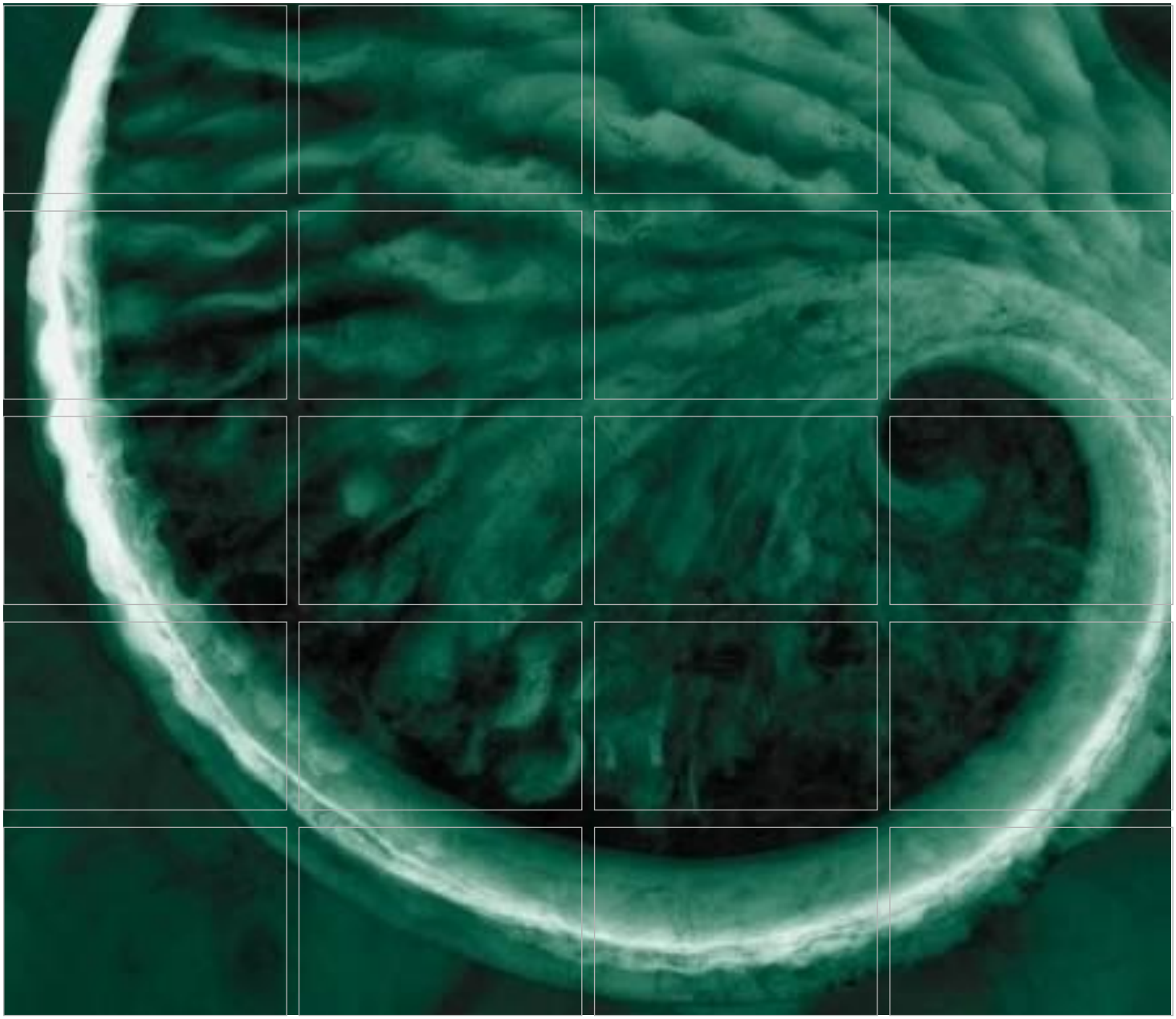

Non-Technical Summary of Environmental Impact Assessment (EIA) Report

HSBC

Vinfast e-Scooter and Car Manufacturing Plant, Dinh Vu Cat Hai Economic Zone, Cat Hai District, Hai Phong City, Vietnam

Final Report

HSBC

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CONTENTS

0 INTRODUCTION

VinFast e-Scooter and Car Manufacturing Plant Project ("The Project") is venture from VinFast Trading and Production Limited Liability Company ("VinFast"), a subsidiary of Vingroup Joint Stock Company ("Vingroup"). The Project is being developed on an area of 335 ha at Dinh Vu – Cat Hai Economic Zone, Cat Hai District, Hai Phong City, Vietnam. The Project's current designed annual production capacity is 100,000 units and up to 500,000 units for e-scooters and cars, respectively. VinFast estimates that the annual production capacity could be raised up to 250,000 pieces units and 1,000,000 units of e-scooters and cars, respectively from 2022.

The Environmental Impact Assessment (EIA) report of the Project is developed based on the foundation of currently legal laws and regulations in Vietnam. This non-technical summary provides a high level overview of the environmental impact assessment processes and the outcomes presented within the EIA report.

1 PROJECT DESCRIPTION

1.1 PROJECT DESCRIPTION

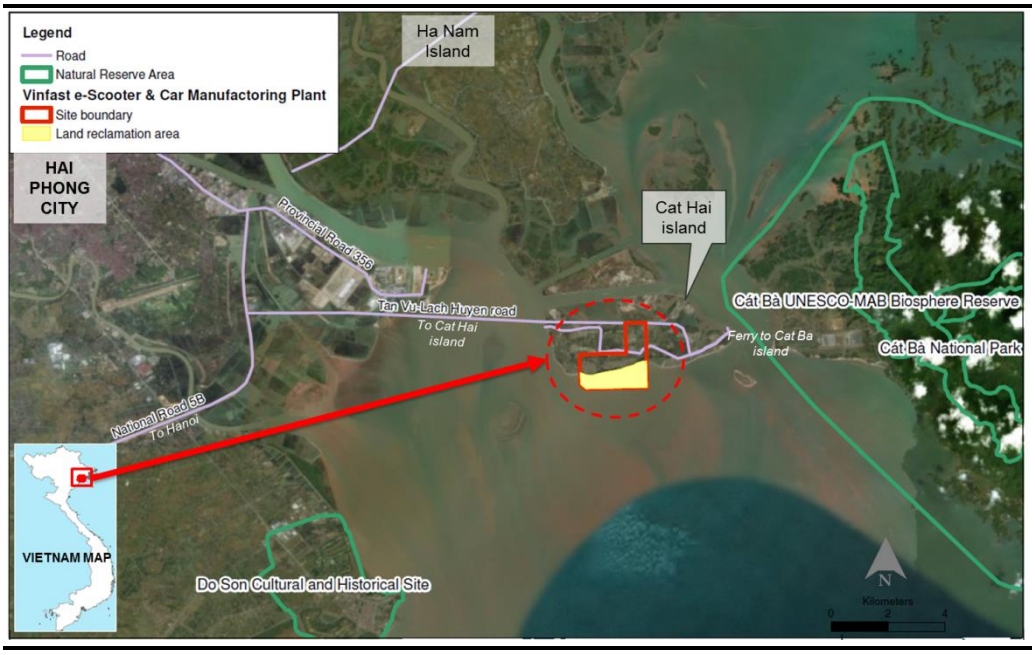
The Project Site is located within Dinh Vu – Cat Hai Economic Zone (DVCHEZ), Cat Hai District, Hai Phong City, Vietnam. The Project Site is bordered by the following areas:

- North: Tan Vu – Lach Huyen road, Van Phong Commune and Nghia Lo Commune;
- South: Tonkin Gulf of the East Sea;
- East: Doai Village and Cat Hai Town; and
- West: Hoang Chau Commune.

The first phase of the Project has been designed as an e-scooter and car manufacturing facility with a maximum production capacity of 100,000 pieces and 500,000 pieces per year, respectively. The Project's products are planned to be initially destined for local market.

The Project's manufacturing facilities include two factories, for the production of e-Scooter and car respectively. Components for the e-scooters and cars will be imported from abroad or produced onsite, where assembly and painting will undergo to make finished products. Quality assurance and warehousing are understood to be performed on-site before distribution (through the VinFast's distribution system).

Figure 1.1 Location of VinFast e-Scooter and Car Manufacturing Plant Project



1.2 ENVIRONMENT CONTEXT

The Project covers a total area of 335 hectares of inland and reclaimed land. A sea area of 145 hectares has been reclaimed for the use of the project. The development location of the Project has been approved by the Government of Vietnam, which shows that the Project fully complies with local laws and regulations in terms of site identification.

Whilst it is noted the Project site is located in the small and relatively isolated Cat Hai Island around the Red River Estuary, it is also home to bushes, grasses, backyard gardens, brackish water habitats, Casuarina equisetifolia L. forest, Suaeda maritima (L.) Dum plants and several woody plants. The mangrove and Casuarina equisetifolia L forest occupy an area of approximately 8.5 hectares, which has been cleared during the site preparation. In Lach Huyen Straight, which separates Cat Hai Island from Cat Ba Island, environmental conditions are strongly influenced by the upper Gulf of Tonkin that borders the south of the island. Cat Hai Island is also bordered to the west by the Nam Trieu Estuary which is part of the Red River Delta. As a result, environmental condition on this side of the islands is dominated by an influx of fresh water.

An assessment of the area's environmental baseline including soil condition, water and air condition yielded results within the acceptance limit stated in QCVN 43:2012/BTNMT, QCVN 10-MT:2015/BTNMT and QCVN 05:2013/ BTNMT respectively. This is with the exception of biochemical oxygen demand (BOD5) and total suspended solids (TSS) in wastewater; calcium carbonate in groundwater; and ammonium in surface water. The exceedance with standard in ambient air condition occurred with suspended dust particles and noise due to the ongoing construction.

A full description of the environmental context is provided within Chapter 2 of the EIA.

1.3 SOCIO-ECONOMIC CONTEXT

All project affected communes are administrative units of Cat Hai Island District, including Van Phong, Dong Bai, Hoang Chau and Nghia Lo Commune. The economy of Cat Hai Island is dominated by fishery, salt farming and aquaculture, however in recent years the industrial and service sectors are slowly being developed. The livelihoods of the people on the Project site are predominately (approximately 80%) marine dependent (i.e. fishery, salt farming, aquaculture etc.), with the remainder being in either wage or enterprise based livelihoods. The industrial and handicraft sectors remain a viable source of income for the island due to its reputation for high quality fish sauce. Annual output for fish sauce production maintains around 105,000 litres.

Local infrastructure was deemed to be satisfactory with accessible education to high school level and medical station for each commune.

A full description of the socio-economic context is provided within Chapter 2 of the EIA.

2 THE ASSESSMENT APPROACH

2.1 REGULATORY AND ADMINISTRATIVE FRAMEWORK

As detailed within the introductory section, the Project is subject to the legal framework of Vietnam, and is presently seeking regulatory environmental and social approval through the mechanisms outlined within the Law on Environmental Protection No. 55/2014/QH13. The EIA prepared to meet these requirements also incorporated public disclosure of Project information and stakeholder consultation. Recommendations and outcomes made within these documents have formed VinFast's key commitments, being compliance with all regulatory requirements of Vietnam.

2.2 IMPACT ASSESSMENT METHODOLOGY

The EIA has been developed following a process that screens and scopes potential impacts and risks the Project could have on aspects of the environments during both construction and operation phases. It identifies measures that the Project will take to avoid, minimise/reduce, mitigate, offset or compensate for potential adverse impacts. It also identifies measures to enhance potential positive impacts where applicable. The detailed methodology applied is presented within the introductory sections.

3 IMPACT ASSESSMENT

3.1 CONSTRUCTION PHASE

3.1.1 Air Quality

Air quality forecast was undertaken to determine the potential changes to the quality in ambient air quality due to construction of the Project. Calculations were developed based on World Banks's guideline (*Environmental Assessment Source book, Volume II, Sectoral Guideline Environment)* to cover both the construction phase (including fugitive dust emissions and pollutants from vehicles and machinery). Impacts to air quality during construction were assessed to be mostly within allowable limits for construction phase with the exception of the dust concentration generated by transportation activities and NO_x at a distance 0 to 10 metres from source, all in accordance to QCVN 05:2013/BTNMT.

3.1.2 Waste Water

Other impacts during construction relate to domestic waste water management were noted to be within acceptable limits stated in QCVN 40:2011/BTNMT except for biochemical oxygen demand (BOD5), total suspended solids (TSS), and Coliforms. To mitigate these issues, mobile chemical toilets must be provided for site staff at locations away from stream sides. The Project shall arrange for regular collection of sewage by licenced contractors for disposal to government sewer.

3.1.3 Waste Management

As identified in Chapter 3, hazardous and non-hazardous waste streams are anticipated to be generated from a variety of sources the construction. The land development phase of the Project will involve the excavation, disturbance and exposure of large amounts of topsoil. Surface water runoff from this exposed soil can be expected to contain elevated levels of suspended solids, debris and potentially contaminants such as oils, fuel and grease. This water may make its way off site into nearby water bodies, rivers and possibly into the water streams used to supply local aquaculture and agriculture. To mitigate this impact, a range of detailed surface water management measures have been developed to manage surface water flows.

Regarding hazardous waste, the 90-days construction plan will enlist excavation activities producing oils, fuel and grease. The generated amount will be temporary whilst still being collected, categorised, and labelled in accordance with TT 36/TT-BTNMT. A governmental licensed third party will then succeed in the handling process.

3.1.4 Noise and Vibration

A noise and vibration assessment, including calculation of predicted noise levels at sensitive receptors during construction was undertaken. During construction, noise levels of between 51dBA and 90dBA are anticipated to occur at a range of sensitive receptors. Noise limits for surrounding community will be met in accordance with QCVN 26:2010/BTNMT. Vibration levels associated with construction activities were noted to be within acceptable limits stated in QCVN 27:2010/BTNMT.

However, it should be noted that loud noise can create physical and psychological stress, reduce productivity, interfere with communication and concentration, and contribute to workplace accidents and injuries by making it difficult to hear warning signals.

3.1.5 Biodiversity

The development of the Project was noted to have a direct impact on terrestrial habitat, primarily due to the direct waste discharge during the land development phase. This impact was assessed to be moderate. A range of mitigation measures should be developed to minimise this impact level.

3.1.6 Influx and In-Migration

Impacts to the local community, infrastructure and services as a result of the influx of formal and informal migrants during the construction phase were identified and assessed to be significant. This include strains on local public services, public health impacts, possible rise in price of commodities, food and services, increased risk of traffic accidents, increased crime and cultural effects such as an erosion of traditional values and changes in social networks. A range of mitigation and management measures are proposed to minimise these impacts and will predominately be implemented through an Influx Management Plan.

3.1.7 Traffic

Heavy plant and machinery required during this phase will need to be mobilised through the local road network, which have not been designed to accommodate large amounts of heavy traffic. The impacts associated with this were assessed as significant. Measures to mitigate this impact include limiting construction vehicle traffic to off-peak commuting times, temporary blockage/stoppage of traffic flow on sections of local roads, and working with local authorities with regards to the management of traffic during this phase.

3.1.8 Socio-economic Impacts

The Project will result in the creation of significant employment opportunities, both directly and indirectly throughout the supply chain. There is the opportunity for direct employment by either VinFast or construction contractors during the construction phase, as well as downstream business services to the construction workforce such as groceries, restaurants, hairdressers and transportation.

3.1.9 Impact on Surrounding Community

The collective impacts from aforementioned sections shall be subjected to the surrounding community to a lesser extent. The Project needs to consider mitigation measures for noise, vibration and dust pollution generated from construction activities. Flooding risk pertaining to improper sewage system should also be accounted for.

3.2 OPERATIONAL PHASE

3.2.1 Air Quality

Operational air impacts variously assessed to be moderate or negligible, with no limits exceeded. Production of spare parts by the manufacturing plant is laborious work of design and technological skills, which can be divided into the different stages. In the technological process of manufacturing, the sequences capable of emitting pollutants are the following: metal surface pre-treatment, component soldering, surface painting, vehicle test drive and transportation. The stages of the technological process within the plant are generating pollutants such as: sulphur oxides, nitrogen oxides, carbon monoxide, hydrocarbons, particulate matter, dust, oxides of various metals and volatile organic compounds. Consideration should also be given to air pollutant from air conditioning and waste disposal area albeit to a lesser extent.

By the action on the human body, the specific investigated economic unit's pollutants fall into groups: pollutants irritants, dust suspension; stifling-toxic; toxic systemic pollutants and its compounds. The effects of pollutants on the human body are immediate (acute) appearing shortly after exposure and are manifested by pathological changes and late effects (chronic) exposure occurring for a long time and which is manifested through the functional changes followed of morphological alterations.

3.2.2 Waste Water

Wastewater including domestic wastewater, process wastewater was identified to be generated from different processes during the Project's operations. It was anticipated that 3,214 m3 of domestic wastewater, 4,289 m3 of process wastewater and 542.8 m3 of other wastewater (e.g. workshop cleaning wastewater) shall be generated per day during the operation phase. The impact assessment including that involves modelling was conducted. The assessment outcomes indicated that different pollutants would be expected exceeding the allowable standards from the generation sources and hence treatment need to be provided prior to discharging to the environment. It was determined that however, impacts due to stormwater runoff during the operation phase is considered negligible.

3.2.3 Waste Management

Non-hazardous solid waste generated from specific manufacturing operations such as human activities and machinery by-products may amount to a daily approximate of 1,200 kg tonnes and 2,220 kg, respectively. The total volumes and types of waste materials prediction are dependent upon estimation from GM Motor. Without a recommended procedure in place, the operational wastes generated will lead to significant l impacts for occupational safety.

In term of hazardous waste, the technological process of manufacturing including metal surface pre-treatment, component soldering, surface painting and maintenance will be responsible for the primary discharge. The generated estimated amount of 120,693 kg per year will be collected, categorised, and labelled in accordance with TT 36/TT-BTNMT. A governmental licensed third party will then succeed in the handling process.

3.2.4 Noise and Vibration

A noise and vibration assessment, including calculation of predicted noise levels at sensitive receptors during operation was undertaken. During operations, noise limits will be exceeded at sensitive receptors situated 50m and 200m away from the manufacturing plants according to QCVN 26:2010/BTNMT. This impact level was noted to be moderate and will be generally mitigated through ensuring that all elements of the Project meet their technical specifications. Additional noise reduction measures will also be put in place around particularly noisy equipment.

Yet it should be noted that the effects of noise induced hearing loss can be profound, limiting workers' ability to hear high frequency sounds, understand speech, and seriously impairing ability to communicate.

3.2.5 Biodiversity

Based on literature form a wide range of conditions, it is widely acknowledged that various groups of organisms are more sensitive to pollutants than others. Planktons drifting or floating in the water column will be adversely affected by turbidity and toxic chemicals discharged from manufacturing activities. Toxic chemicals of most concern to Planktons will include biocides, heavy metals and dissolved petroleum hydrocarbons. Benthic species living near, on or in the bottom sediment of water body are most likely to be affected by the persistent aspects of waste discharges.

In general, healthy ecosystems rely on a complex web of animals, plants, bacteria, and fungi—all of which interact, directly or indirectly, with each other. Harm to any of these organisms can create a chain effect, imperilling entire aquatic environments.

3.2.6 Hydrological Impact

Land development in the area will not culminate in changes in regional water level. During certain monsoon periods of changes in the prevailing wind, there will be negligible fluctuation around Project area in term of sea-level surface. Part of the island water current water passes near or through the Project area and then directly into the coat, even though any incurred distortion will be insignificant. Such oversights taken into consideration, the largest factor influencing current conditions is an upsurge in moist climatic conditions over the past decade. The TSS condition was not made critical when the Project proceeds with its operation.

3.2.7 Climate Change

Carbon dioxide emission from manufacturing and transportation activities was assessed to be negligible. Similar result was obtained for methane emission.

3.2.8 Socio-economic Impacts

The influx of workers and followers can lead to adverse social impacts on local communities, especially if the communities are rural, remote or small. Such adverse impacts may include increased demand and competition for local social and health services, as well as for goods and services, which can lead to price hikes and crowding out of local consumers. There will be increased volume of traffic and higher risk of accidents, increased demands on the ecosystem and natural resources, social

conflicts within and between communities, increased risk of spread of communicable diseases, and increased rates of illicit behaviour and crime.

3.2.9 *Community Health and Safety*

Failure in waste management compliance shall result in direct impact on health and safety of workers onsite as well as the surrounding community.

3.3 *POTENTIAL RISKS*

During construction phase, the EIA listed various occupational health and safety as well as environmental risks. Environmental risks around the site include landslide and failure of coastal bank.

During operation phase, similar risks were obtained with an addition of two significant environmental risks. The first would be risk of chemical spill. With many hazardous chemicals presence in plant site, chemical spill hazards are much more likely to happen. Spills of acids, bases, highly flammable liquids, toxic chemicals, reactive substances, oxidizing agents and other hazardous chemicals can present real hazards to workers and environment. Chemical spills can occur at production site, from a storage tank, warehouse area where chemicals are stored, during transportation, at the laboratory or during transferring operation. It means that chemical spills hazards have to be identified at these workplaces and activities. The danger level of chemical spills depend on several factors, which include but are not limited to nature of spilled substances/chemicals (hazardous or not), spill volume, work area (well-ventilated area or not), spill location and conditions (pressure and temperature) of the spilled chemicals.

The second major risk would be poor wastewater management. Poor waste disposal practices lead to accumulation of harmful substances; breeding ground for bacterial diseases and pathogenic parasites can grow. Ultimately, it causes water contamination, land and air pollution resulting in cause respiratory problems and other adverse health effects

4 MITIGATION

4.1 AIR QUALITY

During construction phase, one serious impact on the environment is the problem of air pollution, in which the main problem is dust pollution. The Project will focus on reducing and preventing pollution arising from raw materials and equipment by humidifying the air, barricading the site and maintaining schedule. The transport vehicles, machinery and equipment used in construction phase will be tested for gas emissions. Roads and time for transporting raw materials and equipment used in construction phase must be identified so negative impact due to dust and pollutants will be reduced a minimum to the populated areas.

During operation phase, air pollution prevention, minimization, and mitigation measures should be incorporated as part of the conceptual designs of the proposed project facilities. For example, regulated air pollutant emissions would be reduced through the use of advanced technologies and emission controls. The mitigation of potential adverse impacts from project activities would be achieved through implementation of management and monitoring system in compliance with requirements contained in facility permits and other applicable governmental or municipal regulations.

4.2 WASTE WATER

During construction phase, domestic wastewater of workers with the flow approximately is collected and treated by three-compartment septic tank. To facilitate the hygienic condition of officers and employees of the plant, five toilets will be required at the East of land development area. Wastewater from the septic tank first flows to biological treatment system is then taken to the storage tanks of main treatment system for continuous processing. Domestic wastewater treatment system of plant is designed to service about 1,000 workers. In addition, water from rainwater drainage system of the plant is collected and discharged directly into the plant's storm water drainage system.

During operation phase, all potentially contaminated operational flows of waste water will all be directed to the waste water treatment systems. All of this water will be treated and meet all relevant standards prior to discharge. The Project planned to build three wastewater treatment plants with a total treatment capacity of 9,040 m^3/day for the treatment of all the wastewater from the Project during the operation phase meeting the allowable standard before discharging to the environment. There are also a range of water flows, such as storm water from “clean” areas within the plant, which can be directly discharged without any treatment.

4.3 WASTE MANAGEMENT

During construction phase, the entire volume of solid waste, domestic waste are collected at the plant. The Project shall build a system for waste collection with specific assembling point, cleaning schedule and assigned personnel. To facilitate the treatment, recyclable solid waste is classified from the collection. The Project and its construction contractor will sign contract of domestic solid waste collection of the

plant with local waste collection and treatment unit. Hazardous solid wastes that may be generated during the construction of the plant will be registered with its respective sources and handled by licensed waste management contractors. The Project will provide storage area and follow labelling procedures stated in TCVN 6707-2009.

Non-hazardous waste generated during operation phase will be collected using a system for waste disposal separated for domestic and manufacturing waste. An estimate of 20 waste containers with 120-liter capacity will be distributed evenly across the site. Signing of licensed contractor needs to follow Decree 38/2015/BTNMT.

During operation phase, the generated hazardous waste of 120,693kg per year will be collected, categorised, and labelled in accordance with Circulars 36/2015/TT-BTNMT. A governmental licensed third party will then succeed in the handling process.

4.4 NOISE AND VIBRATION

During construction phase, transportation of materials through densely populated areas will have to maintain a reasonable speed and refrain from using air horn. Trucks will avoid lunchtime and bedtime in order to limit the impact of noise and vibration on roadside residents. Other noise inducting construction activities would have to follow the same procedure on scheduling.

During operation phase, muffler devices will be installed for machinery with high noise levels. Workers situated within a certain parameter must equip noise protection device for individual instruments.

4.5 BIODIVERSITY

During construction phase, precautions will be taken for activities that may incur significant impacts on the surrounding environment. This shall include selective vehicle and machinery washing; concentration of waste disposal near water body and constant lookout for any engendered species. Close communication will be maintained with the local authority in implementing conservation efforts.

During operation phase, the emission of atmospheric contaminant to the atmosphere and its deposition to the surrounding are highly spatially variable. While major impacts from construction and waste form the basis of Project's assessment, other forms of emission show substantial effects to adjacent areas. To maximise the benefit/cost ratio of any abatement strategy, it is therefore necessary to prioritise which ecosystems should be protected. Based on such a prioritisation, trees can play an important role in site planning to protect priority areas from waste deposition. This is because: trees capture pollution at higher rates than other vegetation; they enhance the dispersal of emitted contaminant; and they can shelter sources, thereby reducing overall emissions. Trees may therefore be planted around sites, as a strategic re-use of land.

4.6 INFLUX AND IN-MIGRATION

The Project needs to collaborate with relevant authorities in the design and implementation of specific initiatives responding to influx requirements. These are expected to include, water supply, drainage and electricity systems for designated resettlement or existing residential areas; upgraded or expanded education, healthcare and community facilities during construction phase.

Once the migrant labour has settled during operation phase, training and institutional support for commune police and security forces to promote peaceful integrate of influx and local communities should be considered.

4.7 TRAFFIC

The construction contractor will commit to ensuring that transportation do not damage the road and affect the velocity of other vehicles. They have to satisfy travel needs of the people in the region by providing traffic controller, and using transportation vehicles that are in accordance with the provisions of the road load in project area. Again, speed limit in the construction area for ensuring traffic safety in and limiting swept dust must be strictly followed.

During operation phase, it is best to maintain dedicated personnel for traffic control amid rush hours.

4.8 SOCIO-ECONOMIC IMPACTS

In order to minimize the negative impacts on the society, the Project in conjunction with local authorities should organise civic consciousness training for migrant workers. Preliminary introduction to local customs and traditions should also be conducted in order to prevent any misunderstanding. Any unlawful activities (gambling, prostitution, etc.) that may incur related offenses will be forbidden.

5 ENVIRONMENTAL MANAGEMENT AND MONITORING PROGRAM

An Environmental Management Program has been developed to collate all management and mitigation measures acknowledged in Chapter 2, 3 and 4 into a single point. Presented within Chapter 5, it provides clarity to all stakeholders as to what impacts have been identified, how they will be mitigated and managed, and through what means. Relevant regulatory standards would be conformed with regards to monitoring equipment and methodology. It will be used as a basis for developing a suite of detailed management plans to be implemented throughout both construction and operation phases.

An Environmental Monitoring Program has also been developed as a document through which the EMP would be implemented, tracked and reported upon. VinFast places social and environmental performance as a core measurement of Project success, and through Environmental Management and Monitoring Program (EMMP) sets out the means to achieve this through setting objectives and target, quantitative evaluation of management plan effectiveness and working towards continual improvement for air quality, waste disposal, and surrounding hydrological condition.

6 PUBLIC CONSULTATION

As part of its ongoing activities, preparation of local regulatory EIA's, and the various rounds of gathering socio-economic data, a variety of stakeholders have been engaged with and provided their feedback on the Project. This has been undertaken through a variety of methods (such as formal meetings with authorities, community meetings, focus group discussions, and meetings with households), with feedback received being addressed through the EIA. Issues and feedbacks raised by stakeholders at all levels have aided in shaping the assessment process and are detailed within Chapter 6.

7 CONCLUSION

The Project is being developed in accordance with national regulations and the Master Plan for Dinh Vu – Cat Hai Economic Zone. In development of the EIA, VinFast has systematically identified and assessed all impacts likely to be result from development of Project. In addition to a variety of positive socio-economic impacts that the project provides, the Project creates negative impacts on the environment. The EIA report has fully recognised and elaborately and comprehensively assessed the scale and extent of such impacts. A range of mitigation, management and monitoring measures have been developed to reduce the overall residual impact level to one that is considered acceptable. With the implementation of these measures, through the EMMP and detailed management plans, the construction and operation of the Project is considered to be able to undertaken in a manner consistent with the regulatory standards.

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