

# Semi-Annual Environmental Monitoring Report

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Project number: 44240-014

Period: May – October 2020  
Submission Date: October 2020

## BHU: Thimphu Road Improvement Project

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Project Number: 44240-014

Grant No: 0499-BHU(SF)

Reporting Period: May 2020 - October 2020

OCTOBER 2020

## BHU: Thimphu Road Improvement Project (TRIP)

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# 1. INTRODUCTION

## 1.1 OVERALL PROJECT DESCRIPTION AND OBJECTIVES

There has been a rapid growth in the total number of vehicles in Bhutan with an average annual growth rate of 11%. A bulk of this vehicular growth has occurred in Thimphu where the number of vehicles has increased by 5.2% in the last year alone. In recent years the municipality has also undertaken the planned expansion of Thimphu city through the Asian Development Bank (ADB) and the World Bank (WB) assistance for the development of local area plans (LAPs which are primarily for housing) in the south and the north of the city, respectively. This planned urbanization led to an unprecedented construction boom, which coupled with the increase in vehicular traffic has severely damaged the road infrastructure (including footpaths and drains) in several parts of the city, particularly the southern LAPs. LAP that was implemented under ADB-funded Urban Infrastructure Development Project (UIDP- 2258) was one of rare successful cases of land-pooling scheme in the developing world and, therefore, it is very important to maintain the significant benefits that were realized for its wider and continued replication in the future. Road repairs and improvements in Thimphu are now a top priority of the Government with road safety and traffic management being the key concerns. The Government, hence, requested ADB's urgent support to improve road infrastructure in the city.

To address these challenges the Thimphu Road Improvement Project (TRIP) will support the rehabilitation and upgrading of road infrastructure in the four zones of Thimphu city. The project outputs are:

- (i) Repair, resurfacing and improvements of roads in Thimphu Thromde (Municipality); and
- (ii) Capacity for project management and O&M strengthened for government and Thromde officials.

The Executing Agency (EA) of this project is the Department of Engineering Services (DES) under the Ministry of Works and Human Settlements (MoWHS). The EA will be assisted by a Project Management Unit (PMU) and Project Implementation Unit (PIU) for the project areas of Thimphu Thromde.

## 1.2 Environmental category as per ADB Safeguard Policy Statement, 2009

The implementation of the Project will be governed by Asian Development Bank Safeguard Policy Statement (SPS, 2009) and the environmental laws, policies and regulations of the government.

The ADB SPS stipulates addressing environmental concerns, if any, of a proposed activity in the initial stages of project preparation. For this, the ADB SPS categorizes the proposed components into categories (A, B or C) to determine the level of environmental assessment required to address the potential impacts. The Project has been categorized as B. Accordingly IEE was prepared to address the potential impacts in line with the SPS. Stakeholder consultation was an integral part of the IEE which was carried out and an EMP specifying mitigation measures to be adhered to during implementation of the Project has been prepared.

## 1.3 Environmental category of each subproject as per national laws and regulations

The Royal Government of Bhutan (RGoB) mandates all projects be subjected to environmental assessments prior to implementation. The implementation of the Project will be governed by laws, regulations, and standards for environmental assessment and management of the government. **Table 1** summarizes the main requirements of the government for environmental management that will apply to the Project.

Table 1: Government Environmental Policies, Laws, Regulations, and Standards

Statute	Outline	Relevance
Environmental Assessment Act, 2000	This Act establishes procedures for the assessment of potential effects of projects on the environment, and aims to determine measures to reduce potential adverse effects and to promote environmental benefits.	<ul style="list-style-type: none"> <li>• To ensure that all foreseeable impacts on the environment, including cumulative effects are fully considered prior to any irrevocable commitments of resources or funds.</li> <li>• To ensure that all feasible alternatives are fully considered.</li> </ul>
Regulation for Environmental Clearance of Projects (RECOP), 2002	Regulation for Environmental Clearance of Projects (RECOP) defines responsibilities and procedures for the implementation of the Environmental Assessment Act, 2000 for issuance and enforcement of environmental clearances.	<ul style="list-style-type: none"> <li>• To ensure that all projects are implemented in line with the sustainable development policy of the Royal Government of Bhutan</li> <li>• To ensure that all feasible means to avoid or mitigate damage to the environment are implemented; and</li> <li>• To ensure that concerned people benefit from projects in terms of social facilities.</li> </ul>
National Environment Protection Act, 2007	The aim of this Act is to enable an effective system of conserving and protecting Bhutan's environment. This system is constituted of the National Environment Commission or other designated Competent Authorities and advisory committees responsible for independently regulating and promoting sustainable development in an equitable manner.	<ul style="list-style-type: none"> <li>• The Act provides a framework for developing measures and standards to protect Bhutan's environmental quality. Guidance relevant to this project includes:</li> <li>• Handling of hazardous substances: No person shall handle or cause to be handled any hazardous substance except in accordance with such procedure and after complying with such safeguards as may be prescribed under national and international instruments.</li> <li>• Discharge of environmental pollutants: No person shall discharge or emit or be permitted to discharge or emit any pollutants in excess of such standards as may be prescribed.</li> </ul>
Waste Prevention and Management Act of Bhutan, 2009	<p>The Waste Prevention and Management Regulation 2012 is adopted under section 53 of the Waste Prevention and Management Act, 2009. This Act defines the institutional framework for preventing and managing waste in Bhutan, including the establishment of sound waste management system, including monitoring procedures at every organizational level, through efficient collection, segregation, treatment, storage, transportation, reduction, reuse, recycling and safe disposal of solid, liquid and gaseous wastes. It sets out the principles, measures, mechanisms and responsibilities for reduction, segregation, and appropriate disposal of waste to protect the country's environment.</p> <p>The act also provided the requirements for the management of hazardous wastes to include: labeling, pre-treatment process, storage, record keeping, transportation, and disposal</p>	<ul style="list-style-type: none"> <li>• Waste management requirements of relevance to the proposed development include:</li> <li>• Non-hazardous waste: Implementing agencies shall ensure that the reduction, reuse, recycling and disposal of non-hazardous waste are addressed in an environmentally sound manner to ensure compliance with the Act</li> <li>• Hazardous waste: Implementing agencies shall prevent manufacturing of products with potential to generate hazardous waste. The agencies shall also ensure that the reduction, storage, treatment, and disposal of hazardous waste are addressed in an environmentally sound manner to ensure compliance with the Act</li> </ul>

Statute	Outline	Relevance
	of hazardous waste by the generator. Sanctions and penalties are provided for non-compliance.	
General Rules and Regulations on Occupational Health and Safety (OHS) In Construction, Manufacturing, Mining and Service Industries, 2006	OHS Rules and Regulations aims 'to assure safe and healthful working conditions for working men and women as well as other persons present at workplaces from work related risks to their health, safety, and well being	During Construction and operation stage of the project.
The Labour and Employment Act of Bhutan, 2007	The labour and employment act of Bhutan 2007 provide policies and programs in the areas of employment promotion, labour protection and relations, vocational education and training, and occupational standards setting and certification.	The proposed development will adhere to the policies provided under different sections of the Act.
The Forest Act (1969).	The first environmental legislation in Bhutan. It brought all forest resources under government custody to regulate utilization.	This was repealed with the enactment of the FNCA in 1995
Forest and Nature Conservation Act (FNCA) 1995	Allows community stewardship of forests and aims to provide protection and sustainable use of forests, wildlife, and related natural resources.	Schedule I of the Act, lists those wild animals and plants that are given full protection under the Act. The FNCA establishes that all forests in Bhutan are Government Reserved Forests (GRF), and prohibits any development activity in these areas except with a permit.
Forest and Nature Conservation Rules (FNCR) 2017.	Under powers established by the FNCA, the Ministry of Agriculture promulgated the FNCR in 2000, which was revised in 2006 and further revised and updated in 2017.	Amongst other things the FNCR allows for: 1. Allotment of land and land rights in GRF; 2. Prohibitions, restrictions and concessions in GRF; 3. Transport and trade of forest produce; 4. Declaration and administration of protected areas; 5. Protection of wildlife and use of certain wild species; 6. Prevention of forest fires, land clearance, and activities potentially impacting soil, water and wildlife resources; and 7. Enforcing penalties for offences related to these and other aspects of the FNCR.
Land Act 1979 (Revised 2007)	The Land Act 1979 provides the basis for land tenure in Bhutan was revised in 2007 to streamline many provisions in the Land Act. One major Change was the establishment of an autonomous National Land Commission Secretariat which has been given full responsibility for all matters pertaining to land registration. Land categories have been reduced to	8. Under this Act, there are provisions for acquisition of land by the Government, if it is required for the benefit of the country. In such cases, the affected person will be compensated with substitute land from the same Dzongkhag or given cash compensation depending on the land classification as per the prevailing land compensation rate determined by the Act. If a house is acquired, compensation is paid on the basis of an evaluation carried out by a

Statute	Outline	Relevance
	seven including i) Chhuzhing (wetland), ii) Kamzhing (dry land) including orchard, iii) Khimsa (Residential land), iv) Industrial land, v) Commercial land, vi) Recreational and vii) Institutional land.	qualified engineer appointed by the competent authority.

FNCA = Forest and Nature Conservation Act, 1995; FNCR= Forest and Nature Conservation Rules, GRF= Government Reserved Forests, OHS = Occupational Health and Safety.

The policy, legal, and administrative frameworks relevant to the environmental assessment of infrastructure projects in Bhutan have been established by the following laws and regulations: (i) the National Environmental Protection Act of 2007, (ii) the Environmental Assessment Act of 2000, and (iii) Regulation for Environmental Clearance of 2002. At the national policy level, environmental protection and conservation is a constitutional mandate to:

- (i) Protect, conserve, and improve the pristine environment;
- (ii) Safeguard biodiversity; and
- (iii) Prevent pollution and ecological degradation.

**Environmental Clearance Requirements:** Article 33.1 of the Environmental Assessment Act 2000, grants the competent authority (CA) a power to screen, issue or deny the environmental clearance (EC) of the activities or project listed under Annex 2 of RECOP 2002. However, the executing agency (DES) cannot issue an environmental clearance to itself or the Departments directly under it; even for the listed activities of the RECOP. However, it can issue the clearance to organizations like Thimphu Thromde; which is an autonomous organization.

However, the Thimphu Thromde is obliged to fill up the standard IEE forms and submit it to the MoWHS along with the no objection certificates (NOC) from the affected persons or public and other stakeholders.

The IEE report was prepared in March 2016 and was uploaded on the [project/ADB website](https://www.adb.org/projects/documents/bhu-thimphu-road-improvement-jun-2016-iee) <https://www.adb.org/projects/documents/bhu-thimphu-road-improvement-jun-2016-iee>. EC has been issued vide letter number MoWHS/PPD/Env/01/2017/2502 dated 16<sup>th</sup> January 2017 with validity till January 17, 2019. The PIU has requested MoWHS for the renewal vide letter number i) TT/INFRA/RBS/2019-2020/1522 dated 02/04/2020 and ii) PMU/TRIP/2019 – 2020/302 dated 19 May 2020. The renewed EC is still awaited. The PIU is pursuing with MoWHS for the EC renewal. The PIU has been reminded once more to obtain the renewed EC at the earliest to avoid any setbacks in the project implementation.

**Table 2: Environmental Regulatory Compliance**

Component Description	Royal Government of Bhutan		ADB	
	Competent Authority in accordance with ECR	Environmental Assessment	Category in accordance with SPS	Environmental Assessment
Road improvements under TRIP	MoWHS or NACSQC - NEC	Environmental Information	Category B **	IEE and EMP

\*\*Nothing is envisaged at this stage that could cause reclassification to Category A.

## 1.4 Project Safeguards Team

**Table 3:** Project Safeguard Team

Name	Designation/Office	Email Address	Contact Number	Roles
1. PMU				
Jigme Dorji	Project Manager	jdorji@mowhs.gov.bt	17643516	Reviews and approves the SEMR.
2. PIUs				
NakpheiDrukpa	Offtg Project Manager	<a href="mailto:ndrukpa@thimphucity.gov.bt">ndrukpa@thimphucity.gov.bt</a>	77237374	The PIU carries out all supervision and monitoring activities daily based on the contractor's workplan.
DendhupLhamo	Project Engineer	<a href="mailto:dlhamo@thimphucity.gov.bt">dlhamo@thimphucity.gov.bt</a>	17368252	
KinleyYangdon	Project Engineer	<a href="mailto:kyangdon@thimphucity.gov.bt">kyangdon@thimphucity.gov.bt</a>	17350214	
JanchukChoden	Project Engineer	<a href="mailto:jchoden@thimphucity.gov.bt">jchoden@thimphucity.gov.bt</a>	77623724	
Uma Devi Mahat	Project Engineer	<a href="mailto:odmahat@thimphucity.gov.bt">odmahat@thimphucity.gov.bt</a>	17666202	
NgawangTashi	Project Engineer	<a href="mailto:ntashhi@thimphucity.gov.bt">ntashhi@thimphucity.gov.bt</a>	17171789	
ChimiWangmo	Project Engineer	<a href="mailto:cwangmo@thimphucity.gov.bt">cwangmo@thimphucity.gov.bt</a>	17551923	
3. Consultants				
K.D. Chamling	Environment Specialist	<a href="mailto:chamlingkd@gmail.com">chamlingkd@gmail.com</a>	17111541	Intermittent input from ADB project 2816 and not dedicated engagement for this project.
Rajesh Pradhan	Social Safeguard Specialist	<a href="mailto:rajpradhan2008@gmail.com">rajpradhan2008@gmail.com</a>	17603661	
				The safeguards consultants jointly visit the works sites, with PIU and contractors, during the SEMR preparation to monitor the ongoing works.

## 1.5 Overall project and sub-project progress and status

Till 9<sup>th</sup> October 2020, the following works/packages have been awarded and work progress status is given under **Table 4**. The Table 4 summarizes the various project packages, including starting date of implementation, schedule date of completion etc. along with physical progress.

**Table 4:** Sub-project status

Sl. No	Lot No.	Location/ Area of Activities	Start date of Implementation	Actual months of completion	Actual date of completion	Physical progress (%) as on 9 <sup>th</sup> October 2020
1	<b>Package 1</b>					
	I	Motithang Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
	II	Samteling, Supreme Court, Chubachhu&Vegetable Market Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%

	III	Changzamtok&Changband u Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
	IV	Olakha, Semtokha&Babesa Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
2	<b>Package 2</b>					
	<b>YHSS junction to Semtokha Mani Dungkhor</b>		4 <sup>th</sup> June 2018	18 Months	26 <sup>th</sup> April 2020 (Time extension given from original date of 5 <sup>th</sup> Dec 2019).	100%.
3	<b>Package 3</b>					
	<b>I. Improvement of Road from Hotel dusicD2 to Multi-Layer Car Parking (MLCP) junction</b>		2 October 2019	9 months	2 July 2020	100%
	<b>II. Road improvement works in Olakha</b>		3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	
	Road 1	Below Olarongchu bridge (L=345m, W=5.1)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 2	Access road inside this area (L=100m, W=4m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 3	Straight road from Olarongchu road (L=70m, W=4m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 4	Straight road from expressway junction till vegetable market junction(L=175m,W=7m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 5	Road connecting Ariya hotel and road above (L=260m, W=7m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 6	Access road (L=40m, W=4.5m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 7	Main road and sewer road (L=500m, W=7.5m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 8	Straight road in sewer area(L=135m, W=4m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 9	Road in front of Ariya hotel (L=386m, W=7m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
	Road 10	Road near Ariya Hotel (L=265m, W=3.6m)	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100%
<b>Additional Road works*</b>						
Road No.	Length (m)	Work scope/activities	Duration		Physical progress (%) as on 9 <sup>th</sup> October 2020	
Road 11	130 m	Dismantling, subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), u-drain (20m)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)		100%	
Road 12	135 m	AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)		100%	

Road 13	48 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), side drain	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%
Road 14	81 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%
Road 15	35 m	AC	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%
Road 16	50 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%
Road 17	85 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%
Road 18	50 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), side drain.	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%
Road 19	350 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100%

**\*Additional road works being carried out will be funded from the savings and any extra cost to be borne by Thromde.**

## 1.6 Description of subprojects (package-wise) and status of implementation (preliminary, detailed design, on-going construction, completed, and/or O&M stage)

**Table 5: Sub-projects Implementation status**

Package Number	Components/List of Works	Contract Status (specify if under bidding or contract awarded)	Status of Implementation (Preliminary Design/Detailed Design/On-going Construction/Completed/O&M) <sup>1</sup>	If On-going Construction	
				% Physical Progress	Expected Completion Date
<b>1</b>	<b>TRIP 1</b>				
	i) Motithang Area	Contract awarded	Work Completed	100%	24 <sup>th</sup> Nov 2018
	ii) Samteling, Supreme Court, Chubachhu&Vegetable Market Area	Contract awarded	Work Completed	100%	24 <sup>th</sup> Nov 2018
	iii) Changzamtok&Chang bandu Area	Contract awarded	Work Completed	100%	24 <sup>th</sup> Nov 2018
	iv) Olakha, Semtokha&Babesa Area	Contract awarded	Work Completed	100%	24 <sup>th</sup> Nov 2018
<b>2</b>	<b>TRIP 2</b>				
	YHSS junction to Semtokha Mani Dungkhor	Contract awarded.	Work ongoing.	100%	26 <sup>th</sup> April 2020
<b>3</b>	<b>TRIP 3</b>				
<b>I. Improvement of Road from Hotel dusitD2 yarkay to Multi-Layer Car Parking (MLCP) junction</b>		Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020
<b>II. Road improvement works in Olakha</b>				100%	
Road 1	Below Olarongchu bridge (L=425m, W=5.1)	Contract awarded.	100%	100%	27 <sup>th</sup> June 2020

<sup>1</sup> If on-going construction, include %physical progress and expected date of completion

Road 2	Access road inside this area (L=100m, W=4m)	Contract awarded.	100%	100%	27 <sup>th</sup> June 2020
Road 3	Straight road from Olarongchu road (L=70m, W=4m)	Contract awarded.	100%	100%	27 <sup>th</sup> June 2020
Road 4	Straight road from expressway junction till vegetable market junction (L=215m, W=7m)	Contract awarded.	100%	100%	27 <sup>th</sup> June 2020
Road 5	Road connecting Ariya hotel and road above (L=260m, W=7m)	Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020
Road 6	Access road (L=40m, W=4.5m)	Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020
Road 7	Main road and sewer road(L=660m, W=7.5m)	Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020
Road 8	Straight road in sewer area(L=135m, W=4m)	Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020
Road 9	Road in front of Ariya hotel (L=436m, W=7m)	Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020
Road 10	Road near Ariya Hotel (L=345m, W=3.6m)	Contract awarded.	Work ongoing.	100%	27 <sup>th</sup> June 2020

#### Additional road works\*

Road No.	Length (m)	Work scope/activities	Contract status	If On-going Construction	
				Physical Progress%	Expected Completion Date
Road 11	130 m	Dismantling, subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), u-drain (20m)	Work ongoing.	100%	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)
Road 12	135 m	AC (40mm)	Work ongoing.	100%	-----"-----
Road 13	48 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), side drain	Work ongoing.	100%	-----"-----
Road 14	81 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	Work ongoing.	100%	-----"-----
Road 15	35 m	AC	Work ongoing.	100%	-----"-----
Road 16	50 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	Work ongoing.	100%	-----"-----
Road 17	85 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	Work ongoing.	100%	-----"-----
Road 18	50 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), side drain.	Work ongoing.	100%	-----"-----
Road 19	350 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	Work ongoing.	100%	-----"-----

## 2. COMPLIANCE STATUS WITH NATIONAL/STATE/LOCAL STATUTORY ENVIRONMENTAL REQUIREMENTS<sup>2</sup>

**Table 6:** Compliance Status with National Environmental Requirements

Package No.	Subproject Name	Statutory Environmental Requirements <sup>3</sup>	Status of Compliance <sup>4</sup>	Validity if obtained	Action Required	Specific Conditions that will require environmental monitoring as per Environment Clearance, Consent/Permit to Establish <sup>5</sup>
<b>1</b>	<b>TRIP 1</b>					
	i) Motithang Area	EC not required.	Not applicable.	NA	-	-
	ii) Samteling, Supreme Court, Chubachhu&Vegetable Market Area	-----do-----	Not applicable.	NA	-	-
	iii) Changzamtok&Changbandu Area	-----do-----	Not applicable.	NA	-	-
	iv) Olakha, Semtokha&Babesa Area	-----do-----	Not applicable.	NA	-	-
<b>2</b>	<b>TRIP 2</b>					
	<b>YHSS junction to Semtokha Mani Dungkhor</b>	Environmental Clearance required.	EC renewal under process.	Under process.	-PIU needs to follow-up with MoWHS and expedite the renewal of EC.	- Environmental monitoring will be carried out as per EMP including EC clauses. - Section 8 Particular Conditions of Contract, Part A (General)*&Part B-Specific Provisions** under Additional Clauses clearly specifies and mandates that the contractor complies with the contract clauses.
<b>3</b>	<b>TRIP 3</b>					

<sup>2</sup> All statutory clearance/s, no-objection certificates, permit/s, etc. should be obtained prior to award of contract/s. Attach as appendix all clearance obtained during the reporting period. If already reported, specify in the "remarks" column.

<sup>3</sup> Specify (environmental clearance? Permit/consent to establish? Forest clearance? Etc.)

<sup>4</sup> Specify if obtained, submitted and awaiting approval, application not yet submitted

<sup>5</sup> Example: Environmental Clearance requires ambient air quality monitoring, Forest Clearance/Tree-cutting Permit requires 2 trees for every tree, etc.

I.	Improvement of Road from Hotel dusitD2 Yarkay to Multi Layer Car Parking (MLCP) junction	Not required.	Not applicable.	NA	-	-
II.	Repair and Maintenance of Roads at Olakha	Not required.	Not applicable.	NA	-	-
Road 1	Below Olarongchu bridge (L=425m, W=5.1)	Not required.	Not applicable.	NA	-	-
Road 2	Access road inside this area (L=100m, W=4m)	Not required.	Not applicable.	NA	-	-
Road 3	Straight road from Olarongchu road (L=70m, W=4m)	Not required.	Not applicable.	NA	-	-
Road 4	Straight road from expressway junction till vegetable market junction (L=215m, W=7m)	Not required.	Not applicable.	NA	-	-
Road 5	Road connecting Ariya hotel and road above (L=260m, W=7m)	Not required.	Not applicable.	NA	-	-
Road 6	Access road (L=40m, W=4.5m)	Not required.	Not applicable.	NA	-	-
Road 7	Main road and sewer road (L=660m, W=7.5m)	Not required.	Not applicable.	NA	-	-
Road 8	Straight road in sewer area(L=135m, W=4m)	Not required.	Not applicable.	NA	-	-
Road 9	Road in front of Ariya hotel (L=436m, W=7m)	Not required.	Not applicable.	NA	-	-
Road 10	Road near Ariya Hotel (L=345m, W=3.6m)	Not required.	Not applicable.	NA	-	-
<b>Additional road works*</b>						
Road 11	130 m	Not required.	Not applicable.	NA	-	-
Road 12	135 m	Not required.	Not applicable.	NA	-	-
Road 13	48 m	Not required.	Not applicable.	NA	-	-
Road 14	81 m	Not required.	Not applicable.	NA	-	-
Road 15	35 m	Not required.	Not applicable.	NA	-	-
Road 16	50 m	Not required.	Not applicable.	NA	-	-
Road 17	85 m	Not required.	Not applicable.	NA	-	-
Road 18	50 m	Not required.	Not applicable.	NA	-	-
Road 19	350 m	Not required.	Not applicable.	NA	-	-

**\*GCC 2.3(j):**The following documents also form part of the Contract: (i) *Initial Environmental Examination*, (ii) *Environmental Management Plan, attached hereto as Appendix I - . Any addendum or variation that will be issued during contract implementation in accordance with the provision(s) stated in the General Conditions of Contract*

**\*\*Part B-Specific Provisos (SP) under Additional Clauses** contains sixteen condition clauses that require the contractor to comply during project works. The clauses are: 1. Specific Approval of Employer, 2. Contractor's Mobilization, 3. Quarried and Spoil Dumps, 4. Traffic Diversion, 5. Log of Subcontractors, 6. Employment of Local Personnel, 7. Reinstatement and Compensation for Damage to Persons or Property, 8. Quality of Materials, Plant, Supplies,

and Workmanship, 9. Materials and Other Objects found in Excavation, 10. Protection from Weather, Storage, 11. Local Custom, 12. First Aid and Life-Saving Apparatus, 13. Maintenance of Other Services and Structures, 14. Traffic Safety and Control, 15. Protective clothing and footwear for safety, and 16. Staff and Labor.

### 3. COMPLIANCE STATUS WITH ENVIRONMENTAL LOAN COVENANTS

**Table 7:** Compliance Status with Environmental Loan covenants

No. (List schedule and paragraph number of Loan Agreement)	Covenant	Status of Compliance	Action Required
	EA shall not award any works contract which involves environmental impacts until the National Environmental Commission or other designated authority has granted the final approval of the IEE.	<p>Complied.</p> <ul style="list-style-type: none"> <li>- The MoWHS issued the EC vide letter No. MoWHS/PPD/Env/01/2017 2502 dated 16<sup>th</sup> January, 2017 valid till 17<sup>th</sup> January 2019 for Road widening along YHSS junction to Semtokha Mani Dungkhor.</li> <li>- The IEE link was shown in the contract document of Section 8.</li> <li>- The construction site was strictly monitored by project officials without any environmental damages.</li> <li>- EC has expired and PIU has processed for renewal.</li> </ul>	<ul style="list-style-type: none"> <li>- The validity of the EC has expired and the PIU has applied for its renewal. The EC is yet to be obtained.</li> <li>- PIU has been reminded to follow up and obtain the renewed EC at the earliest possible.</li> <li>- The PIU needs to obtain the EC before the project officially closes.</li> </ul>
	EA shall not award any works contract which involves environmental impacts until relevant provisions of the EMP are incorporated into the works contract.	<p>Complied.</p> <ul style="list-style-type: none"> <li>- All relevant provisions included in the EMP and this EMP attached with the bid document for compliance.</li> <li>- The IEE link was shown in the contract document of Section 8.</li> </ul>	None.
	EA to ensure the preparation, design, construction, implementation, operation and decommissioning of the project, and all subproject facilities comply with; (i) all applicable laws and regulations of the Borrower and the State relating to environment, health, safety; (ii) the Environmental Safeguards;(iii) EARF; and (iv) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	<p>Complied.</p> <p>The construction site was strictly monitored by project officials</p> <p>If there are lapses in the compliance of contract clauses the contractor is reminded on these and instructed to comply. Further non-compliance</p>	None.

		results to deduction of money from his bill. Normally the contractors comply once reminded for fear of this deduction.	
	EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:- Comply with the measures and requirements relevant to the contractor set forth in the IEE and EMP; and any corrective or preventive actions set out in a Safeguards Monitoring Report.	Complied.  The IEE link was shown in the SBD Section -8. Given the strict environmental measures required to be taken, contractors are aware of the requirements and there were no damages on site.	None.
	EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:- - make available a budget for all such environmental measures.	Complied.  The IEE link was shown in the SBD Section -8. Given the strict environmental measures required to be taken, contractors are aware of the requirements and there were no damages on site.  Further as per SBD Section 8, 'The bidders are required to submit the Environmental Management Plan along with the bid. The cost for all the environmental mitigation measures in line with the EMP should be included in the bid.'	None
	EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:- - provide the EA with a written notice of any unanticipated environmental impacts that arise during construction, implementation or operation of the project that were not considered in the IEE and in the	Complied.  Included in the bid document, EMP, IEE and EC clauses.	None

	EMP.		
	EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:- - adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction	Complied.  Since the project site is within the Urban City, and does not pass through agricultural land there were no requirements for this.	None.
	EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:- - fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Complied. Existing footpaths restored. (Photographs attached). - Since the project site is within the city, no agricultural land was affected. However, damages caused to roads/foot-paths, local structures are reinstated before closing of the site by the contractor.	None.
	EA to ensure semi-annual Safeguards Monitoring Reports are submitted to ADB and disclose relevant information from such reports to affected persons promptly upon submission.	Complied.  No persons affected by the project.	None
	EA to ensure that if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the IPP as applicable, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan	Complied.  There was no unanticipated impact encountered during the reporting period.	None
	EA to report any breach of compliance with the measures and requirements set forth in the EMP, the RP or the IPP promptly after becoming aware of the breach.	Complied.  No breach of compliance with measures and requirements set forth in the EMP and RP.	None.
	EA to ensure that the core labor standards and government applicable laws and regulations are complied with during project implementation.	Complied.  PIU supervises and monitors the works almost on a daily basis. Any lapses or non-compliance	None.

		of core labour standards and other existing laws and regulations if observed are reminded to comply them which the contractor complies with the instructions.	
	EA to ensure to include specific provisions in the bidding documents and contracts requiring contractors to, among other things: (a) comply with government applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation; (d) do not use forced labor; (e) allow freedom of association; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the project and to members of the local communities surrounding the project area, particularly women.	<p>Complied.</p> <p>-No child labour engaged. -PPE used. -No forced labor used. Labors paid in full for all works done.</p> <p>The bid document Section 8 adequately covers these under contract condition clauses. Part A (general) and Part B Specific provisions under Additional Clauses.</p>	None.
	EA to ensure that risk mitigating measures from the climate risk and vulnerability assessment (to strengthen climate resilience and support robust operations during extreme weather conditions) are incorporated in the detailed engineering design for the works.	<p>Complied.</p> <p>All engineering designs have used the existing DoR's Environmental Friendly Road Construction (EFRC) standards and concepts.</p> <p>The DoR started the concept development of EFRC principles from 1999 with the WB funded project in Rural Access Project (RAP) with TA from SNV-Bhutan office. The whole methodology of road construction with engineering designs were developed and standardized and adapted in the RAP. Later these were adopted as national standards for all road constructions in the</p>	None

		country.	
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#### 4. COMPLIANCE STATUS WITH THE ENVIRONMENTAL MANAGEMENT PLAN

4.1 Confirm if IEE/s require contractors to submit site-specific EMP/construction EMPs. If not, describe the methodology of monitoring each package under implementation.

As per IEE, the contractors are not required to submit site-specific EMP/construction EMPs. However, during implementation the contractors are required to implement and comply with mitigation measures as per the EMP provisions.

#### Package-wise IEE Documentation Status

**Table 8:** Package-wise IEE Documentation Status

Package Number	Final IEE based on Detailed Design				Site-specific EMP (or Construction EMP) approved by Project Director? (Yes/No)	Remarks
	Not yet due (detailed design not yet completed)	Submitted to ADB (Provide Date of Submission)	Disclosed on project website (Provide Link)	Final IEE provided to Contractor/s (Yes/No)		
1	Completed	Yes, Dated June 2016	Disclosed in ADB Website <a href="https://www.adb.org/projects/documents/bhu-thimphu-road-improvement-jun-2016-iee">https://www.adb.org/projects/documents/bhu-thimphu-road-improvement-jun-2016-iee</a>	N/A. The draft IEE was provided as part of the bid documents. No change in the detailed design of Package 1.	NA	EMP enclosed with Bid Document.
2	Completed	Yes, Dated June 2016	Disclosed in ADB Website <a href="https://www.adb.org/projects/documents/bhu-thimphu-road-improvement-jun-2016-iee">https://www.adb.org/projects/documents/bhu-thimphu-road-improvement-jun-2016-iee</a>	N/A. The draft IEE was provided as part of the bid documents. No change in the detailed design of Package 2.	EMP in IEE.	---do---
3	Completed	Yes, dated June 2020.	Disclosed in ADB website <a href="https://www.adb.org/sites/default/files/project-documents/44240/44240-014-iee-en.pdf">https://www.adb.org/sites/default/files/project-documents/44240/44240-014-iee-en.pdf</a>	EMP was enclosed in the bid document.	N/A	EMP enclosed with Bid Document.

4.2 For each package, provide name/s and contact details of contractor/s' nodal person/s for environmental safeguards.

**Package-wise Contractor/s' Nodal Persons for Environmental Safeguards**

**Table 9: Package-wise Contractor/s' Nodal Persons for Environmental Safeguards**

Package Name	Contractor	Nodal Person	Email Address	Contact Number
<b>TRIP 1: Lot 1 &amp; 4</b>	M/s High Tech – Chhimi R.D Joint Venture	Work completed and the handed over to client.	NA	NA
<b>Lot 3</b>	M/s Penjor	Work completed and the handed over to client.	NA	NA
<b>Lot 2</b>	M/s SL - Nima Joint Venture	Work completed and the handed over to client.	NA	NA
<b>TRIP 2: YHSS</b> junction to Semtokha Mani Dungkhor	M/s T-Kunzom Pvt. Ltd/Noryang Pvt. Ltd.	PemaWangdi	tdconstpw@gmail.com-	17118901
<b>TRIP 3:</b>				
<b>I.</b> Improvement of Road from Hotel dusicD2 yarkay to Multi-Layer Car Parking (MLCP) junction	M/s JM Builders Pvt Ltd	KulBdrChhetri	kb2kc1@gmail.com	77379206
<b>II.</b> Road improvement works in Olakha	M/s JM Builders Pvt Ltd	KulBdrChhetri	kb2kc1@gmail.com	77379206
- Road No. 1	-----“-----	-----“-----	-----“-----	-----“-----
- Road No. 2	-----“-----	-----“-----	-----“-----	-----“-----
- Road No. 3	-----“-----	-----“-----	-----“-----	-----“-----
- Road No. 4	-----“-----	-----“-----	-----“-----	-----“-----
- Road No. 5	-----“-----	-----“-----	-----“-----	-----“-----
- Road No.6	-----“-----	-----“-----	-----“-----	-----“-----
- Road No. 7	-----“-----	-----“-----	-----“-----	-----“-----
- Road No.8	-----“-----	-----“-----	-----“-----	-----“-----
- Road No.9	-----“-----	-----“-----	-----“-----	-----“-----
- Road No. 10	-----“-----	-----“-----	-----“-----	-----“-----
<b>Additional road works in Olakha</b>				
Roads Nos. 11-19.	M/s JM Builders Pvt Ltd	KulBdrChhetri	kb2kc1@gmail.com	77379206

4.3 With reference to approved EMP/site-specific EMP/construction EMP, complete the table below

**Summary of Environmental Monitoring Activities (for the Reporting Period)<sup>6</sup>**

**Table 10: Summary of Environmental Monitoring Activities**

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>Design Phase &amp; Pre-Construction Phase</b>						
<b>1. Incorporate design measures to minimize environmental impacts</b>	<ul style="list-style-type: none"> <li>Detail design for project conforming to the government's environmental and technical design standards</li> <li>Identify potential disposal sites.</li> </ul>	Included in the designs.	Included in the Contract document.	Bid document.	Managed the site by project team/PIU.	PM, PIU
<b>Construction Phase</b>						
<b>I) Orientation for Contractors, Workers on environmental management.</b>	<ul style="list-style-type: none"> <li>PIU to conduct awareness training/ orientation on implementation of mitigation measures in the EMP.</li> <li>Provide HIV-AIDS education and disease prevention awareness talks to the contractor and their site agents</li> </ul>	<p>Training</p> <p>---"---</p>	<p>Record of training date, venue and list of participants.</p> <p>---do---</p>	<p>PIU</p> <p>---do---</p>	<p>9<sup>th</sup> October 2020. (Training not conducted as of 9<sup>th</sup> October 2020).</p>	<p>K.D. Chamling</p> <p>---do---</p>
<b>II) Drainage and Hydrological Impacts including storm water management.</b> - Wangchu River falls within the project area. Construction activities can affect/impact the river water quality due to erosion runoff.	<ul style="list-style-type: none"> <li>Contractor will implement following measures to minimize the impacts.</li> <li>During construction, the contractor will ensure the proper disposal of spoil and other wastes. Excavated construction spoil will be used for filling during road</li> </ul>	<p>Disposed spoils at pre-identified sites.</p>	<p>Amount of spoils disposed.</p>	<p>Disposal site.</p>	<p>9<sup>th</sup> October 2020</p>	<p>---do---</p>

<sup>6</sup> Attach Laboratory Results and Sampling Map/Locations

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<p>III) Materials exploitation &amp; management.</p> <ul style="list-style-type: none"> <li>To minimize adverse environmental impacts of borrowing and quarrying</li> </ul>	<p>widening and embankment construction.</p> <ul style="list-style-type: none"> <li>Protection of cut slopes with temporary or permanent drainage as soon as practicable after cutting</li> <li>As far as practicable road paving to be conducted in the dry season.</li> <li>Covering inlets of road drainage channels and manholes during paving operations</li> <li>Containing cleaning products and contaminated asphalt residues, scraping before cleaning and conducting cleaning activities away from surface water features or drainage channels.</li> <li>All construction materials, sand and stones to be procured from nearby government approved, existing and operational quarries.</li> <li>covering of materials during transportation and spraying of water along haulage route.</li> <li>In principle, the waste generation will be minimized at source.</li> <li>Waste products will be</li> </ul>	<p>Slopes with drains.</p> <p>Road</p> <p>Covering inlets</p> <p>Roads</p> <p>Materials brought on site.</p> <p>No dusts emissions during transportation.</p> <p>Amount of waste generated.</p>	<p>Drains constructed.</p> <p>Site visit</p> <p>Site visit</p> <p>Debris disposed at disposal sites.</p> <p>Transportation &amp; material purchased challans.</p> <p>Ocular assessment.</p> <p>Record of wastes generated.</p>	<p>Construction Site</p> <p>Construction Site</p> <p>-----do-----</p> <p>Identified disposal sites.</p> <p>Material stock yard</p> <p>During transportation.</p> <p>Construction sites and camps.</p>	<p>9<sup>th</sup> October 2020</p>	<p>K.D. Chamling</p>

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>IV) Waste</b> <ul style="list-style-type: none"> <li>• Reduce spoils generation.</li> <li>• Reduce, reuse and recycle waste to reduce contamination due to poor waste disposal practices</li> </ul>	<p>segregated into bio-degradable and non-biodegradable and disposed in Thimphu Thromde's waste collection system.</p> <ul style="list-style-type: none"> <li>• Recycling to be undertaken as far as possible. Examples would include recycling road resurfacing waste as aggregate (e.g. Reclaimed asphalt pavement or reclaimed concrete material) or as a base</li> <li>• Any recyclable waste which cannot be reused during construction will be sold to licensed scrap dealers.</li> <li>• Residual non-hazardous waste will be disposed-off in the municipal land fill.</li> <li>• Construction/workers camps will be provided with sufficient refuse bins.</li> <li>• Organic waste such as plant materials will be composted.</li> <li>• Animal carcasses will be collected in a timely manner and buried;</li> <li>• Disposal of solid wastes into flood ways, wetland, rivers, other watercourses, farmland, forest and associated places of worship or other culturally sensitive areas or areas where a livelihood is derived canals, agricultural fields and</li> </ul>	<p>Proper segregation of wastes and disposal.</p>	<p>Field inspection.</p>	<p>Work sites &amp; camps.</p>	<p>9<sup>th</sup> October 2020</p>	<p>K.D. Chamling</p>

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
V) Hazardous substances - Uses and waste disposal	<p>public areas will be prohibited. Solid waste will only be disposed in Thimphu Thromde's designated areas such as landfills.</p> <ul style="list-style-type: none"> <li>• Oil and lubricants will be safely stored. Secondary containment around fuel storage area will be ensured.</li> <li>• Controls and standard operating procedures will be developed for the use of fuels and other hazardous substances to prevent spills, accidents and pilferage.</li> <li>• Equipment/vehicle maintenance and refueling areas will be confined to areas in construction sites designed to contain spilled lubricants and fuels. Such areas will be provided with drainage leading to an oil-water separator that will be regularly skimmed of oil and maintained to ensure efficiency.</li> <li>• Fuel and other hazardous substances will be stored in safe and isolated areas provided with roof, impervious flooring and</li> </ul>	Methods of storage	No spillage.	Store/depot.	9 <sup>th</sup> October 2020	K.D. Chamling

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>VI) Asphalt hot mix plant</b>	<p>bund/containment wall to protect these from the spillage.</p> <ul style="list-style-type: none"> <li>• Hazardous wastes (oil, used batteries, fuel drums) will be segregated, labelled and safely stored. The spent oil and batteries will be sold to recycling dealers.</li> <li>• Hazardous materials will be stored away from water bodies and above flood level.</li> <li>• Clean-up operation using readily available absorbent such as sawdust will be carried out immediately during accidental spillage of hazardous waste.</li> <li>• All areas intended for storage of hazardous materials will be quarantined and provided with adequate facilities to combat emergency situations complying with all applicable statutory stipulation.</li> <li>• Bitumen as well as firewood will not be used as fuel for heating bitumen.</li> <li>• Bitumen will not be allowed to enter drainage system.</li> <li>• Bitumen storage and mixing areas shall be protected against spillage.</li> <li>• All accidental spills of bitumen or chemicals should</li> </ul>	Smoke, spillage	Less smoke, no spills of bitumen	Asphalt plant site	9 <sup>th</sup> October 2020	K.D. Chamling

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>VII) Air quality</b> <ul style="list-style-type: none"> <li>To minimize and reduce fugitive dust emissions and fumes from the construction vehicles.</li> </ul>	<p>be cleaned up immediately by removing the top 2cm of any contaminated soil underneath and disposed of as chemical waste to a site approved by the local authority.</p> <ul style="list-style-type: none"> <li>Recycle debris generated by dismantling of existing pavement subject to the suitability of the material.</li> <li>Water sprinkling / spraying using tanker will be done twice a day or as often as required based on visual observation in order to reduce dust generation.</li> <li>Fuel efficient and well-maintained haulage trucks will be employed to minimize exhaust emissions. Regular maintenance will be carried out.</li> <li>All vehicles and machinery used for construction should have valid pollution control certificates (emission tests certificates)</li> <li>Vehicles transporting soil, sand and other loose and fine construction materials shall not be overloaded and will be covered with tarpaulin sheets to reduce the release of dust and avoid impacts from dust. Speed limits of such vehicles within the works site and on</li> </ul>	Dust emission.	Ocular	Construction sites	9 <sup>th</sup> October 2020	K.D. Chamling

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>VIII) Noise</b> • Minimize nuisance to community due to increased noise levels	unpaved edge areas of the Project road will be established and agreed with the PMU. • Paving approach roads where possible. • Plan activities, in consultation with PIU, during periods of the day which will result in least disturbance; • Restrain horn blowing unless it is necessary to warn other road users or animals. • Ensure that noise levels do not exceed 5% of the NEC daytime noise level standards for residential and institutional areas. Works will not be conducted during night time. • If noise level exceed the stipulated limits then design and implement noise control measures such as the installation of temporary stationary noise barriers along the right of ways, use of equipment with good quality mufflers in working order, • Refraining from undertaking construction near schools during school hours or during examination periods, • Inform the residents and institutions of the construction schedule in their vicinity and	Noise at site.	Harshness of sound and no complaints from public.	Construction sites.	9 <sup>th</sup> October 2020	K.D. Chamling

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>IX) Camps construction and canteen facilities</b>	<p>the likelihood of excess noise during these periods, specifying the anticipated periods during which these impacts will affect them.</p> <ul style="list-style-type: none"> <li>• In the event, if blasting is required due to unavoidable circumstances, use only non-explosive chemical based blasting material (silent blasting technique) for rock breaking, which will not generate any noise or vibration.</li> <li>• Avoid camp construction too close to the local communities to avoid unwanted interference to the way of living of the local communities. Camps location to be consulted with PIU.</li> <li>• Adequate drinking water supply, basic food items, and cooking fuel (such as kerosene) will be provided to ward off competition on local resources.</li> <li>• For maintenance of proper health and hygiene adequate number of pit latrines and garbage cans will provided.</li> <li>• Fishing, hunting and illegal tree felling will be totally prohibited.</li> <li>• After completion of construction, the abandoned</li> </ul>	<p>Drinking water and electricity provided in camps.</p>	<p>Observation of camps</p>	<p>Camp sites.</p>	<p>9<sup>th</sup> October 2020</p>	<p>K.D. Chamling</p>

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>X) Occupational Health and Safety</b> <ul style="list-style-type: none"> <li>Physical hazards</li> </ul>	<p>campsite will be cleaned and restored to the original state. If a campsite is a government barren land then contractor will carry out compensatory plantation with suitable local or native plant species.</p> <ul style="list-style-type: none"> <li>Routing of traffic to alternative roads where possible</li> <li>Closure of lanes and diversion of traffic to the remaining lanes if the road is wide enough (e.g. re-routing the all traffic to one side of the road)</li> <li>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 work zone</li> <li>Design of work space to eliminate or decrease blind spots</li> <li>Reduction of maximum vehicle speeds in working zones</li> <li>Workers shall be provided with appropriate personnel safety equipment such as safety boots, helmets, gloves, reflective jackets, protective</li> </ul>	Safety equipment.	Safety gears issued and used.	Sites	9 <sup>th</sup> October 2020	K.D. Chamling

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	<p>clothes, dust mask, goggles, and ear protection at no cost to the workers.</p> <ul style="list-style-type: none"> <li>• Conducting training (assisted by PIU) for all workers on safety and environmental hygiene at no cost to the employees.</li> <li>• The contractor will instruct workers in health and safety matters as required by law and by good engineering practice and provide first aid facilities. This will include construction camp rules and site agents/foremen will follow up with toolbox talks on a regular basis.</li> <li>• When operating power tools at height, workers should use safety strap/belts.</li> <li>• Fencing on all areas of excavation greater than 1m deep and sides of temporary works shall be observed.</li> <li>• Contractor will at all-time keep the first aid kit at the construction sites.</li> <li>• Contractor will be responsible for evacuation injured person to the nearest medical center and bear all the medical expenses</li> <li>• Reflecting signals shall be installed on all construction vehicles and plant.</li> </ul>					

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<ul style="list-style-type: none"> <li><b>Chemical hazards</b></li> </ul>	<ul style="list-style-type: none"> <li>Use correct asphalt product and ensure application at the correct temperature to reduce fuming of bitumen during normal handling</li> <li>Reduction of engine idling time at construction sites to prevent high accumulation of toxic fumes.</li> <li>Use of extenders or other means to direct exhaust away from the operator.</li> <li>Use of protective clothing when working with cutbacks (a mixture of asphalt and solvents for the repair of pavement), diesel fuel or other solvents</li> <li>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.</li> </ul>	Protective clothing	No burns to workers.	Work site.	9 <sup>th</sup> October 2020	K.D. Chamling
<ul style="list-style-type: none"> <li><b>Public Health and safety</b></li> </ul>	<ul style="list-style-type: none"> <li>Provided safety barriers and proper signage at construction sites.</li> <li>Safe corridors for pedestrians must be provided along the road alignments.</li> <li>Safe crossing areas should be designated and marked for pedestrians and cyclists.</li> </ul>	Signs barriers. and	No accidents.	Construction sites.	9 <sup>th</sup> October 2020	K.D. Chamling

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
	<ul style="list-style-type: none"> <li>• Barriers must be installed to deter pedestrians' access to construction sites, except at designated crossing points.</li> <li>• Traffic calming devices and speed controls must be installed and maintained at pedestrian crossing sites.</li> <li>• Traffic must be adequately regulated (eg through signs, signals, markings) near critical pedestrian zones or bikeways.</li> <li>• Construction activities will be timed and provision for safe passage of school children and elderly will be provided.</li> <li>• At sensitive locations pedestrian movement will be guided by the security personnel.</li> <li>• Excavated trenches / ditches and freshly cut steep side slopes will be clearly marked and fenced for the safety of passersby and workers alike.</li> <li>• Project or construction vehicles will be briefed on speed limit within sensitive areas such as schools, commercial and residential areas.</li> <li>• In event of accidents, the contractor will be responsible for immediate evacuation of injured person to the nearest</li> </ul>					

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<ul style="list-style-type: none"> <li>Traffic safety and management</li> </ul>	<p>medical center. The contractor shall bear medical and other expenses of the injured person.</p> <ul style="list-style-type: none"> <li>Traffic management plan for construction period to be developed</li> <li>Local communities to be informed about the traffic management measures that will be in place during the period of the construction.</li> </ul>	<p>Signs and barriers.</p>	<p>Physical verification of signboards and barriers.</p>	<p>Work sites.</p>	<p>9<sup>th</sup> October 2020</p>	<p>K.D. Chamling</p>
<b>Operational Phase***</b>						

Impacts (List from IEE)	Mitigation Measures (List from IEE)	Parameters Monitored (As a minimum those identified in the IEE should be monitored)	Method of Monitoring	Location of Monitoring	Date of Monitoring Conducted	Name of Person Who Conducted the Monitoring
<b>1. Noise</b> - prevent excess noise	<ul style="list-style-type: none"> <li>Noise barrier will be installed if needed in future</li> </ul>	NA	NA	NA	NA	NA
<b>2. Gaseous Emission</b> - prevent air pollution	<ul style="list-style-type: none"> <li>Ensuring that vehicles undertake mandatory pollution checking and maintenance procedures.</li> <li>Undertake air quality monitoring</li> </ul>	NA	NA	NA	NA	NA
<b>3. Particulate emissions</b> - Control level of particulates	<ul style="list-style-type: none"> <li>The road surface will be maintained for smooth traffic flow and reduction of vehicular emission</li> <li>Undertake air quality monitoring</li> </ul>	NA	NA	NA	NA	NA
<b>4. Soil erosion and water pollution</b>	<ul style="list-style-type: none"> <li>Storm water drainage to be maintained and surrounding vegetation to be maintained in good working condition.</li> <li>Routine cleaning of the existing drains and water bodies.</li> </ul>	NA	NA	NA	NA	NA
<b>5. Driving conditions and community safety</b>	<ul style="list-style-type: none"> <li>Zebra crossings to be maintained (clear &amp; visible ).</li> <li>Pedestrian footpath to be properly maintained.</li> </ul>	NA	NA	NA	NA	NA

\*\*\*The environmental monitoring activities will be prepared/drawn up during the project completion report, as this project is for Design and implementation phases only. The Operational Phase will be the responsibility of Thimphu Thromde, MoWHS, RGoB. The PMU will continue submitting monitoring reports to ADB until a PCR is issued by ADB. The PMU will coordinate with Thimphu Thromde, MoWHS, RGoB to ensure that the EMP during the operation phase is being implemented.

## Overall Compliance with CEMP/ EMP

**Table 11:** Compliance with CEMP/ EMP

No.	Sub-Project Name	EMP/ CEMP Part of Contract Documents (Y/N)	CEMP/ EMP Being Implemented (Y/N)	Status of Implementation (Excellent/ Satisfactory/ Partially Satisfactory/ Below Satisfactory)	Action Proposed and Additional Measures Required
1	<b>TRIP 1:</b> Lots 1 & 4, 2 and 3	Yes	Yes	Satisfactory	None
2	<b>TRIP 2:</b> YHSS junction to Semtokha Mani Dungkhor	Yes	Yes	Satisfactory	None
3	<b>TRIP 3:</b>				
	<b>I.</b> Improvement of Road from Hotel dusicD2 yarkay to Multi Layer Car Parking (MLCP) junction	Yes	Yes	Satisfactory	None
4	<b>II. Road works in Olakha</b>				
	- All roads (1-10)	Yes	Yes	Satisfactory	None
	- Additional roads (11-19)	Yes	Yes	Satisfactory	None

### 5. APPROACH AND METHODOLOGY FOR ENVIRONMENTAL MONITORING OF THE PROJECT

#### 5.1 Briefly describe the approach and methodology used for environmental monitoring of each sub-project.

The approach used for environmental monitoring is a continuous one. An EMP is attached, as part of the project document, which the contractor is mandated to comply with. Therefore, the contractor is responsible for the daily monitoring of the ongoing activities. The PIU and the Environmental Officer of the Thromde are required to monitor the project activities on a regular basis, as and when required. Further, environmental monitoring is also carried out by the Environment Officers from National Environment Commission Secretariat (NECS) once or twice during the project period. They make 'surprise' visits to the project sites. As part of the project requirement Semi-annual Environment Monitoring Report is prepared and submitted to ADB.

### 6. MONITORING OF ENVIRONMENTAL IMPACTS ON PROJECT SURROUNDINGS (Ambient Air, Water Quality And Noise Levels)

#### 6.1 Discuss the general condition of surroundings at the project site, with consideration of the following, whichever are applicable:

- Confirm if any dust was noted to escape the site boundaries and identify dust suppression techniques followed for site/s.
  - No dust was seen as the work was completed.

- Identify if muddy water is escaping site boundaries or if muddy tracks are seen on adjacent roads.
  - No muddy water was seen escaping the site boundaries or on adjacent roads.
- Identify type of erosion and sediment control measures installed on site/s, condition of erosion and sediment control measures including if these are intact following heavy rain;
  - No erosion and sedimentations observed at site as the works are completed.
- Identify designated areas for concrete works, chemical storage, construction materials, and refueling. Attach photographs of each area in the Appendix.
  - Construction of footpaths and drains are completed. No chemical storage is required. Refueling and vehicle maintenance are done in existing refueling centers and workshops to prevent ground and soil pollutions
- Confirm spill kits on site and site procedure for handling emergencies.
  - Contractors have first-aid kits at site. During emergency medical evacuation, vehicles at sites shall be used for evacuation of the patients to the nearest hospital. On the worst case scenario there are taxis available to reach the patients to hospitals, as the work sites are within 5-km radius.
- Identify any chemical stored on site and provide information on storage condition. Attach photograph.
  - No chemical stored at site.
- Describe management of stockpiles (construction materials, excavated soils, spoils, etc.). Provide photographs.
  - During the site visit no stock-piles of construction materials were seen as the works are completed.
- Describe management of solid and liquid wastes on-site (quantity generated, transport, storage and disposal). Provide photographs.
  - The solid waste quantity generated is negligible from camps and whatever generated is disposed off through the municipal waste disposal system. Spoils generated from the road works were disposed off in pre-identified disposal sites of Thromde. There is hardly anything of liquid waste generation in the project activity.
- Provide information on barricades, signage, and on-site boards. Provide photographs in the Appendix.
  - No barricades or signage seen as the road works are complete and opened for traffic.
- Indicate if there are any activities being under taken out of working hours and how that is being managed.
  - No activities being undertaken out of working hours.
- Briefly discuss the basis for environmental parameters monitoring.

The IEE for TRIP does not specify environmental monitoring and no baseline studies were carried out. Primarily it is an improvement of existing roads and the scope of the works is limited to small and few items, where it does not require deployment of huge numbers of men and machineries. Whatever environmental concerns and issues would be easily addressed through the implementation of mitigation measures recommended in the EMP prepared for the project during implementation stage.

Due to lack of equipment, no monitoring and analysis of (i) Air Quality results, (ii) Water Quality results and (iii) Noise Quality Results have been carried out. However, corrective measures required to be taken will be implemented as per the National Standards annexed in the IEE report as **Appendix 3: Environmental Criteria and Standards**.

The PIU carries out all supervision and monitoring activities on a daily basis based on the contractor's workplan. All safeguards issues are monitored based on the bid document, EMP and EC clauses. Lapses are pointed out to be rectified as work progresses.

The safeguards consultants jointly visit the works sites, with PIU and contractors, during the SEMR preparation to monitor the ongoing works. Lapses and any shortfalls observed are pointed out and necessary instructions given at site. Most of the issues have been minor requiring a little more attention to rectify them. There have been no major issues in the implementation of the project so far. Therefore, no separate monitoring field reports have been prepared so far. The SEMR is considered as the monitoring report for the project.

Consultative meetings were carried out during the project development phase. No consultative or focus group discussions were carried out during the reporting period due to the Covid19 pandemic. Further there was not any grievance so far during the implementation of the project activities that warranted any discussion or redress grievance.

## **7. GRIEVANCE REDRESS MECHANISM**

- 7.1 Provide information on establishment of grievance redress mechanism and capacity of grievance redress committee to address project-related issues/complaints. Include as appendix Notification of the GRM (town-wise if applicable).

To address any grievance received Thimphu Thromde has constituted the following mechanism.

**First tier of GRM:** A designated locally elected Thromde representative shall be the channel through which complaints shall be lodged. Thereafter the PIU is the first tier of GRM which offers the fastest and most accessible mechanism for resolution of grievances. The Project Managers (PM/PIU) will be designated as the key officer for grievance redress. Resolution of complaints will be done within seven working (7) days. Investigation of grievances will involve site visits and consultations with relevant parties (e.g., affected persons, contractors, police, etc.) Grievances will be documented and personal details (name, address, date of complaint, etc.) will be included unless the person complaining requests for anonymity.

A tracking number shall be assigned for each grievance, including the following elements; (i) initial grievance sheet (including the description of the grievance), with an acknowledgement of receipt handed back to the complainant when the complaint is registered; (ii) grievance monitoring sheet, mentioning actions taken (investigation, corrective measures); (iii) closure sheet, one copy of which will be handed to the complainant after he/she has agreed to the resolution and signed-off. The updated register of grievances and complaints will be available to the public at the Thromde office. Should the grievance remain unresolved it will be escalated to the second tier.

**Second Tier of GRM:** The PM of respective sub-projects will activate the second tier of GRM by referring the unresolved issue (with written documentation) to Thromde Office who will pass unresolved complaints upward to the Grievance Redress Committee (GRC). The GRC shall be established by Thimphu Thromde before commencement of site works. The GRC will consist of the following persons: (i)

Executive Secretary; (ii) Division Heads of Thimphu Thromde; (iii) Environmental Officer (iv) Project Manager; (v) Elected representative of the affected person(s); and (vi) representative of the Thromde Land Record Officer. A hearing will be called with the GRC, if necessary, where the affected person can present his/her concern/issues. The process will facilitate resolution through mediation. The local GRC will meet as necessary when there are grievances to be addressed. The local GRC will suggest corrective measures at the field level and assign clear responsibilities for implementing its decision within fifteen (15) working days. The contractor will have observer status on the committee. If unsatisfied with the decision, the existence of the GRC shall not impede the complainant's access to the Government's judicial or administrative remedies.

The functions of the local GRC with regards to environmental concerns are as follows: (i) resolve problems and provide support to affected persons arising from various environmental issues including issues; hampering conduct of business, utilities, power and water supply, waste disposal, traffic interference and public safety; (ii) reconfirm grievances of affected persons, categorize and prioritize them and aim to provide solutions within a month; and (iii) report to the aggrieved parties about developments regarding their grievances and decisions of the GRC.

The environment officer or the land record officer in Thimphu Thromde will be responsible for processing and placing all papers before the GRC, maintaining database of complaints, recording decisions, issuing minutes of the meetings and monitoring to see that formal orders are issued and the decisions carried out.

**Third tier of GRM:** In the event that a grievance cannot be resolved directly by the GRC the affected person can seek alternative redress through an appropriate court. The GRC will be kept informed by the Thromde authority. The monitoring reports shall include the following aspects pertaining to progress on grievances: (i) Number of cases registered with the GRC, level of jurisdiction, number of hearings held, decisions made, and the status of pending cases; and (ii) lists of cases in process and already decided upon may be prepared with details such as Name, ID with unique serial number, date of notice, date of application, date of hearing, decisions, remarks, actions taken to resolve issues and status of grievance.

## 8. COMPLAINTS RECEIVED DURING THE REPORTING PERIOD

- 8.1 Provide information on number, nature, and resolution of complaints received during reporting period. Attach records as per GRM in the approved IEE. Identify safeguards team member/s involved in the GRM process. Attach minutes of meetings (ensure English translation is provided).

The project has not received any grievance so far.

## 9. SUMMARY OF KEY ISSUES AND REMEDIAL ACTIONS

- 9.1 Summary of follow up time-bound actions to be taken within a set timeframe.

Till 9<sup>th</sup> October 2020 all packages, **Package 1, Package 2, Package 3** and including the additional works awarded have been completed. **Table 12** below shows the project packages, starting date of implementation, schedule date of completion etc. along with physical progress.

**Table 12:** Sub-project status

Sl. No	Lot No.	Location / Area of Activities	Start date of Implementation	Actual months of completion	Actual date of completion	Physical progress (%) as on 22 April 2020
1	<b>Package 1</b>					
	I	Motithang Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
	II	Samteling, Supreme Court, Chubachhu&Vegetable Market Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
	III	Changzamtok&Changbandu Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
	IV	Olakha, Semtokha&Babesa Area	24 <sup>th</sup> May 2017	18 Months	24 <sup>th</sup> Nov 2018	100%
2	<b>Package 2</b>					
		YHSS junction to Semtokha Mani Dungkhon	4 <sup>th</sup> June 2018	18 Months	26 <sup>th</sup> April 2020 (Time extended from original date of 5 <sup>th</sup> Dec 2019).	100 %.
3	<b>Package 3</b>					
	I.	Improvement of Road from Hotel dusitD2 to Multi Layer Car Parking (MLCP) junction	2 October 2019	9 months	2 July 2020	100 %.
	II.	Road improvement works in Olakha	3 <sup>rd</sup> October 2019	9 months	27 <sup>th</sup> June 2020	100 %.
	Road 1	Below Olarongchu bridge (L=345m, W=5.1)	3 <sup>rd</sup> October 2019	100 %.	100 %.	100 %.
	Road 2	Access road inside this area (L=100m, W=4m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 3	Straight road from Olarongchu road (L=70m, W=4m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 4	Straight road from expressway junction till vegetable market junction(L=175m, W=7m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 5	Road connecting Ariya hotel and road above (L=260m, W=7m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 6	Access road (L=40m, W=4.5m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 7	Main road and sewer road (L=500m, W=7.5m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 8	Straight road in sewer area(L=135m, W=4m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 9	Road in front of Ariya hotel (L=386m, W=7m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
	Road 10	Road near Ariya Hotel (L=265m, W=3.6m)	3 <sup>rd</sup> October 201	100 %.	100 %.	100 %.
<b>Additional Road works</b>						
<b>Road No.</b>	<b>Length (m)</b>	<b>Work scope/activities</b>	<b>Duration</b>		100 %.	
Road 11	130 m	Dismantling, subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), u-drain (20m)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)		100 %.	
Road 12	135 m	AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)		100 %.	

Road 13	48 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), side drain	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.
Road 14	81 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.
Road 15	35 m	AC	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.
Road 16	50 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.
Road 17	85 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.
Road 18	50 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm), side drain.	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.
Road 19	350 m	Subgrade preparation, GSB (200mm), WMM (100mm), AC (40mm)	9 months (3 <sup>rd</sup> Oct 2019 till 27 <sup>th</sup> June 2020)	100 %.

## 10. APPENDICES

10.1 Photographs

10.2 Google Map of Sites





- 1) Improvement of Road from Hotel dusitD2 yarkay to Multi Layer Car Parking (MLCP) junction
- 2) Repair and Maintenance of Road at Olakha
- 3) Additional Roads at Olakha
- 4) Road widening from YHHS junction till Semtokha Mani Dungkhor





10.3 Environment Clearance \_ YHSS Junction – Semtokha Mani Dungkhor road.




10.4 Letters for Environmental Clearance renewal;





- i) TT/INFRA/RBS/2019-2020/1522 dated 02/04/2020
- ii) PMU/TRIP/2019 – 2020/302 dated 19 May 2020





10.1      Photographs  
i)          Package 2




Sl. No	Name of work/activities	Present status	Picture reference	Remarks
1	YHSS junction to Semtokha Mani Dungkhor	Completed		Sign board erected at site.  Photo taken on 21 April 2020.
2	--''---	--''---		YHSS junction.  Photo taken on 21 April 2020.
3	--''---	--''---		Completed drains and AC works at YHSS junction.  Photo taken on 21 April 2020.
4	--''---	--''---		Completed AC works near YHSS junction.  Photo taken on 21 April 2020.

Sl. No	Name of work/activities	Present status	Picture reference	Remarks
5	YHSS junction to Semtokha Mani Dungkhor	Completed		Completed drains and AC works at YHSS junction.  Photo taken on 21 April 2020.
6	--''---	--''---	  	Restored footpaths. - Restored footpath; - Breast wall provided, - Access road provided to private home, - Drain completed.  Photo taken on 21 April 2020.  Photo taken on 21 April 2020.  Photo taken on 21 April 2020.





Sl. No	Name of work/activities	Present status	Picture reference	Remarks
7	YHSS junction to Semtokha Mani Dungkhor	Completed		<p>Two trees along the road widening alignment are kept intact (un-felled) due to religious beliefs. The road will be widened on the valley side providing a retaining wall. It is also here that remaining portion of AC is let and yet to be constructed.  <i>(This will be taken up by Thimphu Thromde later through government budget).</i></p> <p>Photo taken on 21 April 2020.</p>
8	--''---	--''---		<p>Road widening works yet to be taken up below the two trees. Retaining wall will be constructed and the existing private access road would be improved and the balance AC works to be completed.  <i>(This will be taken up by Thimphu Thromde later on their budget).</i></p> <p>Photo taken on 21 April 2020.</p>
9	--''---	--''---		<p><b>Breast walls.</b></p> <p>Photos taken on 3 Nov 2019 (L) and 21 April 2020.(R)</p>


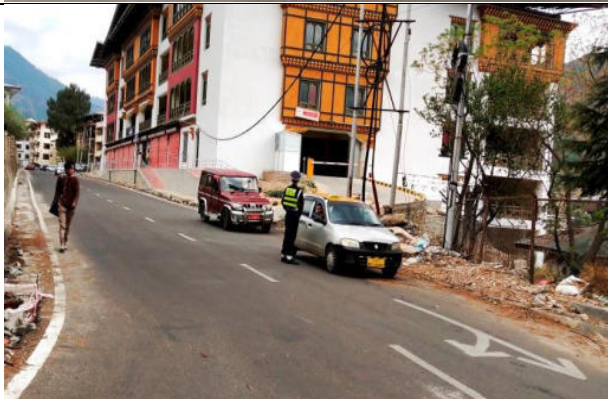


Sl. No	Name of work/activities	Present status	Picture reference	Remarks
10	YHSS junction to Semtokha Mani Dungkhor	Completed	   	<p>Providing access roads to:</p> <p>i) Access road to upper Lungtenphug area</p> <p>Photo taken on 9 October 2020.</p> <p>ii) Private residence near Semtokha.</p> <p>Photo taken on 9 October 2020.</p> <p>iii) BPC colony near Semtokha.</p> <p>Photo taken on 9 October 2020.</p> <p>iv) Private residence near Semtokha</p> <p>Photo taken on 9 October 2020.</p>




Sl. No	Name of work/activities	Present status	Picture reference	Remarks
11	YHSS junction to Semtokha Mani Dungkhor	Completed	   	<p>i) Below Army Hospital, Lungtenphu.</p> <p>Photo taken on 9 October 2020.</p> <p>ii) Near junction, Lungtenphu .</p> <p>Photo taken on 9 October 2020.</p> <p>iii) Lungtenphu Army area</p> <p>Photo taken on 9 October 2020iv) Lungtenphu Army area.</p> <p>Photos taken on 9 October 2020.</p>

Sl. No	Name of work/activities	Present status	Picture reference	Remarks
12	YHSS junction to Semtokha Mani Dungkhor	Completed	  	<p>End of work site near existing 'Fly-over' bridge at Semtokha.</p> <p>i. View from Semtokha side. Photo taken: 21 April 2020.</p> <p>ii) View from Thimphu side. Photo taken: 21 April 2020.</p> <p>iii) End point (where a vehicle is) from Thimphu side. Photo taken: 21 April 2020.</p>

ii) Package 3

Sl. No	Name of work/activities	Present status	Picture reference	Remarks
1	I. Improvement of Road from Hotel dusitD2 yarkay to Multi Layer Car Parking (MLCP) junction	Completed.	 	<p>Entrance towards parking lot from Hotel dusitD2 yarkay.</p> <p>i) Works ongoing</p> <p>Photo taken: 3 Nov 2019.</p> <p>ii) Works complete</p> <p>Photo taken: 21 April 2020.</p>
2	--''---	--''---	 	<p>Exit towards Hotel Le Meridien.</p> <p>Photo taken: 3 Nov 2019.</p> <p>ii) Works complete.</p> <p>Photo taken: 21 April 2020.</p>

Sl. No	Name of work/activities	Present status	Picture reference	Remarks
3	Improvement of Road from Hotel dusitD2 yarkay to Multi Layer Car Parking (MLCP) junction	Completed.		Parking lot in front of Hotel dusitD2 yarkay. Work completed.  Photo taken: 21 April 2020.
4	--''---	--''---		Work completed in front of Multi-layer car parking.  Photo taken: 21 April 2020.
5	II.Repair and Maintenance of Road at Olakha	Complete	 	Road no.1: Compete. Below Olarongchu bridge  Photo taken on 9 October 2020.  ii. Road no.1: Below Olarongchu bridge  Photo taken on 21 April 2020.

Sl. No	Name of work/activities	Present status	Picture reference	Remarks
6	Repair and Maintenance of Road at Olakha	Complete		Road no. 10: Road to Chang Rigphel Pry School  Photo taken on 9 October 2020.
	--''---	--''---		Road No, 9: Work completed in front of AriyaHotel.  Photo taken on 9 October 2020.
	--''---	--''---		Road no. 1, 3 & 4 junction. Complete.  Photo taken on 9 October 2020.

## 10.2 Checklists

Sl. No	Location/ Zone	Sub-Project component (Package No)	Starting date of Implementation	Projected months of completion	Status as on 22 April 2020.	Environmental Safeguards		
						Environmental Clearance	EMP Implementation	Status of EMP Implementation
<b>1</b>	<b>Package 1</b>							
1)	Lot I. Motithang Area and Core Area	Construction of roads, drains and footpath.	24/05/2017	18	Completed.	Not required	Yes	Satisfactory
2)	Lot II. Samteling Area / Supreme Court Area / Vegitable Market Area / Chubachu Area	Construction of roads, drains and footpath.	24/05/2017	18	Completed	Not required	Yes	Satisfactory
3)	Lot III. Changzamtok&Changban du Area	Construction of roads, drains and footpath.	24/05/2017	18	Completed	Not required	Yes	Satisfactory
4)	Lot IV. Semtokha / Babesa&Olakha Area	Construction of roads, drains and footpath.	24/05/2017	18	Completed	Not required	Yes	Satisfactory
<b>2</b>	<b>Package 2</b>							
1)	<b>YHSS junction to Semtokha Mani Dungkhor</b>	Road Widening	4th June 2018	18 Months	100%	Required	Yes	Satisfactory
<b>3</b>	<b>Package 3</b>							
<b>I</b>	<b>Improvement of Road from Hotel dusitD2 yarkay to Multi Layer Car Parking (MLCP) junction</b>	Road improvement	2 October 2019	9 months	100%	Not required	Yes	Satisfactory
<b>II</b>	<b>i) Road improvement works in Olakha. Road Nos. 1-10</b>	Road improvement	3 <sup>rd</sup> October 2019	9 months	100%	Not required	Yes	Satisfactory
	<b>ii) Additional road works. Road Nos. 11-20.</b>	Road improvement	3 <sup>rd</sup> October 2019	9 months	100%	Not required	Yes	Satisfactory

## Google Map of Sites

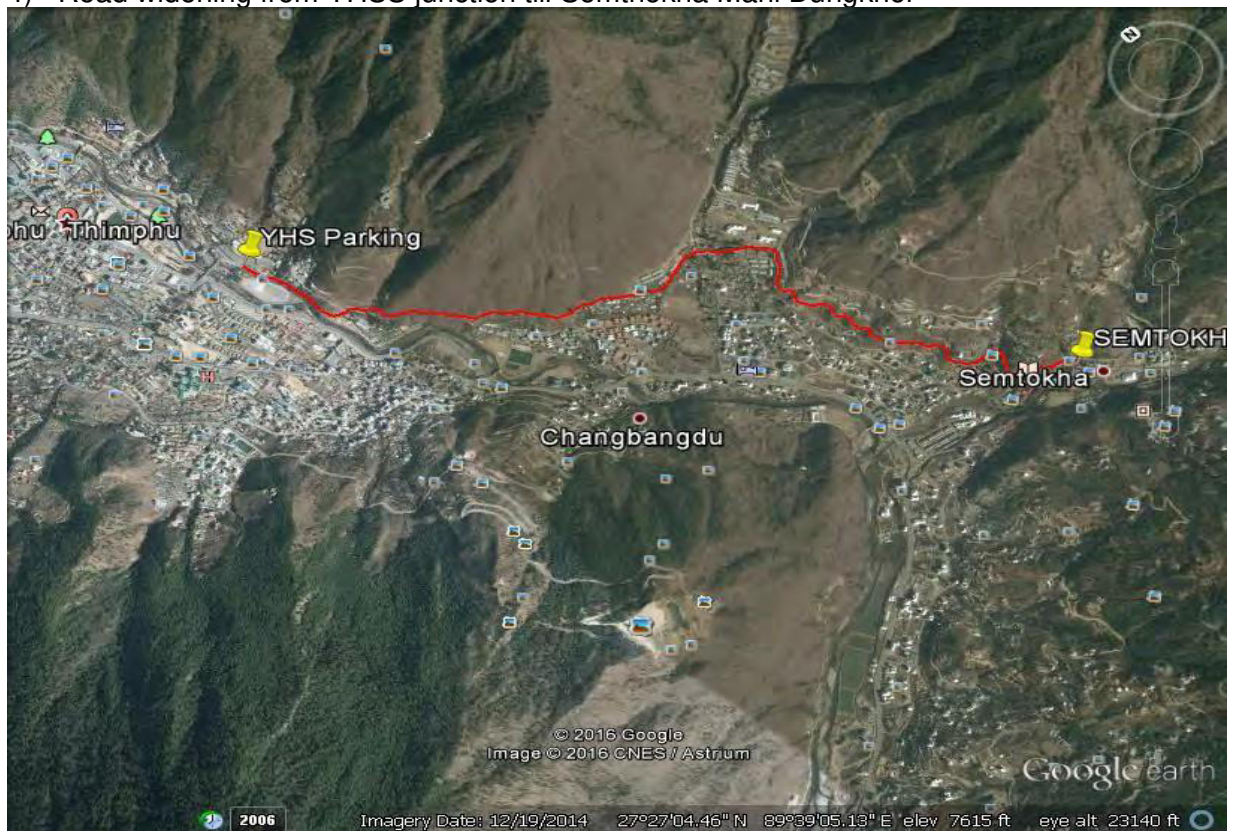
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3) Additional Roads (11-19) at Olakha.



4) Road widening from YHSS junction till Semthokha Mani Dungkhor



#### 10.4 Environment Clearance \_ YHSS Junction – Semtokha Mani Dungkhor road.



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ROYAL GOVERNMENT OF BHUTAN  
MINISTRY OF WORKS & HUMAN SETTLEMENT  
THIMPHU: BHUTAN



*"Construction Industry: Solutions to innovation and improved technology"*

MoWHS/PPD/Env/01/2017/ 2502

16<sup>th</sup> January, 2017

Dasho Thrompon  
Thimphu Thromde  
Thimphu

**Subject: Environmental Clearance for road widening along Lungtenzampa - Semtokha Highway, Thim Throm**

Dasho,

The MoWHS is pleased to issue the environmental clearance for Road widening along Lungtenzampa -Semtokha highway, Thim Throm with the following terms and conditions:

1. This EC is valid for road widening of 4400 meters along Lungtenzampa- Semtokha highway only;
2. All activities pertaining to this road shall be in line with the Environmental Codes of Practice for Highways and Roads 1999 ( Department of Roads, MoWHS), the guidelines of Highways and Roads 2009( NEC), and the Forest and Nature Conservation Act 1995;
3. No disturbance shall be caused to other private, public and religious sites due to this project activity;
4. Appropriate fencing, signboards and carriage width shall be maintained for safety of the public, workers and vehicles plying on this road;
5. Environmentally Friendly Road Construction (EFRC) techniques shall be adopted for minimal environment damages;
6. Indiscriminate dumping of excavated materials is an offence and liable for penalty, Construction spoils must not be allowed to contaminate water courses. The dumpsite for such materials must be secured so that they should not leach in to the ground water
7. Side drains, cross drains and support structures like retaining walls/ breast walls should be constructed where ever necessary in order to prevent future soil erosion and landslides;
8. Blasting must be carried out as per the Rules and Regulations of Ministry of Home and Cultural Affairs, Ensure proper warning signals are given prior to blasting;
9. Occupational Health and Safety measures should strictly be observed at all times;
10. Any disputes arising due to the project area is the responsibility of the project proponent;
11. The proponent must ensure that due to this proposed activity must not affect any infrastructure or encroach on any private property/ infrastructure;
12. Appropriate arrangement for solid waste management shall be made prior to the completion of this activity;
13. Aesthetic value must be preserved/ enhanced by reclaiming the disturbed area with re-vegetation of grasses or trees in consultation with the Department of Forest;
14. Copy of this EC must be maintained at site at all times during the whole period of road widening for environment management and monitoring references; and



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Any violation of the terms and conditions is violation of Article 7 of the EA Act 2000 which will result in revocation of the EC. In case of non- completion of the activity within the given period, the EC must be renewed one month prior to the date of its expiry.

**This Clearance is valid for the road widening till 17<sup>th</sup> January, 2019.**

Yours faithfully,



(Sonam Desel)  
Offtg. Chief Planning Officer, PPD, MoWHS

Copy to:

- 15. Hon'ble Secretary, MoWHS, for kind information
- 16. Chief, ESD, NEC, Thimphu for information
- 17. Office copy

## 10.5 Application letters for Environmental Clearance renewal

i) TT/INFRA/RBS/2019-2020/1522 dated 02/04/2020

	<p><b>ཐིམ་ཕུག་ཐྲོམ་སྡེ།</b> <b>Thimphu Thromde</b> Building No: 08 Gongdzin lam Thimphu -11001: Bhutan</p>	
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TT/INFRA/RBS/2019-2020/ 1522	Date: 02/04/2020
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The Chief Planning Officer  
Policy and Planning Division  
MoWHS

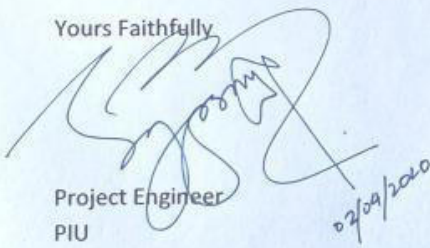
**Subject: Request for extension of Environmental Clearance for the work of widening of road from YHS till Semtokha: Thimphu Road Improvement Project (G-0499)**

Sir,

This is to request for renewal of Environmental clearance for the work of Construction of Improvement of YHS-Semtokha Mani Dhungkhor Road (Package – II) work until June, 2020.

Thanking You

Yours Faithfully

  
Project Engineer  
PIU  
02/04/2020

Copy:

- The Executive Secretary, TT for kind information
- The PM, PMU, MoWHS for kind information
- The Chief Engineer, Infrastructure Division, TT for kind information
- Head, RBS for kind information

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Dasho Thrompon: +975-2-323665, Executive Secretary: +975-2-340355  
Phone: +975-2-336310/322757/322265 Fax: +975-2-323662/340415/338951/334203  
[www.thimphucity.bt](http://www.thimphucity.bt)



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ROYAL GOVERNMENT OF BHUTAN  
MINISTRY OF WORKS & HUMAN SETTLEMENT  
DEPARTMENT OF ENGINEERING SERVICES  
THIMPHU: BHUTAN



Post Box No.129

*“Construction Industry: Solutions to innovation and improved technology”*

PMU/TRIP/2019 -2020/ 302

Dated: 19 May 2020

The Executive Secretary  
Thimphu Thromde

Sub: Renewal of Environmental Clearance for widening of Road on YHS – Semtokha:  
Thimphu Road Improvement Project (TRIP) G0499

Sir,

In order to provide a copy of the environmental clearance to ADB, a requirement for donor funded projects, which they have long insisted for, please process for renewal of the environmental clearance if it has not been done yet. A copy of the renewed environmental clearance may be given to us for our record and for submission to ADB.

Yours faithfully,

Karma Dupchuk  
Project Director  
DES, MoWHS

cc:

The Chief Planning Officer, PPD, MoWHS  
The Project Manager/Chief Engineer, Thimphu Thromde

**SOUTH ASIA REGIONAL DEPARTMENT**  
**SAUW Semi-Environmental Monitoring Report Log Sheet**

<b>Project title:</b>	<b>BHU: Thimphu Road Improvement Project</b>		
<b>Grant Number:</b>	<b>0499</b>	<b>Project Number:</b>	<b>44240-014</b>
<b>Overall Project Description and Objectives</b>	<p>The proposed Thimphu Road Improvement Project<sup>1</sup> will complement the previous and ongoing urban development projects of the Asian Development Bank (ADB) to develop Thimphu, Bhutan's capital.<sup>2</sup> The project will support the repair, resurfacing, and improvement of roads in Thimphu Thromde (municipality),<sup>3</sup> and support municipal government staff's capacity building for operation and maintenance (O&amp;M) and asset management. The following are the expected outputs:</p> <p><b>Output 1: Repair, resurfacing, and improvement of roads in Thimphu Thromde completed.</b> The project will improve 32.99 kilometers (km) of urban roads, involving the construction of 9.15 km of drainage and 4.83 km of footpaths, by 2018. The project will also widen 3.54 km of urban roads and improve 4,239 square meters of parking space. The road improvements will cover the southern and northern LAPs, and city center of Thimphu.</p> <p><b>Output 2: Municipality's capacity for asset management and O&amp;M strengthened.</b> The project will support capacity building to award contracts effectively and meet contract completion targets on time. The project will also train 10–15 key staff (at least 30% women) in project planning, design, construction, asset management, O&amp;M, road safety, and traffic management.</p>		
<b>Approved Categorization</b>		Category A	Category C
	X	Category B	FI
<b>Loan Effectivity Date:</b>	<b>5 December 2016</b>		<b>Frequency of Reporting</b>
<b>Project Officer</b>	<b>Saswati Belliapa</b>	<b>Project Analyst</b>	<b>Krizelda Marie L. Songco</b>
<b>Reporting Year</b>	<b>2020</b>	<b>Coverage Period</b>	<b>May 2020- October 2020</b>

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
<b>A. Project Safeguards Team (check loan agreement and PAM requirements)</b>				
PMU <sup>2</sup>	PMU Project Manager included in the SEMR. PMU is supported by environment specialist consultant	Complied.	In Table 3 of the SEMR, please indicate the roles of the PMU, PIU and Consultants.	Done.
PIU <sup>3</sup>	PIU project manager and engineers included in the SEMR.	Complied.		The PMU is supported by environmental and social specialists from another ADB project. No dedicated consultants are
Consultants	There is one (1) environment specialist One (1) social safeguard specialist	Complied.		

<sup>1</sup> PMU to provide detailed response. This log sheet will be attached to the SEMR and disclosed on ADB website.

<sup>2</sup> PMU – project management unit

<sup>3</sup> PIU – project implementation unit

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
				engaged for this project.
<b>B. Overall Project and Subproject Description</b> (summarize number and type of packages) <sup>4</sup>				
Number of Packages with civil works (check if consistent with latest procurement plan)	3 packages on road works, plus additional road works funded by savings and Thromde.		None.	
Number of DB/DBO packages and status	None.	N/A	None.	
Number of civil works packages and status	<p>Package 1 (Rehabilitate urban road infrastructure Zones I-IV) – 100% completed</p> <p>Package 2 (Road Widening between Semtokha Mani Dungkhor – YHS Junction) – 100% completed</p> <p>Package 3 (Road improvement works – Olakha and other areas) – 100 % completed</p> <p>Additional road works (Roads 11-20)- 100% completed</p>	<b>Complied.</b> The package-wise description in the report is well presented.	None.	
IEEs cleared for awarded packages?	Per the SEMR, the IEE for Packages 1 and 2 was submitted to ADB and published in ADB website. An EMP for Package 3 was prepared for IFP purposes.	Please see action/s required.	Please provide the link to the project website disclosed IEE report/s.	Link to ADB website-disclosed IEE documents were provided.
Safeguard documents disclosed on project website?	Per the SEMR, the IEE for Packages 1 and 2 was submitted to ADB and published in ADB website and MoWHS website.		Please provide the link to the project website disclosed IEE report/s.	Link to ADB website-disclosed IEE documents were provided.

<sup>4</sup> DB/DBO – design-build or design, build, and operate or where contractor will finalize the detailed engineering design; civil works contract – sufficient details of the package is known and used as basis for bid/contract's Technical Specification

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
SEMR information on implementation phase (bidding, on-going, construction, completed, under operation, others)	All road works have been 100% completed.	<b>Complied.</b> The SEMR is clear on the physical progress of subprojects.	None.	
SEMR information on construction activities progress	All road works have been 100% completed.	<b>Complied.</b> The SEMR is clear on the physical progress of subprojects.	None.	
<b>C. Status of compliance with statutory clearances</b> (check IEE for the complete list, summarize the findings for each package – obtained/under application and if obtained, specify validity period)				
Environmental Clearance (EC)	EC has been issued vide letter number MoWHS/PPD/Env/01/2017/2502 dated 16th January 2017 with validity till January 17, 2019. The PIU has requested MoWHS for the renewal vide letter number i)TT/INFRA/RBS/2019-2020/1522 dated 02/04/2020 and and ii) PMU/TRIP/2019 – 2020/302 dated 19 May 2020. The renewed EC is still awaited. The PIU is pursuing with MoWHS for the EC renewal. The PIU has been reminded once more to obtain the renewed EC at the earliest to avoid any setbacks in the project implementation. The renewal request letters are attached in the SEMR.		Please get a confirmation from the MoWHS that they are processing the EC renewal. Provide a copy of the valid EC before the project officially closes.	The validity of the EC has expired and the PIU has applied for its renewal. The EC is yet to be obtained.  PIU has been reminded to follow up and obtain the renewed EC at the earliest possible.
Forest Clearance	Not required.		None.	
No Objection Certificate/Letter	Not required.		None.	
Site location clearance	Not required.		None.	
Permit/Consent to Construct (or equivalent)	Not required.		None.	
Permit/Consent to Operate (or equivalent)	Not required.		None.	
Road-cutting permit	Not required.		None.	
Utilities shifting permit	Not required.		None.	
Tree-cutting permit	Not required.		None.	
Others (specify)				
<b>D. Status of Compliance with grant agreements/covenants</b> (verify items in SEMR with project loan agreement)				
EA shall not award any works contract which involves environmental impacts until the National Environmental Commission or other	The MoWHS issued the EC vide letter No. MoWHS/PPD/Env/01/2017	<b>Complied.</b> The project had a valid EC before the implementation started.	Please get a confirmation from the MoWHS that they are processing the	The validity of the EC has expired and the PIU has

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
designated authority has granted the final approval of the IEE.	2502 dated 16th January, 2017 valid till 17th January 2019 for Road widening along YHSS junction to Semtokha Mani Dungkhor. The validity of the EC has expired and the PIU has applied for its renewal. The EC is yet to be obtained. PIU has been reminded to follow up and obtain the renewed EC at the earliest possible.  Implementation of Package 1 started in May 2017.	However, it expired in the middle of project implementation.	EC renewal. Provide a copy of the valid EC before the project officially closes.	applied for its renewal. The EC is yet to be obtained.  PIU has been reminded to follow up and obtain the renewed EC at the earliest possible.
EA shall not award any works contract which involves environmental impacts until relevant provisions of the EMP are incorporated into the works contract.	Per the SEMR, "all relevant provisions included in the EMP and this EMP [was] attached with the bid document for compliance.		PMU to indicate the relevant section/paragraphs in the works contracts.	Done.
EA to ensure the preparation, design, construction, implementation, operation and decommissioning of the project, and all subproject facilities comply with; (i) all applicable laws and regulations of the Borrower and the State relating to environment, health, safety; (ii) the Environmental Safeguards; (iii) EARF; and (iv) all measures and requirements set forth in the respective IEE and EMP, and any corrective or preventative actions set forth in a Safeguards Monitoring Report.	Noted as "Complied" in the SEMR.		PMU to provide a brief discussion on how compliance with applicable laws and regulations on environmental, health and safety, environmental safeguards, IEE/EMP, and corrective actions in SEMRs is ensured during the reporting period.	Done.
EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:- Comply with the measures and requirements relevant to the contractor set forth in the IEE and EMP; and any corrective or preventive actions set out in a Safeguards Monitoring Report.	Noted as "Complied" in the SEMR.		PMU to indicate the relevant section/paragraphs in bid documents/contracts.	Done.
EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:-	Noted as "Complied" in the SEMR.		PMU to indicate the relevant section/paragraphs in bid documents/contracts.	Done.

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
make available a budget for all such environmental measures.				
EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:-  provide the EA with a written notice of any unanticipated environmental impacts that arise during construction, implementation or operation of the project that were not considered in the IEE and in the EMP.	Noted as "Complied" in the SEMR.	Please refer to the action/s required.	PMU to indicate the relevant section/paragraphs in bid documents/contracts.	Done.
EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:-  adequately record the condition of roads, agricultural land and other infrastructure prior to starting to transport materials and construction	Noted as "Complied" in the SEMR.	Please refer to the action/s required.	PMU to indicate the relevant section/paragraphs in bid documents/contracts.	Since the project site is within the Urban City and does not pass through agricultural land, there were no requirements for this.
EA to ensure all bidding documents and contracts for Works contain provisions that require contractors to:-  fully reinstate pathways, other local infrastructure, and agricultural land to at least their pre-project condition upon the completion of construction.	Noted as "Complied" in the SEMR. Existing footpaths restored with photos attached.		PMU to indicate the relevant section/paragraphs in bid documents/contracts.	Complied. Existing footpaths restored. (Photographs attached). Since the project site is within the city, no agricultural land was affected. However, damages caused to roads/footpaths, local structures are reinstated before closing of the site by the contractor.
EA to ensure semi-annual Safeguards Monitoring Reports are submitted to ADB and disclose relevant information from such	Noted as "Complied" in the SEMR.	Please refer to the action/s required.	Please provide a brief explanation on how affected persons were informed of relevant	Done.

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
reports to affected persons promptly upon submission.			information from the SEMRs during project implementation, or if not implemented, provide a justification.	No persons affected by the project.
EA to ensure that if any unanticipated environmental and/or social risks and impacts arise during construction, implementation or operation of the Project that were not considered in the IEE, the EMP, the RP or the IPP as applicable, promptly inform ADB of the occurrence of such risks or impacts, with detailed description of the event and proposed corrective action plan	Noted as "Complied" in the SEMR.	Please refer to the action/s required.	Please indicate if there was or was no unanticipated impact encountered for the reporting period.	Done. There was no unanticipated impact encountered during the reporting period.
EA to report any breach of compliance with the measures and requirements set forth in the EMP, the RP or the IPP promptly after becoming aware of the breach.	Noted as "Complied" in the SEMR. Per SEMR, no breach in any measures set forth in the EMP/RP.		None.	
EA to ensure that the core labor standards and government applicable laws and regulations are complied with during project implementation.	Noted as "Complied" in the SEMR.		Please provide a brief discussion on compliance with core labor standards and other applicable government laws during the reporting period.	Done
EA to ensure to include specific provisions in the bidding documents and contracts requiring contractors to, among other things: (a) comply with government applicable labor law and regulations and incorporate applicable workplace occupational safety norms; (b) do not use child labor; (c) do not discriminate workers in respect of employment and occupation; (d) do not use forced labor; (e) allow freedom of association; and (f) disseminate, or engage appropriate service providers to disseminate, information on the risks of sexually transmitted diseases, including HIV/AIDS, to the employees of contractors engaged under the project and to members of the local communities surrounding the project area, particularly women.	Noted as "Complied" in the SEMR. Per the SEMR, no child labor was engaged, and no forced labor was used. PPE is used and labors are paid in full for all works done.	Please refer to the action/s required.	PMU to indicate the relevant section/paragraphs in bid documents/contracts.	Done.

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
EA to ensure that risk mitigating measures from the climate risk and vulnerability assessment (to strengthen climate resilience and support robust operations during extreme weather conditions) are incorporated in the detailed engineering design for the works.	Noted as “Complied” with in the SEMR. Per the SEMR, all engineering designs have used the existing DoR’s Environmental Friendly Road Construction (EFRC) standards and concepts.		Please briefly discuss the DoRs’ EFRC standards and concepts applied to the project.	Done.
<b>E. Contractors Compliance with Environmental Safeguards Requirements</b>				
Appointment of Environment, Health and Safety (HSE) and/or nodal person	Contractor’s nodal persons for environmental safeguards were indicated.		None.	
Submission of site-specific EMPs	Not submitted. Per the SEMR, the contractors implement the EMP as approved in the IEE report. However, Table 8 indicates states that final IEE was not provided to Contractors.	Please refer to the action/s required.	Please confirm if the Final IEE/EMP was attached to the contracts.	Done. The IEE link was included in the contract (Section 8). The EMP was enclosed in bid documents.
Submission of SEMP implementation report ( <i>specify in comments frequency – daily, weekly, monthly or quarterly basis</i> )				
Site verification by PMU, PIU, or consultants ( <i>verification report should be attached to the SEMR</i> )	No specific site verification report is attached. Section 4.3, Table 10 indicates that K.D. Chamling conducted monitoring on 22 Apr 2020. Photos of construction activities at sites (taken on 3 Nov 2019 and 21 April 2020) are also included. Observations during a site visit were discussed in Section 6.1.	Please refer to the action/s required.	Following the required corrective actions in the previous SEMR/s, please attach copies of the Consultant’s site verification reports for the dates cited (Nov 2019 and Apr 2020) and for the reporting period (9 Oct 2020).	The safeguards consultants jointly visit the works sites. No separate field monitoring reports are prepared. The SEMR is considered as the monitoring report for the project.
SEMR compliance matrix on mitigation measures implementation (matrixes are based on approved SEMP)	EMP compliance matrix is included and implementation of the measures were noted during the site inspection.  Monitoring activities during the operations stage (post-construction) were indicated as “NA.”	Justification from the PMU was provided for the non-implementation of the monitoring activities. Per the SEMR, “the works involve improvement of existing roads and the scope of the works is limited to small and few items, where it does not require deployment of huge numbers of men and machineries, and that, “whatever environmental	Please include in Table 10 the mitigation measures for the operation phase per approved EMP. Many of the roads were already completed hence, are already at O&M phase.	The environmental monitoring activities will be prepared/drawn up during the project completion report, as this project is for Design and implementation phases only. The

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
		concerns and issues would be easily addressed through the Environmental Management Plan prepared for the project during implementation stage.”		Operational Phase will be the responsibility of Thimphu Thromde, MoWHS, RGoB. The PMU will continue submitting monitoring reports to ADB until a PCR is issued by ADB. The PMU will coordinate with Thimphu Thromde, MoWHS, RGoB to ensure that the EMP during the operation phase is being implemented.
Other information				
<b>F. Environmental Monitoring</b>				
Rationale				
Parameters to be monitored are commensurate to the impacts, mitigation measures, and project/subproject/package	Per the SEMR, the IEE for TRIP does not specify environmental monitoring and no baseline studies were carried out. It explains that the project is primarily an improvement of existing roads and the scope of the works is limited to small and few items, which does not require deployment of huge numbers of men and machineries. It states further	The approved IEE/EMP during construction and operation includes air quality/TSP/PM, and noise monitoring and presented the applicable standards in the Appendices. The implementation of approved Environmental Management and Monitoring Plan is a requirement of the ADB SPS. Nevertheless, a justification was provided by the PMU, stating that works are	Corrective actions were required based on the previous SEMRs. Please provide status on its implementation.  “Please implement corrective actions such as noise monitoring (using a any available device like mobile phones, if a noise meter is unavailable) (during construction and	Corrective measures required to be taken will be implemented.
Sampling locations identified and appropriate				
Sampling frequency identified and appropriate				
Sampling collection and analysis are in accordance with internationally-accepted practices				
Standards and performance indicators are compliant with ADB SPS requirements <sup>5</sup> (provide justification if less stringent standards are used)				

<sup>5</sup> ADB SPS (Appendix 1 para 33) requires projects to apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards such as the World Bank Group’s Environmental, Health and Safety Guidelines (<https://www.ifc.org/ehsguidelines>). These standards contain performance levels and measures that are normally acceptable and applicable to projects. When host country regulations differ from these levels and measures, the borrower/client will achieve whichever is more stringent. If less stringent levels or measures are appropriate in view of specific project circumstances, the borrower/client will provide full and detailed justification for any proposed alternatives that are consistent with the requirements presented ADB SPS.

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
	<p>that environmental concerns and issues can be easily addressed through the Environmental Management Plan prepared for the project during implementation stage.</p> <p>Hence no monitoring and analysis of (i) Air Quality results, (ii) Water Quality results and (iii) Noise Quality Results have been carried out.</p>	<p>limited to small and few items. The monitoring scheme implemented by the PMU was mainly through checking of site implementation of mitigation measures. It was also noted that no complaints were received from the public.</p>	<p><i>operation phases), ambient air quality monitoring and particulate matter analysis (during operation phase), and TSP analysis in case of operation of asphalt hot mix plant, bitumen usage and rock crushing. Please indicate the locations, frequency of monitoring and standards/performance indicators. Provide justification if these are not conducted."</i></p>	
<b>G. Environmental monitoring results (narrative based on presented results)</b>				
Air quality results	<p>SEMR states that "no monitoring and analysis of (i) Air Quality results, (ii) Water Quality results and (iii) Noise Quality Results have been carried out... neither the PIU nor the Thromde is equipped to carry out these tests."</p>	<p>The approved IEE/EMP during construction and operation includes air quality/TSP/PM, and noise monitoring and presented the applicable standards in the Appendices. The implementation of approved Environmental Management and Monitoring Plan is a requirement of the ADB SPS. Nevertheless, a justification was provided by the PMU, stating that works are limited to small and few items. The monitoring scheme implemented by the PMU was mainly through checking of site implementation of mitigation measures. It was also noted that no complaints were received from the public.</p>	<p>Corrective actions were earlier recommended in previous reporting period. Please provide status on its implementation.</p> <p><i>"Please present the results of air quality/PM/TSP and noise monitoring."</i></p>	<p>Due to lack of equipment, no monitoring and analysis of (i) Air Quality results, (ii) Water Quality results and (iii) Noise Quality Results have been carried out. Corrective measures required to be taken will be implemented.</p>
Water quality results				
Noise quality results				
Others	n/a			
<b>H. Consultations and/or FGDs during the reporting period</b>				
Number	None included.	Meaningful consultation should be conducted in all phases of project implementation, which	Please include a discussion on the consultations conducted	Consultative meetings were carried out during
Reason/s for consultations/FGDs				
Number of participants				

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
Number of female participants		includes the construction and post-construction phases. There is a need for PMU to conduct consultation activities to comply with the requirement of ADB SPS.	for the reporting. If none was conducted, please state in the SEMR and provide justification.	the project development phase. No consultative or focus group discussions were carried out during the reporting period due to the Covid19 pandemic.
I. Trainings, Workshops, Seminars during the reporting period				
Number	The SEMR states that training was not conducted as of 22 Apr 2020.	It is unclear if there was any training conducted during the reporting period.	Previous reviews required action plan to equip the PIU or Thromde in environmental monitoring. Please state if trainings were conducted for the reporting period and provide details as required per this log sheet. If no trainings were conducted, please provide a justification.	Training not conducted as of 9th October 2020.
Topics				
Number of participants				
Number of female participants				
J. Grievance Redress Mechanism				
GRM per PAM or IEE/EARF established	A summary of the GRM is included in the SEMR.	Notification of GRM via publication or notice boards was not discussed. Members of the GRM was also not identified. Capacity of the GRM members were not discussed.	Please discuss the following in the: i) the notification done for the project's GRM (attach a copy of the notification); ii) GRM members (with names and contact details), iii) capacity of the GRM members (e.g. trainings/briefings attended). Please provide a justification if this was not conducted.	The composition of the GRC (PM/PIU and Thimpu Thromde Representatives) is discussed in the SEMR.
GRM notified via publication or notice boards				
GRM members identified				
GRM members have capacity to address project-related complaints (detailed information on capacity development of GRM members such as trainings, workshops, briefings, etc should be attached in the SEMR)				
Number of meetings conducted (attach minutes of the meeting)				
K. Complaints Received (detailed information on nature of complaints, summary and status of resolution)				
Number of complaints	No complaints received during the period.	N/A	None.	
Nature (provide summary of issues/concerns)				
Status of resolution				

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU¹
L. Summary of Issues and Corrective Actions				
Major issues/concerns (specify)	Not indicated.		None.	
Corrective Action to be implemented, timeline, responsible person/s, and budget are clearly specified				
M. Status of Corrective Action Plan from Previous Reporting Period (list all and provide status)				
	It was unclear if the additional road works were covered by the IEE for the project, and whether EMP was included in the bid documents/contract/s.		Please discuss if the additional works were covered by the approved IEE and confirm if the EMP was included in the bid documents/awarded contracts.	Done.
N. Appendixes				
Photos	Included in the appendix		None.	
Summary of consultations	None.		Please attach summary of consultations during the reporting period. Please provide an explanation if consultation/s was/were not conducted.	Consultative meetings were carried out during the project development phase. No consultative or focus group discussions were carried out during the reporting period due to the Covid19 pandemic.
Copies of environmental clearances and permits	None.		Please provide before the project officially closes.	PIU has been reminded to follow up and obtain the renewed EC at the earliest possible.
Site EMPs	N/A		None.	
Checklists	None.		Please attach copies of the site inspection checklists/reports by the PMU/PIU/Consultants	The safeguards consultants jointly visit the works sites. No separate field monitoring

Item	Findings in the SEMR	Comments	Action/s Required	Response by PMU <sup>1</sup>
			during the project implementation period.	reports are prepared. The SEMR is considered as the monitoring report for the project.
<b>O. Other Issues</b>				