fill materials and soil samples in proposed container terminal adjoining to Berth 9 for assessing potential contamination of the fill material should comprise both dredge material and quarry material used for land reclamation.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Contamination Assessment Report with Action Plan.</li> </ul>	Prior to commencement of construction
6	<p><b><u>Deployment of EHSS team</u></b></p> <ol style="list-style-type: none"> <li>I. Deploy an environment professional and a health &amp; safety professional for the project during construction stage and will suitably enhance its EHS organization for the operational stage with clearly defined roles and responsibilities and reporting lines for staff managing EHS issues. TICT HR team will have a dedicated team members to look into the social aspects related to the project.</li> </ol>	TICT EHS Department and Contractor	<ul style="list-style-type: none"> <li>• Appointment letter of deputed EHS personnel at site.</li> <li>• EHS &amp; S organogram of TICT for construction and operational phase</li> <li>• EHS organogram of EPC contractor duly approved by TICT</li> </ul>	Within a week from the date of acceptance of E&S Action Plan.

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	II. EPC contractor engaged by TICT to deploys adequate EHS and HR personnel to comply all the specific requirements during construction.			
7	Obtain complete marine ecology monitoring from VOCPT with data on status sea weeds, sea grasses, mudflat, fisheries, echinoderms, shrimps, turtles, corals, coastal vegetation, mangrove and other marine biodiversity components in compliance with EC condition.	TICT EHS Department	<ul style="list-style-type: none"> <li>Complete Marine Monitoring Report</li> </ul>	Immediate after acceptance of E&S Action Plan
8	<p><b><u>Environmental Management Plans:</u></b></p> <p>I. Develop on-site and off-site EPRP and established Emergency Response Team (ERT) at site to deal with any kind of emergency.</p> <p>II. Prepare a Resource Conservation Plan (energy, water and raw materials). This would include preparation of water balance</p> <p>III. Waste Management Plan applicable for construction and operational phases.</p> <p>IV. Develop Road Traffic Management Plan aligned to overall Traffic Management Plan of VOCPT.</p> <p>V. Prepare Community Health and Safety Management Plan for prevention of spread of communicable diseases.</p> <p>VI. Develop Security Management Plan for the proposed project which should include procedures to prevent the security threats. The Security Management Plan should include detailed standard operating procedures. The security incidents are to be recorded, investigated and corrective action are being implemented. The recruitment process for TICT security personnel shall include scope for screening of past records of security personnel. A disciplinary action procedure against security personnel who violate standard operating procedures aligned with corporate procedures are to be implemented.</p> <p>VII. Develop a CESMP (duly approved by TICT) aligned with Environmental Management Plan of VOCPT latest EC (2019), IFC Performance Standards, IFC/World Bank General EHS guidelines (2007) and EHS Guideline for Ports, Harbour and Terminals (2017) for the proposed construction works. This shall include the following:</p> <ul style="list-style-type: none"> <li>Dust Emission Control and Management Plan and Procedure</li> <li>Air Quality Management Plan and Procedure</li> </ul>	TICT EHS Department	<ul style="list-style-type: none"> <li>Emergency Response Procedure duly vetted by VOCPT and approved by TICT Management.</li> <li>Approved Management Plan for waste, traffic, OHS, Resource conservation, CESMP and Security Management Plan.</li> <li>OHS Standard Operating Procedures.</li> <li>Biodiversity Policy or Management Plan.</li> </ul>	One month prior to commencement of construction

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	<ul style="list-style-type: none"> <li>- Waste Management Plan and Procedures including MSW, HW, C&amp;D, BMW, e-Waste and Battery waste.</li> <li>- Spill Prevention and Control Plan and Procedure</li> <li>- Wastewater Management Plan and Procedure</li> <li>- Water Conservation Plan and Procedure</li> <li>- Energy Conservation Plan and Procedures including reduction of GHGs</li> <li>- Hazardous Material Management Plan and Procedure</li> <li>- Occupational Health and Safety Management Plan and Procedure</li> <li>- Worker Accommodation Management Plan and Procedure</li> <li>- Traffic Management Plan and Procedures</li> <li>- E&amp;S Monitoring Plans and Procedures</li> </ul> <p>VIII. Develop OHS plan and procedures for construction and operational phase considering a minimum of the following aspects:</p> <ul style="list-style-type: none"> <li>- JSA, provision of PPEs, first aid centre, work permits, OHS trainings.</li> <li>- Develop OHS related SOPs e.g., working at height, confined space, hot work etc.</li> <li>- Fire prevention and control procedures.</li> <li>- Hazardous Material handling procedure.</li> </ul> <p>IX. Prepare Environmental Management Procedures related to Air Quality including dust control measure, emissions control from vehicles and equipment and DG sets stacks, Solid and Hazardous Waste, Bio-medical Waste, Water and Wastewater, Battery and e-Waste, C&amp;D Waste Energy.</p> <p>X. Prepare &amp; institute an appropriate Project-specific Biodiversity Policy or Management Plan to enable PS6-aligned assessment &amp; management of biodiversity impacts &amp; risks.</p>			

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
9	Consult the MAB Secretariat to understand any mitigation requirements emerging from the Project Site	TICT EHS Department	<ul style="list-style-type: none"> <li>Minutes of Meeting</li> </ul>	Prior to commencement of construction
10	Develop structured EHS training program for all TICT staff and contractors' worker covering aspects such as occupational health and safety, work permits, first aid, fire safety and vehicle safety etc.	TICT EHS Department	<ul style="list-style-type: none"> <li>Training modules related to key EHS, HR and social aspects.</li> </ul>	One month prior to commencement of construction

**Table 5-2 E&S Action Plan-Construction Phase**

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
11	<p><b>Permits and Licenses</b></p> <p>I. Obtain CTE and CTO for DG sets and Batching plant.</p> <p>II. Obtain Hazardous Waste Authorization (HWA) from VOCPT for its record and compliance.</p> <p>Obtain Inter-State Migrant Workmen Registration for EPC Contractors</p>	EPC Contractor	<ul style="list-style-type: none"> <li>Valid Licenses and Permits</li> </ul>	Within one month from signing of contract with EPC Contractor and prior to commencement of construction.
12	<p><b>Trainings:</b></p> <p>I. Impart EHS training program for all TICT staff and contractors' worker covering aspects such as occupational health and safety, work permits, first aid, fire safety and vehicle safety etc opportunities for improvement identified and corrective measures implemented.</p> <p>II. Implement safety training program including Mock drills for all TICT employees and contractors' workers on relevant hazards, fire and other safety procedures and emergency response. Also, accident, incident and near misses etc to be recorded, investigated, and reported and corrective action implemented.</p> <p>III. Impart first-aid training</p> <p>IV. Provide security awareness training to all TICT employees and contractors' workers</p>	TICT EHS Department and Contractor	<ul style="list-style-type: none"> <li>EHS&amp;S training roasters.</li> <li>Training Attendance &amp; Register</li> </ul>	Throughout the entire construction phase

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	V. TICT will require the EPC contractor to implement an EHS training program for the construction workers including induction training, daily toolbox talk, training on emergency response and construction safety.			
13	Implement a permit-to-work system based on Job Safety Analysis for all routine and non-routine operations and organize regular training program, toolbox talk for both TICT employees and contractors' workers on H&S aspects. Usage of personal protective equipment (PPE), safety signage, vehicle speed and movement plan on the terminal will be implemented.	TICT EHS Department	<ul style="list-style-type: none"> <li>Permit to Work</li> <li>Physical verification at site</li> </ul>	Throughout the entire construction phase
14	<p><b>Monitoring</b></p> <p>I. Develop and implement site-specific monitoring procedures and maintain periodic records for construction which should cover for all source emissions, ambient air quality, ambient noise level, illumination, drinking water quality, treated wastewater quality, hazardous wastes generated and disposed, energy and water consumption and CO<sub>2</sub> emissions, marine water physical and biological parameters and sediment characteristics. The Monitoring Plan and program shall align with the EC and CTO conditions issued for the project</p> <p>II. Monitor occupational health and safety (OHS) lead and lag indicators including lost time incidents (LTI), first aid cases, property damages, near miss/dangerous occurrence, hazardous conditions etc.</p>	Contractor to implement TICT EHS and HR Department to supervise	<ul style="list-style-type: none"> <li>Documented E&amp;S Monitoring Plan with timelines.</li> <li>Monitoring Reports</li> <li>Environmental Monitoring Reports (by NABL accredited lab)</li> </ul>	Throughout the entire construction phase
15	<p><b>Audits</b></p> <p>I. As part of ensuring compliance to the statutory EHS and IFC PS requirements, TICT to undertake third-party Environmental Health Safety and Social audit in first two quarter post commencement of construction to check compliance of the E&amp;S Action Plan and Corrective Acton Plan specified in the previous E&amp;S audit findings. Based on outcome of the second quarterly E&amp;S audit, the requirement of further compliance audit will be determined.</p> <p>II. Put in place safety committee comprised of both worker and management staff, which would meet every month.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>Quarterly Audit Report with Corrective Action Plan</li> <li>Safety Committee constituted at site</li> </ul>	First audit in the first month of construction
16	<b>Contractors' EHS responsibilities</b>	EPC Contractor	<ul style="list-style-type: none"> <li>Contractor Monitoring Report and Records</li> </ul>	Throughout the entire construction phase



SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	I. Implement Environment Management Plan II. Implement an EHS training program for the construction workers including induction training, daily toolbox talk, training on emergency response, GRM, HR and construction safety. III. Put in place mechanism to monitor clock in clock out and maintenance of registers. IV. Provide adequate facility with medical and paramedical staff for first-aid needs. V. Regular Medical Check-up for workers VI. Workers are to be provided with canteen facility, treated drinking water, adequate toilet, rest area etc. VII. Provide adequate numbers of truck mounted toilets with captive storage of wastewater and centralised remote treatment facility VIII. Undertake regular monitoring and maintain records of all above. IX. To display all EHS and HR policies at site in English, Hindi and Tamil language. X. Display EHS information board and update the same regularly.			
17	<p><b><u>Contractor Performance Review</u></b></p> <p>TICT to ensure compliance to safety requirement and conduct regular monthly meetings and safety performance check for all contractors. A checklist for evaluation of contractor’s safety performance will be developed including aspects such as provision of PPE, availability of supervisors, awareness of emergency response plan (ERP) and emergency exits/evacuation procedures and training undertaken on HSE aspects.</p>	TICT EHS to monitor EPC Contractor compliance to EHS requirements	<ul style="list-style-type: none"> <li>• Monitoring Checklist</li> <li>• Monthly Monitoring Report and Records</li> <li>• Physical verification at site</li> </ul>	Throughout the entire construction phase
18	<p><b><u>Water Conservation and Resource Efficiency</u></b></p> <p>Installation of water meter at all supply and distribution points within the site along with plan for periodic inspection and maintenance.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Physical Verification</li> </ul>	One month prior to commencement of construction
19	<p>Conduct a consultation with the MAB Secretariat to understand any mitigation requirements arising from potential Project-induced impacts on species, habitats &amp;/or priority provisioning ecosystem services in terms of capture fishery of the GoMBR.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Record of Consultation with MAB Specialist</li> </ul>	Prior to commencement of Operation

**Table 5-3 E&S Action Plan-Operational Phase**

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
20	<p><b><u>Permits and Licenses</u></b></p> <p>I. Obtain the required ISO certification under ISO 14001:2015, ISO 27001:2013, ISO 45001:2018, ISO 14064:2018, ISO 9001:2015 and ISO 28000:2007 and prepare manual of the integrated EHS and Quality management system.</p> <p>II. Update latest CTO of VOCPT for inclusion of TICT DG sets</p> <p>III. Obtain Fire NOC</p> <p>IV. TICT to obtain valid HW authorization from VOCPT for its record and compliance.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Valid ISO certification</li> <li>• Valid CTO for DG sets</li> <li>• Valid Fire NOC</li> <li>• Valid HW Authorisation</li> </ul>	One month prior to commencement of Operation
21	<p><b><u>EHSS Team</u></b></p> <p>I. Deploy an environment professional and a health &amp; safety professional for the project for the operational stage with clearly defined roles and responsibilities and reporting lines for staff managing EHS issues. TICT HR team will have dedicated team members to look into the social aspects related to the project.</p> <p>II. Prepare an organogram showing EHS and social professionals responsible for implementation and compliances onsite.</p>	TICT HR Department	<ul style="list-style-type: none"> <li>• Appointment letter of EHS professional</li> <li>• Organogram showing EHS &amp; S organogram of TICT</li> </ul>	One month prior to commencement of Operation
22	<p><b><u>EHSS Management System</u></b></p> <p>I. Prepare and implement OH&amp;SMS manual which will include an assessment of occupational health and safety risks and impacts from its operations and operational control procedures to mitigate the identified risks and impacts.</p> <p>II. Prepare site-specific EHSS&amp;S Legal Register and HIRA in line with QHSE manual with periodic updation with respect to hazards and risks associated with storage area and handling of hazardous waste if any and conduct detailed aspect impact analysis covering the non-significant and significant impacts.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• OS&amp;SMS duly approved by TICT Management</li> <li>• Legal Register and HIRA Matrix</li> <li>• developed and periodically updated</li> </ul>	One month prior to handover of the project to Operational Team

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
23	<p><b><u>EHSS Management Plans</u></b></p> <p>I. Prepare Operation Environmental and Social Management Plan (OESMP) incorporating site specific EHSS&amp;S aspects and actions, periodic monitoring requirement, and reporting mechanism in compliance with EMP along with budgetary allocations and resource requirements. The OESMP shall comprise the following aspects:</p> <ul style="list-style-type: none"> <li>- Air Quality Management Plan and Procedure</li> <li>- Waste Management Plan and Procedures including MSW, HW, C&amp;D, BMW, e-Waste and Battery waste.</li> <li>- Spill Prevention and Control Plan and Procedure</li> <li>- Water Conservation Plan and Procedure including operational maintenance of Sewage Treatment Plant.</li> <li>- Energy Conservation Plan and Procedures including reduction of GHGs</li> <li>- Hazardous Material Management Plan and Procedure</li> <li>- Occupational Health and Safety Management Plan and Procedure</li> <li>- Worker Accommodation Management Plan and Procedure</li> <li>- Traffic Management Plan and Procedures</li> <li>- E&amp;S Monitoring Plans and Procedures</li> </ul> <p>II. Green Belt Development Plan for carbon sequestration.</p> <p>III. Implement on-site and off-site EPRP and established Emergency Response Team (ERT) at site to deal with any kind of emergency.</p> <p>IV. Implement Security Management Plan for the proposed project.</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• OESMP duly approved by TICT Management</li> <li>• Management plans implemented at site with periodic monitoring and maintenance of records.</li> </ul>	Prior to commencement of operation and updated annually
24	<p><b><u>EHSS Monitoring</u></b></p> <p>I. TICT to provide VOCPT the compliance status against relevant CTO to help VOCPT submit Form V (Environment Statement) to TNPCB.</p> <p>II. Implement site-specific monitoring procedures and carry out bi-annual periodic monitoring and records for all source emissions: ambient air quality, ambient noise level, illumination, drinking water quality, treated</p>	TICT EHS Department	<ul style="list-style-type: none"> <li>• Records (Monthly &amp; Annual) for submission to VOCPT for preparation of Annual Environmental Statement (Form V)</li> <li>• Monitoring Reports</li> </ul>	Throughout operational phase

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	wastewater quality, hazardous wastes generated and disposed, energy and water consumption and CO <sub>2</sub> emissions, marine water physical and biological parameters and sediment characteristics in line with EC & CTO conditions. III. Monitor OHS lead and lag indicators including lost time incidents (LTI), first aid cases, property damages, near miss/dangerous occurrence, hazardous conditions etc.			
25	I. Provide appropriate storage and handling facility covering contained storage on paved surface with provisions for leachate collection sump and drain. II. Ensure segregated storage for hazardous and non-hazardous waste. III. All hazardous waste generated to be recorded (in Form 3) and submitted to VOCPT. Similarly, Hazardous waste disposed to CPCB authorized recycler/TSDF shall be recorded in Form 10 (Manifests) and submitted to VOCPT. TICT to maintain record of Form 4 submitted by VOCPT to TNPCB annually.	TICT EHS Department	<ul style="list-style-type: none"> <li>Record of waste generated at site.</li> <li>Records of forms submitted to VOCPT</li> <li>Physical verification</li> </ul>	Continuous throughout operational phase
26	<b>Safety Audits</b> I. Undertake annual third-party Environmental Health Safety and Social audit, and monthly internal inspection at the site throughout the operational phase. II. Coordinate with JMB for undertaking both inter-terminal audits and external safety audits once in a year during operation phase. III. Conduct Monthly E&S audits of the Contractor(s) at site. IV. Safety Inspection of Equipment e.g., RMQC Cranes, Hydra, ITVs, Hoists and associated gear.	TICT EHS Department	<ul style="list-style-type: none"> <li>E&amp;S Audit Checklist</li> <li>E&amp;S Audit Report</li> </ul>	Internal-Monthly External-Annual
27	Make adequate provisions for fire protection system including fire alarm system, portable fire extinguishers and fire hydrants at key locations such as fuel dispenser, container stackyard, dock area and administrative building. Fire safety certificate will have to be obtained from the Inspectorate of Fire Service as per the regulatory requirements.	TICT EHS Department	<ul style="list-style-type: none"> <li>Fire extinguisher installed at site</li> <li>Fire NOC</li> </ul>	Fire Safety-Annual Internal inspection-Monthly

SI. No	Recommendation	Responsibility	Measurable Outcome/ Documentation	Timeline
	Undertake periodic internal inspections for all fire equipment.			
28	Impart EHS Induction training to all new workers and visitors. Impart monthly EHS trainings at periodic intervals to both TICT temporary and permanent staff.	TICT EHS and HR Department	<ul style="list-style-type: none"> <li>• Training Records and Registers</li> </ul>	Throughout operational phase
29	<b><u>Water Conservation and Resource Efficiency</u></b> Rainwater harvesting and Reuse of treated wastewater for non-potable consumption.	TICT EHS Department	<ul style="list-style-type: none"> <li>• Resource Conservation Plan</li> <li>• Inspection records</li> </ul>	Throughout operational phase
30	<b><u>Greenhouse Gas (GHG)</u></b> Prepare and implement Greenhouse gases emissions reduction strategy comprising: <ul style="list-style-type: none"> <li>- GHGs inventory</li> <li>- Estimation of GHG emissions (scope 1, scope 2, scope 3) for each operational year</li> <li>- Setting up of GHG emissions reduction target and disclosure of the same</li> <li>- Assessment of alternate energy sources for GHG emissions reduction</li> </ul>	TICT EHS Department	<ul style="list-style-type: none"> <li>• GHG Inventory</li> <li>• Carbon disclosure and GHG reduction strategy report, forming integral part of ESG reporting.</li> </ul>	Annually and throughout operation phase
31	TICT must institute a system to record compliance of Project-related container ships with regulatory requirements related to Ballast Water Management.	TICT EHS Department	<ul style="list-style-type: none"> <li>• Records of Ballast Water Management compliance by Project-related container ships</li> </ul>	Throughout operation phase

## Appendix A Stakeholder Consultation

Date	Location	Participants
09.11.2022	VOCPT Office, Thoothukudi	<ul style="list-style-type: none"> <li>• Mr. Suresh Babu, Chief Mechanical Engineer, VOCPT</li> <li>• Mr. C. Balakrishnan, Executive Engineer, VOCPT</li> <li>• Capt. Paul Nadar Bennet, Deputy Port Facility Security Officer, VOCPT</li> <li>• Mr. R. Prabhakar, Traffic Manager, VOCPT</li> <li>• Mr. T. Ramesh, Deputy Traffic Manager, VOCPT</li> <li>• Fishermen Community</li> </ul>
10.11.2022	Berth 8, Thoothukudi	<ul style="list-style-type: none"> <li>• Terminal Head, Dakshin Bharat Gateway Terminal</li> </ul>
	Video Conference	<ul style="list-style-type: none"> <li>• Capt. Yogesh Gaur, Corporate HR Head</li> <li>• Srikant Manjarekar, Corporate HR</li> </ul>
11.11.2022	VOCPT Office, Thoothukudi	<ul style="list-style-type: none"> <li>• Mr. K. Ravi Kumar, Chief Engineer, VOCPT</li> </ul>

## Appendix B Photolog



View of the Equipment located within Berth 9



View of the Equipment located within Berth 9



View of the Conveyor Belt within Berth 9



View of the Equipment located within Berth 9



View of unloading activity performed at Berth 9 by existing terminal contractors



Barbe wire fencing between Berths 9 and 8



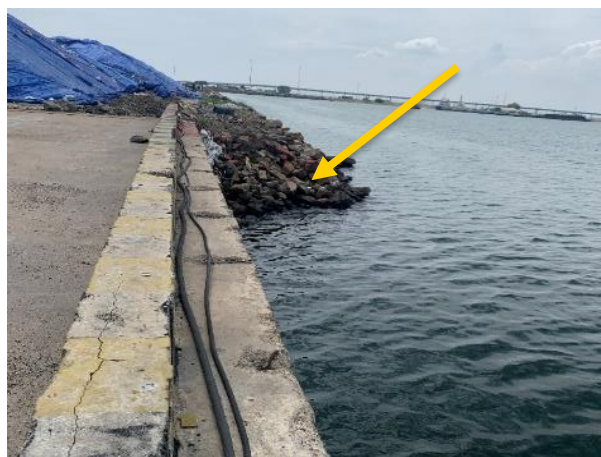
Long View of NCB I and NCB II Berth



Long View of the Coal Stackyard located towards the  
Northwestern direction of Berth 9



View of Berth 9 Area



View of the existing rubble bund -Berth 9





View of the Sheen in the accumulated water within the Yard area of Berth 9 Terminal



View of the Unpaved yard area for development -  
Phase I

Site Walk



View of stains in the proposed Container Terminal (Phase I)



View of the wind turbine stored in the proposed Phase I area



View of the Conveyor belt towards the eastern  
direction of the proposed container terminal

View of Berth 8 Entrance Gate



Junction from Main highway to VOC Port

4 Lane Road within VOC Port connecting to the Berth  
9 Terminal



Outer Channel-View of the Southern Breakwater



Neighbouring Industry located outside VOC Port-  
Thermal Power Plant located



Railway connectivity at Port



Salt Pan located adjacent to the VOC Port

CIVIL ENGINEERING DEPARTMENT GRIEVANCE DAY TIMINGS			
DAY		TIMINGS	
		From	To
MONDAY	EMPLOYEES	16.00 Hrs	16.20 Hrs
	UNIONS	16.20 Hrs	16.40 Hrs
	GENERAL	16.40 Hrs	17.00 Hrs
WEDNESDAY	ESTATE	11.00 Hrs	12.00 Hrs

Display of Grievance Redressal Day at VOCPT office



View of the Display Board of Continuous Monitoring of Air Quality Parameters



View of the 22 kV Centralized Electrical Control Room within VOC Port

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