



Environment and Social Due Diligence (ESDD) of Hungund-Hospet Road Section of NH -13

Oriental Infrastructure Engineers (OSE)

Final Report

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27 June 2019

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CONTENTS

1	INTRODUCTION	1
1.1	OBJECTIVES OF THE STUDY	1
1.2	SCOPE OF WORK	1
1.3	REFERENCE FRAMEWORK FOR ESDD	2
1.3.1	PROJECT CATEGORIZATION	2
1.4	APPROACH AND METHODOLOGY	10
1.4.1	PROJECT INCEPTION	10
1.4.2	DOCUMENTATION REVIEW	10
1.4.3	SITE ASSESSMENT	10
1.4.4	REPORT WRITING	11
1.5	LIMITATIONS	11
1.5.1	USES OF THE REPORT	12
2	REFERENCE FRAMEWORK & APPLICABLE REGULATORY COMPLIANCE	13
2.1	ENVIRONMENTAL REGULATIONS	17
2.2	LAND AND SOCIAL REGULATIONS	18
2.2.1	LABOUR AND WORKING CONDITIONS REGULATIONS	18
2.2.2	LAND ACQUISITION AND REHABILITATION REGULATIONS FOR ROADS	19
2.3	APPLICABLE PERFORMANCE STANDARDS AND WORLD BANK GROUP GUIDELINES	25
2.3.1	IFC PERFORMANCE STANDARDS	26
2.3.2	WB/IFC EHS GUIDELINES	28
2.3.3	ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB)'S ENVIRONMENTAL AND SOCIAL FRAMEWORK	31
3	PROJECT DESCRIPTION	33
3.1	INTRODUCTION TO THE ASSET DEVELOPER AND OPERATOR	33
3.1.1	ORGANISATIONAL STRUCTURE AND EHS CAPABILITY	33
3.1.2	ENVIRONMENT AND SOCIAL MANAGEMENT SYSTEMS	35
3.2	ASSET DESCRIPTION	36
3.2.1	PROJECT SALIENT FEATURES	38
3.2.2	PROJECT MILESTONES/ COMMERCIAL OPERATION DATE	39
3.2.3	OPERATION & MAINTENANCE (O&M) ACTIVITY	39
3.3	ENVIRONMENTAL AND SOCIAL CONTEXT OF THE ROAD	40
3.3.1	ENVIRONMENTAL CONTEXT	40
3.3.2	SOCIAL CONTEXT	41
3.4	ASSET STATUS	45
4	COMPLIANCE STATUS AGAINST THE REFERENCE FRAMEWORK	46
4.1	OVERVIEW OF ASSET COMPLIANCE WITH APPLICABLE REGULATORY REQUIREMENTS	46
4.2	IFC PS-1: ENVIRONMENT AND SOCIAL MANAGEMENT SYSTEM	54

4.2.1	<i>ENVIRONMENT AND SOCIAL ASSESSMENT</i>	54
4.2.2	<i>EHS MANAGEMENT PROGRAM INCLUDING MONITORING AND REPORTING</i>	54
4.2.3	<i>ORGANIZATIONAL CAPACITY AND TRAINING</i>	55
4.2.4	<i>COMMUNITY ENGAGEMENT AND GRIEVANCE MANAGEMENT</i>	56
4.2.5	<i>PS-1 COMPLIANCE GAPS AND RECOMMENDATIONS</i>	56
4.3	<i>IFC PS-2: LABOUR RIGHTS AND WORKING CONDITIONS</i>	56
4.3.1	<i>WORKING RELATIONSHIPS</i>	56
4.3.2	<i>WORKING CONDITIONS AND TERMS OF EMPLOYMENT</i>	57
4.3.3	<i>PROTECTING THE WORKFORCE</i>	58
4.3.4	<i>OCCUPATIONAL HEALTH AND SAFETY</i>	58
4.3.5	<i>SUPPLY CHAIN</i>	58
4.3.6	<i>PS-2 COMPLIANCE GAPS AND RECOMMENDATIONS</i>	59
4.4	<i>IFC PS-3: POLLUTION AND RESOURCE EFFICIENCY</i>	59
4.4.1	<i>POLLUTION PREVENTION, RESOURCE CONSERVATION, ENERGY EFFICIENCY</i>	60
4.4.2	<i>WASTE MANAGEMENT</i>	61
4.4.3	<i>HAZARDOUS MATERIALS</i>	61
4.4.4	<i>PESTICIDE USE AND MANAGEMENT</i>	61
4.4.5	<i>PS-3 COMPLIANCE GAPS AND RECOMMENDATIONS</i>	61
4.5	<i>IFC PS-4: COMMUNITY HEALTH SAFETY AND SECURITY</i>	62
4.5.1	<i>GENERAL COMMUNITY/ROAD USERS HEALTH AND SAFETY</i>	62
4.5.2	<i>COMMUNITY EMERGENCY PREPAREDNESS/RESPONSE</i>	63
4.5.3	<i>COMMUNITY ENGAGEMENT AND DEVELOPMENT</i>	63
4.5.4	<i>PS-4 COMPLIANCE GAPS AND RECOMMENDATIONS</i>	63
4.6	<i>IFC PS-5: LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT</i>	63
4.6.1	<i>LAND ACQUISITION PROCESS</i>	63
4.6.2	<i>DISPLACEMENT (ECONOMIC AND PHYSICAL) AND FORCED EVICTION</i>	64
4.6.3	<i>COMPENSATION AND BENEFITS</i>	64
4.6.4	<i>CONSULTATIONS AND GRIEVANCE MECHANISM</i>	64
4.6.5	<i>POST-RESETTLEMENT LEGACY</i>	65
4.6.6	<i>PS-5 COMPLIANCE GAPS AND RECOMMENDATIONS</i>	65
4.7	<i>IFC PS-6: BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES</i>	65
4.7.1	<i>LEGALLY PROTECTED INTERNATIONALLY RECOGNISED AREAS AND CRITICAL HABITATS</i>	65
4.7.2	<i>MODIFIED AND NATURAL HABITATS</i>	65
4.7.3	<i>PS-6 COMPLIANCE GAPS AND RECOMMENDATIONS</i>	66
4.8	<i>IFC PS-7: INDIGENOUS PEOPLES</i>	66
5	<i>KEY EHS AND SOCIAL OBSERVATIONS AND ROAD CATEGORIZATION</i>	67
5.1	<i>KEY EHS AND SOCIAL ISSUES</i>	67
5.2	<i>PROJECT CATEGORIZATION</i>	73
5.2.1	<i>RATIONALE FOR CATEGORIZATION</i>	73
5.2.2	<i>SCREENING OF CRITICAL HABITAT</i>	74
5.2.3	<i>SCREENING OF PS-7 AND FREE PRIOR INFORMED CONSENT (FPIC)</i>	74
5.2.4	<i>CATEGORIZATION OF THE ROAD</i>	74
6	<i>ENVIRONMENT AND SOCIAL ACTION PLAN</i>	76

ACRONYMS

AIDS	Acquired Immune Deficiency Syndrome
AIIB	Asian Infrastructure Investment Bank
AMC	Annual Maintenance Contract
BOT	Build, Operate and Transfer
CA	Concession Agreement
CEO	Chief Executive Officer
CGWA	Central Ground Water Authority
CPCB	Central Pollution Control Board
CTE	Consent to Establish
CTO	Consent to Operate
D.G.	Diesel Generators
DBMW	Delhi Brass & Metal Works
E&S	Environmental and Social
EC	Environmental Clearances
EHS	Environment, Health and Safety
EMP	Environment Management Plan
EPC	Engineering, Procurement, Construction
EPRP	Emergency Preparedness and Response Plan
ESAP	Environmental and Social Action Plan
ESDD	Environmental and Social Due Diligence
ESF	Environmental and Social Framework
ESMP	environmental and social management plan
ESMS	Environmental and Social Management System
ESS	Environmental and Social Standard
GHG	Greenhouse Gasses
GIIP	Good International Industry Practice
HIV	Human Immunodeficiency Virus
HR	Human Resource
IE	Independent Engineer
IFC	International Finance Corporation
IP	Indigenous Peoples
IRC	India Road Congress
LA	Land Acquisition
LARR	Land Acquisition Resettlement and Rehabilitation Bill
LHS	Left Hand Side
MoEF&CC	Ministry of Environment, Forest and Climate Change
MORTH	Ministry of Road Transport and Highway
KPCB	Karnataka Pollution Control Board
MPR	Monthly Progress Report
NGO	non-governmental organisations
NH	National Highway
NHAI	National Highway Authority of India
NOC	No Objection Certificate
O&M	Operation and Maintenance
OHS	Occupational Health and Safety
OSE	Oriental Infrastructure Engineers

PRO	Public Relation Officer
PS	Performance Standard
R&R	Rehabilitation and Resettlement
RFCT LARR	Right to Fair Compensation and Transparency in Land Acquisition, Rehabilitation and Resettlement
RHS	Right Hand Side
RO	Reverse Osmosis
ROW	Right of Way
SIA	Social Impact Assessment
SPCB	State Pollution Control Board
SPV	Special Purpose Vehicle
ST	Scheduled Tribe

1.1 OBJECTIVES OF THE STUDY

The overall objective of the present study is to review the project against the applicable reference framework, identify gaps and provide recommendations in the form of an Environment and Social Action plan to close the gaps and meet the requirements of the applicable framework. The other key objectives include:

- Categorizing the Project as Category 1,2 or 3 as defined in the screening/ESDD criteria defined in the Terms of Reference and to determine the screening requirements applicable to the Project;
- Undertaking the ESDD in line with the applicable requirements detailed in screening /ESDD criteria, which includes, where applicable, reviewing the adequacy of:
 - The Environmental and Social Impact (ESIA) process and report including the Environmental and Social Management Program (ESMP) and the Social Impact Assessment (SIA) and Resettlement Action Plan (RAP), if applicable;
 - The Environmental and Social management systems of the Project/ SPV to manage E&S risks and impacts on an ongoing basis in accordance with the provisions of the reference framework. A part of this review will include assessing the adequacy of the capacity and management structures in place to manage environmental and social risks and impacts;
- Based on the assessment, providing a detailed evaluation on compliance with the reference framework; and
- Developing a detailed and time bound Action Plan with follow-up and implementation plan details, parameters and outcome indicators to judge compliance to IFC Performance Standards requirements.

1.2 SCOPE OF WORK

Scope of work for the assignment included the following:

- Undertaking a desk based review of all relevant documents related to the project within the scope of the assignment;
- Consultations with the SPV i.e. GMR OSE Hungund Hospet Highways Pvt Ltd to obtain an understanding of the Environmental and Social Management System in place to identify and manage E&S risks;
- Review of the 97.00 km road stretch along with all associated facilities, including all the three toll booths, control rooms, staff accommodation, etc.;
- Status of Environmental Clearances (EC) and applicable permits, particularly conditions that apply during the operation phase of the project;
- Consultations with the stakeholders - local community, NHAI and workers;

- Evaluation of the site against the applicable reference framework requirement and identification of compliance gaps;
- Categorization of the Project as Category 1,2 or 3 as defined in **Section 1.3.1** below, and to determine the screening requirements applicable to the Project
- Development of an Environmental and Social Action Plan (ESAP) with details such as mitigation measures, staff responsible, timeline for implementation and monitoring requirement in compliance with IFC Performance Standards and Equator Principles requirements.

1.3

REFERENCE FRAMEWORK FOR ESDD

The assessment of all material environmental, health & safety and social aspects were carried out with reference to the standards below:

- Revised IFC Performance Standards (2012);
- World Bank Group/IFC EHS Guidelines specifically, the following World Bank Group EHS Guidelines, published on April 30, 2007:
 - a. IFC EHS General Guidelines;
 - b. IFC EHS Guideline for Toll Roads;
- AIIB's requirements under its Environmental and Social Policy (ESP) and Environmental and Social Standards (ESSs)
- Applicable local and national environmental and social legislation.

1.3.1

PROJECT CATEGORIZATION

IFC Categorizes road projects into the following three types:

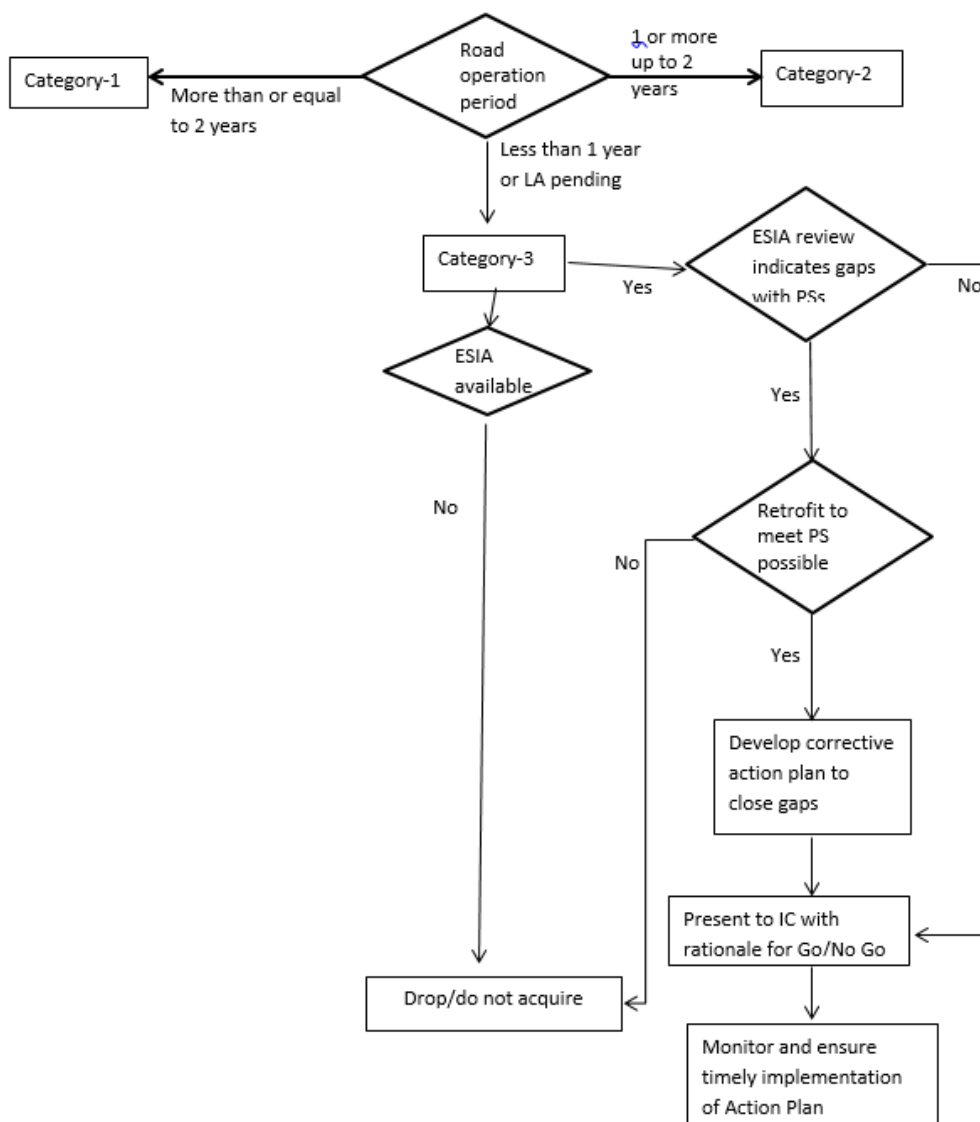
- Category 1: Operating roads (2 or more years);
- Category 2: Operating roads (1 or more years but less than 2 years); and
- Category 3: Just operational (less than 1 year) or where there is any pending Land Acquisition (LA).

Criteria for undertaking ESDD for all the three category of roads is presented in **Table 1-2** below. IFC's decision tree matrix is presented as *Error! Reference source not found.* below. The categorization of the roads is primarily decided based on number of years these roads are operational and pendency of any land acquisition process linked to the project road development.

Decision on Category-1 Roads:

The decision flow chart for the operational roads for Category-1 roads is provided in Figure-1.1 below. For Category-1 roads, the ESIA report is reviewed to identify the gaps vis-à-vis IFC PS requirements, a corrective action plan (ESAP) is prepared, and its implementation is monitored.

Figure 1.1 Decision Flow-chart for Category-1 Operating Roads



Decision on Category-2 Roads:

The decision for Category-2 roads follows the same path as that of Category-1 with following additional steps:

- If issues like litigation or other risks are high, the Company may like to review evidence of Informed Consultation and Participation (ICP) process to inform its decision. If significant gap with respect to IFC requirements established, then drop the asset/ do not acquire.
- If issues like litigation or other risks are high, the Company may like to undertake procedures akin to Broad Community Support (BCS) for the project to inform decision. If Company is unable to establish BCS, escalate to Board with rationale for go/ no go recommendation.
- Review status of implementation of the R&R Plan for all assets that have been in operation one or more years and upto two years.
- Resettlement Completion Audit may be requested on a case by case basis.
- If other adverse impact on IPs established, Company needs to ensure that consultation meets ICP requirements.

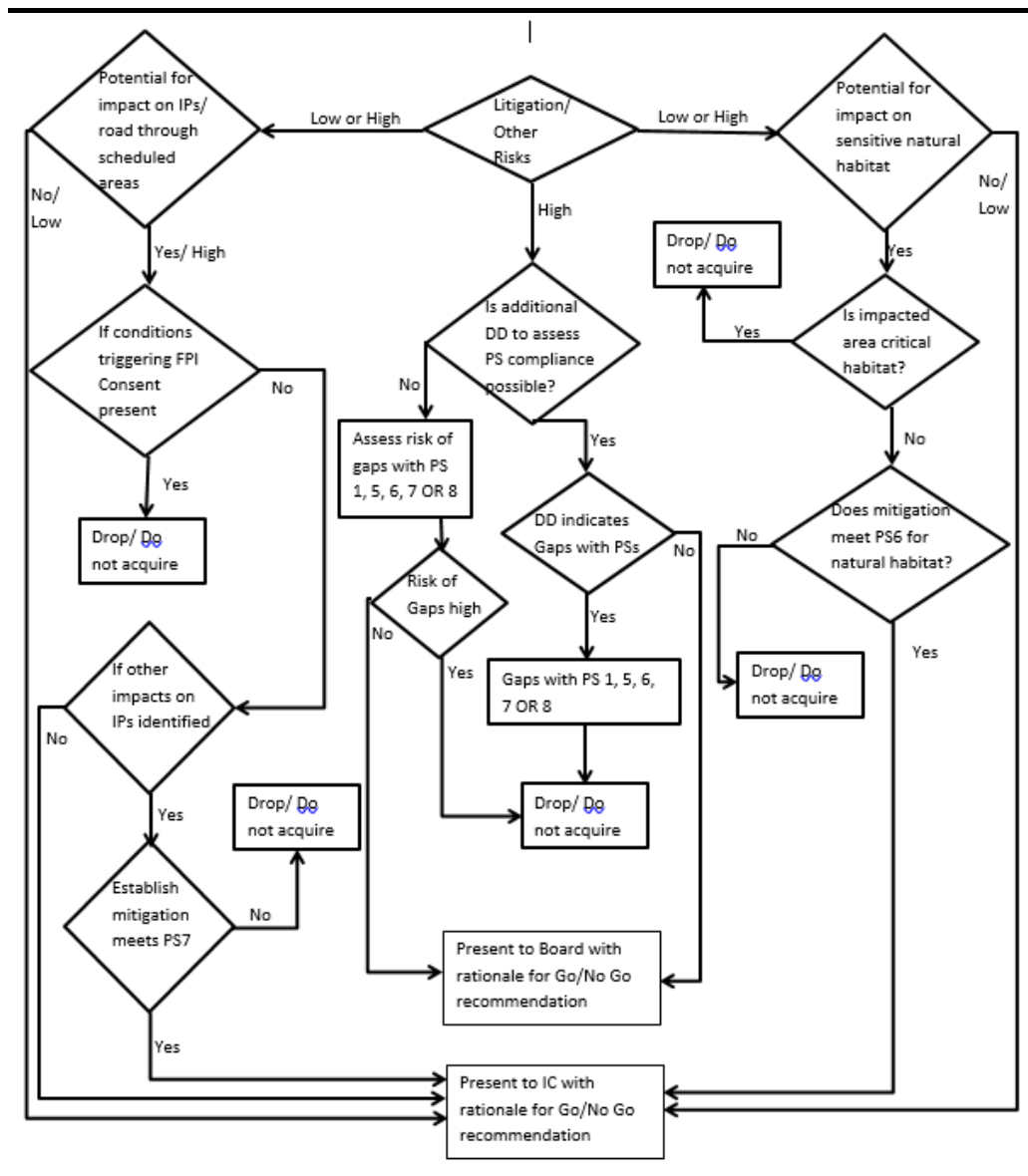
- f) The Company needs to review status of implementation of all mitigation measures for IPs.

Decision on Category-3 Roads:

The decision flow chart for the operational roads for Category-3 roads is provided in Figure 1.2 below. For Category-3 roads, three key criteria are screened, i.e., (i) potential for impact on IPs, (ii) litigation/other risks, and (iii) potential for impact on sensitive natural habitat. If the project road was identified to have impacted a critical habitat or conditions triggering FPIC present, then the investment is dropped.

If the project road is identified to have high litigation and other risks, then the gaps with respect to IFC PS-1,5,6,7 and 8 are identified during ESDD and a suitable ESAP is prepared.

Figure 1.2 Decision Flow-chart for Category-3 Operating Roads



A range of Key Screening Criteria covering PS-1, PS-5, PS-6, PS-7, and PS-8 are used for undertaking ESDD for operating roads. These key E&S criteria spread across IFC PSs is provided in Table 1.1 below.

Table 1-1 *Key E&S Criteria screened under IFC PSs*

Sl. No	E&S Criteria	Relevant IFC PS
1	Litigation	PS-1
2	Protests	
3	Assessment and Management of Environment and Social Risks and Impacts	
4	Stakeholder/Community Engagement	
5	Grievance Mechanism	
6	HR/ Contractor Management	PS-2
7	Health and Safety	PS-2 and PS-4
8	Pollution Prevention	PS-3
9	Resettlement Action Plan (RAP)	PS-5
10	Natural Habitat	PS-6
11	Indigenous Peoples	PS-7
12	Cultural Heritage	PS-8

The scope of due-diligence of these E&S criteria for each category of operational road is presented in *Table 1-2* below for further clarity.

Table 1-2 IFC's Categorization of Road Projects

S. No.	Criteria	Category 1: Operating roads (2 or more years)	Category 2: Operating roads (1 or more years but less than 2 years)	Category 3: Just operational (less than 1 year) or where there is any pending Land Acquisition (LA)
1	Litigation	<ul style="list-style-type: none"> Seek full information on any outstanding litigation or notices from regulatory authorities related to environmental impacts, land/RoW acquisition, labour working conditions, occupational health and safety, community health and safety; 	Same as Category 1.	Same as Category 1.
2	Other Risks	<ul style="list-style-type: none"> Take a risk based view on whether to proceed or not. Seek full information on any stakeholder concerns (employees, local communities, NGOs, regulatory authorities, contractors, contract workers): expressed in the public domain; through grievance mechanisms; and instances of protests or civil action related to environmental impacts, land/RoW acquisition, labour working conditions, occupational health and safety, community health and safety; 	Same as Category 1.	Same as Category 1.
3	Assessment and Management of Environment and Social Risks and Impacts	<ul style="list-style-type: none"> Take a risk based view on whether to proceed or not. Ascertain that operational stage ESMP, compliant to PS, developed and implemented; An ESMS that meets the requirements of IFC PSs and applicable EHS Guidelines is in place. If not in place a time bound plan to develop and implement it; Review environment, health, safety, social, and labor working condition monitoring data to ensure that applicable provisions of IFC PSs and WBG EHS Guidelines are being met. 	Same as Category 1.	<ul style="list-style-type: none"> Obtain and review a copy of a comprehensive ESIA for the Project; Assess gaps with PSs; Assess whether retrofit measures to close gaps can be implemented; If retrofit possible, develop a time-bound action plan; Ensure implementation of the action plan; A time bound plan to develop and implement an ESMS.
4	Resettlement Action Plan (RAP)	<ul style="list-style-type: none"> Establish that no pending land and R&R related cases/disputes pending before courts/authority or reported; 	In addition to requirements specified	<ul style="list-style-type: none"> Assess if a detailed SIA and RAP compliant to PS developed and being

S. No.	Criteria	Category 1: Operating roads (2 or more years)	Category 2: Operating roads (1 or more years but less than 2 years)	Category 3: Just operational (less than 1 year) or where there is any pending Land Acquisition (LA)
		<ul style="list-style-type: none"> Establish that there are no issues of the type mentioned at (2) above; If issues of the type mentioned at (1) and/or (2) material, then consider seeking and reviewing SIA and RAP to inform decision at (1) and/or (2) as relevant. 	<p>at Category 1 also the following:</p> <ul style="list-style-type: none"> Review also status of implementation of the R&R Plan; Resettlement Completion Audit may be requested in cases. 	<p>implemented for the project;</p> <ul style="list-style-type: none"> Time bound action plan for completion of the LA and R&R activities (if pending); Resettlement Completion Audit to be undertaken.
5	Stakeholder/Community Engagement	<ul style="list-style-type: none"> Review operation stage Stakeholder Engagement Plan and its implementation for conformance to IFC PSs; If issues at (1) and/or (2) identified, may like to review evidence of Informed Consultation and Participation (ICP) process to inform decision at (1) and/or (2) as relevant. 	<p>In addition to requirements specified at Category 1 also the following:</p> <ul style="list-style-type: none"> If issues at (1) and/or (2) identified, may like to undertake procedures akin to Broad Community Support (BCS) for the project to inform decision at (1) and/or (2) as relevant. 	<ul style="list-style-type: none"> A stakeholder engagement plan in place and being implemented; Obtain evidence of Informed Consultation and Participation (ICP) process; Obtain evidence of Broad Community Support (BCS) for the project.
6	Grievance Mechanism	<ul style="list-style-type: none"> Functional and effective Grievance Redress system in Place. 	Same as Category 1.	<ul style="list-style-type: none"> Functional and effective Grievance Redress system in Place.
7	Health & Safety	<ul style="list-style-type: none"> Operational stage health & safety management system in place/implemented (as a part of the ESMS). In case it is not in place a time bound plan to develop and implement an operational stage health & safety management system; Review monitoring data to assess efficacy. 	Same as Category 1.	<ul style="list-style-type: none"> Construction and operational stage health & safety management system in place and being implemented (as a part of the ESMS);

S. No.	Criteria	Category 1: Operating roads (2 or more years)	Category 2: Operating roads (1 or more years but less than 2 years)	Category 3: Just operational (less than 1 year) or where there is any pending Land Acquisition (LA)
				<ul style="list-style-type: none"> Review monitoring data to assess efficacy.
8	HR/ Contractor Management	<ul style="list-style-type: none"> HR/Contractor management system/practices compliant to PS 2 requirements; Time bound action plan for closure of gaps (in HR/Contractor management system/practices with respect to PS 2 requirements) and implementation of the same; Labor and employee accommodation meets PS2 provisions. 	Same as Category 1.	<ul style="list-style-type: none"> HR/Contractor management system compliant with PS2 under implementation; Time bound action plan for closure of gaps (in HR/Contractor management system/practices with respect to PS 2 requirements) and implementation of the same; Labour Accommodation meets PS2 provisions.
9	Pollution Prevention	<ul style="list-style-type: none"> Mitigation measures implemented for impacts from air/noise/vibration in accordance with PS3 and WBG EHS Guidelines; Monitoring data indicates compliance with above. 	Same as Category 1.	<ul style="list-style-type: none"> A detailed assessment undertaken and management plan (in ESMP) for mitigation of air/noise/vibration related impacts in accordance with PS3 and WBG EHS Guidelines under implementation; Monitoring data indicates compliance.
10	Natural Habitats	<ul style="list-style-type: none"> Where forest land diversion or roads in the vicinity of coastal areas or near large wetland areas, undertake review of literature, contact forest department and collect anecdotal information from communities for presence or migration of any IUCN or nationally specified vulnerable, endangered or critically endangered species; 	Same as Category 1.	<ul style="list-style-type: none"> Where there is forest land diversion, or roads in the vicinity of coastal areas or near large wetland areas, review if detailed biodiversity assessment

S. No.	Criteria	Category 1: Operating roads (2 or more years)	Category 2: Operating roads (1 or more years but less than 2 years)	Category 3: Just operational (less than 1 year) or where there is any pending Land Acquisition (LA)
11	Indigenous peoples, tribes and communities	<ul style="list-style-type: none"> If present, establish whether critical habitat or not. If critical habitat, establish that CR related measures in accordance with PS 6 in place; If not critical habitat, review impact on natural habitat and whether measures meeting natural habitat requirements of PS6 in place; Obtain evidence of offset and “no net loss’ and preferably a “net gain” of biodiversity, for road stretches passing through legally “Protected Area” (like national park, wildlife corridor, reserved forest, critical habitat, Scheduled V, Ramsar sites, IBAs etc.) or a Critical Habitat. If road passes through scheduled areas, review process of land take in detail to understand impact on IPs, if any and whether they have been mitigated in accordance with PS7; If significant tribal population in the vicinity of the road, or significant tribal land taken or potential for loss of access to lands/resources on which tribal population dependent, assess if mitigation measures developed and implemented in accordance with PS7; Establish: no adverse impact (either historical or residual) on lands and resources under traditional or customary use of IPs (including access related impacts); no relocation of IPs from land and resources under traditional or customary use; and no adverse impact on critical cultural heritage of IPs. 	<p>In addition to requirements specified at Category 1 also the following:</p> <ul style="list-style-type: none"> If other adverse impact on IPs, demonstrate that consultation meets ICP; Review status of implementation of all mitigation measures for IPs. 	<ul style="list-style-type: none"> compliant to PS 6 included in the ESIA and; Detailed and comprehensive management plan developed and under implementation to achieve no net loss’ and preferably a “net gain” of biodiversity if material impacts on critical habitat identified. Review if ESIA adequately identified IPs, impacts on IPs including mitigation measures in accordance with PS7; Indigenous Peoples Plan, or a broader community development plan with separate components for Indigenous Peoples in place and being implemented; Assess if Free prior and Informed Consent (FPIC) achieved/demonstrated in case of impact on customary lands and resources, cultural heritage of IPs. Ensure that the ESIA and ESMP have measures in place that meet PS8 provisions.
12	Cultural Heritage	<ul style="list-style-type: none"> If issues relating to cultural heritage identified at (1) and/or (2), review in detail to establish if measures implemented meet PS1 and PS8. 	Same as Category 1.	<ul style="list-style-type: none"> Ensure that the ESIA and ESMP have measures in place that meet PS8 provisions.

1.4 APPROACH AND METHODOLOGY

1.4.1 PROJECT INCEPTION

An initial inception teleconference with IFC and Oriental Infrastructure Engineers was undertaken in December 2017 in order to obtain an overview of the project status, present ERM's scope of work and align the approach, information requirement, expectations and timelines.

1.4.2 DOCUMENTATION REVIEW

ERM commenced the assessment with desk based review of the project related documents ahead of the detailed site assessment. Simultaneously ERM undertook review of the available public information on Hungund-Hospete corridor of NH-13. ERM conducted a search of online and publicly available sources of information (relevant to the jurisdictions in which the Project corridor is located), with the objective of identifying and reporting performance issues pertaining the interest and concern to key third party stakeholders such as major non-governmental organisations (NGOs), and other interested parties. More documents and information was collected during the field visit. *Annexure A* provides the list of documents that were made available for review during the assignment.

1.4.3 SITE ASSESSMENT

ERM's team of Environmental and Social experts undertook the site assessment of the project corridor from Indore to Khalghat of NH-3 on 11th & 12th January 2018. The key aspects of the site assessment included:

- Site assessment of the entire project corridor from Hungund to Hospet, Toll Plaza offices at Vangiri and Hitnal and discussion with the SPV at site;
- Environmental and Social sensitivity mapping along the entire project corridor conducted by a drive through along the entire road stretch and mapping features on both the left hand and right hand side of the project corridor;
- Visit to the area proposed for setting up of the batching plant to be used in operation and maintenance activity of the road;
- Assessment of the truck lay bye areas and the proposed rest areas, situated along the project corridor;
- Broad level discussion with NHAI official to understand the process of land acquisition, impact on indigenous people in the project area and pending litigations, if any
- Stakeholder consultation with local community, workers (direct and contract) and contractors.

The *Table 1.1* below illustrates the key site assessment activities and details of the stakeholder consultation undertaken.

Table 1-3 Site Visit Schedule and Activities

Date	Location	Activities
Date	Location	• Activities
11 th January 2018	Vangiri Toll Plaza Khalghat Toll Plaza	<ul style="list-style-type: none"> • Discussion with the project team at Vangiri Toll Plaza • Site visit of the project corridor and associated facilities including the Toll Plazas with site representatives • Environmental and Social screening of the sensitive receptors • Consultation with Project Head, • Consultation with toll booth operators, plaza managers; • Consultation with contract workers for median and RoW maintenance
12 th January 2018	Vangiri Toll Plaza Hitnal Toll Plaza	<ul style="list-style-type: none"> • Review of project related environmental and social permits, policies and procedures in place, land acquisition process, etc. • Consultation with local community to understand land acquisition related impacts and presence and status of scheduled tribe community in the area • Discussion with NHAI official to understand land acquisition process and status of pending litigations.

1.4.4 REPORT WRITING

This Due Diligence process involved project categorization, identifying gaps with respect to the reference framework and finally developing Environmental and Social Action Plan (ESAP). The gap assessment was done through a screening checklist / assessment protocol (Annexure B) based on the standards as in the reference framework.

The detailed assessment through this protocol helped in identifying gaps and considering risks (covering financial, reputational, operational, legal, etc.) associated with them. The issues that represent significant risks (potential for regulatory action; reputational implications; higher financial risks and potential to affect road operation and revenue) were identified as key issues. The action plan recommended takes into account what is under GMR OSE’s control as a concessionaire and what it can achieve through its sphere of influence with NHAI who is the owner of the road. The ESAP is structured to include (a) summary of recommendations; (b) resources and responsibilities (c) timeline for completion and (d) indicator of completion of the task.

1.5 LIMITATIONS

This due diligence exercise has been undertaken based on the documents made available by ERM’s field survey and data collection, Oriental Structural Engineers, Hungund Hospete Pvt. Ltd., stakeholder consultations undertaken and discussion with the site representative at the time of site assessment and information available in public domain. Professional judgements expressed herein are based on documents and information provided. Wherever ERM is not able to make a judgement or assess any process, it has highlighted that as an information gap and suggested the way forward. ERM had limited consultations with local community to discuss land acquisition related impacts. Specific limitations on this are:

- The land acquisition for the project was carried out by NHAI and the process was carried out between 2010 and 2014. The process is reported to be complete and the detail database was not available to ERM for review. Hence, the status of the land acquisition process is reported as per consultation with NHAI PD and summary statement provided by NHAI office and related documents shared by GMR OSE from the sources available to them.
- Information on physical displacement and forced eviction is obtained from consultation with NHAI, GMR OSE, and limited community consultation as RAP for the project was not prepared as it is not a regulatory requirement.
- The details on the number of physically displaced were not available for review with NHAI, however, The details of the determination of compensation for land and structures were available for review.
- The community consultation records during the land acquisition process was not available to ERM for review.
- EHS training to staff and workers were reported to be carried out, however their records were not available for review.
- The annual environment monitoring is carried out by NHAI for the project road corridor. However, these reports were not available to ERM for review.

ERM has provided its understanding of compliance to applicable EHS and labour laws, rules and regulation. However, the review should not be constructed as a legal review of BFHL and FRHL.

1.5.1 USES OF THE REPORT

ERM is not engaged in social and environmental, health & safety consulting and reporting for the purposes of advertising, sales promotion, or endorsement of any client's interests, including raising investment capital or recommending investment decisions, or other publicity purposes. Client acknowledges that the report prepared by ERM are for exclusive use of Client and agrees that ERM's reports or correspondence will not be used or reproduced in full or in part for such promotional purposes, and may not be used or relied upon in any prospectus or offering circular. Client also agrees that none of its advertising, sales promotion, or other publicity matter containing any information obtained from these assessments or reports, either in parts or entirety, will make reference to ERM's trade name.

Nothing contained in this report shall be construed as a warranty or affirmation by ERM that the site and property described in the report are suitable collateral for any loan or that acquisition of such property by any lender through foreclosure proceedings or otherwise will not expose the lender to potential environmental or social liability.

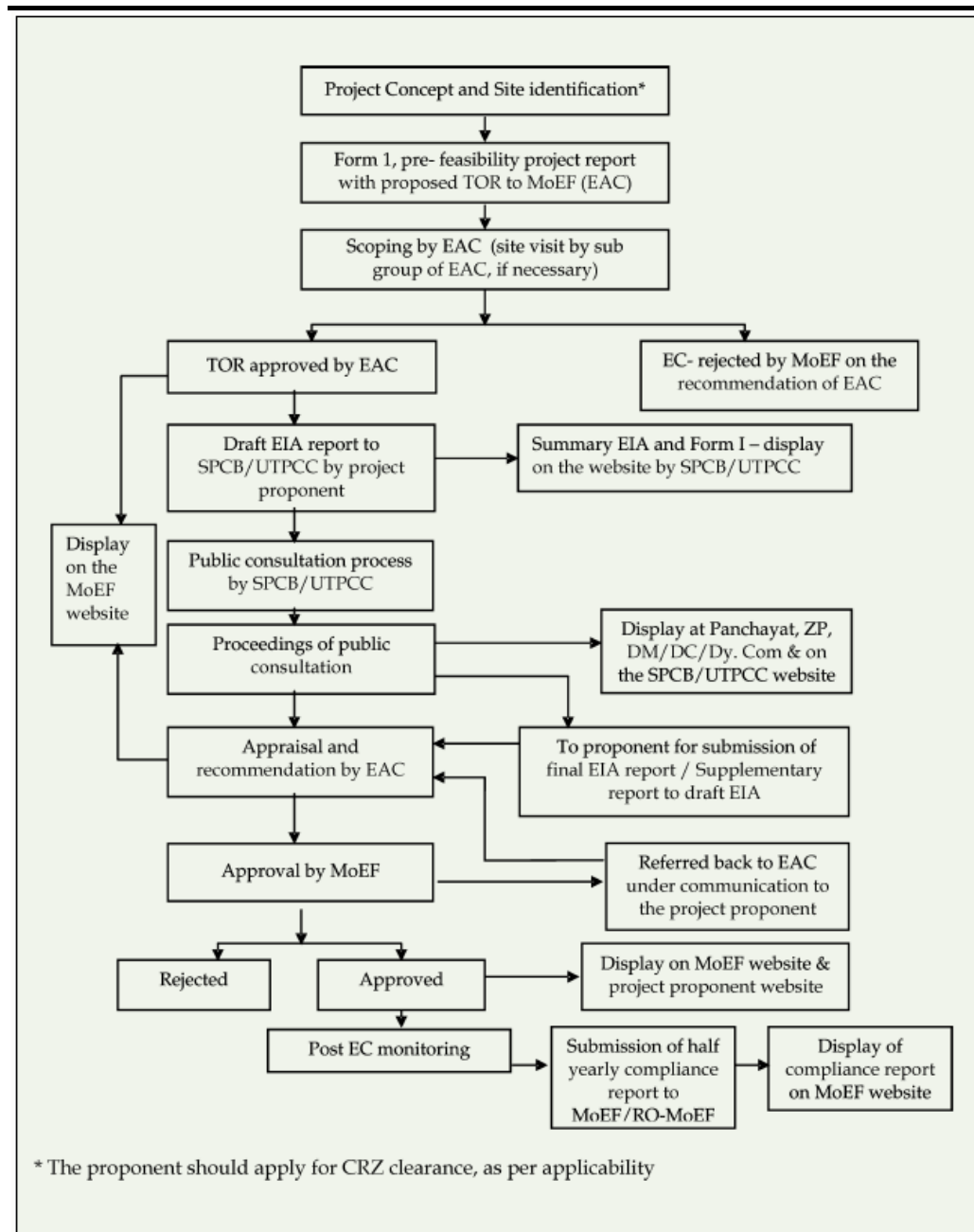
Environmental Impact Notification S.O.1533 (E), of 14th September 2006 as amended in 2009 has made it mandatory to obtain environmental clearance for scheduled development projects. The notification has classified these projects as Category A & B. Category A projects (including expansion and modernization of existing projects) require clearance from Ministry of Environment and Forests (MoEF), Govt. of India (GoI) and for category B, from State Environmental Impact Assessment Authority (SEIAA), constituted by the Govt. of India. The Category-A and B of the Highways projects that require prior environment clearance are defined as follows:

Table 2-1 *Categorisation of Highways Projects in Indian Regulation for Prior Environment Clearance*

Category-A	Category-B	General Conditions
New National Highways & expansion of NHs greater than 30km, involving additional right of way greater than 20m involving land acquisition and passing through more than one state.	All State highway projects/ State Highway expansion projects in hill terrain (above 1000m AMSL) and or ecologically sensitive areas.	Any project or activity specified in Category-B will be treated Category-A, if located in whole or in part within 10km from the boundary of: (i) Protected areas notified under the Wildlife (Protection) Act 1972; (ii) Critically polluted areas as identified by the Central Pollution Control Board (CPCB) from time to time; (iii) Eco-sensitive areas as notified under Section-3 of the Environment Protection Act 1986. Provided that the requirement regarding distance of 10km of the inter-state boundaries can be reduced or completely done away with by an agreement between the respective states or UTs sharing the common boundary in the case the activity does not fall within 10kms of the areas mentioned at item (i), (ii), and (iii) above.

The environment clearance process for Category-A Highways projects is provided in Figure below.

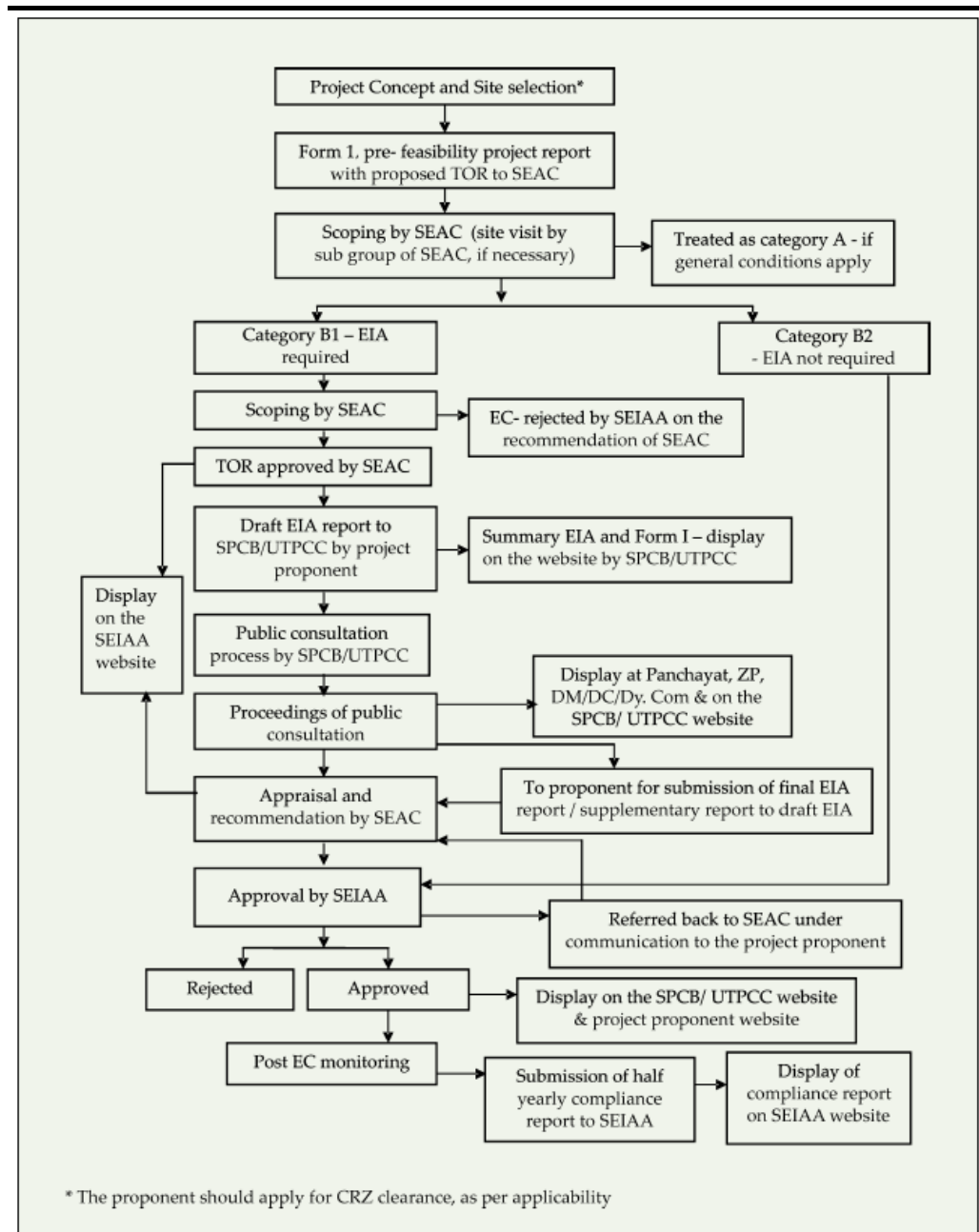
Figure 2.1 Environment Clearance Process for Category-A Highway Projects in India



Source: EIA Guidance Manual-Highways, MoEF, 2010.

Similarly, the environment clearance process for Category-B Highways projects is shown in Figure- below. The project proponent submits application for prior environment clearance in Form-1 to the concerned SEAC for determining whether or not the project requires an EIA. Form-1 gives information on the nature and location specificity of the project. On the basis of the information furnished in Form-1, SEAC categorises the project as B-1 (requiring EIA Report) or B-2 (not require EIA Report).

Figure 2.2 Environment Clearance Process for Category-B Highway Projects in India.



Source: EIA Guidance Manual-Highways, MoEF, 2010.

The Category-A and Category B-1 projects or activities (expansion and/or modernisation and/or change in product mix of existing projects or activities) require to apply for environment clearance to EAC/SEAC concerned. The EAC or SEAC determines the ToR based on information furnished in the prescribed application form.

All Category-A and Category B-1 projects or activities are required to undertake public consultation, except the following:

- Expansion of Roads and Highways which do not involve any further acquisition of land; and
- All projects or activities concerning national defence and security or involving other strategic considerations as determined by the Central Government.

After completion of the public consultation, the applicant address all the material environmental concerns expressed during this process, and make appropriate changes in the Draft EIA and EMP. The EAC/SEAC appraises the Final EIA Report, outcome of the public consultations including public hearing proceedings for the grant of Environment Clearance (EC).

The projects involving clearance under Coastal Regulation Zone Notification, 1991 shall submit with the application a CRZ map duly demarcated by one of the authorized agencies, showing the project activities, w.r.t. C.R.Z (at the stage of TOR) and the recommendations of the State Coastal Zone Management Authority (at the stage of EC). Simultaneous action shall also be take to obtain the requisite clearance under the provisions of the CRZ notification, 1991 for the activities to be located in the CRZ.). (S.O No. 3067 (E) dated 1st December 2009 of MoEF)

The projects to be located within 10km of the National Parks, Sanctuaries, Biosphere Reserves, Migratory corridors of wild animals, the project proponent shall submit the map duly authenticated by Chief Wildlife Warden showing these features vis-à-vis the project location and the recommendations or comments of the Chief Wildlife Warden thereon (at the stage of EC). (S.O No. 3067 (E) dated 1st December 2009 of MoEF)

For the projects located in critically polluted areas as notified by CPCB, the project proponent shall make available a copy of their application for the TOR to the concerned SPCB. The SPCB should either send its representative at the time of consideration of the proposal by the EAC, at the stage of appraisal of the project for prescribing TOR or consideration of EC or provide their written comments with respect to pollution load in terms of ambient air quality, water quality or solid/hazardous waste management. (Circular dated 25th August 2009 of MoEF)

Fly Ash utilization notification No. S.O. 2804 (E) dated 3rd November 2009 requires that no agency, person or organization shall, within a radius of 100 kilometers of a thermal power plant undertake construction or approve design for construction of roads or flyover embankments with top soil; the guidelines/specifications issued by the Indian Road Congress (IRC) as contained in IRC specification No. SP: 58 of 2001.

The prior environmental clearance granted is valid for a period of five years. The regulatory authority concerned may extend this validity period by a maximum period of five years.

In respect of category A projects, it is mandatory for the project proponent to make public the environmental clearance granted for their project along with the environmental conditions and safeguards at their cost by prominently advertising it at least in two local newspapers of the district or state where the project is located. In addition, EC is required to be displayed in the project proponent's website permanently.

In respect of category B projects, irrespective of its clearance by MoEF/SEIAA, the project proponent shall prominently advertise in the newspapers indicating that the project has been accorded environmental clearance and the details of MoEF website where it is displayed.

The project management shall submit half-yearly compliance reports in respect of the stipulated prior environmental clearance terms and conditions on 1st June and 1st December of each calendar year. All such reports shall be public documents. The latest such compliance report shall be displayed on the web site of the concerned regulatory authority.

2.1 ENVIRONMENTAL REGULATIONS

Environmental regulations for highways in India are as presented in *Table 2-2* below:

Table 2-2 Environmental Regulations

SN.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability
1. OP	The Environment (Protection) Act, 1986	MoEF&CC	Umbrella legislation to protect and improve overall Environment	GMR OSE need to obtain Consent to Establish (CTE) and Consent to Operate (CTO) from Karnataka State Pollution Control Board (KSPCB) and to comply with permissible limits for ambient air quality and noise levels for the Diesel Generators (D.G.) installed at site.
2.	The Forest Conservation Act, 1980	MOEFCC, State Forest Department	Protection and Conservation of Forests	NHAI to obtain Forest Clearance / permission of tree felling to clear the Right of Way (RoW)
3.	The Water (Prevention and Control of Pollution) Act, 1974	CPCB, KSPCB	Prevention and control of water pollution as well as restoration of water quality	CTE and CTO to be obtained from KSPCB
4.	Noise Pollution (Regulation and Control) Rules, 2000	CPCB, KSPCB	Noise pollution regulation and control	As per the Act, ambient noise levels are to be maintained as stipulated in the rules for different categories of areas such as residential, commercial, industrial and silence zones. Considering the context of the project, GMR OSE will need to abide by the limits prescribed in Consent obtained by KSPCB
5.	The Air (Prevention and Control of Pollution) Act, 1981	CPCB, KSPCB	To prevent, control and reduce air pollution including noise pollution	CTE and CTO to be obtained from KSPCB
6.	Environmental Impact Assessment Notification, 2006	MoEFCC	Impact Assessment	Environment Clearance to be obtained from Ministry of Environment and Forest prior to start of construction by NHAI
7.	Hazardous and Other Wastes (Management and Transboundary	CPCB, KSPCB	Hazardous Waste Management	Authorization of hazardous waste generation and storage should be obtained from the State Pollution Control Board

SN.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability
	Movement) Rules, 2016			(SPCB) i.e. KSPCB. Hazardous waste e.g. used oil (diesel/ lube oil) need to be disposed accordance to the guidelines stipulated by the Hazardous and Other Waste (Management and Transboundary Movement) Rules, 2016.
8.	Tree Felling	State Forest Department	Regulation on felling of trees	Permission for felling of trees to be obtained from State Forest Department
9.	Guidelines/ Criteria for evaluation of proposals/request for ground water abstraction by Central Ground Water Authority (CGWA)	Karnataka Ground Water Authority	Regulation of abstraction of ground water	<ul style="list-style-type: none"> Approval for bore wells should be obtained before 30 June 2018 as per the CGWA notification dated 19 July 2017 and 1 January 2018 for existing groundwater users including Industrial, infrastructure and mining Projects; Consent to establish and Operate to be obtained from KSPCB
10.	The Water (Prevention and Control) Act , 1974 (Amended) in 1988			

2.2 LAND AND SOCIAL REGULATIONS

2.2.1 LABOUR AND WORKING CONDITIONS REGULATIONS

Social regulations for highways in India are as presented in Table 2-3 below:

Table 2-3 Labour and Working Conditions Regulations

SN.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability
1	Shops and Establishment Act 1958	Labour Department	Regulation of conditions of work at shops, commercial establishments	The two tolls plazas are registered the Shops and Establishment Act
2	Contract Labour Regulation Act, 1971;	Labour Department	Contract Labour Management	This act provides safeguards to contract workers for construction, and operations of projects
3	Child Labour (Prohibition and Regulation) Act, 1986 as amended in 2016 Bonded Labour System (Abolition) Act 1976	Labour Department	Protection of Child (<15 years) workers Prohibition of forced labour system in any form	The Act prohibits engagement of children who have not completed their fourteenth year in occupations and processes listed in Schedule attached to it. Part-B (for processes) lists entry 11 mentions building and construction industry.
4	Minimum Wages Act, 1948 and Rules 1980; Payment of Wages Act, 1936	Labour Department	Wage Payment	These acts ensure payment of wages to labours without discrimination and devoid of any unjust deductions.

SN.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability
	Equal Remuneration Act, 1976			
5	Workers Compensation Act, 1923 Maternity Benefits Act, 1961 Public Provident Fund Act, 1968 Employees State Insurance Act, 1948	Labour Department	Welfare	No women workers are engaged by GMR OSE; hence, Maternity Benefits Act 1961 is not applicable. Remaining laws are applicable
6	Karnataka Private Security Agencies (Regulation) Rules 2008 Private Securities Agencies (Regulation) Act, 2005	Department of Police	Security Agencies Regulation	Regulation and verification of antecedents of private security agencies
7	The Welfare Cess Act 1987 and Rules 1988	Labour Department	Workers welfare	The Act makes provision to contribute to a welfare fund constituted by Government.

2.2.2 LAND ACQUISITION AND REHABILITATION REGULATIONS FOR ROADS

The land acquisition for road projects in India is carried out depending on the category of the road, location of the road and urgency of the requirement of the road. Various legal provisions for different categories of road is summarized below.

Category/ Context	Title of the Act	Applicability
National Highways	<ul style="list-style-type: none"> National Highways Act 1956, Section-3. 	Applicable only for NHs constructed or upgraded by Central Government. RFCT LARR Act 2013 became effective from 1 st Jan 2015 for NH Projects.
Other Roads (State Highways, Major District Roads, Rural Roads)	<ul style="list-style-type: none"> Land Acquisition Act 1894 (LA Act 1894) Right to Fair Compensation and Transparency in Land Acquisition Resettlement and Rehabilitation Act 2013 (RFCT LARR Act 2013) Guidelines/policies/rules/statutes for acquisition of land on consent basis by various State Governments (Kerala, Chhatisgarh, West Bengal, Uttar Pradesh, Telengana, Punjab, Rajasthan, Goa, Odisha, Bihar, Maharashtra, Himachal Pradesh, Karnataka, and Madhya Pradesh) 	LA Act was used till 31 st Dec 2013. RFCT LARR Act 2013 became effective from 1 st Jan 2014. Most of these guidelines were notified in 2016 and 2017 to promote direct negotiation with private landowners.
Expressways	<ul style="list-style-type: none"> Land Acquisition Act 1894 (LA Act 1894) Right to Fair Compensation and Transparency in Land Acquisition Resettlement and Rehabilitation Act 2013 (RFCT LARR Act 2013) 	LA Act was used till 31 st Dec 2013. RFCT LARR Act 2013 became effective from 1 st Jan 2014.
Additional Land Required due to Design Change or	<ul style="list-style-type: none"> Guidelines/policies/rules/statutes for acquisition of land on consent basis by various State Governments 	Most of these Guidelines were notified in 2016 and 2017.

Category/ Context	Title of the Act	Applicability
Missing Plots in LA Notifications	(Kerala, Chhatisgarh, West Bengal, Uttar Pradesh, Telengana, Punjab, Rajasthan, Goa, Odisha, Bihar, Maharashtra, Himachal Pradesh, Karnataka, and Madhya Pradesh)	
Government Land	<ul style="list-style-type: none"> Land Revenue Codes of different State Governments and Union Territories. 	These Codes deal with procedures for assigning government land for various public purposes.
Forest Land	<ul style="list-style-type: none"> Forest Conservation Act 1980 	The Act and Rules therein provides procedures for conversion of forestland for non-forest use.

Land Acquisition under NH Act 1956

Land required for a National Highway is usually acquired by NHAI through Section 3 of NH Act of 1956. Section 3A of the NH Act 1956 empowers the Central Government to acquire land for the building, maintenance, management or operation of a national highway or part thereof by notification in Official Gazette. The provision of the land acquisition and the process is illustrated in the figure below.

Section 3G (7) and its sub-sections from (a) to (d) prescribes the competent authority or the arbitrator to consider the following for determining compensation amount:

- (a) The market value of the land on the date of publication of notification under section 3A;
- (b) The damage, if any, sustained by the person interested at the time of taking possession of the land, by reason of **severing of such land from other land**;
- (c) The damage, if any sustained by the person interested at the time of taking possession of the land, by reason of the acquisition **injuriouly affecting his other immovable property in any manner, or his earning**;
- (d) If, in consequences of the acquisition of the land, the person interested is **compelled to change his residence or place of business**, the reasonable expenses, if any, incidental to such change.

Section 3G (2) also has provision to pay an amount calculated at ten percent of the compensation amount where the right of user or any right in the nature of an easement to the owner and any other persons whose right of enjoyment in that land has been affected in any manner whatsoever. The arbitrator is empowered to award interest at nine percent on the excess amount (difference between compensation determined by competent authority and by arbitrator) from the date of taking possession u/s 3D till the date of actual deposit.

Figure 2.3 Land Acquisition Process- NH Act, 1956



RFCT LARR Act 2013

The provisions of this Act covers procedures for land acquisition, determination of compensation, provisions for rehabilitation and resettlement in the event of private land acquired by Government using its sovereign authority for its own use or for public purpose. The definition of public purpose (as in section 2 (1)(b)(i) for infrastructure projects) includes 'roads and bridges' as 'transport infrastructure'. Hence, this Act is applicable for acquisition of private land by competent Governments for roads and bridges. The Act is also applicable for land acquired for public private partnership projects, where the ownership of the land continues to vest with Government. When land is acquired through this Act by competent Government for private companies, the prior consent of at least 80% of those affected families and for PPP projects, prior consent of at least 75% of affected families shall be obtained along with the SIA study.

Chapter-II (Section-4 to 9) deal with determination of social impact and public purpose. Chapter-III (Section-10) deal with special provision to safeguard food security. Section 105 states that provisions of RFCT LARR Act will not be applicable to the land acquisition procedure specified in the list of enactments in Fourth Schedule, which mentions NH Act 1956. The Central Government brought an ordinance (No 9 of 2014 dated 31st Dec 2014) directing provisions relating to determination of compensation and provisions of resettlement and rehabilitations under RFCT LARR Act 2013 to be applicable to enactments in Fourth Schedule with effect from 1st Jan 2015. Provisions of Ordinance 9 of 2014 continued further vide Ordinance 4 of 2015 dated 3rd Apr 2015 and vide Second Ordinance (No 5 of 2015) dated 30th May 2015 which was valid upto 31st Aug 2015. Subsequently, DoLR issued The RFCT LARR (Removal of Difficulties) Order 2015 vide notification dated 28th Aug 2015 which came into force from the 1st Sep 2015.

RFCT LARR (Amendment Ordinance) 2014 exempted provisions of Chapter-II (Social Impact Assessment), Chapter-III (safeguarding food security) and prior consent processes for PPP/Private projects for 5 types of projects which included infrastructure and social infrastructure.

Application of Provisions of RFCT LARR Act 2013 for Land Acquisition of National Highways

Pursuant to the enactment of RFCT LARR Act of 2013, certain provisions of this Act became applicable with effect from 1st Jan 2015. Following provisions of the RFCT LARR Act 2013 is applicable for the land acquisition under NH Act 1956.

- Provisions relating the determination of compensation in accordance with the First Schedule of RFCT LARR Act 2013;
- Provisions of resettlement and rehabilitation in accordance with the second schedule and infrastructure amenities in accordance with the third schedule;
- All land acquisition where the Awards had not been announced under Section 3G of the NH Act till 31st Dec 2014, or where such awards had been announced but compensation had not been paid in respect of majority of

the land holdings under acquisition as on 31st Dec 2014, the compensation would be payable in accordance with the first schedule of the RFCT LARR Act 2013;

- In cases, where the land acquisition process was initiated and the award of the compensation letter under Section 3G had also been announced before 1st Jan 2015 but the full amount of Award had not been deposited by the acquiring agency with the CALA, the compensation amount would be liable to be determined in accordance with the first schedule w.e.f 1st Jan 2015;
- In cases, where the process of acquisition of land stood completed (i.e. Award under Section 3G announced by CALA, amount deposited by the acquiring agency with the CALA, and compensation paid to the landowners in respect of majority of the land under acquisition as on or before 31st Dec 2014, the process would be deemed to have been completed and settled. Such cases would not be re-opened.
- An additional amount of 12% per annum (as prescribed in Section 30 (3) of the RFCT LARR Act 2013) would be payable on the market value of the land from the date of publication of 3A till the announcement of award under 3G or taking possession of land, whichever is earlier, is payable. It would be payable as a 'stand-alone component' and shall not count for the purpose of multiplication factor and the Solatium.

The Section-24 of the RFCT LARR Act 2013 considered the LA process to be deemed to have lapsed if award is not made or award has been made 5 years or more prior to the commencement of the RFCT LARR Act 2013 (1st Jan 2014) but the physical possession of the land has not been taken or the compensation has not been paid. The provisions of this section is restricted only to the LA process under LA Act 1894 and not applicable to the LA process under the NH Act, 1956.

The multiplication factor by which the market value is to be multiplied in case of urban areas shall be 1.0 (one) as specified in the first schedule. The urban area shall mean the area situated within and up to the boundary of the Urban Local Body as notified by the concerned State Government (i.e. a Municipal Corporation/ Council/ Committee, by whatever name it may be called).

The multiplication factor by which the market value is to be multiplied in case of rural areas (from the end-point of the urban limit) shall be the one as notified by the concerned State Government, being the appropriate Government for each State. It may be noted that the multiplication factor notified by the State shall remain the same for the State Government and the Central Government projects including National Highways as clarified by the Department of Land Resources, Ministry of Rural Development vide its OM dated 8th May 2017.

As regards the multiplication factor in the case of rural areas in the Union Territories (other than Puducherry), the multiplication factor shall be 2 (two) in terms of the DoLR Notification No. s.O.425 € dated 9th Feb 2016 till the same is reviewed by the DoLR. The multiplication factor by which the market value is to be multiplied in case of rural areas situated in the Union Territory of Puducherry shall be the same as notified by the Government of Union Territory of Puducherry.

The nature/classification of land to be considered for determination of market value has to be taken as per the classification recorded in revenue records on the day of publication of 3A notification. If some land owner/interested person has raised a factory building or a commercial building upon the land under acquisition without obtaining the "Change in Land Use" from the competent authority prescribed by State Government, he/she can not take the benefit of the treatment of such land as "Industrial" or "Commercial".

Where the landowners/interested persons have undertaken certain improvements over the land notified under Section 3A after the publication of notification in order to enhance the quantum of compensation, the CALA is duty bound to ignore any improvement done over the notified land after the date of notification while determining the compensation amount and announcing the Award under Section 3G of the NH Act 1956.

It has been observed that the process of disbursement of compensation amount to the landowners or the persons interested therein goes on for a long period for a variety of reasons, which leads to delays in taking possession of the land acquired and required for construction of the highway. It is therefore, important that the CALAs adopt following procedure in order to ensure that the possession of the acquired land is not delayed for any reason.

- Apart from issue of notice to the landowner/person interested therein in terms of Section 3E(1), a public notice may also be published in the same set of two newspapers in which the notification of 3A (3) was published, calling upon them to collect the compensation amount from the office of the CALA within a period of 60days.
- As soon as the period of 60 days is over, another public notice may be caused to be published in the same set of newspaper, calling upon such landowners to surrender or deliver possession thereof to the competent authority forthwith, failing which the possession shall be taken with assistance of the local police in accordance with the sub-section (2) of the Section 3E of the NH Act 1956.

Section 3G(5) of the NH Act 1956 makes provision of appointing Arbitrator by the Central Government if the amount determined by CALA under 3G(2) is not acceptable to either of the parties on an application of either of the parties. Further, under section 3H(4) of the NH Act 1956, any dispute as to the apportionment of the amount or any part thereof or to any person to whom the same or any part thereof is payable, CALA shall refer the dispute to the decision of the principal civil court of original jurisdiction within the limits of whose jurisdiction the land is situated. Thus, the jurisdiction of the 'Arbitrator' and 'Principal Civil Court or Original Jurisdiction' has been clearly demarcated. CALA while making a reference to the "Principal Civil Court of Original Jurisdiction' wherever required may also seek leave of such Court to deposit the undisbursed amount of the compensation in respect of such landowners/ interested persons with the Court so that the possession of such land is not held-up on this account, leading to delays in taking up the highway development works.

Acquisition of Left out Plots or Additional Land due to Change of Scope

MoRTH has issued detailed guidelines vide its letter dated 15th Mar 2016 for acquisition of land through consent of landowners, preferably limited to 10% of the total quantum of the land acquisition in a construction package in the cases of (i) missing plots which are inadvertently left out from the bulk acquisition, and/or (ii) additional land required due to alternation of alignment at implementation stage.

Various State Governments (Kerala, Chhatisgarh, West Bengal, Uttar Pradesh, Telengana, Punjab, Rajasthan, Goa, Odisha, Bihar, Maharashtra, Himachal Pradesh, Karnataka, and Madhya Pradesh) have come out with their respective guidelines/policies/rules/statutes from acquisition of land on consent basis after RFCT LARR Act 2013. As there is a specific central statute for acquisition of land for the NHs, the Central Government and its authorised project executing agencies are competent to acquire land for the construction/development of NHs under the NH Act 1956 and the States do not have a case to insist that the land for the NHs in their jurisdiction should be acquired under the statutes/policies framed by the State Governments/UT Administrations. However, considering the urgent need for minimizing litigation and ensuring early availability of land for completion of the NH projects, land for NH projects can be procured through direct purchase with the consent of the landowners in accordance with the existing Acts/Rules/Policies of the concerned State Governments subject to the condition that the total amount of the compensation so worked out will be no more than what is payable when the land is acquired under the NH Act 1956, which in any case is in conformity with the compensation payable in accordance with the provisions of RFCT LARR Act 2013. Further, MoRTH/NHAI/NHIDCL would also be agreeable to acquisition of land for the NH projects in accordance with such consent mechanism of the state subject to the condition that the concerned State Government/UT Administration agrees to bear the incremental cost, if any, from its own resources.

2.3

APPLICABLE PERFORMANCE STANDARDS AND WORLD BANK GROUP GUIDELINES

This section summarises applicable performance standards and World Bank Group (WBG) guidelines with respect to which this ESDD is undertaken. The reference framework of international standards includes the following:

- IFC Performance standards 2012 as interpreted and applied through screening criteria for road (see Section 1.3.1 above for details)
- World Bank Group/IFC EHS Guidelines, Specifically:
 - IFC EHS General Guidelines;
 - IFC EHS Guideline for Toll Roads;
- AIIB's requirements under its Environmental and Social Policy (ESP) and Environmental and Social Standards (ESSs)
 - ESS-1 (Environmental and Social Assessment and Management);
 - ESS-2 (Involuntary Resettlement);
 - ESS-3 (Indigenous Peoples);

2.3.1

IFC PERFORMANCE STANDARDS

IFC Performance Standards (2012) from PS-1 to PS-8 were screened and except PS-8, rest of the PS were found to be applicable to the project. Table 2.4 below provides brief justification on their applicability.

Table 2-4 *Applicability of IFC Performance Standards, PS 1 to PS 8*

SN.	IFC Performance Standards	Applicability to the Project
1.	PS 1: Assessment and Management of Environmental and Social Risks and Impacts	<p>Applicable</p> <p>This PS aims to assesses the existing social and environmental management systems of GMR OSE and to identify the gaps with respect to their functioning, existence and implementation of an environmental and social management plan (ESMP), a defined EHS Policy, organization chart with defined roles and responsibilities, risk identification and management procedures as well as processes like stakeholder engagement and grievance management.</p>
2.	PS 2: Labour and Working Conditions	<p>Applicable</p> <p>This PS is guided by a number of international conventions and instruments on labour and workers' rights. It recognises that the pursuit of economic growth through employment creation and income generation should be accompanied by protection of fundamental rights of workers. The PS covers following themes: human resource policy and management, workers' organization, non-discrimination and equal opportunity, retrenchment, protecting the workforce and occupational health and safety. This PS helps to assess the status of the employees and workers in GMR OSE as well as any contractors.</p>
3.	PS 3: Resource Efficiency and Pollution Prevention	<p>Applicable</p> <p>PS-3 covers the use resources and materials as inputs and wastes that could affect human health. The objective of PS-3 are: to avoid or minimize adverse impacts on human health and the environment by avoiding or minimizing pollution from project activities; to promote more sustainable use of resources, including energy and water, and to reduce project related GHG emissions. Key themes covered under PS-3 are: pollution prevention, resource conservation and energy efficiency, wastes, hazardous materials, emergency preparedness and response, greenhouse emissions, pesticide use and management. This PS will assess how GMR OSE intends to minimize pollution related impacts, what management plans and systems are in place, and what measures it plans to take to conserve and use resources more efficiently.</p>
4.	PS 4: Community Health, Safety and Security	<p>Applicable</p> <p>This 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 to ensure 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 Communities. Key areas of compliance screened under PS-4 includes: infrastructure/equipment safety, hazardous material</p>

SN. IFC Performance Standards	Applicability to the Project
	<p>safety, natural resource issues, exposure to disease, emergency preparedness and response, and security personnel requirements. The project would affect the health and safety of the communities adjacent to it during both the construction and operations phases. In addition the safety of the road users would also be a concern which needs to be looked into.</p>
<p>5. IFC PS 5: Land Acquisition and Involuntary Resettlement</p>	<p>Applicable</p> <p>PS-5 requires project proponents to anticipate and avoid, or where avoidance is not possible, minimize adverse social and economic impacts from land acquisition or restrictions on land use. The key themes covered under this are: compensation and benefits for displaced persons, consultation and grievance mechanism, resettlement planning and implementation, physical displacement, economic displacement. The PS-5 also prescribes private sector responsibility to supplement government actions and bridge the gap between governments assigned entitlements and procedures and the requirements of PS-5.</p> <p>The road passes through three districts of Karnataka namely, Bellary, Bagalkot and Koppal. A total of 206.02ha have been acquired for the project. The responsibility of the land acquisition was with NHAI.</p>
<p>6. IFC PS 6: Biodiversity Conservation and Sustainable Management of Living Natural Resources</p>	<p>Applicable</p> <p>The requirements of this Performance Standard are applied to projects (i) located 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, forestry). PS-6 screens relevant threats to biodiversity and ecosystem services, especially focusing on habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution. The key themes covered under PS-6 are: natural habitat, critical habitat, legally protected areas, international introduction of alien species, and living natural resources (natural and plantation forest, aquatic resources etc.) are sustainably managed.</p> <p>The project road does not passes through any ecological sensitive areas like, national park, wild life sanctuary, tiger reserve, biosphere reserves, lakes and wet lands. However, Tungabhadra dam and Gunda Reserve forest (RF) is located at the end of the Project stretch (298+500 to 299+200) and road widening required tree cutting as well.</p>
<p>7. PS 7: Indigenous Peoples</p>	<p>Not Applicable</p> <p>This Performance Standard 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 under PS-7 are: avoidance of adverse impacts,</p>

SN.	IFC Performance Standards	Applicability to the Project
		consultation and informed participation, impacts on traditional or customary lands under use, relocation of IPs from traditional or customary lands, and cultural resources.
8.	PS 8: Cultural Heritage	<p>The road neither passes through any Schedule-V area nor has significant presence of ST population in the villages adjacent to road RoW.</p> <p>Not Applicable</p> <p>For the purposes of PS-8, cultural heritage refers to (i) tangible forms of cultural heritage; (ii) unique natural features or tangible objects that embody cultural values; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes. The requirements of PS-8 apply to cultural heritage regardless of whether or not it has been legally protected or previously disturbed.</p> <p>The road stretch did not affect any cultural heritage of importance as understood from the consultations with GMR OSE representatives and local community.</p>

Source: IFC Website and ERM site assessment

2.3.2

WB/IFC EHS GUIDELINES

The EHS Guidelines are technical reference documents with general and industry-specific examples of Good International Industry Practice (GIIP), as defined in IFC's Performance Standard 2: Labour & working Conditions (Occupational Health and Safety), Performance Standard 3: Resource Efficiency and Pollution Prevention. Following EHS Guidelines were referred for this ESDD:

- General EHS Guidelines, 2007; and
- EHS Guidelines for Toll Roads, 2007.

Key requirements in the EHS guidelines have been discussed in **Table 2-5** below:

Table 2-5 Key Requirements as per EHS Guidelines of IFC for an Operational Road

S. No	Relevant Guidelines as stated in the EHS Guidelines
1	Right of Way Maintenance
a	Regular maintenance of vegetation within road rights-of-way is necessary to avoid interference with vehicle travel and road maintenance. Unchecked growth of trees and plants can cover signals and signs, restrict motorist visibility and fall onto the road and overhead power lines.
b	Implementation of integrated vegetation management <ul style="list-style-type: none"> • From the edge of the road area to the boundary of the right-of-way, vegetation is structured with smaller plants near the road and larger trees further away to provide habitats for a wide variety of plants and animals • Planting of native species and removal of invasive plant species • Use of biological, mechanical, and thermal vegetation control measures where practical, and avoiding use of chemical herbicides
2	Storm water Management
a	Use of storm water management practices that slow peak runoff flow, reduce sediment load, and increase infiltration, including vegetated swales (planted with salt-resistant vegetation); filter strips; terracing; check dams; detention

S. No	Relevant Guidelines as stated in the EHS Guidelines
	ponds or basins; infiltration trenches; infiltration basins; and constructed wetlands.
b	Where significant oil and grease is expected, using oil / water separators in the treatment activities.
c	Regular inspection and maintenance of permanent erosion and runoff control features.
3	Wastes
a	Solid waste generation during operation and maintenance activities may include road resurfacing waste (e.g. removal of the old road surface material) road litter, illegally dumped waste, or general solid waste from rest areas; animal carcasses; vegetation waste from right-of-way maintenance; and sediment and sludge from storm water drainage system maintenance (including sediment traps and oil / water separation systems). Paint waste may also be generated from road and bridge maintenance (e.g. due to removal of old paint from road stripping and bridges prior to re-painting).
b	Provision of bottle and can recycling and trash disposal receptacles at parking lots to avoid littering along the road
c	Manage herbicide and paint inventories to avoid having to dispose of large quantities of unused product
d	Collecting animal carcasses in a timely manner and disposing through prompt burial or other environmentally safe methods;
e	Composting of vegetation waste for reuse as a landscaping fertilizer
f	Managing sediment and sludge removed from storm drainage systems maintenance activities as a hazardous or non- hazardous waste based on an assessment of its characteristics.
g	Management of all removed paint materials suspected or confirmed of containing lead as a hazardous waste
h	Use of a system to collect paint waste when removing old paint containing lead. For a simple scraping operation, ground- covering tarps may be sufficient. For a blasting operation, an enclosure with a negative pressure ventilation system may be necessary
i	Grinding of removed, old road surface material and re-use in paving, or stockpiling the reclaim for road bed or other uses. Old, removed asphalt may contain tar and polycyclic aromatic hydrocarbons and may require management as a hazardous waste
4	Noise
a	Traffic noise is generated by vehicle engines, emission of exhaust, aerodynamic sources, and tire / pavement interaction.
b	Traffic noise is generally not perceived as a nuisance for people who live more than 150 meters from heavily travelled highways or more than 30 to 60 meters from lightly travelled roads
c	Noise barriers along the border of the right-of way
d	Use of road surfaces that generate less pavement / tire noise such as stone-matrix asphalt
e	Control measures should include the use of personal hearing protection by exposed personnel and implementation of work rotation programs to reduce cumulative exposure
5	Air Emissions
a	Dust suppression techniques should be implemented, such as applying water or non-toxic chemicals to minimize dust from vehicle movements
b	Controlling vehicle traffic through the use of traffic routes, establishment of speed limits, and on-site trained flag people wearing high-visibility vests or outer clothing covering to direct traffic
6	Occupational Health and Safety
a	Road construction and maintenance personnel, as well as landscaping workers maintaining vegetation in the rights of-way, can be exposed to a variety of physical hazards, principally from operating machinery and moving vehicles but also working at elevation on bridges and overpasses

S. No	Relevant Guidelines as stated in the EHS Guidelines
b	<ul style="list-style-type: none"> • Development of a transportation management plan for road repairs that includes measures to ensure work zone safety for construction workers and the traveling public; • Establishment of work zones to separate workers on foot from traffic and equipment by: <ul style="list-style-type: none"> • Routing of traffic to alternative roads when possible • Closure of lanes and diversion of traffic to the remaining lanes if the road is wide enough (e.g. rerouting of all traffic to one side of a multi-lane highway) • Where worker exposure to traffic cannot be completely eliminated, use of protective barriers to shield workers from traffic vehicles, or installation of channeling devices (e.g. traffic cones and barrels) to delineate the work zone • Regulation of traffic flow by warning lights, avoiding the use of flaggers if possible • Design of the work space to eliminate or decrease blind spots • Reduction of maximum vehicle speeds in work zones; • Training of workers in safety issues related to their activities, such as the hazards of working on foot around equipment and vehicles; and safe practices for work at night and in other low-visibility conditions, including use of high-visibility safety apparel and proper illumination for the work space (while controlling glare so as not to blind workers and passing motorists)
	<ul style="list-style-type: none"> • Implementation of a fall protection program that includes training in climbing techniques and use of fall protection • Installation of fixtures on bridge components to facilitate the use of fall protection systems; • Safety belts should be not less than 16 millimeters (mm) (5/8 inch) two-in-one nylon or material of equivalent strength. Rope safety belts should be replaced before signs of aging or fraying of fibers become evident; • When operating power tools at height, workers should use a second (backup) safety strap.
c	<ul style="list-style-type: none"> • Use of millers and pavers with exhaust ventilation systems and proper maintenance of such systems to maintain worker exposure to crystalline silica (millers and grinders) and asphalt fumes (pavers) below applicable occupational exposure levels; • Use of the correct asphalt product for each specific application, and ensuring application at the correct temperature to reduce the fuming of bitumen during normal handling; • Maintenance of work vehicles and machinery to minimize air emissions; • Reduction of engine idling time in construction sites; • Use of extenders or other means to direct diesel exhaust away from the operator; • Ventilation of indoor areas where vehicles or engines are operated, or use of exhaust extractor hose attachments to divert exhaust outside; • Provision of adequate ventilation in tunnels or other areas with limited natural air circulation; • Installation of tollbooth ventilation and air filtration systems; • Use of protective clothing when working with cutbacks (a mixture of asphalt and solvents for the repair of pavement), diesel fuel, or other solvents; • Use of dustless sanding and blasting equipment and special containment measures for paint removal activities. Avoiding the use of lead-containing paint and using appropriate respiratory protection when removing paints (including those containing lead in older installations) or when cutting galvanized steel.
7	Community Health and Safety
a	<ul style="list-style-type: none"> • Installation and maintenance of all signs, signals, markings, and other devices used to regulate traffic, including posted speed limits, warnings of sharp turns, or other special road conditions; • Setting of speed limits appropriate to the road and traffic conditions; • Maintenance of the road to prevent mechanical failure of vehicles due to road conditions

S. No	Relevant Guidelines as stated in the EHS Guidelines
b	An emergency preparedness and response plan in coordination with the local community and local emergency responders to provide timely first aid response in the event of accidents and hazardous materials response in the event of spills

2.3.3 ASIAN INFRASTRUCTURE INVESTMENT BANK (AIIB)'S ENVIRONMENTAL AND SOCIAL FRAMEWORK

Environmental and Social Framework (ESF) is a system that supports the Bank and its clients in achieving environmentally and socially sustainable development outcomes. *The Framework lays out a vision, a policy and three supporting standards that are broadly similar in nature to those of the World Bank (WB), Asian Development Bank (ADB) and other established multilateral development banks.* The ESF integrates good international practice on E&S planning and management of risks and impacts into decision-making on, and preparation and implementation of, Bank supported Projects (AIIB, 2017).

Requirement	Brief Summary	Remark
Environmental and Social Policy	The Environmental and Social Policy (the "Policy") sets forth mandatory environmental and social requirements for each project. The Policy sets out the general processes and requirements for project screening and categorization, environmental and social due diligence, environmental and social assessment, environmental and social management plan, environmental and social assessment tools and management plan framework, information disclosure, consultation, monitoring and reporting, as well as grievance redress. It also defines the roles and responsibilities for implementation of environmental and social management system.	
Environmental and Social Standard (ESS) 1 - Environmental and Social Assessment and Management	This standard requires undertaking environmental and social assessment of the project in accordance with the Policy, using appropriate studies proportional to the significance of potential risks and impacts. It requires the assessment process is supported by effective information disclosure and consultation with a grievance mechanism in place and the coverage of the assessment should include pollution prevention, biodiversity impact, resource efficiency, climate change, sustainable use of natural resources, vulnerable groups, access to resources, impact of livelihood, resettlement, cultural resources, working conditions and community health and safety etc.	It cover all the elements of IFC PS 1, PS 2, PS 3, PS 4, PS 6 and PS 8
Environmental and Social Standard (ESS) 2 - Involuntary Resettlement	This standard aims to avoid Involuntary Resettlement wherever possible; to minimize Involuntary Resettlement by exploring Project alternatives; where avoidance of Involuntary Resettlement is not feasible, to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-Project levels; to improve the overall socioeconomic status of the displaced poor and other	It covers elements of IFC PS 5

Requirement	Brief Summary	Remark
Environmental and Social Standard (ESS) 3 - Indigenous Peoples	<p>vulnerable groups; and to conceive and implement resettlement activities as sustainable development programs, providing sufficient resources to enable the persons displaced by the Project to share in Project benefits.</p> <p>This standard aims to design and implement projects in a way that fosters full respect for Indigenous Peoples' identity, dignity, human rights, economies and cultures, as defined by the Indigenous Peoples ("IP") themselves, so that they:</p> <p>(a) receive culturally appropriate social and economic benefits; (b) do not suffer adverse impacts as a result of projects; and (c) can participate actively in projects that affect them.</p> <p>This standard would be applicable in case the project reaches areas where IP (scheduled tribes) might be present.</p>	It covers elements of IFC PS 7

This section includes a brief description of the Project Road operated by the concessionaire i.e. GMR OSE. The description of the project provides the context within which environmental and social impacts are screened for this ESDD.

3.1**INTRODUCTION TO THE ASSET DEVELOPER AND OPERATOR**

GMR OSE Hungund Hospet Highways Pvt Ltd (hereinafter referred to as "GMR OSE" or HHHPL) is a Special Purpose Vehicle (SPV) promoted by a consortium formed between M/s GMR Highways and Oriental Structural Engineers Pvt for improvement, operation and maintenance including strengthening and widening of the existing two-lane road from km 202.000 to km 299.000 of NH-13 to four-lane dual carriageway on a Build, Operate and Transfer (BOT) basis.

Concession Agreement for the project was signed between National Highway Authority of India (NHAI) and GMR OSE HHHPL on 22nd March 2010. Concession period for the project is 20 years and project achieved date of commercial operation (COD) on 14th May 2014

3.1.1**ORGANISATIONAL STRUCTURE AND EHS CAPABILITY**

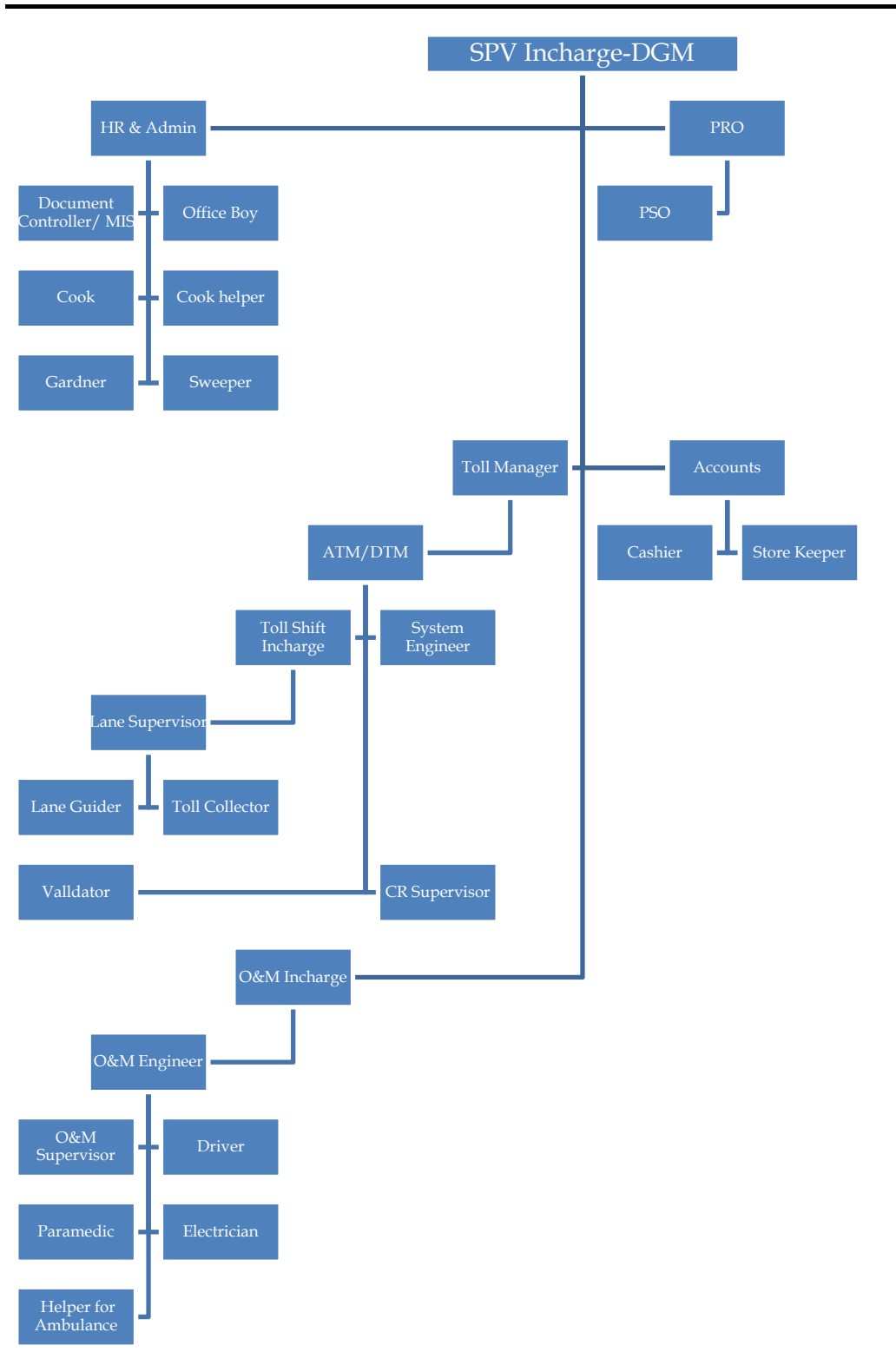
The project is led by a project director, who is responsible for all operations, administration, maintenance and construction of the road. The site office is located at the two toll plazas. The project has a dedicated O&M team which is responsible for the management of toll plaza, toll collection, traffic management, emergency response and minor maintenance.

GMR OSE has a dedicated human resources officer (HR). The HR officer oversees employee administration and welfare and reports to the project director. The project does not have a dedicated EHS personnel or division. Most of these activities are handled by the HR/Admin officer and Road Safety Engineer. The project does not have a dedicated CSR or community development team/staff. However, it was reported that the project does undertake CSR activities in limited manner. Organisation Chart for Toll Plaza is as presented in *Figure 3.1* below.

GMR OSE has 180 direct employees and ~300 indirect workers hired through the sub-contractor M/s Nalwadi Pvt Ltd. The manpower supplied by it includes security personnel and toll-collectors. There are 146 toll-collectors, 35 O&M workers, and 24 security personnel (12 gunmen and 12 watchmen). Each toll plaza has a similar staff profile which includes: Toll Plaza Manager, Assistant Manager, Admin & HR, Assistant Manager, IT Systems, Assistant Manager, Finance & Account, toll collectors etc.

The HR team oversees the implementation of Indian statutory requirements pertaining to labour, labour welfare and disputes. GMR OSE has an HR Manual which is applicable to its direct employees. ERM observed a satisfactory level of labour compliance for GMR OSE staff and skilled manpower.

Figure 3.1 Organisation Chart - GMR OSE



Source: GMR OSE

GMR OSE has an overarching ESG policy at the corporate level, which is applicable to HHHPL. Policy was displayed at various locations at all the three Toll Plazas. Objectives outlined under the policy include obligation of the company with respect to the following:

- Comply with all the applicable environmental laws, regulations and permit.
- Investigate environmental incidents, identify root causes and implement corrective actions.
- Undertake regular reviews of the environmental aspects and impact registers.
- Ensure safe working conditions and health environment for employees.

OSE has also developed a Standard Operating Procedure (SOP), which largely covers all its human resource policy including health & safety at work. OSE maintains records pertaining to accidents and incidents related to road safety through call logs, and records of responses along with handovers. As part of the assessment, observations with respect to EHS Management system, Project Level Procedures, and gaps evaluated during site visit is described in Chapter-4 in this report.

OSE has an Environmental Management Manual, which is applicable to all subsidiaries and covers following topics:

- Environment, Health & Safety Policy
- Roles and Responsibility for implementation of Environmental Policy
- Environmental Management System
- Planning
- Environmental Aspects
- Legal and Other Requirements
- Implementation and Operation
- Competence, Training and Awareness
- Documentation
- Emergency Response Plan (ERP)
- Public Communication, Complaints & Grievance Handling Procedure
- Land Acquisition, Resettlement of People, Natural Habitats, Cultural Heritages Policy
- Waste Management Policy
- Public Grievance Handling Policy

On review of the Environment Management Manual, it was found to be very generic and include procedures largely for the construction phase. Key Gaps identified in the EMS manual is provided in Gap Assessment in **Chapter 4**.

As per requirement of CA, GMR OSE has been preparing and submitting the Monthly Progress Report. The MPR covers monthly fee collection at the toll plazas; road user's complaint compliance report; route operations covering accident/ incident report, report on damage, encroachment removal, dead animal removal, emergency services, etc. and maintenance report including

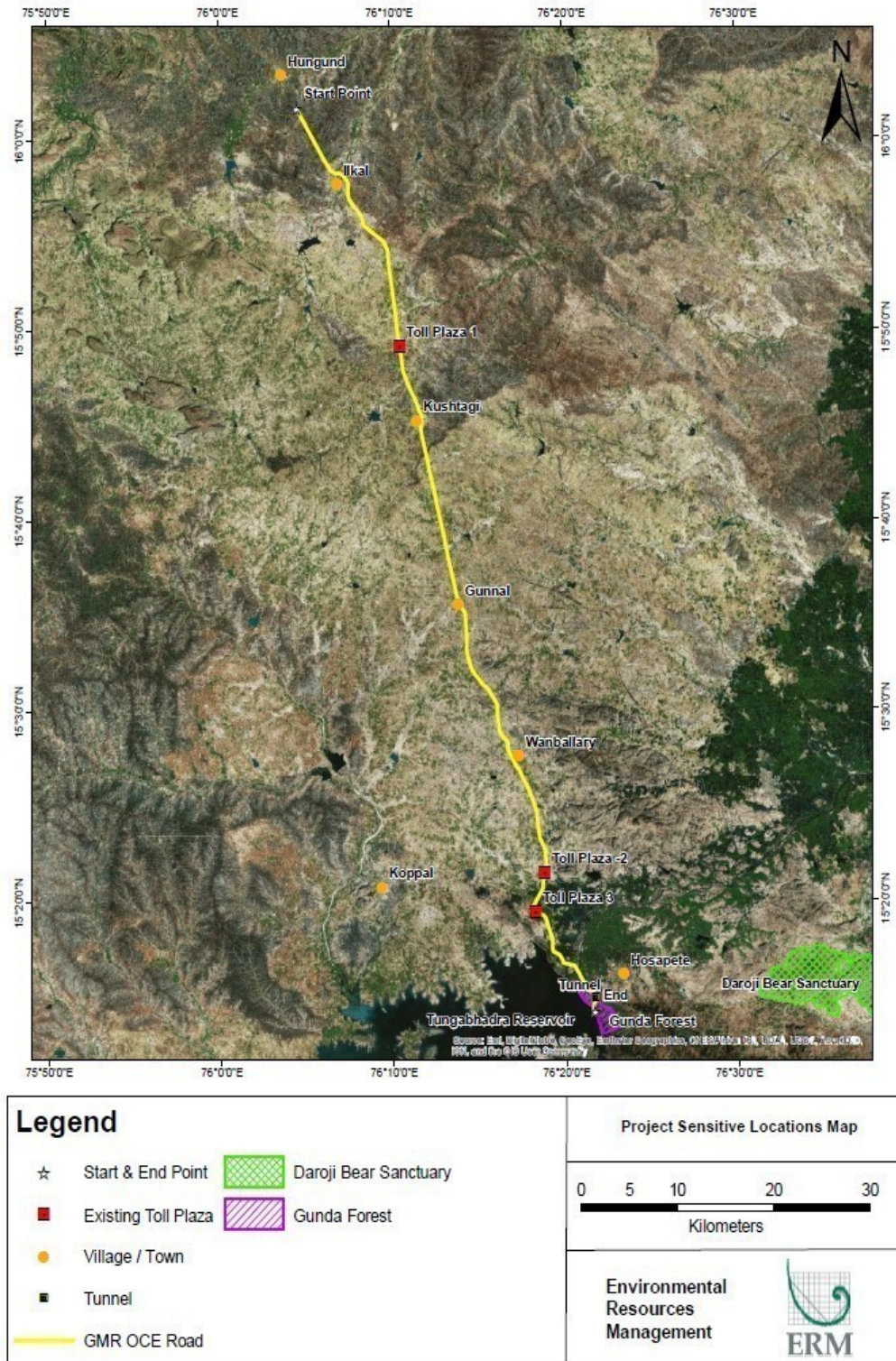
preventive / periodic maintenance details, material modification report, tests conducted during the month, etc. to the NHAI through Independent Engineer. This though covers the technical aspects, the complete range of EHS performance or issues are not covered. We recommend an Annual EHS Performance Report should be prepared to supplement the existing Annual Report.

3.2

ASSET DESCRIPTION

The Hungud Hospet highway stretch is part of NH-13 connecting Sholapur in Maharashtra and Mangalore in Karnataka and provides connectivity between the mineral rich and highly industrialized districts of Karnataka and the rest of India. The road passes through plain terrain and important towns along the road are Kushtagi and Hospet. Location of the project road in map is provided in *Figure 3.2*. There are three toll plazas on the project road at km 226.200 (Vangiri Toll Plaza), km 280.470 and at Km 284.667 (Hitnal Toll Plaza).

Figure 3.2 Location of Hungund-Hospete Road (NH-13)



Source: Google Earth

3.2.1

PROJECT SALIENT FEATURES

The salient features of the project are mentioned in *Table* below.

Table 3-1 *Project snapshot*

Name of project	Four/Six laning of Hungund - Hospet section of NH-13 from km 202.000 to km 299.000 in the state of Karnataka on Design, Build, Finance, Operate and Transfer ("DBFOT") basis under NHDP Phase III.
Contract Package	NHDP-III/BOT/KNT/06
Project Length	99.054 Km (from Km 199+221 to Km 297+293)
Client	National Highways Authority of India
Independent Engineer	SMEC International - Rodic Consultant (JV) Private Limited.
Safety Consultancy	M/s HAKS Engineers Architects and Land Surveyors Professional Corporation
Concessionaire	M/s GMR OSE Hungund-Hospet Highways Private Limited
EPC Contractors	1.M/s Oriental Structural Engineers Private Limited 2.M/s Boyance Infrastructure Pvt Ltd.
Engineering Consultancy	M/s LBI & M/s.Halcrow.
Date of Letter Of Award (LOA)	08 th Feb' 2010
Date of Concession Agreement	22 nd Mar 2010
Appointed Date	18 th Sep' 2010 (180 days from signing of CA)
Financial Closure (180days from Signing of CA)	Achieved 18 th Sept' 2010
Project Cost	1650.92 Crores (As per the Financial Package) Expenditure as on 25.12.2013 is Rs. 1627.58 Cr 946 Crores (Less equity support ,Cl. 48 As per CA)
Equity	230 Cr (As per cl 25.2) invested by GOHHHPL
Grant	340.92 Crores (As per cl.25.1.1) fund provided by NHAI Released as on 18.08.2013 is Rs. 311.81 Cr
Construction Period	30 Months
Schedule Four/Six Laning Date	15 th March 2013
Concession Period	19 Years (Including Construction period)
Date of Provisional COD	3 rd Nov' 2012
Date of Fee Notification approved	20 th Nov'2012
Start date of Toll collection	23 rd Nov' 2012
Four Laning Stretch	86.305 Km (Ch. 199+221 to Ch.285+100 & Ch.296+689 to ch.297+115)
Six Laning Stretch	12.749 Km (Ch. 283+940 TO Ch. 296+689)
Service Road	12.925 KM's on LHS & 13.375 KM's on RHS
Toll plazas	3 No`s 1. at Km 226+200 near Vanageri 2. at km 280+470 near Shahapur 3. at Km 284+667 near Hitnal
Major Junctions	14 no`s
Minor Junctions	88 no`s
Structure details	112 No`s Pipe Culvert (incl.COS) 29 No`s Box Culvert (incl.COS) 44 no`s Minor Bridge 8 no`s Major Bridge

	8 No`s PUP/VUP
	2 No`s ROB
	2 no`s Fly Over
	2 No`s Interchanges
	1 No Tunnels (length on RHS 310.5 mts & LHS 377 mts)
Truck laybays	4 no`s
Bus laybays	21 no`s
Rest Areas	2 No`s (at Km 236+130-RHS & at Km 276+551-LHS)
Over Head Traffic Signs (Cantilever Gantry Type)	7 No`s

Source: GMR OSE

As per information provided by GMR OSE, there are no pending construction works with respect to the original scope in CA. During the time of ERM site visit, two construction works were in progress were changes to the initial scope. The ongoing construction were a flyover and a Vehicle-under-pass, both of which are expected to be completed within 3-4 months.

3.2.2 PROJECT MILESTONES/ COMMERCIAL OPERATION DATE

Important dates of the project are presented in Table 3-2 below.

Table 3-2 Important Dates for the Project

1	Date of LoA	8 th February 2010
2	Signing of CA	22 nd March 2010
3	Date of Commencement	18 th September 2010
4	Project Completion Date	17 th March 2013
5	Concession Period	20 years (3 years for construction and 17 years for O&M)
6	Date of Commercial Operations	14 th May 2014
7	Toll started date	15 th May 2014
8	Scheduled End of Concession	17 th September 2029

Source: GMR OSE

3.2.3 OPERATION & MAINTENANCE (O&M) ACTIVITY

The project is currently under Operation and Maintenance (O&M) stage and tolling is currently underway. **Schedule K** of the CA deals with the O&M activities to be undertaken by the concessionaire. Broadly Operation & Maintenance activities as per CA includes:

Operations:

- Toll operations;
- Permitting smooth and uninterrupted flow of traffic;
- Functioning of patrolling system, functioning of rescue and medical and aid services, etc.;
- Incident management System – road patrols and surveillance, first aid, basic ambulance assistance, tow away cranes, wireless/mobile facility and road safety works;
- Adhering to the safety standards.

Maintenance

- Undertaking routine maintenance work including prompt repairs of potholes, cracks, concrete joints, drains, line marking, lighting and signages;
- Undertaking major maintenance such as resurfacing of pavement, repair to structures, repair and refurbishment of tolling system and hardware and other equipment;
- Undertaking periodic preventive maintenance of project highway including tolling system.

Some of the routine O&M activities being undertaken by OSE include:

- Hoeing, weeding and basin making of median / avenue plantation;
- Trimming and pruning (median shrubs);
- Manuring of median/ avenue plantation;
- Watering of median/ avenue plantation
- Cleaning of grass/ unwanted vegetation from median;
- Replacement of damaged plants (avenue/median);
- Carriageway sweeping;
- Cleaning of road side line/ unlined drains;
- Removal of dead animals;
- Washing of delinators & sign boards;
- Housekeeping including cleaning and washing of toll plaza;
- Cleaning of block culverts;
- Chainage marking;
- Milestone writing;
- Filling of potholes;
- Construction of rumble strips;
- Laying of Bituminous Concrete;
- Fixing of cautionary flexes;
- Cleaning of Bus Lay Bye/Truck Lay Bye;
- Accident reporting and analysis;
- Providing cautionary sign boards at Black spot Locations;
- Removal of encroachments; etc.

3.3 ENVIRONMENTAL AND SOCIAL CONTEXT OF THE ROAD

3.3.1 ENVIRONMENTAL CONTEXT

The project road is mainly dominated by agricultural land and residential area. It does not pass through any ecological sensitive areas like, national park, wild life sanctuary, tiger reserve, biosphere reserves, lakes and wet lands. However, Tungabhadra Dam and Gunda Reserve Forest (RF) is located at the end of the Project stretch (298+500 to 299+200). Daroji Bear Sanctuary is the nearest protected area located approximately about ~20 km (Areal distance) from the Project road towards. Their boundaries were found sufficiently away from the road corridor.

Further, the road involved diversion of 1.9 ha of Kunda RF land located at Chainage 298+500 to 299+200 and the permission for the same has been accorded by Department of Forest Karnataka, Bellary Forest Division dated 28 December 2012. As per the EIA/EMP report developed for the Project, this does not have any ecological sensitive areas like, national park, wild life sanctuary etc.

On the basis of reconnaissance survey conducted, documents reviewed and consultation Project team and regulatory certificates issued to the project, ERM do not find triggers for critical habitat for the road corridor

Pollution Prevention

Air Emissions: The project is in operational phase and has installed D.G. sets at all the three toll plazas and at tunnel location. D.G sets are present in acoustic enclosure, with stack height of more than 2 m.

Wastewater Management: All the three Toll Plazas have septic tank for treatment of sewage generation.

Waste Management: Waste generated in O&M stage include road litter, illegal dumped waste, municipal solid waste from the Toll Plazas, animal carcasses, vegetation waste from ROW maintenance, and sediment and sludge from storm water drainage system maintenance.

Hazardous Waste: Hazardous waste during operation phase includes generation of waste/ used oil from D.G sets installed at Toll Plazas. No authorization under Hazardous and Other Waste (Management and Transboundary Movement) Rules obtained from KSPCB. As per the letter issued by KSPCB, this authorization is not applicable for the Project SPV. GMR OSE has done Annual Maintenance Contract (AMC) for D.G. maintenance and waste/ used oil generated is disposed of through authorized vendor. Used/waste oil was seen at toll plaza without any secondary containment, also oil spill was observed at site.

Annual environment monitoring is carried out at site, which includes monitoring of ambient air quality, wastewater quality and noise quality.

3.3.2

SOCIAL CONTEXT

Working Conditions and Occupational Health and Safety

The terms and conditions of employment and various benefits /allowances are governed by the HR policy in place and the statutory requirements. The awareness pertaining to some of these policies/rules was varying across various staff members. All of these aspects are covered as part of the in-house induction and training sessions.

The wages for daily wage workers were observed to as per the Minimum Wage requirements as laid down by Karnataka government for the year 2017-

18 and Chief Labour Commissioner in for Road/highway sector significantly w.e.f. April 2017.

The general working shift is from 9:00 hrs to 17:00 hrs. The toll plaza operations are run in three shifts:

- Shift A- 08:00 hrs to 16:00 hrs
- Shift B- 16:00 hrs to 12:00 hrs
- Shift C- 12:00 hrs to 08:00 hrs

GMR OSE has a system of relievers and hence, instances of overtime payments do not occur regularly. However, if any worker working overtime (more than 9 hours a day) is paid the due overtime payment of double of the hourly rate calculated at gross levels. As per both Contract Labour (Regulation and Abolition) Act, 1970 (CLRA) and Shops and Establishment Act that regulates the working conditions of workers requires that no worker be employed for more than 9 hours a day or 48 hours a week. OSE has a policy of 8 hours shift timings and over-time if necessary is compensated as mandated by law. An attendance register for employees and muster roll for contract workers is maintained at toll plaza offices for tracking attendance and in-time and out-time of employees. The security workers have two shifts of 12 hours each and therefore M/s Nalwadi is non-compliant with respect to the permissible working hours for contract workers under Contract Labour (Regulation and Abolition) Act, 1970 (CLRA).

A formal Grievance Redressal Mechanism for employees and contract workers does not exist. It was reported that site senior management is directly approachable and any person can directly contact his/her own supervisor, site in charge or approach the project head directly. Grievance records are not maintained by GMR OSE.

The key rules, rights of workers; labour licenses and registration, abstract of Minimum Wages, 1948 and Contract Labour Act 1971 are not displayed in Toll Plazas, which is a regulatory requirement under these Acts. Applicability of ESIC is as per Indian regulations (for any employee earning a monthly salary less than INR 18,000). This is applicable for all including contract workers.

Drinking Water is provided through local mineral water vendors at all three Toll Plaza. There are adequate toilet facilities at all tollbooth locations.

Dedicated safety officer is not deployed for the project. First aid and firefighting arrangement is available at all the three Toll Plazas. It was observed that training on EHS aspects, safety sign awareness and road safety, personal protective equipment were conducted on site. It was noted that Safety Jackets, Helmets and Gloves are issued to the labour engaged for O&M activities and records are maintained on site.

It was noted that incident/ accident reporting is only limited to road accidents and does not cover incidents/ accidents occurring during maintenance or site work. Flow chart depicting emergency response plan for booth/ tunnel was displayed at Control Room, however staff was not aware of the presence of

any kind of emergency response plan. The copy of the plan was not made available for review.

Land Requirement and Land Acquisition Process

Land required for the Project was acquired by NHAI using land acquisition provisions of NH Act 1956. The conversion of two to four lane required 206.02 ha of land and the acquisition process under NH Act 1956 started in year 2010 and 3G notifications¹ for the land parcels acquired for the road stretch was published from 2011-2013 for various land parcels. The summary of land acquisition for the Hungund-Hospet Project is given in table below:

Table 3-3 *Summary of land acquisition*

Sl. No.	Land Acquisition Status	Area (in Ha)	Percentage
1.	Total land required for the project	206.02	
2.	Total land acquired till date	206.02	100%
4.	Date of last 3G Notification	14 November 2013	

Source: OSE

The last date of 3G notification was 14 November 2013 and 3G notifications have been published for the entire 206.02 ha of land notified for acquisition. The timeline for 3G notification for the project has been given in the table below:

Table 3-4 *List of 3G Award Notifications and overview of land acquired and affected titleholders*

3G Date	Land Area in Ha	% of Total Land Required	Affected Titleholder	% of Total Titleholders
15.04.2010	86.53	42%	6212	40%
25.08.2010				
11.11.2010				
19.01.2011				
24.02.2011				
08.03.2011				
19.05.2011	37.08	18%	2120	14%
17.08.2011				
29.11.2011				
06.01.2010				
04.05.2012	82.41	40%	7148	46%
30.08.2010				
08.11.2012				
19.02.2013				
14.11.2013				
Grand Total	206.02	100%	15480	100%

Source: OSE

The status of the compensation disbursement to titleholder as on the date of this ESDD is provided in table below. As per the information provided by

¹ Notification as per NHAI Act, 1956 that determines the amount of compensation payable for the land parcels acquired for the highway.

NHAI PD office at Hospet 98.78% of the total compensation has been disbursed. The remaining compensation amount is not yet claimed by titleholders. Hence, the land acquisition is considered completed.

Table 3-5 Compensation Disbursement Status

Sl. No.	Title	Amount	Percentage (%)
1.	Total compensation amount	435,120,524	100%
2.	Total Compensation Paid till Date	420,818,112	96.71 %
3.	Total Compensation of Govt. Land Payable	89,98,215	2.07%
	Compensation not claimed by PAPs because the amount is insignificant (< INR 10,000)	4,310,934	0.99%
	Compensation not claimed by PAPs because of no legal heirs (INR 10,000 to 20,000)	993,263	0.23%
	Total	435,120,524	100.00%

Source: PD, NHAI Hospete

Resettlement and Rehabilitation

No RAP was prepared for the project by NHAI as it is not a regulatory requirement and hence, socio-economic baseline information of those affected by the project is not available for review. However, the project reportedly did not entail any physical displacement. No forced eviction cases were reported during interactions with the community

As understood from the visit to NHAI PIU office, Hospete the four laning of the Hungund-Hospete section did not involve any physical displacement. As could be observed during the site visit, a large portion of the road stretch on either sides are barren or agricultural lands. It could be seen from the award notifications that the structures compensated were temporary sheds and bunds.

Status of Litigations and Analysis

The project stretch has numerous pending arbitrations and as reported by NHAI PIU, the arbitration cases have been filed by the petitioners primarily for a higher rate of compensation. 844 cases were filed before the Arbitrator for NHAI and only about 50% of the cases have been disposed until September 2017. The details of arbitration cases filed, disposed and pending have been given in the table below:

Table 3-6 Summary of year wise progress of Arbitration Proceedings

Sl. No.	Year	No: of cases brought forward from the previous year	No. of cases filed during the year	No. of arbitration cases disposed during the year	Pending cases before the arbitrator
1	2012-13	779	779	90	689
2	2013-14	689	--	71	618
3	2014-15	618	51	75	594
4	2015-16	594	08	--	602
5	2016-17	602	06	141	467
6	2017- Sept 18	467	-	48	419
	Total		844	425	419

Source: PIU NHAI, Hospete

All the cases closed were reported to have followed the due course of law. A sample copy of a petition concerning increasing of compensation and a court order copy upholding the plaintiffs concern was shared for review. It is understood that most of the cases have been disposed awarding a higher rate of compensation to the PAPs. However, information regarding the exact number of such cases and the percentage increase in compensation following arbitration was not made available to ERM. Following arbitration, adequate rate of compensation is provided to PAFs and hence the new amount were claimed by the PAFs.

Status of RoW and Encroachment

During the site visit, it was observed most of the ROW which is in possession of GMR OSE is free from encroachment, although there were few locations where opportunistic temporary vendors were seen. Some of the locations where such vendors were observed include near Hitnal Toll Plaza, Uppaladine Junction near the Tunnel. The encroachment details as provided in the O&M Inspection Report for February 2018 is given below:

Figure 3.3 *Encroachment as in February 2018*

Sl. No	Location		Side	Remarks
	From	To		
1	211+340 (New Ch.335+140)	212+600 (New Ch.336+400)	RHS	Concessionaire has submitted the Compliance Report Vide Letter No. GOHHHPL/P109/SMEC/O&M/Site/13-14/374 Dt. 28.03.2014 & GOHHHPL/P109/SMEC/O&M/Site/14-15/565 Dt. 04.08.2014
2	214+200 (New Ch.338+000)	214+280 (New Ch.338+080)	RHS	
3	214+400 (New Ch.338+200)	214+450 (New Ch.338+300)	RHS	
4	247+500 (New Ch.371+300)	247+600 (New Ch.371+400)	RHS	
5	250+100 (New Ch. 373+900)	250+170 (New Ch.373+970)	RHS	
6	261+780 (New Ch.385+580)	261+820 (New Ch.385+620)	RHS	
7	211+700 (New Ch.335+500)	212+600 (New Ch.336+400)	LHS	
8	217+860 (New Ch.341+660)	218+000 (New Ch.341+800)	LHS	
9	227+400 (New Ch.351+200)	227+600 (New Ch.351+400)	LHS	
10	240+900 (New Ch.364+700)	241+000 (New Ch.364+800)	LHS	
11	241+200 (New Ch.365+000)	241+300 (New Ch.365+100)	LHS	
12	245+200 (New Ch.369+000)	245+300 (New Ch.369+100)	LHS	
13	Near TP3 at Ch.408+467		LHS	

Source: O&M Report for February 2018, STUP Consultants;
url: <http://nhai.org.in/spw/IEReportth.aspx>,

3.4

ASSET STATUS

The construction of the road was completed in Mar 2013, and the toll collection started from 15th May 2013. The road is operating for more than 2 years, and the land acquisition proceedings (u/s 3A to 3H of NH Act) are complete and most of the project affected persons have received their full compensation.

4.1 OVERVIEW OF ASSET COMPLIANCE WITH APPLICABLE REGULATORY REQUIREMENTS

Based on our understanding, the table below (*Table 4-1*) provides a list of applicable EHS regulations along with its applicability to the Project, status of the compliance, remarks and recommendations.

4.1.1 IFC PS-1: Environment and Social Management System ENVIRONMENT AND SOCIAL ASSESSMENT

As per EIA Notification, 2006, “expansion of National Highways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State” require to obtain an EC from the MoEF. The project has undertaken an Environmental Impact Assessment study (as part of Detailed Project Report (DPR) study), and subsequently received an Environmental Clearance from the Ministry of Environment and Forests vide letter No.5-97/2007-IA-III dated 25 June 2008 for the combined package I Bijapur to Hungund and Package II Hungund to Hospet (Chainage 102.000 to 299.000). Considerations of alternatives is an integral part of any highway design Project, which covers the environmental, ecological and social aspects such as eccentric, concentric widening, provision of bypass, under passes, flyover etc. to avoid forest, trees, settlement etc. As reported these alternatives were assessed before the implementation of the project. HHHPL presently do not have any site specific environment and social management plan to be implemented at site. The O& M Manual is the key guiding document, but EMP and other social procedures are not integrated or implemented on ground. The EMP does not cover following significant environment issues which are relevant for O&M phase:

- Carriageway Waste Management Plan;
- Oil/Chemical Spill Contingency Plan;
- Storm Water Management Plan;
- Solid and hazardous waste management plan
- Avenue/Median Plantation & Maintenance Plan

4.1.2 EHS MANAGEMENT PROGRAM INCLUDING MONITORING AND REPORTING

Schedule L of CA covers preparation of O&M manual by concessionaire in consultation with the Independent Consultant. The manual to include but not limited to the following aspects:

- Traffic management plan including the corridor control plan;
- Safety management programme including the emergency response protocol;
- Environment Management Plan (EMP);
- Organisation structure with responsibilities of key personnel; etc.

O&M manual prepared for the project provides guidelines, procedures and system for implementation of operation & maintenance of the project. It has

section on Health and Safety, Traffic Management and EMP. However, EMP is limited to pollution control measures, environmental pollution monitoring during construction period, redevelopment of borrow areas, planting and maintenance of trees. GMR OSE in its O&M manual has following management programs to address EHS related issues or risks:

- Emergency preparedness;
- Risk assessment and disaster management plan;
- Legal compliance;
- Waste management;
- Hazardous waste management;
- Spill contamination and control plan

Although management programs with respect to Environment and H&S aspects have been identified and management measures have been established, gaps with respect to implementation of the procedures for waste management and hazardous waste management were identified.

First aid kits are present at all the three Toll Plazas. Fire extinguishers, sand buckets, s is present at all the three Toll Plazas. GMR OSE has a emergency procedure, however an Emergency Response Plan (ERP) is not prepared. It has displayed the procedural chart of activities to be undertaken and authorities to be approached during an emergency. The emergency can vary from being a fire situation, an accident on the highway, natural disaster, etc. All the emergencies are handled by route patrolling team with the help of Ambulance and paramedic available at all the three toll plazas according to the proximity of the accident site.

In the current procedure, the CRO receives a call from the location of emergency occurrence, informing him about the incidence. The CRO then arranges for an appropriate means of response, which includes calling an ambulance, providing first aid, providing the fire tender vehicle and informing the police etc. Emergency helpline number is displayed at various locations along the entire road stretch. It was informed that on an average, the response time is 20 minutes. However, it was noted that response time is not noted in the logbook maintained with ambulance.

All obligations incorporated in CA are regularly monitored and progress on the same is reported in Monthly Progress Report (MPR) and quarterly Progress report (QPR) to the Independent Engineer. It was informed that CEO visits project site on a monthly basis to monitor and review the management at site. However, records were not made available for review.

4.1.3

ORGANIZATIONAL CAPACITY AND TRAINING

There is no separate/ dedicated vertical or person in the organisation structure of HHHPL for environment and social aspects of road operation. Responsibilities concerning environment and social aspects are directly managed by the Project Head/ Technical Engineer (O&M). Consultations with the Project Head indicated that technical team possesses the required knowledge (concerning environmental and social regulations), skills

(networking with NHAI and district administration and dovetailing with existing government programmes and schemes) and has relevant experience to perform/ undertake environmental and social responsibilities for the project.

4.1.4

COMMUNITY ENGAGEMENT AND GRIEVANCE MANAGEMENT

GMR OSE maintains a complaint and feedback register for the toll users as per requirement by NHAI. The toll free number to contact toll plaza office in case of any emergency has been shared with all villages along the project stretch. The actions taken and closure of the complaints are also documented by GMR OSE. Review of the complaints register indicated that most of the complaints were related to road safety, toll fee, toilet facilities etc. However, GMR OSE is not maintaining documentation pertaining to community engagement.

PS-1 Compliance Gaps and Recommendations¹ provides compliance status of the project with respect to IFC Performance Standards with recommendations to close the gaps, if any.

Table 4-1 Compliance Status as per EHS and Social Regulations

S N.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability	Status of Permits and Licenses	Remarks & Recommendations
1.	The Environment (Protection) Act, 1986	MoEF&CC	Umbrella legislation to protect and improve overall Environment	Consent to establish and Consent to Operate to be obtained from KSPCB for DG sets, Hot Mix Plant, Wet mix macadam (WMM) plant, Batching plant and crushers	<ul style="list-style-type: none"> • Combined consent under Water (Prevention and control of pollution) Act, 1974 and Air (Prevention and control of pollution) Act, 1981 for batching plant and WMM plant dated 05/05/2017 valid up to 31 December 2018. • Combined consent under Water (Prevention and control of pollution) Act, 1974 and Air (Prevention and control of pollution) Act, 1981 for Hot Mix plant dated 25/10/2017 valid up to 20 May 2018. • Consent under Air (Prevention and control of pollution) Act, 1981 for Stone Crusher dated 30 /05/2017 valid up to 31 December 2018. 	<ul style="list-style-type: none"> • None
2.	The Forest (Conservation) Act, 1980	State Forest Department	Protection and conservation of Forest	Per CA, NHAI to obtain Forest clearance/ tree felling permission from state forest department for felling of trees present in the ROW	<ul style="list-style-type: none"> • Tree felling permission to cut about 127 number of trees comes under the Koppal forest division was obtained wide letter No DCF/KO/NH-13/CR/2011-12/145 dated 30 July 2012 and Tree felling permission to cut 103 trees out of 374 trees comes under Bellary forest division from the Office of the Deputy Conservator of Forests, Bellary Division, Bellary dated 19 January 2011. • As per the Office of Range Forest Officer, Hospet Range, letter dated 28 December 2012, the Project corridor (Chainage 298+500 to 299+200) received permission to use 1.90 ha of forest land feeling of 435 trees (221 Nos from LHS and 214 Nos from RHS) 	<ul style="list-style-type: none"> • None

S N.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability	Status of Permits and Licenses	Remarks & Recommendations
3.	The Karnataka Preservation of Trees Act, 1976	Karnataka State Forest Department	Protection of trees	Per CA, NHAI to obtain tree felling permission from state forest department for felling of trees present in the ROW	<ul style="list-style-type: none"> Refer to Sl. No. 2 of this Table 	<ul style="list-style-type: none"> None
4.	The Water (Prevention and Control of Pollution) Act, 1974	CPCB, KSPCB	Prevention and control of water pollution as well as restoration of water quality	Refer to Sl. No. 1 of this Table	<ul style="list-style-type: none"> Refer to Sl. No. 1 of this Table 	<ul style="list-style-type: none"> None
5.	Noise Pollution (Regulation and Control) Rules, 2000	CPCB, KSPCB	Noise pollution regulation and control	As per the Act, Ambient noise levels are to be maintained as stipulated in the rules for different categories of areas such as residential, commercial and silence zone of the Project.	<ul style="list-style-type: none"> No specific approval or permit required under this, however noise level of 55 dBA during daytime and 45 dBA during night-time to be maintained. 	<ul style="list-style-type: none"> None
6.	The Air (Prevention and Control of Pollution) Act, 1981	CPCB, KSPCB	To prevent, control and reduce air pollution including noise pollution	Refer to Sl. No. 1 of this Table	<ul style="list-style-type: none"> Refer to Sl. No. 1 of this Table 	<ul style="list-style-type: none"> None
7.	Environmental Impact Assessment Notification, 2006	MoEF&CC. NHAI to obtain the same and	Impact Assessment	EIA Notification 2006, schedule 7 (f), Highways, Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State.	<ul style="list-style-type: none"> Environmental clearance for the Project was obtained vide letter No.5-97/2007-IA-III dated 25 June 2008 for the combined package I Bijapur to Hungund and Package II Hungund to Hospet (Chainage 102.000 to 299.000) 	As per site representative, the EC compliance report till the COD date was submitted to MOEF&CC through NHAI and thereafter, no compliance report was submitted to MOEF&CC/ or regional office of MOEF&CC by NHAI or Concessionaire.

S N.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability	Status of Permits and Licenses	Remarks & Recommendations
8.	Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016	CPCB, KSPCB	Hazardous Waste Management	Authorisation for hazardous waste generation should be obtained from Karnataka State Pollution Control Board for Waste oil or used oil generated from 6 number of DG set operational at 3 toll plazas and disposed in accordance with Hazardous and other wastes (Management and Transboundary Movement) Rules 2016	<ul style="list-style-type: none"> • HW authorisation is not in place and need to be obtained for HW generation; As per the letter issued by KSPCB, this is not applicable for the SPV. • Per the site representative, the DG sets commissioned at the Project is under the Annual Maintenance Contract (AMC) and the AMC vendor will collect and dispose the used oil. 	The Project site required to obtain HW Authorisation for used oil generated at site and need to maintain Manifesto Form-10, and also need to file annual return as per Form-4 to KSPCB.
9.	Shops and Establishment Act 1958; and Rules, 1990	Labour Department	Regulation of conditions of work at shops, commercial establishments	The tolls plazas should be registered under the Shops and Establishment Act	The two tolls plazas are registered under the Shops and Establishment Act	None
10.	Contract Labour Regulation Act, 1971;	Labour Department	Contract Labour Management	This act provides safeguards to contract workers for construction, and operations of projects	GMR OSE has obtained required licenses for engagement of contract labour. Most of the workers under GMR OSE are direct employees of the company. GMR OSE has sub-contracted security, toll collection and routine maintenance to M/s Nalwadi Security Agencies. Nalwadi provides a manpower of about 272 workers including 146 Toll collectors and 32 security personnel.	None
11.	Child Labour (Prohibition and Regulation) Act, 1986 as amended in 2016 Andhra Pradesh Child Labour Rules 1995	Labour Department	Protection of Child (<15 years) workers	The Act prohibits engagement of children who have not completed their fourteenth year in occupations and processes listed in Schedule attached to it. Part-B (for processes) lists entry 11 mentions building and construction industry.	No child labour or bonded labour was reported at any of the work sites, and at the toll plazas visited.	None

S N.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability	Status of Permits and Licenses	Remarks & Recommendations
12.	Minimum Wages Act, 1948 and Rules 1980; Payment of Wages Act, 1936 Equal Remuneration Act, 1976	Labour Department	Wage Payment	These acts ensure payment of wages to labours without discrimination and devoid of any unjust deductions.	GMR OSE has obtained required labour licenses for engagement of contract labour. Currently, contract labour is engaged for security purposes-(20security guards) and 70-80 workers engaged in maintenance of median and right of way. All contract workers are being paid applicable minimum wages.	None
13.	Workers Compensation Act, 1923 Maternity Benefits Act, 1961 Public Provident Fund Act, 1968 Employees State Insurance Act, 1948	Labour Department	Welfare		Applicability of ESIC is as per Indian regulations (for any employee earning a monthly salary less than INR 18,000). This is applicable for all workers and contract workers. PF deduction is being followed as mandated by law. There were no cases of worker compensation as reported.	None
14.	Trade Union Act, 1926 and as amended in 2001 Industrial Disputes Act, 1957	Labour Department	Industrial Relations	As per the provisions of this act, the employees at the factory will have the right to form unions. These unions will have to be registered with the Registrar appointed under this Act in the area and will need to have the names of the members, occupations and addresses, name of the trade union and its rules. The powers and functions of the Union will be as per the provisions of this act.	It was reported that none of the employees of GMR OSE are part of any union.	None

S N.	Applicable Policies and Regulations	Institution Responsible	Objective	Applicability	Status of Permits and Licenses	Remarks & Recommendations
15.	Karnataka Private Security Agencies (Regulation) Rules 2008	Department of Police	Security Agencies Regulation	Regulation and verification of antecedents of private security agencies	GMR OSE employs NISA Security Private Limited as Private Security Agencies for its Toll Plaza operations. Nalvadi Seizing and Security Agency has reportedly obtained the necessary licence from the Police Department of Govt of Karnataka and the same was valid till 01 November 2016. They had also applied for renewal, the letter which was submitted for review, however the latest renewal certificate was not available.	GMR OSE to ensure that Nalvadi obtains the renewed certificate from the concerned Department.
16.	The Welfare Cess Act 1987 and Rules 1988	Labour Department	Workers welfare	The Act makes provision to contribute to a welfare fund constituted by Government.	GMR OSE has provided documentary evidence of payment of cess as applicable	None

4.2 *IFC PS-1: ENVIRONMENT AND SOCIAL MANAGEMENT SYSTEM*

4.2.1 *ENVIRONMENT AND SOCIAL ASSESSMENT*

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COMMUNITY ENGAGEMENT AND GRIEVANCE MANAGEMENT

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4.2.5

PS-1 COMPLIANCE GAPS AND RECOMMENDATIONS

Gap Area	Recommendation
ESMS	Update the EMS Manual with the following <ul style="list-style-type: none">• Impact Assessment for life cycle of the Project (Planning, construction, Operation and maintenance phases) ;• Contractor Safety management;• Safety Monitoring and Enforcement;• Community health and Public Safety; and• High Risk Activities.
EMP	Specific management plans to be prepared include the following: <ul style="list-style-type: none">• Carriageway solid waste management plan including construction waste;• Oil/ chemical spill contingency plan;• Storm water management Plan;• ROW maintenance Plan covering maintenance of road furniture, preventing unauthorised entry to and exit and encroachment on the ROW and project site;• Avenue and Median Plantation and management plan.
Monitoring and Review Procedure	HHHPL should develop plan and procedures to monitor and review of implementation of management programmes at site
EHS Reporting	HHHPL to develop and integrate EHS related issue during O&M and implement the same
EHS Staff and Skills	Employee and Management Training on EHS
Stakeholder Engagement and Grievance Management	GMR OSE should identify all internal and external stakeholders and prepare a stakeholder engagement plan that would guide the frequency and mode of communication with the stakeholders

4.3

IFC PS-2: LABOUR RIGHTS AND WORKING CONDITIONS

4.3.1

WORKING RELATIONSHIPS

GMR OSE has 180 direct employees deployed at the project office/ toll plaza offices. There is a HR Team at corporate level as well as a dedicated HR staff at the project site to take care of workers issues. The HR officer oversees the implementation of Indian statutory requirements pertaining to labour, labour welfare and disputes. GMR OSE has an HR Manual which is applicable to its employees and indirect workers deployed at site are governed by HR policies of their recruiting agencies. ERM observed a satisfactory level of regulatory compliance for GMR OSE staff and skilled manpower.

Another 300 workers are hired through the sub-contractor M/s Nalwadi Pvt Ltd, which includes Security personnel and Toll collectors. Each toll plaza has a similar staff profile, which includes: Toll Plaza Manager, Assistant Manager, Admin & HR, Assistant Manager, IT Systems, Assistant Manager, Finance & Account, toll collectors etc.

M/s Nalwadi Pvt Ltd engages 35 maintenance workers through a labour contractor who supplies them local labour from neighbourhood villages. A formal contractual agreement is entered between the company and this contractor.

There are 12 gunmen and another 12 watchmen across the three toll plaza who have been hired through M/s Nalwadi.

4.3.2

WORKING CONDITIONS AND TERMS OF EMPLOYMENT

The general working shift is from 9:00 hrs to 17:00 hrs. The toll plaza operates in three shifts:

- o Shift A- 08:00 hrs to 16:00 hrs
- o Shift B- 16:00 hrs to 12:00 hrs
- o Shift C- 12:00 hrs to 08:00 hrs

GMR OSE has a system of relievers and hence, instances of overtime payments do not occur regularly. However, if any worker working overtime (more than 9 hours a day) is paid the due overtime payment of double of the hourly rate calculated at gross levels.

An attendance register for employees and muster roll for contract workers is maintained at toll plaza offices for tracking attendance and in-time and out-time of employees. The security workers have two shifts of 12 hours each, which is a non-compliance to regulatory requirement.

A formal Grievance Redressal Mechanism for employees and contract workers does not exist. It was reported that site senior management is directly approachable and any person can directly contact his/her own supervisor, site in charge or approach the project head directly. Grievance records are not maintained by GMR OSE.

Wage register is maintained by contractors, and sample wage registers for some contractors were reviewed by ERM team. It included basic wages, PF amount and was duly signed by its workers. The wages for daily wagers were observed to as per the minimum wage requirements as laid down by Karnataka Government for the year 2017-18 and Chief Labour Commissioner in for Road/highway sector w.e.f. April 2017.

Drinking Water is provided through local mineral water vendors at each of the toll booths. The Toll Plazas also have adequate number of toilets for people deployed in them.

4.3.3

PROTECTING THE WORKFORCE

No child labour or bonded labour was reported at any of the work sites (median and avenue plantation maintenance works), and at the toll plazas visited. It was reported that no migrant workers are currently engaged. Employees of GMR OSE who are from outside of the area are provided guesthouse facilities within the toll plaza office space.

It was reported that none of the employees of GMR OSE are part of any union. Discussions with corporate management indicated that the company does not encourage unionisation or workers forming a forum for collective engagement though this is not officially stated. The workers too reported that they never felt any need for unionization.

A formal Grievance Redressal Mechanism for employees and contract workers does not exist. It was reported that site senior management is directly approachable and any person can directly contact his/her own supervisor, site in charge or approach the project head directly. Grievance records are not maintained by GMR OSE

4.3.4

OCCUPATIONAL HEALTH AND SAFETY

Dedicated safety officer is not employed for the project. It was reported that training on EHS aspects, safety sign awareness and road safety, personal protective equipment is conducted; however, records were not made available for review.

It was noted that Safety Jackets, Helmets and Gloves are issued to the labour engaged for O&M activities and records are maintained on site. First aid and firefighting arrangement is available at all the three Toll Plazas.

It was noted that incident/ accident reporting is only limited to road accidents and does not cover incidents/ accidents occurring during maintenance or site work.

Flow chart depicting emergency response plan for booth/ tunnel was seen displayed at Control Room, and staff were observed to be aware of the measures to be followed in case of an emergency.

4.3.5

SUPPLY CHAIN

M/s Nalwadi Private Limited is contracted for providing security guards and workforce. The sub-contractor does not have documented HR Policies but is compliant with legal requirements pertaining to health & safety and labour rules and regulations. The HR personnel of GMR OSE also checks for sub-contractor legal compliances before releasing payments to the contractor.

GMR OSE sources water tankers, maintenance works materials like cement, soil, sand etc. locally. There are no formal contractual agreements for locally sourced materials.

4.3.6

PS-2 COMPLIANCE GAPS AND RECOMMENDATIONS

Gap Area	Recommendation
Grievance Redress Mechanism	GMR OSE should formulate an Employee Grievance Redressal Mechanism which should contain procedures to register, receive, resolve and communicate grievances and their resolutions.
Safety and Emergency Preparedness	It is recommended to deploy dedicated safety officer at site. Accident/ incident register to be maintained at both the Toll Plazas. Emergency preparedness and response plan to be prepared, communicated to the staff. Staff to be trained on handling of emergencies. Adequate number of trainings to be conducted (both labour and staff) and records to be maintained. Accident/ incident register for routine maintenance activities to be maintained at Toll Plazas.
Compliance of Suppliers and Subcontractors	Develop a supplier/contractor management plan as part of the ESMS to manage key labour compliance aspects chain pertaining to child and forced labour and key EHS aspects in the supply chain/among vendors.
Working Conditions	GMR OSE should formulate an Employee Grievance Redressal Mechanism which should contain procedures to register, receive, resolve and communicate grievances and their resolutions. Notice boards highlighting key labour laws and rights of workers should be displayed at toll plaza offices.

4.4

IFC PS-3: POLLUTION AND RESOURCE EFFICIENCY

The project has obtained environmental clearance, forest clearance, NOC from KSPCB, and other permits under schedule E of CA and they confirm to the local and national consideration established by the Governments. Reportedly, the Project has submitted periodical compliance report to the regulatory authority as per the requirement through NHAI; however these documents were not made available for review and during operation phase for Hot Mix plant by subcontractor.

As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, every occupier of a facility engaged in handling, generation of the hazardous and other wastes is required to obtain a Hazardous waste authorization. HHHPL has not obtained the same from the Karnataka State Pollution Control Board. As per the letter issued by KSPCB, this is not applicable for the SPV.

The Project has commissioned number of bore wells at different locations such as toll plazas and truck lay bye. The project SPV has obtained NOC from respective village panchayat. However, SPV has not obtained NOC from Central groundwater authority (CGWA)/ Karnataka groundwater Authority (KGWA)

The Project is an operational toll road and activities undertaken does not involve consumption of high energy or water or any other material likely to produce more than 25,000 tonnes of CO₂-equivalent annually. The project does not calculate, estimate and account for the GHG emissions due to the mobile sources of transportation, based on the average number of motorized vehicles plying on the road on monthly and annual basis.

Power

Electricity demand for the project is primarily met through power supply from state electricity board, and limited to toll plazas and associated office buildings at TP1, TP2 and TP3. Electricity backup in case of power failure is met through two Diesel Generator units of (2 x 82.5 kVA, 2 x 100 kVA and 2 x 125 kVA). It was reported that the DG unit is only run on a need basis and is limited to 10 to 15 hours a week during power failure. HHHPL has installed solar powered blinkers at junctions / bypass lanes at number of locations;

Water

Water requirement for the Project is met through Bore wells commissioned as well as through Tanker water. Water requirement for wayside amenities and truck Lay byes is met through bore well as well as tanker supply. For drinking purpose RO is commissioned at each of the toll plaza. Procedure to measure utilization of water resource for the project is not in place and water consumption records are not maintained at site.

All the Toll Plazas have septic tank for treatment of sewage generation. Toilet established for road user and at way side amenities were found not properly maintained (without water). Over flowing of septic tank at Shahpur toll plaza was observed.

Air Pollution

D.G. sets installed at the Toll Plazas are the main source of gaseous pollutions. D.G sets were observed to be in acoustic enclosure, without adequate stack height. Wastewater generated is discharged directly on the land without any safeguard measures;

Soil

Storage of scarified and milled bitumen was found stored on the shoulder at different locations. Spillage of oil and contamination of land surface near the DG sets at toll plaza.

Annual environment monitoring is carried out at site which includes monitoring of ambient air quality, and water quality.

4.4.2 WASTE MANAGEMENT

Waste generated in O&M stage include road litter, illegal dumped waste, municipal solid waste from the Toll Plazas, animal carcasses, vegetation waste from ROW maintenance, and sediment and sludge from storm water drainage system maintenance. As part of waste management, wastes are collected through different collection bins at toll plazas and segregated. However its implementation required improvement.

Waste generation records are not maintained at site. It was noted that metal scrap generated at the plazas is sold to authorised vendor however dry waste is burned in open. Solid waste and litter was observed to be scattered on the ROW edge as well as the median in some chainages. It was reported that manual labours are deployed for collection of waste and as a practise they collect waste from median and dump it out of the RoW.

4.4.3 HAZARDOUS MATERIALS

Hazardous waste during operation phase includes generation of waste/ used oil from D.G sets installed at Toll Plazas. Project site does not have valid authorization for HW generated at site. It was noted that GMR OSE has done Annual Maintenance Contract (AMC) for D.G. maintenance and waste/ used oil generated is disposed of through authorized vendor. However, records of hazardous waste are not maintained in Form 3 and annual return in Form 4 is not submitted as per the Rules.

4.4.4 PESTICIDE USE AND MANAGEMENT

As reported during site visit, pesticide is not used for the project. Organic manure is used for avenue and median plantation

4.4.5 PS-3 COMPLIANCE GAPS AND RECOMMENDATIONS

Gap Area	Recommendation
Legal and Regulatory Compliance Monitoring	Approval for bore wells should be obtained before 30 June 2018 as per the CGWA notification dated 19 July 2017 and 1 January 2018 for existing groundwater users including Industrial, infrastructure and mining Projects; As per the Hazardous and other wastes (Management and Transboundary Movement) Rules 2016, the Project site required to obtain HW Authorization for used oil generated at site
Management of Solid Waste	HHHPL to ensure Cleaning of septic tanks on regular basis to avoid over flow, damage if any at septic tank to be rectified; Milled bitumen to be stored at designated storage area; Toilet established at different location to be maintained properly and water supply to be ensured HHHPL should ensure required training and awareness of staff on the waste management plan to ensure its effective implementation. Should stop burning of dry waste in open. HHHPL should ensure cleaning of the roadside and median regularly to avoid dumping and maximizing of roadside waste. Waste from median and ROW to removed and ensure disposal as per the norms.

Management of Hazardous Waste	GMR OSE should keep records of hazardous waste generation in Form 3 and should submit Annual Return in Form 4. Oil/ Chemical spill Contingency Plan should be prepared. In case of spillage of oil, measures to be taken as per the plan. Hazardous waste authorization to be obtained for Project and to ensure its disposal as per the norms.
GHG Monitoring	HHHPL should estimate the total GHG emissions in terms of CO2 equivalent that are released from project related activities such as use of vehicles, DG set operation etc.
Water Consumption and Conservation	HHHPL should register the well present at different locations including construction camp with the State Ground water Authority and install meter to the well. Should also keep records of water consumption and try taking initiatives to reduce water consumption, if possible.
Air Pollution	Provision of adequate stack height for DG sets; Provision of acoustic enclosure to operational DG sets;

4.5 **IFC PS-4: COMMUNITY HEALTH SAFETY AND SECURITY**

4.5.1 **GENERAL COMMUNITY/ROAD USERS HEALTH AND SAFETY**

The key issues linked to health and safety of community living close to the road RoW and road users include the following:

1. The road and traffic safety;
2. Spread of Communicable diseases and degradation of living environment;
3. Threat of abuse of power and arms by private security guards.

The project is designed considering relevant standards/ guidelines of India Road Congress (IRC) related to safety (IRC: SP-84), road geometrics, bridges, culverts, road signs (IRC: SP-67), pavement marking (IRC: 35), road delineator (IRC: 79), etc. Safety measures taken at site include pedestrian guard railing, crash barrier, sign boards, rumble strips, speed breakers, speed limit boards, median plantation, etc. as required by NHAI as a condition in CA.

Median plantation at number of stretches along the road was observed to be very thin. During site assessment, vehicles were seen parked in the carriageway in many places, and vehicles were observed driving in opposite direction.

Currently a significant number of trucks ply on the road. ~ 50 % of the road users are trucks including three axel, multi axel and over size vehicle. Stopover of truckers at major junctions on the road may play a role in the spread of communicable diseases (HIV/ AIDS) in the area. The transit people would also interact with local vendors at random locations through the entire stretch of the road and may increase communicable disease in the area. Presently 02 truck lay byes are constructed along the road. However, rest areas are yet to be developed.

Project road crosses two major rivers namely River Ajnar and River Karam, which are mostly non perennial. Sanjay Jalashay, artificial lake with water treatment plant created for supplying water to Pithampur Industrial Area,

present at a distance of ~ 400 m from the project corridor. Suitable mitigation measures were taken during construction stage to mitigate the impact on the water bodies. Compensatory plantation with native species was planned to mitigate impacts from tree cutting. Also, storm water drainage system is proposed along the road to mitigate the impacts on natural drainage pattern. The maintenance of the RoW including management of vegetation, solid waste and drainage is therefore crucial to ensure living environment for the neighbourhood community is not degraded and become a threat to community health.

4.5.2 *COMMUNITY EMERGENCY PREPAREDNESS/RESPONSE*

Project road is currently in operation phase. Hazardous material and substances were not seen stored at site, which can be a potential for the public to be exposed to hazards. Also all the Toll Plazas are away from human habitation areas. Emergency action plan in case of accidental spillage of hazardous material on road is not in place.

4.5.3 *COMMUNITY ENGAGEMENT AND DEVELOPMENT*

GMR-OSE has a CSR Policy, however very limited stakeholder engagement and CSR activities are carried out by GMR OSE. Presently, GMR OSE donates books and other materials to local schools and as part of safety week conducts a weeklong safety program for users and community.

4.5.4 *PS-4 COMPLIANCE GAPS AND RECOMMENDATIONS*

Gap Area	Recommendation
Threats from Security Staff	Nalwadi Pvt Ltd should obtain registration under Karnataka Private Security Agencies (Regulation) Rules 2008. The Grievance Redress Mechanism for the project should cover special provisions for investigations of unlawful or abusive acts of security personnel.
Road Safety	Median plantation needs to be strengthened. GMR OSE to undertake awareness program for community and to ensure vehicles are not parked within the corridor or in ROW and people should not drive in opposite direction.
Disease Prevention	GMR OSE should conduct awareness campaign among the truck drivers to prevent HIV/ AIDS. Rest area to be completed as proposed in the CA.
Emergency Response	Emergency Action Plan to address accidental spillage of hazardous material to be prepared

4.6 *IFC PS-5: LAND ACQUISITION AND INVOLUNTARY RESETTLEMENT*

4.6.1 *LAND ACQUISITION PROCESS*

As per the Concession Agreement, the responsibility of land acquisition was on NHAI who is obliged to provide encumbrance free land to GMR OSE for construction and operation of the road. 206.02ha of land required for the Project was acquired by NHAI using land acquisition provisions of NH Act

1956. The acquisition process started in year 2010 and 3G notifications¹ for the land parcels acquired for the road stretch was published from 2011-2013 for various land parcels. The last date of 3G notification was 14 November 2013. As per the information provided by NHAI PD office at Hospet, 98.78% of the total compensation has been disbursed. The remaining compensation amount is not yet claimed by titleholders due to their personal issues. Hence, the land acquisition is considered completed.

4.6.2 *DISPLACEMENT (ECONOMIC AND PHYSICAL) AND FORCED EVICTION*

It could not be confirmed whether alternative project designs were considered for the project to avoid/ minimize physical and economic displacement. As understood from the visit to NHAI PIU office at Hospete, the four laning of the Hungund-Hospete section did not involve any physical displacement. As could be observed during the site visit, a large portion of the road stretch on either sides are barren or agricultural lands.

GMR OSE and NHAI office reported that no RAP was prepared for the project by them or NHAI to their knowledge. Hence, socio-economic baseline information of those affected by the project is not available. However, the project reportedly did not entail any physical displacement. No forced eviction cases were reported during interactions with the community.

NHAI has paid compensation for the land and structures (including affected encroachments). However, no socio-economic survey was conducted to understand the adverse impacts on their livelihood and income levels.

4.6.3 *COMPENSATION AND BENEFITS*

NHAI has paid cash compensation for the land it acquired under NH Act 1956. The compensation amount paid included market value assessed based on prevailing basic guidance value along with value of other fixed assets on the land such as structures, trees etc. and a solatium of 30% of the land value. The CALA for the project had calculated the compensation for the project affected people at prevailing market rates.

4.6.4 *CONSULTATIONS AND GRIEVANCE MECHANISM*

The project land was acquired as per NH Act, 1956. Details on community engagement are not available for review. In a typical process of land acquisition u/s 3 of NH Act 1956, competent authority for land acquisition (CALA) informs titleholders about land acquisition through public notice, holds consultation with a few titleholders in the process of determining the compensation amount. It allows a process of arbitration in u/s 3G(5) to address concerns of titleholders on determination of compensation.

¹ Notification as per NHAI Act, 1956 that determines the amount of compensation payable for the land parcels acquired for the highway.

4.6.5 *POST-RESETTLEMENT LEGACY*

The project stretch has numerous pending arbitrations and as reported by NHAI PIU, the arbitration cases have been filed by the petitioners primarily for a higher rate of compensation. 844 cases were filed before the Arbitrator for NHAI and only about 50% of the cases have been disposed until September 2017.

All the cases closed were reported to have followed the due course of law. A sample copy of a petition concerning increasing of compensation and a court order copy upholding the plaintiffs concern was shared for review. It is understood that most of the cases have been disposed awarding a higher rate of compensation to the PAPs.

4.6.6 *PS-5 COMPLIANCE GAPS AND RECOMMENDATIONS*

There are gaps in compliance to PS-5 provisions. However considering the land acquisition was the responsibility of the Government (NHAI) and residual impacts which took place a decade ago are difficult to assess and mitigate. As project falls in Category-1, the gaps with respect to PS-5 compliance are not required to be addressed. Hence, no further recommendation is provided.

4.7 *IFC PS-6: BIODIVERSITY CONSERVATION AND SUSTAINABLE MANAGEMENT OF LIVING NATURAL RESOURCES*

4.7.1 *LEGALLY PROTECTED INTERNATIONALLY RECOGNISED AREAS AND CRITICAL HABITATS*

The project is not crossing any ecological sensitive areas like national park, wild life sanctuary, tiger reserve, biosphere reserves, lakes and wet lands. Also, there is no endangered flora or fauna along the road corridor. The stretch is not on migratory route of wildlife.

However, Tungabhadra Dam and Gunda Reserve Forest (RF) is located at the end of the Project stretch (298+500 to 299+200). Daroji Bear Sanctuary is the nearest protected area located approximately about ~20 km (Areal distance) from the Project road towards.

4.7.2 *MODIFIED AND NATURAL HABITATS*

The project road is mainly dominated by agricultural land and residential area. The road involved diversion of 1.9 ha of Kunda RF land located at Chainage 298+500 to 299+200 and the permission for the same has been accorded by Department of Forest Karnataka, Bellary Forest Division dated 28 December 2012.

4.7.3 *PS-6 COMPLIANCE GAPS AND RECOMMENDATIONS*

Considering limited relevance of PS-6 and absence of any ecologically sensitive area in the road corridor, no gaps are identified and therefore there are no recommendations.

4.8 *IFC PS-7: INDIGENOUS PEOPLES*

The project stretch does not pass through any Scheduled V area and no tribal lands were reported to be acquired for the project. Therefore, provisions of PS-7 are not applicable for this project stretch.

5.1 KEY EHS AND SOCIAL ISSUES

The following table summarizes the key EHS and Social observations by applying the IFC ESDD screening criteria for operational Toll Roads.

Table 5-1: Summary of Key EHS and Social Issues

Sr. No	Aspects	Description	Analysis & alignment with applicable standards.	Risk Rating
1	Litigation	The project stretch has numerous pending arbitrations and as reported by NHAI PIU, the arbitration cases have been filed by the petitioners primarily for a higher rate of compensation. 844 cases were filed before the Arbitrator for NHAI and only about 50% of the cases have been disposed until September 2017.	The land acquisition was primarily the responsibility of NHAI and it is obliged to pay the additional compensation granted by the Arbitrator. The HHHPL has no role to play in this process. As the road construction is already completed and road is operational, there is no operational threat due to these pending arbitration proceeding.	Moderate
2	Other risks	The media reports on the road did not show any public protests on adverse environment or social impacts of the road.		Acceptable
3	Assessment and Management of Environment and Social Risks and Impacts	<p>OSE has a documented Environmental Management Manual at Corporate Level and shared the same with SPV level at site. The EMS Manual has following gaps:</p> <ul style="list-style-type: none"> • Risk Assessment for life cycle of the Project (Planning, construction, Operation and maintenance phases) ; • Risk Management; • Employee and Management Training; • Contractor Safety management; • Safety Monitoring and Enforcement; • Community health and Public Safety; and • High Risk Activities. • No SOP's to implement neither at corporate level nor at SPV Level; <p>NHAI through a design consultant had prepared the Detailed Project Report (DPR) in December 2010 prior to signinf of the Concession Agreement. Vol. IV(a) of the DPR is an Environmental Impact Assessment and Environment Management Plan (EMP) for Package -2 from Km 202.000 to Km 299.000 that identifies and propose mitigation measures for both the environmental and social aspects of the project. The EMP was implemented during the Construction phase. However, EMP lacks the following aspects which are relevant issues for O&M phase</p> <ul style="list-style-type: none"> • Carriageway Waste Management Plan; • Oil/Chemical Spill Contingency Plan; • Storm Water Management Plan; • Solid and hazardous waste management plan 	<p>OSE should update the existing EHMS by a Third Party to include adequate level of details to fully comply to PS-1 Requirements.</p> <p>HHHPL is recommended to prepare Specific management plans including the following:</p> <ul style="list-style-type: none"> • Carriageway solid waste management plan including construction waste; • Oil/ chemical spill contingency plan; • Storm water management Plan; <p>Avenue and Median Plantation and management plan.</p>	Moderate

Sr. No	Aspects	Description	Analysis & alignment with applicable standards.	Risk Rating
		<ul style="list-style-type: none"> Avenue/Median Plantation & Maintenance Plan; 		
4	Resettlement Action Plan (RAP)	The acquisition process under NH Act 1956 started in year 2010 and 3G notifications ¹ for the land parcels acquired for the road stretch was published from 2011-2013 for various land parcels.. NHAI paid cash compensation for the loss of land and structure to titleholders. GMR OSE reported that no RAP was prepared for the project by them or NHAI to their knowledge as it is not a regulatory requirement. Hence, socio-economic baseline information of those affected by the project is not available and the time-gap is too large to allow creating a social baseline to retrospective effect. Hence, it would not be possible to retrospectively carry out a resettlement completion audit or ascertain whether non-titleholders were covered in land acquisition, compensation and resettlement and rehabilitation process.		Moderate
5	Stakeholder/Community Engagement	Stakeholder consultations were conducted prior to road construction for the requirement of Environmental Clearance as per the due process by NHAI. GMR has a CSR Policy, however very limited stakeholder engagement and CSR activities is being conducted by GMR OSE. Presently, GMR OSE donates books and other materials to local schools and as part of safety week conducts a week long safety program for users and community.	GMR OSE should identify all internal and external stakeholders and prepare a stakeholder engagement plan that would guide the frequency and mode of communication with the stakeholders	Moderate
6	Grievance Mechanism	<p>Road Users GMR OSE maintains a complaint and feedback register for the toll users as mandated by NHAI. The actions taken and closure of the complaints are also being documented by GMR OSE. Review of the complaints register indicated that most of the complaints were related to road safety, toll fee, toilet facilities etc.</p> <p>Communities along the Road Corridor No documentation pertaining to community engagement is maintained by GMR OSE. However, the toll free number to contact toll plaza office in case of any emergency has been shared with all villages along the project stretch.</p> <p>Employees and Contract Workers A formal Grievance Redressal Mechanism for employees and contract workers does not exist. It was reported that site senior management is directly approachable and any person can directly contact his/her own supervisor, site in</p>	GMR OSE/OSE should formulate an grievance redressal mechanism for communities along road corridor. In addition, it should extend the Grievance Redressal Mechanism to all indirect workers at site. A grievance register for workers should be maintained at site and workers should be informed about it.	Low

¹ Notification as per NHAI Act, 1956 that determines the amount of compensation payable for the land parcels acquired for the highway.

Sr. No	Aspects	Description	Analysis & alignment with applicable standards.	Risk Rating
		charge or approach the project head directly. Grievance records are not maintained by GMR OSE		
7	Health & Safety	<p>OSE has developed an overarching EHS policy signed by Director, applicable to the project. O&M manual for the project has been prepared which covers EHS, as per the requirement under CA.</p> <p>Organisational capacity is not adequate for implementation of EHS related issues during O&M phase. There is no permanent or part time specialist to undertake EHS related issues and periodic review and monitoring. Training on EHS aspects is conducted covering safety sign awareness and road safety, use of PPEs on site.</p> <p>Incident/ accident reporting is only limited to road accidents and does not cover incidents/ accidents occurring during maintenance or site work.</p> <p>Flow chart depicting emergency response plan for booth/ tunnel was seen displayed at Control Room, however staff was not aware of the presence of any kind of emergency response plan. Also documented copy of plan was not made available for review.</p> <p>During site visit, some of the potential risk for road accident such as random parking of vehicles, animal movement, wrong side driving, were noticed. Action plan in case of accidental spillage of hazardous material on road is not place.</p>	<p>Dedicated safety officer is not deployed at site.</p> <p>Site-specific EPRP has not been prepared and was not available for review.</p> <p>Staff was not aware of the EPRP.</p> <p>Incident/ accident reporting is only limited to road accidents and does not cover incidents/ accidents occurring during maintenance or site work.</p>	Low
	Community Health and Safety	<p>Key community health and safety related issues observed includes</p> <ul style="list-style-type: none"> • Un authorised median opening (Approx. 12 locations) and without proper road safety signage's; • Un Authorised speed breakers; • Drying of crops/ pulses on the highway at number of locations; • No median plantation/ fire damaged median plantation area ; • Damage to crash barrier; • Damaged sign boards; • Non-working of solar blinkers; 	<ul style="list-style-type: none"> • Un authorized median openings and speed breaker should be closed/ removed; • Awareness programme on drying of crops on the carriageway to community to be conducted on regular basis; • Damaged Crash barrier/ signboards and solar blinkers should be rectified on urgent basis 	Low
8	HR/ Contractor Management	<p>There were no notice boards in the toll plaza displaying abstract of Minimum Wages, 1948 and Contract Labour Act 1970 as mandatory under these laws.</p> <p>There is no workers organisation in the project stretch but the workers reported that they did not feel a need for such an organisation as their grievances are</p>	Display key labour laws and rights of workers under various labour laws at toll plaza offices.	Moderate

Sr. No	Aspects	Description	Analysis & alignment with applicable standards.	Risk Rating
		addressed effectively. The project has a mess committee which takes workers feedback and take appropriate steps.		
9	Pollution Prevention	<p>Review of Project document and reconnaissance survey of the Project road revealed the following observations;</p> <ul style="list-style-type: none"> • Scarified and milled bitumen was dumped in shoulder and ROW of the Project site at many locations; • Septic tanks at toll Plaza 2 were found damaged and water over flowing on the land causing contamination; • Improper solid waste collection and disposal system at Toll plaza; burning of solid waste was also observed; • Waste collected from road side maintenance activities was found to be disposed within RoW; • Toilet at rest area and wayside amenities without regular maintenance or cleanliness; • There is no mechanism to measures the utilization of water resources for the Project. Bore well used for ground water abstraction are not fitted with water meter; • No liter bins at bus bays and way side amenities; • DG sets at three toll plazas was found to be operated without adequate stake height; • Rain water harvesting structures/pits reportedly have not been developed along the corridor; • Poor maintenance of the carriageway with respect to domestic waste, debris and litter; • Multi-axle vehicles were observed to ply on the road and a some of them were cited to be parked inside the carriageway at number of locations causing safety hazards to road users; • The project does not calculate, estimate and account for the GHG emissions due to the mobile sources of transportation, based on the average number of motorized vehicles plying on the road on monthly and annual basis; • Domestic wastewater from kitchen at Project Camp in Edoni village was found directly discharge to ground and causing contamination of land; • Spillage of DG set oil and oil and grease stains has been found at number of location within Project camp;; 	<ul style="list-style-type: none"> • Scarified and milled bitumen should be removed and either reused or stored safely at designated storage site for future use; • Septic tanks should be periodically emptied and maintained and damaged septic tanks should be repaired an urgent basis; • Collection of solid waste at toll plaza should be collected in waste collection bins and disposed through municipal collection system; • Practice of waste burning should stopped immediately; • GMR OSE should ensure cleaning of the roadside and median regularly to avoid dumping and minimizing of road side waste. • Waste from the median and the RoW should be regularly removed and maintained by the sub-contractors. GMR OSE should ensure the regular monitoring of the sub-contractor activities. 	Moderate

Sr. No	Aspects	Description	Analysis & alignment with applicable standards.	Risk Rating
		Improper collection and disposal of domestic solid waste generated from Project camp with waste being burned has been observed.		
10	Natural Habitats	On the basis of site visit, documents reviewed and consultation with Project team and regulatory certificates issued to the project, ERM does not find triggers for critical habitat for the road corridor.	-	Low
11	Indigenous peoples, tribes and communities	The road corridor does not fall under Schedule V area and there was no impact reported on any cultural heritage in general and of IPs in particular in the area.	-	Acceptable
12	Cultural Heritage	There was no impact reported on any cultural heritage in general and of IPs in particular in the area.	-	Acceptable

5.2

PROJECT CATEGORIZATION

5.2.1

RATIONALE FOR CATEGORIZATION

The projects are screened using 12 key environment and social criteria, which covers IFC PS-1 to 8 (see table below).

Sl. No	E&S Criteria	Relevant IFC PS
1	Litigation	PS-1
2	Protests	
3	Assessment and Management of Environment and Social Risks and Impacts	
4	Stakeholder/Community Engagement	
5	Grievance Mechanism	
6	HR/ Contractor Management	PS-2
7	Health and Safety	PS-2 and PS-4
8	Pollution Prevention	PS-3
9	Resettlement Action Plan (RAP)	PS-5
10	Natural Habitat	PS-6
11	Indigenous Peoples	PS-7
12	Cultural Heritage	PS-8

The overall risk or compliance ratings for these key screening criteria was assigned using the definitions below.

Significant Gap	Material issue with potential severe consequences and limited opportunities of correcting, leading to operations shut down or triggering of IFI's accountability mechanism (e.g. CAO/Ombudsman, CEIU, Inspection Panel, etc.).
H	Material regulatory and/or policy non-compliances that may: <ul style="list-style-type: none"> <i>induce temporary business interruption, and/or</i> <i>induce a material cost, and/or</i> <i>significantly affect sensitive (IP, vulnerable, protected area, C/N habitat, water source, etc.)receptors,</i> <i>induce community opposition that may damage Owner's reputation.</i> <i>Contradict the intent of the applicable standards (e.g. compensation at replacement value, non-titled land users, no-net loss/net gain of biodiversity, broad community support, etc.)</i> <i>Have residual impact not acceptable as per applicable standards and with a low likelihood to remediate</i> Severe cases may affect business continuity and/or trigger Lender's compliance mechanism
M	Regulatory permitting non-compliance, which may result in non-material rectification cost or fine, and is unlikely to result in the short term in business discontinuity in current regulatory enforcement context. Residual impact not in line with applicable standards and likelihood to remediate high
L	Legal non-compliance, which may result in minor cost or only requires management time to address the issue. Or opportunity for improvement. Residual impact could be considered acceptable as per applicable standards and necessity to remediate low
A	Acceptable performance and compliance to IFC PS Requirements

5.2.2

SCREENING OF CRITICAL HABITAT

The project road does not pass through any ecological sensitive areas like, national park, wild life sanctuary, tiger reserve, biosphere reserves, lakes and wet lands. However, Tungabhadra dam and Gunda Reserve forest (RF) is located at the end of the Project stretch (298+500 to 299+200). Daroji Bear Sanctuary is the nearest protected area located approximately about ~20 km (Areal distance) from the Project road towards. Their boundaries were sufficiently away from the road corridor.

Further, the road was involved diversion of 1.9 ha of Gunda forest land located at Chainage 298+500 to 299+200 and the permission for the same has been accorded by Department of Forest Karnataka, Bellary Forest Division dated 28 December 2012. As per the EIA/EMP report developed for the Project, this does not have any critical habitat.

On the basis of site visit, documents reviewed and consultation with Project team and regulatory certificates issued to the project, ERM does not find triggers for critical habitat for the road corridor.

5.2.3

SCREENING OF PS-7 AND FREE PRIOR INFORMED CONSENT (FPIC)

The road passes through three districts of Karnataka namely, Bellary, Bagalkot and Koppal. None of these districts fall under Schedule V areas. It was reported during consultations with the NHAI office, GMR OSE and the local community, that there are no significant presence of Scheduled Tribes in the project stretch and the presence of Scheduled Caste groups in the area is very limited.

The project has neither led to relocation of Indigenous Peoples nor impacted lands and natural resources subject to traditional ownership or under customary use. In light of the above and based on the information shared by OSE, we conclude that FPIC does not trigger.

5.2.4

CATEGORIZATION OF THE ROAD

Table below provides our findings of our screening of these criteria for the - Hungund-Hospete road.

Table 5-2 *Project categorisation screening for Hungund-Hospete Road*

Criteria	Findings
Years in Operation	Project received COD on May 2014. Hence, it is operational for 3+ years. (See Section 3.1.2 for more details)
Status of Land Acquisition	The land acquisition process for 206.02 ha of land required for the project was initiated in year 2010 following which NHAI has taken possession of the land for construction. 3G notifications for the land parcels acquired for the road stretch has been published from 2011-2013 for various land parcels. It was understood during consultations with NHAI PD office, Hospete that the entire amount for the compensation has been deposited with the Land

Criteria	Findings
	Acquisition office by NHAI. The total value deposited for compensation was Rs.43.51 Crores and the amount disbursed till date is INR 42.98 Crores which constitutes 98.78% of the total compensation (included compensation payable for acquired Government Land). Therefore, the land acquisition process is treated as completed.
	It was understood from NHAI office, Hospete that there are numerous pending arbitrations with respect to compensation enhancement. There were 419 pending arbitration cases before the arbitrator as on Sept. 2017. These cases are expected to be decided on their merit in due course and NHAI would pay the additional compensation if any.

The road is operating for more than 2 years, and the land acquisition proceedings (u/s 3A to 3H of NH Act) are complete and most of the project affected persons have received their compensation, the road would fall in 'Category-1'. The current overall risk ratings for each of the screening criteria as well as risk ratings expected after implementation of ESAP is provided below.

IFC PS	Screening Criteria	Current Risk Rating	Risk Rating After ESAP Implementation
PS-1	1. Litigation	Moderate	Low
	2. Other risks- Protests	Acceptable	Acceptable
	3. Assessment and Management of Environment and Social Risks and Impacts	Moderate	Acceptable
	4. Stakeholder/Community Engagement	Moderate	Acceptable
	5. Grievance Mechanism	Low	Acceptable
PS-2	6. HR/ Contractor Management	Moderate	Acceptable
PS-2 & 4	7. Health & Safety	Low	Acceptable
PS-3	8. Pollution Prevention	Moderate	Acceptable
PS-5	9. Resettlement Action Plan (RAP)	Moderate	Low
PS-6	10. Natural Habitats	Low	Acceptable
PS-7	11. Indigenous peoples, tribes and communities	Acceptable	Acceptable
PS-8	12. Cultural Heritage	Acceptable	Acceptable
Overall Site Ranking		Moderate	Acceptable

Thus, the overall current risk rating of the road is "Moderate" which would be reduced to "Acceptable" level after implementation of ESAP recommended in Chapter-6 of this report.

Keeping the magnitude of the environment and social action impacts, the recommended Environment and Social Corrective Action Plan (E&S CAP) is provided in Table below *Error! Reference source not found..*

Table 6-1 Environmental and Social Corrective Action Plan

No.	Applicable Standard (regulatory requirement, IFC PS, WBG EHS Guideline, etc.)	Specific Gap	Recommendation	Priority	Responsible Person / Function	Deadline / Project Cycle Phase	Completion Indicator	Cost Estimate of corrective actions / liabilities
1	Legal or Regulatory Compliance	The Project has commissioned number of bore wells at different locations such as toll plazas, wayside amenities and Project site camp (at Edoni village). The project SPV has obtained NOC from respective village panchayat. However, SPV has not obtained NOC from Central groundwater authority (CGWA)	Approval for bore wells should be obtained before 30 June 2018 as per the CGWA notification dated 19 July 2017 and 1 January 2018 for existing groundwater users including Industrial, infrastructure and mining Projects;	High	GMR OSE	Within 6 Months	Groundwater Approval from Karnataka Ground Water Authority	Minor cost and Management Time
2	Legal or Regulatory Compliance	The Project site operates number of DG sets for Emergency power requirement and generates waste oil or used oil. The Project site does not have valid authorisation under Hazardous and other wastes (Management and Transboundary Movement) Rules 2016 for HW generated at the site.	As per the Hazardous and other wastes (Management and Transboundary Movement) Rules 2016, the Project site required to obtain HW Authorisation for used oil generated at site and need to maintain Manifesto Form-10 and also need to file annual return as per Form-4 to KSPCB.	High	GMR OSE	2 Months	Obtained HW authorisation from KSPCB	Minor Cost and Management Time
3	IFC Performance Standard 1 - Assessment and Management of Environmental and Social Risks and Impacts	The following gap has been identified with respect to EMS manual; <ul style="list-style-type: none"> Risk Assessment for life cycle of the Project (Planning, construction, Operation and maintenance phases) ; Risk Management; Employee and Management Training; Contractor Safety management; Safety Monitoring and Enforcement; Community health and Public Safety; and High Risk Activities. No Documented SOP's to implement at either corporate level or SPV Level; 	OSE should update the existing EHMS by a Third Party to include adequate level of details to fully comply to PS-1 Requirements. GMR OSE is recommended to prepare Specific management plans including the following: <ul style="list-style-type: none"> Carriageway solid waste management plan including construction waste; Oil/ chemical spill contingency plan; Storm water management Plan; Avenue and Median Plantation and management plan. 	Medium	GMR OSE	Within 6 Months	ESMS covering life cycle of the project and documented management plans	Minor cost for engaging third party and/or requires management time to address the issue.
4	IFC Performance Standard 3: Resource Efficiency and Pollution Prevention	Scarified and milled bitumen was dumped in shoulder and ROW of the Project site at many locations	Scarified and milled bitumen should be removed and either reused or stored safely at designated storage site for future use;	Medium	GMR OSE	Within 3 Month	Establish milled bitumen storage at designated location	Minor Cost
5	IFC Performance Standard 3: Resource Efficiency and Pollution Prevention	Toilet at rest area and wayside amenities were observed without regular maintenance or cleanliness	Septic tanks should be periodically emptied and maintained and damaged septic tanks should be repaired an urgent basis;	Medium	GMR OSE	Within 3 Month	Maintenance of toilets	Minor Cost
6	IFC Performance Standard 3: Resource Efficiency and Pollution Prevention	Improper solid waste collection and disposal system at Toll plaza; No liter bins at bus bays and way side amenities	<ul style="list-style-type: none"> At bus bays waste collection bin should be provided; Collection of solid waste at toll plaza should be collected in waste collection bins and disposed through municipal collection system; 	Medium	GMR OSE	Regular continuous basis	Provision of litterbins at bus bays, wayside amenities and toll plaza, records indicating regular collection and disposal to solid waste land fill site. Undertake cleaning of road side and median on regular basis	Minor Cost
7	IFC Performance Standard 3: Resource Efficiency and Pollution Prevention		Waste from the median and the RoW should be regularly removed and maintained by the sub-contractors. GMR OSE should ensure the regular monitoring of the sub-contractor activities.	Medium	GMR OSE	Regular continuous basis	Contract Agreement and internal monitoring records.	Minor cost in regular median maintenance

¹ MLC - "Most Likely Case"; RWC - "Reasonable Worst Case"; Where 'minor costs' is been stated, this indicates a figure less than USD25,000 and management/personnel time.

8	IFC Performance Standard 4: Resource Efficiency and Pollution Prevention	Burning of solid waste was observed	Practice of waste burning should stopped immediately;	Medium	GMR OSE	Immediate	Records of awareness programme/ office memo to workers on prevention of burning of wastes	Management Time
9	IFC Performance Standard 4: Land Acquisition and Involuntary Settlement	206.02 ha of land has been acquired by NHAI for the project and only about 71% of the compensation has been distributed. There are about 419 cases still pending before the Arbitrator for NHAI.	Follow up with NHAI to ensure that all compensation claims are settled.	High	GMR OSE	Ongoing	Completed compensation and resettlement status from NHAI	Management Time
10	IFC Performance Standard 4: Community Health and Safety	Key community health and safety related issues observed includes <ul style="list-style-type: none"> Un authorised median opening (Approx. 12 locations) and without proper road safety signage's; Un Authorised speed breakers; Drying of crops/ pulses on the highway at number of locations; No median plantation/fire damaged median plantation area ; Damage to crash barrier; Damaged sign boards; Non-working of solar blinkers; 	<ul style="list-style-type: none"> Un authorized median openings and speed breaker should be closed/ removed; Awareness programme on drying of crops on the carriageway to community to be conducted on regular basis; Damaged Crash barrier/ signboards and solar blinkers should be rectified on urgent basis 	High	GMR OSE	Regular continuous basis	Physical verification and documentation on the implementation of safeguard measures	Minor cost for closing of median and management time for awareness programme
11	IFC Performance Standard 6: Biodiversity Management and Conservation of Living Natural Resources	<ul style="list-style-type: none"> During the site visit, it was observed that roadside vegetation and the median plantation along the project corridor was improperly maintained; the median was found to be less or no vegetation at number of locations; <p>The grass present in the median is found dried and exposed to fire through a cigarette thrown by the road users and damage to median plantation;</p>	Grass and weeds present in the median should be regularly removed or trimmed to avoid drying; Median plantation in fire damaged area should be undertaken again and regular watering and maintenance ensured.	Medium	GMR OSE	Regular Basis	Physical Verification	Minor cost in frequent weed removal

Annex A

Documents Reviewed
by ERM for this ESDD

Annexure-A: List of Documents Reviewed by ERM for this ESDD

<i>Title of the Document</i>	<i>Date/Year</i>	<i>Source/Department</i>
Environment Clearance for the four laning of Bijapur to Hospet section of NH-13 in the state of Karnataka under NHDP Phase II;	25 June 2008	Ministry of Environment and Forest
Consent for Establishment for widening of NH-13 (From existing 2 land to 4/6 lanes) from Bijapur to Hospet from chainage 102 km to 299 km respectively for length of 197 km by National Highway authority of India	25 May 2010	Karnataka State Pollution Control Board
Tree cutting permission from office of the Deputy Conservator of Forest, Koppal Forest Division, Karnataka Forest Department	30 July 2012	Karnataka Forest Department
Tree cutting permission from office of the Deputy Conservator of Forest, Koppal Forest Division, Karnataka Forest Department	19 August 2011	Karnataka Forest Department
Sanction for 1.9 ha forest land and Tree cutting permission from office of the Deputy Conservator of Forest, Bellari Forest Division, Karnataka Forest Department	19 January 2011	Karnataka Forest Department
Sanction for 1.9 ha forest land and Tree cutting permission from office of the Range forest Office, Hospet Range, Karnataka Forest Department	28 August 2012	Karnataka Forest Department
Consent to operate stone crusher at Edoni village, Koppal District	30 May 2017	Karnataka State Pollution Control Board
Consent to operate Batching Plant at Edoni village, Koppal District	05 May 2017	Karnataka State Pollution Control Board
Consent to operate Hot Mix Plant at Edoni village, Koppal District	25 October 2017	Karnataka State Pollution Control Board
License to storage of Gas cyclinder, Kustagi, Koppal District	6 January 2018	Bharat Petroleum Corporation Limited
Permission to commission DG set at Kerehalli toll Plaza, Koppal	30 October 2017	Government of Karnataka, Deputy Electrical Inspectorate, Koppal
Emergency Response Plan	-	GMR OSE
Environmental Monitoring (Air and Water quality)	28 December 2017	Premier Analytical Laboratories
Permit for quarrying	8 September 2010	Department of mines and Geology, Govt. of Karnataka
NOC for water withdrawal Hosahalli village	24 May 2011	Hosahalli village Panchayat
Median and avenue plantation details	28 July 2016 and 01 November 2016	GMR OSE
Concession Agreement Part-1 and Part II	22 March 2010	NHAI
Detailed Project Report (part -1)	December 2010	Span Consultant
Punch list	31 January 2013	GMR OSE
Monthly Progress report	January 2018	STUP Consultant Pvt Ltd
Accident and Incident details	January 2018	GMR OSE
EMS Manual	-	OAW
ROW Details and Strip Chart	-	GMR OSE
COD Report (Letter only)	14 May 2014	SMEC Consultant
Sub-contract work order and agreement for supply of water with Contractor - M/s Nalwadi		GMR OSE
ESI Registration	17 August 2016	GMR OSE

EPF and ESIC Details	November 2017	GMR OSE
Security Licence	02 November 2011	Nalvadi Securities Nalvadi Seizing and Security Agency
Customer Feedback Form		GMR OSE
Human Resource Manual		GMR OSE
Labour Licences: Principal Employer Licence	05 January 2017	GMR OSE
Contract Labour Licence	12 May 2017	Nalvadi Seizing and Security Agency
Summary of Yearwise progress of Arbitration	22 July 2017	NHAI Office, Hospet

Annex B

IFC PS Screening and Assessment Protocol

Annex-B: Screening Checklist for Issues Covered in IFC Performance Standards, 2012.

Project and Its Area of Influence	
Project Proponent	GMR OSE Hungund Hospet Highways Pvt Ltd (GMR OSE) GMR OSE Hungund Hospet Highways Pvt Ltd (hereinafter referred to as "GMR OSE") was incorporated as a Special Purpose Vehicle (SPV) promoted by a consortium formed between M/s GMR Highways and Oriental Structural Engineers Pvt for improvement, operation and maintenance including strengthening and widening of the existing two-lane road to four-lane dual carriageway from km 202.000 – km 299.000 of NH-13 (Hungund-Hospet section) in the state of Karnataka on a Build, Operate and Transfer (BOT) basis.
Project Summary	The project involves improvement, operation and maintenance including strengthening and widening of the existing two-lane road to four-lane dual carriageway from km 202.000 – km 299.000 of NH-13 (Hungund-Hospet section) in the State of Karnataka. GMR OSE has entered into an agreement with NHAI to construct, Operate and Maintain the proposed road for the horizon period of 20 years.
Area of Influence (PS-1:8)	Project includes four-lane carriageway of 97 km. project required acquisition of 656 ha of land – private and government. The land required for the project came from 3 districts of Karnataka.
Major Sub-contractors (PS-1: 9)	O&M is entirely undertaken by GMR OSE. Sub-contracted activities include security and maintenance.

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
PS-1: ESH Management System					
1.1	PS-1: 5	Management System	The client will establish and maintain an ESMS appropriate to the nature and scale of the project and commensurate with the level of its environmental and social risks and impacts. The ESMS will incorporate the following elements: (i) policy; (ii) identification of risks and impacts; (iii) management programs; (iv) organizational capacity and competency; (v) emergency preparedness and response; (vi) stakeholder engagement; and (vii) monitoring and review.	<p>OSE has a documented Environmental Management Manual at Corporate Level which is applicable at SPV level as well. The EMS manual defines the EHS policy, roles and responsibility at various levels including Director, Toll Plaza head, maintenance head, Site HR and employees. EMS manual captured the key emergency situation and preparedness plan along with emergency contact number at different toll plazas. The following gap has been identified with respect to EMS manual;</p> <ul style="list-style-type: none"> • Impact Assessment for life cycle of the Project (Planning, construction, Operation and maintenance phases) ; • Employee and Management Training; • Contractor Safety management; • Safety Monitoring and Enforcement; • Community health and Public Safety; and 	<p>OSE should update the existing EHMS by a Third Party to include adequate level of details to fully comply to PS-1 Requirements.</p> <p>Please refer to SL no. 1.2 through 1.10.</p>

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				<ul style="list-style-type: none"> • High Risk Activities. • No Documented SOP's to implement at either corporate level or SPV Level; <p>National Highways authority through a design consultant has developed a Detailed Project Report (DPR) in December 2010. Vol. IV (a) of the DPR is an Environmental Impact Assessment and Environment Management Plan (EMP) for Package -2 from Km 202.000 to Km 299.000. Reportedly the EMP was implemented during the Construction phase; the EMP lacks the following management applicable for O&M phase</p> <ul style="list-style-type: none"> • Carriageway Waste Management Plan; • Oil/Chemical Spill Contingency Plan; • Storm Water Management Plan; • Solid and hazardous waste management plan • Avenue/Median Plantation & Maintenance Plan <p>As part of the assessment, observations with respect to EHS Management system, Project Level Procedures, and gaps evaluated during site visit have been presented in 1.2 (onwards) through 1.10. Requirements of PSI for policy, identification of risks and impacts, management programs, organizational capacity and competency, emergency preparedness & response, stakeholder engagement, and monitoring & review have been presented in 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, 1.9 and 1.10 respectively.</p>	
1.2	PS-1: 6	Policy Framework	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. The policy should be consistent with the principles of the Performance Standards and applicable laws.	Environment, health and safety (EHS) Policy: GMR OSE has established an overarching ESG policy at the corporate level, and is applicable to HHHPL, the policy outlines OSE commitment towards statutory compliance, Improve the employee awareness on environmental matters, Undertake regular reviews of the Environmental Aspects and Impacts Register, recording and reviewing incidents and accidents, establishing emergency plans, ensure suppliers, contractors, subcontractors and visitors operate in accordance with this Policy, and Ensure safe working conditions and healthy environment for our employees.	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				Policy was seen displayed at various locations at all the three Toll Plazas	
1.3	PS-1: 7	Identification of Risk and Impacts	The type, scale, and location of the project guide the scope and level of effort devoted to the risks and impacts identification process. The process may comprise a full-scale environmental and social impact assessment, a limited or focused environmental and social assessment, or straightforward application of environmental siting, pollution standards, design criteria, or construction standards. If assets to be developed, acquired or financed have yet to be defined, the establishment of an environmental and social due diligence process will identify risks and impacts at a point in the future when the physical elements, assets, and facilities are reasonably understood. The risks and impacts identification process will consider all relevant environmental and social risks and impacts of the project, including the issues identified in Performance Standards 2 through 8.	<p>Environmental Impact Assessment: As per EIA Notification, 2006, National Highway Projects involving widening required EIA for “Expansion of National High ways greater than 30 KM, involving additional right of way greater than 20m involving land acquisition and passing through more than one State” require to obtain an EC from the MoEF. The project has undertaken an Environmental Impact Assessment study (as part of Detailed Project Report (DPR) study), and subsequently received an Environmental Clearance from the Ministry of Environment and Forests vide letter No.5-97/2007-IA-III dated 25 June 2008 for the combined package I Bijapur to Hungund and Package II Hungund to Hospet (Chainage 102.000 to 299.000). Based on a review of EIA and site overview, the following key Environmental and Social impacts (relevant to the operation phase of the project) have been identified and managed: the EMP lacks the following management applicable for O&M phase</p> <ul style="list-style-type: none"> o Carriageway Waste Management Plan; o Oil/Chemical Spill Contingency Plan; o Storm Water Management Plan; o Solid and hazardous waste management plan o Avenue/Median Plantation & Maintenance Plan <p>Considerations of alternatives is an integral part of any highway design Project which covers the environmental, ecological and social aspects such as eccentric, concentric widening, provision of bypass, under passes, flyover etc. to avoid forest, trees, settlement etc. As reported these alternatives were assessed before the implementation of the project;</p>	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				HHHPL presently do not have any site specific environment and social management system to be implemented at site. The O& M Manual is the key guiding document, but EMP and other social procedures are not integrated or implemented on ground.	
1.4	PS-1: 13-16	Management Programs	<p>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. 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.</p> <p>The management programs will establish environmental and social Action Plans, which will define desired outcomes and actions to address the issues raised in the risks and impacts identification process, as measurable events to the extent possible, with elements such as performance indicators, targets, or acceptance criteria that can be tracked over defined time periods, and with estimates of the resources and responsibilities for implementation.</p>	<p>GMR OSE has established the following management programs to address EHS related issues or risks:</p> <ul style="list-style-type: none"> ○ Emergency preparedness; ○ Risk assessment and disaster management plan; ○ Legal compliance; ○ Waste management; ○ Hazardous waste management; ○ Spill contamination and control plant <p>Although management programs with respect to Environment and H&S aspects have been formally identified and management measures have been established, gaps with respect to implementation of the procedures outlined thereunder for waste management and hazardous waste management have been identified and presented in PS2 and PS3 respectively.</p> <p>The EMS Manual does not include project level management plan for Avenue/Median Plantation Maintenance;</p> <p>Schedule L of CA outlines preparation of O&M manual to be finalised in consultation with the Independent Consultant. The manual to include but not limited to the following aspects:</p> <ul style="list-style-type: none"> • Traffic management plan including the corridor control plan; • Safety management programme including the emergency response protocol; • Environment Management Plan (EMP); • Organisation structure with responsibilities of key personnel; etc. 	<p>HHHPL is recommended to prepare Specific management plans including the following:</p> <ul style="list-style-type: none"> • Carriageway solid waste management plan including construction waste; • Oil/ chemical spill contingency plan; • Storm water management Plan; • Avenue and Median Plantation and management plan.

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				O&M manual prepared for the project provides guidelines, procedures and system for implementation of operation & maintenance of the project. It has section on Health and Safety, Traffic Management and EMP. However, EMP is limited to pollution control measures, environmental pollution monitoring during construction period, redevelopment of borrow areas, planting and maintenance of trees. Specific Environment and Social Management plans to be implemented at site during operation and maintenance phase have not been prepared.	
1.5	PS-1: 17-19	Organizational Capacity	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. Personnel will also possess the knowledge, skills, and experience to implement the specific measures and actions required under the ESMS and the methods required to perform the actions in a competent and efficient manner.	<ul style="list-style-type: none"> • There is no separate/ dedicated vertical or resource in the organisation structure of HHHPL for environment and social. Responsibilities. • Consultations with the project head indicated that technical team possesses the required knowledge (concerning environmental and social regulations), skills (networking with NHAI and district administration and dovetailing with existing government programmes and schemes) and experience to perform/ undertake environmental and social responsibilities for the project. 	<p>EHS management at corporate level (OSE), and project level (HHHPL): Qualified and experienced personnel to be engaged for implementation monitoring and review meet following Criteria:</p> <p>Corporate level, EHS Manager: A graduate in occupational health and safety or related field with a minimum of 8 to 10 years working experience in road and infrastructure projects. The incumbent shall be well versed with good industrial H&S practices and all applicable Environmental related laws.</p> <p>Project level, Supervisor - EHS: graduate / diploma in occupational health and safety or related field with a minimum of 3 to 5 years working experience in road and infrastructure projects.</p>

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
1.6	PS-1: 20-21	Emergency Preparedness and Response	The client will be prepared to respond to accidental and emergency situations associated with the project in a manner appropriate to prevent and mitigate any harm to people and/or the environment. This preparation will include the identification of areas where accidents and emergency situations may occur, communities and individuals that may be impacted, response procedures, provision of equipment and resources, designation of responsibilities, communication, including that with potentially Affected Communities and periodic training to ensure effective response. The emergency preparedness and response activities will be periodically reviewed and revised, as necessary, to reflect changing conditions.	<p>GMR OSE has a system that acts in emergency situations however they have not prepared an Emergency Preparedness Plan (ERP). It has displayed the procedural chart of activities to be undertaken and authorities to be approached during an emergency situation. The emergency can vary from being a fire situation, an accident on the highway, natural disaster, etc. All the emergencies including accidents. are handled by route patrolling team with the help of ambulance and paramedic available at all the three toll plazas according to the proximity of the accident site. The CRO will receive a call from the location of emergency occurrence, informing him about the incidence. The officer then will arrange for an appropriate means of response, which may include calling an ambulance, providing first aid, providing the fire tender vehicle and informing the police etc.</p> <p>Emergency helpline number is displayed at various locations along the entire road stretch.</p> <p>Emergency contact numbers including number of police, ambulance, nearest hospital, fire station, etc. was seen displayed at Control Centre.</p> <p>It was reported that on an average response time is 20 minutes. However, it was noted that response time is not noted in the logbook maintained with ambulance.</p> <p>First aid kits are present at both the Toll Plazas.</p> <p>Fire extinguishers, sand buckets, s is present at all the three Toll Plazas.</p>	The response time for each incident to be noted in the logbook maintained with ambulance.
1.7	PS-1: 25-33	Stakeholder Engagement	Clients should identify the range of stakeholders that may be interested in their actions and consider how external communications might facilitate a dialog with all stakeholders. The client will develop and	<ul style="list-style-type: none"> GMR has a CSR Policy, however very limited stakeholder engagement and CSR activities is being conducted by GMR OSE. Presently, GMR OSE donates books and other materials to local schools and as part 	GMR OSE should identify all internal and external stakeholders and prepare a stakeholder engagement plan

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			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.	of safety week conducts a week long safety program for users and community.	that would guide the frequency and mode of communication with the stakeholders
1.8	PS-1: 34-35	External Communication & Grievance Mechanisms	Clients will implement and maintain a procedure for external communications that includes methods to (i) receive and register external communications from the public; (ii) screen and assess the issues raised and determine how to address them; (iii) provide, track, and document responses, if any; and (iv) adjust the management program, as appropriate. In addition, clients are encouraged to make publicly available periodic reports on their environmental and social sustainability.	GMR OSE maintains a complaint and feedback register for the toll users as mandated by NHAI. The actions taken and closure of the complaints are also being documented by GMR OSE. Review of the complaints register indicated that most of the complaints were related to road safety, toll fee, toilet facilities etc. <ul style="list-style-type: none"> No documentation pertaining to community engagement is being maintained by GMR OSE. The toll free number to contact toll plaza office in case of any emergency has been shared with all villages along the project stretch. 	
1.9	PS-1: 22-24	Monitoring and Review	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. Where the government or other third party has responsibility for managing specific risks and impacts and associated mitigation measures, the client will collaborate in establishing and monitoring such mitigation measures. Where appropriate, clients will consider involving representatives from Affected Communities to participate in monitoring activities. The extent of monitoring should be commensurate with the project's environmental and social risks and impacts and with compliance requirements. Senior management in the client organization will receive periodic performance reviews of the effectiveness of the ESMS, based on systematic data collection and analysis.	It was reported that CEO visits project site on a monthly basis to monitor and review the implementation of management at site. However, records were not made available for review. <p>Management programme those are incorporated in CA are regularly monitored and progress on the same is presented in the form of Monthly Progress Report (MPR) and quarterly Progress report (QPR) to the Independent Engineer for further review and comments.</p>	OSE at the corporate level is required to establish monitoring and review procedures for effective supervision of EHS implementation by OSE/HHHPL staff and its subcontractors. <p>These shall be the responsibilities of EHS Manager and the EHS Supervisor.</p> <p>The procedure shall include the following requirements:</p> <ul style="list-style-type: none"> Establishing parameters for supervision on all aspects outlined in the SOPs or Environment Management Manual;

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
					<ul style="list-style-type: none"> - Establish an audit schedule for bi-annual internal audits to be conducted at each of its SPVs including OSE; - Establish reporting formats for providing corrective actions for gaps identified during the audit; - Procedures for review of closure for implementation of corrective actions.
1.10	PS-1: 36	EHS Performance Reporting	The client will provide periodic reports to the Affected Communities that describe progress with implementation of the project Action Plans on issues that involve ongoing risk to or impacts on Affected Communities and on issues that the consultation process or grievance mechanism have identified as a concern to those Communities.	HHHPL does not have any system or procedure to report EHS related issues as part of O&M related activities except Median or avenue plantations.	Annual EHS Performance Report should be prepared to supplement the Annual Report.
Labour Rights and Working Conditions					
2.1		Employees (Direct Employees Indirect Employees, Other Temporary)	The scope of application of this Performance Standard depends on the type of employment relationship between the client and the worker. It applies to workers directly engaged by the client (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)	GMR OSE has a total of 180 direct employees which are stationed at the project office / toll plaza offices. Another 300 employees and workers have been hired through the sub-contractor M/s Nalwadi Pvt Ltd which includes Security personnel and Toll collectors. Each toll plaza has a similar staff profile which includes: Toll Plaza Manager, Assistant Manager, Admin & HR, Assistant Manager, IT Systems, Assistant Manager, Finance & Account, toll collectors etc. Route Maintenance has also been sub-contracted to M/s Nalwadi Pvt Ltd who have about 35 maintenance workers under their labour contractor. A formal contractual agreement is entered between the company and the contractors for providing security labour and workforce.	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				There are 12 gunmen and another 12 watchmen across the three toll plaza who have been hired through M/s Nalwadi.	
2.2	PS-2: 7-8	Human Resource Policies and Procedures	The client will adopt and implement human resources policies and procedures appropriate to its size and workforce that set out its approach to managing workers consistent with the requirements of this Performance Standard and national law. The client will provide workers with documented information that is clear and understandable, regarding their rights under national labor and employment law and any applicable collective agreements, including their rights related to hours of work, wages, overtime, compensation, and benefits upon beginning the working relationship and when any material changes occur.	There is an HR Team at corporate level as well as a dedicated HR staff at the project site to take care of workers issues. The HR officer oversees the implementation of Indian statutory requirements pertaining to labour, labour welfare and disputes. GMR OSE has an HR Manual which is applicable to its employees. ERM observed a satisfactory level of labour for GMR OSE staff and skilled man-power.	•
2.3	PS-2: 9	Working Conditions	The client will provide reasonable working conditions and terms of employment	<p>The general working shift is from 9:00 hrs to 17:00 hrs. The toll plaza operations are run in three shifts:</p> <ul style="list-style-type: none"> ○ Shift A- 08:00 hrs to 16:00 hrs ○ Shift B- 16:00 hrs to 12:00 hrs ○ Shift C- 12:00 hrs to 08:00 hrs <p>The security workers have two shifts of 12 hours each. GMR OSE has a system of relievers and hence, instances of overtime payments do not occur regularly. However, if any worker working overtime (more than 9 hours a day) is paid the due overtime payment of double of the hourly rate calculated at gross levels.</p> <p>An attendance register for employees and muster roll for contract workers is maintained at toll plaza offices for tracking attendance and in-time and out-time of employees. A formal Grievance Redressal Mechanism for employees and contract workers does not exist. It was reported that site senior management is directly approachable and any person can directly contact his/her</p>	<p>GMR OSE should formulate an Employee Grievance Redressal Mechanism which should contain procedures to register, receive, resolve and communicate grievances and their resolutions.</p> <p>Notice boards highlighting key labour laws and rights of workers should be displayed at toll plaza offices</p>

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				<p>own supervisor, site in charge or approach the project head directly. Grievance records are not maintained by GMR OSE. Drinking Water is provided through local mineral water vendors at each of the toll booths.</p> <p>Wage register is maintained by contractors and sample wage registers for some contractors were reviewed by ERM team. It included basic wages, PF amount and was duly signed by its workers. The wages for daily wage workers were observed to as per the Minimum Wage requirements as laid down by Karnataka government for the year 2017-18 and Chief Labour Commissioner in for Road/highway sector significantly w.e.f. April 2017.</p>	
2.4	PS-2: 11	Migrant Workers	The client will identify migrant workers and ensure that they are engaged on substantially equivalent terms and conditions to non-migrant workers carrying out similar work.	It was reported that no migrant workers are currently engaged.	•
2.5	PS-2: 12	Workers Accommodation	Where accommodation services are provided to workers covered by the scope of this Performance Standard, the client will put in place and implement policies on the quality and management of the accommodation and provision of basic services. The accommodation services will be provided in a manner consistent with the principles of non-discrimination and equal opportunity. Workers' accommodation arrangements should not restrict workers' freedom of movement or of association.	Employees of GMR OSE who are from outside of the area are provided guest house facilities within the toll plaza office space.	
2.6	PS-2: 23	Occupational Health and Safety	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	<p>Dedicated safety officer is not deployed for the project.</p> <p>It was reported that training on EHS aspects, safety sign awareness and road safety, personal protective equipment is conducted; however, records were not made available for review.</p>	A dedicated person with requisite qualification and experience to be engaged for the project to enable concessionaire to meet O&M requirement which include safety of persons deployed and users of the project facility.

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			<p>by minimizing, as far as reasonably practicable, the causes of hazards. In a manner consistent with good international industry practice, as reflected in various internationally recognized sources including the World Bank Group EHS Guidelines, the client will address areas that include the</p> <ol style="list-style-type: none"> (i) identification of potential hazards to workers, particularly those that may be life-threatening; (ii) provision of preventive and protective measures, including modification, substitution, or elimination of hazardous conditions or substances; (iii) training of workers; (iv) documentation and reporting of occupational accidents, diseases, and incidents; and (v) emergency prevention, preparedness, and response arrangements. 	<p>It was noted that Safety Jackets, Helmets and Gloves are issued to the labour engaged for O&M activities and records are maintained on site.</p> <p>First aid and firefighting arrangement is available at both the Toll Plazas.</p> <p>It was noted that incident/ accident reporting is only limited to road accidents and does not cover incidents/ accidents occurring during maintenance or site work.</p> <p>Flow chart depicting emergency response plan for booth/ tunnel was seen displayed at Control Room, and staff were observed to be aware of the measures to be followed in case of an emergency.</p>	<p>Adequate number of trainings to be conducted (both labour and staff) and records to be maintained.</p> <p>Accident/ incident register for routine maintenance activities to be maintained at both the Toll Plazas.</p>
2.7	PS-2: 21-22	Prohibitory Labour Practices- Child and Forced Labour	<p>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. Where national laws have provisions for the employment of minors, the client will follow those laws applicable to the client. Children under the age of 18 will not be employed in hazardous work. All work of persons under the age of 18 will be subject to an appropriate risk assessment and regular monitoring of health, working conditions, and hours of work.</p> <p>The client will not employ forced labor, which consists of any work or service not voluntarily performed that is exacted from an individual under threat of force or penalty. This covers any kind of</p>	<ul style="list-style-type: none"> • No child labour or bonded labour was reported at any of the work sites, and at the toll plazas visited. 	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor-contracting arrangements. The client will not employ trafficked persons.		
2.8	PS-2: 13-14	Workers Organization	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. The client should not seek to influence or control these mechanisms	It was reported that none of the employees of GMR OSE are part of any union. Discussions with corporate management indicated that the company does not encourage unionisation or workers forming a forum for collective engagement though this is not officially stated. The workers too reported that they never felt any need for unionization.	
2.9	PS-2: 20	Grievance Mechanism	The client will provide a grievance mechanism for workers (and their organizations, where they exist) to raise workplace concerns. The mechanism should not impede access to other judicial or administrative remedies that might be available under the law or through existing arbitration procedures, or substitute for grievance mechanisms provided through collective agreements.	A formal Grievance Redressal Mechanism for employees and contract workers does not exist. It was reported that site senior management is directly approachable and any person can directly contact his/her own supervisor, site in charge or approach the project head directly. Grievance records are not maintained by GMR OSE	GMR OSE should formulate an Employee Grievance Redressal Mechanism which should contain procedures to register, receive, resolve and communicate grievances and their resolutions.
2.10	PS-2: 24-26	Workers Engaged by Third Parties	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 them to operate in a manner consistent with the requirements of this Performance Standard, except for paragraphs 18-19 (Retrenchment), and 27-29 (Supply Chain).	As reported by the site management, the company recruits security workers and median and RoW maintenance workers on a contractual basis through M/s Nalwadi Private Limited who is reported to be experienced in labour management. A formal contractual agreement is entered between the company and the contractors for providing security labour and workforce. The sub-contractor does not have documented HR Policies but is compliant with legal requirements pertaining to health & safety and labour rules and regulations. The HR personnel of GMR OSE also checks for sub-contractor legal compliances before releasing payments to the contractor.	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
2.11	PS-2: 27-29	Labour Rights in Supply Chain	The client will monitor its primary supply chain on an ongoing basis in order to identify any significant changes in its supply chain and if new risks or incidents of child and/or forced labor are identified, the client will take appropriate steps to remedy them. Additionally, where there is a high risk of significant safety issues related to supply chain workers, the client will introduce procedures and mitigation measures to ensure that primary suppliers within the supply chain are taking steps to prevent or to correct life-threatening situations.	GMR OSE sources its raw materials from various suppliers located in the area. Main items procured are water tankers; maintenance works materials like cement, soil, sand etc. There are no formal contractual agreements for locally sourced materials.	
PS – 3: Pollution and Resource Efficiency					
3.1	PS-3: 1-2	Requirements under laws of the nation	The client need to comply with applicable national law [e.g., The Water (Prevention and Control of Pollution) Act, 1974; Noise Pollution (Regulation and Control) Rules, 2000; The Air (Prevention and Control of Pollution) Act, 1981; Karnataka Tree rules and; Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016]	The project has obtained environmental clearance, forest clearance, NOC from KSPCB, and other permits under schedule E of CA and they confirm to the local and national consideration established by the Governments. Reportedly, the Project has submitted periodical compliance report to the regulatory authority as per the requirement through NHAI; however these documents were not made available for review and during operation phase for Hot Mix plant by subcontractor. Refer to Section 2.3 of ESDD report for detailed information. Hazardous waste Authorization: As per Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016, every occupier of a facility engaged in handling, generation of the hazardous and other wastes is required to obtain a Hazardous waste authorization. HHHPL has not obtained the same from the Karnataka State Pollution Control Board. Groundwater extraction Approval	Approval for bore wells should be obtained before 30 June 2018 as per the CGWA notification dated 19 July 2017 and 1 January 2018 for existing groundwater users including Industrial, infrastructure and mining Projects; As per the Hazardous and other wastes (Management and Transboundary Movement) Rules 2016, the Project site required to obtain HW Authorisation for used oil generated at site

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				The Project has commissioned number of bore wells at different locations such as toll plazas and truck lay bye. The project SPV has obtained NOC from respective village panchayat. However, SPV has not obtained NOC from Central groundwater authority (CGWA)/ Karnataka groundwater Authority (KGWA)	
3.2	PS-3: 4-5	WBG EHS Guidelines	The principles and techniques applied during the project life-cycle will be tailored to the hazards and risks associated with the nature of the project and consistent with good international industry practice (GIIP), as reflected in various internationally recognized sources, including the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines).	HHHPL Project is in operation phase and various issues related to wastewater management, waste management, health and safety management etc are managed as per concession agreement.	-
3.3	PS-3: 6-7	Resource Efficiency- Greenhouse Gasses	<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. 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> <p>For projects that are expected to or currently produce more than 25,000 tonnes of CO2-equivalent annually, the client will quantify direct emissions from the facilities owned or controlled within the physical project boundary, as well as indirect emissions associated with the off-site production of energy used by the project.</p>	<p>The Project is an operational toll road and activities undertaken does not involve consumption of high energy or water or any other material likely to produce more than 25,000 tonnes of CO2-equivalent annually, However, some of the following activities will generate minor GHG emissions (Scope 1).</p> <p>Electricity supply: Electricity demand for the project is primarily met through power supply from state electricity board, and limited to toll plazas and associated office buildings at TP1, TP2 and TP3.</p> <p>Electricity backup: Electricity backup in case of power failure is met through two (06) Diesel Generator units of (2 x 82.5 kVA, 2 x 100 kVA and 2 x 125 kVA). It was reported that the DG unit is only run of a need basis and is limited to 10 to 15 hours a week during power failure.</p> <p>Solar powered Blinkers: HHHPL has installed solar powered blinkers at junctions / bypass lanes at number of locations;</p>	HHHPL should estimate the total GHG emissions in terms of CO2 equivalent that are released from project related activities such as use of vehicles, DG set operation etc.

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				<ul style="list-style-type: none"> The project does not calculate, estimate and account for the GHG emissions due to the mobile sources of transportation, based on the average number of motorized vehicles plying on the road on monthly and annual basis; 	
3.4	PS-3: 9	Resource Efficiency-Water Consumption	When the project is a potentially significant consumer of water, in addition to applying the resource efficiency requirements of this Performance Standard, the client shall adopt measures that avoid or reduce water usage so that the project's water consumption does not have significant adverse impacts on others.	<p>Procedure to measure utilization of water resource for the project is not in place and water consumption records are not maintained at site.</p> <p>Water requirement for the Project is met through Bore wells commissioned as well as through Tanker water. Water requirement for wayside amenities and truck Lay byes is met through bore well as well as tanker supply.</p> <p>For drinking purpose RO is commissioned at each of the toll plaza.</p>	<p>HHHPL should register the well present at different locations including construction camp with the State Ground water Authority and install meter to the well.</p> <p>Should also keep records of water consumption and try taking initiatives to reduce water consumption, if possible.</p>
3.5	PS-3: 10-11	Pollution Prevention	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>D.G. sets installed at the Toll Plazas and at construction site (Camp and flyover construction area) are the main source of gaseous pollutions. D.G sets were observed to be in acoustic enclosure, without adequate stack height.</p> <p>DG set operational at the Construction camp area was found with adequate acoustic enclosure leading high level of noise in the area;</p> <p>Wastewater generated from labour camp has been discharged directly on the land without any safeguard measures;</p> <p>Spillage of oil and contamination of land surface near the DG sets at toll plaza and construction camp</p>	<p>HHHPL to ensure</p> <p>Provision of adequate stack height for DG sets;</p> <p>Provision of acoustic enclosure to operational DG sets;</p> <p>Cleaning of septic tanks on regular basis to avoid over flow, damage if any at septic tank to be rectified;</p> <p>Milled bitumen to be stored at designated storage area;</p> <p>Toilet established at different location to be maintained properly and water supply to be ensured</p>

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				<p>Annual environment monitoring is carried out at site which includes monitoring of ambient air quality, and water quality.</p> <p>All the Toll Plazas have septic tank for treatment of sewage generation.</p> <p>Toilet established for road user and at way side amenities were found not properly maintained (without water);</p> <p>Over flowing of septic tank at Shahpur toll plaza was observed;</p> <p>Storage of scarified and milled bitumen was found stored on the shoulder at different locations;</p>	
3.6	PS-3: 12	Waste Management	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.	<p>Waste generated in O&M stage include road litter, illegal dumped waste, municipal solid waste from the Toll Plazas, animal carcasses, vegetation waste from ROW maintenance, and sediment and sludge from storm water drainage system maintenance.</p> <p>As a part of waste management, wastes are collected through different collection bins at both the plazas for collection of segregated waste. However its implementation required improvement.</p> <p>Waste generation records are not maintained at site. It was noted that metal scrap generated at both the plazas is sold to authorised vendor however dry waste is burned in open behind the Labour camps.</p> <p>Poor collection and storage of waste is observed at labour camp;</p> <p>Solid waste and litter was observed to be scattered on the ROW edge as well as the median in some chainages. It was</p>	<p>HHHPL should ensure required training and awareness of staff on the waste management plan to ensure its effective implementation.</p> <p>Should stop burning of dry waste in open.</p> <p>HHHPL should ensure cleaning of the road side and median regularly to avoid dumping and maximizing of road side waste.</p> <p>Waste from median and ROW to removed and ensure disposal as per the norms.</p>

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				reported that manual labours are deployed for collection of waste and as a practise they collect waste from median and dump it out of the RoW.	
3.7	PS-3: 13	Hazardous Material Management	The client will avoid or, when avoidance is not possible, minimize and control the release of hazardous materials. In this context, the production, transportation, handling, storage, and use of hazardous materials for project activities should be assessed. The client will consider less hazardous substitutes where hazardous materials are intended to be used in manufacturing processes or other operations	<p>Hazardous waste during operation phase includes generation of waste/ used oil from D.G sets installed at Toll Plazas, Construction camp and at Tunnel facility.</p> <p>Prjoect site does not have valid authorization for HW generated at site;</p> <p>It was noted that GMR OSE has done Annual Maintenance Contract (AMC) for D.G. maintenance and waste/ used oil generated is disposed of through authorized vendor. However, records of hazardous waste are not maintained in Form 3 and annual return in Form 4 is not submitted as per the Rules.</p> <p>Oil spills was also observed in the area.</p>	<p>GMR OSE should keep records of hazardous waste generation in Form 3 and should submit Annual Return in Form 4.</p> <p>Oil/ Chemical spill Contingency Plan should be prepared. In case of spillage of oil, measures to be taken as per the plan.</p> <p>Hazardous waste authorization to be obtained for Project and to ensure its disposal as per the norms.</p>
3.8	PS-3: 14-16	Pesticide use and management	The client will, where appropriate, formulate and implement an integrated pest management (IPM) and/or integrated vector management (IVM) approach targeting economically significant pest infestations and disease vectors of public health significance. The client's IPM and IVM program will integrate coordinated use of pest and environmental information along with available pest control methods, including cultural practices, biological, genetic, and, as a last resort, chemical means to prevent economically significant pest damage and/or disease transmission to humans and animals. In addition, pesticides will be handled, stored, applied, and disposed of in accordance with the	As reported during site visit, pesticide is not being used for the project. Organic manure is being used for avenue and median plantation	-

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			<p>Food and Agriculture Organization's International Code of Conduct on the Distribution and Use of Pesticides or other GIIP.</p> <p>The client will not purchase, store, use, manufacture, or trade in products that fall in WHO Recommended Classification of Pesticides by Hazard Class Ia (extremely hazardous); or Ib (highly hazardous). The client will not purchase, store, use, manufacture or trade in Class II (moderately hazardous) pesticides, unless the project has appropriate controls on manufacture, procurement, or distribution and/or use of these chemicals.</p> <p>These chemicals should not be accessible to personnel without proper training, equipment, and facilities to handle, store, apply, and dispose of these products properly.</p>		
<p>PS-4: Community Health Safety and Security</p> <p>The client will evaluate the risks and impacts to the health and safety of the Affected Communities during the project life-cycle and will establish preventive and control measures consistent with good international industry practice (GIIP), such as in the World Bank Group Environmental, Health and Safety Guidelines (EHS Guidelines) or other internationally recognized sources. The client will identify risks and impacts and propose mitigation measures that are commensurate with their nature and magnitude. These measures will favor the avoidance of risks and impacts over minimization.</p>					
4.1	PS-4: 6	Infrastructure and Equipment Design and Safety	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.	<p>Reportedly all the material used for road construction and method adopted was strictly in accordance with MORTH's specifications for road and bridge work.</p> <p>Quality control test on material and work are being carried out as per the requirement.</p> <p>Roughness survey is carried out twice a year (pre monsoon and soon after the monsoon) as per the CA.</p>	
4.2		Traffic safety	The client will consider traffic safety will design, construct, and operate the project.	The project is designed considering relevant standards/ guidelines of India Road Congress IRC) related to safety (IRC: SP-84), road geometrics, bridges, culverts, road signs (IRC: SP-67), pavement marking (IRC: 35), road delineator (IRC:79), etc.	<p>Median plantation needs to be strengthened.</p> <p>GMR OSE to undertake awareness program for</p>

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
				<p>Safety measures taken at site include pedestrian guard railing, crash barrier, sign boards, rumples, speed breakers, speed limit boards, median plantation, etc. as required by NHAI as a condition in CA.</p> <p>There are no animal underpasses along the project corridor.</p> <p>Median plantation at number of stretches along the road was observed to be very thin.</p> <p>During site assessment, following observations were made which might act as potential risk for road accidents;</p> <ul style="list-style-type: none"> • Vehicles were seen parked in the corridor and in ROW at many places • Vehicles were observed driving in opposite direction 	community and to ensure vehicles are not parked within the corridor or in ROW and people should not cross in opposite direction.
4.3	PS-4: 7	Hazardous Material Management and Safety	The client will avoid or minimize the potential for community exposure to hazardous materials and substances that may be released by the project. Where there is a potential for the public (including workers and their families) to be exposed to hazards, particularly those that may be life-threatening, the client will exercise special care to avoid or minimize their exposure by modifying, substituting, or eliminating the condition or material causing the potential hazards.	Refer 3.7	Emergency Action Plan to address accidental spillage of hazardous material to be prepared
4.4	PS-4: 8	Ecosystem Services	The project's direct impacts on priority ecosystem services may result in adverse health and safety risks and impacts to Affected Communities. With respect to this Performance Standard, ecosystem services are limited to provisioning and regulating services as defined in paragraph 2 of Performance Standard 6. The diminution or degradation of natural resources, such as adverse impacts on the quality, quantity, and	Project does not traverse through any ecologically sensitive areas or impact local water bodies.	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			availability of freshwater, may result in health-related risks and impacts. Where appropriate and feasible, the client will identify those risks and potential impacts on priority ecosystem services that may be exacerbated by climate change.		
4.5	PS-4: 9-10	Community Exposure to Disease	The client will avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases, and communicable diseases that could result from project activities, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. Where specific diseases are endemic in communities in the project area of influence, the client is encouraged to explore opportunities during the project life-cycle to improve environmental conditions that could help minimize their incidence. The client will avoid or minimize transmission of communicable diseases that may be associated with the influx of temporary or permanent project labor.	Since a number of truckers ply on this road stretch, there is a risk of spread of communicable diseases including HIV/AIDS in the area. However, it was observed during site visit that one of the local Trust working on HIV/AIDS awareness had set up a camp at their construction site to enable HIV testing and awareness education to GMR OSE workers.	
4.6	PS-4:	Emergency Preparedness and Response	In addition to the emergency preparedness and response requirements described in Performance Standard 1, 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. 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.	Refer 1.6	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
4.7	PS-4: 12-14	Security Personnel	<p>When 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.</p> <p>The client will consider and, where appropriate, investigate all allegations of unlawful or abusive acts of security personnel, take action (or urge appropriate parties to take action) to prevent recurrence, and report unlawful and abusive acts to public authorities.</p>	<p>There are 12 gunmen and another 12 watchmen across the three toll plaza who have been hired through M/s Nalwadi. All the gun men were reported to be ex-military well trained in responsible use of firearms. The security personnel also reported receiving trainings on 'good conduct' and best practices.</p>	
5.1	PS-5: 5-7	Land Acquisition Process	<p>This Performance Standard applies to physical and/or economic displacement resulting from the following types of land-related transactions:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Land rights or land use rights acquired through expropriation or other compulsory procedures in accordance with the legal system of the host country; <input type="checkbox"/> Land rights or land use rights acquired through negotiated settlements with property owners or those with legal rights to the land if failure to reach settlement would have resulted in expropriation or other compulsory procedures; <input type="checkbox"/> Project situations where involuntary restrictions on land use and access to natural resources cause a community or groups within a community to lose access to resource usage where they have traditional or recognizable usage rights; <input type="checkbox"/> Certain project situations requiring evictions of people occupying land without formal, traditional, or recognizable usage rights; or 	<p>Land required for the Project was acquired by NHAI using land acquisition provisions of NH Act 1956. Total additional land requirement for the project was 466 acres. Land acquisition was undertaken between 2009 and 2010.</p> <p>The project reportedly did not entail any physical displacement of local community. Therefore applicability of PS-5 provisions are limited for the project.</p>	<ul style="list-style-type: none"> •

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			<p>☐ Restriction on access to land or use of other resources including communal property and natural resources such as marine and aquatic resources, timber and non-timber forest products, freshwater, medicinal plants, hunting and gathering grounds and grazing and cropping areas.</p> <p>This Performance Standard does not apply to resettlement resulting from voluntary land transactions (i.e., market transactions in which the seller is not obliged to sell and the buyer cannot resort to expropriation or other compulsory procedures sanctioned by the legal system of the host country if negotiations fail). It also does not apply to impacts on livelihoods where the project is not changing the land use of the affected groups or communities.</p> <p>Where project impacts on land, assets, or access to assets become significantly adverse at any stage of the project, the client should consider applying requirements of this Performance Standard, even where no land acquisition or land use restriction is involved.</p>		
5.2	PS-5: 30-31	Private Sector Responsibilities under Government Managed Resettlement	<p>Where land acquisition and resettlement are the responsibility of the government, the client will collaborate with the responsible government agency, to the extent permitted by the agency, to achieve outcomes that are consistent with this Performance Standard. In addition, where government capacity is limited, the client will play an active role during resettlement planning, implementation, and monitoring, as described below.</p> <p>In the case of acquisition of land rights or access to land through compulsory means or negotiated settlements involving physical displacement, the</p>	As per the Concession Agreement, the responsibility of land acquisition was on NHAI who is obliged to provide encumbrance free land to GMR OSE for construction and operation of the road. Hence, the responsibilities of GMR OSE in this government led land acquisition process is to ensure that all pending arbitrations are expedited and all compensations duly paid to the PAFs.	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			<p>client will identify and describe government resettlement measures. If these measures do not meet the relevant requirements of this Performance Standard, the client will prepare a Supplemental Resettlement Plan that, together with the documents prepared by the responsible government agency, will address the relevant requirements of this Performance Standard (the General Requirements and requirements for Physical Displacement and Economic Displacement above). The client will need to include in its Supplemental Resettlement Plan, at a minimum (i) identification of affected people and impacts; (ii) a description of regulated activities, including the entitlements of displaced persons provided under applicable national laws and regulations; (iii) the supplemental measures to achieve the requirements of this Performance Standard as described in paragraphs 19-29 (provisions for physical and economic displacement) in a way that is permitted by the responsible agency and implementation time schedule; and (iv) the financial and implementation responsibilities of the client in the execution of its Supplemental Resettlement Plan.</p> <p>In the case of projects involving economic displacement only, the client will identify and describe the measures that the responsible government agency plans to use to compensate Affected Communities and persons. If these measures do not meet the relevant requirements of this Performance Standard, the client will develop an Environmental and Social Action Plan to complement government action. This may include additional compensation for lost assets, and</p>		

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			additional efforts to restore lost livelihoods where applicable.		
5.3	PS-5: 9	Compensation and Benefit	When displacement cannot be avoided, the client will offer displaced communities and persons compensation for loss of assets at full replacement cost and other assistance ¹¹ to help them improve or restore their standards of living or livelihoods, as provided in this Performance Standard. Compensation standards will be transparent and applied consistently to all communities and persons affected by the displacement. Where livelihoods of displaced persons are land-based, or where land is collectively owned, the client will, where feasible, offer the displaced land-based compensation. The client will take possession of acquired land and related assets only after compensation has been made available and, where applicable, resettlement sites and moving allowances have been provided to the displaced persons in addition to compensation. The client will also provide opportunities to displaced communities and persons to derive appropriate development benefits from the project.	NHAI has paid cash compensation for the land it acquired under NH Act 1956. The compensation amount paid included market value assessed on the basis of prevailing basic guidance value along with value of other fixed assets on the land such as structures, trees etc. However, it could not be ascertained whether this compensation was at par with the prevailing market value and met the requirement of 'full replacement cost'.	
5.4	PS-5: 8	Project Design to avoid or minimize physical/ economic displacement	The client will consider feasible alternative project designs to avoid or minimize physical and/or economic displacement, while balancing environmental, social, and financial costs and benefits, paying particular attention to impacts on the poor and vulnerable.	It could not be confirmed whether alternative project designs were considered for the project to avoid/ minimize physical and economic displacement.	-
5.5	PS-5: 12-16	Resettlement and Livelihood Restoration Planning and Implementation	Where involuntary resettlement is unavoidable, either as a result of a negotiated settlement or expropriation, a census will be carried out to collect appropriate socio-economic baseline data to identify the persons who will be displaced by the project, determine who will be eligible for compensation and assistance, and discourage ineligible persons, such as opportunistic settlers, from claiming benefits.	GMR OSE and NHAI office reported that no RAP was prepared for the project by them or NHAI to their knowledge. Hence, socio-economic baseline information of those affected by the project is not available.	-

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			<p>The client will establish procedures to monitor and evaluate the implementation of a Resettlement Action Plan or Livelihood Restoration Plan (see paragraphs 19 and 25) and take corrective action as necessary.</p> <p>Implementation of a Resettlement Action Plan or Livelihood Restoration Plan will be considered completed when the adverse impacts of resettlement have been addressed in a manner that is consistent with the relevant plan as well as the objectives of this Performance Standard. It may be necessary for the client to commission an external completion audit of the Resettlement Action Plan or Livelihood Restoration Plan to assess whether the provisions have been met, depending on the scale and/or complexity of physical and economic displacement associated with a project.</p>		
5.6	PS-5: 10	Community Engagement	<p>The client will engage with Affected Communities, including host communities, through the process of stakeholder engagement described in Performance Standard 1. Disclosure of relevant information and participation of Affected Communities and persons will continue during the planning, implementation, monitoring, and evaluation of compensation payments, livelihood restoration activities, and resettlement to achieve outcomes that are consistent with the objectives of this Performance Standard.</p>	<ul style="list-style-type: none"> The project land was acquired as per NH Act, 1956. Details on community engagement are not available for review. 	
5.7	PS-5: 11	Grievance Mechanism- Access to Legal Process	<p>The client will establish a grievance mechanism consistent with Performance Standard 1 as early as possible in the project development phase. This will allow the client to receive and address specific concerns about compensation and relocation raised by displaced persons or members of host communities in a timely fashion, including a recourse mechanism designed to resolve disputes in an impartial manner.</p>	<p>At present, the GMR OSE implements a Grievance Mechanism as per requirements under Concession Agreement with NHAI for road users.</p>	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			Grievance Mechanism as per PS-1: 35 should not impede access to judicial or administrative remedies.		
5.8	PS-5: 17-23	Physical Displacement	<p>Project-related land acquisition and/or restrictions on land use may result in the physical displacement of people as well as their economic displacement. Consequently, requirements of this Performance Standard in respect of physical displacement and economic displacement may apply simultaneously. In the case of physical displacement, the client will develop a Resettlement Action Plan that covers, at a minimum, the applicable requirements of this Performance Standard regardless of the number of people affected.</p> <p>The client is not required to compensate or assist those who encroach on the project area after the cut-off date for eligibility, provided the cut-off date has been clearly established and made public</p>	The project reportedly did not entail any physical displacement of local population.	
5.9	PS-5: 24	Forced Eviction	Forced evictions will not be carried out except in accordance with law and the requirements of this Performance Standard.	No such cases were reported during interactions with the community	
5.10	PS-5: 25-29	Economic Displacement	<p>In the case of projects involving economic displacement only, the client will develop a Livelihood Restoration Plan to compensate affected persons and/or communities and offer other assistance that meet the objectives of this Performance Standard.</p> <p>The mitigation of economic displacement will be considered complete when affected persons or communities have received compensation and other assistance according to the requirements of the Livelihood Restoration Plan and this Performance Standard, and are deemed to have been provided with adequate opportunity to re-establish their livelihoods.</p> <p>In addition to compensation for lost assets, if any, economically displaced persons whose livelihoods or</p>	NHAI has paid compensation for the land and structures (including affected encroachments). However, no socio-economic survey was conducted to understand the adverse impacts on their livelihood and income levels.	

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			income levels are adversely affected will also be provided opportunities to improve, or at least restore, their means of income-earning capacity, production levels, and standards of living. Transitional support should be provided as necessary to all economically displaced persons, based on a reasonable estimate of the time required to restore their income-earning capacity, production levels, and standards of living.		
PS-6: Bio-diversity Conservation and Sustainable Management of Living Natural Resources Based on the risks and impacts identification process, the requirements of this Performance Standard are applied to projects (i) located 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, forestry).					
6.1	PS-6: 6	General Requirement	This process will consider relevant threats to biodiversity and ecosystem services, especially focusing on habitat loss, degradation and fragmentation, invasive alien species, overexploitation, hydrological changes, nutrient loading, and pollution. It will also take into account the differing values attached to biodiversity and ecosystem services by Affected Communities and, where appropriate, other stakeholders.	<p>The project road is mainly dominated by agricultural land and residential area. It does not passes through any ecological sensitive areas like, national park, wild life sanctuary, tiger reserve, biosphere reserves, lakes and wet lands. However, Tungabhadra Dam and Gunda Reserve Forest (RF) is located at the end of the Project stretch (298+500 to 299+200). Daroji Bear Sanctuary is the nearest protected area located approximately about ~20 km (Areal distance) from the Project road towards. Their boundaries were found sufficiently away from the road corridor</p> <p>Further, the road involved diversion of 1.9 ha of Kunda RF land located at Chainage 298+500 to 299+200 and the permission for the same has been accorded by Department of Forest Karnataka, Bellary Forest Division dated 28 December 2012.</p> <p>As per the EIA/EMP report developed for the Project, this does not have any ecological sensitive areas like, national park, wild life sanctuary etc.</p>	-

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
6.2		Protection and Conservation of Bio-diversity	For the purposes of implementation of this Performance Standard, habitats are divided into modified, natural, and critical. Critical habitats are a subset of modified or natural habitats. For the protection and conservation of biodiversity, the mitigation hierarchy includes biodiversity offsets, which may be considered only after appropriate avoidance, minimization, and restoration measures have been applied.	Refer SI. No. 6.1	Refer Sr. No. 6.1
6.3	PS-6: 11-12	Modified Habitat	Modified habitats may include areas managed for agriculture, forest plantations, reclaimed coastal zones, and reclaimed wetlands. This Performance Standard applies to those areas of modified habitat that include significant biodiversity value, as determined by the risks and impacts identification process required in Performance Standard 1. The client should minimize impacts on such biodiversity and implement mitigation measures as appropriate.	Refer SI. No. 6.1	Refer Sr. No. 6.1
6.4	PS-6: 13-15	Natural Habitat	Natural habitats are areas composed of viable assemblages of plant and/or animal species of largely native origin, and/or where human activity has not essentially modified an area's primary ecological functions and species composition.	Refer SI. No. 6.1	Refer Sr. No. 6.1
6.5	PS-6: 16-	Critical habitat,	Critical habitats are areas with high biodiversity value, including (i) habitat of significant importance to Critically Endangered and/or Endangered species; (ii) habitat of significant importance to endemic and/or restricted-range species; (iii) habitat supporting globally significant concentrations of migratory species and/or congregatory species; (iv) highly threatened and/or unique ecosystems; and/or (v) areas associated with key evolutionary processes.	The project is not crossing any ecological sensitive areas like national park, wild life sanctuary, tiger reserve, biosphere reserves, lakes and wet lands. Also, there is no endangered flora or fauna along the road corridor. The stretch is not on migratory route of animals.	--

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			In such cases where a client is able to meet the requirements defined in paragraph PS-6: 17, the project's mitigation strategy will be described in a Biodiversity Action Plan and will be designed to achieve net gains ¹⁵ of those biodiversity values for which the critical habitat was designated.		
6.6	PS-6: 20	Legally Protected Internationally Recognized Areas	In circumstances where a proposed project is located within a legally protected area ¹⁶ or an internationally recognized area, the client will meet the requirements of paragraphs 13 through 19 of this Performance Standard, as applicable. In addition, the client will: <ul style="list-style-type: none"> <input type="checkbox"/> Demonstrate that the proposed development in such areas is legally permitted; <input type="checkbox"/> Act in a manner consistent with any government recognized management plans for such areas; <input type="checkbox"/> Consult protected area sponsors and managers, Affected Communities, Indigenous Peoples and other stakeholders on the proposed project, as appropriate; and <input type="checkbox"/> Implement additional programs, as appropriate, to promote and enhance the conservation aims and effective management of the area. 	No protected area is located near the project road	
6.7	PS-6: 21-23	Invasive Alien Species	The client will not intentionally introduce any new alien species (not currently established in the country or region of the project) unless this is carried out in accordance with the existing regulatory framework for such introduction. The client will implement measures to avoid the potential for accidental or unintended introductions including the transportation of substrates and vectors (such as soil, ballast, and plant materials) that may harbor alien species. Where alien species are already established in the country or region of the proposed project, the client will exercise diligence in not spreading them	NA	NA

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			into areas in which they have not already been established.		
6.8	PS-6: 24-25	Management of Eco-system Service	Where a project is likely to adversely impact ecosystem services, as determined by the risks and impacts identification process, the client will conduct a systematic review to identify priority ecosystem services. With respect to impacts on priority ecosystem services of relevance to Affected Communities and where the client has direct management control or significant influence over such ecosystem services, adverse impacts should be avoided. If these impacts are unavoidable, the client will minimize them and implement mitigation measures that aim to maintain the value and functionality of priority services. Additional provisions for ecosystem services are included in Performance Standards 4, 5, 7, and 8.	NA	NA
6.9	PS-6: 26-29	Sustainable Management of Living Natural Resources	Where feasible, the client will locate land-based agribusiness and forestry projects on unforested land or land already converted. Clients who are engaged in such industries will manage living natural resources in a sustainable manner, through the application of industry-specific good management practices and available technologies. Where such primary production practices are codified in globally, regionally, or nationally recognized standards, the client will implement sustainable management practices to one or more relevant and credible standards as demonstrated by independent verification or certification.	NA	NA
6.10	PS-6: 30	Supply Chain	Where a client is purchasing primary production (especially but not exclusively food and fiber commodities) that is known to be produced in regions where there is a risk of significant conversion of natural and/or critical habitats, systems and verification practices will be adopted as part of the	NA	NA

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			client's ESMS to evaluate its primary suppliers. The ability of the client to fully address these risks will depend upon the client's level of management control or influence over its primary suppliers.		
PS-7: Indigenous Peoples Rights This Performance Standard 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. It may also apply to communities or groups that have lost collective attachment to distinct habitats or ancestral territories in the project area, occurring within the concerned group members' lifetime, because of forced severance, conflict, government resettlement programs, dispossession of their lands, natural disasters, or incorporation of such territories into an urban area.					
7.1	PS-7: 7-8	Identification	<p>The client will identify, through an environmental and social risks and impacts assessment process, all communities of Indigenous Peoples within the project area of influence who may be affected by the project, as well as the nature and degree of the expected direct and indirect economic, social, cultural (including cultural heritage), and environmental impacts on them.</p> <p>The client may be required to seek inputs from competent professionals to ascertain whether a particular group is considered as Indigenous Peoples for the purpose of this Performance Standard.</p>	The project stretch does not pass through any Scheduled V area and no tribal lands were reported to be acquired for the project. Therefore provisions of PS-7 are not applicable for this project stretch.	-
PS-8: Cultural Heritage During the project life-cycle, the client will consider potential project impacts to cultural heritage and will apply the provisions of this Performance Standard. For the purposes of this Performance Standard, cultural heritage refers to (i) tangible forms of cultural heritage, such as tangible moveable or immovable objects, property, sites, structures, or groups of structures, having archaeological (prehistoric), paleontological, historical, cultural, artistic, and religious values; (ii) unique natural features or tangible objects that embody cultural values, such as sacred groves, rocks, lakes, and waterfalls; and (iii) certain instances of intangible forms of culture that are proposed to be used for commercial purposes, such as cultural knowledge, innovations, and practices of communities embodying traditional lifestyles.					
8.1	PS-8: 5-6	Applicability	<p>The requirements of this Performance Standard apply to cultural heritage regardless of whether or not it has been legally protected or previously disturbed.</p> <p>In addition to complying with applicable law on the protection of cultural heritage, including national law implementing the host country's obligations under the Convention Concerning the Protection of the World Cultural and Natural Heritage, the client</p>	There was no impact reported on any critical cultural heritage in the area.	-

SL. No.	Ref to PS	Subject	Requirement	Observations/Gaps	Recommendation
			will identify and protect cultural heritage by ensuring that internationally recognized practices for the protection, field-based study, and documentation of cultural heritage are implemented.		

Annex C

Photo-documentation
of EHS issues during
site visit

Photo-documentation



Photo 1: Project Road



Photo 2: Tunnel at Hospete



Photo 3: Borewell and water filling near Toll plaza



Photo 3: Sorry toilet Blocks

Project : Environment and Social Due Diligence

Client :HHHPL

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Photo-documentation



Photo 5: Scarified and Milled Bitumen stored on ROW



Photo 6: Oil spill and stain at DG set Operation

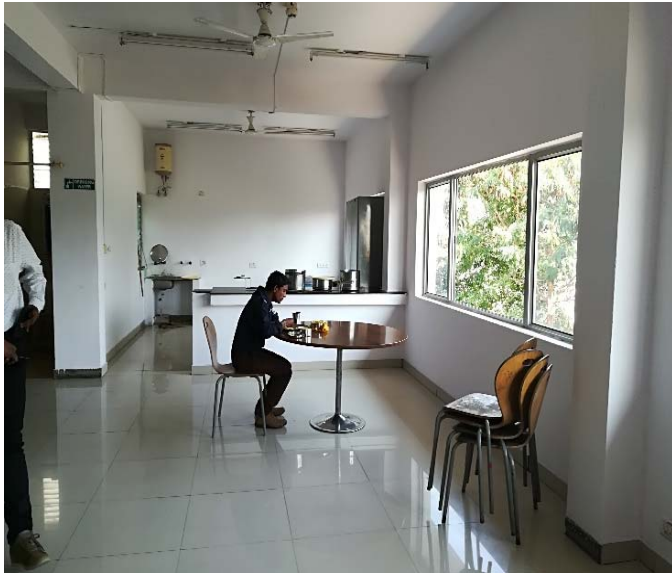


Photo 7: Dining facility at Toll Plaza



Photo 8: RO Plant at Toll Plaza

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Photo-documentation



Photo 9: Stains of oil spills



Photo 10: Oil spill at DG and DG set without Acoustic enclosures



Photo 11: Consultation with security



Photo 12: Labour Camp at Edoni village

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Photo-documentation



Photo 13: Wastewater discharged on open land at Edoni Camp



Photo 14: Solid waste being burnt at site



Photo 15: Consultation with worker at site



Photo 16: Solid waste disposed on open land and burnt

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Photo-documentation



Photo 17: Toilet facility at wayside amenities



Photo 18: Wash basin in wayside amenities



Photo 19: Accommodation provided wayside Amenities building for construction workers near Kustagi



Photo 20: Under Construction Kushtagi Fly Over

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Photo-documentation



Photo 21: Health checkup camp organized on the Day of site visit



Photo 22: Health Camp Organized at site



Photo 23: Workers working without adequate PPE at Kushtagi flyover construction site



Photo 24: Workers without relevant PPE at Kushtagi flyover construction site

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Photo-documentation



Photo 25: Consultation with Ambulance team



Photo 26: Ambulance at site



Photo 27: Damaged septic Tank at Toll Plaza



Photo 28: Unused wayside amenities at site

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Photo-documentation



Photo 29: Security Debriefing



Photo 26: Encroached Structure



Photo 27: Encroached Structure



Photo 28: Labour Camp

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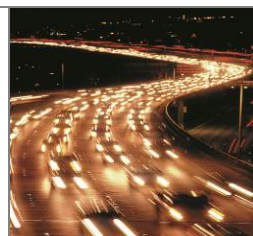
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