

# Initial Environmental Examination

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June 2018

## Philippines: KALAHI-CIDSS National Community-Driven Development Project

Subproject: Improved Community Access through Upgrading of  
Barangay Road at Barangays Libertad, Wright and  
Katipunan

## ABBREVIATIONS

ADB	Asian Development Bank
ACT	Area Coordinating Team
BLGU	Barangay Local Government Unit
BSPMC	Barangay Sub-project Management Committee
CEAC	Community Empowerment Activity Cycle
CEF	Community Empowerment Facilitator
CDD	Community Driven Development
DENR	Department of Environment and Natural Resources
DSWD	Department of Social Welfare and Development
EA	Executing Agency
EIA	Environmental Impact Assessment
EMB	Environmental Management Bureau
EMP	Environmental Management Plan
ESMP	Environmental and Social Management Plan
FFL	Forests and Forestlands
GRS	Grievance Redress System
IEE	Initial Environmental Examination
IP	Indigenous Peoples
IR	Involuntary Resettlement
KALAHI-CIDSS	<i>Kapit Bisig Laban sa Kahirapan</i> (Linking Arms Against Poverty) – Comprehensive and Integrated Delivery of Social Services
KC-NCDPP	KALAHI-CIDSS National Community-Driven Development Project
LCC	Local Counterpart Contribution
LGU	Local Government Unit
MCT-TF	Municipal Coordinating Team – Technical Facilitator
MCT	Municipal Coordinating Team
NPMO	National Project Management Office
O&M	Operation and Maintenance
PIT	Project Implementation Team
PMT	Project Monitoring Team
POW	Program of Works
PPE	Personal Protective Equipment
PPT	Project Preparation Team
PT	Procurement Team
RPMO	Regional Project Management Office
SERD	Southeast Asia Regional Department
SP	Subproject
SPS	ADB Safeguards Policy Statement (2009)
TF	Technical Facilitator

## CONTENTS

Section	Page
<b>I. EXECUTIVE SUMMARY</b>	6
<b>II. POLICY AND LEGAL FRAMEWORK</b>	7
A. Environmental Clearance Requirements	7
1. Government Environmental Laws, Regulations and Guidelines	7
2. ADB Environmental Assessment Requirements	8
<b>III. DESCRIPTION OF THE PROJECT</b>	8
A. Overview	8
B. Type of Project	9
C. Location	9
D. Size or Magnitude of Operation	10
<b>IV. DESCRIPTION OF THE ENVIRONMENT</b>	12
A. Physical Resources in Project Area	12
1. Topography	12
2. Climate	12
3. Soil Characteristics	15
4. Geology, Geomorphology and Hydrogeology	16
5. Water Resources	17
6. Water Quality	17
7. Air and Noise Quality	17
8. Quarries and Borrow Pits	18
9. Natural Hazards	18
B. Ecological Resources in Project Area	21
1. Forests and Protected Areas	21
2. Flora and Fauna	21
3. Fish, Fisheries and Aquatic Biology	22
4. Land Use	22
C. Socioeconomic Resources in Project Area	22
1. Population	22
2. Industries and Minerals	23
3. Agriculture	23
4. Road Safety	23
5. Tourism	24
<b>V. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES</b>	24
A. Pre-construction	25
1. Design Measures	25
2. Bid and Contract Documents	25
3. Grievance Redress	25
B. Construction	26
1. Soils and Materials	26
2. Soil Erosion and Slope Stability Problems	26
3. Water Quality	27
4. Air Quality	27
5. Noise and Vibration	27
6. Flora	28
7. Fauna	28
8. Fish, Fisheries, and Aquatic Biology	28
9. Construction Temporary Facility	28
10. Community Impacts	28

11. Health, Safety and Hygiene	29
12. Traffic Management	29
13. Proper Construction Practices	29
C. Operation	30
1. Air and Noise Quality	30
2. Road Safety	30
3. Project Benefits	30
<b>VI. PUBLIC CONSULTATION and PARTICIPATION and GRIEVANCE REDRESS MECHANISM</b>	30
<b>VII. ENVIRONMENTAL MANAGEMENT PLAN</b>	31
A. Implementation Arrangements	31
B. Environmental Mitigation	33
C. Environmental Monitoring	39
D. Capacity Building	40
<b>VIII. CONCLUSIONS AND RECOMMENDATIONS</b>	40
<b>IX. DOCUMENTATIONS</b>	40
A. Stakeholder Consultations – List of Participants	40
B. Summary of Consultations with IP Communities	46
C. Photographs	51
<b>X. LIST OF ANNEXES</b>	
A. Initial Environmental Examination (IEE) Checklist	55
B. Environmental Compliance Certificate (ECC)	68
C. Environmental and Social Safeguard Checklist (ESSC)	79
D. Environmental and Social Management Plan (ESMP)	86

## **List of Tables**

Table 1: EIS and IEE Requirements for Roads and Bridges Projects

Table 2: Soil Description and Area Coverage

Table 3: Geological Description of Tapaz

Table 4: National Ambient Noise Standards

Table 5: Inventory of Livestock and Poultry Farms 2015

Table 6: Population in Project Areas

Table 7: Agricultural Croplands and Production

Table 8: Responsibilities for ESMP Implementation

Table 9: Environmental Mitigation Measures

Table 10: Environmental Monitoring Plan

## **List of Figures**

Figure 1: Location Map of the Subproject on a Municipal Scale

Figure 2: Location Map of the Subproject on a Barangay Scale

Figure 3: Detailed Design

Figure 4: Subproject Billboard

Figure 5: Elevation Map

Figure 6: Climate Map

Figure 7: Iloilo Temperature Graph

Figure 8: Average Annual Rainfall Distribution in Project Areas

Figure 9: 8 Years Average Rainfall Data

Figure 10: Soil Map

Figure 11: Geology Map

Figure 12: Watershed Map

Figure 13: Distance of Project Areas from nearest fault line

Figure 14: Referenced Seismic Map of the Philippines

Figure 15: Landslide Susceptibility Map of Municipality

Figure 16: Flood Susceptibility Map

Figure 17: General Land Use Map

## **I. EXECUTIVE SUMMARY**

1. This Initial Environmental Examination (IEE) has been prepared for the KALAHI-CIDSS subproject of upgrading the 3.85km road in Barangay Libertad, Katipunan and Wright, municipality of Tapaz in the province of Capiz (Region VI). The executing agency (EA) of the Project is the Department of Social Welfare and Development (DSWD). The program management structure is generally divided between the National Program Management Office (NPMO) (responsible for national policy and technical assistance) and the Regional Program Management Office (RPMO) (responsible for field operations). The objective of the project is to empower community by improving the farm-to-market road to transport both agricultural and non-agricultural goods and services and to improve the mobility of the people in going to the town proper for basic services (i.e. health and education).

2. The project has been categorized by ADB as category B and this IEE was prepared consistent with the environmental assessment requirements of ADB's safeguard Policy Statement of 2009 (ADB SPS). The IEE was carried out through screening and analysis of various environmental parameters, field investigations, stakeholder consultations, and field group discussions. The IEE covers the general environmental profile of the subproject and includes an assessment of the potential environmental impacts during different project phases and formulation of corresponding mitigation measures. The IEE was prepared with the active cooperation and participation of the community volunteers, stakeholders, Area Coordinating Team (ACTs), Regional Program Management Office (RPMO) and the Department of Environment and Natural Resources-Environmental Management Bureau (DENR-EMB) Region VI.

3. Major land use along the subproject road is either residential or agricultural. The project area is not located near or within ecologically sensitive areas.

4. A grievance redress mechanism will be established by DSWD prior to commencement of site works to ensure that complaints of stakeholders regarding the project's environmental performance are promptly addressed.

5. The IEE includes an Environmental and Social Management Plan (ESMP) which details the mitigation and monitoring measures to avoid and minimize negative environmental and social impacts during construction and operation phases of the project. During the construction activities, the Area Coordinating Team (ACT) will assist the Project Monitoring Team (PMT), in closely monitoring the community volunteers' and the contractor's environmental performance and over-all ESMP implementation.

6. The project will directly benefit over 1,078 households by (i) increased and reliable travel services leading to better mobility and comfort of the commuting public; and (ii) potential increase in income for the farmers resulting from a shorter travel time of their produce from farm to market. The project would also benefit the environment in terms of reduced soil erosion and landslide through provision of slope protection system. Dust generation from the earth and damaged roads will be reduced by improving the road pavement. Health risk to the roadside communities and damage to the biological environment will be reduced due to pavement improvement and soil erosion control measures. Extent of flooding in road side villages will be reduced by the improvement of drains. Road safety will be improved by stabilizing unstable portions, installing road safety barriers including signs and display boards.

7. The project will have overall beneficial impact and will have minor negative impacts that will be carefully monitored and adequately mitigated with the implementation of the ESMP.

## **II. POLICY AND LEGAL FRAMEWORK**

## A. Environmental Clearance Requirements

### 1. Government Environmental Laws, Regulation and Guidelines

8. According to the DENR guidelines (Department Administrative Order 2003-30; Proclamation Nos. 2146 and 803 of 1981 and 1996; and AO42), the environmental category of a project is decided based on the type of the project (whether it falls into Environmental Critical Project, ECP), location of the project (whether it falls into Environmental Critical Areas, ECA), and size of the project. A summary list of ECPs and ECA categories are revised and specified in DENR-EMB Memorandum Circular 2014-005 or the Revised Guidelines for Coverage Screening and Standardized Requirements under the Philippine EIS System.

9. Based on DENR screening, the project is category B or a project not considered as ECP and is not located in ECA, but the construction and operation poses significant impact to the environment. Using the project thresholds for coverage screening and categorization (Table 1), the project is classified as road, widening rehabilitation and improvement with > 50% increase in capacity in terms of width and > 2 km but < 10km length with no critical slope that requires the submission of IEE Checklist (Annex A) to EMB-DENR in order to secure an ECC. The project was granted an ECC on February 2018 (Annex B).

**Table 1: EIS and IEE Requirements for Roads and Bridges Projects**

Project/ Description	Covered (Required to Secure ECC)			Not Covered
	Category A: ECP	Category B: Non-ECP		Category D
	EIS	EIS	IEE Checklist	PD (Part I only)
<b>3.4 ROADS AND BRIDGES</b>				
3.4.1 Roads, New construction	<b>National Road:</b> ≥ 20.0km, (length with no critical slope) Or ≥10.0km (length with critical slope)	<b>Provincial Road and Other Types of Roads:</b> ≥ 20.0km, (length with no critical slope) Or ≥10.0km (length with critical slope)	All Types of Roads: > 2km but < 20.0km, (length with no critical slope) Or > 2km but < 10.0km (length with critical slope)	≤ 2.0km
3.4.2 Roads, widening, rehabilitation and/or improvement	None	> 50% increase in capacity (or in terms of length/width) and ≥ 20.0 km, (length with no critical slope) or ≥ 10.0 km (length with critical slope)	> 50% increase in capacity (or in terms of length/width) and > 2 km but < 20km (length with no critical slope) or > 2km but < 10 km (length with critical slope)	> 50% increase in capacity (or in terms of length/width) but ≤ 2 km increase in length

### 2. ADB Environmental Assessment Requirements

10. According to ADB guidelines, the process of determining a project's environment category is to prepare a rapid environmental assessment (REA) screening checklist, taking into account the type, size, and location of the proposed project. Based on ADB's Safeguard

Policy Statement 2009 (SPS 2009), a project is classified as one of the four environmental categories (A, B, C, or FI) as follows:

- Category A: Projects with potential for significant adverse environmental impacts that is irreversible, diverse or unprecedented. These impacts may affect an area larger than the sites or facilities subject to physical works. An environmental impact assessment is required.
- Category B: Projects judged to have some adverse environmental impacts, but of lesser degree and/or significance than those for category A projects. Impacts are site-specific, few if any of them are irreversible, and in most cases mitigation measures can be designed more readily than for Category A projects. An initial environmental examination (IEE) is required.
- Category C: Projects likely to have minimal or no adverse environmental impacts. No environmental assessment is required, although environmental implications are still reviewed.
- Category FI: Projects are classified as category FI if they involve investment of funds to or through a financial intermediary. Where the FI's investment has minimal or no adverse environmental risks. The FI project will be treated as category C. All other FI's must establish and maintain an environmental and social management system and must comply with the environmental safeguards requirements specified in SPS 2009 if the FI's subprojects have the potential for significant adverse environmental impacts.

11. Based on the environmental and social screening checklist (Annex C), the project is categorized as B. Hence, this IEE has been prepared to meet the requirements of both the ADB SPS 2009 and the government. Upon ADB's receipt of the final IEE from DSWD, this will be publicly disclosed through posting on ADB's website.

### **III. DESCRIPTION OF THE PROJECT**

#### **A. Overview**

12. The objective of this proposed road improvement is to grant the community wish/priority intervention to strengthen their resiliency through improved access infrastructure, and will also help approximately 1,078 households beneficiaries to easily exchange their goods/products to nearby areas. The improvement of their basic services will lighten up the difficulties of the whole community in their daily transportation.

#### **B. Type of Project**

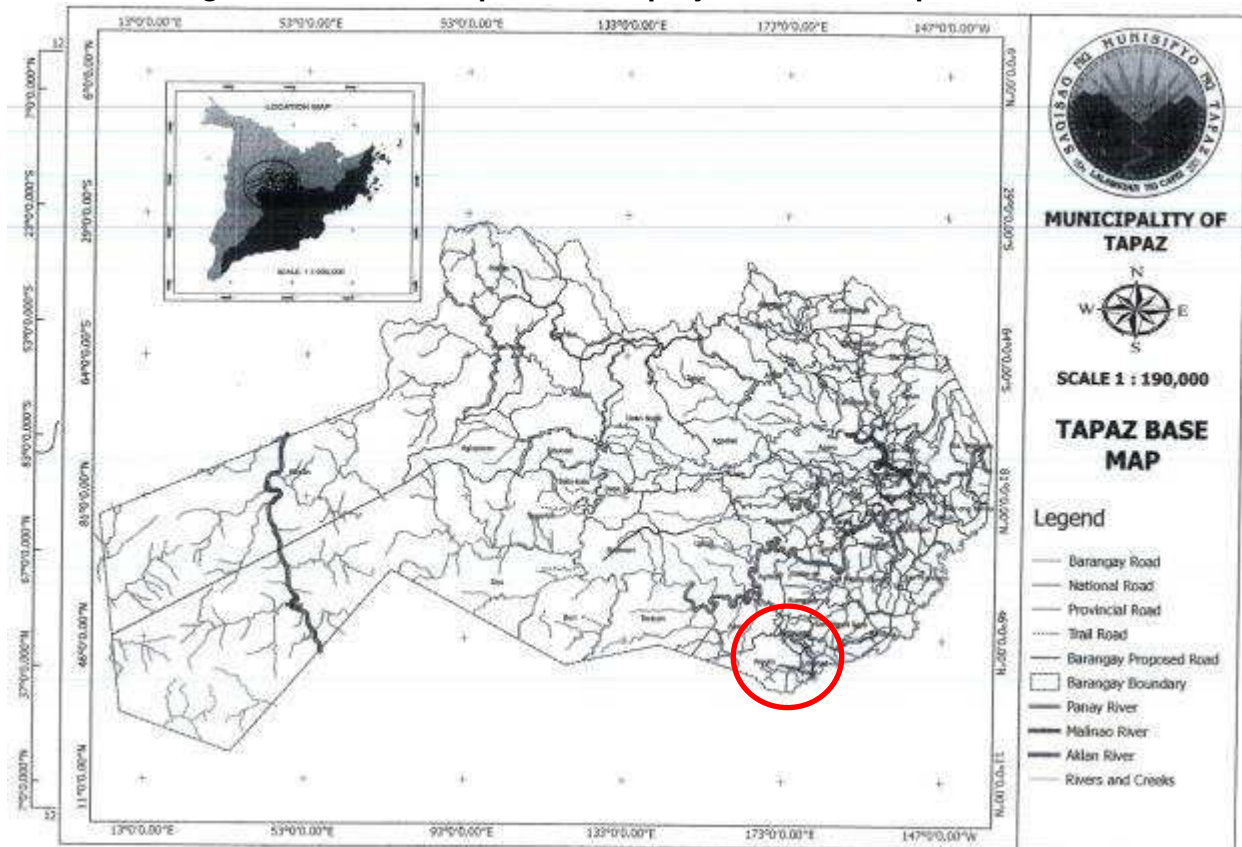
13. The scope of the project is associated with slope protection/stabilization measures particular on the determined as landslide-prone areas, line ditch and portion of storm drain. Construction of the subproject components will involve a number of associated activities. These include excavation and operation of borrow pits, clearing and grubbing, sub-grade preparation, aggregate sub-base course, shouldering on PCCP, measures to protect critical side-slopes, concrete cement delivery from supplier to the subproject site, and the temporary establishment for storage of construction materials.

#### **C. Location**

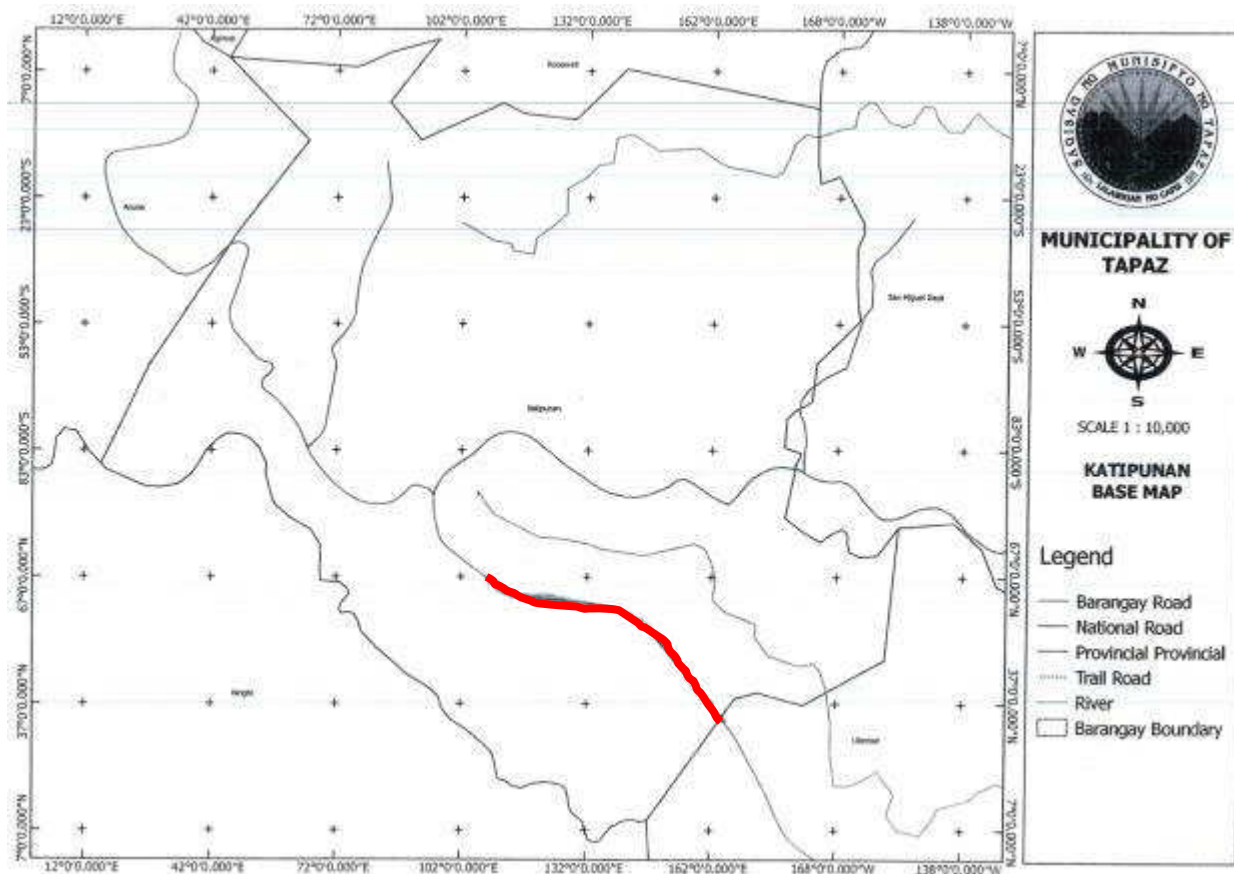


14. Periodic maintenance will be carried out on about 3.85 km of proposed road located in the following barangays, Libertad, Katipunan, and Wright. It is geographically located at  $11^{\circ}11'11.186''$ ,  $11^{\circ}11'55.68''$ ,  $11^{\circ}13'22.726''$ ,  $11^{\circ}12'0.971''$ ,  $11^{\circ}11'25.186''$  North Latitude and  $122^{\circ}30'21.231''$ ,  $122^{\circ}30'3.598''$ ,  $122^{\circ}32'33.726''$ ,  $122^{\circ}29'50.634''$ ,  $122^{\circ}29'26.62''$  East Longitude All civil works will be located within existing right of way (ROW) and will not involve road widening. Locations of the subprojectis shown in Figure 1 in a municipality scale and detailed locations of subproject proposed for upgrading are shown in Figure 2 in a barangay scale. Figure 2 has been used as the base map for describing baseline environment of the subproject area.

**Figure 1: Location Map of the Subproject on a Municipal Scale**



**Figure 2: Location Map of the Subproject on a Barangay Scale**



#### D. Size or Magnitude of Operation

15. The civil works under the project include upgrading of existing graveled barangay road pavements to Portland Cement Concrete Pavement (PCCP) for a length of about 3.85 km length and 4m width as shown in the design in figure 3. The work will consist of placing a new concrete pavement. The civil works included are: clearing and grubbing, sub-grade preparation, aggregate sub-base coarse, base course, gravel bedding, shouldering on PCCP, disposing the debris or removing the unsuitable materials; and using necessary equipment such as, truck hauler, concrete mixer, plate compactor, etc. The subproject also includes Drainage Facilities such as eighteen (18) units slide Ditch Canal (Length: 339 m, Width: 0.9 m, Depth: 0.70 m); one unit (1) Reinforced Concrete Pipe Culverts (RCPC) (Length: 7m, Width: 0.60 m) and seven (7) units Slope Protection (Length: 143.50 m, Width: 0.30 m, Depth: 11.15 m). The subproject implementation started on March 2, 2018 and targeted to finished on July 19, 2018 with a total duration of 140 calendar days as presented in figure 4: Subproject Billboard.

**Figure 3: Detailed Design**

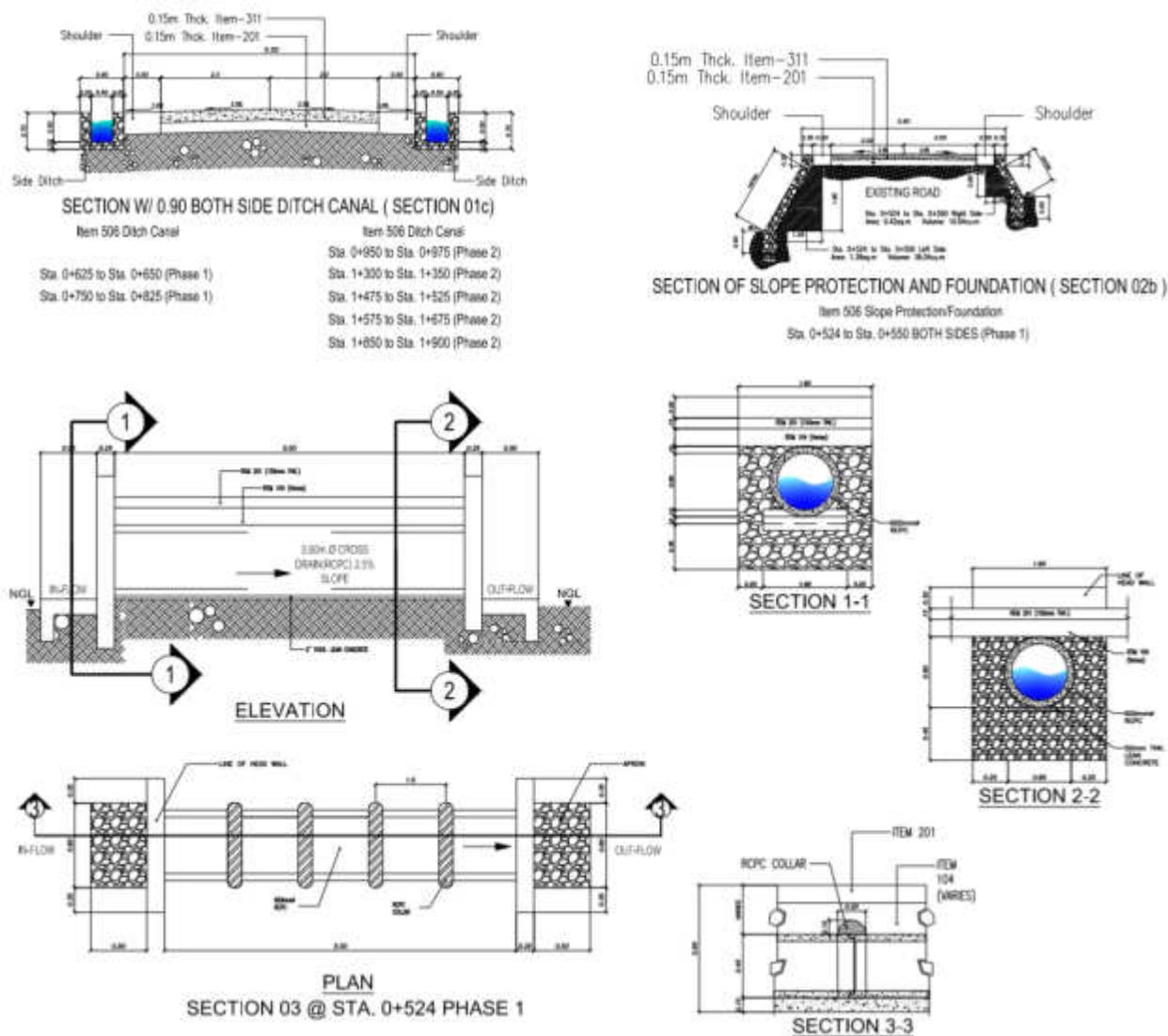


Figure 4: Subproject Billboard



#### IV. DESCRIPTION OF THE ENVIRONMENT

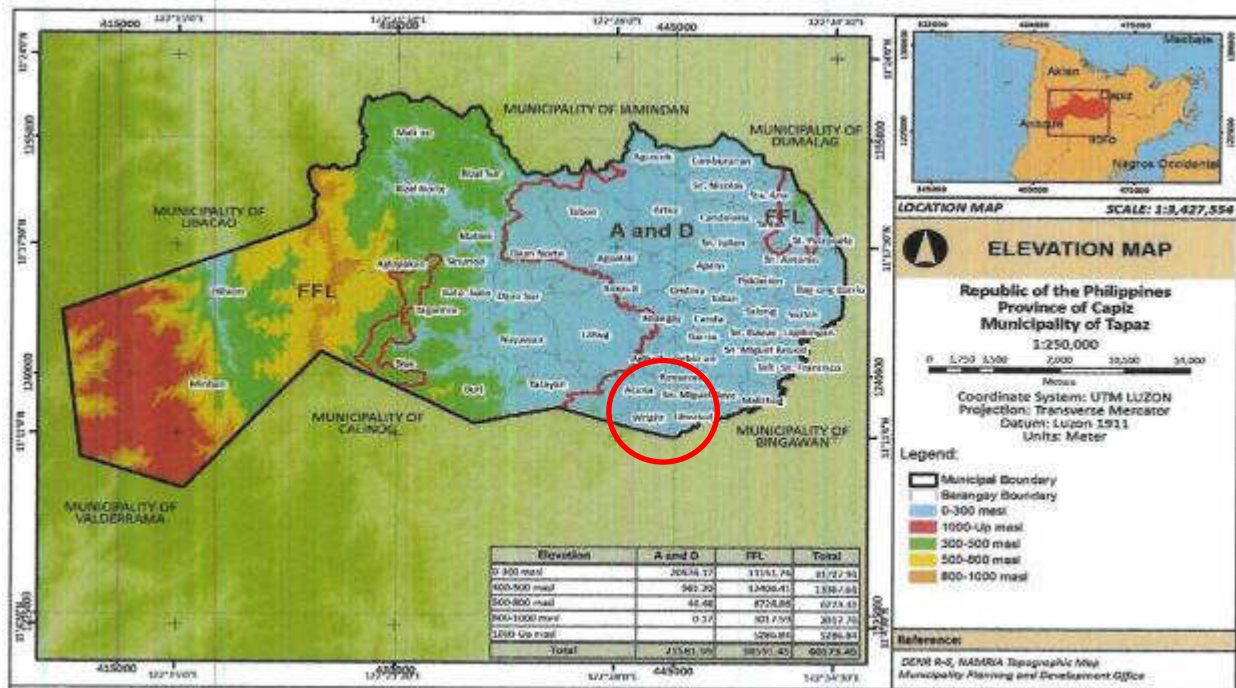
##### A. Physical Resources in Project Area



## 1. Topography

16. The western part of Tapaz is considered hilly and mountainous while the southern part are rolling hills. The subproject area is classified into hilly, rolling and, flat terrain according to their elevation profiles and Map presented in Figure 5. The elevation ranges from 0-300 meters above sea level (masl).

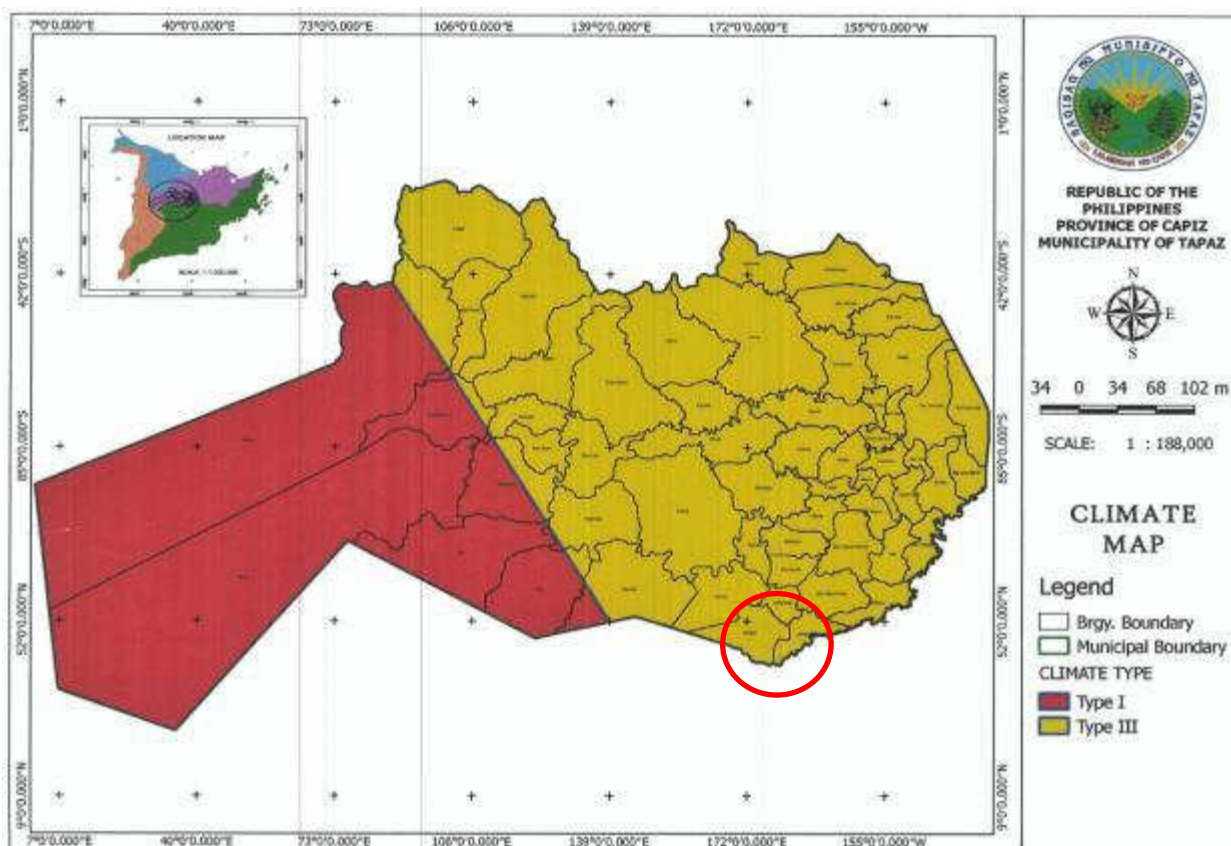
**Figure 5: Elevation Map**



## 2. Climate

17. The Philippines has four climate types based on the Modified Coronas Classification: (i) Type I- two pronounced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September; (ii) Type II- no dry season with a pronounced maximum rain period from December to February. There is no single dry month. Minimum monthly rainfall occurs during the period from March to May; (iii) Type III- no very pronounced maximum rain period with a dry season lasting only from one to three months, either during the period from December to February or from March to May. This type resembles types I since it has a short dry season; and (iv) Type IV – rainfall is more or less evenly distributed throughout the year. Climate types are presented in Figure 6. Average temperature in project areas generally ranges from 24 °C to 32 °C as shown in Figure 7 and temperature distribution generally depends on elevation and distance from the sea coast. The location of the subproject is within the type III based on the Municipality Climate Map.

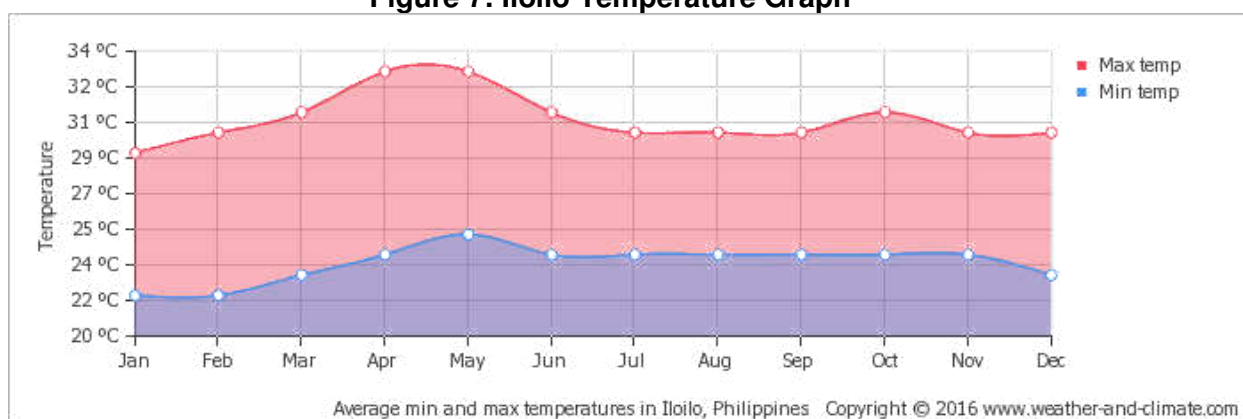
**Figure 6: Climate Map**



**Type I** – has two has two pronounced seasons: dry from November to April and wet throughout the rest of the year. The western parts of Luzon, Mindoro, Negros and Palawan experience this climate. These areas are shielded by mountain ranges, but are open to rains brought in by Habagat and tropical cyclones.

**Type III** - seasons are not very pronounced but are relatively dry from November to April and wet during the rest of the year. Areas under this type include the western part of Cagayan, Isabela, parts of Northern Mindanao and most of Eastern Palawan. These areas are partly sheltered from tradewinds but are open to Habagat and are frequented by tropical cyclones

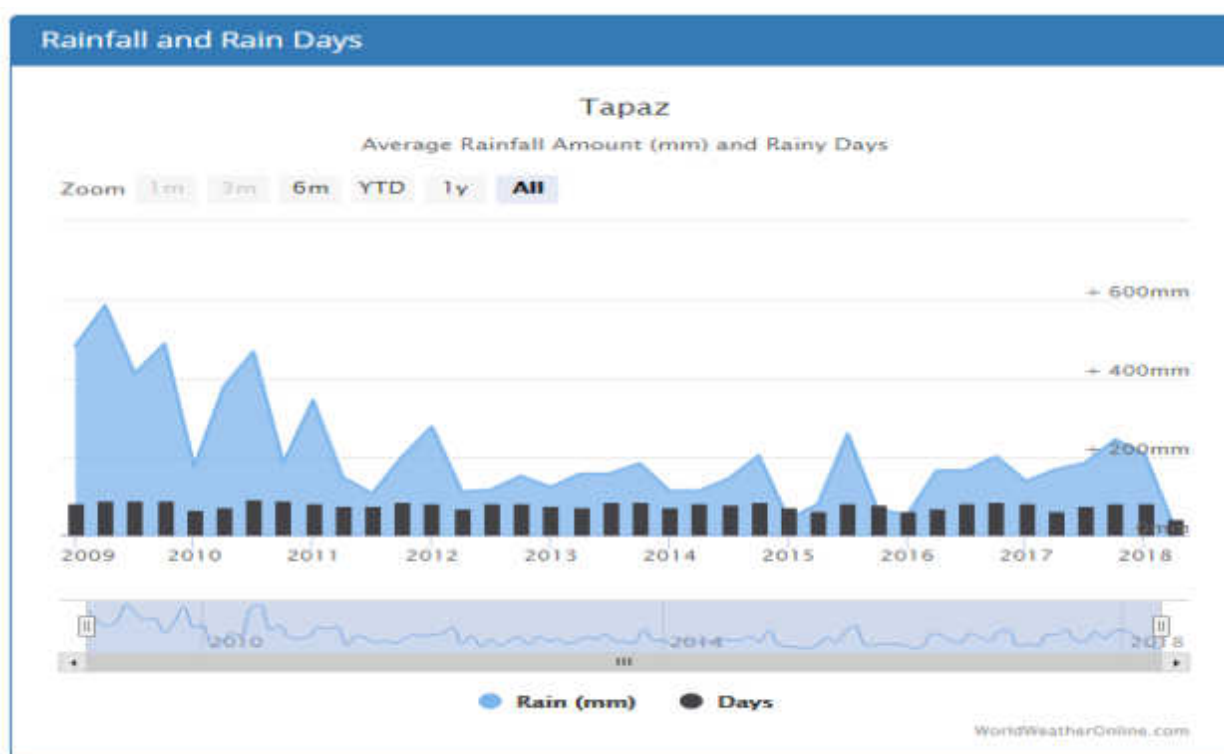
**Figure 7: Iloilo Temperature Graph**



Source: www.weather-and-climate.com

18. The project area receive an average annual rainfall of 200 to 600 mm based on the 8-year average data (2009-2017) from PAGASA (Figure 8).

**Figure 8: Average Annual Rainfall Distribution in Project Areas**



Source: world weather online

19. Maximum rainfall occurs in June and July, and lowest rainfall occurs in April and May. Mean wind velocity in project areas ranges between 2 – 8 m/sec, while humidity varies from 69 to 87% (Figure 9).

**Figure 9: Historical Weather in the Municipality of Tapaz**

#### TAPAZ, PHILIPPINES HISTORICAL WEATHER ON 21<sup>ST</sup> JUNE OVER THE YEARS

VIEW HOUR BY HOUR HISTORICAL WEATHER

Date	2009	2010	2011	2012	2013	2014	2015	2016	2017
Weather									
Max	30°C	28°C	30°C	32°C	32°C	32°C	36°C	34°C	34°C
Min	26°C	24°C	27°C	28°C	27°C	28°C	30°C	30°C	31°C
Wind	2 mph 3000	2 mph 3000	2 mph 3000	4 mph 3000	4 mph 3000	4 mph 3000	2 mph 3000	4 mph 3000	2 mph 3000
Cloud(%)	20%	40%	90%	20%	30%	40%	20%	20%	40%
Humidity	80%	81%	80%	79%	79%	79%	80%	79%	71%
Pressure	1010 mb	1010 mb	1009 mb	1010 mb	1009 mb	1010 mb	1009 mb	1009 mb	1009 mb

Source: world weather online

### 3. Soil Characteristics

20. There are three soil types in the municipality of Tapaz: Alimodian soils, undifferentiated and Mountain soil (undifferentiated). The major soil type noticed in the project areas is Alimodian Clay loam, which mostly covered the lowland areas of the municipality. Alimodian Clay loam is a loamy and moderately well drained soil with moderate permeability and moderate to severe susceptible to erosion in hilly areas with high rainfall (Figure 10).



21. The percentage of soil type distribution in the project area: (i) fifty percent (50%) of the total land area of the municipality of Tapaz has soil type of Alimodian Clay loam; (ii) two point thirty percent (2.30%) belong to Alimodian Soil (undifferentiated) located in the southern portion of the municipality adjacent to the municipality of Calinog, Iloilo; and (iii) forty seven point seven percent (47.7%) has a mountain soil. The description and coverage of soil type are presented in Table 2:

**Table 2: Soil Description and Area Coverage**

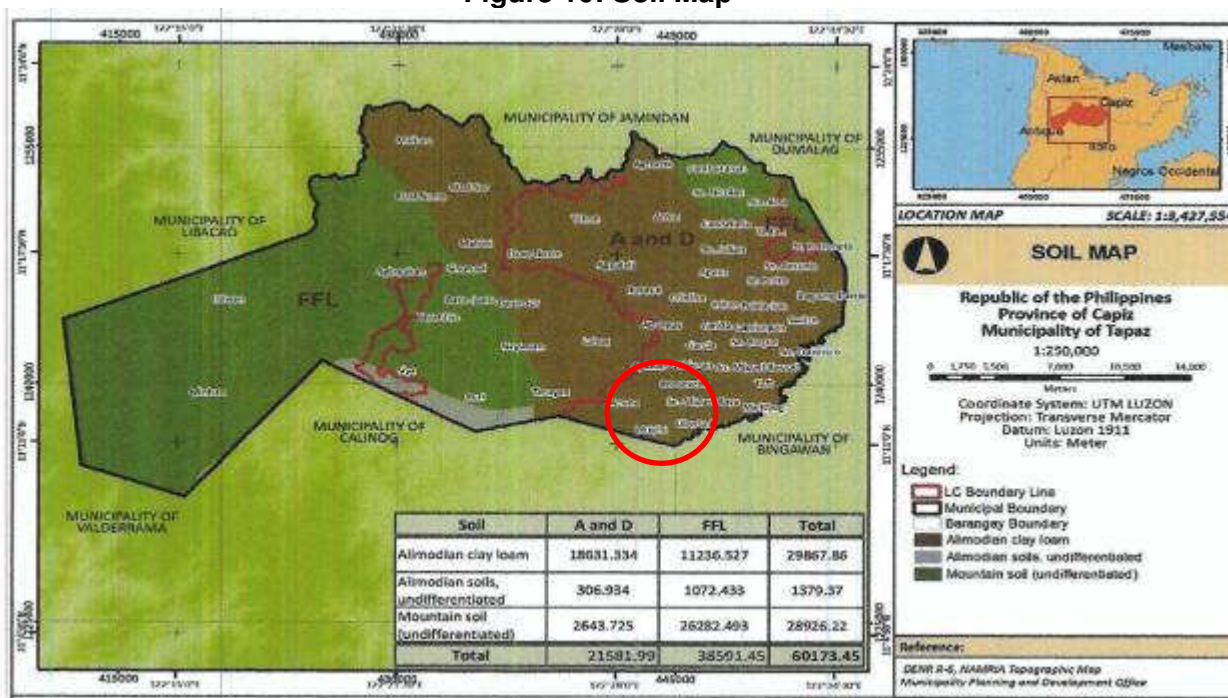
Soil Description	A and D	FFL	Total	Percentage (%)
Alimodian clay loam	18,631.334	11,236.527	29,867.86	50.00
Alimodian soils, undifferentiated	306.934	1,072.433	1,379.37	2.30
Mountain soil (undifferentiated)	2,643.725	25,852.92	28,496.65	47.70
<b>Total</b>	<b>21,581.99</b>	<b>38,161.88</b>	<b>59,743.88</b>	<b>100.00</b>

Note:

A and D- alianabe and disposable land

FFL – forests and forest lands

**Figure 10: Soil Map**



Source: Comprehensive Land Use Plan of Tapaz

#### 4. Geology, Geomorphology and Hydrogeology

22. Geological formations in the municipality are mostly alluvial, metamorphic, igneous and sedimentary as presented in Table 3. The subproject is located in areas with sedimentary soil formation. Generally, these formations are unconsolidated horizontal beds with a flat to slightly undulating terrain as shown in geology map Figure 11. Hydrogeologically, aquifers in this terrain are generally limited to shallow depths, except in sand and gravel aquifers. Geomorphologically these formations are gently sloping or undulating terrain and groundwater supply from these formations are generally from deep fractured aquifers.

**Table 3: Geological Description of Tapaz**

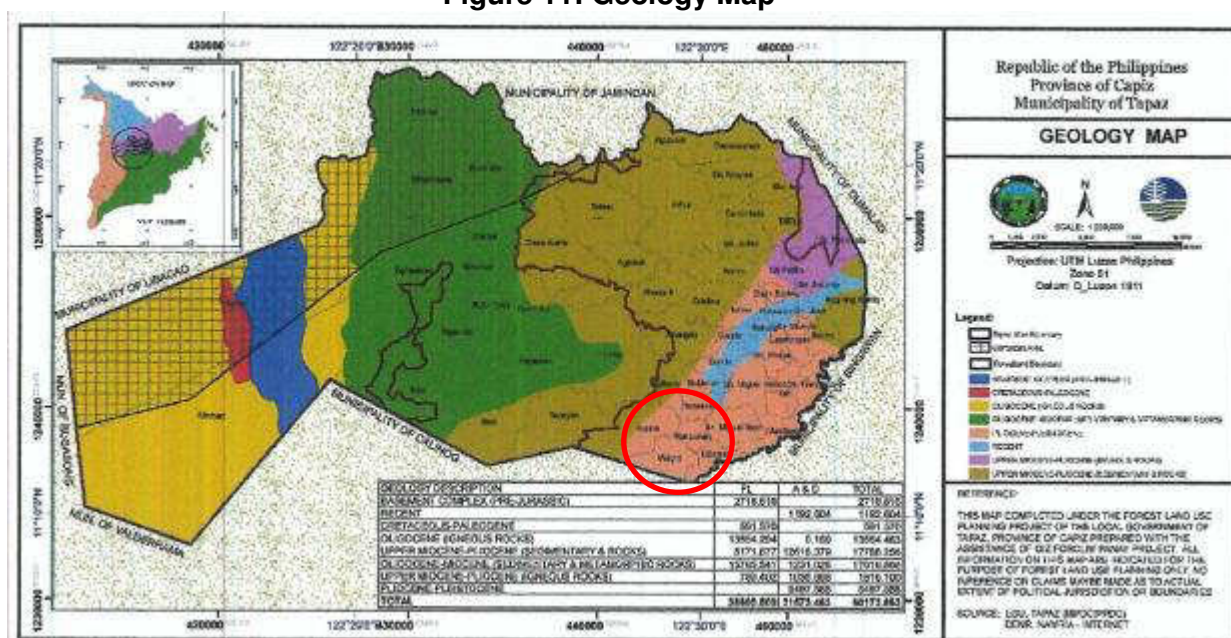
Geology Description	A and D	FFL	Total	Share %
Basement Complex (Pre-Jurassic)		2716.79	2716.79	4.54
Cretaceous-Paleogene		591.574	591.57	0.99
Oligocene (Igneous Rocks)	0.169	13124.70	13124.87	21.96
Oligocene-Miocene (Sedimentary & Metamorphic Rocks)	1231.33	15785.2	17016.53	28.48
Pliocene-Pleistocene	5497.587		5497.59	9.20
Recent	1192.09		1192.09	1.99
Upper Miocene-Pliocene (Sedimentary & Rocks)	12625.119	5163.12	17788.24	29.77
<b>Total</b>	<b>21581.99</b>	<b>38161.88</b>	<b>59743.88</b>	<b>100.00</b>

Note:

A and D- alianabe and disposable land

FFL – forests and forest lands

**Figure 11: Geology Map**



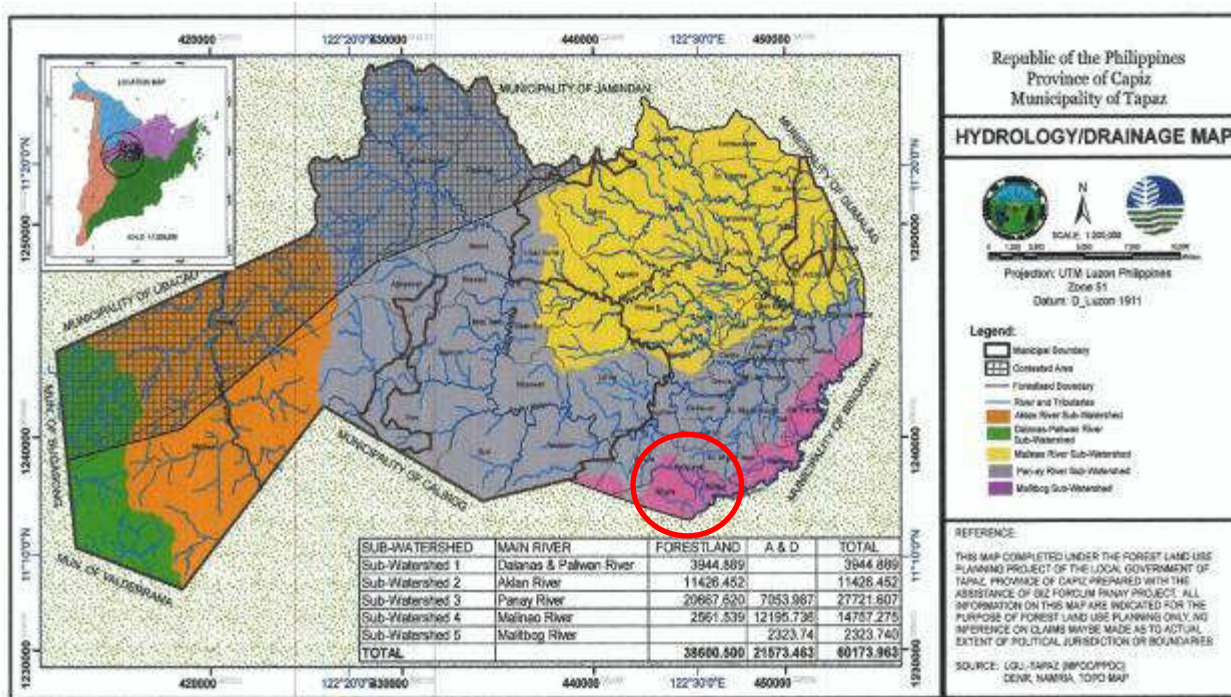
Source: Comprehensive Land Use Plan of Tapaz

## 5. Water Resources

23. There are five major watersheds/ sub watersheds in Tapaz as presented in figure 12. Of these watersheds, Panay River constitutes the largest covering of 42 Barangays. The critical upland section partly composed of the upper streams of Panay River, Aklan River, Dalanas and Paliwan River. In the upper part, located in the larger of forests lands is the Igabon Range, which borders the Panay and Aklan River sub-watersheds. Panay, Malinao, and Malitbog sub-waterheds all drain to Panay River System, which provides navigation and irrigation services, as well as sources of high quality aggregates for constructions. The fact that the rivers have plenty of tributaries, springs and falls make Tapaz abundant with water supply used primarily for agricultural purposes.

**Figure 12: Watershed Map**





## 6. Water Quality

24. Identifiably, the municipality of Tapaz has vast resources of fresh water due to the existence of the long known Panay, Malinao, Sibuguan River and numerous numbers of creeks and springs. As such, an area of 57.316 hectares or 0.111% of the total land area of the municipality of Tapaz constitutes a freshwater body. The water quality of the rivers in the municipality is generally turbid because of watershed erosion and high volume of rainfall.

## 7. Air and Noise Quality

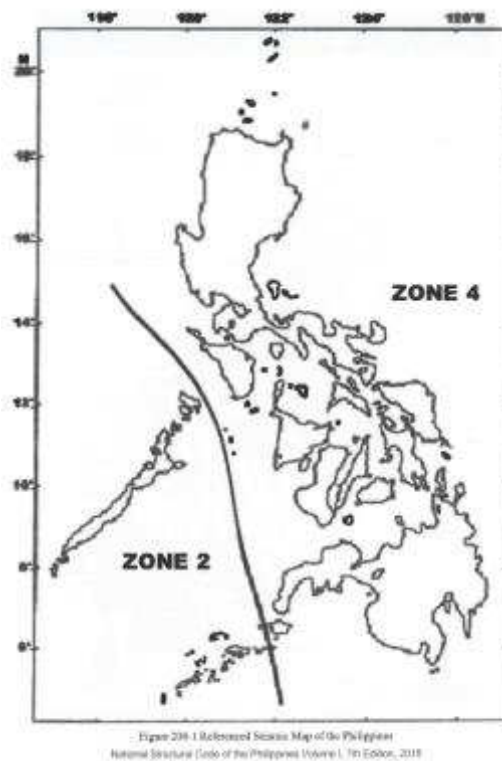
25. In the municipality of Tapaz, there has been no existing record about air quality monitoring since the EMB monitoring priority areas are major cities that has a high probability of pollutions from volume of vehicles and large industries. The location of the subproject is in remote areas that have a minimal air pollution load/emission from residential households.

26. Noise generated from vehicles and residential communities in the project area is not significant considering the National Noise quality standards of Philippines presented in Table 4. No noise monitoring data is available for the project areas.

**Table 4: National Ambient Noise Standards**

Category	Description	Daytime	Morning and Evening	Night time
Class AA	Generally quiet areas such as area within 100 meters from school sites, nursery schools, hospitals and special homes for the aged	50 dB	0 dB	40 dB
Class A	Areas primarily used for residential	55 dB	50 dB	45 dB
Class B	Areas zoned or used as commercial area	65 dB	60 dB	55 dB
Class C	Areas zoned or used as a light industrial area	70 dB	65 dB	60 dB

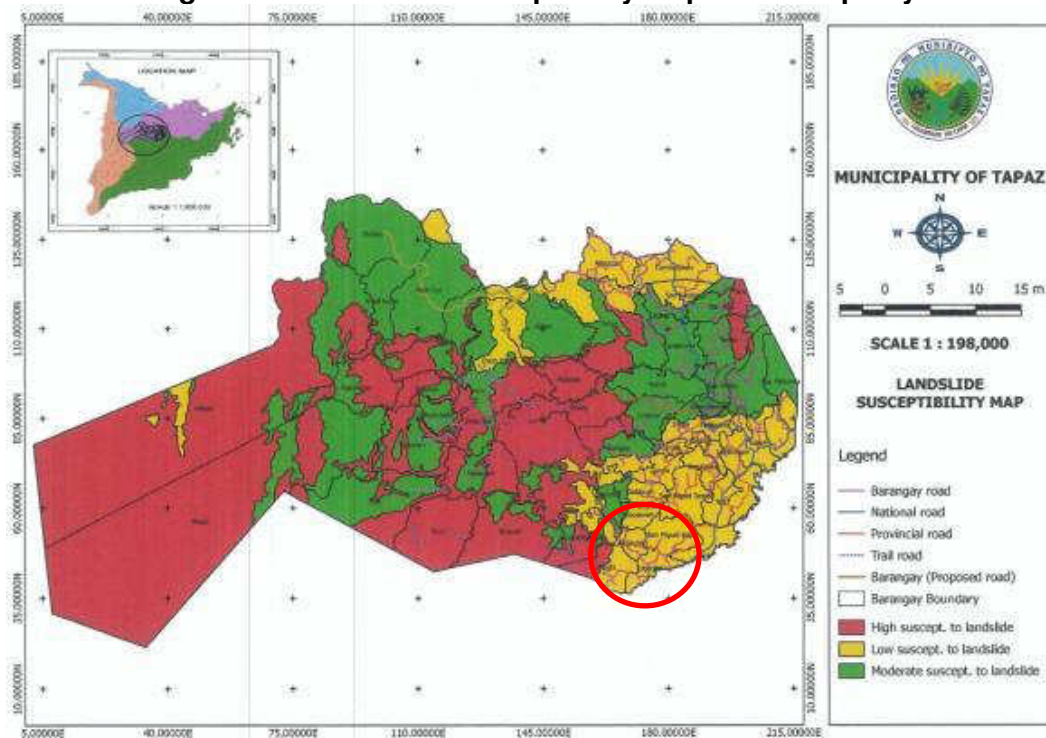




Source: National Structural Code of the Philippines

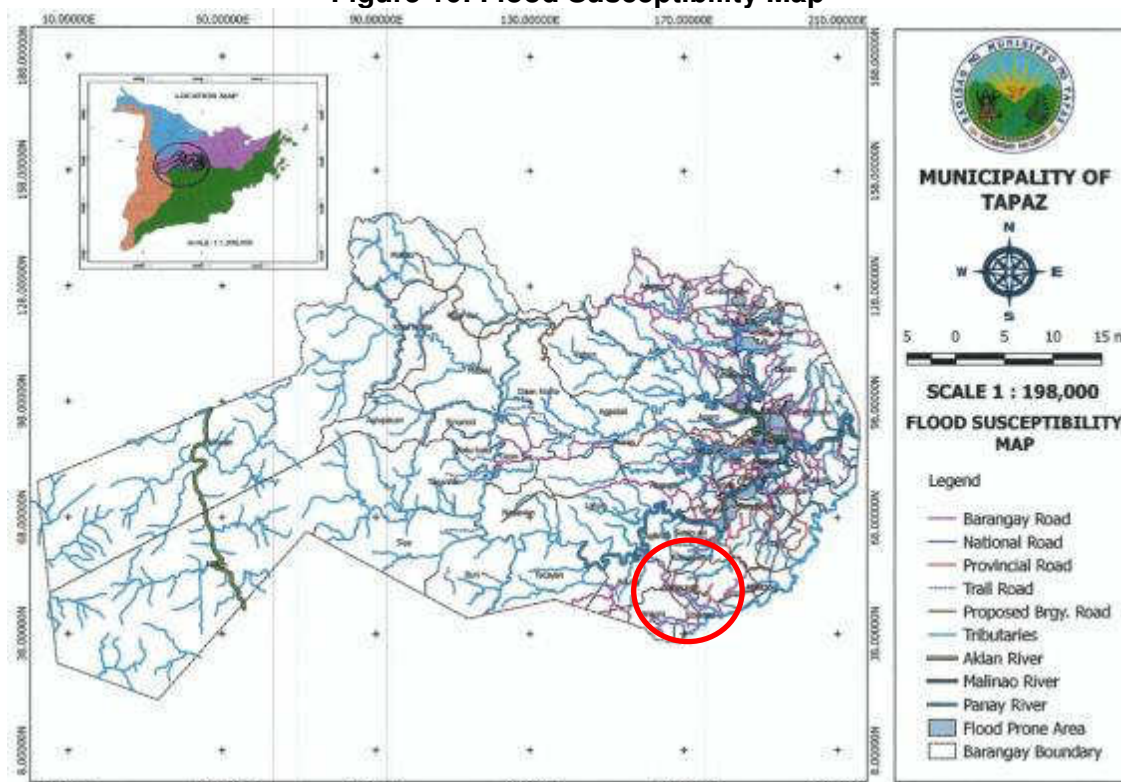
28. Landslide susceptibility map of the municipality is given in Figure 15. The subproject is located exactly in the yellow portion of the map that means low susceptible to landslide. Also, the Flood Susceptibility map in Figure 16 shows that the location of subproject site is far from the rivers and there is a low risk of flooding.

**Figure 15: Landslide Susceptibility Map of Municipality**





**Figure 16: Flood Susceptibility Map**

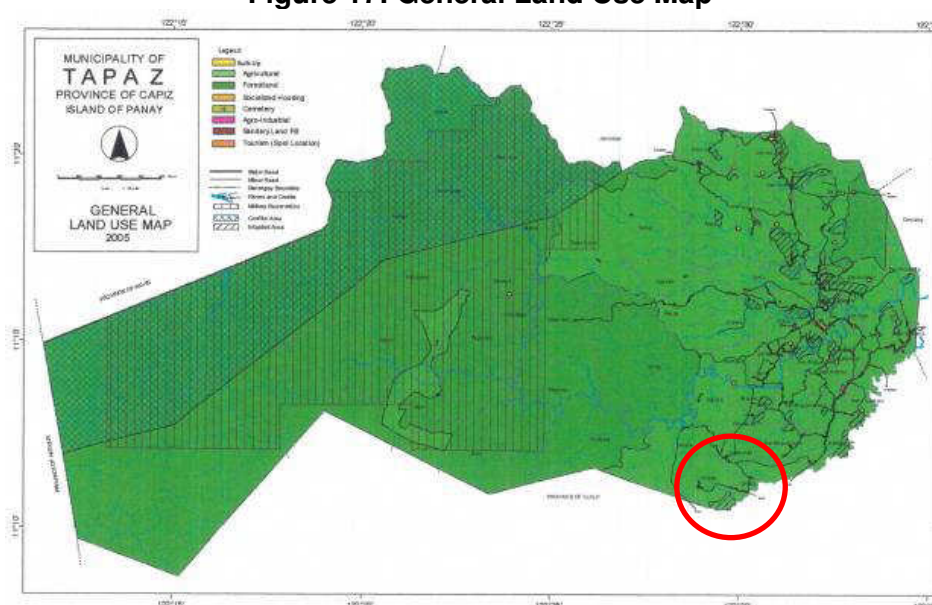


## **B. Ecological Resources in Project Area**

### **1. Forests and Protected Areas**

29. In the DENR land classification for the municipality, forest/timber land areas are located in upland Barangays containing an area of 33,064.996 hectares or 63.933 % of the total land area of the municipality. This area also includes the military reservation and the watershed area. The subproject area located in agricultural land and not classified as forestland or protected area (Figure 17).

**Figure 17: General Land Use Map**



Source: Comprehensive Land Use Plan (CLUP) of Tapaz

## 2. Flora and Fauna

30. The dominant vegetation along the project areas are plantations such as banana, and coconut trees in the residential and agricultural areas, There were no trees possibly affected or will be cut upon implementation because the access earth and partly concrete road was already existing as reported by the community. While the natural vegetation includes grasses, herbs vines, shrubs, palms and trees.

31. There were no endangered species reported in the municipality of Tapaz, However, there are currently four (4) livestock and poultry farm in the municipality -swine farm in Barangay Candelaria, Goat Farm in Barangay Malitbog, Cattle farm in Barangay Katipunan and Poultry Farm in Barangay Bag-Ong Barrio. The livestock and poultry farms are limited only to backyard scale. It is usually intended for additional income of the family income and for personal consumption. Table 5 below is the Inventory of Farms registered on 2015.

**Table 5: Inventory of Livestock and Poultry Farms 2015**

Name of Farm	Location (Barangay)	Area (Hectares)	Employment	Production	
				Total	Value (PhP)
Gardose Farm (Swine)	Candelaria	0.5	2	30 fattening 30 Piglets 30 Cow	192,000 90,000 315,000
Nino Amar (Poultry)	Bag-Ong Barrio	0.25	4	10,000 heads	900,000
Dan Jimenez (Goat)	Malitbog	0.25	1	14 heads	28,000
Crasco Farm (Cattle)	Katipunan 1.0	1.0	1	12 heads	201,600

Source: Municipal Agriculture Office

## 3. Fish, Fisheries and Aquatic Biology

32. The project site is located in upland area and no marine protected areas, mangroves and coral reefs are located in the subproject area . As to local economy, the fishery sector is one of the backbones for the whole Municipality. The fishery activities include Inland Fishery and Riverine fishery. Area of Fishponds/Fishing grounds/Fish cages total of 26.76 hectares with an average annual income of Php 276,000.

## 4. Land Use

33. Major land use along the project roads is either residential or agricultural as presented in Figure 17. The municipality of Tapaz has an existing road and bridges area of 224.759 hectares or 0.435% of the total land. The area is proposed to increase to a total of 295.3784 hectares or 0.571% of the total area in the next ten years including the subproject site due to increasing road section of farm to market and barangay and municipal road due to continuous population growth.

## C. Socioeconomic Resources in Project Area

### 1. Population

34. The project road links are passing three (3) Barangays, namely; Katipunan, Libertad, and Wright. Population density that will directly benefit the subproject is approximately 1,078 households or 6,500 people including nearby communities especially the 175 households reported as Indigenous People (IPs) (Panay Bukidnon).

35. Population within three (3) barangay road link is specified and presented in Table 6. Population growth density is also shown in this table. From 2010-2015, the municipality of Tapaz experience an average annual growth rate of 1.357 percent.

**Table 6: Population in Project Areas**

Barangay	Population		Growth Rate
	2010	2015	
Katipunan	901	927	0.577
Libertad	578	659	2.802
Wright	977	1,035	1.187

Source: Population and Social Profile Data CLUP

## 2. Industries and Minerals

36. Tapaz has abundance source of sand and gravel from its river bed. Based on the record of Mines and Geo-Science Sector of the Department of Environment and Natural Resources, there were two international companies engaged in mining activity in Tapaz, the Egyptian Mineral Corporation and Walter Mining and Industrial Development Corporation.

## 3. Agriculture

37. Major crops produce is corn which next to rice with an estimated area of 2,200 hectares and still increasing. Table 7 presented the Agricultural Croplands Production. The road subproject is just upgrading of the existing earth/ gravel road and cutting of trees and removal of agricultutal crops is not anticipated during subproject implementation.

**Table 7: Agricultural Croplands and Production 2015**

Agricultural Crops	Area (Hectares)	Production (metric ton)
Rice		
Irrigated Land	653.72	2,670.44
Rain fed Land	2,694.85	9,270.3
Upland	1,112.53	1,668.8
Corn		
Yellow Corn	2,200	13,200
Banana	1580.4	13,907.52
Coconut	1551.24	2,326.86
Coffee	32.3	12.92
Fruit Trees	150.0	166.046
Abaca	741.0	2,845
Bamboo	735.0	1,470,000 poles
Vegetables	40.3	15.717
Root Crops / Tubers	59.5	74.375
Sugar Cane	287	20,090
Ginger	12.675	20.913
Peanut	25.3	12.72
Dragon Fruits	2.0	Newly Planted
Inland Fisheries	40.0	16.0
Other Agricultural Crops/ Pasture, Grazing Land	6,297.845	
<b>TOTAL</b>	<b>18,215.66</b>	

Source: Municipal Agriculture Office

## 4. Road Safety

38. Currently there was no existing policy about road safety in the barangay or subproject site. However, formation of road safety policies are already integrated in the Operation and Maintenance program once the road is already fully functional, including the community capacity building and training about basic road safety. For the types of vehicles allowed to pass in the road will be specified in the operation and maintenance plan (O&M) by formulation of Barangay ordinances, rules and regulations that should be followed to make the subproject beneficial to all.

## 5. Tourism

39. The Project road has a significant tourism potential due to its natural water falls. Tourist sites located in the whole municipality:

- a. **Namatan Falls:** located in Barangay Garcia
- b. **Binugsukan Falls:** situated in the centermost of Barangay Roxas, Daan Sur and Daan Norte, surrounded with breathtaking mountainous terrain and many other beautiful spots nearby.
- c. **Kipot Falls:** in the undisturbed rainforest of Barangay Sta. Ana is a small opening surrounded by big stones. The cave seems hiding out its exceptional natural beauty. Bounded with panoramic Mountain view, wild jungle and exotic flora and fauna.
- d. **Pangilatan Falls:** in Barangay Artuz amidst the mountainous terrain, thick forest and picturesque mountain view.
- e. **San Antonio cold and spring:** situated in the lush, enchanting forest of Barangay San Antonio. It is tagged to be an awesome getaway for adventure seekers, explore the jungle sceneries and adventurous small river.
- f. **Alapa-ap Falls:** in Barangay Agpalali
- g. **Tabon Falls:** in Barangay Tabon
- h. **Duloman Falls:** in Barangay Daan Norte.

## V. ANTICIPATED ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

40. The IEE, based on the screening of baseline environmental conditions and review of the proposed civil works, has not identified any significant environmental concerns due to the proposed upgrading of the subproject roads given that all the proposed civil works are on existing road networks and are located within existing right of way (ROW). There will only be localized short-term impacts during construction activities due to implementation of civil works that will be addressed in the detailed design and through implementation of the mitigation and monitoring measures specified in the environmental and social management plan (ESMP) shown in Annex D. These construction related impacts can be mitigated by (i) the community work practices, especially those related to the storage of construction materials and cleanliness of the work sites; (ii) cooperation by the local authorities and facilitators with the community volunteers in terms of traffic management and use of public space and utilities; (iii) project management's strict enforcement of the correct construction practices and standards; (iv) the incorporation of the mitigation measures identified in the IEE, ECC and ESMP into the bid and contract documents; and (v) close monitoring of the implementation of the required mitigation measures.

41. The environmental impacts resulting from implementation of civil works are expected to be minor and short-term since the upgrading works will not involve widening and alignment adjustments. Environmental concerns that could be expected from the Project are:

- a. As part of periodic road maintenance, clearing of right of way through removal of overgrown vegetation (mainly grasses, no trees will be cut) and disposal of spoils
- b. Cutting of some landslide-prone areas to stabilize side slopes.
- c. Extraction and transport of construction material from quarry and borrow sites.

- d. Temporary use of land immediately adjacent to the road for siting of aggregates, necessary equipment, storage area, and construction camps.
  - e. Reduced air quality and visibility (air quality impacts and/or noise pollution from construction activities, material storage sites, excavations, vehicle and equipment use and operation of concrete mixers and ready mix concrete mixer trucks.
  - f. Reduced water quality (water and soil pollution) from improper handling and disposal of wastes and construction materials
  - g. Drainage from construction camps, material stockpiles, and excavations
  - h. Community volunteers and workers health and safety issues
  - i. Social conflicts due to project activities
42. During operation, the project is expected to benefit the environment and socio-economic conditions of the subproject areas through:
- a. Improved the farm-to-market road to transport both agricultural and non-agricultural goods and services.
  - b. Improved mobility of the people and access to basic services such as health and education.
  - c. Reduced soil erosion and landslides due to slope stabilization measures
  - d. Reduced dust emissions due to road concreting
  - e. Improved road safety due to installation of safety signs and construction of pedestrian paths
43. Environmental impacts and proposed mitigation measures during project preconstruction, construction and operation phases are described in the following sections. Detailed environmental mitigation measures have been prepared for all the identified impacts and presented in the environmental and social management plan (ESMP) under Chapter VII.

## **A. Pre-construction**

### **1. Design Measures**

44. The Technical Facilitators (TFs) will incorporate erosion control and slope stabilization measures in the engineering design. Retaining structures will be designed to stabilize areas prone to erosion and landslides. If appropriate, landscaping along the roads through planting of native species of trees and other vegetation will also be considered in the design. These measures will offer a long term solution to problems on slope stability and land degradation. Maintaining vegetative cover on sloping areas along the roads in mountainous locations would reduce erosion, land/mud slides caused by run-offs.

45. The technical design of the road repair and rehabilitation followed the recommendations and guidelines of the World Bank's "Handbook on Roads and the Environment (Technical Paper No. 376). Also, the design conforms to the following national guidelines: (i) existing rules and regulations of the National Building Code of the Philippines to ensure the structural integrity of the project; (ii) approved by the Provincial Engineer's Office of Iloilo; and (iii) other applicable rules, standards and regulations such as the Plumbing Code.

### **2. Bid and Contract Documents**

46. RPMO through ACTs will ensure that relevant provisions of the ESMP in terms of implementation of environmental mitigation measures, monitoring activities, supervision and reporting are included in the bid and contract documents for civil works and construction supervision especially when the mode implementation is by contract.



### **3. Land Acquisition and Resettlement**

47. The project does not have a significant impact on land acquisition and resettlement. All civil works are on existing road networks. In addition, access to the project sites is through public right of way (ROW) and existing roads hence, land acquisition and encroachment on private property, and on ecologically and culturally protected areas will not occur.

#### **A. Construction**

##### **1. Soils and Materials**

48. Since the Project will mainly involve concreting (with no road widening and realignments), main impacts on land during construction are from (i) spoils due to clearing of land for site preparation to be used for temporary construction facilities such as storage area and construction camp; (ii) extraction of borrow materials; (iii) excess cut from landslide-prone areas; and (iv) temporary use of the existing land uses such as agriculture or residential to stockpiles of materials.

49. Prior to materials extraction and spoils disposal, community will implement the disposal procedure and mitigation shown in the approved and updated ESMP to avoid environmental impact.

50. The community or Contractor will source construction material under their agreed arrangements during their Barangay Assembly and to ensure that the sources of materials are certified by the Municipal Engineer (ME). Uncontrolled sourcing of such materials could lead to environmental impacts such as the loss of topsoil or the disfigurements of the landscape from borrow pits. Earthen embankments and material stockpiles will be susceptible to erosion, particularly during the rains and re-suspension of dust during the dry seasons.

51. Transport of construction materials and other construction activities may cause damage to existing roads, irrigation and drainage canals, crops, plants and trees along the project area. The contractor shall implement the following mitigation measures: (i) no overloading of trucks used for the transport of materials; (ii) repair damaged infrastructure from the transport of materials and other construction activities; and (iii) these infrastructures should be reinstated to their original condition upon completion of construction works. The project shall be responsible to any damages caused by the project. Damages shall be properly determined and timely compensated.

52. In order to reduce impact on all borrow sites, suppliers will water the local roads close to the settlements used by the small borrow trucks. As much as possible, supplier will not make use of productive agricultural land. If unavoidable, the supplier will obtain consent from the land owner and will restore the site to its original condition after completion of civil works. Embankments should be monitored during construction for signs of erosion; long-term material stockpiles will be covered to prevent wind erosion.

##### **2. Soils Erosion and Slope Stability Problems**

53. Soil erosion and unstable side slopes susceptible to landslides are noticed along subproject roads in hilly areas. The impact of soil erosion and unstable side slope are (i) increased run off and sedimentation causing a greater flood hazard to the downstream, (ii) loss of topsoil affects the growth of vegetation that causes ecological imbalances, (iii) destruction of vegetation by burying or gullyng, and (iv) development of unsightly cuts and fills that have been riddled by uncontrolled erosion and gullyng.

54. Erosion control and slope stabilization measures will be incorporated in the engineering design. Retaining structures will be designed to protect landslides protection. For a long term solution to the slope stability problem, it is crucial that land degradation is stopped. Maintaining a vegetative cover in the mountain areas would reduce erosion through run-offs, land and mud slides. Planting of native species of trees and landscaping along the roads, as appropriate, should be considered in the design.

55. Construction activities in hilly areas should be taken up only during dry season. To the extent feasible, the length and steepness of cut and fill slopes will be minimized particularly at borrow and spoil sites. Topsoil of cultivated land used for temporary work areas, in particular the borrow sites, will be stripped off and stockpiled, to be replaced when the construction is completed and the cultivated land rehabilitated.

### **3. Water Quality**

56. Subproject roads cross a number of drainages and ditches that could affect the surface runoff flow pattern. Significant impacts on water quality are not expected since the Project will not involve bridge works. However, there is a potential for contamination by discharge of sewerage from workers temporary facility and nearby community to the nearby water resources; or percolation through seepage and contamination of the local water table.

57. To mitigate this, (i) open surface will be covered by grasses and creepers to reduce wash-away material; (ii) construction and work sites will be equipped with sanitary latrines/toilets compliant to standard design that do not pollute surface waters; (iii) Sediment laden construction water will be discharged into settling basins or temporary silt traps along the drainage to the water bodies and (iv) ditches will be periodically cleared so as to ensure adequate storm water flow.

### **4. Air Quality**

58. During construction, air quality is likely to be degraded by exhaust emissions from the operation of construction equipment; fugitive emissions from cement and concrete mixer; and dust generated from haul roads, unpaved roads, exposed soils and material stock piles.

59. In order to mitigate these, the following will be implemented: (i) The community prepares air pollution control measures in the ESMP. The ESMP will detail action to be taken to minimize dust generation (e.g., spraying of roads with water, provision of vegetation cover in borrow sites after completion of extraction activities, covering of trucks carrying construction materials and cement), and will identify equipment to be used. (ii) Construction materials will be stored away from the residential areas and will be properly covered. (iii) The concrete batching area will be located at least 100 m away from the settlements and sensitive sites such as school, health centers, etc. to avoid direct impacts to such receptors.

### **5. Noise and Vibration**

60. Operation of machinery can generate high noise and vibration levels. Health centers, schools and prayer halls are the sensitive receptors. Residential areas, in general, are the major receptors. Strong vibrations by compaction equipment can damage nearby houses and other structures. To prevent noise and vibration, the construction will be restricted between 0600 to 2100 hours within 500m of settlements and 150m from sensitive receptors.

### **6. Flora**

61. Flora degradation is only expected to increase marginally as a result of road upgrading. Rehabilitation work will directly cause minor degradation of the local ecology through the clearance of small areas of vegetation (mainly grasses) at major work sites and ancillary sites. A short-term impact on ecology along the rehabilitated road is likely to occur in material stockpiling areas and worksites during the construction period due to minor vegetation clearance (mainly grasses, not trees).

## **7. Fauna**

62. The potential impacts to the fauna are poaching of edible animals and birds. The municipal environmental health and safety officer will be responsible for providing adequate knowledge to the volunteers regarding the protection of fauna. Workers will be prohibited from hunting wild animals.

## **8. Fish, Fisheries, and Aquatic Biology**

63. The main potential impacts to aquatic flora and fauna in the watercourses from the proposed project are increased suspended solids from earthworks, sanitary discharge from workers temporary facilities and community. Mitigation measures to address these issues are the same as those on the impacts on water quality discussed above.

## **9. Construction Temporary Facility**

64. Contractor's camps/Facility will be established during construction. These facilities will generate wastes and if improperly handled, these could cause health problems and pollution. The potential implications associated with housing a large number of immigrant workforce include adverse water quality impacts arising from discharge of partially treated sewage and refuse, public health impacts through the possible introduction of diseases not prevalent in the surrounding areas and promotion of disease vector habitats within the temporary housing areas, social-cultural conflicts arising from religious, cultural and behavioral discords between suppliers, facilitators and local residents, and promotion of un-aesthetic practices.

65. Such impacts, if they materialize, will generally be short term and tolerable. Local authorities responsible for health, religious and security shall be duly informed by the facilitators on the set up of temporary accommodation facilities so as to maintain effective surveillance over public health, social and security matters. The site on which the construction camps are established shall have provisions for the management of refuse and sewage generated. Detailed mitigation measures to address impacts due to operation are provided in the ESMP

## **10. Community Impacts**

66. Construction worksites may place minor stresses on resources and infrastructure of nearby communities. This may lead to antagonism between residents and workers. To prevent such problems, the contractor should provide temporary worksite facilities such as health care and eating spaces. In addition, a mechanism will be established that allows local people to raise grievances arising from the implementation process. The community volunteers will be empowered and benefits the roads once already finished. Indirectly, other sources of income in each subproject area will also increase like leasing of spaces, houses for storage, and spaces for temporary facilities; operation of variety stores, food stalls, shops and others. In

monitoring works during implementation, community will be involved during public consultation, information-education communication, monitoring of project impacts, provide assistance in resolving community concerns, coordination works and others. Traffic jams during construction will be relieved through better coordination with the LGU. barangay subproject management committee (BSPMC) will communicate to the public through community consultation and announcements or “Bandilyo” (Visayan term for announcement) regarding the scope and schedule of construction, as well as certain construction activities causing disruptions or access restrictions.

## **11. Health, Safety and Hygiene**

67. Construction sites are likely to have public health impacts. Contractors will ensure that no untreated wastewater is discharged to local water bodies and that no dumpsite will be established at the construction camps. There will be a potential for diseases to be transmitted, exacerbated by inadequate health and safety practices. Mitigation measures include: (i) provision of adequate health care facilities within construction sites; (ii) first aid facilities will be made readily available; (iii) training of all construction workers in basic sanitation and health care issues (e.g. proper hand washing, proper fecal waste disposal, etc.); (iv) personal protection equipment (PPEs) for workers, such as safety boots, helmets, gloves, protective clothing, goggles, and ear protection; (v) clean drinking water for all workers; (vi) adequate protection to the general public, including safety barriers and marking of hazardous areas; (vii) safe access across the construction site to people whose settlements and access are temporarily severed by road construction; (viii) adequate drainage throughout the camps to ensure that disease vectors such as stagnant water bodies and puddles do not form; and (ix) Septic tank and garbage box will be set up in construction site, which will be periodically cleared by the community to prevent outbreak of diseases. The community will arrange the temporary integration of waste collection from work sites into existing waste collection systems and disposal facilities of nearby communities and segregation, recycling, reuse and composting proper disposal solid wastes generated during construction and operation shall be in accordance with the provision Ecological Solid Waste Management (RA 9003)

## **12. Traffic Management**

68. During construction, the community volunteers will plan through Barangay Assembly to ensure that all construction vehicles (haulers) observe speed limits on the construction sites and on public roads and to provide adequate signage, barriers, and assign persons for traffic control monitoring. Sign postings such as ‘men working’, ‘Keep left/right’, ‘construction ahead’, ‘speed limit’, and ‘cones around the working area’ should be used for traffic management and road safety. Safe access for vehicles and pedestrian around construction sites will be provided at all times. All vehicles should be fitted with audible warning devices when reversing.

## **13. Proper Construction Practices**

69. The KC-NCDDP Area Coordinating Team (ACT) through Technical Facilitator (TF) ensure the that the community work will conform to the general construction guidelines as stated in the Community Based Infrastructure Manual (CBIM) particularly on the good engineering practice and good working practices that will be discuss by the technical facilitator during Project Implementation Workshop (PIW). In implementation phase, ACTs will closely supervise and monitor the community and volunteers conformity with the ESMP, contract procedures, design and specifications.

## **B. Operation**

## **1. Air and Noise Quality**

70. Noise and vibration is generated by vehicles when passing damaged roads. With the repaired pavement and shoulder, such impacts will be minimized. Further noise reduction from passing vehicles could be achieved provided that Barangay Local Government Unit (BLGU) ensures measure such as no blowing of horns and reducing vehicle speed along schools, health centers and other sensitive locations are strictly enforced. During operation phase, more benefits are expected as a result of the asset preservation/reblocking of subproject roads. There will be less traffic jam caused by damaged roads, hence less emissions.

## **2. Road Safety**

71. Safety risks posed by increased traffic speeds due to improved roads will be minimized by providing and maintaining traffic signs, markings and other devices to regulate traffic at appropriate places such as along schools, residential areas, health centers, etc.

## **3. Project Benefits**

72. Project roads will directly benefit over 6,500 people located within immediate vicinity of the roads in following ways: (i) Increased and reliable travel services leading to greater mobility of people and goods and comfortable traveling; (ii) Improved access to markets in larger villages and town will help rural farmers to get better prices for their agricultural product that eventually generate larger rural incomes; (iii) Traders and shop keepers have easier and generally cheaper access to wholesalers in the major towns and cities; (iv) If road improvement significantly increases the amount of up-road traffic passing through, and a production of the increased traffic stops in the village to purchases goods, this can increase economic activity; and (v) The delivery to rural people of health, education and agricultural extension services available in major towns can be improved in the region temporary employment during construction. Improved roadside drainage also reduces the extent of local flooding in villages adjacent to road. Labor-intensive construction will generate employment opportunities of unskilled and semi-skilled positions, including laborers, truck drivers, cleaning and catering etc. Tourism industry in the project areas will be improved.

## **VI. PUBLIC CONSULTATION AND PARTICIPATION and GRIEVANCE REDRESS MECHANISM**

73. **Public Consultation and Participation.** The public consultation and participation is part of the community empowerment activity cycle (CEAC) of process. During the social preparation stage, meetings and consultation among community members are conducted. Community members are able to identify and prioritize subjects. Based on the physical scanning and discussion of priorities, they will identify subproject implementation issues including relevant environmental issues and mitigation measures. The views of the affected people and other stakeholders, including women and IPs are part of the decision-making process. The environmental concerns identified during the public consultations are enumerated in Environmental and Social Management Plan (ESMP) as shown in table 9 of Chapter VII.

74. **Grievance Redress Mechanism.** The RPMO shall promptly address complaints of affected persons and other stakeholders regarding the project's environmental performance through a grievance redress committee (GRC) at no cost to the complainant and without retribution. The GRC, which shall be established before commencement of site works, shall be chaired by BSPMC to be assisted by the ACT. For each subproject area, the GRC shall have members comprising representatives from the DSWD Regional Office, LGU at the barangay and municipal/city levels. Grievances can be filed in writing or verbally with any

member of the GRC. The committee will have 15 days to respond with a resolution. If unsatisfied with the decision, the existence of the GRC shall not impede the complainant's access to the Government's judicial, administrative remedies or through concerned government agencies (e.g., Municipal Environment and Natural Resources Office, Community Environment and Natural Resources Office and Provincial Environment and Natural Resources Office of DENR, Regional offices of the Environmental Management Bureau, etc.)

75. RPMO, through the ACTs, shall make public the existence of this grievance redress mechanism through public awareness campaigns. RPMO shall also set-up a hotline number for complaints and the hotline numbers shall be publicized by placing these on Project notice boards and at local government offices (e.g., municipal, barangay levels).

76. The GRC, through the ACT, will receive, follow-up and prepare monthly reports regarding all complaints, disputes or questions received about the Project and corresponding actions taken to resolve the issues. These reports will be included in the semi-annual environmental monitoring reports to be submitted by DSWD-KC-NCDDP to ADB.

## **VII. ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN**

77. This section presents the mitigation measures, environmental monitoring plan, and institutional arrangements to address the environmental impacts of the project. The purpose of the environmental and social management plan (ESMP) is to ensure that all activities associated in the project will not result to significant adverse environmental and social impacts as shown in (Annex D).

78. A copy of the ESMP must be kept on work sites at all times. This ESMP will be included in the bid documents and will be further reviewed and updated during implementation. The ESMP will be made binding on all contractors operating on site and will be included in the contractual clauses. Non-compliance with, or any deviation from, the conditions set-out in the document constitutes a failure in compliance.

### **A. Implementation Arrangements**

79. Institutions responsible for executing and monitoring the implementation of the ESMP are presented in Table 8.

**Table 8: Responsibilities for ESMP Implementation**

Agency	Responsibilities
Department of Social Welfare and Development (DSWD)	<ul style="list-style-type: none"> <li>• Executing agency with overall responsibility for the subproject construction and operation</li> <li>• Ensure that sufficient funds are available to properly implement the ESMP</li> <li>• Ensure that project implementation complies with Government Environmental Policies and Regulations</li> <li>• Ensure that the Project, regardless of financing source, complies with the provisions of the EMP and ADB Safeguard Policy Statement 2009 (SPS)</li> </ul>

	<ul style="list-style-type: none"> <li>• Ensure that the subproject will secure all the necessary permits and clearances from concerned government agencies and LGUs (i.e. ECC from DENR-EMB, Building Permit from LGU)</li> <li>• Ensure that tender and contract documents for design, supervision and civil works include the relevant ESMP requirements</li> <li>• Establish an environmental grievance redress mechanism, as described in the IEE, to receive and facilitate resolution of affected peoples' concerns</li> <li>• Submit semi-annual monitoring reports on ESMP implementation to ADB</li> </ul>
Area Coordinating Team (ACT), (AC, TF, CEF)	<ul style="list-style-type: none"> <li>• Direct responsibility for the implementation of civil works, engineering designs and project coordination</li> <li>• Ensure that ESMP design measures are incorporated in the detailed design</li> <li>• Ensure that ESMP provisions are strictly implemented and monitored during various project phases (design/pre-construction, construction and operation) to mitigate environmental impacts to acceptable levels</li> <li>• Include relevant provisions of the ESMP in the bid and contract documents for design, civil works and supervision</li> </ul>
Barangay Sub-project Management Committee (BSPMC), (PIT and PMT)	<ul style="list-style-type: none"> <li>• Closely monitor contractor's environmental performance and over-all implementations of ESMP</li> <li>• Prepare semi-annual environmental monitoring reports on status of EMP implementation for submission to ADB</li> <li>• Based on the results of ESMP monitoring, identify environmental corrective actions and prepare a corrective action plan, as necessary, for submission to ADB</li> <li>• Responsible for coordinating with EMB, Local Government Units (LGU), and other concerned agencies related to environmental aspects for maintaining project's compliance with environmental permits.</li> </ul>
Contractors	<ul style="list-style-type: none"> <li>• Recruit qualified environmental and safety officer to ensure compliance with environmental statutory requirements, contractual obligations and ESMP provisions.</li> <li>• Undertake the proposed environmental mitigation before start of site works throughout the construction phase as specified in the ESMP. Submit corresponding report to the ACT and RPMO.</li> <li>• Provide sufficient funding and human resources for proper and timely implementation of required mitigation and monitoring measures in the ESMP</li> <li>• Implement additional environmental mitigation measures, as necessary, to avoid, minimize and/or compensate for adverse impacts due to construction works and related activities performed by the contractor.</li> </ul>
Environmental Management Bureau (EMB) of the Department of Environment and Natural Resources (DENR)	<ul style="list-style-type: none"> <li>• Review and approve environmental assessment reports required by the Government</li> <li>• Undertake monitoring of the project's environmental performance based on their mandate</li> </ul>

ADB	<ul style="list-style-type: none"> <li>• Conduct periodic site visits to assess status of ESMP implementation and over-all environmental performance of the Project</li> <li>• Review environmental monitoring reports submitted by the executing agency to ensure that adverse impacts and risks are properly addressed</li> <li>• Publicly disclose through posting on ADB's website environmental monitoring reports, corrective action plans, new or updated IEE (if any) prepared by the executing agency during project implementation</li> </ul>
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## B. Environmental Mitigation Measures

80. The anticipated impacts and the corresponding mitigation measures identified in Chapter V are summarized in Table 9. The table also shows the authority responsible for the implementation of mitigation measures, schedule of implementation and mitigation cost. The overall implementation of the mitigation measures will be the responsible of the contractor and Project Implementation Team (PIT) and will be supervised by the BSPMC and Technical Facilitators (TF) through Project Monitoring Team (PMT).

**Table 9: Environmental Mitigation Measures**

Potential Environment Impact	Mitigation Measures	Schedule	Responsible Entity	Estimated Cost
<b>Pre-Construction Phase</b>				
Nonparticipation of Male community compares to Female when it comes to prioritization since majority of them is working at their farm <sup>1</sup> .	To ensure balance participation, encourage the male community to participate in prioritization, rescheduling of activity where the male is available is an option	First Community Consultation to 6 <sup>th</sup> Community Consultation	MCT-CEF / BLGU, BSPMC, PIT, TF, PMT	N/A
The presence of IPs in Barangay Katipunan, Libertad, and Wright, who appeal to be given a chance to participate in barangay activities.	Barangay Officials, Key leaders of IP members, to have meeting and consultation to discuss the issues of IP concerns. Motivate and encourage them to participate in any barangay activities.	All activities	Barangay officials and IP leaders, BSPMC, PIT, TF, PMT, CEF	N/A
Enough knowledge of community in subproject environmental compliance,	MCT conduct Projects Development Workshop on Environmental adverse impact to enhance knowledge and effective implementation	Barangay PDW	MCT CEF & TF, BSPMC, PIT, PMT	BLGU LCC (Local Counterpart Contribution)
Civil works contract documents do not include the ESMP	RPMO through ACTs will ensure that relevant provisions of the ESMP in terms of implementation of environmental mitigation measures, monitoring activities, supervision	Prior to construction activities	RPMO, ACT	N/A

<sup>1</sup> This impact is discussed in in the social and gender reports of the project.



	and reporting are included in the bid and contract documents for civil works and construction supervision			
Noncompliance of the technical design to applicable national and international standards and guidelines.	<ul style="list-style-type: none"> <li>The technical design of the road repair and rehabilitation followed the recommendations and guidelines of the World Bank's "Handbook on Roads and the Environment (Technical Paper No. 376).</li> <li>The design will conform to the following national guidelines: (i) existing rules and regulations of the National Building Code of the Philippines to ensure the structural integrity of the project; (ii) approved by the Provincial Engineer's Office of Iloilo; and (iii) other applicable rules, standards and regulations such as the Plumbing Code.</li> <li>All applicable permits will be secured prior to construction activities.</li> </ul>	Planning and design stage of the project	RPMO, ACT and Contractor	Included in the project cost
<b>Implementation / Construction Phase</b>				
Water Quality – Possible contamination of nearby Water resources	No nearby Water resources identified, Also, part of the requirement in construction methodology is to ensure the proper disposal of waste and wastewater generated in construction site.	Sub-project Implementation	MCT CEF & TF, Community, BLGU, Laborers, BSPMC, PIT, PMT	c/o Program Of Work (POW) Grant
Air Quality - Possible Air pollution produced by Motor/ Vehicle dust comes from the unpaved roads and vehicles mechanical combustions.	To put warning devices or warning signs regular watering the unpaved road to avoid dust formation, and encourage the worker to use mask during the construction	During Sub-Project Implementation	Community, BLGU, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	BLGU

Noise and Dust Pollution – Emmission from construction vehicles and equipment and concrete mixing	Siting of cement mixing area will be at least 100m from sensitive receptors such as settlements, schools, hospital, etc. and other environmentally sensitive areas and preferably located on the leeward side.	During Sub-Project Implementation	Contractor, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	c/o Program Of Work (POW) Grant
Soil erosion- High suspended solid contents of river, sedimentation.	On hill slopes and other potentially erodible places along the roadside, native vegetation that retards erosion will be planted, as appropriate and As much as possible. construction activities in hilly areas to be taken up only during dry season	During Sub-Project Implementation	Community, BLGU, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	c/o Program Of Work (POW) Grant
Solid waste- Reclaimed pavement and spoils	(i) All suitable material obtained from roadway excavation work will be used for construction of embankment/ earthen shoulders; (ii) Prohibit disposal of spoils and wastes along or in rivers and streams or other natural drainage path. (iii) Ensure that spoils disposal will not cause sedimentation and obstruction of flow of watercourses, damage to agricultural land and densely vegetated areas.	During Sub-Project Implementation	Contractor, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	c/o Program Of Work (POW) Grant
Contamination from solid waste - Solid waste from contractor's yard, construction camps, and construction sites	(i) All construction materials will be reused, recycled or properly disposed of. All worn out parts, equipment and empty receptacles used to contain hazardous materials must be removed from the site to a proper storage location designated by DENR; (ii) Solid waste and garbage will be collected in bins and disposed of daily; (iii) There will be no dumpsite established by the contractors. All solid waste will be collected and removed from the work camps and disposed in local waste disposal sites.	During Sub-Project Implementation	Contractor, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	c/o Program Of Work (POW) Grant

Contamination from sewerage - Sewerage in contractor's temporary facilities	(i) Septic tank/sanitary latrines must be provided at each construction campsite and construction field; (ii) The formation of standing water on construction sites often leads to the spread of insect-borne diseases such as malaria. Therefore there must be a vigorous program by the contractor to avoid such standing waters; including removal of old materials such as used tires and storage drums, provision of adequate drainage, etc.	During Sub-Project Implementation	Contractor, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	c/o Program Of Work (POW) Grant
Forest and Plants life (Flora)	No identified affected forestland and plants because the road already exists. Tree planting activity will be provided by the community volunteers along the subproject site by way of bayanihan as one of their proposed activity to prevent erosion as well as preserving the nature.	During Sub-project Implementation	Community, BLGU, Laborers, MCT CEF, BSPMC, PIT, TF, PMT	BLGU
Impacts on indigenous peoples (IP), including participation in paid labor and implementation/management of the sub-project, participatory and monitoring	No affected IPs (Panay bukidnon) identified in the area but they are one of the nearby communities that will directly benefit the sub-project. In fact, they are very participative and willing to work hard for the sub-project and some of them are identified as non-skilled and skilled labors that will join in the implementation.	During Sub-project Implementation	MCT-CEF, BSPMC Chair and PT, PIT, TF, PMT, CEF	Salary c/o POW Grant
Worker's and community health, safety, and hygiene - Possible injury in the construction site upon implementation	To avoid the possible risk in a construction site as well as road traffic problems, the Monitoring team will strictly implement the requirements wearing of PPEs and Barangay Tanod to augment and act as enforcers.	During Sub-project Implementation	MCT-TF, CEF and Contractors, BSPMC, PIT, PMT	c/o POW Grant
Resettlement Impacts during construction,	No identified resettlement impact			

including access restriction, temporary impacts on livelihood	since the proposed subproject is just upgrading of the existing functional road			
<b>Operation and Maintenance Phase</b>				
Land – possible damages of Road due to uncontrolled heavy vehicles entering the barangay road	Create barangay resolutions about the types of vehicle that allowed entering in the vicinity of constructed road to avoid damages, and if there are uncontrolled damages/ natural damages, the operation and maintenance group is responsible to mobilized for the immediate repair of the damaged portion of road.	After SPs turn-over	O & M Group / BLGU / community, BSPMC, PIT, TF, PMT, CEF	c/o BLGU and O&M fund
Water Quality – Possible pollution on nearby water resources	No nearby water resources identified	N/A	N/A	N/A
Air Quality – Dust and Air pollution from Vehicles	Maintain and Clean roads properly. Enforced servicing of ill maintained vehicles	After SP turn-over	O & M Group / BLGU / community, Vehicle owners	Individual
Noise - Noise pollution	Preventing blowing of horns and reducing vehicle speeds near schools , health centers and other sensitive areas traffic intersections should be implemented by local authorities PMO	After SP turn-over	O & M Group / BLGU / community, Vehicle owners	Individual
Road Safety – Road accidents	Properly maintain road signs and markings, information display board and streetlights.	After SP turn-over	O & M Group / BLGU / community, Vehicle owners	Individual
Improved access – unplanned urbanization	The project is part of the LGU development plan, adherence to land use and zoning regulations.		LGU, BLGU	
Increased business potential and Increased delivery of agricultural products	Encourage business in the designated area	After SP turn-over	LGU, BLGU, Community	BLGU
Tourism	Promote tourism in the area through advertisement from the local venue. Improve the tourist centers in the area.		LGU, BLGU	LGU

### C. Environmental Monitoring Plan

81. The actual implementation of the project will be managed by BSPMC through PIT. The Project Monitoring Team (PMT) and Project Implementation Team (PIT) in coordination with the assigned community facilitator will be responsible to the monitoring on the implementation of ESMP. The ACT Facilitators will be work closely with the community volunteers during the construction phase of the project. Table 10 shows the proposed environmental monitoring plan, duration and schedule and responsible entities to be involved in the monitoring and evaluation.

82. **Reporting.** Regular reporting on the implementation of the mitigation and monitoring activities during construction phase of the project are required by ADB. The assigned Facilitators on the construction activities will submit monthly monitoring reports to the ACT and to be submitted to RPMO, which will be consolidated and submitted semi-annually to ADB during the construction phase of the project. The environmental and social monitoring report is the same with ESMP format with just additional column “Remarks/status of compliance”.

**Table 10: Environmental Monitoring Plan (EMoP)**

<b>Parameters to be Monitored</b>	<b>Location and method of monitoring</b>	<b>Schedule/ Frequency</b>	<b>Responsibility</b>
<b>Pre-construction</b>			
Inclusion of EMP detailed design phase requirements in the bid and contract documents	Review of bid and contract documents	Prior to issuance of bid and contract documents	MCT-CEF / ACT-TF, RPMO, PPT
Completion of detailed design in accordance with EMP requirements	Review of detailed design documentation	Prior to approval of detailed design	ACT and MCT TF, RPMO, BSPMC
Establishment of grievance redress mechanism (GRM) by RPMO through ACT	Confirm GRM is established and disclosed to the community	Prior to start of site works	ACT and MCT TF, RPMO, BSPMC
<b>Construction</b>			
Implementation of construction phase environmental mitigation measures specified in ESMP	Site visit, interviews with community, coordination with concerned agencies (e.g., LGUs, EMB, ACT, etc.)	Monthly and as part of regular project supervision	MCT CEF & TF, Contractor
Ambient air quality produced in construction site	Wearing of PPEs, and ensure that the contractor will minimize or prevent the formation of dust	Every time commencing of actual works	Contractor and community workers/volunteers
Ambient sampling for other parameters to be sampled, as appropriate, to validate complaints and pollution events due to project activities	Validate complaints or where pollution occurred due to the project	Complaints	Community, BLGU, Laborers, MCT / ACT

#### **D. Capacity Building**

83. Within the current organization of community, there is no team assigned to handle matters on environmental management. The BSPMC through PIT is responsible for the overall

implementation monitoring of the civil works on construction activities. To strengthen the capacity of the community in the ESMP and EMoP implementation, the training of community volunteers, specifically the ACT Facilitators. Best international construction practices, environmental management, implementation of the ESMP and EMoP and on occupational and community health safety plans will be designed.

84. The capacity building and training activities will be delivered prior to the start of the construction activities.

## **VIII. CONCLUSION AND RECOMMENDATION**

85. The road improvement subproject is not expected to result to any significant adverse impacts because the civil works will be minimal and are not located to any declared environmentally critical area, the impacts are localized, temporary and site-specific that can be prevented and mitigate during the project implementation.

86. The The major positive impact of the Subproject will be economic, community empowerment and better accessibility. The project will directly benefit over 5,000 people located within the project area providing improved access and economic development. The project would also benefit the environment in terms of reduced soil erosion and landslides through slope stabilization measures and construction of retaining structures. Dust generation from the damaged roads will be reduced by the improvement of pavement. Health risk to the roadside communities and damage to the biological environment will be reduced due to pavement improvement and soil erosion control measures. Extent of flooding in road side villages will be reduced by the improvement of drains. Road safety will be improved by stabilizing unstable sections, installing road safety barriers, signs and display boards.

87. The Subproject will have overall beneficial impact and will have minor negative impacts that will be carefully monitored and adequately mitigated through implementation of the ESMP.

## **IX. DOCUMENTATIONS**

### **A. Stakeholder Consultations – List of Participants**

Consultation 1

Regular Monthly Session

Date: June 8, 2017, 2:00 PM at Katipunan Barangay Hall

Participants

<b>Name of the Participant</b>	<b>Position</b>
Hon. Jeanelyn P. Bilbao	Punong Barangay
Hon. Arceli P. Rapita	Barangay Kagawad
Hon. Rex C. Geco	Barangay Kagawad
Hon. Jimmy M. Balois	Barangay Kagawad
Hon. Mercy D. Castor	Barangay Kagawad
Hon. Criselda A. Dela Cruz	Barangay Kagawad
Hon. Geronimo Loranía Jr.	Barangay Kagawad
Mrs. Nida Imperial	BSPMC
Mr. Dominguito Balois	Community Volunteer
Mrs. Lerma Dianala	Community Volunteer
Mr. Rey-ann D. Castor	Barangay Secretary

Consultation 2

Special Meeting of Sangunian Baranagay

Meeting Agenda: Resolution Allowing the use of Barangay land for the Sub-project

Date: July 8, 2017, 2:00 PM at Katipunan Barangay Hall

Participants

<b>Name of the Participant</b>	<b>Position</b>
Hon. Jeanelyn P. Bilbao	Punong Barangay
Hon. Arceli P. Rapita	Barangay Kagawad
Hon. Rex C. Geco	Barangay Kagawad
Hon. Jimmy M. Balois	Barangay Kagawad
Hon. Mercy D. Castor	Barangay Kagawad
Hon. Criselda A. Dela Cruz	Barangay Kagawad
Hon. Geronimo Loranía Jr.	Barangay Kagawad
Mrs. Nida Imperial	BSPMC
Mr. Dominguito Balois	Community Volunteer
Mrs. Lerma Dianala	Community Volunteer
Mr. Rey-ann D. Castor	Barangay Secretary
Ms. Liezil L. Marfil	Area Coordinator (AC)
Ms. Runa Jane Castor	Barangay Treasurer

Consultation 3

Special Session of Sangunian Baranagay

Meeting Agenda: Resolution Allowing the use of Barangay land for the Sub-project

Date: May 10, 2017, 3:30 PM at Wright Mini Gym

Participants

<b>Name of the Participant</b>	<b>Position</b>
Hon. Rowie C. Yesca	Punong Barangay
Hon. Glynn C. Castor	Barangay Kagawad
Hon. Rolly C. Yesca	Barangay Kagawad
Hon. Rosie C. Inosente	Barangay Kagawad
Hon. Rutchel L. Castor	Barangay Kagawad
Hon. William C. Casabuena	Barangay Kagawad
Hon. Helen R. Palmes	Barangay Kagawad
Hon. Leolie C. Beboso	Barangay Kagawad
Mrs. Nida Imperial	BSPMC
Mr. Dominguito Balois	Community Volunteer
Mrs. Lerma Dianala	Community Volunteer
Ms. Rosemarie Castor	Barangay Secretary

Ms. Liezil L. Marfil	Area Coordinator (AC)
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#### Consultation 4

Special Session of Sangunian Baranagay

Meeting Agenda: Resolution Allowing the use of Barangay land for the Sub-project

Date: May 14, 2017, 11:00 AM at Libertad Mini Gym

#### Participants

<b>Name of the Participant</b>	<b>Position</b>
Hon. Ruben S. Maderse	Punong Barangay
Hon. Orly S. Porras	Barangay Kagawad
Hon. Hernane P. Paclibar	Barangay Kagawad
Hon. Elviro G. Hupanda	Barangay Kagawad
Hon. Luz E. Japitana	Barangay Kagawad
Hon. Reynaldo L. Lambuson	Barangay Kagawad
Hon. Paniel Caporal	Barangay Kagawad
Hon. Gaspar Hupanda	Barangay Kagawad
Mrs. Nida Imperial	BSPMC
Mr. Dominguito Balois	Community Volunteer
Mrs. Lerma Dianala	Community Volunteer
Ms. Mayflor Caporal	Barangay Secretary
Ms. Liezil L. Marfil	Area Coordinator (AC)



# BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET

Province: CAPIZ  
Municipality: TAPAZ  
Barangay Community: KATIPUNAN  
Program/Project (e.g. NCDDP, KC-MCC, etc.): IFP  
Purpose of BA: Cluster Barangay Consultation

Date/Duration: 7-8-19  
Cycle: May 2  
Venue: Katipunan New Gyn

	NAME			Parok/Sitio	Age	4Ps	SLP	IP	Sex		Signature
	Last Name	First Name	MI						Male	Female	
1	Balbis	AILENE	C	Komaje	43	-				-	arbalbis
2	Mariano	Susanie	B	Pob. 2	91					-	ph
3	Herrera	Rodolfo	P	Komaje	65	-	-	-	-		R. Herrera
4	Gocho	DEX	C	Tunggahan	48			-	-		dev.
5	Lario	Rigoberto	C	Pob. I	53	-	-	-		-	eduardo
6	CERAS	Rowena	H	Sambo-anay Itayon	44			-		-	rowena
7	Drinala	Lerna	F	Pob. 2	44			-		-	xi
8	Imperial	Rilda	C	Pob. I	51			-		-	Imperial
9	Rapita	Anneli	P	Barangay Lawa	56	-	-	-		-	rapita
10	Coronado	JOEL	B	Pob. II	54	-	-	-	-		joel
11	Lario	Gerónimo Jr.	P	Pob. II	33			-	-		Gerónimo
12	Balbis	Domingo	L	Pob. 2	56	-	-	-	-		domingo
13	BUENORA	MARIA	A	Pob. 1	12			-		-	maria
14	GASPAR	IVIE	S	Sambo-anay	53					-	ivie
15	Castor	Isabelyn	B	Tunggahan	27					-	castor

# BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET

Province: CAPIZ  
Municipality: TAPAZ  
Barangay Community: KATIPUNAN  
Program/Project (e.g. NCDDP, KC-MCC, etc.): NCDDP  
Purpose of BA: Cluster 3 IP Consultation Meeting

Date/Duration: 7-8-19  
Cycle: Tier 2  
Venue: Katipunan mini

	NAME			Parok/Sitio	Age	4Ps	SLP	IP	Sex		Signature
	Last Name	First Name	MI						Male	Female	
1	GATAS	GLEDA	D	Pob. I	49			-		-	gatas
2	Jimenez	Lulin	C	Tunggahan	60					-	L. Jimenez
3	Austin	maria	D	Komaje Katipunan	48	-	-	-		-	austin
4	DELA CRUZ	CRISTINA	A	SANA ILAYA	40	-	-	-		-	cristina
5	CASTOR	REY-AN	D	Pob. 2	37			-		-	castor
6	Balbis	Jimmy	N	Pob. 2	31				-		balbis
7	Castor	RITA JANE	B	Tunggahan	37			-		-	castor
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13											
14											
15											
Sub Total											

# BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET

Province: CADIZ Date/Duration: 7-8-17  
Municipality: TAPA Cycle: Tier 2  
Barangay/Community: LIBERTAD Venue: Katipunan mini g  
Program/Project (e.g. NCDDP, XC-MCC, etc.): NCDDP  
Purpose of BA: Cluster 8 IP Consultation Meeting

	NAME			Parok/Sitio	Age	4Ps	SLP	IP	Sex		Signature
	Last Name	First Name	M.I.						Male	Female	
1	Calibara	Orthy	A	Libertad	52						<i>[Signature]</i>
2	Ferre	Eli	A	"	32						<i>[Signature]</i>
3	Pedregosa	April Anne	G.	Libertad	25						<i>[Signature]</i>
4	NAPITANA	LUZ	E.	"	72						<i>[Signature]</i>
5	Alloga	Rosalinda	C.	"	62						<i>[Signature]</i>
6	San Juan	Rosendo	L	"	62						<i>[Signature]</i>
7	Almeida	Francisco		"	49						<i>[Signature]</i>
8	Huganda	Elvino	H	"	56						<i>[Signature]</i>
9	Huganda	Nelica	E.	"	43						<i>[Signature]</i>
10	LICONA	VERONICA	S	"	37						<i>[Signature]</i>
11	Nakera	Isabel	D	"	41						<i>[Signature]</i>
12	Huganda	Gregor	G.	"	62						<i>[Signature]</i>
13	Salado	Patricia	A.	"	32						<i>[Signature]</i>
14	Libora	Josiah	G	"	38						<i>[Signature]</i>
15	MADERSTE	PUERTO	S	"	57						<i>[Signature]</i>
Total											

# BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET

Province: CADIZ Date/Duration: 7-8-17  
Municipality: TAPA Cycle: Tier 2  
Barangay/Community: Wright Venue: Katipunan mini g  
Program/Project (e.g. NCDDP, XC-MCC, etc.): NCDDP  
Purpose of BA: Cluster Barangay Consultation (Libertad, Katipunan, Wright, Asinok & San Miguel Nays)

	NAME			Parok/Sitio	Age	4Ps	SLP	IP	Sex		Signature
	Last Name	First Name	M.I.						Male	Female	
1	Beboso	Leslie	C	Tukduhan	45						<i>[Signature]</i>
2	Castor	Rosemarie	C	Malibong Ilaya	00						<i>[Signature]</i>
3	Incarante	Rosie	C	Malibong Ilaya	44						<i>[Signature]</i>
4	Almeida	Francisco	P	Tukduhan	61						<i>[Signature]</i>
5	Casabana	Ma. Thela	L	Malibong Ilaya	48						<i>[Signature]</i>
6	Casabana	Sopie	F	Malibong Ilaya	52						<i>[Signature]</i>
7	Pedregosa	Teresa	E	Wright Agc-o	49						<i>[Signature]</i>
8	Cariga	Shirley	C	Wright Talutan	61						<i>[Signature]</i>
9	Yasca	Leah	S	Talutan	50						<i>[Signature]</i>
10	Tasca	Te	T	Tukduhan	40						<i>[Signature]</i>
11	Porcon	Lourdes	C	Talutan	34						<i>[Signature]</i>
12	Castor	Glynis	C	Proger	40						<i>[Signature]</i>
13	Castor	Ruthel	L	Tukduhan	42						<i>[Signature]</i>
14	Catamin	Ryn	C	Talutan	30						<i>[Signature]</i>
15	Castor	Edgar	T	Malibong Ilaya	40						<i>[Signature]</i>
Total											



# BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET

Province: CAPIZ Date/Duration: 7-8-17  
Municipality: TAPAIZ Cycle: 7-8-17  
Barangay Community: Aligante Venue: Katipunan mini gym  
Program/Project (e.g. NCDOP, KC-MCC, etc): NCDDP  
Purpose of BA: Cluster 3 IP Consultation meeting

	NAME			Parole/Title	Age	4Ps	SLP	IP	Sex		Signature
	Last Name	First Name	M.I						Male	Female	
1	Palmas	Helen	R	Angelo	48						<i>[Signature]</i>
2	Castan	Lemuel	C	Takdahan	67						<i>[Signature]</i>
3	Castan	Namuel	L	"	47						<i>[Signature]</i>
4	Parran	Antonio	S	Takdahan	70						<i>[Signature]</i>
5	Chya	Mauricio	C	"	44						<i>[Signature]</i>
6	DODITO	CACTO	P	MACUBOC	56						<i>[Signature]</i>
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Sub Total											

# BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET

Province: CAPIZ Date/Duration: 7-8-17  
Municipality: TAPAIZ Cycle: 7-8-17  
Barangay Community: Aligante Venue: Katipunan mini gym  
Program/Project (e.g. NCDOP, KC-MCC, etc): NCDDP  
Purpose of BA: Cluster 3 IP Consultation meeting

	NAME			Parole/Title	Age	4Ps	SLP	IP	Sex		Signature
	Last Name	First Name	M.I						Male	Female	
	CACTO	MICHELLE	F	LANGAN AGILANAS	34						<i>[Signature]</i>
	Landanacio	Josephine	A.	Proper	54						<i>[Signature]</i>
	Katipunan	Benny	S	"	46						<i>[Signature]</i>
	Castor	Monita	G	"	61						<i>[Signature]</i>
	Bayog	GARY	T	Hopwell	47						<i>[Signature]</i>
	Bayog	LEON	C	"	47						<i>[Signature]</i>
	Bayog	marista	V	proper	46						<i>[Signature]</i>
	Cabalin	Katerpo	R	"	65						<i>[Signature]</i>
	de la Cruz	M. Jc	S	Hopwell	37						<i>[Signature]</i>
	Alia	Lincoln	C	proper	58						<i>[Signature]</i>
Total											

BARANGAY/COMMUNITY ASSEMBLY ATTENDANCE SHEET												
Province:		CAMP		Date/Duration:		7.8.17						
Municipality:		TARLAC		Cycle:		Tier 2						
Barangay Community:		SAN MIGUEL ILAYA		Venue:		Katipunan mini 9						
Program/Project (e.g. NCDD, KC-MCC, etc.):		MCDPP										
Purpose of BA:		cluster 3 IP consultation meeting										
No.	NAME			Pure (Site)	Age	IPs	S.P	IP	Sex		Signature	
	Last Name	First Name	MI						Male	Female		
1	GERMANA	AUCIA	P	PROPER	51	/						
2	JUNIO	MARCELA	G	PROPER	55	/						
3	Sampallo	Nelito	G	Site Barrio barista	18							
4	Andrango	Alfredo	N	-do	41							
5	Libing	Barly	P									
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Sub Total												

The summary of the environmental and social concerns from these consultations are: (i) less participation of men; (ii) possible low percentage of IP participation; (iii) land acquisition; (iv) possible procurement challenges; (v) Air pollution due to motor/vehicles emissions; (vi) less percentage of woman participation; (vii) possible impact to IPs and household; (viii) possible accident and physical injuries; (ix) responsibilities of O&M group; (x) proper disposal of solid/ wastewater generated during and after the construction; (xi) possible vehicular accidents once the project already functional and etc. These will be mitigated by the following measures: (i) encourage men to participate to have fair participation in decision making; (ii) motivate IP in participating in KC and other program intervention in the barangay; (iii) secure certification from the Barangay Chairman and Municipal Assessor; (iv) MCT to continuously conduct the project development workshop on procurement to enhance community knowledge about procurement process; (v) Provides warning device or warning sign or sprinkle water on project site to avoid dust or for laborer to wear face mask; (vi) Encourage woman who has the capacity to participate in barangay activities through consultation with a group of woman; (vii) ensure IP participation in every assembly and decision making; (viii) to avoid accident by regularly wearing of Personal Protective Equipment (PPEs); (ix) The project is located in three barangays which are Barangay Katipunan, Libertad and Wright wherein each barangay has their own O and M group to maintain the SP together with the Barangay Officials; (x) Provision of Material Recovery Facility (MRF) where the solid waste will be partially disposed and recover before to convey it to the municipal dumpsite; (xi) provision of appropriate road signages to avoid accidents; and etc.. Please see ESMP/EMP for the output/details of possible impacts determines during the community consultations and assemblies with the specific mitigating/preventive measures.

## B. Summary of Consultations with IP Communities

### Environmental and Social Management Plan (ESMP) and Mitigating Measures for Eligible Sub-projects under the KC-NCDDP

Subproject Title: IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD AT BARANGAYS LIBERTAD, KATIPUNAN AND WRIGHT

Barangay: KATIPUNAN Municipality: TAPAZ Province: CAPIZ Region: VI

#### Summary of Consultations with the IP Communities

(Attachment to Indigenous People's Plan)

Date of Consultation(s)	Venue(s) of Consultation	Participants <sup>1</sup>	Number of Participants <sup>2</sup>	Topics Discussed	Issues and Questions Raised by Participants	Conclusions on Issues and Questions Raised
July 8, 2017	Katipunan mini gym	IP Community (Panay Bukidnon) from Barangays Katipunan, Libertad, Wright, Aglinab and San Miguel Ilaya (non IP Barangay)	117 (68 female 49 male) participants attended and 69 participants were IP (26 male, 43 female) composed of council of elders and chieftains and	1. Impact of KC:NCDDP Tier 2 process to the IP's community using ESMP AND ESSC forms 2. Selection of the lead Barangay 3. LCC to be provided by the cluster 3 4. Accomplishme	1. When to start the implementation of sub project 2. The IP community asked if they can work as labour during SPI	1. After the approval of NOL and RFR, implementation will immediately start. 2. Since the Barangay has presence of IP community, they can participate in the implementation of the identified sub-project 3. IP Communities will attend in every Barangay assembly or activities and will help in the implementation of

<sup>1</sup> For example, residents of the barangay, women, indigenous peoples, etc.

<sup>2</sup> For example, number of women, number of men, number of IP/ethnic groups attended in the consultation meeting

			community volunteers with barangay council	nts of IP plan with community volunteers 5. Commitment of IP's community to support KC:NCDDP TIER 2		the sub-project through Bayanihan as their commitment. 4. They will also support the program of KALAHI-CIDSS: NCDDP TIER 2 by means of fairness, self-empowerment, transparency, time bound and accountability
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Prepared by:

HELEN PARINAS  
Community Empowerment Facilitator  
Date: 7/30/17

Reviewed by:

MICHAEL J. ESTAYA  
Area Coordinator  
7/30/17



**Minutes of the Consultation Meeting among IP elders/council and IP Community of Barangays:  
Katipunan, Wright, Aglinab, Libertad and San Miguel Ilaya (non IP Barangay) July 8, 2017 at Katipunan mini  
gym, Tapaz, Capiz.**

Ang meeting nag umpisa sa takna nga 8:30 sang aga sa pagpangamuyo nga ginhatag ni Rodolfo Hernaez kag sang pungsudon nga ambahanon nga gin pangunahan ni Nida Imperial. Si IP Vice Chieftain Arcenio Cerbo naghatag sang iya mensahe kung sa diin iya gid gin abi abi ang mga tumalambong ilabi na gid ang mga staffs sang KC-NCDDP Tier 2 kag MLGU KALAHI staffs nga nag takas gid sa pag meeting sang mga elders kag IP Community. Base sa attendance iya gin deklarar nga may quorum kag call to order ang amo nga meeting.

Si Mam Helen Farinas CEF nga assign sa amon Barangay ngapakilala sang iya mga upod kag kung ano ang katuyuan sa sini nga consultation meeting. Iya man gin presenter ang masunod nga agenda:

**Agenda:**

- ✓ Impact of KC:NCDDP Tier 2 process to the IP's community using ESMP AND ESSC forms
- ✓ Selection of the lead Barangay
- ✓ LCC to be provided by the cluster 3
- ✓ Accomplishments of IP plan with community volunteers
- ✓ Commitment of IP's community to support KC:NCDDP TIER 2
- ✓ Formation of IP Resolution

Ginpresentar, ginpaathag kag gindiscuss ni Maam Helen Farinas ang importante nga tinutuyo nga programa sang KALAHI-CIDSS NCDDP TIER 2 kag kung ano ang impact sang sini nga programa sa mga IP community paagi sa ESMP kag ESSC nga mga forms. Gin presenter kag gin discuss man ni Maam Helen ang ESMP kag ESSC forms kung sa diin ang gina proposed nga sub-project indi maka apekto sa mga IP community nga ara sa Barangay ukon sa katupad nga mga kabarangayan. Gin discuss man ni Maam Helen ang natabo sang 2<sup>nd</sup> Barangay Assembly sang May 13, 2017 kung sa diin gin pilian ang Barangay Katipunan nga mangin lead Barangay tungod nga sentro gid ini sa proposed sub-project kag ini gin agreehan man sang mga IP community nga nagatambong. Regarding sa LCC ukon Local Counterpart Contribution dapat nga magahatag ang joined Barangays sang ila LCC para sa pag implementar sang proposed project. Isa sa mga documents para sa RFR documents amo ang IP plan nga dapat matapos kag ini iga attach sa RFR documents kag ini nga documento maubra sa bulig sang mga IP volunteers or community. Si Leolie Beboso is aka IP sa Barangay Wright naghambal gid nga sila nga IP community magabulig gid sa ano man nga hilikuton sa kaayuhan sang ila Barangay. Gane willing gid sila nga magabulig ubra sang IP plan. Si Maam Helen nagpamangkot sa tanan nga mga tumalambong kung willing bala sila nga mag supporta sa pagpatigayun sang proyekto? Si Geronimo Lorana Jr. myembro sang IP sa Katipunan nga bukas gid sila sa pagbulig kag pag supporta sa pala abuton nga pag preparer kag pag implementar sang proyekto bangud nga ini para man sa amon nga kaayuhan indi lang sa joined Barangay kundi sa banwa man sang Tapaz. Sa katapusan nga agenda gin platar ni CEF ang kaundan nga dapat ma reflect sa Resolution kung sa diin tugot bala ang tanan nga IP community sa pag patindog ukon pag implementar sang ila proyekto. Si Maam Helen nag guide sa mga volunteers kag IP Community sa pag ubra sang isa ka Community Consultation Resolution nga ang kaundan nga nakahibalo kag sugot ang mga Tumandok nga mga Elders kag ang Bug-os nga kumunidad sang mga IP sa pagsulod sang KALAHI-CIDSS NCDDP- TIER 2 sa pagdala sang ila programa sa amon barangay agod masabat ang amon taga ka problema sa amon komunidad. Kag ini gin mosyunan ni Criselda Dela Cruz kag gin segundahan ni Runa Jane Castor.

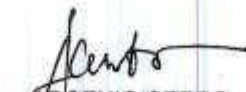
Antis magtakop may ara anay open forum kag si Joel Cachuela namangkot kung san o bala maumpisa ang implementasyon sang sub-project? Si Maam Helen nagsabat nga pwede na maumpisahan ang pag implementar sang proyekto kung ma aprobahan na ang Request for Fund Release folder pati man ang No Objection Letter nga iga pasa sa Regional Project Management Office pati man ang sa National Project Management Office. Si Glenda Gayas namangkot man kung bala pwede ka intra ang pareho niya nga IP sa labor kung mag umpisa na ang sub-project? Suno sa assigned CEF, bangud nga contract ang pag implementar sang proyekto, ga depende sa contractor kung paga intrahun ang mga pumuluyo sang Barangay kag kung magsugot ang contractor pwede gid nga maka intra ang mga IP community bilang labourer sa pag implementar sang ila gina proposed nga sub-project.

Bangud wala naman sang mga pamangkot kag klaro naman ang tanan, si Vice Chieftain Arcenio Cerbo naghatag sang iya nga Reflection, siya gapasalamat liwat sa pag abot sang programa sang KALAH! sa ila barangay nga madugangan naman ang proyekto kag mabuligan improbar ang amon barangay kag ma empower man ang mga volunteers. Siya gapasalamat man nga ginatagaan gid sila sang gahom sa kumunidad sa pagpahanugot kag pagdesisyon para sa ikatin-ad, improbar kag kaayuhhan sang bug-os nga kumunidad. Bangud wala naman sang dugang nga pamangkot natapos ang paghinun anon natapos sa takna nga 09:50 sang aga.

Prepared by:

  
**REY-ANN CASTOR**  
Barangay Secretary

Approved by:

  
**ARCENIO CERBO**  
Barangay IP Vice Chieftains

### **English Translation**

The meeting started at 8:30am with a prayer led by Mr. Rodolfo Hernaez, followed by the national anthem led by Nida Imperial. After which, IP Vice Chieftain Arcenio Cerbo gave his message and acknowledged the presence of everyone especially the Kalahi CIDSS NCDDP Tier 2 staff and the MCT staff who went to their barangay for a meeting with Elders and the whole community members. Since majority of the expected participants were present, IP Vice Chieftain Cerbo, declared a quorum and call to order to start a meeting.



Ma'am Helen Farinas, the CEF assigned in our barangay, presented her companions and explained the reason for the consultation meeting. She also presented the following proposed agenda:

Agenda:

1. Impact of KC NCDDP Tier 2 process to the IP communities using ESMP and ESSC forms
2. Selection of the lead barangay
3. LCC to be provided by Cluster 3
4. Accomplishments of IP Plan with Community volunteers
5. Commitment of IP communities to support KC NCDDP Tier 2
6. Formation of IP Resolution

Ma'am Helen Farinas presented, discussed and elaborated the program goal of KALAHI CIDSS NCDDP Tier 2 emphasizing the sub-project impact to the IP communities in particular using the ESMP and ESSC forms as a tool. She presented and discussed also that the proposed sub-projects will not create negative impact to the IP communities in the barangay even in the neighboring barangays. Ma'am Helen discussed what happened during the 2nd Barangay Assembly held last May 13, 2017 wherein Barangay Katipunan was chosen to be the lead barangay because its location is the center among the joint barangays where the proposed sub-projects will be implemented. Furthermore, it was also agreed by the IPs who attended that meeting. As to the LCC or the Local Counterpart Contribution, the joint barangays should also provide their LCC for the implementation of the proposed sub-project. One of the RFR documents is the IP Plan and should be attached to the RFR documents and the IP Plan will be materialized with the help from the IP Community volunteers or community itself. Leolie Beboso, an IP from Brgy. Wright, commented that they as an IP community, they will help draft the IP Plan. Ma'am Helen asked to the body of their full support to their project? Geronimo Lorana Jr, an IP member from Barangay Katipunan, responded that they are very willing to help and in full support to their upcoming sub-project for they know this will not only benefit their barangay, their adjacent barangays but the whole Tapaznons. The last agenda was presented by CEF that the agreement to this meeting should be documented and reflected in a resolution wherein the IP communities identified that the proposed sub-project is their need and that they would allow for the construction of their own project. Ma'am Helen guided the IP volunteers in crafting their Community Consultation Resolution reflecting the agreements made particularly with the content that they themselves identified their sub-project, and they were informed of the process and allows for the implementation of their sub-project. This was motioned by Criselda Dela Cruz and seconded by Runa Jane Castor.

Before the meeting ends, there was an open forum. Joel Cachuela asked when will the implementation of the sub-project commences? Ma'am Helen answered that they can start the sub-project implementation once the Request for Fund Release has been approved including the issuance of No Objection Letter from the Regional Project Management Office and from the National Project Management Office. Ms. Glenda Gayas asked if IPs are allowed to participate in the paid labor once the sub-project started? According to CEF assigned, since the mode of implementation is by contract, it actually depends to the contractor if they will hire laborers within the Barangay. But usually they do and we will ask. Once the contractor agreed, then we will join in the actual implementation of the proposed sub-project.

Since there are no questions to be asked and everything was cleared, Vice Chieftain Arcenio Cerbo shared his reflection, he thanked again Kalahi CIDSS came in to their barangay, additional development interventions in their community that will help improve the living condition of the constituents, and most of all empower the community volunteers. He also thanked for the opportunity given to make an informed



decision for their own development. Since there is no additional questions posted, the meeting ended at 9:50am.

### C. Photographs



During Barangay Emergency Meeting



Barangay Assembly



Indigenous People (IP) consultations



Barangay Assembly





PENRO Validation for ECC







PENRO Validation for ECC



Field Density Test (FDT)

## X. ANNEXES

### A. Initial Environmental Examination (IEE) Checklist

*Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects*

#### II. ENVIRONMENTAL IMPACT MANAGEMENT AND MONITORING PLAN ROAD AND BRIDGE PROJECTS

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
<b>LAND</b>				
<input checked="" type="checkbox"/> Consistency with land use	Current land use w/in 1km radius (as per zoning ordinance): <input type="checkbox"/> Residential <input type="checkbox"/> Commercial/ Institutional <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Agricultural/ Recreational <input type="checkbox"/> Protected Areas <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> See attached proof of compatibility with land use <input type="checkbox"/> Others, specify	Actual land uses w/in 1km radius: <input type="checkbox"/> Residential <input type="checkbox"/> Commercial/ Institutional <input type="checkbox"/> Industrial <input checked="" type="checkbox"/> Agricultural/ Recreational <input type="checkbox"/> Protected Areas <input type="checkbox"/> Others, specify	
	Actual land uses w/in 1km radius: <input type="checkbox"/> Residential <input checked="" type="checkbox"/> Commercial/ Institutional <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural/ Recreational <input type="checkbox"/> Protected Areas <input type="checkbox"/> Others, specify			

Project Name: Improving Access to Basic Services Through Community Managed Irrigation and of Barangay Engineering - Dapay, Marikina  
 Part of the community and ALPC



Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
<input type="checkbox"/> Land tenure / compatibility issue	Identify tenure/ compatibility issues: <input type="checkbox"/> CARP <input type="checkbox"/> CADG/ CADT/ CALC/ CALT <input type="checkbox"/> ROW <input type="checkbox"/> Informal settlers <input type="checkbox"/> Ecologically sensitive or protected area <input checked="" type="checkbox"/> Others, specify <i>1 min village, 9 existing roads</i>	<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction / operation cost <input type="checkbox"/> Obtain the following clearances/ permits from concerned agencies: <div style="border: 1px solid black; height: 40px; width: 100%;"></div> <input type="checkbox"/> Resettlement Plan prepared <input type="checkbox"/> Provide relocation/disturbance compensation packages <input type="checkbox"/> Ensure participation of IPs in consultations and dialogues <input type="checkbox"/> MOA prepared/signed <input type="checkbox"/> Provide adequate buffer <input checked="" type="checkbox"/> Others, specify <i>New Design N.C. Landfill</i>	<input checked="" type="checkbox"/> Regularly monitor presence/absence of complaints <input checked="" type="checkbox"/> Regular coordination with LGU or appropriate agencies <input type="checkbox"/> Others, specify	
<input type="checkbox"/> Disturbance to wildlife due to vegetation clearing	Existing vegetation in the area: <input type="checkbox"/> Forestland <input type="checkbox"/> Marshland <input checked="" type="checkbox"/> Grassland <input type="checkbox"/> Mangrove <input type="checkbox"/> Wetland	<input checked="" type="checkbox"/> Comply with conditions of DENR/LGU SLUP, Tree Cutting Permit, ROW, PCA Permit <input checked="" type="checkbox"/> Limit land clearing as much as possible <input checked="" type="checkbox"/> Provide temporary fencing for vegetation that will be retained	<input checked="" type="checkbox"/> Annual inspection of area replanted/ re-vegetated <input type="checkbox"/> Others, specify	

Project Name: Improving Access to Basic Services through Community Managed Improvement of Agri Highway - Ampay Avenue Road  
at Agri Community and RCPAC

Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
	<input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost  <input checked="" type="checkbox"/> Promote restoration of damaged or destroyed vegetation where possible (e.g., tree planting) <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<div style="border: 1px solid black; height: 80px; width: 100%;"></div>	
<input type="checkbox"/> Change in surface landform/ topography/ terrain/slope <input type="checkbox"/> Soil Erosion	Slope: <input type="checkbox"/> Flat (0-3%) <input checked="" type="checkbox"/> Gently sloping to rolling (3-18%) <input checked="" type="checkbox"/> Steep (>18%)  Is the project site located in an area identified by MGB/ PAG-ASA/ PHIVOLCS as hazard prone? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Considering the natural hazards and climate projections in the area: <input checked="" type="checkbox"/> Employ erosion control and slope protection measures <input type="checkbox"/> Designate a spoils storage area, with topsoil set aside for later use and allow maximum re-use of spoils <input type="checkbox"/> Construct during dry season <input checked="" type="checkbox"/> Stabilize embankment with grasses or other soil cover <input type="checkbox"/> Conduct Engineering Geological and Geo-hazard Assessment (EGGA) and implement corresponding recommendation <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	<input checked="" type="checkbox"/> Regular inspection of slope protection measures in erosion-prone areas <input type="checkbox"/> Regular inspection for new eroded areas near the site <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 80px; width: 100%;"></div>	

*Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects*

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
<p>Building of structure and improper solid waste disposal leading to:</p> <p><input type="checkbox"/> Impairment of visual aesthetics</p> <p><input type="checkbox"/> Devaluation of land values</p>	<p>Solid Waste Management Scheme in the area:</p> <p><input type="checkbox"/> SLF</p> <p><input type="checkbox"/> MRF</p> <p><input type="checkbox"/> Composting</p> <p><input checked="" type="checkbox"/> Regular Collection of Solid Wastes</p> <p>Presence of visually significant landforms/landscape/structures?</p> <p><input type="checkbox"/> Yes</p> <p><input checked="" type="checkbox"/> No</p>	<p><input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost</p> <p><input checked="" type="checkbox"/> Implement recovery re-use and recycling of waste materials</p> <p><input checked="" type="checkbox"/> Provide receptacles / bins for solid wastes</p> <p><input type="checkbox"/> Composting of Organic Wastes</p> <p><input type="checkbox"/> Coordinate with the municipal / city waste collectors</p> <p><input type="checkbox"/> Implement landscaping and other beautification measures</p> <p><input type="checkbox"/> Provide adequate buffer</p> <p><input type="checkbox"/> Compensate adjacent property owners</p> <p><input type="checkbox"/> Others, specify</p>	<p><input checked="" type="checkbox"/> Daily inspection of waste handling including segregation in waste/recycling bins</p> <p><input checked="" type="checkbox"/> Weekly inspection of waste accumulation and disposal</p> <p><input type="checkbox"/> Regular inspection of landscaping and other beautification activities</p> <p><input type="checkbox"/> Regular monitoring of buffer zones</p> <p><input type="checkbox"/> Regular monitoring for presence/absence of complaints from adjacent property owners</p> <p><input type="checkbox"/> Others, specify</p>	<p><input checked="" type="checkbox"/> Cost integrated in the construction/operation cost</p>
<b>WATER</b>				
<p><input checked="" type="checkbox"/> Increased siltation due to project activities</p> <p><input type="checkbox"/> Water quality degradation</p> <p><input type="checkbox"/> Others, specify</p>	<p>Specify nearest water body:</p> <div style="border: 1px solid black; height: 40px; width: 100%;"></div> <p>Distance to nearest water body:</p> <p><input type="checkbox"/> 0 to less than 0.5 km</p>	<p><input checked="" type="checkbox"/> Set up proper and adequate sanitary facilities</p> <p><input checked="" type="checkbox"/> Ensure strict observance of proper waste handling and disposal and proper sanitation including by the contractor and its workers</p> <p><input type="checkbox"/> Set up silt trap (Gabions,</p>	<p>Regular (ocular) inspection of:</p> <p><input type="checkbox"/> Drainage / canal systems</p> <p><input type="checkbox"/> Sanitation facilities</p> <p>Monitoring of ambient water during construction for:</p> <p><input checked="" type="checkbox"/> Turbidity and/or silt condition</p> <p><input checked="" type="checkbox"/> Floating wastes or debris</p>	

Project Name: \_\_\_\_\_



Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
	<input type="checkbox"/> 0.5 to 1 km <input type="checkbox"/> More than 1 km Classification of nearest water body <div> <input type="checkbox"/> Freshwater               <div> <input type="checkbox"/> AA <input type="checkbox"/> A <input type="checkbox"/> B <input type="checkbox"/> C <input type="checkbox"/> D                 </div> <input type="checkbox"/> Marine/coastal water               <div> <input type="checkbox"/> SA <input type="checkbox"/> SB <input type="checkbox"/> SC <input type="checkbox"/> SD                 </div> </div>	<input checked="" type="checkbox"/> Fascines/settling ponds to minimize downstream siltation <input type="checkbox"/> Others specify <div></div>		
	Current use of nearest receiving water body <input type="checkbox"/> Fishery <input type="checkbox"/> Tourist Zone / Park <input type="checkbox"/> Recreational <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Others specify <div></div>			
	Distance of project area to the nearest well used <input type="checkbox"/> 0 to less than 0.5 km			

Name \_\_\_\_\_

*Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects*

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
		Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost.		
	<input type="checkbox"/> 0.5 to 1 km <input type="checkbox"/> More than 1 km Use of nearest well: <input type="checkbox"/> Drinking/Domestic <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural			
<input type="checkbox"/> Competition in water use <input type="checkbox"/> Depletion of water resources	Size of population using water source: <input type="checkbox"/> ≤ 1,000 persons <input type="checkbox"/> >1,000 and ≤ 5,000 persons <input type="checkbox"/> >5,000 persons Available/nearest water source: <input type="checkbox"/> Deep well <input type="checkbox"/> Water district/LGU <input type="checkbox"/> Surface water <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 40px; width: 100%;"></div> Current Use of water source : <input type="checkbox"/> Fishery <input type="checkbox"/> Tourist Zone / Park <input type="checkbox"/> Recreational <input type="checkbox"/> Industrial <input type="checkbox"/> Agricultural <input type="checkbox"/> Others, specify	<input type="checkbox"/> Implement rainwater harvesting and similar measures as an alternative source of water <input type="checkbox"/> Observe water conservation measures <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints <input checked="" type="checkbox"/> Regular coordination with concerned agencies <input checked="" type="checkbox"/> Regular monitoring for occurrences of water shortages <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	

Project Name: \_\_\_\_\_

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
<input type="checkbox"/> Increased occurrence of flooding	<div></div> <p>Is the project site located in an area identified by MGB/ PAG-ASA as flood prone?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<input checked="" type="checkbox"/> Use appropriate design for project facilities including appropriate drainage mechanism considering the existing local drainage system. <input checked="" type="checkbox"/> Regularly remove debris and other materials that may obstruct water flow <input type="checkbox"/> Others, specify <div></div>	<input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints <input checked="" type="checkbox"/> Regular coordination with concerned agencies <input checked="" type="checkbox"/> Regular monitoring for increased frequency of flooding <input type="checkbox"/> Others, specify <div></div>	
<b>AIR / NOISE</b>				
Air quality degradation	<p>Distance to nearest community:</p> <p><input type="checkbox"/> 0 to less than 0.5 km  <input type="checkbox"/> 0.5 to 1 km  <input type="checkbox"/> More than 1 km</p>	<input type="checkbox"/> Properly operate and maintain all emission sources (e.g. vehicles, generator, etc) <input type="checkbox"/> Install appropriate air pollution control device/s <input type="checkbox"/> Strictly enforce good housekeeping practices <input type="checkbox"/> Control vehicle speed to lessen	<input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints <p>Regular (ocular) inspection of:</p> <p><input type="checkbox"/> Absence of white or black smoke from vehicles, generator, etc.</p>	

Project Name: \_\_\_\_\_

Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost  <input type="checkbox"/> suspension of road dust <input type="checkbox"/> Conduct water spraying to suppress dust sources and minimize discomfort to nearby residents <input type="checkbox"/> Use covered vehicles to deliver materials that may generate dust <input type="checkbox"/> Others, specify	<input type="checkbox"/> Presence of truck cover during deliveries	
<input type="checkbox"/> Nuisance due to noise generation	Distance to nearest community: <input type="checkbox"/> 0 to less than 0.5 km <input type="checkbox"/> 0.5 to 1 km <input type="checkbox"/> More than 1 km	<input type="checkbox"/> Properly operate and maintain all noise sources (e.g., vehicles, generator, etc.) <input type="checkbox"/> Install, when applicable, the appropriate noise control device/s (e.g., mufflers, silencer, sound barriers, etc.) <input type="checkbox"/> Implement appropriate operating hours <input type="checkbox"/> Provide adequate buffer and/or planting of trees <input type="checkbox"/> Others, specify	<input type="checkbox"/> Regular monitoring for presence/absence of complaints <input type="checkbox"/> Regular monitoring of buffer zones <input type="checkbox"/> Quarterly monitoring of noise level <input type="checkbox"/> Others, specify	

Project Name: \_\_\_\_\_



Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost		
<b>PEOPLE</b>				
<input type="checkbox"/> Displacement of residents including indigenous people (if any) in the project site and within its vicinity <input checked="" type="checkbox"/> Enhanced employment and/or livelihood opportunities <input checked="" type="checkbox"/> Reduced employment and/or livelihood opportunities <input checked="" type="checkbox"/> Increased revenues for LGU <input checked="" type="checkbox"/> Disruption/ Competition in delivery of public services (e.g., education, peace and order, etc.) <input checked="" type="checkbox"/> Enhanced delivery of public services (e.g., education, peace and order, etc.) <input checked="" type="checkbox"/> Increase in traffic volume and worsening of traffic flow	Size of population of host barangay: <input type="checkbox"/> ≤ 1,000 persons <input type="checkbox"/> >1,000 and ≤ 5,000 persons <input type="checkbox"/> >5,000 persons  Classification of host barangay: <input type="checkbox"/> Urban <input checked="" type="checkbox"/> Rural  Employment/Livelihood Opportunity Rate in the host Municipality: <input type="checkbox"/> High <input checked="" type="checkbox"/> Low  Description: <div style="border: 1px solid black; height: 40px; width: 100%;"></div> Available services within/near the host barangay: <input type="checkbox"/> Schools (e.g., elementary, high school, college)	<input type="checkbox"/> Provide relocation/disturbance compensation packages <input checked="" type="checkbox"/> Prioritize local residents for employment <input checked="" type="checkbox"/> Promptly pay local taxes and other financial obligations <input checked="" type="checkbox"/> Regularly coordinate with LGU <input type="checkbox"/> Conduct prior consultation and coordination to minimize disruption of daily domestic activities <input type="checkbox"/> Ensure participation of IPs in consultations and dialogues and consider IP rights and cultural practices in the provision of relocation/disturbance compensation packages <input checked="" type="checkbox"/> Provide appropriate traffic/warning signs, lighting, etc. <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints <input checked="" type="checkbox"/> Regular coordination with LGU <input type="checkbox"/> Others, specify	<input checked="" type="checkbox"/> Cost integrated in the construction/ operation cost

Project Name: \_\_\_\_\_

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
	<input type="checkbox"/> Health facilities (e.g., clinics, hospitals, etc.) <input type="checkbox"/> Peace and order (e.g., police outpost, Brgy. Tanod, etc.) <input type="checkbox"/> Recreation and sports facilities <input type="checkbox"/> Others, specify <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost <div style="border: 1px solid black; height: 60px; width: 100%;"></div>		
<input type="checkbox"/> Destruction/disturbance of physical cultural resources. <i>(- if project site has been identified to have such by NM, NHCP, NCAA and LGUs)</i>	Physical Cultural resources within the vicinity of the project site: <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	<input type="checkbox"/> Implement appropriate protocols based on NM, NHCP, NCAA and LGU guidelines including those for chance finds (if any). Specify: <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	<input type="checkbox"/> Regular coordination with NM, NHCP, NCAA and LGU	
<input type="checkbox"/> Impacts on community safety	<input type="checkbox"/> Structures posing safety risk to the community: <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	<input checked="" type="checkbox"/> Regularly coordinate with LGU <input type="checkbox"/> Provide appropriate warning signs, lighting and barricades, whenever practicable <input checked="" type="checkbox"/> Observe proper housekeeping <input type="checkbox"/> Provide on-site medical services for any emergency <input type="checkbox"/> Participate in public awareness programs on health and safety	<input checked="" type="checkbox"/> Regular monitoring for presence/absence of complaints <input checked="" type="checkbox"/> Regular coordination with LGU <input checked="" type="checkbox"/> Regular submission of reports to concerned agency	

Project Name: \_\_\_\_\_

Initial Environmental Examination (IEE) Checklist Report Form for Road and Bridge Projects

Possible Environmental/Social Impacts	Baseline Environment	Preventive/Mitigating Measures	Monitoring Parameters/Implementation	Remarks
		<input checked="" type="checkbox"/> Cost of preventive/mitigating as well as monitoring integrated in the construction /operation cost  <input type="checkbox"/> Implement appropriate safety programs for both community and workers <input type="checkbox"/> Others, specify	<input type="checkbox"/> Others, specify	



## B. Environmental Compliance Certificate (ECC)



Republic of the Philippines  
Department of Environment and Natural Resources  
**ENVIRONMENTAL MANAGEMENT BUREAU**  
2/F Pacita Salazar Bldg., El 98 St., Jaro, Iloilo City  
Telephone No. (033) 300-1135 Fax No. (033) 509-9133  
embr6@yahoo.com  
Visit us at <http://www.r6.emb.gov.ph/>

February 2, 2018

**ECC-OL-R06-2018-0053**

**MR. MICHAEL J. ESTAYA**

Representative

**KALAHI CIDDS NCDDP Tier-2**

Tapaz Municipal Hall, Poblacion, Tapaz, Capiz

Subject: **ENVIRONMENTAL COMPLIANCE CERTIFICATE**

Dear Sir;


This refers to the Environmental Compliance Certificate (ECC) application for the proposed **Improved Community Access Through Upgrading of Barangay Road** to be located at **Barangay Libertad, Katipunan and Wright Tapaz, Province of Capiz, R06.**

After satisfying the requirements of the said application, this Bureau has decided to grant an ECC for the above-mentioned project.

With the issuance of this ECC, you are expected to implement the measures presented in the Initial Environmental Examination Checklist (IEEC), intended to protect and mitigate the project's adverse impacts on community health, welfare and the environment. Environmental considerations shall be incorporated in all phases and aspects of the project.

This Certificate does not create any right nor be used as an authorization to implement the project, you may proceed with the implementation only after securing all the necessary and relevant permits from other pertinent Government Agencies. This Office shall be monitoring the project periodically to ensure strict compliance with the stipulations cited in the attached ECC.

Please be guided accordingly.

  
**Dr. Sophie T. Manuel, CESO V**  
Regional Director



Republic of the Philippines  
Department of Environment and Natural Resources  
**ENVIRONMENTAL MANAGEMENT BUREAU**

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Visit us at <http://www.r6.emb.gov.ph/>

**ENVIRONMENTAL COMPLIANCE CERTIFICATE**  
(Issued under Presidential Decree 1586)  
**ECC-OL-R06-2018-0053**

THIS IS TO CERTIFY THAT THE PROPONENT, **KALAHI CIDDS NCDDP Tier-2**, represented by Mr. Michael J. Estaya, is granted this Environmental Compliance Certificate (ECC), for the proposed **Improved Community Access Through Upgrading of Barangay Road** located in **Barangay Libertad, Katipunan and Wright Tapaz, Province of Capiz, R06**, by the Department of Environment and Natural Resources (DENR), through the Environmental Management Bureau (EMB).

SUBJECT ONLY to the conditions and restrictions set in this ECC and in the attached document labelled as Annexes A and B.

This Certificate is issued with the following details:

**PROJECT DESCRIPTION**

(Group 3.4.2 Roads, Widening, Rehabilitation and/or improvement with > 50% increase in capacity in terms of width AND >2km but <10 km length with no critical slope)

*The proposed **Road Improvement** project of **KALAHI CIDDS NCDDP Tier-2** is to be constructed in **Barangay Libertad, Katipunan and Wright Tapaz, Province of Capiz, R06**. The project covers the upgrading of the existing gravel road to Portland Cement Concrete Pavement (PCCP). It has a **total length of 3.85 km** (1.9km for Phase 1 and 1.95km for Phase 2), **width of 4 meters** and **thickness of 0.15 meter**. The project is geographically located at **11°11'11.186", 11°11'55.68", 11°13'22.726", 11°12'0.971", 11°11'25.186" North Latitude** and **122°30'21.231", 122°30'3.598", 122°32'33.726", 122°29'50.634", 122°29'26.162" East Longitude**.*

*The project also includes **Drainage Facilities** such as **eighteen (18) units Side Ditch Canal** (length: 339 meter, Width: 0.90 meter, Depth: 0.70 meter); **one (1) unit Reinforced Concretes Pipe Culverts (RCPC)** (Length: 7 meter, Width: 0.60 meter,*



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHI CIDDS NCDDP Tier-2



*Depth: 0.60 meter) and seven (7) units Slope Protection (Lentgh: 143.50 meter, Width: 0.30 meter, Depth: 11.15 meter). The project activities covers: clearing and grubbing, sub-grade preparation, aggregate sub-base course, shouldering on PCCP, and Line ditch canal construction as stated in the Project Component and Operation Information.*

This Certificate is issued in compliance with the requirements of Presidential Decree No. 1586, and in accordance to DENR Administrative Order (D.A.O.) No. 2003-30. Non-compliance with any of the provisions of this Certificate shall be a sufficient cause for the cancellation of this Certificate and/or imposition of a fine in an amount not to exceed Fifty Thousand Pesos (P50,000.00) for every violation thereof without prejudice to imposition of fines and penalties under other environmental laws. The EMB, however, is not precluded from reevaluating and correcting any deficiencies or errors that may be found after issuance of this Certificate.

Issued at EMB-R06, 2/F Pacita Salazar Bldg., El 98 St., Jaro, Iloilo City this February 2, 2018.

Recommending Approval:



**Engr. Virgilio F. Fabronero**  
Chief, Clearance & Permitting Division

Approved:




**Dr. Sophie T. Manuel, CESO V**  
Regional Director



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHI CIDDS NCDDP Tier-2

## SWORN ACCOUNTABILITY STATEMENT

I, Mr. Michael J. Estaya, representing KALAHY CIDDS NCDDP Tier-2 with office address located in Tapaz Municipal Hall, Poblacion, Tapaz, Capiz, takes full responsibility in complying with all conditions in this Environmental Compliance Certificate (ECC).

  
**Mr. Michael J. Estaya**  
Signature

TIN No. 226-870-678

Subscribed and sworn before me this FEB 06 2018, the above-named affiant taking oath presenting \_\_\_\_\_, issued on \_\_\_\_\_ at \_\_\_\_\_.

**ATTY. SOTEO G. GARDOSE**  
NOTARY PUBLIC  
Notary Public  
UNTIL DEC. 31, 2018, PROVINCE OF CAPIZ  
PTR NO. 7821701, 1/03/18, DUMALAG, CAPIZ  
IBP NO. 0054, 12/19/17, ROXAS CITY  
ROLL NO. 46577, MAY 02, 2002  
MCLE COMPLIANCE NO. V-0022391

Doc. No. 269  
Page No. 15  
Book No. XLV  
Series of 2018



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHY CIDDS NCDDP Tier-2



## I. CONDITIONS

**ENVIRONMENTAL MANAGEMENT**

All commitments, mitigating measures and monitoring requirements, contained in the Initial Environmental Examination Checklist Report for the proposed **Road Improvement Project**, particularly in the Environmental Management Plan/ Environmental Monitoring Plan, including any modifications and/or additional information as approved by the EMB, shall be instituted to minimize any adverse impact of the project to the environment throughout its implementation, which shall include among others to wit:

1. Appropriate and sufficient engineering measures for slope stabilization and drainage system (such as stone masonry, grouted riprap, concrete lined ditches, cross drainage, catch basin, etc.) to prevent landslide and erosion shall be provided specifically along portions near the river, creeks and agricultural lands. Appropriate benching method/procedures shall also be employed along deep cuts portion. An adequate drainage/diversion canal with silt traps shall be constructed particularly along portions near the river, creeks and agricultural lands to divert heavily silted rain water runoff from these areas;
2. Excavated materials shall be properly stockpiled and properly disposed or reused. Excess soil materials shall not be deposited along areas traversed by runoff and away from waterways and valuable crops;
3. No cutting of matured trees specially banned species shall be done along the route without proper clearance from authorities and be subjected to Forestry laws, rules and regulations. Removal of vegetation shall be limited only along the project area and along the ROW, as much as possible, unnecessary removal of vegetation shall be observed. Cutting of vegetation shall be kept at a minimum and Permit to Cut from Forest Management Services (FMS) shall be secured prior to cutting of trees. Re-vegetation of the surrounding areas and along the route should be undertaken on any applicable areas. These should be maintained all throughout the duration of the project. Burning of waste generated from land clearing such as leaves and branches shall be strictly prohibited;
4. Affected residents/properties shall be properly relocated and be given necessary assistance (but not limited only to financial assistance). Properties (including cutting of trees) affected by the project (ROW Acquisition) shall be justly compensated;



Environmental Compliance Certificate  
 IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
 AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
 Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
 KALAHI CIDDS NCDDP Tier-2



5. Proponent shall be held responsible to any damages caused by the project implementation, such as damage to crops, plants and trees. Damages shall be properly determined and timely compensated;
6. Planting of at least **385 fruit or forest tree species** (preferably those endemic in the area) shall be conducted along erosion-prone areas, along sides of the constructed road at appropriate distances and on any applicable areas. Assessment of the condition of the planted trees shall be done in order that trees lost or damaged or those which will show low probability of survival will be replaced;

#### **GENERAL CONDITIONS:**

Further administrative conditions for the grant of this certificate shall be strictly complied:

7. Segregation, recycling, re-use and composting and proper disposal of solid wastes generated during construction and operation shall be in accordance with the provision of the Ecological Solid Waste Management under R.A. 9003 and its Implementing Rules and Regulations;
8. Proponent shall allow entry of EMB-R6 Field Personnel, DENR CENRO, PENRO and EMB R6 Focal Persons, into the project site at all times to conduct tangible monitoring and to validate project's compliance to the ECC conditions and EMP mitigating measures stipulated therein and in case there is a need for additional conditions in this ECC, the same shall be imposed by this office upon inspection if found necessary;
9. The proponent shall set-up an Environmental Unit (EU) or assign a Pollution Control Officer (PCO) who shall handle the environmental aspects of the project, which shall have the following responsibilities:
  - a. Monitoring requirements as defined under the EMP, Monitor actual project impact vis-à-vis predicted impacts and management measures in the EMP;
  - b. Make recommendations for the revision of the EMP as necessary;
  - c. Ensure that post-assessment permits are in place;
  - d. Ensure compliance to all the conditions and restrictions of the approved ECC and Ensure that monitoring and reporting are undertaken;
  - e. Submit environmental monitoring reports on semi-annual basis using the **ECC Compliance Monitoring Report (CMR), Module No. 05 of the SMR.**
  - f. Ensure that all relevant conditions of this Certificate and the EMPs shall be properly complied with by its commissioned contractors and shall be included in the Terms of Reference (TOR) of the contractors.



Environmental Compliance Certificate  
 IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
 AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
 Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
 KALAHI CIDDS NCDDP Tier-2



10. A 2' x 4' billboard containing this message: **"Notice to the Public, This project (title of the project) of (Name of the proponent) has been issued an Environmental Compliance Certificate (ECC Number) by the Environmental Management Bureau of the Department of Environment and Natural Resources, Region 6, on (date)."** This message must be installed at all entry and exit points and at all perimeters of the project facing the road to inform the general public within thirty (30) days from receipt of the certificate. A copy of the certificate shall also be posted by the Proponent at the barangay bulletin board of the affected barangays within thirty (30) days from receipt of the certificate. An accomplishment report which shall include picture verification of compliance to the posting of notices and the billboards shall be submitted to this Office within ninety (90) days from receipt of the ECC;

## II. RESTRICTIONS

The proponent is strictly subject to the following restrictions:

1. No other activities should be undertaken other than what was stipulated in the IEE Checklist document. Should there be an expansion of the project beyond the project description, construction of other structures beyond those stated in the submitted IEE Checklist document; or any change in the activity, shall be made subject to a new Environmental Impact Assessment;
2. The proponent shall direct the Contractor to secure a separate ECC for the batching plant in case it will be used as project component;
3. In case of transfer of ownership of this project, the same conditions and restrictions shall apply and the transferee shall be required to notify the EMB Regional Office concerned within fifteen (15) days as regards to the transfer of ownership;
4. In case of abandonment, the Proponent shall notify the EMB Regional Office concerned within three (3) months prior to the abandonment and the Proponent shall submit its abandonment mitigation plan;
5. This Certificate shall be considered automatically revoked if the project has not commenced within the period of five (5) years from the issuance thereof or if the ECC was not requested for extension within three (3) months from the expiration of its validity provided that no significant changes in land



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHI CIDDS NCDDP Tier-2



and resources uses have occurred in the project area or its vicinities to the extent that the impact assessment as embodied in the Environmental Management Plan (EMP) is no longer appropriate.

6. Any request/s for ECC amendments such as changes of ownership and/or modification should be in accordance with annex B of MC 2014-005;

## Annex B

### PROJECT ASSESSMENT PLANNING TOOL

For the assistance of the Proponent and the Government agencies concerned in the management of the Project and for better coordination in mitigation of the impacts of the Project on its surrounding areas and the environment, and by way of recommendation, forwarding these recommendations to the parties and authorities concerned for appropriate action.

<b>RECOMMENDATIONS TO CONCERNED GOVERNMENT AGENCIES</b>		<b>RESPONSIBLE AGENCY</b>
1	Consider Project's proper storm drainage canal, concrete culverts and other flood control measures needs to be provided to adequately receive and channel the increase in rain water run-off;	LGU concerned
2	Consider Project's construction shall conform to the existing rules and regulations of the National Building Code of the Philippines. Plans and design specifications shall be approved by Provincial Engineer's Office of Iloilo, to the project construction. All other plans and design specifications of facilities and amenities shall strictly conform to all applicable standards, rules and regulations such as Plumbing Code and other standards, rules and regulations applicable to this kind of undertaking;	LGU concerned
3	Consider Project's easement shall be provided from the river bank in case processing facilities or plant shall be installed along the periphery of the river with the following measurement; <ul style="list-style-type: none"> <li>a. Urban Areas - 3 meters</li> <li>b. Agricultural Areas - 20 meters</li> <li>c. Forest Areas - 40 meters</li> </ul>	LGU concerned
4	Consider Project's traffic management in the area affected in anticipation of the growth of traffic caused by the	LTO/LGU



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHI CIDDS NCDDP Tier-2

	project; Observance of traffic rules and regulation including observance of load limit	concerned
5	Consider Project's need for the provision of a segregation, collection, recycling, and disposal mechanism for solid waste;	LGU concerned
6	Consider Project's preference to local populace for employment provided that they met the required skill requirements. Laborers/workers shall be provided with safely paraphernalia such as mask, boots, etc. and in case of accident proper compensation shall be given to the affected parties;	DOLE
7	Consider Project's construction materials particularly sand and gravel (SAG) and other quarry materials shall be sourced only from legitimate operators, if sourced from a River, quarry permits shall be secured and an ECC if it warrants, including those of its construction support facilities such as crushing and batching plants (if there is any);	CaPENRO
8	Consider Project's regulation on occupational health and safety standards shall be complied with;	DOLE/LGU concerned
9	Consider Project's temporary sanitary toilet facilities should be provided to the constructions workers and any waste should be properly disposed so as not to cause nuisance to the immediate environment;	DOLE/DOH
10	Consider Project's compliance to the DENR no tree cutting policy and requiring the planting of trees in certain places and penalizing unauthorized cutting, destruction, damaging and injuring of trees, plants and vegetations of any kind as per P.D. 953 and compliance which prohibits/banned the cutting of mangroves per Section 71 of Republic Act No. 7161 "An act incorporating certain sections of the National Internal Revenue Code of 1997, as amended, to Presidential Decree No. 705, as amended, otherwise known as "The Revised Forestry Code of the Philippines," and providing amendments thereto by increasing the forest charges on timber and other forest products.. Permit to Cut shall be secured prior to cutting of trees in the area.	DENR-FMS



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHI CIDDS NCDDP Tier-2



**ENVIRONMENTAL PLANNING RECOMMENDATIONS**  
**FOR THE PROPONENT**

The following are recommendations for the Proponent for the protection of the project area and the affected environment. It is strongly recommended that the same be strictly complied by the proponents.

1. Permits from other government agencies shall be secured prior to project implementation;
2. Close monitoring of the project should be undertaken by the proponent to maintain a high level of safety and efficiency at all stages of project's implementation and to immediately address any environmental hazard/change that may take place;
3. That Management and Contingency Plan of the project for Road and Facility Spillage shall be in place and periodic seminars/drills among employees shall be undertaken;
4. Schedule noisy activities during daytime;
5. Make use of energy saving devices;
6. Donate collectible recyclables to the LGU;
7. Implementation of good housekeeping rules and regulations;
8. First aid facilities and services for staff and employees must be available on-site; and
9. Proponent shall provide copy of this approved ECC to the concerned government agencies as listed in the Project Assessment Planning Tool.



Environmental Compliance Certificate  
IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD  
AT BARANGAY'S LIBERTAD, KATIPUNAN & WRIGHT  
Barangay Libertad, Katipunan and Wright Tapaz, Capiz  
KALAHI CIDDS NCDDP Tier-2

## C. Environmental and Social Safeguard Checklist (ESSC)

### Environmental and Social Safeguards Checklist

Name of Subproject: **Improved Community Access through Upgrading of Barangay Road at Barangays Libertad, Katipunan and Wright**

Location: Wright, Tapaz, Capiz

Community Representative and Address: **Rowie Yesca  
Barangay Wright Tapaz, Capiz**

RPMO Representative and Address: **Liezl L. Marfil  
KALAHI-CIDSS OFFICE  
Dumarao, Capiz**

#### I. Subproject Screening:

- a. Has the subproject been screened against the list of ineligible activities (negative list)? If yes, proceed. If no, contact ACT to conduct screening. **YES**

#### II. Site Selection:

- a. When considering the location of a subproject, rate the sensitivity of the proposed site in the following table according to the given criteria. Higher ratings do not necessarily mean that a site is unsuitable. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social planning may be required to adequately avoid, mitigate or manage potential effects.

Issues	Site Sensitivity			Rating
	Low	Medium	High	
Natural Habitats	No natural habitats present of any kind	No critical natural habitats; other natural habitats occur	Critical natural habitats present. Within declared protected areas.	HIGH
Water quality and water resource availability and use	Water flows exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues.	Medium intensity of water use; multiple water users; water quality issues are important	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important	LOW
Natural hazards vulnerability, floods, soil stability/erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/flood risks	Medium slopes; some erosion potential; medium risks from volcanic/seismic flood/typhoons	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic seismic or flood risks.	LOW
Physical Cultural Property	No known or suspected physical cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in subproject area	LOW



Involuntary Resettlement	Low population density; dispersed population; legal tenure is well defined;	Medium population density; mixed ownership and land tenure;	High population density; major towns and villages; low income families and/or illegal ownership of land; communal properties.	LOW
Indigenous Peoples	No indigenous population	Dispersed and mixed indigenous populations; highly acculturated indigenous populations	Indigenous territories (CADT), reserves and /or lands; vulnerable indigenous populations.	HIGH

### III. Areas for Potential Environmental and Social Impact

		Yes	No
<b>A. Environment – Will the Subproject:</b>			
1	Risk the contamination of drinking water?		✓
2	Cause poor water drainage and increase the risk of water related diseases such as malaria, dengue and schistosomiasis		✓
3	Harvest or exploit a significant amount of natural resources such as trees, wood for fuel or water?		✓
4	Be located within or nearby environmentally sensitive areas, protected areas (e.g. intact natural forests, mangroves, wetlands or threatened species?)		✓
5	Create a risk of increased soil degradation or erosion?		✓
6	Create a risk of increasing soil salinity?		✓
7	Produce, or increase the production of solid wastes (e.g. water, medical/healthcare, domestic or construction wastes)?		✓
8	Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), or groundwater (e.g. wells)		✓
9	Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation?		✓
If the answer to any question from 1-9 is "Yes", please include an Environmental and Social Management Plan (ESMP) with the subproject application			
<b>B. Land Acquisition and access to resources – Will the Subproject:</b>			
10	Require that land (public or private) be acquired (temporarily or permanently) for its development?		✓
11	Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing, forests)		✓
12	Displace individuals, families, businesses?  Have any individuals, families, businesses been displaced up to 2 years prior		✓

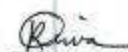


	to subproject enrolment?		
13	Result in the temporary or permanent loss of crops, fruit trees or household infrastructure such as crop storage facilities, outside toilets and kitchens		✓
14	Result in the involuntary restriction of access by people to legally designated parks and protected areas?		✓
If the answer to any of the questions 10 -14 is "Yes", please inform the RPMO and prepare appropriate documents required under the LARR Framework (see Annex G).			
<b>C. Indigenous People – Are there:</b>			
15	Any indigenous groups living within the boundaries of the barangay where the subproject will be located?	✓	
16	Resources (land, water, etc.) to be used for the subproject, over which the Indigenous People have prior claim?		✓
17	Members of these indigenous groups who would be affected (ie. benefit from, or be adversely affected) by the subproject?		✓
If any of the answers to questions 15 - 17 is "Yes" please inform the RPMO and if needed, prepare an Indigenous Peoples Plan (IPP). IPP will only be prepared if affected IPs are a minority in the area.			
<b>D. Pesticides and Agricultural Chemicals - Will the subproject:</b>			
18	Will the subproject increase agricultural productivity? This may happen when the subproject is an irrigation or water impounding activity.		✓
If the answer to Question 18 is "Yes" please inform the RPMO and coordinate with the Municipal Agricultural Officer of the LGU. Integrated Pest Management techniques should be promoted among the beneficiaries.			

#### CERTIFICATION

We certify that we have thoroughly examined all the potential adverse effects of this subproject. To the best of our knowledge, the subproject plan as described in the application and associated planning reports (e.g. ESMP, RAP, IPP), if any, will be adequate to avoid or minimize all adverse environmental and social impacts.

Community Representative

  
**Rebecca Chiva**  
PPT Chairman

PMO team representative

  
**Helen Farinas**  
CEF

Date: 6/28/17

## Environmental and Social Safeguards Checklist

Name of Subproject: **Improved Community Access through Upgrading of Barangay Road at Barangays Libertad, Katipunan and Wright**

Location: Libertad, Tapaz, Capi

Community Representative and Address: **Ruben S. Maderse  
Barangay Libertad Tapaz, Capi**

RPMO Representative and Address: **Liezl L. Marfil  
KALAHI-CIDSS OFFICE  
Dumarao, Capi**

**I. Subproject Screening:**

- a. Has the subproject been screened against the list of ineligible activities (negative list)? If yes, proceed. If no, contact ACT to conduct screening. **YES**

**II. Site Selection:**

- a. When considering the location of a subproject, rate the sensitivity of the proposed site in the following table according to the given criteria. Higher ratings do not necessarily mean that a site is unsuitable. They do indicate a real risk of causing undesirable adverse environmental and social effects, and that more substantial environmental and/or social planning may be required to adequately avoid, mitigate or manage potential effects.

Issues	Site Sensitivity			Rating
	Low	Medium	High	
Natural Habitats	No natural habitats present of any kind	No critical natural habitats; other natural habitats occur	Critical natural habitats present. Within declared protected areas.	HIGH
Water quality and water resource availability and use	Water flows exceed any existing demand; low intensity of water use; potential water use conflicts expected to be low; no potential water quality issues.	Medium intensity of water use; multiple water users; water quality issues are important	Intensive water use; multiple water users; potential for conflicts is high; water quality issues are important	LOW
Natural hazards vulnerability, floods, soil stability/erosion	Flat terrain; no potential stability/erosion problems; no known volcanic/seismic/flood risks	Medium slopes; some erosion potential; medium risks from volcanic/seismic flood/typhoons	Mountainous terrain; steep slopes; unstable soils; high erosion potential; volcanic seismic or flood risks.	LOW
Physical Cultural Property	No known or suspected physical cultural heritage sites	Suspected cultural heritage sites; known heritage sites in broader area of influence	Known heritage sites in subproject area	LOW



Involuntary Resettlement	Low population density; dispersed population; legal tenure is well defined;	Medium population density; mixed ownership and land tenure;	High population density; major towns and villages; low income families and/or illegal ownership of land; communal properties.	LOW
Indigenous Peoples	No indigenous population	Dispersed and mixed indigenous populations; highly acculturated indigenous populations	Indigenous territories (CADT), reserves and /or lands; vulnerable indigenous populations.	HIGH

### III. Areas for Potential Environmental and Social Impact


		Yes	No
<b>A. Environment – Will the Subproject:</b>			
1	Risk the contamination of drinking water?		✓
2	Cause poor water drainage and increase the risk of water related diseases such as malaria, dengue and schistosomiasis		✓
3	Harvest or exploit a significant amount of natural resources such as trees, wood for fuel or water?		✓
4	Be located within or nearby environmentally sensitive areas, protected areas (e.g. intact natural forests, mangroves, wetlands or threatened species?)		✓
5	Create a risk of increased soil degradation or erosion?		✓
6	Create a risk of increasing soil salinity?		✓
7	Produce, or increase the production of solid wastes (e.g. water, medical/healthcare, domestic or construction wastes)?		✓
8	Affect the quantity or quality of surface waters (e.g. rivers, streams, wetlands), or groundwater (e.g. wells)		✓
9	Result in the production of solid or liquid waste, or result in an increase in waste production, during construction or operation?		✓
<i>If the answer to any question from 1-9 is "Yes", please include an Environmental and Social Management Plan (ESMP) with the subproject application</i>			
<b>B. Land Acquisition and access to resources – Will the Subproject:</b>			
10	Require that land (public or private) be acquired (temporarily or permanently) for its development?		✓
11	Use land that is currently occupied or regularly used for productive purposes (e.g. gardening, farming, pasture, fishing, forests)		✓
12	Displace individuals, families, businesses?		✓
	Have any individuals, families, businesses been displaced up to 2 years prior		

	to subproject enrolment?		
13	Result in the temporary or permanent loss of crops, fruit trees or household infrastructure such as crop storage facilities, outside toilets and kitchens		✓
14	Result in the involuntary restriction of access by people to legally designated parks and protected areas?		✓
If the answer to any of the questions 10 -14 is "Yes", please inform the RPMO and prepare appropriate documents required under the LARR Framework (see Annex G).			
<b>C. Indigenous People – Are there:</b>			
15	Any indigenous groups living within the boundaries of the barangay where the subproject will be located?	✓	
16	Resources (land, water, etc.) to be used for the subproject, over which the Indigenous People have prior claim?		✓
17	Members of these indigenous groups who would be affected (ie. benefit from, or be adversely affected) by the subproject?		✓
If any of the answers to questions 15 - 17 is "Yes" please inform the RPMO and if needed, prepare an Indigenous Peoples Plan (IPP). IPP will only be prepared if affected IPs are a minority in the area.			
<b>D. Pesticides and Agricultural Chemicals - Will the subproject:</b>			
18	Will the subproject increase agricultural productivity? This may happen when the subproject is an irrigation or water impounding activity.		✓
If the answer to Question 18 is "Yes" please inform the RPMO and coordinate with the Municipal Agricultural Officer of the LGU. Integrated Pest Management techniques should be promoted among the beneficiaries.			

#### CERTIFICATION

We certify that we have thoroughly examined all the potential adverse effects of this subproject. To the best of our knowledge, the subproject plan as described in the application and associated planning reports (e.g. ESMP, RAP, IPP), if any, will be adequate to avoid or minimize all adverse environmental and social impacts.

Community Representative

  
**Jovlyn Libona**  
PPT Chairman

PMO team representative

  
**Helen Farinas**  
CEF

Date: 6/28/17



## D. Environmental and Social Management Plan (ESMP)-Local dialect

### Environmental and Social Management Plan (ESMP) and Mitigating Measures for Eligible Sub-projects under the KC-NCDDP

Subproject Title: **IMPROVED COMMUNITY ACCESS THROUGH UPGRADING OF BARANGAY ROAD AT BARANGAYS LIBERTAD, KATIPUNAN AND WRIGHT**

Barangay: **KATIPUNAN** Municipality: **TAPAZ** Province: **CAPIZ** Region: **VI**

#### Summary of Consultations with the IP Communities (Attachment to Indigenous People's Plan)

Date of Consultation(s)	Venue(s) of Consultation	Participants <sup>1</sup>	Number of Participants <sup>2</sup>	Topics Discussed	Issues and Questions Raised by Participants	Conclusions on Issues and Questions Raised
July 8, 2017	Katipunan mini gym	IP Community (Panay Bukidnon) from Barangays Katipunan, Libertad, Wright, Aglinab and San Miguel Ilaya (non IP Barangay)	117 (68 female 49 male) participants attended and 69 participants were IP (26 male, 43 female) composed of council of elders and chieftains and	1. Impact of KC:NCDDP Tier 2 process to the IP's community using ESMP AND ESSC forms 2. Selection of the lead Barangay 3. LCC to be provided by the cluster 3 4. Accomplishme	1. When to start the implementation of sub project 2. The IP community asked if they can work as labour during SPI	1. After the approval of NOL and RFR, implementation will immediately start. 2. Since the Barangay has presence of IP community, they can participate in the implementation of the identified sub-project 3. IP Communities will attend in every Barangay assembly or activities and will help in the implementation of

<sup>1</sup> For example, residents of the barangay, women, indigenous peoples, etc.

<sup>2</sup> For example, number of women, number of men, number of IP/ethnic groups attended in the consultation meeting

			community volunteers with barangay council	nts of IP plan with community volunteers 5. Commitment of IP's community to support KC:NCDDP TIER 2		the sub-project through Bayanihan as their commitment. 4. They will also support the program of KALAH-CIDSS: NCDDP TIER 2 by means of fairness, self-empowerment, transparency, time bound and accountability
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Prepared by:

**HELEN PARINAS**

Community Empowerment Facilitator

Date: 7/20/17

Reviewed by:

**MICHAEL J. ESTAYA**

Area Coordinator

7/20/17



**Environmental and Social Management Plan (ESMP) and Mitigating Measures  
for Eligible Sub-projects under the KC-NCDDP-2**

**(Barangay, KATIPUNAN, Municipality of Tapaz Province of Capiz, Region VI**

**Name of Sub-Project: Improved Community Access through Upgrading of Barangay Road at Barangays Libertad, Katipunan and Wright et, al**

**NOTE:** Summary of consultations (signed by community empowerment facilitator) must be attached with the following information for each consultation: (i) date of consultation; (ii) venues of consultation; (iii) who are the participants (for example: residents of the barangay, women, indigenous peoples, etc.), number of participants (number of women, number of men, number of members of ethnic minority/indigenous peoples); (iv) topics discussed; (v) issues and questions raised by participants; (v) conclusion on issues and questions raised

Potential Impacts	Mitigation/Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
<b>Phase 1: Planning, Development, and Pre-Implementation/Pre-Construction Phase</b>						
<b>1.1 In Compliance with: Govt. Policies on a) Program policies on participation of women, and Gender and Development, and; b) GOP: RA 9172 Women in Development and Nation Building;</b>						
1.1.1 Gamay nga porsyento sang mga kalalakihan ang gapartisipar kumparar sa kababaihan when it comes sa pagpili sang priority needs tungod maseko sila sa pagpanguma.	Gakinahanglan kag ginaganyat gid ang mga kalalakihan nga dapat magpartisipar kag magtambong gid sa community consultation agud may ara patas kag balance nga partisipasyon sa decision making	Activity minutes nga iga conduct halin 1 <sup>st</sup> Community consultation and series of implementation until done, attendance sheet, photo documents	MCT- CEF/BLGU	First Community Consultation to 6 <sup>th</sup> Community Consultation	N/A	Kinahanglan ma apply gid naton sa implementasyon ang gender equality.
<b>1.2 In compliance with RA 8371 Indigenous Peoples Rights Act (IPRA) and NCIP AO No. 3 series 2012, and WB and ADB safeguards policies on Indigenous Peoples</b>						
1.1.1 Ang mga presente nga IP nga amo ang Panay bukidnon sa Barangay Katipunan, Libertad, Wright kag Aglinab	Ang CEF nakipag angut sa Barangay Development Council kaupod ang mga	Activity minutes, attendance sheets, and photo documentation	MCT CEF and AC	First community consultation to 6 <sup>th</sup> Community Consultation	N/A	Tagaan priority ang aton mga IP tungod sila ang may pinakadaku

Example of the first page of the ESMP answered in the loca dialect or native language

## ESMP English Translation

### Environmental and Social Management Report (ESMR) and Mitigating Measures For Eligible Sub-projects under the KC-NCDDP

Name of Sub-Project: Improving Delivery of Basic Services through Construction of Barangay Access Road at Sitio Proper

(Barangay Katipunan, Municipality Tapaz, Province of CAPIZ, Region VI)

Potential Impacts	Mitigation/ Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
<b>Phase 1: Planning, Development, and Pre-Implementation/ Construction Phase</b>						
<b>1.1 In Compliance with: Govt. Policies on a) Program policies on participation of women, and Gender and Development, and; b) GOP: RA 9172 Women in Development and Nation Building:</b>						
<b>PLAN</b>						
1.1.1 Lesser number of men participating in identifying and selecting their priority needs compare to woman since they are busy in their farm activities.	- There is a need to encourage men to participate and to attend community consultation to have fair and equal participation in decision making	-Activity minutes of all activities from 1 <sup>st</sup> community consultation until implementation has done, attendance sheet, photo documents	MCT-CEF/BLGU	- First community consultation to 6 <sup>th</sup> community consultation	N/A	There is a need to apply gender equality during implementation.
<b>1.2 In compliance with RA 8371 Indigenous Peoples Rights Act (IPRA) and NCIP AO xxx series 2012, and WB and ADB safeguards policies on Indigenous People</b>						
1.2.1 The presence of IP of Panay Bukidnon in Barangay Katipunan, Libertad, Wright and Aglinab appeal to give them chance to be part of any barangay activities.  Lower percentage of IP participating in any activities of the barangays	Barangay officials, key leaders of IP members to gather for community consultation in order to discuss their issues and concerns so as to help, motivate and encourage them to participate in all barangay activities.  Conduct house visits and to coordinate with Pantawid partners as convergence strategy to motivate IP in participating in KC and other program intervention in the barangay, in order to for their voice to be heard	Activity minutes, attendance sheet, photo documents	MCT-CEF/BLGU	First community consultation to 6 <sup>th</sup> community consultation	N/A	To give priority to IP since they a bigger part in the implementation of the subproject
<b>1.3 In compliance with PD 1067 Water Code of the Philippines, regulations on easements, and guidelines on No build, No dwelling, and Multi-hazard risk</b>						



Potential Impacts	Mitigation/ Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
areas.	N/A	N/A	N/A	N/A	N/A	The project cannot cause harm
1.4 In compliance with RA 8974 and RA 7279; EO 1035 Acquisition of Private Property – Insert the water code and other relevant laws and regulations on easements, and latest issuances on	N/A	N/A	N/A	N/A	N/A	No household that will be affected since the project site is already an existing Barangay Road and the documents are complete.
The project site is identified as Barangay owned and it exists for more than 50 years. Relative to this, the barangay will not find it difficult to secure the requirements needed for the LARR and therefore the processing of the RFR will be easier since the issuance of certification is only at Barangay and MLGU level.	The barangay will secure certification from the Barangay Chairman and Municipal Assessor to prove that the project site for the road exist for more than 50 years including cadastral map	Cadastral Map, Barangay Certification and Municipal Assessor's Certification	MCT-CEF, BLGU and MLGU	First Community Consultation	N/A	
1.5 In compliance with PD 1144 Fertilizer and Pesticides Act, and ADB and WB regulations on the use of pesticides.	N/A	N/A	N/A	N/A	N/A	N/A.
1.6 In compliance with other relevant laws and regulations	MCT to continuously conduct the project development workshop on procurement for us to enhance their knowledge about procurement process for an effective implementation of the subproject.	Workshop result on PCPP and PPAP	MCT CEF and TF	Barangay PDW	BLGU LCC	To give importance on the workshop for the volunteers
1.1.1 The Barangay officials and Barangay community volunteers of Barangay Katipunon, Libertad, Wright, Aglinab and San Miguel Ilaya has enough knowledge in procurement process. Since the barangay officials and volunteers has the knowledge on the procurement process it would be easier for them during the procurement stage in identifying the standard and the substandard materials to be procured or to be delivered by the contractor even during the implementation						

Potential Impacts	Mitigation/ Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
<b>2.1 Physical Environment</b>						
The project site is far from the river hence it is not prone to landslide or it likely not to occur.	Materializing their long termed-dream for an easy access to bring their product in the market	SP technical specification and plans	MCT CEF & TF	SPI	C/o POW	It is convenient for them to bring their product in the town because of the road project.
<b>2.1.2 Water Quality/Hydrology</b> N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>2.1.3 Air Quality</b> It causes polluted air due to the motor emission which could harm people's health.	Provides warning device or warning sign or sprinkle water on project site to avoid dust or for laborer to wear face mask	Photo Documentation, warning devise, face mask	People in the community, BLGU, Laborers, MCT CEF	-During SPI	BLGU	Take extra care to avoid accident so as not harm our health.
<b>2.2 Biological Environment</b>						
No cutting of trees or vegetation of plants since the area is already an existing road	Preserve trees in our surroundings or in the project site and ensure not to cause destruction since trees is a great help in providing as a cool and humid temperature and to prevent soil erosion.	Photo Documentation	People in the community, BLGU, Laborers, MCT CEF	-During SPI	BLGU	Protect our plants and trees
<b>2.2.2 Wildlife</b> a.None	N/A	N/A	N/A	N/A	N/A	N/A
<b>2.2.3 Fisheries, Aquatic life</b> a.None	N/A	N/A	N/A	N/A	N/A	N/A
<b>2.3 Social Environment</b>						
<b>2.3.1 Participation of women in paid labor and implementation management</b> -Lesser percentage of woman participating in subproject implementation since they are busy attending household chores and their children	Encourage woman who has the capacity to participate in barangay activities through consultation with a group of woman. Letting them understand that what a man can do, woman can do it as well and by showing to them what they can do in the society aside from household chores and attending their child they can also provide for their need.	Actual Logbook and photographs ERS, and	BLGU, Technical working group, BSPMC and volunteers	Planning stage to SPI	BLGU	Apply gender equality and provide chance for woman to participate in all programs.



Potential Impacts	Mitigation/ Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
<b>2.3.2 IP participation in paid labor and implementation management</b> No IP (Panay Bukidnon) that would adversely affected by the subproject. The program is a big help to them since it will provide them additional income that will help them in their daily needs	There are IP who are skilled and unskilled workers	Actual Logbook and photographs	BLGU, Technical working group, BSPMC and volunteers	SPI	C/O POW	Prioritized IP since they have a great contribution in the implementation of the subproject.
<b>2.3.3 Safety in construction PLAN</b> Accident and physical injury cannot be avoided by the workers	In order to avoid accident in risky area Barangay Tanod to augment in guiding by passers or commuters.	Construction logbook and occupational safety and health program	MCT CEF, TF and contractors	-During the entire SPI	C/o POW	Strict reminders of laborers/ workers safety
<b>2.3.4 Access restriction PLAN</b> No household that will be adversely affected by the project implementation. However we cannot avoid difficulty in access especially in hauling their product on time of project implementation. The people are appealing especially the IP is to materialize the subproject through road concreting so that it would be easy for them to pass by.	To conduct meeting in order to inform the community on what to do during the implementation time. Reminding them to take extra precaution since the road are not yet in a good condition at this time and the product to be transported must be have a limit. Installation of warning device	-Photographs, and site visit, implementation plan	BLGU, volunteers, ACT/M CT staff	Daily Operations	-BLGU	The volunteers and barangay officials to give importance on how to mitigate the difficulty on access by community members during implementation.
<b>2.4 Other impacts</b> N/A	N/A	N/A	N/A	N/A	N/A	This is not applicable since there are no other issues that exist.
<b>Phase 3: Operation and Maintenance Phase</b>						
<b>3.1 Physical Environment</b>						
<b>3.1.1 Land</b> -If there are portion of the road that will be destroyed	Immediate repair of the destroyed part of the road.	Regular site visits, photographs, and O & M Plan	O & M group/BLGU/Community	After SP turn-over	C/o BLGU and O & M Plan	The O & M group must have a strong participation and active in maintaining

Potential Impacts	Mitigation/Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
later on it must be the O and M group that will be responsible for the repair in order to sustain the SP in its good condition and the SP must be maintained properly in order to prolong its functionality.	The project is located in three barangays which are Barangay Katipunan, Libertad and Wright wherein each barangay has their own O and M group to maintain the SP together with the Barangay Officials.					the SP. The O & M group will secure and monitor the sustainability of the SP.
3.1.2 Water Quality/Hydrology N/A	N/A	N/A	N/A	N/A	N/A	N/A
Actual N/A						
3.1.3 Air Quality N/A	N/A	N/A	N/A	N/A	N/A	This is not applicable since the project site is not within the bodies of water (sea)
<b>3.2 Biological Environment</b>						
3.2.1 Forest and plant life No more dust that would cause harm in people's health	The community must help each other for the maintenance and care of the SP.	Regular site visits, photographs, and O & M Plan	O & M group/BLGU/Community	During the start of the operation and maintenance of the road	BLGU	Active management of the O and M group and cooperation of the community.
3.2.2 Wildlife a. None	N/A	N/A	N/A	N/A	N/A	This is not applicable the site is not on forestal area and inhabited with wildlife
3.2.3 Fisheries, Aquatic life a. None	N/A	N/A	N/A	N/A	N/A	This is not applicable since the project site is not within the bodies of water (sea)
<b>3.3 Social Environment</b>						
<b>Participation of women in management of O&amp;M</b>						
The O and M group has a member of both of man and woman however there is no balance participation of woman and man in every activity of the O and M group. Lesser participation of woman compare to man during activities	Woman must involve in all activities in the maintenance of the SP, allowing them to show their capacity, that they can do what a man can do,	Attendance sheet & photo documentation	O&M group and photo documentation	After SP turn-over	O & M allocation	Apply gender equality in this program

Potential Impacts	Mitigation/ Enhancement Measures	Monitoring Parameter	Responsible Entity	Implementation Schedule	Cost and Source of Funds	Remarks
3.3.2 IP participation in management of O&M a.Lack of knowledge or idea in doing the O and M plan.	The IP ( Panay Bukidnon) volunteers needs training and technical assistance capability building activities regarding O and M	O & M of Officers/members, and O and M plan	O & M group/BLGU/ Community	After SP turn-over	O & M allocation	The knowledge of the community must be enhanced especially the IP community.
1.3.3 Participation of Households affected by involuntary resettlement in O & M.	Encourage IP members (Panay Bukidnon) to participate in the O and M.				BLGU	Give chance to our IP to participate in the activities related to the project because they have a great involvement in implementation of the program
No household that will be affected in the implementation of the project						
3.3.3 Access and/or use restriction	Conduct of consultation meeting with the council of elders, chieftains, and IP community to ensure that their human rights is not violated	IP resolution, Minutes of meeting, photo documentation, attendance sheet	MCT CEF, BLGU, Tribal chieftains, council of elders, IPs'	Before implementation of SP	N/A	We really need to consult the council of elders to ensure that they will not opposed in the implementation of the SP.
Lifestyle and customary belief of the IP (Panay Bukidnon) is not adversely affected.						
2.3.4 Induced activities with negative cumulative effects	There is a need to provide appropriate road signs	Installation and presence of road signs	O & M group/BLGU/ Community	After SP turn-over	BLGU community	Installation of road sign is a must to avoid road accident
Vehicular accident is the most occurrences due to lack of signage installed.						
3.4 Other impacts						
N/A	N/A	N/A	N/A	N/A	N/A	N/A
<b>Phase 4: Abandonment Phase</b>						
If the LGU will not allocate fund for the O and M	Capacitated O & M group to facilitate generation of resources to implement other means for the O and M	Photographs	BLGU	If the SP is destroyed	BLGU	BLGU to be active and to provide fund.

Prepared by: \_\_\_\_\_