

INITIAL ENVIRONMENTAL EXAMINATION

Project number: 40238-023

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LOAN 2721-VIE: BIODIVERSITY CONSERVATION CORRIDORS GREATER MEKONG SUB-REGION PHASE 2

Subproject: Upgrading Village-Linking Road of Huc Nghi – La To villages, Huc Nghi commune, Dak Rong district, Quang Tri Province

Prepared by Quang Tri Provincial Project Management Unit, for the Central Project Management Unit, Ministry of Natural Resources and Environment, for the Asian Development Bank

QUANG TRI PROVINCIAL PROJECT MANAGEMENT UNIT

**BIODIVERSITY CONSERVATION CORRIDORS GREATER MEKONG SUB-REGION –
PHASE 2**

SUBPROJECT

**UPGRADING VILLAGE-LINKING ROAD OF HUC NGHI – LA TO VILLAGES, HUC NGHI
COMMUNE,
DAK RONG DISTRICT, QUANG TRI PROVINCE**



Initial Environmental Examination (IEE)



ABBREVIATIONS

ADB	Asian Development Bank
AP	Affected persons
CEP	Commitment on Environmental Protection
CPC	Communal People's committee
CPMU	Central Project Management Unit
DARD	Department of Agriculture and Rural Development
DONRE	Department of Natural Resources and Environment
DPC	District People's Committee
EIAR	Environmental Impact Assessment Report
EMDF	Ethnic Minority Development Framework
EMP	Environmental Management Plan
DARD	Department of Agriculture and Rural Development
HH	Household
IMA	Independent Monitoring Agency
IEE	Initial Environmental Examination
IPM	Integrated Pest Management
LIC	Loan Implementation Consultant
MONRE	Ministry of Natural Resources and Environment
PC	People's Committee
PPC	Provincial People's Committee
PPMU	Provincial Project Management Unit
RF	Resettlement Framework
SIR	Subproject Investment Report
TPC	Town People's Committee
UXO	Unexploded Ordnance

WEIGHTS AND MEASURES

km	–	kilometer
kg	–	kilogram
ha	–	hectare
m	–	meter

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CONTENTS

	Page
I. INTRODUCTION.....	1
II. DESCRIPTION OF SUBPROJECT	2
III. DESCRIPTION OF EXISTING ENVIRONMENT	8
IV. ENVIRONMENTAL IMPACTS SCREENING.....	11
V. OUTLINE ENVIRONMENTAL MANAGEMENT PLAN (EMP)	21
A. Environmental Mitigation Plan	21
B. Environmental Monitoring Plan	25
1. Environmental Effects Monitoring	25
2. Environmental Compliance Monitoring	278
C. EMP implementation Arrangement	29
D. Monitoring and Reporting system	31
E. EMP budget	32
VI. PUBLIC CONSULTATION AND DISCLOSURE ACTIVITIES.....	34
A. Description of Activities to Date	35
B. Outcomes of public consultation to date	34
VII. GRIEVANCE REDRESS MECHANISM	389
VIII. CONCLUSIONS AND RECOMMENDATIONS.....	40

APPENDICES

1. Photos of existing environment
2. Details of public consultation activities
3. Data sources used in IEE/EPP preparation
4. Rapid Environmental Assessment (REA) Checklist for road works and Environmental Categorization Form

LIST OF FIGURE AND TABLE

Table 1: General information of subproject.....	2
Table 2: Existing environment	8
Table 3: Environmental impacts screening	11
Table 4: Environmental mitigation plan.....	21
Table 5: Environmental Effects Monitoring Plan	256
Table 6: Environmental Compliance Monitoring Plan	278
Table 7: EMP implementation	29
Table 8: Monitoring and reporting system.....	31
Table 9: EMP budget.....	32
Table 10: Public consultation and disclosure activites	35
Table 11: Results of public consultation	34
 Figure 1: Map of subproject and surrounding area	 8

I. INTRODUCTION

1. The project "Biodiversity Conservation Corridors Greater Mekong Sub-region, Phase 2 (referred to as Project BCC) is sponsored by Asian Development Bank to be conducted in three provinces namely Quang Tri, Thua Thien Hue, Quang Nam. In Quang Tri provinces, the sub-projects will be conducted in 12 communes of Dak Rong and Huong Hoa districts. The objective of the project is to create biodiversity corridor system in these three provinces in order to restore and maintain the coherence of the ecosystem in the region; contribute to adaptation; mitigate to climate change in Central Annamites; provide benefits to local livelihoods, provide safe water environment; improve and upgrade of infrastructure projects in commune areas under the project.

2. As a part of the BCC Project, the "Upgrading village-linking road of Huc Nghi – La To villages, Huc Nghi Commune Subproject" will be implemented in Dak Rong District, Quang Tri Province.

3. This Initial Environmental Examination / Environmental Protection Plan (IEE/EPP) document have been prepared to meet the environmental safeguards requirements of the ADB¹ and GOV². The IEE/EPP contains the following information:

- (i) Section II contains a description of the subproject;
- (ii) Section III contains a description of the environmental conditions in the vicinity of the subproject;
- (iii) Section IV contains a describes of the potential environmental impacts of the subproject;
- (iv) Section V contains the environmental mitigation plan;
- (v) Section VI contains the environmental monitoring plan;
- (vi) Section VII describes the public consultation and disclosure activities that were carried out in August 2015;
- (vii) Section VIII describes the institutional arrangements for environmental management activities and the institutional strengthening activities that will be required to be undertaken;
- (viii) Section IX contains the environmental monitoring and reporting system for the subproject.

¹ ADB Environmental Guidelines (2003)

² Law on Environment Protection No.55/2014/QH13; Decree No.18/2015/ND-CP and Circular No.27/2015/TT-BTNMT

II. DESCRIPTION OF SUBPROJECT**Table 1: General information of subproject**

DATA ITEMS	SUBPROJECT DATA
GENERAL INFORMATION	
Subproject Name	Upgrading Village-linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dak Rong District, Quang Tri Province
Subproject Type	Upgrading existing rural road
Subproject owner	Quang Tri Provincial Project Management Unit of “GMS Biodiversity Conservation Corridors – phase 2 (Quang Tri PPMU)
Address of Subproject owner	No. 227 Hung Vuong Street, Dong Ha city, Quang Tri province
Name and title of Head of Project owner	Mr. Nguyen Truong Khoa. Director of Quang Tri PPMU
Telephone, fax and email details of Project owner	Tel: 0533.558.008 Fax: 0533.558.007 Email: bccqtri@gmail.com
Name of Environmental Officer of PPMU	Ms. Luu Thi Binh – Coordinator Mr. Hoang Viet Thinh – Safeguard officer
Telephone, fax and email details of PPMU Environmental Officer	1. Ms Luu Thi Binh Tel: 0915.385.289 Fax: 0533.558.007 Email: cumy171@gmail.com 2. Mr Hoang Viet Thinh Tel: 0935.787.559 E-mail: hoangthinhqt@gmail.com
SUBPROJECT DESCRIPTION	
New project or rehabilitation project	Road upgrading subproject
Construction Works level	Rural road level IV
Designed level of the road	Road designed at rural road Level B (according to Decision No. 4927/QD-BGTVT dated 25 December 2014)
Designed speed	10 km/h
Designed parameters of the road Road width (m) and length (m)	Length: 2,448.78 m Starting point: Km0+00 crossing with Ho Chi Minh road at Km282+256 Ending point: Km2+468.19

DATA ITEMS	SUBPROJECT DATA
	<ul style="list-style-type: none"> - Cross-section: + Roadbed width: 5.0m; + Road surface width: 3.5m; + Curb width (2 curbs) 0.75m: Compressed soil curbs 0.75m x 2=1.5m;
Surface structure	Cement concrete surface type M200, thickness 18cm, buffer foundation with grit of thickness 10cm
Construction on the road	<p><u>Culvert crossing the road:</u></p> <p>New construction of 4 culverts, including:</p> <ul style="list-style-type: none"> + 2 box culverts 0.75m at Km0+167.86 and Km0+724.33 + 2 round-shaped culverts dimension d=0.75m at Km0+394.83 and Km0+844.01
Length of drainage systems	Concrete the existing drainage system along the road.
Clearance area	None
Protected are	1 – 1.5 km away from Dak Rong natural reservation area.
Project particular features	<p>Project road runs through La To primary school (gate of school is at one side to the road. The school is about 3m from the road; the middeterian is the school yard/playground of the pupils.)</p> <p>In opposite to the La To Primary School, it is the Huc Nghi Kindergarten (about 5m away from the road).</p> <p>The project road runs right through the residential area with houses existing on both sides (1-2m away). There are also paddy fields next to the road and fresh water supply pipe lying along the road.</p> <p>There are 2 big culverts, which is very dangerous.</p> <p>The road has 1 side of high mountainous and 1 side of big slope leading directly to the A Cho River. Therefore, protection solution such as lifetime or protection railing should be applied.</p> <p>One side of the road connects to Ho Chi Minh road at one end of A Cho Bridge at Km282+235. Therefore, technical solution to slow down the speed of vehicles is necessary, traffic board and traffic sign shall be applied.</p> <p>At rainy season, the water level is high and severe. There is a water level monitoring pole</p>

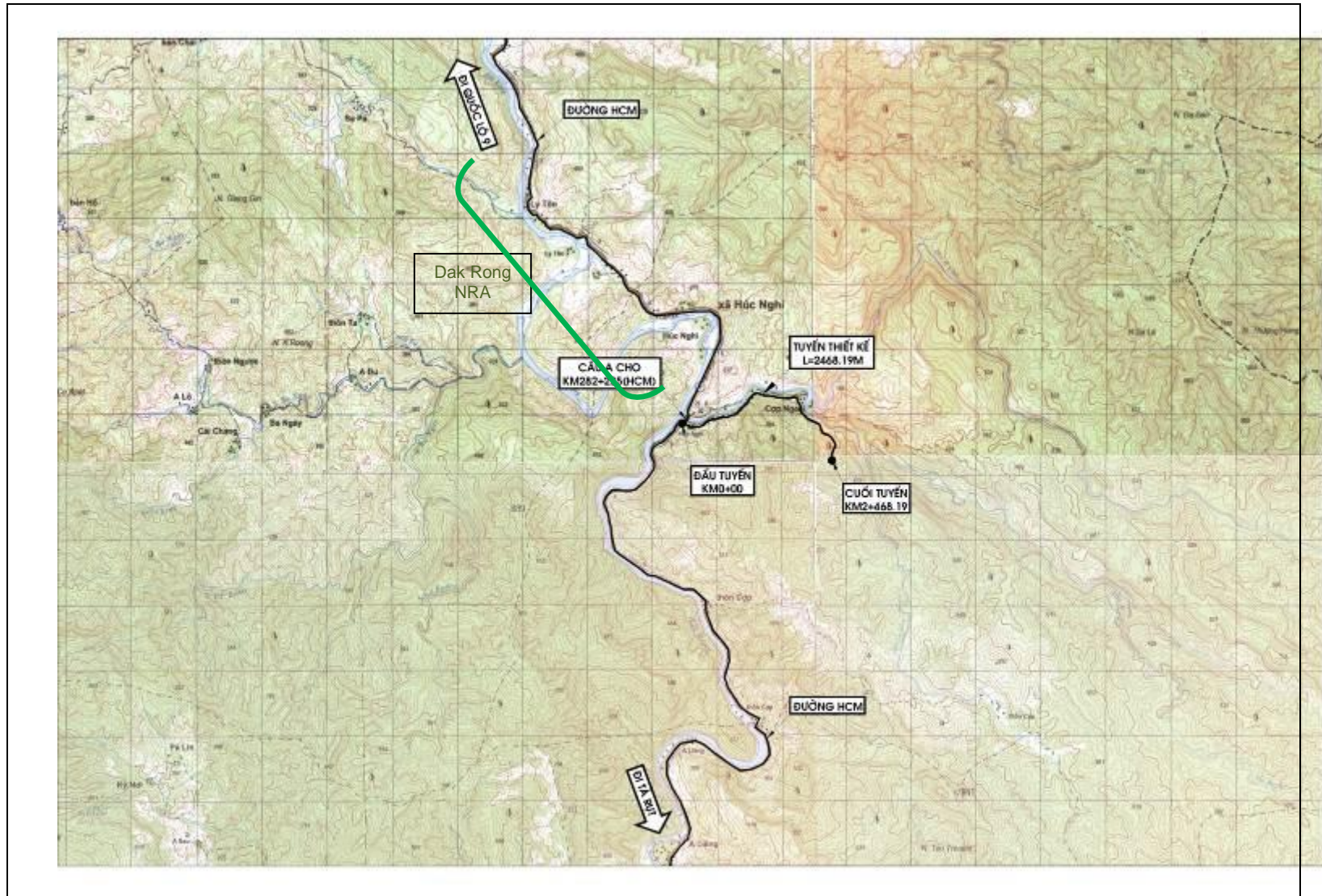
DATA ITEMS	SUBPROJECT DATA
	and Notice board indicating “Deep water, be careful with drawn” by US Agency for International Development (USAID). See photos in appendix 1.
CONSTRUCTION ACTIVITIES	
Construction commencement date (month/year)	2016
Construction completion date (month/year)	2016
Number of construction workers	About 20 people
Construction camps required (Yes/No)	Yes. One camp
Construction in rainy season (Yes/No)	Yes. However, try to carry out construction activities on dry days and dry season (from March to May) to ensure the progress as well as the quality of the construction works.
Location, area and description of material source	<p>Sources of material:</p> <ul style="list-style-type: none"> - Stone: brought from Km281+100 in Ho Chi Minh road, it is 2.6Km away from the construction site. It is authorized by Huc Nghi CPC to serve construction activities within the commune. - Sand: to make concrete mixture taken from the Mo O sand reserve. It is 48.8Km away from the construction site and was authorized by PPC to serve construction activities in the province. - Grit: brought from Dau Mau reserve at Km29 in National Highway No.9, it is 54.8Km away from the construction site and was authorized by PPC to serve construction activities in the province. - Embankment: brought from embankment reserve (475 m³) at Huc Nghi Commune. It is 1 km from construction site, lying on Huc Nghi – La To construction road and was authorized by PPC to serve construction activities in the province. - Other materials such as cement; steel: bought from Dong Ha city, 83.8 km from construction site.
Balance and management measures for excess spoil	<p>Soil for base is from reused soil and mine. Reuse soil from digging to base and build culvert, roads and other constructions. Remaining excess soil will be used to embank banks and by local people for domestic purpose.</p>

DATA ITEMS	SUBPROJECT DATA
Approximate types and quantities of raw construction materials	<ul style="list-style-type: none"> - The quantities of sand, soil, and water are indicated in the detailed design. The approximate quantities are: - 1,100m³ of stones - 475m³ soil for base and sub-base - 42,000 tons of cement PC40
Quantity of solid wastes generated during construction (monthly, in m ³) <ul style="list-style-type: none"> - Soil, sand, broken stones... - Domestic wastes 	<ul style="list-style-type: none"> - Consist of: domestic waste, waste concrete - Estimated quantities (per month): Domestic waste: 15 kg/month (for 20 workers, 0.5kg per day)
OPERATION & MAINTENANCE ACTIVITIES	
Subproject capacity	Subproject will: Subproject will help to facilitate community exchanges and transportation in the region, and promote economic and social development.
Design speed	15 km/h
Expected load/Standard load (for truck)	H13-X60, 6 tons
Expected number of transportation	< 200 vehicles/ per day
Description of maintenance activities	<p>Conduct annual maintenance, detection and timely measures to repair damage (if any) such as subsidence, slump, landslide, do not let erosion due to rain destroy the construction; Apply extra base, curb; dig vertical and horizontal drains; Repair pot-holes, local subsidence, etc. If necessary, communities will be mobilized to support operation and maintenance of culvert and roads; clean grass, clear trees, etc.</p> <p>With culvert: regular maintenance will be funded from the operation and minor repair fund. Periodic operation and maintenance will be funded from the provincial budget. Clearance of culvert to ensure the smooth flow of water is also required to protect the good condition of the road.</p> <p>With roads: Regular maintenance from the district budget. Operations and major maintenance will be funded from the provincial budget.</p> <p>Huc Nghi Road Management Unit is the agency responsible for the operation and maintenance of the Internal road of Huc Nghi – La To villages.</p>

DATA ITEMS	SUBPROJECT DATA	
	Operation and management cost will be covered by District and Local budget counting approximately 0.8 – 0.9% of the investment budget. Besides, medium maintenance will be taken place every 5 years (count for 5% of investment fund).	
RESETTLEMENT AND LAND ACQUISITION³		
Number of Affected Households (AHs)	None	
Number of severely affected AHs	None	
Number of APs that must relocate	None	
Total land area to be acquired (ha)	Temporary = 0	Permanent = 0
Agricultural land area to be acquired (ha)	Temporary = 0	Permanent = 0
Forestry land area to be acquired (ha)	Temporary = 0	Permanent = 0
Aqua cultural land to be acquired (ha)	Temporary = 0	Permanent = 0
Residential land to be acquired (ha)	Temporary = 0	Permanent = 0
Garden land to be acquired (ha)	Temporary = 0	Permanent = 0
Other land to be acquired (ha)	Temporary = 0	Permanent = 0
SUBPROJECT COST		
Total subproject cost (VND and \$USD)	5.055.409.000 VND (\$235,595.5 USD)	

³ This data should be extracted from the subproject Resettlement Plan

Figure 1: Map of subproject and surrounding area



III. DESCRIPTION OF EXISTING ENVIRONMENT

Table 2: Existing environment

DATA ITEM	SUBPROJECT DATA
SUBPROJECT LOCATION	
Commune(s):	Huc Nghi Commune
District	Dak Rong
Province	Quang Tri
Geographical location:	Starting point: Km0+00 crossing with Ho Chi Minh road at Km282+256 (one end of A Cho Bridge, Km282+235 in Ho Chi Minh Road) End point: Km2+468.19 in the existing road into the village (connect to La To Village).
PHYSICAL ENVIRONMENT CONDITIONS	
Air quality	According to Environment Quality Monitoring Result Report (EQMR) of Quang Tri province in 2014, the level of CO, NO ₂ , SO ₂ at subproject area is in the allowable limit of QCVN 05-2013/BTNMT (CO: 2059 µg/m ³ , NO ₂ : 38 µg/m ³ , SO ₂ : 28 µg/m ³). The dust level is in allowable level (TSP: 190 µg/m ³), according to QCVN 05-2013
Noise and vibration	Through observation, although there are few households at the starting point of the road, but the number of people is low and noise level is in allowable level according to QCVN 26:2010/BTNMT (Leq = 67 dBA).
Climate and natural disasters	<p>- Like the other areas of the district, Huc Nghi Commune is also influenced by the tropical monsoon. The year average temperature is 22.5°C, about 2-3°C lower in temperature than the other areas of the district. The highest temperature is 38.2°C and the lowest is 7.7 °C</p> <p>- The average rainfall is 1850 mm/year; the rainy season is from May to November, which accounts for 88% the annual rainfall, concentrated on September and October. From late February to May is dry season. The average air humidity is about 88.5%, the highest level is from August to December (89-91%), and the lowest level is from March to July (80-85%);</p> <p>- Wind speed: Influenced by western hot dry wind, but much lighter than the other areas of the district. That result in the lower humidity, with a large amount of evaporation and high thermal background, which affect badly the growth of plants;</p> <p>- The river system lying by the Eastern and Western Annamite slope, small streams divide the riverbed slope. Therefore, in rainy season, it can easily cause flash floods and landslides;</p>
Topography and soils	Huc Nghi commune's terrain is heavily dissected by steep river systems lying by the two eastern and western slopes of the Annamites, so that the traffic development, electricity grids, as well as the producing system encounter many problems. There is mostly 1 main type of terrain in Huc Nghi Commune:

DATA ITEM	SUBPROJECT DATA
	<p>+ Mountainous terrain with slope: common slope is above 20%, terrain elevation is about 500 – 700 m. This terrain is suitable for forestry and animal husbandry development, which account for 90% natural area.</p> <p>Besides, the type of valley terrain with relatively flat surface, suitable for raising agriculture crops (cassava, rice, corn...) that appears mainly on the two curbs of route connecting the commune centre to Dak Rong Town, which account for about 10% natural area).</p>
Water Bodies	Construction site is along A Cho River, a branch of Dak Rong River, running along the subproject road. 4 Photos of the 4 culverts are shown in appendix 1.
Underground water	According to EQMR of Quang Tri province 2014, groundwater level depends on topography and annual rainfall. Ground water aquifer is shallow - a well of 10 m depth can be used. Water quality is good.
Water quality	<p>- Surface water quality: According to EQMR in 2014, Surface water in the project area is can be used for water supply activities - reaching QCVN 08:2008 / BTNMT (column A1) consequently surface water can be used for water supply activities: some details:</p> <p>- E.coli level is around 9 MPN/100ml. Coliform levels is around 43 MPN/100ml, DO: 6.73 mg/l), concentrations of BOD: 1.51 mg/l, COD content: 3.1 mg/l.</p> <p>Water is used for household activities and small business.</p> <p>Ground water quality: Most water quality parameters are within the permitted limit under QCVN 38:2011 / BTNMT and standard 505 BYT / QD.</p>
Flooding	The main flood season is from September to November. Flow in flood season accounted for 70% flow all year.
Terrestrial flora and fauna	<p>There are many varieties of plant species in the subproject area, but no rare or endemic species are recorded. In Dak Rong Nature Reserve, there are 1053 flora species, in which 24 species are listed in Vietnamese Red Book, 279 insect species, 71 fish species, 17 amphibian species and 32 reptile species, 193 bird species and 67 animal species. Similarly, no rare animals were detected in the subproject area.</p> <p>Terrestrial flora: agricultural crops (corn, rice, cassava), vegetables, plants in residents' gardens, a variety of trees and fruit trees, other wild brushwood. No big or rare trees needing special protection are present in the subproject area.</p> <p>Terrestrial fauna: mainly domestic animals, such as cows, buffaloes, chicken, pigs etc.</p> <p>In the region, there are no rare or endangered species as recorded in the Vietnamese Red Book (of Forestry department).</p>
Aquatic flora and fauna	<p>- The fisheries sector of the commune was not an advantage to develop because the aquaculture land is just 2.03 ha, accounting for 0.02% of the natural area</p> <p>- In the subproject area, there are no rare or endangered species recorded in Vietnamese Red Book.</p>
Protected areas	Dak Rong Nature Reserve area is 1-1.5 km away from the sub-project area. However, it is located on the other side of Ho Chi Minh Road and

DATA ITEM	SUBPROJECT DATA
	Dak Rong River
SOCIO-ECONOMIC CONDITIONS	
UXO	There is a potential for some UXO in the subproject area, at some areas that have not been used for construction.
Land use	Most of the land is used for agriculture; Local inhabitants are skilled in farming and intensive crop cultivation. Surrounding the construction site are crops and houses.
Nearest residential land	In some section of the construction site, residential area located along the road (next to the road)
Infrastructure	The subproject is upgrading an existing construction.
Agriculture and aquaculture	-Agriculture: rice, corn, cassava, etc. Paddy field next to the road -Aquaculture: fish in ponds combined with ducks, etc. Productivity is low.
Population	It is estimated that the subproject will generate benefit for approximately 340 people in La To village, belong to Huc Nghi commune The average population density in the sub-project area is of 8.88-people/km ² .
Ethnic minorities	In the subproject area, 95.05% of the local people are Van Kieu ethnic.
Livelihoods	The main livelihoods are the agricultural and forestry sector (93.3%). The average income is 4.8 million VND/capita/month Poverty level of La To Village: 18 poverty households and the poverty rate of the Huc Nghi Commune is 40.62% of the population. Poverty rates are higher in this group due to the economic isolation of society, less access to roads and away from services and medical, education. Furthermore, they even live far from the small market in the district.
Physical and cultural heritage	None.
Public health	National health programs and disease prevention implemented well. Only a few cases of poor food safety and hygiene Some people reported they have skin disease and digestion disease (maybe due to the water quality).

IV. ENVIRONMENTAL IMPACTS SCREENING**Table 3: Environmental impacts screening**

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Pre-Construction Stage Impacts					
Disturbance of UXO	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	UXO can be left in some areas that had been suffered from war. Mine detector in subproject area may create safety risk for local people and workers. However, to help in securing safety for people, Quang Tri PPMU will work with Quang Tri Provincial Military Command for UXO clearance
Effects on households from loss of residential or agricultural land	NO	NO	NO	NONE	Upgrading road, position adjusted in some cases to suit the actual terrain. The old road is large enough to be upgraded, so it is not necessary to acquire more land, for construction.
Construction Stage Impacts					
Dust, vegetation clearing, noise, water quality or other impacts from quarries for of mining at construction materials	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	- Location: Stone: brought from Km281+100 in Ho Chi Minh road, it is 2.6Km away from the construction site. It is authorized by Huc Nghi CPC to serve construction activities within the commune. Sand: to make concrete mixture taken from the Mo O sand reserve. It is 48.8Km away from the construction site and was authorized by PPC to serve construction activities in the province.

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Dust, vegetation clearing, noise, water quality or other impacts from quarries for of mining at construction materials sites	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	<ul style="list-style-type: none"> - Grit: brought from Dau Mau reserve at Km29 in National Highway No.9, it is 54.8Km away from the construction site and was authorized by PPC to serve construction activities in the province. - Embankment: brought from embankment reserve (475 m³) at Huc Nghi commune. It is 1 km from construction site, lying on Huc Nghi – La To construction road and was authorized by PPC to serve construction activities in the province. - Other materials such as cement, steel... bought from Dong Ha city, 83.8 km from construction site. <p>Materials that will be bought from sources, which are licensed and abide by the environmental regulations. So only impact could be from dust and noise during the transport of materials from mines to construction sites. However, it is possible to control these impacts by applying noise and air pollution mitigation measures.</p>
Erosion or sedimentation caused during clearing or earthworks	YES	MEDIUM	NEGATIVE	TEMPORARY	<ul style="list-style-type: none"> -Location: along the designated route -Excess soil, produced in the construction process could be deposited and flow downstream to the stream, causing muddy water and effecting the drainage in the drains, but the scale is likely to be insignificant and the impact only temporary.

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Pollution of waterways, aquatic environments or groundwater caused by waste, chemicals, effluent or disturbance of contaminated soils	YES	MEDIUM	NEGATIVE	TEMPORARY	<p>-Location: At the culvert construction position (2 streamlets)</p> <p>Pollution may occur during culvert construction and upgrading stage as spoils spills in water can cause turbidity</p> <p>Scale: this impact is temporary, during the construction stage and it is insignificant.</p> <p>If the construction is done during dry season (from February to May), the impact will not occur because there is no water in the streamlets at this time of the year. Suggest the construction to be arranging in dry season to protect the water environment as well as to ensure the works' good quality, quick progress.</p>

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Air pollution from dust or exhaust emissions. Noise emissions from construction equipment	YES	MEDIUM/ insignificant	NEGATIVE	TEMPORARY	<p>Location: along the roads that used to transport materials and at the construction site</p> <p>Scale: Dust and exhaust emissions will be generated by material and soil transportation as well as construction activities.</p> <p>Dust and exhaust emissions will also be generated at the construction site. Vehicles and equipment such as generators, rammer machines, etc. will produce exhaust emissions including NOx, COx, etc.</p> <p>Noise generations will be produced by construction equipment.</p> <p>The scale is average because the road is 2.6Km from stone mine at Huc Nghi Commune, however, cement and steel will be transported from Dong Ha town when soil will also be transported. However, the number of machines is not large and in the construction site, the number of people is not many. The space of construction site is large, open and cool. Can be controlled the effects by implementing measures to reduce air and noise pollution.</p>
Increase duration and area of flooding.	NO	NO	NO	NONE	Construction work will not increase the duration and extent of flooding due to construction works are implemented in a short period and mainly in dry season.

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Changes of road safety / traffic movements, property accessibility and commercial activities	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	Location: upgrading and construction site. During the upgrading of Culvert and road, construction activities, transport materials, equipment arrangement will be affected the movement of local people on the road. This impact will be temporary and insignificant because the number of people and vehicles who move on road is not crowded.
Interferes with infrastructure such as communication or electricity infrastructure	NO	NO	NO	NONE	Do not affect public facilities, infrastructure, communication, etc.
Effects on nearby heritage items such as graves, pagodas etc.	NO	NO	NO	NONE	There are no national or local heritage items such as pagodas, temples, and gravestones near the road.
Social disruption caused by construction workers	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	Location: at subproject area, construction site and camp. Some social problems can appear such as gambling, drug addiction, prostitution, violence, conflict amongst workers, or between workers with local people or risk of sexually transmitted diseases (STD), including HIV/AIDS Effect level is likely to be insignificant because of limited construction term (expected time of construction is 3 months) and because the number of workers is not many (20 workers)

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Employment or livelihood benefits from employment of local people	YES	MINOR	POSITIVE	TEMPORARY	Although local people can carry out work on the project, contractors often prefer employing professional laborers to unskilled workers. However, one of the contract conditions will be to give priority to local laborers for simple work such as filling the road and transporting spoil, especially poor households, female household heads and women if they need a job to increase their income. Creating more jobs will contribute to hunger elimination and poverty alleviation for the community.
Health or safety risks to public or construction workers	YES	MINOR	NEGATIVE	TEMPORARY	Location: residential areas near the road and worker camp at Huc Nghi Commune Scale: - Dust, erosion exhaust and noise are generated from movement of materials transport vehicles, material mixing process, earthworks Wastewater is from construction site and work camp. These impacts may cause some respiratory diseases and tiredness. -Occurrence of accidents on construction sites is commonly due to lack of training or safety equipment. Complying with safety regulations can minimize the risk of such accidents occurring. Scale of impacts: noise and dust level is small because the duration of construction is only in 3 months and frequency of transportation is low. Scale is insignificant because contractor will implement some mitigation methods. Workers will have safety equipment.

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Generation of excess spoil/ material that can be reused	YES	MINOR	NEGATIVE	TEMPORARY	Excess spoil could runoff into surrounding water and polluted surface water of A Cho River. If temporary dumped at roadside, it could make the road dirty, slippery and create bad odor. The construction of the subproject will involve in excavate small soil volume. However, most of them will be reused for embankment. The small amount of excess spoil that could not be used for filling will be transferred to the authorized dumping site in Huc Nghi commune. Thus this impact is minor.
Disposal of solid wastes generated by construction activities or municipal wastes generated from construction camps	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	<p>- Location: Work site & camp areas</p> <p>Solid wastes generated during construction include: construction wastes removed from surface layer of the existing road; fuel containers, material bag and living wastes of construction workers</p> <p>Worker number: small (20 peoples), main activities are land grading and filling. As consequence, waste volume generated during construction are not much</p> <p>- This type of impacts is easily to be controlled by implementation of appropriate sanitation and waste disposal systems.</p>
Soil contamination from spillage of oil or other chemical substances	YES	MINOR	NEGATIVE	TEMPORARY	<p>Oil pollution may be generated from vehicles and construction work at the construction site.</p> <p>- Location: mixing area or construction site</p> <p>-Scale: the number of vehicles is small; quality is checked regularly so that the amount of waste oil is minor.</p>

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Changes to dynamic of ground water	NO	NO	NO	NONE	The main constructions are: embank, Upgrading and building will not affect groundwater in quantity or quality because mixing stations are mobile
Changes to respiratory disease or disease caused by water	YES	INSIGNIFICANT	NEGATIVE	TEMPORARY	The chance of catching respiratory disease or diseases transmitted through water is small as the generated dust level is low.
Operation stage					
Risks of natural disaster	YES	MINOR	POSITIVE	PERMANENT	<ul style="list-style-type: none"> - Location: Area around the construction site. - The design route will not be flooded in rainy season thanks to the completed drainage system works of the subproject and the slope is high.
Change accessibility to local services.	YES	SIGNIFICANT	POSITIVE	PERMANENT	<ul style="list-style-type: none"> - Location: subproject area - Upgraded road will lead to center of Huc Nghi Commune, CPC and to Dak Rong District center, with educational, social, cultural buildings Huc Nghi CPC, junior school and high school, commune healthcare center, Dak Rong Town, etc. It will improve economic development between Huc Nghi Commune and nearby communes of Dak Rong District, improve the transportation of farmers. The subproject will benefit directly 71 households and 340 people in La To village of Huc Nghi Commune and other communes in Dak Rong District.

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Employment or livelihood benefits from employment of local people	YES	SIGNIFICANT	POSITIVE	PERMANENT	Location: subproject area in Huc Nghi commune. The subproject upgrading internal road of Huc Nghi – La To villages will reduce poverty through provide new access for the local people to the centers, markets and other social services therefore, reduce the pressure on the forest.
Impacts on ethnic minorities	YES	SIGNIFICANT	POSITIVE	PERMANENT	As Van Kieu ethnic people account for 95.05% of the Huc Nghi population, the subproject is expected to improve livelihoods and reduce poverty through trade facilitation and will benefit ethnic minority people in the commune.
Changes to traffic safety	YES	MINOR	NEGATIVE	PERMANENT	Location: along the road - When the upgraded road is completed, transportation is improved. The traffic volumes increase; travel speeds will be higher that result in increased accident rates if people do not comply the rules. However, the accident rate is not high because the number of people and vehicles is small. Accident level depends on traffic density, kind of vehicle and people awareness.
Noise and vibration impacts, changes in dust levels or air quality from increased traffic volumes	YES	MINOR	NEGATIVE/ POSITIVE	PERMANENT	- Location: surrounding areas, along the road - Dust levels may decrease due to upgraded road, but the exhausted emission level may increase due to the number of vehicles will increase. But these impacts are expected to be minor because the number of vehicles is not large.

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Environment al risk involving spills of chemicals or other hazardous substances	NO	NO	NO	NONE	Main vehicles are motorbikes and small number of cars. No trucks that transport liquid, oil or other toxic materials will use the road.
Changes to community structure through severance by road corridors	NO	NO	NO	NONE	Subproject involves upgrading the existing road, so it will not change the community structure.
Changes land use adjacent to road	NO	NO	NO	NONE	Land use adjacent to the subproject will not change due to the road will be upgraded from the existing road
Changes to surface water hydrology and flooding patterns	NO	NO	NO	NONE	None
Cause disturbance to the remote communities	NO	NO	NO	NONE	None

IMPACT	POTENTIAL IMPACT				BRIEF DESCRIPTION OF IMPACT LOCATION AND SCALE
	IS IMPACT LIKELY TO OCCUR - YES / NO?	IS IT MINOR OR SIGNIFICANT?	IS IT POSITIVE OR NEGATIVE?	IS IT TEMPORARY OR PERMANENT?	
Changes to access to natural resource	YES	MINOR	POSITIVE/NEGATIVE	PERMANENT	Upgraded road will probably increase ability in approaching the natural forest especially Dak Rong Nature Reserve, only 1.5 km away from the subproject area. If the protection is not strict, wood logging could be increase. However, the impact is not large as the subproject road is located on the other side of Ho Chi Minh road incompare with the Nature Reserve and the subproject scale is small, only for local people in Huc Nghi and La To villages. Positive impact: Upgraded road will also support forest protection activities such as forest ranger patrol or forest fire prevention.
Changes to landscape value/convenience	YES	MINOR	POSITIVE	PERMANENT	Subproject will help to enhance the appearance of the area

V. OUTLINE ENVIRONMENTAL MANAGEMENT PLAN (EMP)

A. Environmental Mitigation Plan

Table 4: Environmental mitigation plan

Potential Impact	Mitigation Measure	Responsibility	Treatment system/works	Cost (Price unit)
Pre-Construction Stage				
Disturbance of UXO	Inform widely, with signs, some realms, select the appropriate time so that people do not come near mine detectors to limit the risks which may occur	PPMU		In a separate contract by counter-part fund
Construction Stage				

Potential Impact	Mitigation Measure	Responsibility	Treatment system/works	Cost (Price unit)
Dust, vegetation clearing, noise, water quality or other impacts from mines for construction sites	<p>Construction materials will be obtained from licensed and environmentally approved sources (soil and stone from Huc Nghi mine, cement and steel from Dong Ha city).</p> <p>Ensuring that all construction machines and equipment are completely maintained.</p> <p>Covering materials in all lorries during transportation from mines.</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p>		Includes in contract with contractor
Erosion or sedimentation caused during clearing or earthworks	<p>Install sediment traps to collect sediment before it enters waterways.</p> <p>Construct stone embankment to stabilize slopes where there is risk of erosion</p> <p>Minimize size and duration of cleared areas</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p>	Sediment traps	Includes in contract with contractor
Pollution of waterways, aquatic environments or groundwater from waste, chemicals, effluent or disturbance of contaminated soils	<p>Ensure construction equipment and vehicles are maintained in good condition</p> <p>Install sanitary toilets and washing facilities at construction camps</p> <p>Remove waste regularly, avoid discharging it in the culvert area.</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p>		Includes in contract with contractor
Dust from construction equipment	<p>Cover all the trucks that contained material</p> <p>Ensure that all equipment and vehicles are well maintained</p> <p>Water the construction site and roads, increase the frequency of watering near residential areas (hourly during material transportation time)</p> <p>Increase the frequency of</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p> <p>Contractor</p>		Includes in contract with contractor

Potential Impact	Mitigation Measure	Responsibility	Treatment system/works	Cost (Price unit)
	checking dust level in residential areas (observe hourly during construction time)			
Noise emissions from construction equipment	<p>Ensure all construction vehicles and equipment are well maintained</p> <p>Inform nearby community of schedule and duration of construction works</p> <p>Avoid operate machines as the same time and avoid construct in the rest hour of local people (from 5 pm to 8 am)</p>	<p>Contractor</p> <p>SST/ Contractor</p>		Includes in contract with contractor
Changes to road safety / property accessibility and trading	<p>Install signs at construction sites.</p> <p>Install signs and lighting in the vicinity of works on public road</p> <p>Inform the community about the schedule of construction</p>	<p>Contractor</p> <p>Contractor</p> <p>Contractor</p>		Includes in contract with contractor
Social disruption or impacts on sanitation/health conditions caused by construction workers	<p>Ensure construction camp is maintained in a clean and hygienic condition by disposing camps at suitable place, periodic clean, applying sanitary regulation, etc</p> <p>Make rules for workers regarding sanitary arrangements and relations with local people.</p> <p>Implement HIV/AIDS and other infectious diseases Prevention Campaign</p>	<p>Contractor</p> <p>Contractor</p> <p>PPMU/NGO</p>		Includes in contract with contractor
Health or safety risks to public or construction workers	<p>Supply safety equipment to workers and train them how to use. Authorities check and manage the safety of workers and people in construction site</p> <p>Do not allow unauthorized people to enter work-sites</p>	<p>Contractor</p> <p>Contractor</p>		Includes in contract with contractor

Potential Impact	Mitigation Measure	Responsibility	Treatment system/works	Cost (Price unit)
	Contractor is responsible for the safety of workers and people while transporting materials. Avoid overloaded vehicles.	Contractor Contractor		
Generation of liquid and solid waste	Install standard sanitary systems and toilets in work camp. Supply enough water. Collect garbage in temporary dumps before removal to the waste transfer station at the Dak Rong Town. Enforce regulation about cleanliness, garbage dump and, garbage treatment. Monitor and collect garbage everyday. Arrange with local sanitation company for weekly removal of waste by truck to landfill site. Prevent waste from the construction camps from flowing into nearby streams and water reservoirs	Contractor Contractor Contractor Contractor	Standard toilets Garbage dumps	Includes in contract with contractor
Soil contamination from spillage of oil or other chemical substances	Store fuel and lubricating oil, etc in safe area on an impervious base within a bund and secured by fencing. The storage area shall be located away from any watercourse Ensure construction equipment and vehicles are maintained in good condition and any leaks are quickly fixed	Contractor Contractor	Chemicals storage	Includes in contract with contractor
Changes to surface water hydrology and flooding patterns	Construct in dry season to avoid the effects of flooding	PPMU		No marginal cost
Changes to respiratory disease or disease caused	Apply methods to prevent dust	Contractor		Includes in contract with

Potential Impact	Mitigation Measure	Responsibility	Treatment system/works	Cost (Price unit)
by water	Dispose drain-ditch and fill up stagnant	Contractor		contractor
Operation Stage (Dak Rong DPC and Dak Rong infrastructure division have responsibility for operation, maintenance)				
Changes to road safety	Installation of road safety and speed limit signs where accidents are likely to occur Work with local authorities to enforce traffic regulations on upgraded roads	Dak Rong DPC		Province budget
Poachers/illegal loggers accessing the Nature Reserve	Coordinate with relevant authorities like Dak Rong Nature Reserve Management Board in forest protection and fire prevention; establishment barred door key in the forest to check and control of forest products Cooperate with local authorities of Huc Nghi commune to implement propaganda program on forest protection and fire prevention (especially for student of La To primary school)	Dak Rong DPC		Province budget

B. Environmental Monitoring Plan

1. Environmental Effects Monitoring

- Environmental effects monitoring is carried out to examine impacts of project in relation to ambient environmental conditions

Table 5: Environmental Effects Monitoring Plan

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
Construction stage						
Monitoring on noise, dust and exhausted	Noise level, Dust concentration	02 locations: - One at residential	Observation and community consultation	Weekly or when community's feedback	Construction contractor	See Table 9 – EMP budget

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
gas generation		area at the starting point of construction site; - One at streamlet 1 in /crossing Construction site.		is raised Once/ 3 months during construction or when community's feedback is raised	Construction supervision consultant, PPMU	Budget of PPMU
Monitoring wastewater from rainfall, effluent into river at the streamlet	Turbidity, waste in the water	02 locations: 01 point at streamlet1 crossing position; 01 point at streamlet 2 crossing position (if the streamlet having water)	Observation and community consultation	Weekly or when community's feedback is raised Once/ 3 months during construction or when community's feedback is raised	Construction contractor Construction supervision consultant, PPMU	Budget of Project supervision Budget of Project supervision
Labor safety and community safety	Number, use of labor safety equipment; signal system Obey for traffic law of transportation mean of construction material	In construction area On road where carry material along residential areas of La To village and Huc Nghi subproject communes;	Observation and community consultation	Weekly or when community's feedback is raised Once every 3 months during construction or in case of essential time	Local people, Community monitoring committee Construction supervision consultant, PPMU	Without marginal cost Budget of Project supervision
Operation stage						

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
Monitoring on noise, dust and exhausted gas generation	Noise level, Dust concentration	02 locations: - One at residential in the middle of the project; - One at the junction with Ho Chi Minh Road.	Observation and community consultation	Once/ 6 months during 01 year or when community's feedback is raised	Dak Rong DPC	Budget of Project supervision
Monitoring runoff water from rainfall when it rains	Turbidity, solid waste	02 locations: 01 point at streamlet 1 crossing position; 01 point at streamlet 2 crossing position	Observation, public consultation	Once/ 6 months during 01 year or when community's feedback is raised	Dak Rong DPC	Budget of Project supervision

2. Environmental Compliance Monitoring

- Environmental compliance monitoring is carried out to test the compliance with operating procedures, technical standards and/or contractor specifications in the EMP.

Table 6: Environmental Compliance Monitoring Plan

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
Construction Stage						
Control of erosion	Ensure measures for erosion	Overall construction area. At	Observation and community	After heavy rainfall, or flood	Construction supervision consultant	Included in the Contract

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
	control implemented in construction area	productive land nearby the 2 streamlets	consultation	Once every 3 months		signed with PPMU
Storage of materials	Condition of material storage area	Overall construction area	Observation and community consultation	Weekly	Construction supervision consultant	Included in the Contract signed with PPMU
				Once every 3 months		
Construction equipment and vehicles	Noise and exhaust generation; covering of trucks; oil/fuel leakage	Throughout construction site	Observation and community consultation	Monthly	Construction supervision consultant	Included in the Contract signed with PPMU
				Once every 3 months		
Construction camp conditions	Sanitation conditions; rubbish collection and treatment equipment, general conditions	At all camps	Observation and community consultation	Monthly	Construction supervision consultant	Included in the Contract signed with PPMU
				Once every 3 months		
Property access	Consolidate temporary and fixed access ability	Affected assets (households at the starting point of the subproject and cultivation land of farmers).	Observation and community consultation	Once during construction works and once after finishing construction	Construction supervision consultant	Included in the Contract

Mitigation Measure	Parameters	Location	Methods	Frequency	Responsibility	Cost
Waste disposal	Environmental sanitation at construction site and temporary waste storage area	Throughout construction site;	Observation and community consultation	Weekly	Construction supervision consultant	Included in the Contract

C. EMP implementation Arrangement

Table 7: EMP implementation

Organization	Roles and Responsibilities		
	Subproject Preparation	Subproject Implementation	Subproject Operation
CPMU	Provide advice to PPMU Safeguards Officer on Initial Environmental Examination (IEE)/ Environmental Protection Plan (EPP) and IEE/ Environmental Impact Assessment Report (EIAR) preparation Review and provide “no-objection” on IEE/EPPs or IEE/EIARs submitted by PPMUs	Provide advice to PPMU Safeguards Officer on EMP implementation during construction Monitor progress during construction Consolidate PPMU environmental reporting Audit EMP implementation of at least 10% of all the subprojects on a random basis	Provide advice to PPMU Safeguards Officer on EMP implementation during first year of operation Monitor progress during first year of operation Consolidate PPMU environmental reporting
DPC/DONRE	Sign-off on environmental assessment documents prior to submission for approval Approval of any subprojects requiring EIAR that are not subject to MONRE approval Provide advice and guidance on environmental issues as required during	Project owner with ultimate responsibility for environmental performance of subproject during construction Monitoring implementation of EMP through their own internal monitoring system	Project owner with responsibility for operation stage environmental performance including implementation of EMP during operation Monitoring implementation of EMP through their own internal monitoring

Organization	Roles and Responsibilities		
	Subproject Preparation	Subproject Implementation	Subproject Operation
	subproject preparation		system
PPMU	Engage consultant and have overall responsibility for IEE/EPP or IEE/EIAR preparation and submission for approval Ensure staff are adequately trained in environmental issues	Responsibility for EMP implementation during pre-construction and construction Ensure that contract specifications and bid documents include environmental requirements Undertake inspections and monitoring of environmental issues during construction Coordinate environmental monitoring reporting to CPMU	Responsibility for EMP implementation during first year of operation Undertake inspections and monitoring of environmental issues during first year of operation Assist project owners to incorporate environmental requirements into infrastructure O&M procedures
Commune PCs	Approval of subproject EPPs in accordance with GOV legislative requirements	Monitoring implementation of EMP through their own internal monitoring system	Monitoring implementation of EMP through their own internal monitoring system
Construction supervision consultant	n/a	Implement independent environmental monitoring at subproject area twice every 1 month. Monitoring results will be included in the report, which will be sent to CPMU once a month.	n/a
District Subproject Support Teams (SST)	Assist in IEE/EPP preparation as required Assist PPMU to review bidding documents, contract documents, and	Day to day supervision of contractors' in district including compliance with environmental management	Undertake environmental monitoring and coordination of local community

Organization	Roles and Responsibilities		
	Subproject Preparation	Subproject Implementation	Subproject Operation
	tenders to ensure environmental issues are adequately addressed	requirements Undertake environmental monitoring and coordination of local community environmental monitoring activities	environmental monitoring activities for first year of operation
Socio-politic organization and local community members	Involvement in consultation and participation activities to identify and develop subprojects Ability to comment on environmental assessment documentation upon disclosure	Involvement in environmental monitoring activities under the direction of SSTs	Involvement in environmental monitoring activities under the direction of SSTs
Construction contractor	n/a	Prepare detailed Site EMP to meet the Subproject EMP general requirements Allocate adequate resources to meet the requirements and obligations of Site EMP	n/a

D. Monitoring and Reporting system

Table 8: Monitoring and reporting system

Project Phase	Type of Report	Frequency	Responsibility	Submitted To Whom
Construction	Site Environmental Performance Report indicating compliance with Site EMP and monitoring results	Monthly	Construction supervision consultant	PPMU

Project Phase	Type of Report	Frequency	Responsibility	Submitted To Whom
	EMP Compliance Report indicating compliance with all subprojects' EMPs and monitoring results	Quarterly	PPMU	CPMU
	EMP Compliance Report indicating compliance with all subprojects' EPPs and monitoring results	Semi-annual during construction period	CPMU	ADB
	Subproject Environmental Report indicating overall subproject environmental performance and EPP compliance	At completion of subproject	CPMU	ADB
<i>Operation</i>	EMP Compliance Report: Operation indicating compliance with subproject EPPs during operation (to be continued submission report within next 2 years)	Semi-annual	Dak Rong Infrastructure Division, Huc Nghi commune Pc	CPMU, ADB

E. EMP budget

Table 9: EMP budget

Item	Marginal Costs for Pre-Construction	Marginal Costs for Construction	Marginal Costs for Operation	Marginal Costs Sub-Total
Mitigation				
Compensation and land clearance	In a separated item on project	No	No	Included in other items

Item	Marginal Costs for Pre-Construction	Marginal Costs for Construction	Marginal Costs for Operation	Marginal Costs Sub-Total
	compensation and resettlement			
Monitoring				
PPMU's Internal monitoring	Included in management cost of PPMU	Included in the Contract with Contractor and CSC as well as in PPMU's management cost	Budget of Project supervision	Included in contracts or other operation capital sources
Community monitoring	Not available (n/a)	Local budget	Local budget regulated on the Decree No. 18/2015/ND-CP dated 14/02/2015)	Local budget
Training on capacity enhancement on environmental monitoring capability	n/a		Local budget regulated on the Decree No. 18/2015/ND-CP dated 14/02/2015)	n/a

VI. PUBLIC CONSULTATION AND DISCLOSURE ACTIVITIES**A. Description of Activities to Date****Table 10: Public consultation and disclosure activities**

CONSULTATION METHOD	DETAILS OF ACTIVITIES	
Correspondence and meetings with local authorities (District and Commune PCs, Commune Fatherland Front, Women's Union, Youth Union and others)	Date of correspondence	8/2015
	Dates of meetings (if requested)	8/2015
	Minutes of meeting attached (Yes / No)	Yes
Public meeting	Date(s) held	8/2015;
	Location(s) held	Huc Nghi Commune PC Office
	Invitees/attendants	Representatives of the People's Council, the Party Committee, the People's Committee, the mass organizations (the Fatherland Front, the Farmers Union, the WU women, the Youth Union) of the commune and representatives of the villages
	Methods of invitation	Radio announcement and letter, coordinate with Women Union to mobilize women's participation in meetings
	Agenda attached (Yes / No)	Yes
	Minutes of meeting attached (Yes / No)	Yes
	Number of attendees	30 people (16 male; 14 female)

B. Outcomes of public consultation to date**Table 11: Results of public consultation**

Commune: Huc Nghi		Date: 8/2015	
Participants	Topic	Concerns of EM people	Future Action plan
Representativ	Environ	- Impacts from	The Contractor shall:

es of the following organization: - PPMU, CPIU, other relating units. - People's Committee, Fatherland Front Committee of the commune, commune Women's Union. - Huc Nghi & La To villages	ment safety	temporary storage site for construction materials, including: dust, noise.	<ul style="list-style-type: none"> Provide public information for local people on construction conditions; Do not storage excavated soil for long time, transfer it as soon as possible to disposal site; Minimize quantity of construction materials that keep in temporary storage; Ensure that all machines are in good operation condition
		UXO exploration and treatment	<ul style="list-style-type: none"> UXO exploration and treatment will be done in advance of the construction.
		Air pollution due to dust, exhaust fume and noise	<ul style="list-style-type: none"> Ensure that construction equipment and vehicles are regularly maintained Progress and construction plan was widely informed to the village community at least 10 days prior to construction. Collecting information and feedback from the community
		Forest exploitation of trees and wide animal	<ul style="list-style-type: none"> Inform local people not to cut trees from the forest, not to catch wide animals for sale, only make good price of the crops they harvest.
		Grievance redress mechanism	<ul style="list-style-type: none"> Provide to local people and also inform local administrative management authority, project management representatives at the public consultation meeting about the Grievance Redress mechanism of the project. Details please refer to photo in appendix2.

	Social safety	Traffic safety and commercial activities, social order guarantee	<ul style="list-style-type: none"> - Women will be paid fairly compared to the men with the same volume and type of work and time spent on the job. In addition, the payment of wages on time for woman should be strictly followed. - Ensure that women workers will have enough safety measures and protection as well as working items. - Construction plans must consider the housework and women's fertility. - Ensure that the contractor does not employ children. - Teach the children not to use motorbike until they have license. - Should organize meeting with all workers before they do the construction and inform to them all the requirements of the village and local people. Keep good contact/communication with them.
		Unwanted Social Impact and changes in sanitation conditions	<ul style="list-style-type: none"> - Orientation for men and especially EM women, contractors and construction workers about STDs, HIV/AIDs and women abduction, including the punishment corresponding to the law; - Publish IEC materials suitable with the local context with the current situation in the village/commune; and the context of low-educated minority women.
	Gender	1. Women's participation in local labor with men may not be paid fairly to the men for the same type of work and time spent by the two sides;	<ul style="list-style-type: none"> - Women will be paid fairly compared to the men with the same volume and type of work and time spent on the job. In addition, the payment of wages on time for woman should be strictly followed. - Ensure that women workers will have enough safety measures and protection as well as working items. - Construction plans must consider the housework and women's fertility. Ensure that the contractor does not using child labor (children under 17 years old).
		2. With the impact of construction workers	<ul style="list-style-type: none"> - Orientation for men and especially EM women, contractors and construction

		from elsewhere, vulnerable women easily fall into intimate relationships with workers and can lead to STDs or HIV/AIDS; moreover, women, especially EM women can become victims of women kidnapping.	workers about STDs, HIV/AIDS and abduction of women, including the punishment corresponding to the law; - Publish IEC materials suitable with the local context with the current situation in the village/commune; and the context of low-educated minority women.
		3. Women cannot share the views and opinions in the infrastructure sub-project meeting (how they construct and repair the works) should be built due to poor awareness of the technical terms of technology.	- Encourage women to share their views and their opinions during the meeting of the infrastructure sub-project (How they construct and repair the works) and orient them about the problem of infrastructure construction/upgrading. - Asked women about their thoughts on their role and responsibilities during the implementation and in maintenance and operation (O&M);
		4. Women are not mobilized to be members of socio-politic organizations and O&M board.	Mobilizing the participation of at least 30% women that are beneficiaries of the sub-project to be members of the socio-politic organizations and O&M Board.
		5. Men may not allow their wives to participate in the construction/upgrading process of infrastructure. - High rate of domestic violence	- Conducting training sessions/workshops on gender sensitivity for both men and women to raise awareness and support of men for gender mainstreaming activities. - Orienting men and women about domestic violence laws in 1989.
		6. Report related to gender data may not be segregated	Segregation data of completion/progress report based on gender, ethnicity and vulnerable groups.

VII. GRIEVANCE REDRESS MECHANISM

6. During the deployment of the subproject, local people are disseminated environmental protection activities such as EMP. Negative impacts on the environment may occur during the construction and operational phases. Any comments/ suggestions of local people will be solved quickly, transparently and protected by law, particularly for affected people by the subproject. Complaint handling mechanism was classified by level and responsibilities of involved parties.

7. Per the environmental management frame, there are 03 steps to redress complaint as below:

- **Stage 1:** If a household has any complaint he/she can submit a complaint in the written or verbal forms to the representative of Huc Nghi CPC (usually the Deputy Chairman of the CPC). CPC will work with Construction Supervision Consultant and Environmental Officer of PPMU to solve complaints and representative of the Huc Nghi CPC will response in written form to the complainant.
- **Stage 2:** If the complaint is not resolved within 7 days, the complainant will submit an application to Dak Rong DPC to resolve the complaint.
- **Stage 3:** If more than 10 days but no official response in written form from Dak Rong DPC, the complainant may submit a complaint in the written form to the Quang Tri PPC (through Quang Tri DONRE). Quang Tri PPC will require Dak Rong DPC to solve the complaint. In case the complaint is still not resolved, Quang Tri PPC will require environmental police to investigate and requested stakeholders to resolve the complaint.
- If efforts to resolve disputes using the grievance procedures remain unresolved or unsatisfactory, APs have the right to directly discuss their concerns or problems with the ADB Southeast Asia Department through the ADB Viet Nam Resident Mission (VRM). If APs are still not satisfied with the responses of VRM, they can directly contact the ADB Office of the Special Project Facilitator (OSPF).

VIII. CONCLUSIONS AND RECOMMENDATIONS

8. The subproject of Upgrading Village-linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dak Rong District, Quang Tri Province is being implemented by Quang Tri PPMU, Huc Nghi commune, Dak Rong district, Quang Tri province as a part of the BCC project.

9. An environmental assessment of the project has been carried out and the main potential environmental impacts of the sub-project during construction and operation are:

- (i) Risks to health or safety of people or workers
- (ii) Problems that are related to waste treatment, including waste from construction works, construction camp.
- (iii) Potential impact on Dak Rong natural reservation area.

10. A range of mitigation and monitoring measures has been developed for the sub-project, which includes the following activities:

- (i) Supply safety equipment for workers such as gloves, lifelines...and train them how to use these equipments. The authorities regularly inspect and supervise the safety of workers and people in the area of construction, ensuring safety for the construction sector and limiting access of the local community by erecting signs and fences; announce on the speaker system the risks that may be encountered during construction. Contractors are responsible for safety of workers and people during the transportation of construction materials. They should avoid overloaded vehicles and limit construction activities during the flood season
- (ii) Strictly control the discharge of waste during the construction of culvert and road to avoid water pollution. Periodically clean up waste on the culvert and road. Build waste collection systems; raise awareness of people about waste management and road work through training in the operation phase

The following monitoring methods need to be implemented so as to ensure compliance with mitigation requirements

- (i) Contractor: must implement environmental impact mitigation measures and commit to carry out these measures in residential locations in Huc Nghi commune, surrounding areas and waterways; observe and measure air and water quality when requested by residents, prepare their own detailed plan of environmental monitoring and assign enough human resources to satisfy general and obligatory requirements of field EMP
- (ii) During operation phase, Dak Rong infrastructure division and Huc Nghi commune PC conduct periodical monitoring of water quality according to QCVN, air quality, noise level, soil quality, waste management and traffic safety management.
- (iii) PPMU strengthens the compliance with environmental rules concerning erosion and dredging, equipment, vehicles, construction machinery, the conditions of work camps, waste treatment, soil and stone mines in the construction stages, the level of dust and air quality, noise and vibrations, community safety, waste and water quality management in the operation phase and coordinate with the local authorities to set up and carry out EMP

11. Based on the findings of the environmental assessment and EMP contained in this document, it is concluded that:

The investment on the Subproject of Upgrading Village-linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dak Rong District, Quang Tri Province aims to upgrade the existing road system, contribute to social and economic development activities and modernization in rural area, improve directly the welfare of 340 people, 71 households in La To village belonging to Huc Nghi commune, Dak Rong district, Quang Tri province, by providing opportunities for rural, commercial, transport and social cultural development. The subproject will improve movements of local traffic, resulting in greater socio-economic effectiveness, contributing to the development of agriculture following Government policies.

12. Based on the study, all negative impacts on environment will result from the construction activities and stop in the operation phase;

According to the IEE, the FS consultant and the PPMU have following suggestions:

- (i) No significant effects on the environment are identified and it is recommended that no further environmental assessment is warranted.
- (ii) Approval of IEE report of the Subproject of Upgrading Village-linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dak Rong District, Quang Tri Province as consent for ongoing implementation steps and ensure the progress and project effectiveness

APPENDICES

APPENDIX 1: Photographs about existing environment



Starting point of the Subproject road



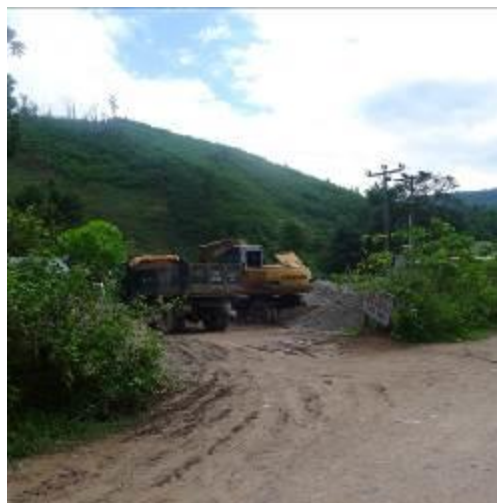
Starting point of the Subproject road



Ending Point connecting with concrete road (under construction)



Existing construction site of road camp



Existing material storage location & work



View of culvert No.1



View of culvert No.2



View of culvert No.3



Big curve No.1

View of culvert No.4



Big curve No.2



Fresh water pipe line



Pipe line on 1 side of road



Road runs through residential area





Huc Nghi kindergarten (5m away La To Primary School - next to the road)



Paddy field (next to the road)



Electricity network



Notice Warning board (USAID),
water level measurement pole,
cross section



A Cho River - roadside

Appendix 2: Detail of consultation activities

CPC leader (Deputy Chairman) introduced subproject in the meeting



Social interview with Huc Nghi village leader



social, environmental impact of Project explain



People of La To and Huc Nghi villages answer questionnaire at consultation meeting



Many of Huc Nghi and La To villages' women attended the meeting



Social interview with Women Union leader of Huc Nghi commune



Minutes of Public Consultation Meeting at Huc Nghi commune

CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM
Độc lập – Tự do – Hạnh phúc
THE SOCIALIST REPUBLIC OF VIETNAM
Independence – Freedom – Happiness

BIÊN BẢN HỘI NGHỊ THAM VẤN ĐÁNH GIÁ AN TOÀN MÔI TRƯỜNG
AN TOÀN XÃ HỘI VÀ GIỚI
Minutes of Meeting on Environmental & Social Safety, Gender Issues

CÔNG TRÌNH/Works: Nâng cấp, tuyến đường liên thôn Húc Nghi - La To

Mã số BB/Code: MOM/BCC/EN&SG/002-E&V

I. THỜI GIAN, ĐỊA ĐIỂM/Time, Location & Venue
 - Từ/From 13 h 50 đến/to 15 h 10 ngày/date 1 / 1 / 2015 tại/at.....

II. THÀNH PHẦN/Participants

1.1. Chủ trì Hội nghị/Chairman

1. Ban quản lý dự án tỉnh/PPMU:

- Ông/bà: <u>Hoàng Việt Thịnh</u>	Chức vụ/Position: <u>Phó CCT - CC PVM</u>
1.1 - Ông/bà: <u>Hồ Văn Rạng</u>	Chức vụ/Position: <u>Bí thư chi bộ La To</u>
- Ông/bà: <u>Hồ Văn Phấn</u>	Chức vụ/Position: <u>Bí thư chi bộ thôn Húc Nghi</u>

2. UBND xã Húc Nghi /Commune PC

- Ông/bà: <u>Hồ Văn Ngọc</u>	Chức vụ/Position: <u>Bí thư Đảng ủy</u>
- Ông/bà: <u>Hồ Văn Tuấn</u>	Chức vụ/Position: <u>Phó CT Húc Nghi</u>
- Ông/bà: <u>Hoàng Đình Toàn</u>	Chức vụ/Position: <u>Lan bộ N</u>

3. UBMTTQ xã Húc Nghi /Commune Fatherland Front

- Ông/bà: <u>Hồ Văn Phấn</u>	Chức vụ/Position: <u>Phó CT UBMTTQ xã</u>
3.1 - Ông/bà: <u>Hồ Văn Vũ</u>	Chức vụ/Position: <u>Địa chính XD xã</u>

4. Ban ĐVTĐ DA xã Húc Nghi /Commune Implementing Agency

- Ông/bà: <u>Hồ Văn Tuấn</u>	Chức vụ/Position: <u>Trưởng ban TH DA</u>
- Ông/bà:	Chức vụ/Position:

1.2. Thành phần tham dự khác/Other Participants

5. Đại diện cộng đồng thôn (Danh sách hộ dân tham gia kèm theo)/Representative of Village

- Ông/bà: <u>Hồ Văn Y Ta</u>	Chức vụ/Position: <u>Trưởng thôn Húc Nghi</u>
- Ông/bà: <u>Hồ Văn A Rai</u>	Chức vụ/Position: <u>Trưởng thôn La To</u>

6. Kiểm lâm/Vietnam Forest Rangers

- Ông/bà:	Chức vụ/Position:
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7. Nhà thầu tư vấn/Consultant

- Ông/bà:	Đơn vị:
- Ông/bà:	Đơn vị:

III. DIỄN BIẾN HỘI NGHỊ/MEETING DETAILS & DISCUSSION

Giới thiệu nội dung/Brief introduction

Giới thiệu sơ lược Dự án BCC (dự án Hành lang bảo tồn Đa dạng sinh học tiểu vùng sông Mê Công Mở rộng, giai đoạn 2).

Dự án thực hiện tại 3 tỉnh: Quảng Trị, Thừa Thiên - Huế và Quảng Nam.

Tại Quảng Trị, thực hiện tại 2 huyện: Dakrông và Hướng Hóa, mỗi huyện 6 xã.

Trong 8 năm (2011 – 2019), chủ quản là UBND tỉnh Quảng Trị, Quản lý dự án là BQL DA BCC tỉnh Quảng Trị, đặt tại trụ sở Sở TNMT tỉnh Quảng Trị.

Dự án bao gồm hợp phần Cải thiện các công trình quy mô nhỏ (đường liên thôn, thủy lợi, nhà sinh hoạt cộng đồng,...)

Theo khảo sát, tham vấn ý kiến (xây dựng tuyến đường liên thôn Húc Nghi – La Tô, dài 3,0km).

Tên tiểu dự án: “Nâng cấp đường liên thôn Húc Nghi – La Tô.”

Tóm tắt Khảo sát thiết kế, thông số chính yếu nhất:

Km 00 – Km 3+00

Mục đích: tạo điều kiện cho bà con đi lại, thuận lợi canh tác, đáp ứng nhu cầu phát triển KT-XH của địa phương, hoàn thiện hệ thống GT của xã.

Dự án đã khảo sát:

Điểm đầu: cầu A Cho

Điểm cuối cùng: tuyến đường đất sét thôn La Tô

Chiều dài: 2,4...m

Quy mô xây dựng: đường nông thôn cấp B. (nền đường rộng 4-5m, mặt đường rộng 3-3,5m). Lề đất 2 bên được đầm nén.

Trên tuyến có 1 số điểm khó khăn nên bề rộng mặt đường 4m.

142m đầu tiên:

các đoạn tiếp theo tính toán dựa theo cống và gấp khúc để thiết kế.

Mặt đường: Bê tông xi măng mác: 200. Dày 18cm, lớp lót móng sỏi 10cm, lót cát.

Thoát nước dọc: gia cố tấm lát bê tông xi măng.

ngang: xây dựng mới 4 cống. Các cống này là cống tròn.

Trong quá trình triển khai thi công, sẽ có những tác động về Môi trường và xã hội nên việc tham vấn riêng 2 nội dung này là quan trọng.

+ Môi trường

+ Xã Hội

Chủ đề/Topic	Điểm nhấn của buổi thảo luận/Miêu tả các vấn đề/kiến nghị/ Discussion/Suggestion	Bởi ai/By (Nam giới, phụ nữ, v.v. người tham dự)	Kế hoạch hành động/hoạt động tương lai/ Action plan/Future activities
1. Môi trường			
	Bom mìn và vật liệu nổ còn sót lại (k phải tại phân đường đã sử dụng mà khu vực xung quanh)	Tư vấn trình bày	<ul style="list-style-type: none"> 2014 đã có
	Khai thác gỗ phục vụ	Tư vấn trình bày	<ul style="list-style-type: none"> Chú ý khai thác đúng mức, tuân thủ luật

Chủ đề/Topic	Diễn nhân của buổi thảo luận/Miêu tả các vấn đề/kiến nghị/ Discussion/Suggestion	Bởi ai/By (Nam giới, phụ nữ, v.v. người tham dự)	Kế hoạch hành động/hoạt động tương lai/ Action plan/Future activities
	đời sống (cổ đường mới có thể tăng dân số, tăng việc tiếp cận của thương lái)	bảy	
	Bất động vật hoang dã	Tư vấn trình bày	<ul style="list-style-type: none"> Chú ý không săn bắt động vật hoang dã Bảo vệ động vật hoang dã
	An toàn giao thông tại đường nông thôn (trẻ em lái xe, tăng xe máy/ xe cơ giới hoạt động, có thể có tai nạn giao thông)	Tư vấn trình bày	<ul style="list-style-type: none"> Giáo dục trẻ em trong tương lai Trồng cọc trẻ em cẩn thận hơn Chú ý vấn đề tai nạn giao thông tại nông thôn
	Hình ảnh về thi công các công trình tại nông thôn	Tư vấn trình bày	<ul style="list-style-type: none"> Tham khảo
II. Tác động về xã hội/Impacts on Social aspect III. Giới/ Gender Giới thiệu: Người trình bày: Đồng Ngọc Hải Anh. 37 tuổi + Xây đường. + 2.5 km từ: cầu A Cho Nhiệm vụ: Xin ý kiến của bà con, 23 người tham gia. Tất cả ý kiến của bà con đều quý, mong muốn gì thì bà con nêu ra. Giảm những tác động không tốt trước – trong và sau khi xây dựng.			
	Hỏi và giờ tay.		<ul style="list-style-type: none"> bà con Hiểu và đồng ý
1	Mọi người có biết đi xe máy không		<ul style="list-style-type: none"> 100%
	Nhà có xe máy không?		Thực tế nhiều người đi hợp bằng xe máy.
	Có thích đi xe máy không?		
	Đi làm nương có đi bằng xe máy không?		
	Cổ đường thì: + Khi thi công có cát, sỏi, bụi, ồn + Khi có con đường rồi: đi lại thuận tiện	C Hải Anh	<ul style="list-style-type: none"> Có bụi
	Có nghĩ công nhân tới sẽ cãi lộn, họ mang bệnh tật tới,...		<ul style="list-style-type: none"> Có thể xảy ra nhưng dự án sẽ áp dụng các biện pháp phù hợp để bảo vệ người dân, có đội tự quản của thôn để bảo vệ bà con,...
	Cổ đường mới sẽ mua xe máy,...		
	Thương lái vào nhiều khi cổ đường thì bán hàng dễ hơn, giá tốt hơn		<ul style="list-style-type: none"> Có thể. Như vậy thì tốt hơn cho bà con
	Nhà tài trợ quan tâm việc dự án giúp đỡ được gì cho bà con, cuộc sống tốt hơn		<ul style="list-style-type: none"> Bà con hiểu. Nhiệt tình trao đổi để tư vấn có thêm thông tin, truyền đạt thông tin tới nhà tài trợ.
	Có con đường thì tốt hơn hay không?		<ul style="list-style-type: none"> Tốt hơn.
	Bà con có cần hỗ trợ gì? hướng dẫn đi xe an toàn, khuyến nông.		<ul style="list-style-type: none"> Bà con có thể nêu trong phần bảng hỏi.

Chủ đề/Topic	Điểm nhấn của buổi thảo luận/Miêu tả các vấn đề/Key points/ Discussion/Suggestion	Bởi ai/By (Nam giới, phụ nữ, v.v. người tham dự)	Kế hoạch hành động/hạt động tương lai/ Action plan/Future activities
	cần thêm cây / con giống....?		• 100%
	Có tốt không?		• Dự án sẽ đưa ra các biện pháp giảm thiểu phù hợp như tưới nước.... đảm bảo ít ảnh hưởng đến người dân nhất.
	Con đường đi xuyên qua, chịu bụi và ồn, có yêu cầu gì k?		
	Thôn Húc Nghi?		
	Thôn La Tô (số lượng hộ bị ảnh hưởng ít)		• 100%
	Nên xây hay không nên xây?		

Nhóm xã hội và giới có trao đổi riêng với trưởng thôn từ 14.35 tới 15.15./Social and gender issues team has separate discussion with leader of village from 2.35PM to 3.15PM. Trong lúc đó, nhóm an toàn môi trường giải thích và đề nghị bà con trả lời, điền vào bảng câu hỏi người dân bị ảnh hưởng và thu lại kết quả với sự giúp đỡ của cán bộ xã (dịch ra tiếng Văn Kiều) / While environmental safety team explains and receives feedback questionnaire from local people with support from commune PC officer (translation and explain in Van Kieu ethnic language).

IV. Kết luận/ Conclusion

- Chiều nay cuộc họp đã hoàn thành nhiệm vụ
- Cảm ơn tất cả bà con đã tham gia họp, lắng nghe và trả lời các câu hỏi của tư vấn.
- Cảm ơn bà con đã phối hợp thực hiện.
- Nếu cần hỏi thêm, bà con đưa ý kiến lên xã.
- Buổi họp kết thúc. Chúc quý vị sức khỏe.

V. KẾT QUẢ VÀ KẾT LUẬN HỘI NGHỊ / MEETING RESULTS & CONCLUSION

Ghi nhận về các tác động môi trường, tác động xã hội và giới và các biện pháp giảm thiểu cần được quan tâm, xem xét./Note the environmental and social impacts and gender issues and the mitigation measures which need to be concerned and considered.

Kết quả của cuộc tham vấn sẽ được đưa vào tài liệu dự án./The result of the consultation meeting will be added into the project document.

Cuộc họp kết thúc lúc...15.10 ./Meeting finishes at.....03.10PM.....

Biên bản được lập bởi.....Hoàng Thủy Lan...../ This minutes is made by.....Hoàng Thủy Lan.....

Đại diện Thôn/Bản

Arac
(hưc)



Hồ Văn Mười

Đại diện BQL DA

[Signature]

Upgrading Village-Linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dakrong District, Quang Tri Province

[illegible]

0: No affected (quality is still good)

1: Yes, affected/problem

Except for soil: 1 (good quality)

Appendix 3: List of information sources used in the preparation of IEE

- National environment protection strategy by 2010 and orientation by 2020, MONRE
- EQMR of Quang Tri province 2014
- Annual Statistics Report of Quang Tri PPC, 2010
- Data collected from Huc Nghi CPC, 2010 – 2012 (socio-economic report year 2014 and 6 first months of 2015)
- Technical – Economic report of the subproject

Appendix 4: Responsibilities of Construction Contractor

Organization	Roles and Responsibilities		
	Subproject Preparation	Subproject Implementation	Subproject Operation
Construction contractor	n/a Bid implementation	Prepare detailed Site EMP to meet the Subproject EMP general requirements Allocate adequate resources to meet the requirements and obligations of Site EMP	n/a Maintenance according to signed contract
construction supervision consultant	n/a	Implement independent environmental monitoring at subproject area twice every 1 month. Monitoring results will be included in the report, which will be sent to CPMU once a month.	n/a
CPMU	Provide advice to PPMU Safeguards Officer on Initial Environmental Examination (IEE)/ Environmental Protection Plan (EPP) and IEE/ Environmental Impact Assessment Report (EIAR) preparation Review and provide “no-objection” on IEE/EPPs or IEE/EIARs submitted by PPMUs	Provide advice to PPMU Safeguards Officer on EMP implementation during construction Monitor progress during construction Consolidate PPMU environmental reporting Audit EMP implementation of at least 10% of all the subprojects on a random basis	Provide advice to PPMU Safeguards Officer on EMP implementation during first year of operation Monitor progress during first year of operation Consolidate PPMU environmental reporting
DPC/DONRE	Sign-off on environmental assessment documents prior to submission for approval Approval of any subprojects requiring EIAR	Project owner with ultimate responsibility for environmental performance of subproject during construction Monitoring implementation	Project owner with responsibility for operation stage environmental performance including implementation of EMP

Organization	Roles and Responsibilities		
	Subproject Preparation	Subproject Implementation	Subproject Operation
	that are not subject to MONRE approval Provide advice and guidance on environmental issues as required during subproject preparation	of EMP through their own internal monitoring system	during operation Monitoring implementation of EMP through their own internal monitoring system
PPMU	Engage consultant and have overall responsibility for IEE/EPP or IEE/EIAR preparation and submission for approval Ensure staff are adequately trained in environmental issues	Responsibility for EMP implementation during pre-construction and construction Ensure that contract specifications and bid documents include environmental requirements Undertake inspections and monitoring of environmental issues during construction Coordinate environmental monitoring reporting to CPMU	Responsibility for EMP implementation during first year of operation Undertake inspections and monitoring of environmental issues during first year of operation Assist project owners to incorporate environmental requirements into infrastructure O&M procedures
Commune PCs	Approval of subproject EPPs in accordance with GOV legislative requirements	Monitoring implementation of EMP through their own internal monitoring system	Monitoring implementation of EMP through their own internal monitoring system
District Subproject Support Teams (SST)	Assist in IEE/EPP preparation as required Assist PPMU to review bidding documents, contract documents, and tenders to ensure environmental issues are adequately addressed	Day to day supervision of contractors' in district including compliance with environmental management requirements Undertake environmental monitoring and coordination of local	Undertake environmental monitoring and coordination of local community environmental monitoring activities for first year of operation

Organization	Roles and Responsibilities		
	Subproject Preparation	Subproject Implementation	Subproject Operation
		community environmental monitoring activities	
Commune Supervision Board (CSB) and local community members ⁴	Involvement in consultation and participation activities to identify and develop subprojects Ability to comment on environmental assessment documentation upon disclosure	Involvement in environmental monitoring activities under the direction of SSTs	Involvement in environmental monitoring activities under the direction of SSTs

⁴ CSB is established according to Decree No 18/2015/ND-CP dated 14/02/2015 of GOV. Article 12 of this Decree provides the community with opportunities to inspect compliance, monitor implementation and evaluate the results of investments in the commune, including environmental impacts.

Appendix 4. Rapid Environmental Assessment (REA) Checklist for road works and Environmental Categorization Form

Rapid Environmental Assessment (REA) Checklist

Instructions:

- (i) The project team completes this checklist to support the environmental classification of a project. It is to be attached to the environmental categorization form and submitted to the Environment and Safeguards Division (RSES), for endorsement by Director, RSES and for approval by the Chief Compliance Officer.
- (ii) This checklist focuses on environmental issues and concerns. To ensure that social dimensions are adequately considered, refer also to ADB's (a) checklists on involuntary resettlement and Indigenous Peoples; (b) poverty reduction handbook; (c) staff guide to consultation and participation; and (d) gender checklists.
- (iii) Answer the questions assuming the "without mitigation" case. The purpose is to identify potential impacts. Use the "remarks" section to discuss any anticipated mitigation measures.

Country/Project Title: Biodiversity Conservation Corridors Greater Mekong Sub-region – Phase 2

Village-linking road Huc Nghi – La To villages, Huc Nghi commune, Dak Rong district, Quang Tri province

Sector Division:

Screening Questions	Yes	No	Remarks
A. Project Siting Is the project area adjacent to or within any of the following environmentally sensitive areas?			
▪ Cultural heritage site		√	None
▪ Protected Area	√		1-1.5 km away from Dak Rong natural reservation area
▪ Wetland		√	None
▪ Mangrove		√	None
▪ Estuarine		√	None
▪ Buffer zone of protected area		√	None
▪ Special area for protecting biodiversity		√	None
B. Potential Environmental Impacts Will the Project cause...			

Initial Environmental Examination (IEE)

Upgrading Village-Linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dakrong District, Quang Tri Province

Screening Questions	Yes	No	Remarks
▪ encroachment on historical/cultural areas; disfiguration of landscape by road embankments, cuts, fills, and quarries?		√	None
▪ encroachment on precious ecology (e.g. sensitive or protected areas)?		√	None
▪ alteration of surface water hydrology of waterways crossed by roads, resulting in increased sediment in streams affected by increased soil erosion at construction site?		√	No. The construction period is only 3 months. The operation stage, which is long time, with concrete surface road, the sediment will decrease because the road is covered.
▪ deterioration of surface water quality due to silt runoff and sanitary wastes from worker-based camps and chemicals used in construction?	√		Temporary and little impact because only 20 workers working in 3 months. The impact is negligible.
▪ increased local air pollution due to rock crushing, cutting and filling works, and chemicals from asphalt processing?	√		Construction period is only 3 months, no excavation, only compaction of road.
▪ risks and vulnerabilities related to occupational health and safety due to physical, chemical, biological, and radiological hazards during project construction and operation during project construction and operation?		√	None
▪ noise and vibration due to blasting and other civil works?	√		Only noise and vibration from the transportation trucks for construction materials and construction machines working.
▪ dislocation or involuntary resettlement of people?		√	Upgrading existing road.
▪ dislocation and compulsory resettlement of people living in right-of-way?		√	None
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		√	No. The project will support the traveling to work daily of local women. Children will go to school more convenient. All kind of road transportation to central commune PC, hospital, etc will be benefit.
▪ other social concerns relating to inconveniences in living conditions in the project areas that may trigger cases of upper respiratory problems and stress?		√	The project only improves the transportation quality and providing more convenient transportation condition for the people.
▪ hazardous driving conditions where construction interferes with pre-existing roads?	√		At the starting point of the sub-project crossing with current Ho Chi Minh road right at one end of A Cho bridge at Km282+235. Traffic board should be located for attention. Technical solution to reduce speed of vehicles should be applied.
▪ poor sanitation and solid waste disposal in construction camps and work sites, and possible transmission of communicable diseases (such as STI's and HIV/AIDS) from workers to local populations?	√		Waste will be collected and treated properly. The generation only temporary in 3 months of construction.
▪ creation of temporary breeding habitats for diseases such as those transmitted by mosquitoes and rodents?		√	None

Initial Environmental Examination (IEE)

Upgrading Village-Linking Road of Huc Nghi – La To Villages, Huc Nghi Commune, Dakrong District, Quang Tri Province

Screening Questions	Yes	No	Remarks
<ul style="list-style-type: none"> accident risks associated with increased vehicular traffic, leading to accidental spills of toxic materials? 	√		No toxic materials spill may occur. Possibility of accidents is high as the road runs right through the residential and 1 primary school, 1 kindergarten, paddy field is also next to the road. Feature of the road section having 2 big curves, which are also the potentiality of accidents. 1 side of the road is big slope to the large river, one end of the road connects to the Ho Chi Minh road with high density of vehicles including big/heavy trucks therefore, if accident happens, the impact will be very serious. Protection lifeline and other technical method to guarantee the safety for vehicles are really necessary. The traffic accidents during the operation stage and also the construction stage (only 3 months) of the sub-project are considered the most serious environmental issue. On the other hand, the road improvement and upgrading is really needed and good road quality will benefit the many resident people and pupils.
<ul style="list-style-type: none"> increased noise and air pollution resulting from traffic volume? 	√		Construction materials transportation.
<ul style="list-style-type: none"> increased risk of water pollution from oil, grease and fuel spills, and other materials from vehicles using the road? 	√		Construction period is only 3 months. In operation stage, trucks are only for transportation of harvested crop such as cassava.
<ul style="list-style-type: none"> social conflicts if workers from other regions or countries are hired? 	√		The construction period is only 03 months. Meeting between leaders of the village, local people and workers will be organized before the construction to inform the requirements and keep good communication.
<ul style="list-style-type: none"> large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)? 		√	Only 20 workers working in 3 months.
<ul style="list-style-type: none"> risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during construction and operation? 	√		The risk to community health during 3 months of construction and during the operation stage is low possibility.
<ul style="list-style-type: none"> community safety risks due to both accidental and natural causes, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning. 	√		Accident risks associated with increased vehicular traffic both in construction stage and operation stage (long time). Technical method and traffic board, traffic sign are really needed. Protection method and solution such as lifeline, protection fence on the side next to the large river is very important.

A Checklist for Preliminary Climate Risk Screening**Country/Project Title:** Biodiversity Conservation Corridors Greater Mekong Sub-region -Phase 2**Subproject:** Village – linking road Huc Nghi – La To villages, Huc Nghi commune, Dak Rong district, Quang Tri province

Screening Questions		Score	Remarks ⁵
Location and Design of project	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	1	Slope is high, landslide may occur.
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	It is mountainous area; neither flood nor wind speed is not significant impact.
Materials and Maintenance	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	Normal construction material is suitable for the project.
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	0	Normal maintenance schedule is suitable for the project.
Performance of project outputs	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydropower generation facilities) throughout their design lifetime?	0	Bad or extreme weather condition will not have big impact on the project (except for landslide with very low possibility).

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk

⁵ If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.

category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response will be categorized as high-risk project.

Result of Initial Screening (Low, Medium, High): Medium

Other Comments: IEE report should be made for this sub-project as it has been categorized as B on environment. The subproject running along A Cho River so landslide and soil erosion could be happen during the construction phase. However, short construction time (3 months), small number of workers (20 workers) and the subproject will mainly upgrading base on the existing foundation so the impact is not large.

Prepared by: Hoang Thuy Lan

SUBPROJECT ENVIRONMENTAL CATEGORIZATION FORM**A. Instructions:**

(i) This form is to be completed by the PPMU environment officer with assistance from the NESS and submitted to the Project Director for endorsement before being submitted to ADB for review and approval.

(ii) The environment categorization of a subproject is a continuing process. If there is a change in the components or/and site of a subproject that may result in category change, another categorization form should be resubmitted to ADB for review and approval.

B. Subproject Data:

Title: **Upgrading village-linking road of Huc Nghi – La To villages, Huc Nghi commune, Dak Rong district, Quang Tri province**

Province/District/Village: Quang Tri / Dak Rong / Huc Nghi

Date: 04th August, 2015

Provincial Project Office: Quang Tri PPMU

Processing Stage: _____

Coverage: [01] Province [01] District [01] Village

C. ADB Environment Category: [☒] New [] Re-categorization --- Previous Category

- ☐ Category A
☒ Category B
☐ Category C

Comments:

_____ Category B is considered because this sub-project may have high possibility of accident during both the construction stage and operation stage (long term) because the project runs right through the residential and 1 primary school, 1 kindergarten, paddy field is also next to the road. Feature of the road section having 2 big curves, which are also the potentiality of accidents. 1 side of the road is big slope to the large river, 1 end of the road connects to the Ho Chi Minh road (one end of A Cho bridge at HCM road Km282+235) with high density of vehicles including big/heavy trucks, therefore, if accident happens, the impact will be very serious. Protection lifeline and other technical method to guarantee the safety for vehicles are really necessary. Technical solution to reduce speed of vehicles at the cross-section with Ho Chi Minh road, traffic notice board and traffic sign are required. The traffic accidents during the operation stage and also the construction stage (only 3 months) of the sub-project are considered the most serious environmental issue. Furthermore, the road is only 1-1.5 km away from the Dak Rong natural reservation area (NRA) so the consideration of certain impact to the NRA is necessary. On the other hand, the road improvement and upgrading is really needed and good road quality will benefit the many resident people and pupils.

D. Government Environment Category

- ☐ Subproject requiring EIAR
☒ Subproject requiring EPP

Comments:

_____ According to Decree No.18/2015/ND-CP dated 14th February 2015 and Circular No.27/2015/TT-BTNMT dated 29th May 2015, this sub-project shall make the Environmental Protection Plan (KH BVMT). The structures to be applied are in Appendix 5.4 and 5.5 of the Circular 27/2015/TT-BTNMT.

E. Documents attached: *The categorization will be considered incomplete if proper documentation is not attached.*

Basis for Categorization/ Re-categorization:

- ☒ REA Checklist (must be attached)
☒ Initial Environmental Examination (IEE)
☒ Other:

Terms of Reference for IEE:

- ☐ Key issues identified and attached
☐ Under preparation and will be submitted on __September, 2015__(date)

F. ADB Environmental Assessment Requirements

Please check one:

☒ **Category B:**

- Initial Environmental Examination (IEE)
- Public Consultation

☐ **Category C:**

- Review of Environmental Implications

H. Signatures

Please check one:

☐ **ADB to approve**

☐ **CPMU Director to approve**

Note: The first categorization of a subproject within a sector will require approval of ADB. If the recommended categorization is approved by ADB, the CPMU Director in that sector will be delegated to the CPMU, and all subsequent subprojects categorizations in that sector may approve authority for categorization approvals. ADB will be informed of the results.

CPMU

Category Assigned by:

Project NESS

Date: _____

Approved by:

Project Director

Date: _____

ADB

Endorsed by:

Environment Officer

Date: _____

Approved by:

Chief Compliance Officer

Date: _____

