

# **Annexes**

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# **ANNEX 1**

## **Initial Environmental Examination**





# Draft Initial Environmental Examination

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May 2020

## Philippines: Water District Development Sector Project

MANOLO FORTICH WATER DISTRICT

Prepared by Manolo Fortich Water District for the Local Water Utilities Administration  
and the Asian Development Bank.





## CURRENCY EQUIVALENTS

(as of 20 March 2020)

Currency unit	–	peso (Php)
Php1.00	=	\$0.01955
\$1.00	=	Php 51.15

## ABBREVIATIONS

ADB	–	Asian Development Bank
APs	–	Affected Persons
AWWA	–	American Water Works Association
BMB	–	Biodiversity Management Bureau
CBMF	–	Community Based Management Forest
CCC	–	Climate Change Commission
CEMP	–	Contractor's Environmental Management Plan
CNC	–	Certificate of Non- Coverage
DAO	–	Department Administrative Order
DENR	–	Department of Environment and Natural Resources
DOH	–	Department of Health
ECA	–	Environmentally Critical Areas
ECC	–	Environmental Compliance Certificate
EHS	–	Environmental, Health and Safety
EIA	–	Environmental Impact Assessment
EMB	–	Environmental Management Bureau
EMB-RO	–	Environmental Management Bureau–Regional Office
EMP	–	Environmental Management Plan
GIIP	–	Good International Industry Practice
GOCC	–	Government Owned and Controlled Corporation
GRM	–	Grievance Redress Mechanism
IEE	–	Initial Environmental Examination
IFC	–	International Finance Corporation
KBA	–	Key Biodiversity Area
LGUs	–	Local Government Units
LWUA	–	Local Water Utilities Administration
MANP	–	Mount Apo Natural Park
MC	–	Memorandum Circular
MFWD	–	Manolo Fortich Water District
MOA	–	Memorandum of Agreement
NAAQGV	–	National Ambient Air Quality Guideline Values
NCIP	–	National Commission on Indigenous Peoples
NIPAS	–	National Integrated Protected Areas System
NRW	–	Non-Revenue Water
NSCP	–	National Structural Code of the Philippines
NWRB	–	National Water Resources
PAGASA	–	Philippine Atmospheric, Geophysical and Astronomical Services Administration
PAMB	–	Protected Area Management Board
PD	–	Presidential Decree
PEISS	–	Philippine Environmental Impact Statement System
PIU	–	Project Implementation Unit
PMU	–	Project Management Unit
PNSDW	–	Philippine National Standards for Drinking Water
PPC	–	Price and Physical Contingency
PPE	–	Personal Protective Equipment
PTO	–	Permit to Operate
RA	–	Republic Act



REA	–	Rapid Environmental Assessment
SDGs	–	Sustainable Development Goals
SPS	–	Safeguard Policy Statement
TSP	–	Total Suspended Particulates
UNDP	–	United Nations Development Program
WD	–	Water District
WDDSP	–	Water District Development Sector Project
WDGRC	–	Water District Grievance Redress Committee

## **WEIGHTS AND MEASURES**

ha	Hectare
Hp	Horsepower
km	Kilometer
km <sup>2</sup>	Square kilometer
Lps	Liters per second
lm	Meter
m	Meter
m <sup>2</sup>	Square meter
m <sup>3</sup>	Cubic meter
mamsl	Meters above mean sea level
mm	Millimeter

### **NOTE**

In this report, “\$” refers to US dollars

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## EXECUTIVE SUMMARY

1. *Introduction.* Manolo Fortich Water District (MFWD) is an operational water supply utility located in Bukidnon, Republic of the Philippines and one of the selected subprojects under the PHI: Water District Development Sector Project (WDDSP) funded by the Asian Development Bank (ADB). The project intends to improve the livability and competitiveness in urban areas outside Metro Manila through the provision of better water supply and sanitation infrastructure and services to a number of water districts (WDs). The Local Water Utilities Administration (LWUA) is the executing agency. The participating WDs, in this case MFWD, are the implementing agencies for water supply and sanitation subprojects.

2. *Subproject Description.* The proposed subprojects aims to improve/upgrade the MFWD water supply system to address the present demand for a potable water and alleviate the shortage of water. MFWD Water Supply Improvement Project includes source development, treatment facilities, pipelines and appurtenances and lot acquisition. Details of each component is discussed under Section 3 Description of the Project. The project estimated cost is Php 150,000,000.

3. *Environmental Safeguard.* All ADB funded project are required to strictly comply with Philippine government's environmental laws and requirements as well as ADB's Safeguard Policy Statement of 2009 (SPS). MFWD was assessed under Category B that deemed by ADB to have some adverse environmental impacts, but of lesser degree or significance. Preparation of Initial Environmental Examination (IEE) report and securing ECC were required to prevent the possible adverse environmental and public health impact.

4. *Legal Framework.* The policy, legal, and administrative frameworks relevant to the environmental assessment of water supply and sanitation projects in the Philippines have long been established by the following laws and regulations: (i) Presidential Decree (PD) 198- Provincial Water Utilities Act of 1973, (ii) PD 1586 – Establishing the Philippine Environmental Impact Statement System, (iii) DOH AO 2017-010 – Philippine National Standards for Drinking Water (PNSDW) of 2017, (iv) PD 1067 – Water Code of the Philippines, (v) PD 856 – Code on Sanitation of the Philippines, (vi) Republic Act (RA) No. 9275 - Philippine Clean Water Act of 2004, (vii) DENR AO 2016-08 – Water Quality Guidelines and General Effluent Standards of 2016, (viii) PD 705 – Forestry Reform Code of the Philippines; and (ix) RA 11058 – Occupational Safety and Health Standards,

5. *Environmental and Socioeconomic Conditions.* Project implementation does not pose a significant environmental threat. The municipality has three (3) major river systems crisscrossing the upstream and downstream agricultural lands. Mt. Kitanglad Range Protected Area Act of 2000 (RA 8978) established the Mt. Kitanglad Range (MKR) as a protected area which straddles parts of the municipalities of Baungon, Talakag, Lantapan, Impasugong, Sumilao, Libona, and Manolo Fortich and the city of Malaybalay. Based on a 2017 data from the Climate Change Commission (CCC), Manolo Fortich is one of the areas in the Philippines most vulnerable to drought and are experiencing seasonal aridity and recurrent droughts.

6. Manolo Fortich is first class Municipality of the Province of Bukidnon. It has a total land area of 506.64 square kilometers encompassing 22 barangays. The population of Manolo Fortich is around 100,210 according to the Philippine Statistics Authority (PSA) 2015 census with a population density of around 240 inhabitants per km<sup>2</sup>. Manolo Fortich population represents 7.08% of the total population of Bukidnon Province.

7. *Impacts and EMP.* Anticipated impacts to be considered were assessed through the following activities: (i) gathering of inputs from interested and affected parties; (ii) desk research



of information relevant to the proposed project; (iii) site visit and professional assessment; and (iv) evaluation of proposed design and potential impacts. Categorization of the project and formulation of mitigation measures have been guided by ADB's REA Checklist for Water Supply and SPS. Results of the environmental impacts screening shows that the impact types and magnitudes for both positive and negative impacts without the mitigating measures and the resulting situations when mitigating measures will be implemented.

8. During pre-construction phase, potential nuisances and problems to the public during construction shall be addressed by inclusion in the tender documents of specific provisions addressing these issues. There are no known archaeological and cultural assets in these proposed sites. Nevertheless, precautions will be taken to avoid potential damage to any archaeological and cultural assets by inclusion of provisions in tender and construction documents requiring the contractors to immediately stop excavation activities and promptly inform the authorities if archaeological and cultural assets are discovered.

9. The proposed project will not entail any involuntary resettlement and there are no adverse impacts on surrounding structures since the location of proposed project components will be acquired via negotiated settlement.

10. Adverse environmental impacts during construction are temporary, less than significant and can easily be mitigated. There will be no massive construction activities that can damage the environment. Typical construction issues are manageable with the implementation of environmental management plan for (i) erosion and sediment runoff, (ii) noise and dust, (iii) vehicular traffic, (iv) construction wastes, (v) oil and fuel spillages, (vi) construction camps, and (vii) public safety and convenience.

11. Environmental problems due to operation of the proposed water supply can be avoided by incorporating the necessary measures in the design and use of appropriate operational procedures. MFWD shall ensure that the potable water consistently passes the requirements of the Philippine National Standards for Drinking Water (PNSDW) of 2017. To achieve this, implementation of the water safety plan with regular water quality monitoring shall be undertaken.

12. An Environmental Management Plan (EMP) is developed to effectively manage the environmental issues. This includes: (i) mitigating measures to be implemented, (ii) required monitoring associated with the mitigating measures, and (iii) implementation arrangement. Institutional set-up is presented in the implementation arrangement and discusses the roles during implementation and the required monitoring. It also outlines the requirements and responsibilities during pre-construction, construction, and operation phases.

13. *Public Consultation and Information Disclosure.* A stakeholder consultation and participation were implemented as part of the preparation and implementation strategy. This were done to address the stakeholders' needs and disclosure of the project details and the benefits they shall receive. The consultation process during the project preparation has solicited inputs from a wide range of stakeholders, including government officials, residents in the vicinity of the subproject sites, marginalized/vulnerable beneficiary groups, and project affected persons (APs). The proponent has conducted several public consultations in Brgys. Dahilayan and Mampayag on November 2019.

14. *Grievance Redress Mechanism.* Following discussions during the Due Diligence Report (DDR) mission, it was agreed to integrate the ADB required grievance redress mechanism (GRM) into the current consumer feedback measures that are already implemented and are well established. The DDR mission observed a publicly displayed customer charter and system to record issues with water supply, billing and complaints. The established GRM at the MFWD



will receive, evaluate, and facilitate the resolution of affected persons (APs) concerns, complaints, and grievances about the social and environmental performance related to the various subprojects. The GRM will aim to provide a time-bound and transparent mechanism to voice and resolve social and environmental concerns linked to the subproject. This mechanism shall be disclosed in public consultations during detailed design and in meetings during the construction phase.

15. Records will be kept by the MFWD-PIU of all grievances received, including contact details of complainant, date the complaint was received, nature of grievance, agreed corrective actions and the date these were in effect, and final outcome. All costs involved in resolving the complaints (meetings, consultations, communication, and information dissemination) will be borne by MFWD. Complaints about environmental performance of projects issued an Environmental Certificate of Compliance (ECC) can also be brought to the attention of DENR-EMB. The process of handling such complaints is described in the Revised Procedural Manual (2007) for the IRR of PD 1586.

16. *Conclusion and Recommendations.* MFWD's water supply subproject will benefit the general public by contributing to the long-term improvement in the water supply system of the project coverage area and providing safe drinking water to residents and commercial establishments in the municipality. The potential adverse environmental impacts are primarily associated with the construction period, which can be minimized through mitigating measures and environmentally sound engineering and construction practices.

17. With the implementation of the mitigation measures as proposed in the EMP, the subproject is not expected to cause irreversible adverse environment impacts. Also, the water supply subproject can be implemented in an environmentally acceptable manner without the need for further environmental assessment study, except for the conduct of a public consultations for compliance and further input. Should there be any significant change in the project scope, an updated or a new IEE will be prepared.

18. The proposed MFWD subproject is hereby recommended for implementation with the following requirements to be strictly followed: (i) Tendering process shall ensure environmentally responsible procurement by requiring the inclusion of EMP provisions in the bidding and construction contract documents; (ii) Contractor's submittal of a CEMP which shall be included in the construction contract; (iii) Contract provisions on creation and operation of the WDGRC shall be included in construction contracts; (iv) LWUA, with its regulatory function, shall ensure that capability building for MFWD shall be pursued; and (v) MFWD shall continue the process of public consultation and information disclosure during detailed design and construction phases.



## 1 INTRODUCTION

Manolo Fortich Water District (MFWD) is a government owned and controlled corporation. It was formed on July 7, 1988 through the Sangguniang Bayan Resolution No. 48, series of 1988. Subsequently, it was issued Conditional Certificate of Conformance (CCC) No. 401 by the Local Water Utilities Administration (LWUA) in 1989.

The present service area covers 11 of the total 22 barangays of Manolo Fortich, and two adjoining areas of Brgy. Balubal and upper Puerto which are under the jurisdiction of Cagayan de Oro City.

The proposed project aims to provide additional water source which will increase the average day water production by 97 liters per second (Lps). Through this project, MFWD will be able to serve up to 70% of the municipal population.

Upon the completion of the proposed project, a projected additional service connection of 7,337 is expected by the year 2029.

The project can contribute to the Philippines' efforts in achieving the Sustainable Development Goals (SDGs) given by the United Nations Development Program (UNDP), specifically the SDG No. 6, which is the "Clean Water and Sanitation". The project shall address the increasing water demand of the municipality while balancing out the climate change affects that is observed, though increasing the community's resilience.

This is part of the Water District Development Sector Project (WDDSP) which is funded by the Asian Development Bank (ADB). All ADB-funded projects are required to comply with the Philippine government's environmental laws and requirements as well as ADB's Safeguard Policy Statement of 2009 (SPS). A preliminary environmental assessment using ADB's Rapid Environmental Assessment (REA) Checklist for Water Supply (Annex 1) was employed and this project is classified environment Category B and warrants the preparation of this Initial Environmental Examination (IEE) Report. Under the Philippine Environmental Impact Statement System (PEISS), an online Environmental Compliance Certificate (ECC) application is required for water supply projects with water source, treatment facilities, and Level III distribution system. The MFWD have already completed all the documentary requirements for the acquisition of the ECC for the online ECC application. Construction will not be started until the ECC has been obtained.

The SPS of 2009 integrates the three operational safeguard policies of ADB on the environment, involuntary resettlement, and indigenous peoples, into a unified policy framework. ADB shall work with borrowers to implement the provisions of this policy framework in the form of project review and supervision, and capacity development support. The SPS also promotes participation of project-affected people and key stakeholders in project design and implementation.

The provisions of the ADB SPS of 2009 were carefully observed during the preparation of this report. This IEE Report is prepared to meet the following objectives:

- (i) Provide a clear description of the proposed projects and all its components;
- (ii) To present the national and local legal and institutional framework within which the environmental assessment has been carried out;
- (iii) To provide information on the existing geographic, ecological, environmental, and social conditions, within the project's area of influence;



- (iv) To assess the project's likely positive and negative direct and indirect impacts on physical, biological, socioeconomic, and physical cultural resources in the project's area of influence;
- (v) To present the set of mitigation measures to be undertaken to avoid, reduce, mitigate, and manage adverse environmental impacts;
- (vi) To describe the process undertaken during project design to engage stakeholders, the planned information disclosure measures, and the process for carrying out consultation with affected people and facilitating their participation during project implementation;
- (vii) To describe the project's grievance redress mechanism for resolving project-related complaints;
- (viii) To describe the monitoring measures and reporting procedures to ensure early detection of conditions that necessitate particular mitigation measures; and
- (ix) To identify who is responsible for carrying out the mitigation and monitoring measures.

The development of this IEE is based on several field visits, review of secondary data, consultation with the Local Government Units (LGUs), officials of MFWD, and the stakeholders from the community.

## 2 POLICY, LEGAL, AND ADMINISTRATIVE FRAMEWORK

The ADB, in its operations, requires the consideration of environmental issues in all aspects. The requirement of having an environmental assessment in all of ADB's project loans, program loans, sector loans, sector development program loans, loans involving financial intermediaries, and private sector loans is stated in the SPS.

**Screening and categorization.** Categorization is to be undertaken using Rapid Environmental Assessment (REA). REA is sector-specific checklist that consist of questions relating to (i) the sensitivity and vulnerability of environmental resources in project area, and (ii) the potential for the project to cause significant adverse environmental impacts.

Projects are screened to identify their expected environmental impacts which are related to the type and location of the project; the sensitivity, scale, nature, and magnitude of its potential impacts; and the availability of cost-effective mitigation measures. This will determine the category of environmental assessment required for the project. Projects are categorized in the following four (4) categories:

- (i) Category A. Projects could have significant adverse environmental impacts. An environmental impact assessment (EIA) is required to address significant impacts.
- (ii) Category B. Projects could have some adverse environmental impacts, but of lesser degree or significance than those in Category A. An IEE is required to determine whether significant environmental impacts warranting an EIA are likely. If an EIA is not needed, the IEE is regarded as the final environmental assessment report.
- (iii) Category C. Projects are unlikely to have adverse environmental impacts. No EIA or IEE is required, although environmental implications are reviewed.



- (iv) Category FI. Projects involve a credit line through a financial intermediary or an equity investment in a financial intermediary. The financial intermediary must apply an environmental management system, unless all projects will result in insignificant impacts.

**Environmental Management Plan (EMP).** Identification of potential impacts and risks along with the mitigating measures through environmental assessment must be carried out. The level of detail and complexity of the EMP and the priority of the identified measures and actions will be commensurate with the project's impact and risks.

**Public disclosure.** In order for the affected people, other stakeholders, and the general public to provide inputs to further improve the project's design and implementation, the ADB shall post in their website the following documents:

- (i) for Environmental Category A projects, a draft EIA report at least 120 days before Board consideration;
- (ii) final or updated EIA and/or IEE upon receipt; and (iii) environmental monitoring reports submitted by the project management unit (PMU) during project implementation upon receipt.

**International Guidelines.** The International Finance Corporation (IFC) established an Environmental, Health, and Safety (EHS) Guidelines with general and industry-specific examples of Good International Industry Practice (GIIP). In line with this, all ADB-funded projects must adopt the IFC-EHS Noise Guidelines.

Under the noise management section are noise prevention and mitigation measures, noise level guidelines, and noise monitoring. MFWD must closely observe the IFC-EHS Noise Guidelines during the construction phase.

**National Laws.** The policy, legal, and administrative frameworks relevant to the environmental assessment of water supply and sanitation projects in the Philippines have long been established by the following laws and regulations:

- (i) Presidential Decree (PD) 198 – Provincial Water Utilities Act of 1973;
- (ii) PD 1586 – Philippine Environmental Impact Statement System;
- (iii) RA 8978 – Mt. Kitanglad Range Protected Area Act of 2000;
- (iv) Department of Health (DOH) Administrative Order 2017-010 – Philippine National Standards for Drinking Water (PNSDW) of 2017;
- (v) PD 1067 – Water Code of the Philippines;
- (vi) PD 856 - Code on Sanitation of the Philippines;
- (vii) Republic Act (RA) 9275 – Philippine Clean Water Act of 2004;
- (viii) Department of Environment and Natural Resources (DENR) Administrative Order 2016-08 – Water Quality Guidelines and General Effluent Standards of 2016;
- (ix) PD 705 – Forestry Reform Code of the Philippines; and
- (x) RA 11058 – Occupational Safety and Health Standards

The overall institutional framework is found in PD 198 PD 198 (Provincial Water Utilities Act of 1973). PD 198 indicates that the LWUA and WD setup as defined by LWUA, is mandated to promote the development of WDs in the country as a government corporation. It is mandated to “primarily be a specialized lending institution for the promotion, development, and financing of local water utilities.” In order to carry out the said mandate, the LWUA has major subsidiary roles such as:



- (i) prescribing minimum standards and regulations in order to assure acceptable standards of construction materials and supplies, maintenance, operation, personnel training, accounting, and fiscal practices for local water utilities; and
- (ii) providing technical assistance and personnel training programs.

The formation of local WDs is also mandated in the PD 198. These WDs were initially mandated to serve a single LGU or a cluster of LGUs by resolutions of the Local LGUs. These WDs, once formed becomes a legally autonomous body of the LGU. A board of directors, consisting of five (5) members representing different sectors that are appointed by either the mayor or the governor shall control the WD. The board of directors shall appoint the WD's general manager.

LWUA is the executing agency under the project, while WDs, like PWD, are the executing agencies for their respective subprojects. LWUA is responsible for the overall coordination, implementation and liaison of the project with ADB and other government offices.

PD 1586 (Philippine Environmental Impact Statement System (PEISS)) and its implementing rules and regulation under the DENR Administrative Order No. 30 of 2003 (DAO 2003-30) cover the environmental assessment provision. The PEISS allows the project manager to receive an Environmental Compliance Certificate (ECC) from the Environmental Management Bureau (EMB) prior to the introduction of an infrastructure or development project. Under ADB's Special Assessment Report on Environmental Safeguards (2006), the Philippine environmental assessment program complies with the environmental assessment criteria of ADB.

RA 8978 otherwise known as Mt. Kitanglad Range Protected Area Act of 2000 established the Mt. Kitanglad Range Protected Area in the Province of Bukidnon with a total area of 47,270 hectares (ha).

According to Section 12 of the RA 11038 or the Expanded NIPAS Act, a clearance from Protected Area Management Board (PAMB) shall be acquired before issuing an ECC to a project proponent.

To ensure that the quality of the water supplies are kept on a level that is suitable for human consumption, DOH Administrative Order 2017-010 (DAO 2017-010) or the Philippine National Standards for Drinking Water (PNSDW) of 2017 which prescribes the standard quality for drinking waters was issued as guide for government and private developers and operators, bulk water suppliers, water refilling station operators and other drinking-water providers. The established threshold of each water quality parameter in the PNSDW of 2017 will ensure the safety of drinking water and protect the public health.

Appropriation and utilization of waters for various purposes shall be governed by PD 1067 or the Water Code of the Philippines and its amended Implementing Rules and Regulations (IRR). The National Water Resources Board (NWRB) shall administer and enforce the provisions thereof.

Pursuant to RA 9275 or the Philippine Clean Water Act of 2004, DENR Administrative Order No. 08 series of 2016 or the Water Quality Guidelines and General Effluent Standards of 2016, defines the standards for the discharge of all industrial and municipal wastewater while PD 856 (Philippine Sewage Code) also includes sewage and septic tanks. To ensure the compliance of the facility with the specified effluent requirements, the project applicant must obtain a discharge permit from the EMB-RO.



During site preparation, when trees (timber or other forest products) are to be removed, a tree cutting permit shall be obtained as stipulated in PD 705 or the Forestry Reform Code of the Philippines.

As a member of the International Labor Organization (ILO), the Department of Labor and Employment (DOLE) developed an Occupational Safety and Health Hazard Standards that is in line with international labor standards To ensure a safe and healthful workplace for all the workforce and protection against all hazards in their work environment, adherence to the DOLE Occupational Safety and Health Hazard Standards must be followed, with emphasis on the following:

- (i) Personal Protective Equipment (PPE-Rule 1040) which specify the use and types of eye and face protection, respiratory protection, hand and arm protection, safety belt life lines and safety nets and safety shoes;
- (ii) Personal Protective Equipment, and minimum space requirement for gas, electric welding and cutting operations (Rule 1100);
- (iii) Fire protection and control rule (Rule 1940);
- (iv) Notification and record keeping requirements (Rule 1050);
- (v) Mandatory provisions of a safety program for local Contactors in line with overall safety program of the Proponent; and
- (vi) Effective preparedness program against accidents and untoward incidents through ready medical assistance as well as early detection, warning and response measures.

**Table 2-1** presents the summary of environmental regulations and mandatory requirements for the proposed subproject.

**Table 2-1: Summary of Environmental Regulations and Mandatory Requirements for the Proposed Subproject**

LaWS, Rules and Regulations	Description/Salient Features	Permit/Clearance	Required for the Project
PD 1586 and its implementing rules and regulations	Requires project proponents to secure ECC from the DENR before an infrastructure project is constructed. DAO 03-30 provides the implementing rules and regulations for PD 1586 and the Revised Procedural Manual of DAO 03-30 integrates DENR policies to promote EIA as a planning and decision-making tool. DENR MC No. 2011-005 further streamlined the PEISS.	ECC for proposed projects under the EIS system or Certificate of Non- Coverage (CNC) for proposed projects not covered by the system.	An online ECC application is required for water supply projects with water source, treatment facilities, and Level III distribution system in order to secure an ECC.
Water Code of the Philippines (PD 1067) and its amended implementing rules and regulations	Establishes the principles for appropriation, control and conservation of water resources in the country and defines the rights and obligations of water users.	Water Permit and Permit to Drill from NWRB	Water Permit was granted to MFWD (See <b>Annex 8</b> )
RA 11038 and RA 8978	Declares the protected area and provides for their management. Both designated the Protected Area Management Board (PAMB)	PAMB Clearance	Clearance from PAMB and CENRO was approved (See <b>Annex 7</b> )



Laws, Rules and Regulations	Description/Salient Features	Permit/Clearance	Required for the Project
	as the highest policy-making body		
IFC-EHS Noise Guidelines	Provides measures on noise prevention and mitigation measures, noise level guidelines, and noise monitoring.	None	To be implemented during construction period.
(DOLE Occupational Safety and Health Hazard Standards	Ensures a safe and healthful workplace for all the workforce and protection against all hazards in their work environment	None	To be implemented during construction and operation period.
DAO 2017-010 or the PNSDW of 2017	Prescribes the standard quality for drinking waters as guide for government and private developers and operators, bulk water suppliers, water refilling station operators and other drinking-water providers. The established threshold of each water quality parameter in the PNSDW of 2017 will ensure the safety of drinking water and protect the public health.	None	Periodic reports shall be submitted to DOH during the operation period.

**Local Laws.** The legal administrative framework relevant to creating the MFWD is the Sangguniang Bayan Resolution No. 48, series of 1988.

### 3 DESCRIPTION OF THE PROJECT

#### A. Existing Situation of Manolo Fortich Water District's Water Supply and Resources

The MFWD basically has two separate water systems: the Damilag System (System I) and the Poblacion System (System II).

**Table 3-1: Water Sources of System 1**

Water Sources		Type	Capacity (Lps)	Pumped/ Gravity
1	Artajo	Deepwell	1.26	Pumped
2	Balamban 1	Spring	5.05	Gravity
3	Balamban 2	Spring	1.58	Pumped
4	Bayabason 1	Spring	9.47	Pumped
5	Bayabason 2	Spring	11.36	Pumped
6	Belen Homes	Deepwell	1.58	Pumped
7	Miranda	Deepwell	10.1	Pumped
8	PCH – 1	Deepwell	5.68	Pumped
9	PCH – 2	Deepwell	3.16	Pumped
10	Tagbalula	Spring	7.24	Pumped
11	Kisabong	Spring	10.1	Pumped

Source: MFWD, Water Supply Conceptual Design



**Table 3-2: Water Sources of System 2**

Water Sources		Type	Capacity (Lps)	Pumped/ Gravity
1	Kihare 1	Deepwell	4.42	Pumped
2	Kihare 2	Deepwell	14.42	Pumped
3	Mulberry	Deepwell	3.79	Pumped
4	Dicklum 1	Spring	3.16	Gravity
5	Dicklum 2	Spring	3.47	Gravity
6	Dicklum 3	Spring	3.84	Gravity
7	Mangima	Spring	9.47	Pumped
8	Lingion	Spring	1.58	Pumped
9	Cristan Villa	Deepwell	1.89	Pumped

Source: MFWD, Water Supply Conceptual Design

The existing water system facilities of the WD include ten (10) spring intake structures seven of which have pumping equipment, ten (10) deepwell pumping stations, nine (9) reservoirs with a total capacity of 1535 m<sup>3</sup>, and about 122.83 km of transmission and distribution pipelines with sizes ranging from 50 mm to 200 mm in diameter (dia).

**Table 3-3: Reservoirs of System 1**

Water Sources		Type	Capacity m <sup>3</sup>	Elevation m
1	Balamban 1	Agusan Canyon Concrete Ground Reservoir	50	702
2	Balamban 2			
3	Miranda Kisabong	Gamboa Elevated Steel Tank	200	621
4	Bayabason 1	Elevated Steel Tank	300	589
5	Bayabason 2	Concrete Ground Reservoir	200	589
	PCH – 1	Elevated Steel Tank	50	571
6	Belen Homes	Elevated Steel Tank	50	550
7	PCH – 2	Elevated Steel Tank	50	517
8	Artajo	Elevated Steel Tank	50	419
9	Tagbalula	Mantibugao Concrete Ground Reservoir	100	416
<b>TOTAL</b>			<b>1050</b>	

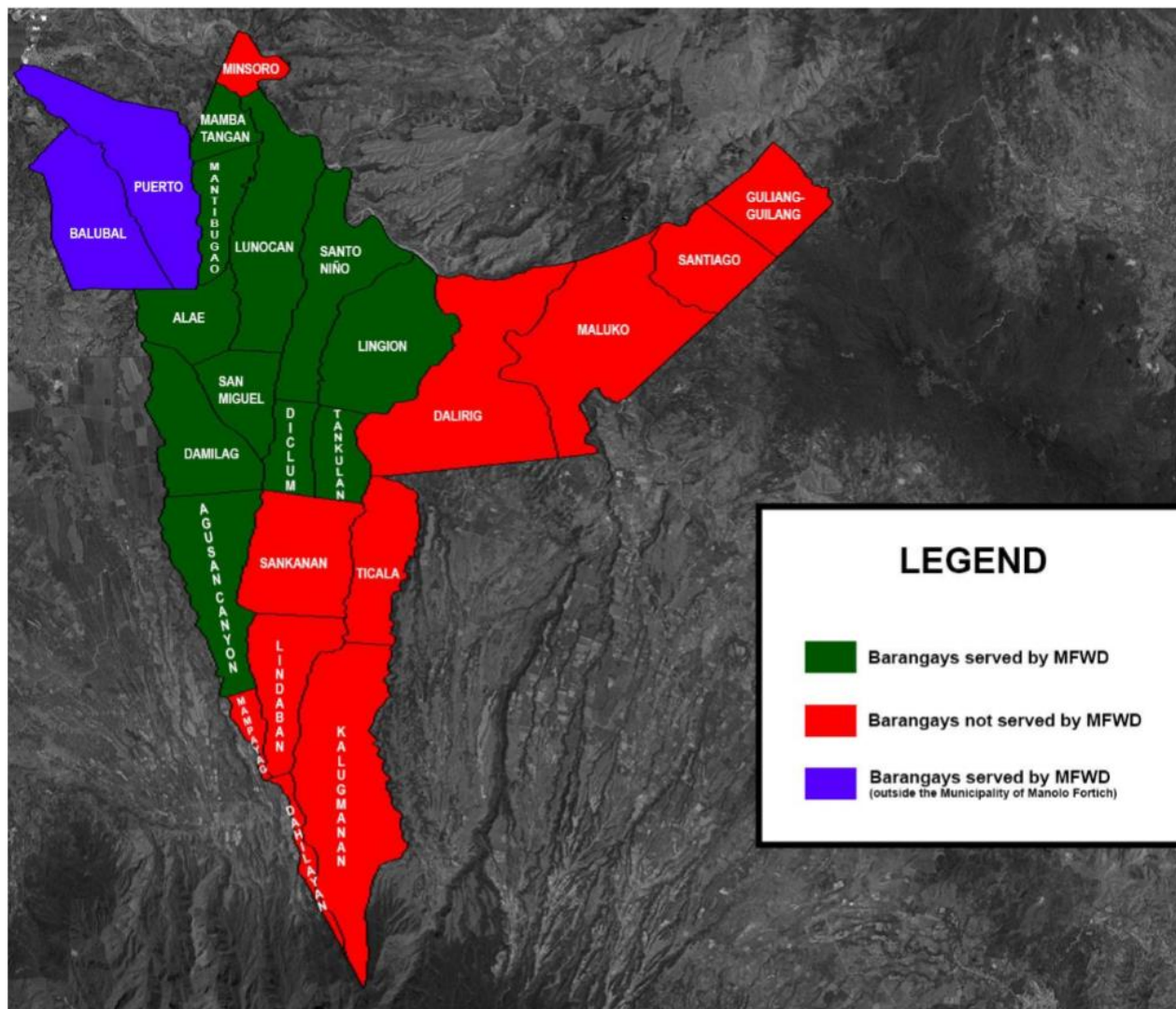
Source: MFWD, Water Supply Conceptual Design

**Table 3-4: Reservoirs of System 2**

Water Sources		Type	Capacity m <sup>3</sup>	Elevation m
1	Kihare Deepwell 1	Kihare Concrete Ground Reservoir	400	570
2	Kihare Deepwell 2			
3	Mullberry	Concrete Ground Reservoir	100	543
4	Mangima Spring	BLISS Conc. Ground Reservoir	80	477
5	Lingion Spring	Concrete Ground Reservoir	50	463
6	Cristan Villa Deepwell	Elevated Tank	75	514
<b>TOTAL</b>			<b>705</b>	

Source: MFWD, Water Supply Conceptual Design

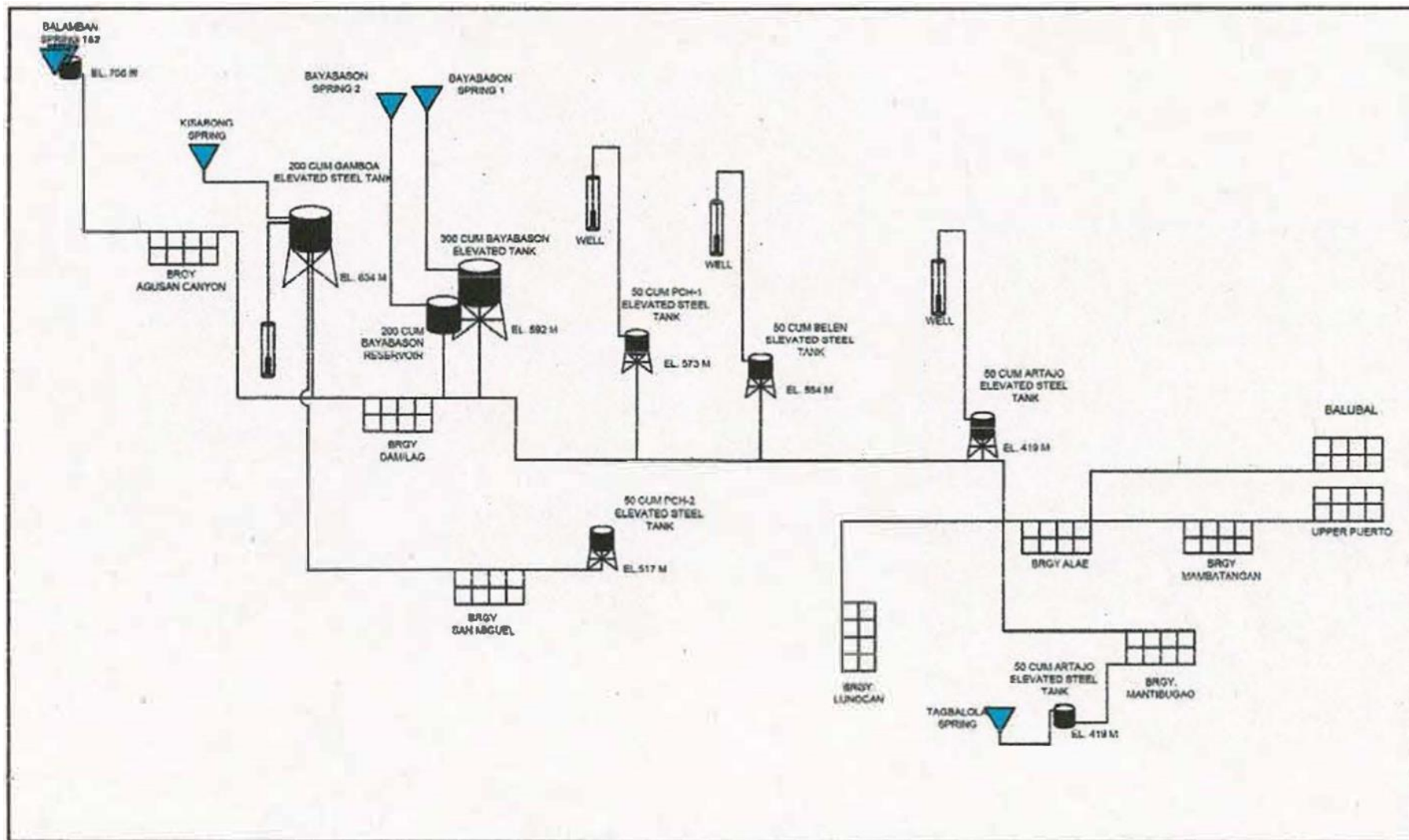




Source: MFWD, Water Supply Conceptual Design

**Figure 3-1: Service Coverage Area Map of MFWD**





Source: MFWD, Water Supply Conceptual Design

Figure 3-2: Schematic Diagram of System 1



**Table 3-5: Existing Water System Profile**

EXISTING WATER SYSTEM PROFILE		
Water Sources:	11 Springs, 9 Deepwells	
Monthly Production:	245,561 m <sup>3</sup>	
Reservoirs:	15 units	
Total Capacity:	1755 m <sup>3</sup>	
Pipeline Sizes:	From 200 mm to 50 mm dia	
Pipe Materials:	Mixed (uPVC, HDPE, GI)	
Total Pipeline Length:	122.83 km	
Number of Systems:	2	
System	Damilag System (System II)	Poblacion System (System II)
Sources	6 Springs, 5 Deepwells	5 Springs, 4 Deepwells
Source Capacity	66.58 Lps	46.04 Lps
Reservoir Total Capacity	1,050 m <sup>3</sup>	705 m <sup>3</sup>
Treatment	Hypo-chlorinator	Hypo-chlorinator
Transmission Pipelines		
200 mm		1,645 lm
150 mm	4,093 lm	3,219 lm
100 mm	4,400 lm	5,014 lm
75 mm		4,198 lm
Distribution Pipelines		
200 mm	9,640 lm	1,299 lm
150 mm	21,545 lm	1,460 lm
100 mm	29,088 lm	11,040 lm
75 mm	10,663 lm	6,489 lm
50 mm	2,730 lm	5,949 lm
Total Pipeline Length	82,159 lm	40,313 lm
Service Area	Agusan Canyon, Damilag San Miguel, Alae, Lunocan, Mantibugao, Mambatangan, Balubal, Upper Puerto	Tankulan, Dicklum, Sto. Nino, Lingion
Households Served	6,256	3,182

Source: MFWD, Water Supply Conceptual Design

## B. Water Availability

The Agusan River can be tapped and developed as a bulk water supply for Manolo Fortich. Utilizing will not need any pumps in its operation, as the water intake is high enough for water to flow by gravity to the service areas. Because it has sufficient flow capacity that can provide for the water demand up to design year 2029, the existing small water sources that consume electric power may be put to stand-by.

The Agusan River is a surface water, thus the need to provide a filtration system. The river water is normally clear hence a simple filtration system will be adopted in addition to chlorination system. It is recommended to use pre-assembled pressure filters for ease of operation and maintenance.

## C. Operation and Maintenance

The operation and maintenance of the existing water supply system is handled by the MFWD's Production and Water Quality Division, and Engineering and Construction Division. The operation and maintenance expenses are comprised of pumping expenses, of which 17 pumping stations are present, water treatment, annual dues to be paid to other agencies (e.g.,



National Water Regulatory Board), customers' account, and administration and general expenses.

The proposed project will use gravity to convey water from the source and use pre-assembled pressure filters for ease of operation and maintenance. Additional skilled staff will be required for the maintenance of transmission pipelines and other distribution lines.

#### D. Water Use

The water usage is classified as Residential/Government, Commercial/Industrial, Semi-Commercial A, Semi-Commercial B, Semi-Commercial C and Bulk/Wholesale. The residential consumers are persons and establishments whose connections are intended for their own personal use and other related activities while government establishments' water use are for their operation in performing public service. Meanwhile, commercial usage of water is intended for business, trade activities, occupation, or to produce a commercial or saleable product. This is further classified into Commercial A, B, or C. Finally, bulk/wholesale are connections that are intended and connected to the system for the purpose of reselling the same without transforming into a new product.

The reported total service connection of MFWD for December 2019 is approximately 11,235.

#### E. Service Coverage

The existing water system of Manolo Fortich is composed of two independent systems; the System-I which covers the western side of Manolo Fortich (Damilag) and the System-II that covers the Poblacion area and the eastern barangays of Manolo Fortich. As of December 2019, MFWD serves only 59% of its service area coverage.

**Table 3-6: Present Served Population Per Barangay (December 2019)**

Served Barangays		Population of Served Barangays	Present Number of Connections	Population Served	% Served Population
1	Tankulan	11,281	1,758	9,317	98%
2	Lingion	8,205	714	3,784	46%
3	Dicklum	5,223	352	1,866	36%
4	Sto. Nino	4,797	532	2,820	59%
5	San Miguel	6,303	660	3,498	56%
6	Damilag	15,169	2,615	13,860	91%
7	Agusan Canyon	12,931	617	3,270	25%
8	Lunocan	9,513	420	2,226	23%
9	Mantibugao	4,125	445	2,356	57%
10	Alae	11,830	2,033	10,775	91%
11	Mambatangan	5,632	755	4,002	71%
12	Upper Puerto	2,388	79	419	18%
13	Balubal	2,840	255	1,352	48%
<b>TOTAL</b>		<b>83,728</b>	<b>100,237</b>	<b>11,235</b>	<b>59%</b>



## F. Service Connections

Service connections in MFWD are classified as domestic/residential, commercial, industrial/bulk and government/institutional. As of December 2019, there is approximately 11,235 service connections tapped at MFWD water system. It is projected to increase to 16,775 in December 2029 to

MFWD water tariff was approved by the Local Water Utilities Administration (LWUA) Board of Trustees (BOT) under BOT Resolution No. 43 s. 2014 on May 7, 2014. Approved tariff are as follows:

**Table 3-7: MFWD Water Tariff (Php)**

Classification	Meter Size	Consumption (m <sup>3</sup> )					
		Min. Charge	11-20	21--30	31-40	41-50	51 and Up
Residential/ Government	0.50 in	157.50	22.80	30.35	38.30	46.50	55.00
	0.75 in	252.00	22.80	30.35	38.30	46.50	55.00
	1.0 in	504.00	22.80	30.35	38.30	46.50	55.00
	1.5 in	1,260.00	22.80	30.35	38.30	46.50	55.00
	2.0 in	3,150.00	22.80	30.35	38.30	46.50	55.00
	3.0 in	5,670.00	22.80	30.35	38.30	46.50	55.00
	4.0 in	11,340.00	22.80	30.35	38.30	46.50	55.00
Commercial/ Industrial	0.50 in	315.00	22.80	30.35	38.30	46.50	55.00
	0.75 in	504.00	22.80	30.35	38.30	46.50	55.00
	1.0 in	1,008.00	22.80	30.35	38.30	46.50	55.00
	1.5 in	2,520.00	22.80	30.35	38.30	46.50	55.00
	2.0 in	6,300.00	22.80	30.35	38.30	46.50	55.00
	3.0 in	11,340.00	22.80	30.35	38.30	46.50	55.00
	4.0 in	22,680.00	22.80	30.35	38.30	46.50	55.00
Semi-Commercial A	0.50 in	275.60	22.80	30.35	38.30	46.50	55.00
Semi-Commercial B	0.50 in	236.25	22.80	30.35	38.30	46.50	55.00
Semi-Commercial C	0.50 in	196.85	22.80	30.35	38.30	46.50	55.00

Source: MFWD, Water Supply Conceptual Design

## G. Water Consumption and Total Water Production

The average consumption per connection is computed to be about 20.20 m<sup>3</sup> per month.

The total production capacity of the system is 248,561 m<sup>3</sup> per month.

## H. Non-revenue Water

The total production capacity of the system is 281,116 m<sup>3</sup> per month. Comparing it to the billed water of 190,668 m<sup>3</sup>, the approximate water losses or non-revenue water is about 18.86%.

The level of Non-revenue water is within the allowable range, thus, the water system may be considered as well maintained.

## I. Description of the Proposed Subproject

MFWD's Water Supply Improvement Project includes: (i) source development; (ii) laying of transmission/distribution pipelines, and; (iii) procurement of transmission and water treatment facilities.



**Source Development.** The river intake structure shall be constructed at a point along the Agusan River at an elevation of 1,275 m. A 350 mm diameter transfer pipe of 3,150 m long will be installed to deliver the raw water to the treatment facilities. Geographical coordinates and photos of intake location are presented in **Annex 3**.

The proposed intake structure is located by Agusan River, at the foot of Mt. Kitanglad within Brgy. Dahilayan. There are no inhabitants upstream of the intake structure site, thus, water will not be subjected to contamination and the source is constantly recharged by the watershed of Mt. Kitanglad Mountain Range Natural Park.

**Pipelines and Appurtenances.** A total of 20.35 km of 300 mm diameter transmission pipelines will be laid from the treatment plant to a location in Brgy. Agusan Canyon with an elevation of 660 m. From that point the flow will split into two. One pipe with 250 mm diameter will deliver water to the Bayabason Reservoir of Damilag system. The other pipe will feed the Kihare reservoir of Poblacion system. The existing distribution lines will be retained however additional main distribution line will be laid to affect the proposed pressure zone delineation. A 250 mm pipelines will be laid along Alae-Camp Philips Road from Bayabason reservoir to the Brgy. Alae junction. Each reservoir of pressure zones will be provided with altitude valves to prevent overflow.

**Treatment Facilities.** For water safety, water from Agusan River should pass through Pressure Filter Machine (WTP). Under this project, two (2) units of pressure filter machine will be installed, each unit having a capacity of 2000 m<sup>3</sup>/day. The facilities will be equipped with color online analyzer, pH and TDS on-line analyzer, liquid chlorine residual on-line analyzer, chlorine metering pump, gate valves, flow control valves, flow meter, flange adapter and air release valves.

The proposed WTP is located at diversion point 08° 3' 6.10" and 124° 1' .90" with an elevation of 1,142 meters, more or less 3,150 m from the intake structure.

Two (2) plots of land required, both will be acquired through negotiated settlement (sale), one for the water treatment plant facility while the other is for mini laboratory facility for water quality monitoring, and construction of clean water tank, as well as access to the whole facility.

**Price and Physical Contingencies.** This item covers all possible cost changes and unexpected additional costs required for non-engineering work items. Allocation of risks and physical contingencies are 5% of the number of basic cost items of the non-engineering aspect. The project estimated cost of the project is presented in **Table 3-8**

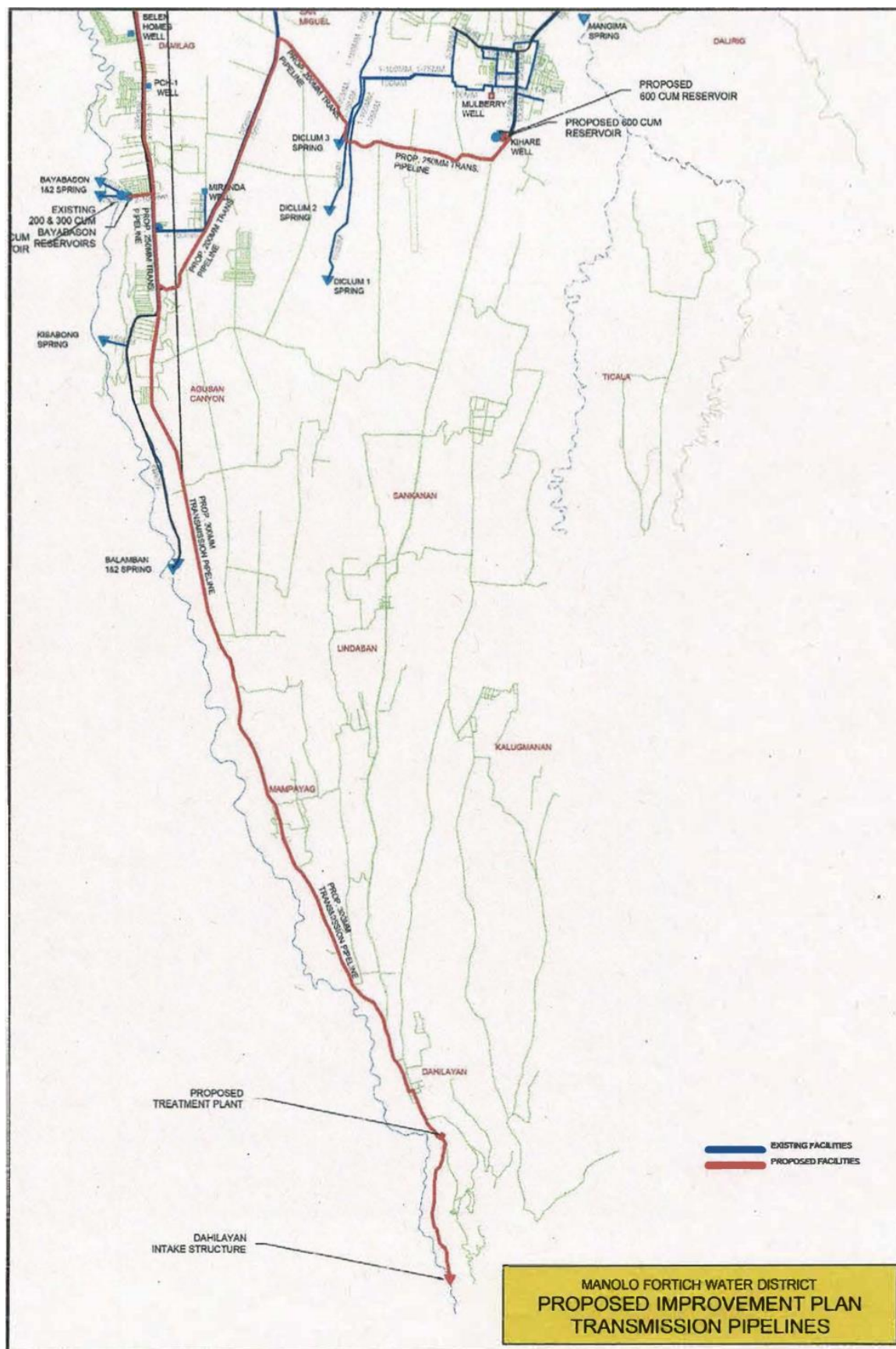
**Table 3-8: Project Estimated Cost (Php)**

Work Items	Project Estimated Cost (Php)
I. Engineering Basic Cost Items	
A. Source Development	
B. Transmission Facilities	
C. Water Treatment Facilities	
D. Detailed Engineering Design, Permits, ECC Clearance, Proving Period	
<b>Sub-total I</b>	
Contingencies (5% of the Sub-total I)	
Engineering Studies and Review (2%)	



Work Items	Project Estimated Cost (Php)
Construction Supervision (1%)	
<b>Total Cost I</b>	
II. Non-Engineering Basic Cost Items	
A. Site Acquisition	
B. Hauling Cost	
C. Laboratory Equipment	
<b>Sub-total II</b>	
D. Contingencies (5% of the Sub-total II)	
<b>Total Cost II</b>	
<b>Total Project Cost</b>	

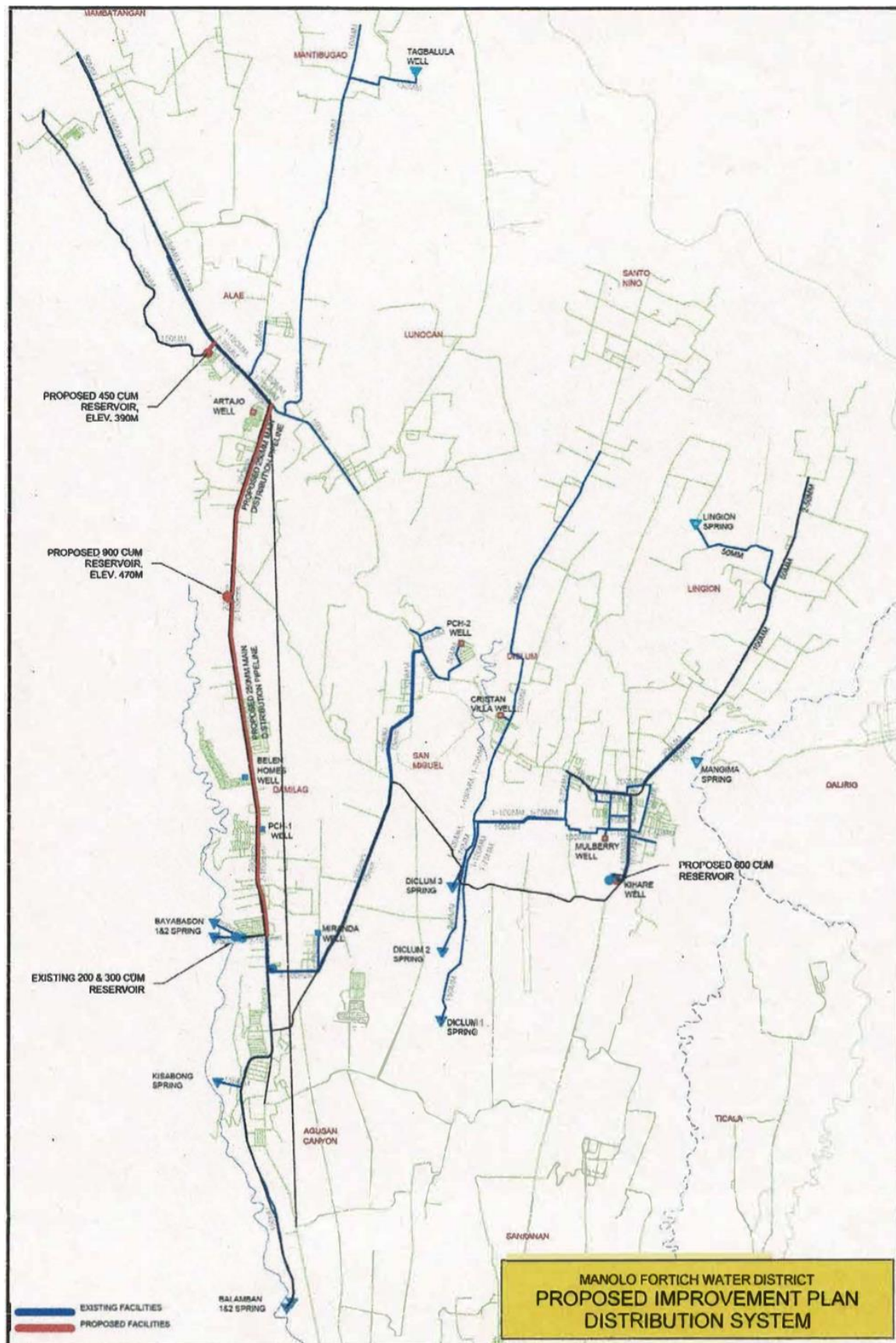




Source: MFWD, Water Supply Conceptual Design

Figure 3-3: Proposed Transmission Pipeline Layout

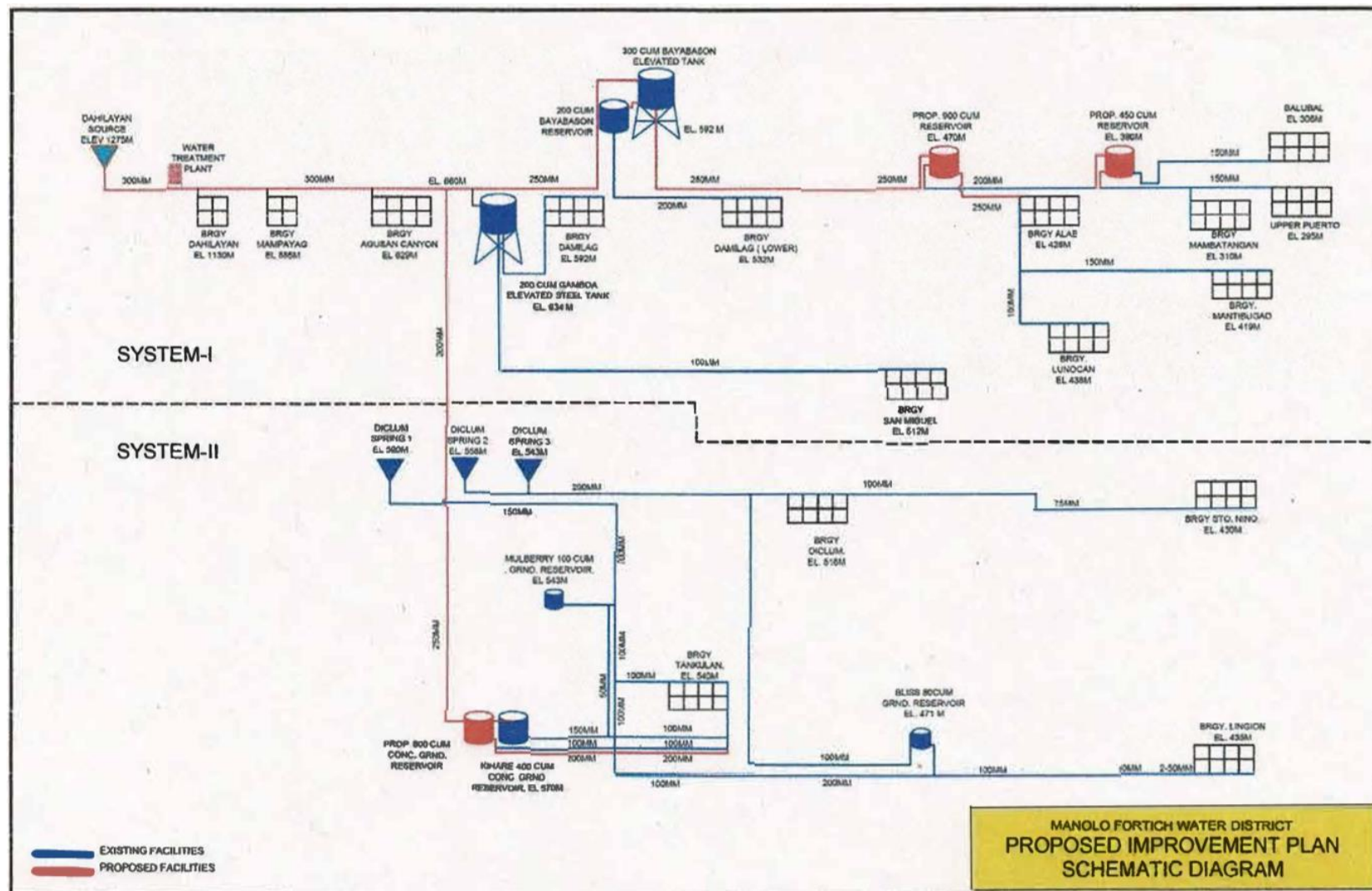




Source: MFWD, Water Supply Conceptual Design

Figure 3-4: Proposed Distribution System





Source: MFWD, Water Supply Conceptual Design

Figure 3-5: Schematic Diagram of Proposed Improvements



## 4 DESCRIPTION OF THE ENVIRONMENT

This section discusses the baseline conditions of the environment of Manolo Fortich, where the proposed improvements for water supply subproject are located. The proposed intake structure is located by Agusan River, at the foot of Mt. Kitanglad, covered by the Mt. Kitanglad Mountain Range Protected Area (PA) zone under the NIPAS act.

### A. Physical Resources

**Geographical Location.** Located in the northern part of the province of Bukidnon is the Municipality of Manolo Fortich. It is bounded by Cagayan de Oro City and the Municipality of Malitbog on the north, the Municipalities of Sumilao and Impasugong on the east, the Municipalities of Libona and Baungon on the west, and the rugged ranges of Mt. Kitanglad on the south. It lies specifically between north longitude 124° 45' to 125° 00' and east latitude 8° 10' to 8°30'.

**Land Area.** Per official records of the DENR Land Management Bureau (DENR-LMB) the Municipality of Manolo Fortich has a total land area of 47,868.21 ha. Among the municipality's twenty-two (22) barangays, eleven (11) were identified as urban and urbanizing, covering 44.06 % of the total land area.

**Table 4-1: Land Area and Land Classification by Barangay (ha)**

Barangay	Total Land Area	Alienable & Disposable	Timberland/ Public land
<b>Urban:</b>			
Alae	1,013.46	943.57	69.89
Damilag	1,234.13	1107.69	126.44
Tankulan	1,012.60	813.82	198.78
<b>Sub-total</b>			
<b>Urbanizing:</b>	<b>3,260.19</b>	<b>2865.08</b>	<b>395.11</b>
Agusan Canyon	2,060.50	1871.16	189.34
Dalirig	3,813.42	1633.97	2179.45
Dicklum	814.58	779.82	34.76
Lunocan	2956.29	1991.84	974.45
Mambatangan	1336.41	928.06	408.35
Maluko	4294.49	2189.70	2104.79
San Miguel	1341.41	1115.65	225.76
Mantibugao**	1216.13	869.39	346.74
<b>Sub-total</b>	<b>17833.23</b>	<b>8017.25</b>	<b>6463.64</b>
<b>Rural:</b>			
Dahilayan	1753.67	602.24	1151.43
Guilang-guilang	7304.19	493.69	6810.50
Kalugmanan	3609.68	2230.65	1379.03
Lindaban	928.63	928.63	0
Lingi-on	2220.82	1994.45	226.37
Mampayag	868.53	868.53	0
Minsuro	631.96	485.48	146.48
Sankan	2200.72	2200.72	0
Santiago	3466.27	1151.4546	2314.8154
Sto.Nino	2178.85	2124.54	54.31
Ticala	1611.46	1586.45	25.01
<b>Sub-total</b>	<b>26774.78</b>		<b>12107.945</b>
<b>Total</b>	<b>47868.21</b>	<b>28,901.515</b>	<b>18966.70</b>

Source: NSO, MDPO



**Land Classification.** As classified by the DENR, the municipality has a large expanse of alienable and disposable lands covering 28,901.5 ha or 60.37% of the total 47,868.21 ha municipal area. The remaining 18,966.70 ha or 39.63 % are forest/timberland.

**Air Quality and Noise.** Metro Cagayan de Oro is officially designated by DENR as a regular “airshed” which is defined as areas with similar climate, meteorology and topology which affect the interchange and diffusion of pollutants in the atmosphere. Metro Cagayan de Oro, the fourth largest metropolitan area in the Philippines, comprises the two (2) chartered cities of Cagayan de Oro and El Salvador and the 11 municipalities of Alubijid, Claveria, Gitagum, Initao, Jasaan, Laguindingan, Libertad, Manolo Fortich, Opol, Tagoloan, and Villanueva.

The National Air Quality Status Report (2008-2015) provides data on air quality on a regional level. As of 2015, there were 93 air quality monitoring stations (manual and real-time) nationwide which were situated in highly urbanized cities and also rural areas in different regions of the country. These monitoring stations keep track of criteria air pollutants including total suspended particulates (TSP), particulate matter with dia of less than 10 microns (PM10), particulate matter with dia of less than 2.5 microns (PM2.5), sulfur dioxide (SO<sub>2</sub>), nitrogen dioxide (NO<sub>2</sub>) and ozone (O<sub>3</sub>) following the National Ambient Air Quality Guideline Values (NAAQGV). In Region 10, the only monitoring station is located in the Iligan City, thus, the data is not conclusive for Metro Cagayan de Oro specifically the Municipality of Manolo Fortich.

DENR Region 10, on the other hand, conducts ambient air sampling every once a week at the sampling station located inside the regional office compound located in Cagayan de Oro City. During the first quarter of 2019, based on the United States Environmental Protection Agency (USEPA) Air Quality Index (AQI), the air quality index is under good condition – AQI range from 0-50 which represents good air quality with little or no potential to affect public health.

Noise level measurements will be done during detailed design phase at strategic locations on the areas with sensitive receptors to establish ambient baseline noise levels. The results will be included in the Contractor’s Environmental Monitoring Plan (CEMP).

In addition, following the IFC-EHS noise guideline values, noise levels should ideally not exceed the values presented in **Error! Reference source not found.** If, however baseline noise levels already exceed the guideline values, IFC-EHS allows a maximum 3 dB(A) increase in noise levels as a result of project activities. Mitigation measures should be implemented to ensure this.

**Table 4-2: IFC-EHS Noise Level Guidelines**

Receptor	One Hour L <sub>Aeq</sub> dB(A)	
	Daytime 07:00 – 22:00	Nighttime 22:00 – 07:00
Residential; institutional; educational	55	45
Industrial; commercial	70	70

**Climate.** Under the Modified Coronas Classification, the project area belongs to Type IV characterized by moderate dry season from the month of November to April and the rest is wet season with average rainfall of about 2,000 mm. Nevertheless, rainfall pattern in the municipality has drastically changed during the past years which may be attributed to the event or trend of climate change experienced globally.

Based on a 2017 data from the Climate Change Commission (CCC), Manolo Fortich is one of the areas in the Philippines most vulnerable to drought and are experiencing seasonal aridity and recurrent droughts.



**Topography and Soils.** The soil in Manolo Fortich is predominantly clay due to large quantities of fine-grained volcanic rocks, various sedimentary derivatives, and pyroclastic. An exception to these is found in river terraces that are loamy. The very deeply weathered reddish-brown to yellowish-brown upland soils consist of 50% to 60% clay. Due to their non-expanding and non-cracking nature, the clays are presumed to be of Kaolinitic type. High soil fertility boost agriculture making Manolo Fortich ideal for investment in agricultural-based industries in crop production.

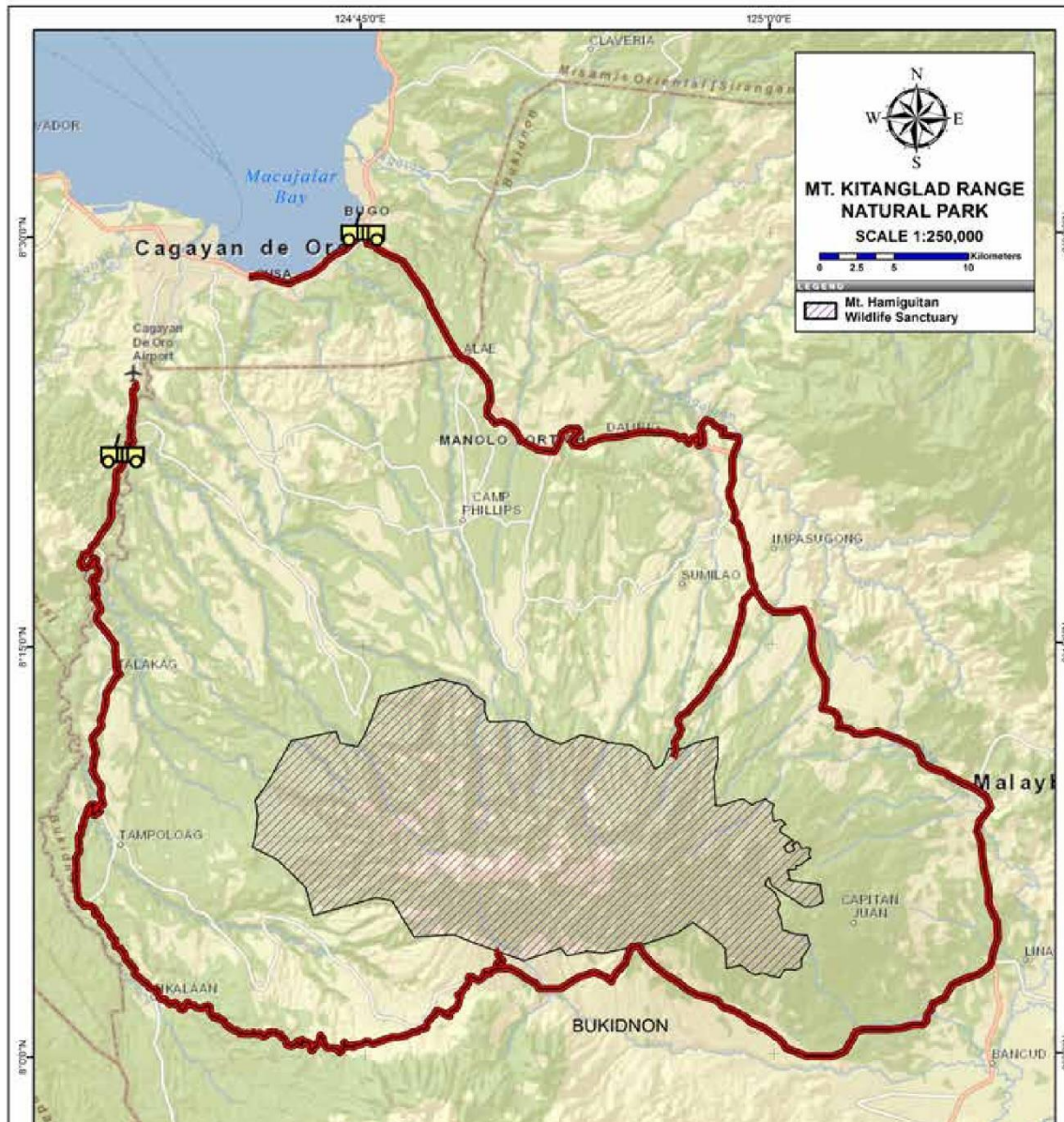
**Water Resources.** Manolo Fortich has three (3) major river systems crisscrossing the upstream and downstream agricultural lands. These are the Tagoloan, Mangima and Agusan Rivers, which serve as natural boundaries and drainage of excess water and run-off from around the municipality. The other rivers of the municipality are, among others: Dicklum, Kumaykay, Guihian, Tanaon, Amosig, and Kulaman Rivers. The river systems also serve as sources of potable water supply for domestic use. About fifty (50) creeks spread across thirteen (13) barangays in the municipality. These identified natural waterways are being monitored and maintained by the Municipal Environment and Natural Resources Office (MENRO) as far as pollution control is concerned. Close monitoring is being done particularly in rivers/creeks located near the existing commercial establishments and industries.

## **B. Ecological Resources**

**Forests.** A total of 16,741.21 ha forest lands, representing 35 % of the total municipal area, are found in barangay Guilang-Guilang, Santiago, Dahilayan, and Kalugmanan. From this total, protection forest covers 5,153.7775 ha or 11 % while production forest occupies a bigger portion of 11,601.5897 ha or 24 %. Protection forest areas are found in the barangays of Dahilayan, Santiago, Guilang-guilang, and Kalugmanan. Production forest are also found in Agusan Canyon, Lingi-on, Dalirig, Maluko, Mambatangan, Alae, Tankulan and generally in the same barangays within Protection forest areas.

**Protected Areas.** RA 8978 otherwise known as Mt. Kitanglad Range Protected Area Act of 2000 established the Mt. Kitanglad Range (MKR) Protected Area in the Province of Bukidnon. The Park covers 47,270 ha in the north central portion of the province of Bukidnon, and straddles parts of the municipalities of Baungon, Talakag, Lantapan, Impasugong, Sumilao, Libona, and Manolo Fortich and the city of Malaybalay. The Park is the major watershed that provides water for irrigation, power generation and domestic use for Bukidnon, as well as the province of Misamis Oriental, and the catchment area of the Cagayan, Tagoloan and Pulangi river system. The political boundary map and land cover map of MKR is shown in **Error! eference source not found.** and **Figure 4-2**, respectively.





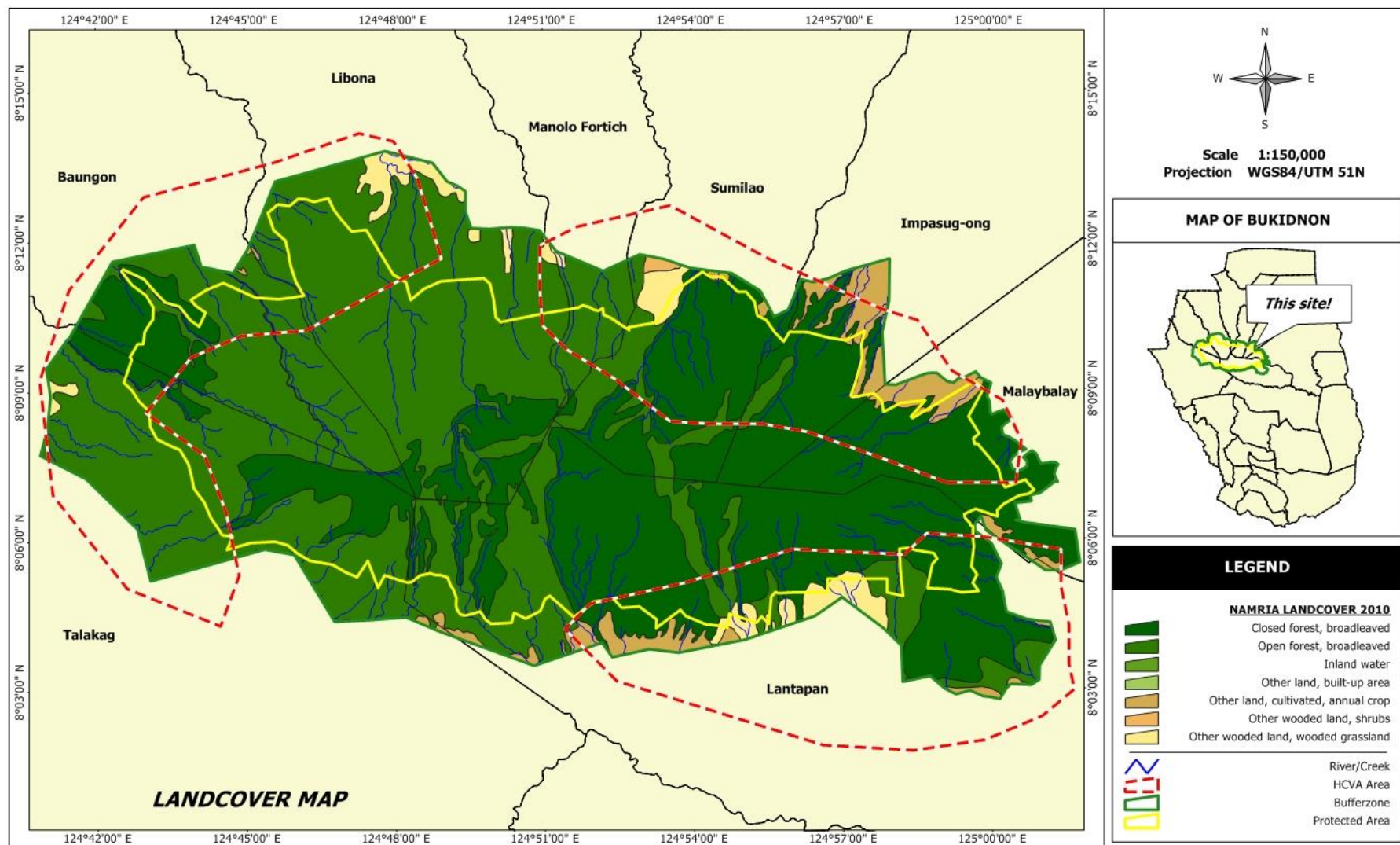
Source: DENR-BMB, 2015

**Figure 4-1: Political Boundary Map of Mt. Kitanglad Range Protected Area**

On June 1, 1992, RA 7586 or The National Integrated Protected Areas System (NIPAS) Act was signed into law covering all protected areas whether terrestrial, coastal or marine. This Act was amended on July 22, 2018 with RA 11038 or the Expanded National Integrated Protected Areas System (ENIPAS) Act of 2018 which increases the number of protected areas covered by legislation from 13 to 107, for a total of three million ha.

Under the Philippine EIS system, areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries are considered as environmentally critical areas (ECA).





Source: NAMRIA

Figure 4-2: Landcover Map of Mt. Kitanglad Range



**Biodiversity.** Habitat types of Mt. Kitanglad include lowland evergreen forest, lower montane forest, upper montane or mossy forest, grasslands, freshwater wetlands, and caves. These habitats protect a large population of flora and fauna endemic to the Philippines, many of which are already endangered.

DENR Biodiversity Management Bureau (formerly the Protected Areas and Wildlife Bureau) identified MKR as a Key Biodiversity Area (KBA) with a total area of 31,235 ha. There is one (1) critically endangered species (i.e. Philippine Eagle (*Pithecophaga jefferyi*)), two (2) endangered species, and 27 vulnerable species recorded within the MANP KBA.

The biodiversity of Mt. Kitanglad Natural Park include:

- 168 species of birds
- 131 species of butterflies
- 63 species of mammals
- 26 species of amphibians
- 25 species of reptiles

**Table 4-3: List of Critical Fauna Species in MANP**

Scientific Name	Common Name	IUCN Conservation Status
<b>Birds</b>		
<i>Pithecophaga jefferyi</i>	Philippine Eagle	CR
<i>Basilornis miranda</i>	Mount Apo Myna	NT
<i>Trichoglossus johnstoniae</i>	Mindanao Lorikeet	NT
<i>Aerodramus whiteheadi</i>	Whitehead's swiftlet	DD
<i>Prioniturus waterstradti</i>	Mindanao racquet-tail	NT
<i>Otus mirus</i>	Mindanao scops owl	NT
<i>Rhinomyias goodfellowi</i>	Slaty-backed jungle-flycatcher	NT
<i>Erythrura coloria</i>	Red-eared parrot finch	NT
<b>Mammals</b>		
<i>Alionycteris paucidentata</i>	Mindanao pygmy fruit bat	LC
<i>Cervus mariannus</i>	Philippine Brown Deer	VU
<i>Podogymnura truei</i>	Mindanao moon rat	LC
<i>Cynocephalus volans</i>	Flying Lemur	LC
<i>Sus philippensis</i>	Philippine warty pig	VU
<i>Urogale everetti</i>	Mindanao treeshrew	LC
<i>Tarsius syrichta</i>	Philippine tarsier	NT

Source: DENR-BMB, 2015

DD=Data Deficient LC=Least Concern, NT=Near Threatened, VU=Vulnerable, EN=Endangered, and CR=Critically Endangered

Under the Philippine EIS system, areas identified as KBA by the DENR – Biodiversity Management Bureau (BMB) are considered as environmentally critical areas (ECA).

## C. Economic Development

**City Income and Expenditures.** In CY 2011, the LGU has a total revenue of Php176 million, wherein Php106 million or 69% came from the Internal Revenue Allotment. Of its Php 121 million total expenditures for the year, 44 % were expended on personal services.



**Land Use.** There is a current demand for settlement and industrial use of lands as manifested by the intent of several investors expressing their intent to invest in the municipality. This is largely due to the changing trend in the economic structure, population growth, and spillover of development from bustling neighbor Cagayan de Oro City. A total area of 22,888.49 ha is registered as existing agricultural lands.

**Commerce and Trade.** It is projected that more business establishments will flourish in the municipality and the LGU shall come up with a policy or mitigating measures relocating the business establishments found in areas vulnerable to hazards identified by MGB that will possibly occur in the municipality.

**Transportation.** The total existing road length of the municipality is 639.56 km with 1,649 m total bridge length, of which roughly 9% of the roads and 20% of the bridges are situated in disaster-risk areas.

There are only three (3) types of bridges with a total length of 451 m that are found in the municipality, they are the following: Bailey with a total length of 12 m, RCBC with 9 m and RCPC with 430 m.

**Table 4-4: Length of Roads per Type and Classification (km)**

Name Of Barangays	Type Of Roads		Road Classification				Length
	Barangay	Municipal	Concrete	Asphalt	Gravel	Earth	
Agusan Canyon	8.800		0.800		3.500	4.500	8.800
Alae	39.000		5.330		18.000	15.670	39.000
Dahilayan	18.550		0.050		14.000	4.500	18.550
Dalirig	29.000		0.500		15.000	13.500	29.000
Damilag	65.000		30.000	12.000	12.500	10.500	65.000
Dicklum	18.000		5.000		9.000	4.000	18.000
Guilang-guilang	23.000		1.000			22.000	23.000
Kalugmanan	33.070		0.070		7.000	26.000	33.070
Lindaban	25.000		0.050		4.500	20.450	25.000
Lingion	50.000		0.400		32.100	17.500	50.000
Lunocan	45.200		0.200		26.000	19.000	45.200
Maluko	13.775		0.175	0.100	7.000	6.500	13.775
Mambatangan	24.000		0.200		12.000	11.800	24.000
Mampayag	17.200		0.200		2.500	14.500	17.200
Mantibugao	15.600		0.200		10.800	4.600	15.600
Minsuro	15.000				10.500	4.500	15.000
San Miguel	17.200		0.100		7.000	10.100	17.200
Sankan	25.085		0.085		13.200	11.800	25.085
Santiago	7.210		0.050		4.660	2.500	7.210
Sto. Nino	45.400		0.400		29.540	15.460	45.400
Tankulan		24.500	1.500		10.000	13.000	24.500
Ticala	8.675		0.175		1.500	7.000	8.675
<b>TOTAL</b>	<b>543.765</b>	<b>24.500</b>	<b>46.485</b>	<b>12.100</b>	<b>250.300</b>	<b>259.380</b>	<b>568.265</b>

Source: Municipal Engineering Office

**Power Sources and Transmission.** Currently, there are 12,434 households connected to electricity, 72.09 % of the total number of households in the municipality. The lowest percentage of households using electricity were Guilang-guilang and Dahilayan with about 18.75 % and 19.64 % of their household numbers, respectively

**Agricultural Development.** Climatic condition for the past years in the municipality has drastically changed, from a more pronounced dry and wet season, erratic rainfall is observed based on the pattern of rainfall from 2008-2011. This change in rainfall pattern increases the



risk of landslides and soil erosion especially in areas which are hilly to mountainous. This may pose eminent danger on farm areas located along riverbanks. In fact, as experienced during the Bagyong Sendong in December 2011 which brought rainfall of 112 cm resulting to damage of 53.63 ha crops, 72 heads of livestock including poultry, and 0.29 ha of fishpond.

**Tourism Facilities.** Being strategically located near the urban center of Cagayan de Oro City, Manolo Fortich has a lot to offer even just to local tourist.

Presently, the local tourism industry in Manolo Fortich continues to grow with the sprung of eco-adventure and nature parks. The town is expecting more investors to establish hotels and travel inns due to the rise of renowned tourism sites in the municipality and because of this, the LGU is expected to institute policies/mitigating measures to counter the impacts of the identified hazards that will occur in the tourism sites.

#### D. Social and Cultural Resources

**Population and Community.** Manolo Fotich is first class Municipality of the Province of Bukidnon. It has a total land area of 506.64 square kilometers encompassing 22 barangays. The population of Manolo Fortich is around 100,210 according to the Philippine Statistics Authority (PSA) 2015 census with a population density of around 240 inhabitants per km<sup>2</sup>. Manolo Fortich population represents 7.08% of the total population of Bukidnon Province. Manolo Fortich is composed of 22 barangays with population shown in Error! Reference source not found..

**Table 4-5: Summary of Population in the Project Area, 2015**

Barangay	Population
Agusan Canyon	9,985
Alae	9,135
Dahilayan	1,743
Dalirig	4,844
Damilag	11,713
Diclum	4,033
Guilang-guilang	1,247
Kalugmanan	3,684
Lindaban	2,325
Lingion	6,336
Lunocan	7,346
Maluko	4,125
Mambatangan	4,349
Mampayag	1,334
Minsuro	981
Mantibugao	3,185
Tankulan (Pob.)	8,711
San Miguel	4,867
Sankan	3,737
Santiago	1,554
Santo Niño	3,704
Ticala	1,272
<b>Total</b>	<b>100,210</b>

Source: PSA



**Health Facilities.** The establishment of Health and Nutrition Posts in strategic hard to reach sitios aside from the existing twenty-two (22) Barangay Health Centers have contributed to the enhanced health services in the municipality.

**Sanitation Facilities.** LGU – Manolo Fortich and MFWD has a proposed sanitation plan. The identified priority structural measure is a Municipal-Wide Septage Management Project to be jointly implemented by LGU – Manolo Fortich and MFWD. The proposed SpTP for Manolo Fortich will treat septage that will be collected from the septic tanks of households, commercial and institutional establishments in the area through Natural Treatment System (Waste Stabilization Pond). This is to be located inside the compound of the existing Sanitary Land Fill in Barangay Ala-e. The receiving water body for the proposed SpTP treated effluent, which was conceptually designed to conform to Department Administrative Order (DAO) 2016-08 effluent standards, is the lower Ala-e River (classified as Class C).

**Solid Waste Management.** The Municipality has two (2) garbage trucks with personnel who are responsible in collecting non-biodegradable waste from the households of seven (7) urbanizing barangays. Bio-degradable waste which can be composted are not collected by the garbage crew.

Waste characterization survey conducted in the last quarter of 2011 showed that there was about 0.50 kg/day of waste generated per capita and about 890,171 kg of residual waste that are final disposed to the Sanitary Landfill in San Isidro, Ala-e, managed by LGU in the municipality.

**Educational Facilities.** More than ten (10) daycare centers were established in far flung barangays and sitios to respond to the increasing number of 3-5 years old children population in 2011. Four (4) primary schools were converted into elementary schools and more school buildings were built and upgraded from semi-concrete to concrete. One (1) public high school was established in Barangay Dalirig.

**Socio-economic Conditions.** In Manolo Fortich, 48% of the total household population belongs to working-age population (15 to 64 years) while young dependents (0 to 14 years) and old dependents (65 years and over) posted a share of 52%.

From the total of 40,277 who are in the labor force, it is estimated that 91.22% are economically active and 8.78% are unemployed, thus; disclosing a ratio of 9 unemployed persons for every 100 employed persons.

## 5 ANTICIPATED IMPACTS AND MITIGATION MEASURES

This section assesses the impacts of the proposed activities on various environmental components of the subproject site.

**Methodology.** Anticipated impacts to be considered were assessed through the following activities: (i) gathering of inputs from interested and affected parties; (ii) desktop research of information relevant to the proposed project; (iii) site visit and professional assessment; and (iv) evaluation of proposed design and potential impacts. Categorization of the project and formulation of mitigation measures have been guided by ADB's REA Checklist for Water Supply (Annex 1) and SPS.

A comprehensive screening of environmental impacts is carried out through assessment of general parameters associated with water supply projects against the components of the



proposed MFWD subproject and the environment where the facilities will be constructed. A screening checklist was adopted using previous ADB IEE Reports which was developed using various sources such as DENR checklists, ADB's REA Checklist, and World Bank Environmental Source Book. Some items of the checklist may not be applicable to this particular subproject, however, they are still included to indicate its relevance in the screening process.

**Impact Assessment.** The assessment is made on the following phases of the subproject: (i) pre-construction, (ii) construction, and (iii) operation and maintenance. Results of the environmental impacts screening are summarized in **Table 5-1** which shows the impact types and magnitudes for both positive and negative impacts without the mitigating measures and the resulting situations when mitigating measures will be implemented. Discussions of each issue are presented in the succeeding sections. For ease of identification, a summary of the environmental impacts that should be included in the Environmental Management Plan (EMP) is presented at the end of this section (see **Table 5-3**)

Due to the subproject's relatively long operational life, decommissioning or closure in the near or medium term (e.g., 25-50 years) is not envisaged. Furthermore, environmental impacts arising from decommissioning of the proposed MFWD facilities are deemed to be minimal such as: (i) residual waste cleanup is not a major concern since the facilities are not industrial manufacturing plants with potential problems for toxic and hazardous wastes, and (ii) solid wastes from decommissioning is also not a major concern since the structures are mostly made of reinforced concrete and the solid wastes are mostly recyclable materials such as broken concrete materials, reinforcing steel bars used in the structures, structural steel, roofing materials, electrical wires, etc. In the event that decommissioning becomes an option, the appropriate action plan will be drawn up in accordance with the regulatory requirements of the Philippine Government.

**Table 5-1: Summary of Environmental Impacts Screening**

Environmental Impacts and Risks	Without mitigation	With Mitigation
<b>PRE-CONSTRUCTION PHASE</b>		
Encroachment to environmentally sensitive areas	● -	Δ
Impacts and risks to biodiversity conservation	● -	Δ
Encroachment to historical areas and cultural areas	n.a.	n.a.
Potential competing use of water resource	Δ -	Δ
Potential nuisance and problems to the public	● -	Δ
Loss of assets (IR concerns)	● -	Δ
Interruption of other utility services	● -	Δ
<b>CONSTRUCTION PHASE</b>		
Modification of construction site topography	Δ -	Δ
Displacement of rare or endangered species	● -	Δ
Soil erosion and sediments of construction sites	● -	Δ
Nuisance/ public inconvenience in pipe laying	● -	Δ
Noise from construction equipment	● -	Δ
Local air pollution due to construction activities	● -	Δ
Oil and other hazardous materials releases	Δ -	Δ
Vehicular traffic congestion and public access	● -	Δ
Hazards to public due to construction activities	● -	Δ
Pollution and health risk due to workers camp	● -	Δ
Disruption of freshwater ecosystem	Δ -	Δ
Increase employment opportunity in work sites	● +	● +
Improper closure of construction sites	● -	Δ
<b>OPERATION AND MAINTENANCE PHASE</b>		
Health hazard due to delivery of poor water quality	● -	Δ



Environmental Impacts and Risks	Without mitigation	With Mitigation
Pollution from increased generation of sewage and sullage	● -	Δ
Noise and air pollution of pumping stations	n.a.	n.a.
Ground subsidence due to over-pumping	n.a.	n.a.
Pumping stations operational risk and safety	● -	Δ
Water treatment facility operational risk and safety	● -	Δ
Increase employment opportunities	Δ +	Δ +
Future scarcity of water and conflict in water uses due to climate change	● -	Δ

Legend: n.a. = not applicable; Δ = insignificant; ● = significant; + = positive; - = negative

**Table 5-2** presents the summary of government environmental compliance documents needed by the sub-project before commencement of construction works, during construction and during operation.

**Table 5-2: Summary of Government Environmental Compliance Documents for Water Supply Subproject**

Stage of Development	Regulatory Permit	Issuing Agency	Applicable Legislation
Pre- construction	ECC	EMB Regional Office	PD 1586 and its implementing rules and regulations
	Water Permit	NWRB	PD 1067 and its amended implementing rules and regulations
Construction	Clearing/Fencing/Excavation Permit	LGU	LGU Ordinance
Operation	Compliance with DOH for Philippine National Standards for Drinking Water (PNSDW) 2017		DOH AO 2007-0012

## A. Design/ Pre-Construction Phase Considerations

**Encroachments.** The proposed intake structure is located by Agusan River, at the foot of Mt. Kitanglad within Brgy. Dahilayan, covered by the Mt. Kitanglad Mountain Range Protected Area (PA) zone. Under the PEISS, the project location is considered as ECA.

According to RA 11038 or the Expanded NIPAS Act, “protected area refers to identified portions of land and/ or water set aside by reason of their unique physical and biological significance, managed to enhance biological diversity and protected against destructive human exploitation.”

Section 12 of the ENIPAS Act states that considering that PAs are ECAs, the proponent of development projects and activities with potentially significant adverse impacts shall secure an ECC in accordance to the PEISS system. DENR also requires a clearance from Protected Area Management Board (PAMB) before issuing an ECC to a project proponent.

There are no known archaeological and cultural assets in these proposed sites. Nevertheless, precautions will be taken to avoid potential damage to any archaeological and cultural assets by inclusion of provisions in tender and construction documents requiring the contractors to immediately stop excavation activities and promptly inform the authorities if archaeological and cultural assets are discovered. Under the Cultural Properties Preservation Act (Presidential Decree No. 374) in the event that excavators shall strike upon any buried cultural



property, suspension of excavation is inevitable and it shall be reported immediately upon occurrence of the event to the Director of the National Museum and shall then take appropriate actions with regards to the matter. The suspension can only be lifted by the Director of the National Museum. Accordingly, in case of archeological, historical, cultural chance finds, in order to avoid damage to cultural properties, the following steps should be observed: (i) detailed design of all civil works will be located away from all cultural/ archeological/historical properties; (ii) procedures for chance finds of valued relics and cultural values will be stipulated in the contract with contractors in order to avoid damaging such valuable properties; (iii) site supervisors will be on the watch for chance finds; (iii) upon a chance find, all work will be stopped immediately, find will be left untouched, and notify MFWD who in turn will notify the National Museum; (iv) work at the find site will remain suspended until the National Museum allows work to resume.

**Mitigation.** Section 7 of Republic Act 8978 designated PAMB as the policy-making body of MKR Protected Area (PA) zone. PAMB already approved water tapping of MFWD in Agusan River that is situated within the MKR protected zone through PAMB Resolution No. 690 series of 2018 (See **Annex 7**). The following conditions shall be followed by the MFWD:

- (i) Submission of EIA Certificate/ ECC from the EMB Region X;
- (ii) Exploring the possibility to augment and/or fix their environmental services; and
- (iii) A work and financial plan prepared by PAMB secretariat will be submitted to their office for special projects that they could fund in lieu of water use fee

On the other hand, MFWD have already completed all the documentary requirements for the acquisition of the ECC for the online ECC application.

**Impacts and Risks to Biodiversity Conservation.** MKR foster countless wildlife species and identified as a KBA by the DENR-BMB. The source development that will be located at the foot of Mt. Kitanglad includes the construction of an intake structure which may result to the death, disturbance, and displacement of wildlife species as well as destruction or damage to habitat.

Wildlife species including identified trigger species may be displaced during site preparation and construction period. These species may also be exposed to human contact, thus, putting them at risk of hunting.

**Mitigation.** During site preparation, delineation of clearing area through fencing will avoid unnecessary expansion throughout the construction period, thus, minimizing further disturbance to habitat of wildlife species.

Mitigation measures on noise and dust suppression shall also apply to avoid disturbance of sensitive wildlife organisms. All vehicles/equipment to be used should be confined to previously disturbed areas. Disposal area must be confined on solid ground and not occupy marshy substrates.

In order to prevent hunting of wildlife species, poaching and illegal trading of wildlife by workers or nearby residents will not be allowed and shall be closely monitored.

Upon abandonment phase, areas cleared of vegetation should be rehabilitated to near pre-project conditions as possible which would entail reforestation using indigenous species.

**Competing Use of Water Resource.** The intake structure will be constructed at the Upper Agusan River. Since it is a protected zone, there are no current users and there are no



residents present in the area. However, an irrigation dam is located downstream. Issues on water resource competition among upstream and downstream users may surface due to the reduced flow. This may be avoided by maintaining the designed water flow to ensure sufficient supply of water will flow downstream. MFWD will also acquire water right from the National Water Resources Board (NWRB) which will ensure that water resources are properly allocated.

**Nuisance and Problems to the Public.** Potential nuisances and problems coming from the public during construction can be avoided and immediately addressed through consultation and information dissemination to potentially affected people during detailed design and pre-construction phase. Tender documents shall include provisions addressing potential nuisances and problems from the nearby community during construction including environmental management provisions on the following issues: (i) erosion and sediment runoff, (ii) noise and dust, (iii) vehicular traffic, (iv) construction wastes, (v) oil and fuel spillages, (vi) construction camps, and (v) public safety and convenience.

**Interruption of other utility services.** Some existing utility services could be temporarily interrupted during construction especially co-located utility lines and may cause inconvenience to the public.

**Mitigation.** Prior to construction works, the contractor shall coordinate with respective offices in acquiring required clearances with regard to electricity, telephone lines, and other utilities/structures that may be affected. These shall all be reflected in the construction contracts.

**Loss of Assets.** The proposed project will not entail any involuntary resettlement and there are no adverse impacts on surrounding structures since the location of proposed project components will be constructed in either land already owned by MFWD or land that will be acquired via negotiated settlement.

**Climate Change Resilience.** While the project aims to improve resilience to climate change by upgrading and/or expanding the existing water system, the system itself may be vulnerable to climate change effects. This can be mitigated by conducting a suitable study to determine the availability (or abundance) of raw water, especially under extremely dry weather conditions.

Likewise, relevant engineering specifications are implemented to tackle certain natural hazards (e.g. flood, earthquake). The construction parameters applicable to the identified level of risk will be taken into account in all civil works. Disaster risk mitigation measures will include, among other things, sufficient structural foundation elevation to account for projected or estimated flood depths (i.e. 50-year return period for catchment areas less than 40 km<sup>2</sup>, and 100-year return period for catchment areas more than 40 km<sup>2</sup>); avoid areas of known seismic risks (e.g. fault lines) as component locations; and ensure structural design complies with applicable standards / codes (i.e. 2015 National Structural Code of the Philippines (NSCP) and the latest edition of the American Water Works Association (AWWA). During the DED stage, these measures will be examined in detail.

## **B. Construction Phase Environmental Impacts**

Prior to the commencement of construction activities, the civil works contractor is required to submit a Contractor's Environmental Management Plan (CEMP) which is a refinement of MFWD subproject's initial EMP. The proposed mitigation in the initial EMP may be further modified or enhanced in the CEMP to make it more site-specific. The CEMP requirements are further discussed under the Environmental Management Plan (EMP) section.



**Site Preparation.** Installation of WTP and laying of pipelines will not involve modification of the construction site topography. Water supply pipelines will follow as much as possible the existing site contour.

In order to withstand the environmental damage of the forest ecosystem, all pipeline installation and excavation works will be conducted adjacent to the existing NIA canal. Thus, no trees and/or large vegetation will be affected and thereby promoting sustainable management of the forest environment.

**Soil Erosion and Sediment from Construction Sites.** During rainy seasons, exposed soil at the construction site can easily be eroded and carried to the natural drainage system if preventive measures are not established.

**Mitigation.** In preventing erosion, surface runoff must be controlled using structural erosion prevention and sediment control practices which will divert the storm water flows away from the exposed areas, prevent sediments from moving offsite, and reduce the erosive forces of runoff waters. These measures must be established by the contractor: (i) interceptor dikes, (ii) pipe slope drains, (iii) straw bale barriers, (iv) sediment traps, and (v) temporary sediment basins. Whenever possible, total exposed area shall be minimized.

**Nuisance/Public Inconvenience during Pipelaying.** The prolonged period of water supply service interruptions during pipelaying works may result to public inconvenience. Dumping of construction materials and solid wastes in water bodies will also cause nuisance to the public aside from affecting water quality and the flow regime. Digging activities will also cause inconvenience and may restrict public access to subproject areas

**Mitigation.** The contractor shall be required to perform the following: (i) installation or replacement of pipes within the shortest time possible to minimize water supply cut-off periods and/or use of night time schedules, as well as announcement of water supply interruptions two (2) to three (3) days prior to actual cut-off; and (ii) avoid dumping of earth, stones, and solid wastes in water bodies to avoid adverse impact on water quality and flow regime.

Restriction of access to the site must be done through a combination of institutional and administrative controls, including fencing, signage, and communication of risks to the local community.

**Construction Noise.** Potential sources of noise may come from vehicles and construction equipment, which can generate noise of 80 dB(A) from a distance of 30 meters while loud noise from sources such as blasting are not anticipated. Residential and commercial structures are identified as receptors during the construction of intake structure, installation of WTP, and pipelaying.

**Mitigation.** Exposure of receptors to increased noise levels can be lessened by scheduling construction during daytime only. In areas near residential areas or noise sensitive sites, noisy equipment shall not be operated during nighttime to early morning (22:00H – 06:00H). The use of noise suppressors (mufflers) in equipment and vehicles is also recommended. Workers using noisy equipment shall be provided with earplugs as well.

Ambient baseline noise levels will be established at designated strategic locations with sensitive receptors. In case baseline noise levels already exceed the guideline values, IFC-EHS allows a maximum 3 dB(A) increase in noise levels as a result of project activities. Mitigation measures may be adjusted in the CEMP based on the baseline noise levels.



**Local Air Pollution Due to Construction Activities.** Piles of sand, gravel and waste materials that would be generated during trenching, earthworks, and soil preparation activities can contribute to the total suspended particles in the air. Machineries and heavy equipment used in the construction will also account for vehicular emissions during construction. Without any mitigating measures, dust generation could be significant during dry periods.

**Mitigation.** Machineries and heavy equipment used in the construction must be regularly maintained and operated and must comply with the requirements of the Clean Air Act regarding vehicle emissions. Piles of sand, gravel and waste materials that would be generated during site clearing should be watered frequently to prevent dust particles from affecting nearby areas. Covers for open stockpiles shall be required to prevent dust generation due to the wind current. Vehicles transporting loose construction materials such as sand, gravel, spoils, and the like shall be provided with tarpaulin cover as well.

**Oil and other hazardous materials releases.** Aside from the use of fuel, oil, and grease for heavy equipment and vehicles during construction works, the use of paints and solvents may be expected as well. Impacts relating to accidental release of these materials are considered to be insignificant since expected quantities will be relatively small. However, as part of good construction practice, the contractors will be required to conduct an awareness program for all workers regarding the prevention and management of spills and proper disposal of used containers. Fuel and oil shall be stored in a designated secured area provided with an impermeable liner to prevent the accidental spills from seeping into the ground.

**Vehicular Traffic Congestion and Public Access.** Traffic flow will be disrupted if routes for delivery of construction materials and temporary blockages in heavily traveled highways and narrow streets are not planned and coordinated. Potential traffic congestion is expected due to construction activities, but of minimal magnitude.

**Mitigation.** A traffic management plan shall be included in the CEMP. The traffic management plans which may include traffic diversion schemes should be properly coordinated with the LGU and the local office in charge of traffic management. Prior to implementation of the traffic re-routing plan, the public must be informed in advance. The method of informing the public would be left to the discretion of the proponent. Options include posting notices in public places, in local newspapers, through local radio and television programs or through public address system. Billboards placed in strategic locations will also serve the purpose. It is recommended to place appropriate and sufficient signages at strategic locations to forewarn the public of the expected traffic problem and to suggest alternative routes that they may take. During this period, traffic aides must be assigned to manage the traffic.

**Hazards to Public Due to Construction Activities.** Inconvenience to the general public which may result to accidents is one of anticipated impacts during construction activities. Pipelaying along the roads as well as movement of construction vehicles and excavations would pose some hazards to the driving public,. There is also risk of people falling down in open trenches since pipelaying trenches are normally left uncovered until pipeline testing is completed.

**Mitigation.** MFWD and the contractor should ensure that sufficient and appropriate safety warning devices, safety signs, safety nets or safety guards and cover for open ditches must be implemented at strategic locations to ensure the safety of the people. MFWD may also consult the provincial and local government units to delineate the public safety zone or measurable distance prohibiting public entry and other possible forms of encroachment during construction operations. In addition, MFWD may provide alternate access roads to further ensure public safety, if necessary.



**Pollution and Health Risk due to Workers Camp.** During the construction period, workers are expected to erect temporary workers' camps. Due to run-off of from sanitary sewage, wastewater and solid wastes brought by workforce, potential pollution may occur as a result of improper waste disposal.

**Mitigation.** The construction contractor shall prepare a solid waste disposal plan which shall be included in the CEMP. The contractor shall also be required to carry out the following: (i) install proper sanitary facilities to prevent the indiscriminate discharge of sanitary wastes at the camps' surroundings, (ii) implement proper solid waste management, and (iii) prevent surface runoffs from flowing into the workers camps to avoid carrying away any contaminants. The contractor shall be required to use temporary diversion drains, catch drains, and silt-traps at these camps.

**Disruption of Freshwater Ecosystem.** There is minimal disruption to fresh water eco system during the construction of the intake structure. There will only be short period of disruption to the water source as well as downstream water body.

**Improper Closure of Construction Sites.** Generation of solid wastes (e.g. used wood materials, steel works cuttings, paint and solvents containers, used oil from equipment, unused aggregates, etc.) after construction activities may cause aesthetic problems and potential contamination of the surrounding environment.

**Mitigation.** The project site shall not be abandoned in disorderly condition but instead restored for functional use. Following the completion of the construction, the MFWD shall deactivate the project offices, and the construction yard including unserviceable vehicles and equipment. Wastes arising from the abandonment must be taken care of the contractor.

**Increase Employment Opportunities at Work Sites.** Construction activities require a considerable number of workers. The impact would be beneficial and significant to people since employment opportunities in the area will increase.

**Enhancement.** A robust "local first" hiring policy will be designed and implemented by the contractor in coordination with local officials and community leaders especially at the barangay and municipal levels. No preference in terms of gender during the hiring process will be observed.

## **C. Operation Phase Environmental Impacts**

**Health Hazard Due to Delivery of Poor Water Quality.** Delivery of water with poor quality to distribution system is a health risk to the consumers. Threats of contamination due to presence of bacteria, viruses, protozoa, or chemicals are usually present in raw water sources up to the service connections, thus, post-treatment contamination is still anticipated as the water is transported to the consumer and considered to be a significant impact.

**Mitigation.** MFWD shall ensure that the potable water consistently passes the requirements of the Philippine National Standards for Drinking Water (PNSDW) of 2017. To achieve this, implementation of the water safety plan with regular water quality monitoring shall be undertaken.

A water safety plan shall enable MFWD to (i) prevent contamination of its water sources, (ii) treat the water to reduce or remove contamination that could be present to the extent necessary to meet the water quality targets, and (iii) prevent recontamination during storage, distribution and handling of drinking water.



For controlling microbial contamination, gas chlorine disinfection will ensure that water will be chlorinated and adequate residual disinfection will be maintained. The standards for chlorine residual of the 2017 PSDW are: (i) 0.3 mg/l minimum for detection at the farthest point of the distribution system and (ii) 1.5 mg/l maximum for detection at the farthest point of the distribution system.

**Pollution from Increased Generation of Sewage and Sullage.** Since majority of the water supply are used for domestic purposes, increasing the water supply to the service area will also increase the generation of sewage and sullage. This wastewater will contribute to pollution of the surrounding areas if not addressed properly and impact would be significant.

**Mitigation.** Sewage and sullage will be discharged to the individual septic tanks system of the water consumers. The septic tank system will: (i) treat the wastewater and reduce the pollution potential and (ii) reduce the public's exposure to untreated domestic wastewater. This will help in avoiding disease transmission.

**Noise and Air Pollution of Pumping Stations.** The subproject does not include construction of pumping stations.

**Ground Subsidence Due to Over-pumping.** The subproject does not include construction of deep well/s, therefore, over-pumping is not expected.

**Pumping Stations and Water Treatment Operational Risk and Safety.** The subproject does not include construction of pumping stations.

The proposed MFWD water treatment facility will not inherently pose risks to the environment and people. These facilities will not use flammable materials during normal operations. Conditions of extreme conditions of temperature and pressure are not to be expected. However, since MFWD will be using liquid chlorine as disinfectant in the water treatment operation, mishandling of this toxic liquid pose a threat to people and the environment and the impact is considered to be significant.

**Mitigation.** MFWD shall establish a health and safety program for its workers that will tackle safety and handling of chlorine as well as measures to take in the event of a chlorine leak. A written safety program shall be distributed to operators with the following information: (i) rules and specific safety procedures, (ii) contact numbers of emergency response offices, and (iii) location of safety equipment (e.g. leak detectors, eyewash, respirators, etc.). Workers must also be equipped with adequate Personal Protective Equipment (PPEs).

**Increase Employment Opportunities.** Operation and maintenance activities require a considerable number of workers. The impact would be beneficial to people since employment opportunities in the area will increase. However, since the additional water supply facilities are not labor intensive, the expected number of additional workers will be small and the impact is considered less significant.

**Lower Precipitation and Higher Temperature due to Climate Change.** As mentioned in the previous sections, Bukidnon is one of the areas in the Philippines most vulnerable to drought and are experiencing seasonal aridity and recurrent droughts according to CCC. Data from the Philippine Atmospheric, Geophysical and Astronomical Services Administration's (PAGASA) showed that as observed from 1971-2000 (baseline), the lowest amount of rainfall in the Province of Bukidnon occurs during northeast monsoon or months of December, January, and February while the highest temperature occurs during the summer months of March, April, and May. Moreover, recent data revealed that in 2050, the mean amount of



rainfall during this season will decrease by 3.2 to 7.4% while mean temperature will increase by 1.3 – 1.8 °C, depending on the country's collective amount of emission.

**Mitigation.** Adaptation to climate change needs to be looked closely in the WD's long-term planning in view of PAGASA's predictions of weather pattern changes. These changes would affect water supply sources, whether surface water and/or groundwater, as well as the concurrent issue of potential water uses conflict in the future.

To protect the water supply against the variability of the seasons, runoff and usage, the following may be done: (i) building additional water storage infrastructure, such as reservoirs or storage tanks, to provide buffers; (ii) adjusting infrastructure designs and introducing flexibility in water systems operations can build resilience to changing climatic conditions such as changes in the seasonality of precipitation; (iii) diversifying water supply sources—including conjunctive use of surface and groundwater, reuse and recycling, and use of household-level water sources such as roof water harvesting—can mitigate the impacts of weather-related disruptions on any given component of the water supply system.

**Potential Conflict on Water Uses.** Water demand is expected to increase as a result of population growth which may eventually create conflict on different water uses.

**Mitigation.** MFWD is expected to adopt an integrated water resources management within the watershed to improve the allocation and management of scarce water resources in the context of climate change. An agreement with DENR and the local government for the assignment of a watershed area to the WD will be worked out. The agreement will include the active participation of the municipality and watershed barangays. Meanwhile, the WD will continue to implement its tree planting program in coordination with the barangays.

After careful and thorough assessment of impacts and risk screening, this proposed subproject is expected to have an overall beneficial net effect on the water supply system of the WD because it will improve the water resiliency in the Province of Bukidnon. In addition, the additional service coverage area will provide a clean water supply to more people.

**Table 5-3** lists the environmental impacts and risks that requires mitigation and shall be carried to the EMP Section.

**Table 5-3: Environmental Impacts and Risks for Inclusion in EMP**

Environmental Impacts and Risks	Without mitigation	With Mitigation
<b>PRE-CONSTRUCTION PHASE</b>		
Encroachment to environmentally sensitive areas	● -	Δ
Impacts and risks to biodiversity conservation	● -	Δ
Potential nuisance and problems to the public	● -	Δ
Interruption of other utility services	● -	Δ
Loss of assets (IR concerns)	● -	Δ
<b>CONSTRUCTION PHASE</b>		
Displacement of rare or endangered species	● -	Δ
Soil erosion and sediments of construction sites	● -	Δ
Nuisance/ public inconvenience in pipe laying	● -	Δ
Noise from construction equipment	● -	Δ
Local air pollution due to construction activities	● -	Δ
Vehicular traffic congestion and public access	● -	Δ
Hazards to public due to construction activities	● -	Δ
Pollution and health risk due to workers camp	● -	Δ
Increase employment opportunity in work sites	● +	● +
Improper closure of construction sites	● -	Δ



Environmental Impacts and Risks	Without mitigation	With Mitigation
<b>OPERATION AND MAINTENANCE PHASE</b>		
Health hazard due to delivery of poor water quality	● -	Δ
Pollution from increased generation of sewage and sullage	● -	Δ
Water treatment facility operational risk and safety	● -	Δ
Future scarcity of water and conflict in water uses due to climate change	● -	Δ

Legend: n.a. = not applicable; Δ = insignificant; ● = significant; + = positive; - = negative

The subproject is unlikely to cause significant adverse impacts. However, there are no impacts that are significant or complex in nature, or that needs an in-depth study to assess the impact. The potential adverse impacts that are associated with design, construction, and O&M can be mitigated to acceptable levels with the recommended mitigation measures.

## 6 PUBLIC CONSULTATION AND INFORMATION DISCLOSURE

A stakeholder consultation and participation were implemented as part of the preparation and implementation strategy. This were done to address the stakeholders' needs and disclosure of the project details and the benefits they shall receive. The consultation process during the project preparation has solicited inputs from a wide range of stakeholders, including government officials, residents in the vicinity of the subproject sites, marginalized/vulnerable beneficiary groups, and project affected persons (APs).

Affected persons were consulted at various stages in the project cycle to ensure:

- incorporation of views/concerns of APs on compensation/resettlement assistance and environmental impacts and mitigation measures;
- inclusion of vulnerable in project benefits;
- identification of help required by APs during rehabilitation, if any; and
- avoidance of potential conflicts/smooth project implementation.

Key stakeholders were consulted during the project preparation, EMP implementation, and project implementation including the following:

- Elected representatives, community leaders, religious leaders and representatives of community-based organizations;
- Local government and relevant government agency representatives, including local authorities responsible for land acquisition, protection and conservation of forests and environment, archaeological sites, religious sites, and other relevant government departments;
- Residents, shopkeepers and business people who live and work alongside the roads where pipes will be lay and near sites where facilities will be built;
- Custodians, and users of socially and culturally important buildings;
- WDs representatives and consultants; and
- ADB representatives

At the planning stage of the project, the proponent has conducted several public consultations in Brgys. Dahilayan and Mampayag on November 2019 as listed in

**Table 6-1** below. A summary of the issues and concerns raised are presented in **Table 6-2**.

Following the approval of the subproject, and in connection to the application for an Environmental Compliance Certificate (ECC), where the proponent will be required to undergo public scoping activity or a Barangay Resolution of No Objection to the proposed project as the case may be, barangay consultations focused on the host barangays is undertaken.



**Table 6-1: Summary of Activities Conducted**

Date	Activity	Target Group	Location
Nov. 13, 2019	Consultation with Dahilayan Barangay Council – Presentation of Proposed Project	Barangay Officials	Dahilayan Barangay Hall
Nov. 18, 2019	Consultation with Mampayag Barangay Council – Presentation of Proposed Project	Barangay Officials	Mampayag Barangay Hall
Nov. 25, 2019	Dahilayan Joint Inspection and Survey of would be affected households, building, plants and trees during the outlaying	Residents nearby road, home or building owners, farmers	Dahilayan
Nov. 26, 2019	Mampayag Joint Inspection and Survey of would be affected households, building, plants and trees during the outlaying	Residents nearby road, home or building owners, farmers	Mampayag

**Table 6-2: Summary of Issues and Concerns Raised**

Group Represented/ Representative	Issues/Concerns Raised	Proponent's Response
Residents, House/building owners	Demolition/restoration expense of the structure	MFWD will give just compensation upon presentation of documents that claimants are lawful owners of the area of the would be affected structure
Farmers	Plants\trees damage	Mature crops will be given ample time to harvest. While immature crops be compensated to justified claimant
Irrigation Association	Will the project exhaust the capacity of the Agusan River?	Assured them that the project will appropriate only 151.36 lps out of the 1,600 lps discharge capacity of the Agusan River
Brgy officials	Will the residents benefit from the project as end user?	Guaranteed that residents of their barangays will be catered once this project is realized

A copy of the minutes of the meeting is presented in the **Annex 6**.

## 7 ENVIRONMENTAL MANAGEMENT PLAN (EMP)

The EMP addresses the need for mitigation and management measures for the MFWD subproject. This includes: (i) mitigating measures to be implemented, (ii) required monitoring



associated with the mitigating measures, and (iii) implementation arrangement. Institutional set-up is presented in the implementation arrangement and discusses the roles during implementation and the required monitoring. It also outlines the requirements and responsibilities during pre-construction, construction, and operation phases. The EMP shall be included in the contract documents to guarantee an environmentally responsible procurement. Tender documents and construction contracts shall include environmental management provisions on the following issues: (i) erosion and sediment runoff, (ii) noise and dust, (iii) vehicular traffic, (iv) construction wastes, (v) oil and fuel spillages, (vi) construction camps, and (vii) public safety and convenience.

## A. Environmental Mitigation

**Table 7-1** presents the information on: (i) required measures for each environmental impact that requires mitigation, (ii) locations where the measures apply, (iii) associated cost, and (iv) responsibility for implementing the measures. Details of mitigating measures are already discussed in **Section 5** where the need for mitigation of each impacts was determined in the screening process.

**Table 7-1: Environmental Mitigation Plan**

Project Activity	Potential Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Location	Mitigation Cost	Responsibility Implementation/ Supervision
<b>PRE-CONSTRUCTION PHASE</b>					
Excavation requirements	Excavation requirements	<ul style="list-style-type: none"> <li>Provision in tender documents that will require construction activities to be stopped immediately upon discovery of any archaeological and cultural relics and promptly reporting to the National Museum</li> </ul>	Pipeline trenches, civil works excavations	Part of detailed design cost	Design Consultants/ LWUA Project Management Unit (PMU)
Social and community concerns	Potential nuisance and concerns from the public	<ul style="list-style-type: none"> <li>Consultation with the affected communities regarding the expected impacts and proposed mitigation measures of the project</li> <li>Provisions to address the potential nuisances and concerns from the public during construction phase must be included in the CEMP, specifically the following:               <ul style="list-style-type: none"> <li>(i) erosion and sediment runoff,</li> <li>(ii) noise and dust,</li> <li>(iii) vehicular traffic,</li> <li>(iv) construction wastes</li> <li>(v) oil and fuel spillages,</li> <li>(vi) construction camps, and</li> <li>(vii) public safety and convenience</li> </ul> </li> </ul>	Pipelines routes, and intake structure	Part of detailed design cost	MFWD Project Implementation Unit (PIU), Design Consultants/ LWUA PMU
	Damage to or disruption of other utility services	<ul style="list-style-type: none"> <li>Possible utility lines that may be affected during the construction must be identified.</li> <li>Proper coordination with utility providers with regard to electricity, telephone lines, and other utilities/structures that may be affected. Permit/s or</li> </ul>	Pipelines routes	Part of detailed design cost	MFWD Project Implementation Unit (PIU), Design Consultants/ LWUA PMU



Project Activity	Potential Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Location	Mitigation Cost	Responsibility Implementation/ Supervision
		clearance/s must be secured, if necessary			
Preparation of detailed engineering design	Natural hazards, such as earthquake and flood	<ul style="list-style-type: none"> <li>Structural integrity of the water supply system shall conform with the requirements of the 2015 National Structural Code of the Philippines (NSCP) and the latest edition of the American Water Works Association (AWWA) Standards for wells, pipes, valves, and fittings</li> <li>Projection of flood level using 50-year return period for catchment areas less than 40 km<sup>2</sup>, and 100-year return period for catchment areas more than 40 km<sup>2</sup></li> </ul>	All structural components	Part of detailed design cost	Design Consultants/ LWUA PMU
	Project-related complaints	<ul style="list-style-type: none"> <li>Establishment of a grievance redress mechanism (GRM).</li> </ul>			MFWD PIU, PMU/ Supervision Consultant, LWUA
Site preparation	Vegetation clearing	<ul style="list-style-type: none"> <li>Areas to be cleared of vegetation should be delineated clearly (by fencing) so that unnecessary expansion of clearing should be avoided</li> <li>Areas cleared of vegetation should be rehabilitated to near pre-project conditions as possible. This would entail reforestation using indigenous species</li> </ul>	All project sites	Included in construction contract cost.	Contractor/ MFWD PIU, PMU, Supervision Consultant, LWUA, DENR
Baseline survey	Ambient noise level	<ul style="list-style-type: none"> <li>Baseline measurement of ambient noise shall be conducted and will be incorporated in the CEMP</li> <li>If baseline noise levels already exceed the IFC-EHS guideline values, a maximum 3 dB(A) increase in noise levels as a result of project activities shall be allowed thru the implementation of mitigation measures.</li> </ul>	Identified sites with sensitive receptors	Included in construction contract cost.	Contractor/ MFWD PIU, PMU, Supervision Consultant, LWUA, DENR
CEMP preparation	Improper EMP implementation	<ul style="list-style-type: none"> <li>A contractor's environmental management plan (CEMP) shall be prepared and cleared by PMU, PIU and ADB prior to start of construction. The CEMP will be based on the project the EMP to make it more site-specific and update baseline information when necessary. The CEMP will include detailed management plans such as traffic management plan, spoils and wastes management plan, community and occupational health and safety plan and should be cleared by LWUA,</li> </ul>	All project sites	Included in construction contract cost.	Contractor/ MFWD PIU, PMU, Supervision Consultant, LWUA



Project Activity	Potential Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Location	Mitigation Cost	Responsibility Implementation/ Supervision
		MFWD, and ADB prior to start of civil works. <ul style="list-style-type: none"> <li>The Contractor shall assign an Environmental, Health, and Safety (EHS) Officer who shall lead in CEMP preparation and ensure the proper implementation of the EMP and EMoP.</li> </ul>			
	Non-compliance with government requirements	<ul style="list-style-type: none"> <li>All applicable government permits such as ECC/CNC, PAMB, DENR-BMB clearances, water permit, and permit to operate, shall be secured prior to start of construction. Copies of these will be included in the CEMP.</li> </ul>	All project sites	Included in construction contract cost.	Contractor MFWD PIU/ PMU, Supervision Consultant, LWUA
<b>CONSTRUCTION PHASE</b>					
Pipelaying and other civil works	Soil erosion and sediments from construction sites during rainy periods	<ul style="list-style-type: none"> <li>Minimize total exposed area</li> <li>Use of structural erosion prevention and sediment control practices which may include: interceptor dikes, pipe slope drains, straw bale barriers, sediment traps, and temporary sediment basins</li> </ul>	Pipelines routes, and intake structure	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
	Nuisance / inconvenience to the public	<ul style="list-style-type: none"> <li>Minimize water supply cut-off periods and /or use of nighttime schedules, as well as announcement of water supply interruptions 2-3 days prior to actual cut-off</li> <li>Avoid dumping of earth, stones, and solid wastes in water bodies</li> </ul>	Pipelines routes	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
	Nuisance from noise of construction equipment and vehicles	<ul style="list-style-type: none"> <li>All heavy equipment and machineries shall be fitted with noise dampening devices that are in good condition.</li> <li>Inform workers to minimize their activities to avoid disturbing the nearby communities. Avoid operating noisy equipment during nighttime (22:00 – 06:00)</li> <li>Vehicle horn signals will be kept at a low volume, if necessary.</li> <li>All active vehicles and equipment should be confined to previously disturbed areas</li> </ul>	Pipelines routes, and intake structure	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
	Air pollution due to construction activities	<ul style="list-style-type: none"> <li>Water spraying for dust control</li> <li>Construction materials with potential for significant dust generation shall be covered</li> <li>Tarpaulin cover for trucks transporting loose construction materials</li> <li>Avoid smoke belching equipment</li> </ul>	Pipelines routes, and intake structure	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
	Traffic congestion and hindrance to access	<ul style="list-style-type: none"> <li>Traffic diversion schemes and other traffic management plans should be properly coordinated with the LGU and the local office in charge of traffic management,</li> </ul>	Pipelines routes	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants



Project Activity	Potential Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Location	Mitigation Cost	Responsibility Implementation/ Supervision
		and consulted with the stakeholders. <ul style="list-style-type: none"> <li>Prior to implementation of the traffic re-routing plan, the public must be informed in advance.</li> </ul>			
	Pollution, accident, and health risks to workers	<ul style="list-style-type: none"> <li>All domestic wastes will be disposed of in accordance with the construction and operations waste management procedures.</li> <li>Provision of sanitary or portable toilets to laborers</li> <li>Implementing a solid and hazardous wastes management plan</li> <li>Provision of surface runoffs control such as temporary diversion drains, catch drains, and silt-traps</li> <li>Provision of personal protective equipment (PPE) to workers and requiring them to use PPE appropriate to their work</li> <li>Conduct HSE training to workers, including HIV, STD and COVID-19 awareness</li> <li>Comply with government directives and protocols on COVID-19.</li> </ul>	Workers camp; construction sites	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
	Hazard to public due to construction activities	<ul style="list-style-type: none"> <li>Implement road safety plan and safety measures including warning signs to alert people of hazards around the construction sites, barricades, and night lamps for open trenches in pipelaying</li> </ul>	Pipelines routes, and intake structure	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
	Increase employment opportunities	<ul style="list-style-type: none"> <li>A robust "local first" hiring policy will be designed and be implemented in coordination with local officials and community leaders especially at the barangay and municipal levels.</li> <li>At least 50% hiring of unskilled labor from local residents will be implemented as per RA 6685.</li> <li>No preference in terms of gender during the hiring process will be observed.</li> <li>Adopt a just compensation scheme to avoid future labor and management conflicts.</li> </ul>	Pipelines routes, and intake structure	No cost	Contractor/ MFWD PIU, Supervision Consultants
	Potential risk to wildlife species	<ul style="list-style-type: none"> <li>Poaching and illegal trading of wildlife by workers or nearby residents will not be allowed and shall be closely monitored</li> </ul>	Agusan River, at the foot of Mt. Kitanglad	No cost	Contractor/ MFWD PIU, Supervision Consultants
Rehabilitation and closure of construction sites	Improper closure of construction sites	<ul style="list-style-type: none"> <li>Removal and proper disposal of all construction wastes and implement surface restoration</li> <li>Disposal area must be confined on solid ground and not occupy marshy substrates</li> </ul>	Pipelines routes, and intake structure	Incorporated in construction contract	Contractor/ MFWD PIU, Supervision Consultants
<b>OPERATION PHASE</b>					



Project Activity	Potential Environmental Impact	Proposed Mitigation Measure or Enhancement Measure	Location	Mitigation Cost	Responsibility Implementation/ Supervision
Water production	Health hazard due to delivery of poor water quality	<ul style="list-style-type: none"> <li>Water disinfection using chlorine</li> <li>Water safety plan implementation</li> <li>Regular water quality monitoring in compliance with the 2017 Philippine National Standards for Drinking Water (PNSDW)</li> </ul>	Pipelines routes, and pumping station	Part of operation & maintenance costs	MFWD / LWUA
Water consumption	Pollution from increased generation of sewage and sullage	<ul style="list-style-type: none"> <li>Use of individual septic tanks system of water consumers</li> </ul>	Subproject water supply service area	Cost of water consumers	Water consumer/ LGU
WTP operation	WTP operational risk and safety	<ul style="list-style-type: none"> <li>Implementation of a health and safety program for its workers</li> <li>Workers must be equipped with adequate Personal Protective Equipment (PPEs) especially when handling liquid chlorine.</li> </ul>	WTP	Part of capital, operation & maintenance costs	MFWD / LWUA

Although details of the required mitigating measures are already discussed in the screening for impacts, the following items are discussed further to highlight their importance: (i) tender documents and construction contracts, (ii) contractor's environmental management plan, (iii) construction site management plan, (iv) water safety plan, (v) source protection study, and (vi) unanticipated environmental impacts.

**Tender Documents and Construction Contracts.** Inclusion of provisions addressing the management of environmental impacts and risk during construction in contract documents in the form of a Contractor's Environmental Management Plan (CEMP) guarantees an environmentally responsible procurement. Tender documents and construction contracts shall therefore include environmental management provisions on the following issues: (i) erosion and sediment runoff, (ii) noise and dust, (iii) vehicular traffic, (iv) construction wastes, (v) oil and fuel spillages, (vi) construction camps, and (vii) public safety and convenience.

**Contractor's EMP (CEMP).** The CEMP shall be prepared by the civil works contractor prior to start of construction and needs to be approved by MFWD's PIU. This is a refinement of the MFWD subproject's EMP with details on staff, resources, implementation schedules, monitoring procedures and specific measures and procedures on how the contractor will implement the EMP during construction and allocate a budget. This will be the basis for monitoring the environmental performance of the contractor by the PMU, MFWD PIU, construction supervision consultants, and other monitoring parties. Moreover, the construction supervision consultant will be able to manage the specific items expected from the contractor regarding environmental safeguards. With the CEMP, MFWD can easily verify the associated environmental requirements each time the contractor will request approval for work schedules.

As part of the CEMP, baseline noise level measurements will be done during detailed design phase at strategic locations on the areas with sensitive receptors to establish ambient baseline noise levels.

The CEMP shall provide details on specific items related to the environmental aspects during construction. It shall include specifications on requirements for dust control, erosion and sediment control, avoidance of casual standing water, management of solid wastes, workers' camp sanitation, pollution from oil, grease, fuel spills, and other materials due to the operation of construction machineries, safety and traffic management, avoidance of inconveniences to the public, air and noise pollution control. It shall also include guidance on the proper design



of the construction zone, careful management of stockpiles, vegetation, topsoil, and vehicles and machinery.

See **Annex 4** for sample CEMP outline.

**Water Safety Plan.** Preparation of a water safety plan is advocated by WHO for ensuring the delivery of safe drinking water to the consumers using a comprehensive risk assessment and risk management approach that covers the process of sourcing water supply up to the distribution to consumers. Similarly, MFWD shall manage the environmental risk to its water supply system in a broader scale. A water safety plan shall enable MFWD to (i) prevent contamination of its water sources, (ii) treat the water to reduce or remove contamination that could be present to the extent necessary to meet the water quality targets, and (iii) prevent recontamination during storage, distribution and handling of drinking water. It is an approach that will clearly show the desire of the MFWD in applying best practices in ensuring delivery of potable water to its consumers.

Following the DOH Administrative Order No. 2014-0027 that mandates all drinking-water service providers to develop and implement their Water Safety Plan, MFWD's Water Safety Plan is already prepared. Upon completion of MFWD's Water Supply Improvement Project, the Water Safety Plan must be updated to include the improvements in the system.

**Source Protection Study.** Preparation of the source water assessment will be included in the water safety plan. A source water assessment evaluates the susceptibility of a water supply source to potential contaminants that could adversely affect the quality of water supply source identified.

**Unanticipated Environmental Impacts.** In case of occurrence of unanticipated environmental impacts during project implementation, MFWD shall prepare a supplementary environmental assessment and EMP to assess the potential impacts and outline mitigation measures and resources to address those impacts.

## B. Environmental Monitoring

**Table 7-2** presents the information on: (i) aspects or parameter to be monitored, (ii) location where monitoring is applicable, (iii) means of monitoring, (iv) frequency of monitoring, (v) responsibility of compliance monitoring, and (vi) cost of monitoring. The PMU shall prepare semi-annual environmental monitoring reports to be submitted to LWUA management detailing the status of mitigating measures implementation.

**Table 7-2: Environmental Monitoring Plan**

Aspects / Parameters to be monitored	Location	Means of Monitoring	Frequency	Implementation Responsibility	Compliance Monitoring Responsibility	Monitoring Cost
<b>PRE-CONSTRUCTION PHASE</b>						
Specific provision in tender documents on archeological/cultural relics	Pipeline trenches, civil works excavations	Verify draft and final documents	Twice – draft and final documents	Design consultants	LWUA PMU	Part of project management in detailed design (minimal cost)
Consultation meetings with the community	Pipelines routes, intake structure, and WTP	Verify meetings documentation	After completion of meetings	MFWD, Design consultants	LWUA PMU	Part of project management in detailed



Aspects / Parameters to be monitored	Location	Means of Monitoring	Frequency	Implementation Responsibility	Compliance Monitoring Responsibility	Monitoring Cost
						design (minimal cost)
Specific provisions in tender documents on nuisance & concerns from the public	Pipelines routes, and intake structure	Verify draft and final documents	Twice – draft and final documents	MFWD, Design consultants	LWUA PMU	Part of project management in detailed design (minimal cost)
<b>CONSTRUCTION PHASE</b>						
Total area to be exposed; runoff flowing into disturbed sites	Pipelines routes, and intake structure	Visual inspection of sites; plans verification	Daily during rainy periods	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Water supply interruptions	Pipelines routes	Work schedules verification	Daily	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Materials and solid wastes dumped in water bodies	Pipelines routes, and intake structure	Visual inspection of sites	Daily	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Noise levels to comply with IFC-EHS noise guideline values.	Pipelines routes, and intake structure	Use of sound level meter	Daily	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Dust, cover of stockpiles, smoke belching vehicle and equipment	Pipelines routes, and intake structure	Visual inspection of sites	Daily	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Road closure and traffic rerouting; materials stockpiles; road restoration	Pipelines routes	Traffic plans verification	Weekly	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Sanitary toilets, garbage bins, runoff controls	Workers camps	Visual inspection of camps	Once before start of construction and once monthly	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract;



Aspects / Parameters to be monitored	Location	Means of Monitoring	Frequency	Implementation Responsibility	Compliance Monitoring Responsibility	Monitoring Cost
						minimal cost to MFWD PIU
Road safety plan; sign, barricades and night lamps	Pipelines routes, and intake structure	Visual inspection of sites	Daily	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Construction wastes	Pipelines routes, and intake structure	Visual inspection of sites	Once before final stage of demobilization	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Poaching and illegal trading reports	Agusan River, at the foot of Mt. Kitanglad	Coordination with LGUs	n/a	Contractor	MFWD PIU	No cost
Number of local labor employed	Pipelines routes, and intake structure	Verification of contractor's records	Once a month	Contractor	MFWD PIU	No cost
<b>OPERATION PHASE</b>						
E. Coli bacteria; PNSDW physical & chemical parameters	Pipelines routes, and WTP	Water sampling and laboratory test	Monthly for bacteria; annual for physical & chemical	MFWD	LWUA	Part of MFWD's operation cost
Septic tank of water consumers	Subproject water supply service area	Visual inspection of sites	Once a year	Water consumer	LGU	Minimal cost
Liquid chlorine usage	WTP	Verification of operation records	Once a year	MFWD	LWUA	Minimal cost

**Project Performance Monitoring.** Project performance monitoring presents the desired outcomes as measurable events by providing parameters or aspects that can be monitored and verified (**Table 7-3**). For preconstruction phase, the EMP requirements need to be incorporated in construction contracts to achieve an environmentally responsible procurement as a desired outcome. Construction phase desired outcomes include effective management of environmental impacts and reduce risk to public. For the operation phase, MFWD's water supply system must meet the drinking water standards (2017 PNSDW) for physical, chemical, and bacteriological parameters.

**Table 7-3: Project Performance Monitoring**

Desired Outcomes	Aspects / Parameters to be monitored	Means of Monitoring	Frequency	Implementation	Compliance Monitoring	Monitoring Cost
<b>PRE-CONSTRUCTION PHASE</b>						
Environmentally responsive detailed design	EMP requirements incorporated in detailed design	Verify detailed design documents; EMP requirements reflected in tender documents	Twice – (i) draft detailed design documents and (ii) prior to approval of	MFWD, Design consultants	LWUA PMU	Minimal cost



Desired Outcomes	Aspects / Parameters to be monitored	Means of Monitoring	Frequency	Implementation	Compliance Monitoring	Monitoring Cost
			final documents			
Environmentally responsible procurement	EMP requirements incorporated in construction contracts	Verify construction contract documents	Prior to finalization of construction contract documents	MFWD PIU	LWUA PMU	Minimal cost
<b>CONSTRUCTION PHASE</b>						
Effective management of environmental impacts during construction	Number of public complaints on construction activities	Verification of contractor's records; MFWD's coordination with local officials	Once a month	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
Reduce risk to public during construction	Number of accidents involving construction activities	Verification of contractor's records; MFWD coordination with local officials	Once a month	Contractor	Construction supervision consultants, MFWD PIU	Part of consultant's construction supervision contract; minimal cost to MFWD PIU
<b>OPERATION PHASE</b>						
Conformance of Water quality to drinking water standards	Required drinking water quality parameters (bacteria count, color, pH, turbidity, dissolved solids, hardness, alkalinity, manganese, iron, fluoride, chloride, sulfates, magnesium, calcium, carbonates, and bicarbonates)	Water sampling and laboratory test	Monthly for bacteria; annual for physical & chemical	MFWD	LWUA	Part of MFWD's operation cost

### C. Implementation Arrangement

This subsection presents the: (i) institutional set-up, (ii) implementation schedule, (iii) required clearances and permits, and (iv) capability building

**Institutional Setup.** For this subproject, LWUA will serve as the executing agency, while MFWD will be the implementing agency. LWUA has overall responsibility for project coordination, implementation, and liaison with ADB and other government offices. A Project Management Unit (PMU) to be created by LWUA will be responsible for coordinating the implementation at the national level. A PMU staff shall be designated as the Environment Officer for the project. Before the commencement of the subproject, a team of consultants will assist LWUA's PMU and MFWD to ensure smooth implementation and secure required documents. MFWD will be responsible for the procurement of goods, works, and services.



During construction and operation phase of the subproject, MFWD will oversee the implementation of the subproject. MFWD shall create a Project Implementation Unit (PIU) for the day-to-day management of the project and will work closely with LWUA's PMU. WDGRC will handle the grievance redress mechanism and promptly address the public's complaints about environmental performance of the subproject.

ADB will assess status of EMP implementation and over-all environmental performance of the Project by reviewing environmental monitoring reports submitted by LWUA and conducting site visits to validate conditions onsite. Corrective actions will be agreed with LWUA, MCWD and the contractor to address deficiencies in EMP implementation or inadequacy of mitigation measures. ADB will disclose on its web site semi-annual environmental monitoring reports submitted by LWUA.

**Environmental Corrective Action Plan.** Should the mitigation measures indicated in the CEMP and EMP are observed to be inadequate during subproject implementation, the construction supervision consultants and PIU shall propose a corrective action plan to address this inadequacy and ensure compliance.

**Environmental Monitoring Reports.** During the construction period, the contractor shall submit to the PIU a monthly environmental self-monitoring report to be submitted to PIU, construction supervision consultants, and PMU. The PIU together with the construction supervision consultants, shall also conduct at least monthly site inspection to monitor EMP implementation and validate the contractor's environmental monitoring reports. Monthly reports of these monitoring activities shall be submitted to MFWD and the PMU. The PMU shall collate all the monthly data and prepare semi-annual environmental monitoring reports (SEMR) which shall be submitted by LWUA to ADB. SEMRs are due on 31 July for the first semestral report and on 31 January of the following year for the second semestral report. ADB will publicly disclose the SEMRs on its web site.

**Implementation Schedule.** The MFWD subproject is scheduled to start in 3<sup>rd</sup> Quarter of 2020 and to be completed in 1<sup>st</sup> Quarter of 2021. MFWD shall ensure that construction contract provisions related to the EMP shall be included in the tendering stage.

**Clearances and Permits.** Under Philippine regulations, MFWD shall apply for an Environmental Compliance Certificate (ECC) from the EMB Region X for the proposed augmentation of the existing water supply system and Water Permit from the NWRB. Securing the ECC from EMB Region XII will cost Php 5,055.00 while applying for Water Permit from NWRB will cost Php 7,200.00. Both permits will be secured prior to implementation of the subproject. Tree cutting permits will be secured from EMB Region X by the contractor, if trees have to be cut.

The MFWD have already completed all the documentary requirements for the acquisition of the ECC. On the other hand, water permit for the Agusan River source was already granted by NWRB.

**Capability Building.** Capacity building activities for LWUA, the project management unit (PMU) and MFWD on ADB processes such as environmental and social safeguards, gender mainstreaming, procurement, disbursement and financial management will be provided under the WDDSP. Other trainings necessary for an efficient implementation of the subproject will be identified and added in the future.

**Environmental Cost.** The indicative overall cost for the implementation of the EMP is shown in **Table 7-4**.



**Table 7-4: Cost for EMP Implementation**

Component	Description	Number/ Frequency	Cost per Unit (Php)	Cost (Php)	Source of Funds
<b>PRE-CONSTRUCTION PHASE</b>					
Clearances and permits	Securing ECC from EMB-RO	1 ECC	5,055/ ECC	5,055 for ECC	MFWD expense
	Water Permit from NWRB	1 Water Permit	7,200/ Water permit	7,200 for the Water Permit	MFWD expense
Public consultations and information disclosure	Information disclosure and consultations during preconstruction and construction phase, including public awareness campaign through media	As per requirement	Lump sum	50,000	MFWD expense
Capacity building	Orientation workshop MFWD officials and staff involved in the project implementation on ADB SPS (2009), applicable laws, rules and regulations on environment;	One	Lump sum	720,000 for the 12 WDs included under the WDDSP	Part of the loan package
Baseline ambient noise level survey (24 hr)	Assessment of air quality and noise level along receptors	To be determined	Contractor's liability (approx. 4,000/ sampling station excluding mobilization and manpower cost)	Depends on the number of designated sampling stations	Covered under construction contract (CEMP)
<b>CONSTRUCTION PHASE</b>					
Noise and dust suppression at work sites	Application of noise and dust suppression measures	As required	Contractor's liability	Not applicable	Covered under construction contract
Traffic management	Safety signboards, temporary diversions, barricades, etc.	Wherever required throughout the project corridor	Contractor's liability	Not applicable	Covered under construction contract
Noise level monitoring	Compliance with the IFC-EHS Guidelines	Everyday along nearest receptors	Contractor's liability	Not applicable	Covered under construction contract



Component	Description	Number/ Frequency	Cost per Unit (Php)	Cost (Php)	Source of Funds
Hazard to workers	Implementation of occupational health and safety measures	Throughout the construction period	Contractor's liability	300,000 annually	Covered under construction contract
Any unanticipated impact due to project implementation	Mitigation of any unanticipated impact arising and defect liability period	Lump sum	Contractor's liability	As per insurance requirement	Covered under construction cost – contractor's insurance
<b>OPERATION PHASE</b>					
Water quality	Monthly sampling of water going into the transmission line and randomly from a tap source	16 stations	884.80	169,881.60 annually	MFWD operating expense

## 8 GRIEVANCE REDRESS MECHANISM

Following discussions during the Due Diligence Report (DDR) mission, it was agreed to integrate the ADB required GRM into the current consumer feedback measures that are already implemented and are well established. The DDR mission observed a publicly displayed customer charter and system to record issues with water supply, billing and complaints.

The management team were aware of the need to be able to respond to issues in a timely manner and will separate project related grievances from ongoing supply issues for reporting to ADB and LWUA.

A member of the MFWD team will be appointed to be the focal point for GRM management and will liaise and inform Barangay administration of procedures in case of any issues.

The Project's grievance redress mechanism shall in no way impede access to the formal legal system or the courts. The decision of the courts is for finality of case resolution. Below are the steps to be followed in filing grievances and the procedures for redress.

**Step 1:** The complainant provides the background and files the grievance/complaint verbally or in writing to the MFWD. If unwritten, the Secretary in the MFWD Office will record it in the MFWD complaints system noting it as a project grievance. The focal point for MFWD will respond to the complainant within 3 days to assess whether the issue is project related and aim to resolve the issue and record it within the project grievance register.

**Step 2:** If no resolution or understanding is reached, the complainant files the grievance/complaint to the PMU within LWUA for it to be resolved within 15 days after filing. The written complaint shall be reproduced in four copies; the original to EA-PMU, two for WD-PIU, and one for the file of the complainant.

**Step 3:** The Lupon ng Kapayapaan ng barangay (justice system members) whenever possible, to resolve the issue at the barangay level. The barangay process may take 15 days or more, including submission of complaint, recording, hearing and resolution.



**Step 4:** Again, if no resolution or understanding is reached and if the grievance/complaint qualifies for hearing at the Municipal Trial Court (MTC) or Regional Trial Court (RTC), the household may request for assistance of the pro bono lawyer from the Public Attorney's office, through the MFWD. The pro bono lawyer shall assist the household in reproducing the formal complaint in five copies to be distributed as follows: the original to the appropriate court, one each for PMU, PIU, WDRC and for the file of the complainant.

Step 5: The MTC or RTC assesses the merit of the grievance/complaint, schedules the hearing and renders a decision. Appeals can be elevated to the high court. The Supreme Court's decision is final and executory.

Aggrieved parties may also inform the Office of Special Project Facilitators (OSPF) of the ADB of any project-related grievances. APs will be exempted from all administrative and legal fees.

Unresolved grievance can be elevated to the proper courts. The MFWD will maintain a full record of all complaints and grievances received, and the actions taken. MFWD will also ensure grievances are recorded and reported on in the Integrated Environmental and Social Safeguards reports that are submitted to ADB every 6 months during project implementation

**Costs.** All costs involved in resolving the complaints (meetings, consultations, communication, and information dissemination) will be borne by MFWD.

**Complaints to the Department of Environment and Natural Resources.** Complaints about environmental performance of projects issued an Environmental Certificate of Compliance (ECC) can also be brought to the attention of DENR-EMB. The process of handling such complaints is described in the Revised Procedural Manual (2007) for the IRR of PD 1586. The steps that DENR-EMB may follow in handling complaints are: (i) DENR-EMB shall verify if the complaint is actionable under PD.1586, (ii) within 72 hours from receipt of a complaint DENR-EMB will send the proponent a Notice of Alleged Violation (NAV) and requests for an official reply as to why the proponent should not be penalized, (iii) DENR-EMB may conduct field validation, site inspection and verification or other activities to assess or validate the complaint. The proponent is allowed to respond within seven days. Proponent's failure to respond to the NAV and further notices will force DENR-EMB to take legal actions. DENR may issue a Cease and Desist Order (CDO) to project proponents which shall be effective immediately based on: (i) violations under the PEISS, and (ii) situations that present grave or irreparable damage to the environment. PD 1586 also allows DENR to suspend or cancel the proponent's ECC if the terms and conditions have been violated.

## 9 CONCLUSION AND RECOMMENDATIONS

MFWD's water supply subproject will benefit the general public by contributing to the long-term improvement in the water supply system of the project coverage area and providing safe drinking water to residents and commercial establishments in the municipality. The potential adverse environmental impacts are primarily associated with the construction period, which can be minimized through mitigating measures and environmentally sound engineering and construction practices.

Under the Philippine law, since the subproject is categorized under Category B, securing of ECC may be carried out through online application (which may still be subject to the EMB regional office). It is also environment category B under ADB SPS requiring the preparation of this IEE Report.

The MFWD have already completed all the documentary requirements for the acquisition of the ECC for the online ECC application. On the other hand, water permit for the Agusan River



source was already granted by NWRB. PAMB has already released PAMB Execom Res 690 s. 2018 identifying that the project site for intake structure is within the protected area and that the project has no adverse effect to the ecosystem and the environment, as a whole.

With the implementation of the mitigation measures as proposed in the EMP, the subproject is not expected to cause irreversible adverse environment impacts. Also, the water supply subproject can be implemented in an environmentally acceptable manner without the need for further environmental assessment study, except for the conduct of a public consultations for compliance and further input. Should there be any significant change in the project scope, an updated or a new IEE will be prepared.

The proposed MFWD subproject is hereby recommended for implementation with the following requirements to be strictly followed: (i) Tendering process shall ensure environmentally responsible procurement by requiring the inclusion of EMP provisions in the bidding and construction contract documents; (ii) Contractor's submittal of a CEMP which shall be included in the construction contract; (iii) Contract provisions on creation and operation of the WDGRC shall be included in construction contracts; (iv) LWUA, with its regulatory function, shall ensure that capability building for MFWD shall be pursued; and (v) MFWD shall continue the process of public consultation and information disclosure during detailed design and construction phases.

## 10 REFERENCES

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## ANNEX 1 ACCOMPLISHED REA

**WATER SUPPLY**  
Page 1 of 4

### Rapid Environmental Assessment (REA) Checklist

#### Instructions:

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

#### Country/Project Title:

Water District Development Sector Project  
Improvement of Water Supply System of Manolo Fortich Water District

#### Sector Division:

Screening Questions	Yes	No	Remarks
<b>A. Project Siting</b> Is the project area...			
▪ Densely populated?		✓	
▪ Heavy with development activities?		✓	
▪ Adjacent to or within any environmentally sensitive areas?			
• Cultural heritage site		✓	
• Protected Area	✓		Coordination with PAMB
• Wetland		✓	
• Mangrove		✓	
• Estuarine		✓	
• Buffer zone of protected area		✓	
• Special area for protecting biodiversity	✓		Coordination with PAMB
• Bay		✓	
<b>B. Potential Environmental Impacts</b> Will the Project cause...			
▪ pollution of raw water supply from upstream wastewater discharge from communities, industries, agriculture, and soil erosion runoff?		✓	
▪ impairment of historical/cultural monuments/areas and loss/damage to these sites?		✓	



**WATER SUPPLY**  
 Page 2 of 4

Screening Questions	Yes	No	Remarks
▪ hazard of land subsidence caused by excessive ground water pumping?		✓	
▪ social conflicts arising from displacement of communities ?		✓	
▪ conflicts in abstraction of raw water for water supply with other beneficial water uses for surface and ground waters?	✓		Coordination with NIA
▪ unsatisfactory raw water supply (e.g. excessive pathogens or mineral constituents)?	✓		Proper and adequate water treatment
▪ delivery of unsafe water to distribution system?	✓		Proper installation of TL/ML/DL
▪ inadequate protection of intake works or wells, leading to pollution of water supply?	✓		Ensure integrity of structure/design
▪ over pumping of ground water, leading to salinization and ground subsidence?		✓	
▪ excessive algal growth in storage reservoir?	✓		Regular cleaning
▪ increase in production of sewage beyond capabilities of community facilities?		✓	
▪ inadequate disposal of sludge from water treatment plants?	✓		Expand disposal area/ new disposal area
▪ inadequate buffer zone around pumping and treatment plants to alleviate noise and other possible nuisances and protect facilities?	✓		Noise suppression
▪ impairments associated with transmission lines and access roads?	✓		Traffic management plan during construction
▪ health hazards arising from inadequate design of facilities for receiving, storing, and handling of chlorine and other hazardous chemicals.	✓		Proper training of personnel on chemical handling and proper wearing of PPE'S
▪ health and safety hazards to workers from handling and management of chlorine used for disinfection, other contaminants, and biological and physical hazards during project construction and operation?	✓		Proper training of personnel on chemical handling and proper wearing of PPE'S
▪ dislocation or involuntary resettlement of people?		✓	
▪ disproportionate impacts on the poor, women and children, Indigenous Peoples or other vulnerable groups?		✓	
▪ noise and dust from construction activities?	✓		Noise and dust suppression
▪ increased road traffic due to interference of construction activities?	✓		Traffic management plan
▪ continuing soil erosion/silt runoff from construction operations?	✓		Construction methodology
▪ delivery of unsafe water due to poor O&M treatment processes (especially mud accumulations in filters) and inadequate chlorination due to lack of adequate monitoring of chlorine residuals in distribution systems?	✓		Proper operation & maintenance of treatment facility in compliance to water safety plan



**WATER SUPPLY**  
Page 3 of 4

Screening Questions	Yes	No	Remarks
▪ delivery of water to distribution system, which is corrosive due to inadequate attention to feeding of corrective chemicals?		✓	
▪ accidental leakage of chlorine gas?	✓		Proper training for handling of chemicals
▪ excessive abstraction of water affecting downstream water users?	✓		Follow allocation as per water right
▪ competing uses of water?	✓		Follow allocation as per water right
▪ increased sewage flow due to increased water supply	✓		Septage management plan
▪ increased volume of sullage (wastewater from cooking and washing) and sludge from wastewater treatment plant		✓	
▪ large population influx during project construction and operation that causes increased burden on social infrastructure and services (such as water supply and sanitation systems)?	✓		Prioritize local hiring
▪ social conflicts if workers from other regions or countries are hired?		✓	
▪ risks to community health and safety due to the transport, storage, and use and/or disposal of materials such as explosives, fuel and other chemicals during operation and construction?	✓		Dissemination of awareness regarding construction activities
▪ community safety risks due to both accidental and natural hazards, especially where the structural elements or components of the project are accessible to members of the affected community or where their failure could result in injury to the community throughout project construction, operation and decommissioning?	✓		Dissemination of awareness regarding construction activities



**WATER SUPPLY**  
 Page 4 of 4

**A Checklist for Preliminary Climate Risk Screening**

**Country/Project Title:** LOAN 3389/GRANT 0477-PHI:  
 WATER DISTRICT DEVELOPMENT SECTOR PROJECT (WDDSP)  
 Improvement of Water Supply System of Manolo Fortich Water District  
**Sector:**  
**Subsector:**  
**Division/Department:**

Screening Questions		Score	Remarks <sup>1</sup>
<b>Location and Design of project</b>	Is siting and/or routing of the project (or its components) likely to be affected by climate conditions including extreme weather related events such as floods, droughts, storms, landslides?	1	Proper implementation of project in accordance with set standards
	Would the project design (e.g. the clearance for bridges) need to consider any hydro-meteorological parameters (e.g., sea-level, peak river flow, reliable water level, peak wind speed etc)?	0	
<b>Materials and Maintenance</b>	Would weather, current and likely future climate conditions (e.g. prevailing humidity level, temperature contrast between hot summer days and cold winter days, exposure to wind and humidity hydro-meteorological parameters likely affect the selection of project inputs over the life of project outputs (e.g. construction material)?	0	
	Would weather, current and likely future climate conditions, and related extreme events likely affect the maintenance (scheduling and cost) of project output(s)?	1	Proper operation and maintenance monitoring
<b>Performance of project outputs</b>	Would weather/climate conditions, and related extreme events likely affect the performance (e.g. annual power production) of project output(s) (e.g. hydro-power generation facilities) throughout their design life time?	1	Monitoring of structures and equipment

Options for answers and corresponding score are provided below:

Response	Score
Not Likely	0
Likely	1
Very Likely	2

Responses when added that provide a score of 0 will be considered low risk project. If adding all responses will result to a score of 1-4 and that no score of 2 was given to any single response, the project will be assigned a medium risk category. A total score of 5 or more (which include providing a score of 1 in all responses) or a 2 in any single response, will be categorized as high risk project.

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

**Other Comments:**

**Prepared by:** Venus I. Gumaling

**Designation/Agency:** Division Manager – C / Manolo Fortich Water District


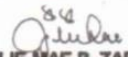
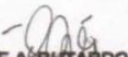
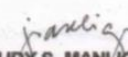

**Date:**

<sup>1</sup> If possible, provide details on the sensitivity of project components to climate conditions, such as how climate parameters are considered in design standards for infrastructure components, how changes in key climate parameters and sea level might affect the siting/routing of project, the selection of construction material and/or scheduling, performances and/or the maintenance cost/scheduling of project outputs.




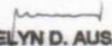
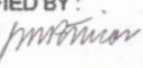


## ANNEX 2 PHYSIOCHEMICAL RESULT AND FLOW MEASUREMENT

### 1. Physicochemical Result

 <b>UNIVERSITY OF THE IMMACULATE CONCEPTION</b> <b>SCIENCE RESOURCE CENTER</b>	
<b>UIC - SRC</b> <b>FORM NO. 3</b>	
<b>TEST REPORT</b>	
<b>CLIENT:</b> MANOLO FORTICH WATER DISTRICT	<b>CONTROL NO.:</b> 11-585
<b>ADDRESS:</b> MANOLO FORTICH, BUKIDNON	<b>DATE REPORTED:</b> 06/28/2011
<b>SAMPLE:</b> WATER (07)	<b>DATE ANALYSIS STARTED:</b> 05/19/2011
<b>DATE SAMPLED:</b> 05/17/2011	<b>DATE SAMPLE RECEIVED:</b> 05/18/2011
<b>RESULTS OF ANALYSIS :</b>	
Lab. No.	W11-878
Description	Dahilayan (SW)
Arsenic, mg/L	<0.001
Cadmium, mg/L	0.001
Lead, mg/L	0.01
Nitrate, mg/L	<0.10
Odor	Unobjectionable
Color (Apparent), PCU	<5
Chloride, mg/L	<0.25
Total Hardness (as CaCO <sub>3</sub> ), mg/L	20.01
Iron, mg/L	0.02
Manganese, mg/L	<0.01
<b>REMARKS:</b> 1. Results relate only to samples as submitted and tested. 2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 21st ed. PCU Platinum Cobalt Unit 3. This test report consists of 4 pages and may not be reproduced unless in full.	
<b>ANALYZED BY :</b>	
 <b>GIRLIE MAE P. ZABALA</b> Junior Analyst I	 <b>ARLENE A. BUTARDO</b> Junior Analyst I
 <b>JUDY S. MANLIGUIS</b> Junior Analyst I	
<b>CERTIFIED BY :</b>	
 <b>LUDVINA M. PORTICOS, MBA, MS</b> PRC License No. 6237 Director	
<small>ms:\office\excel\water\src\2011-585</small>	
Father Selga Street Davao City 8000 Philippines	Fax Number: (6382) 226-2676 Tel. Numbers: (6382) 221-8090 / 221-8181 227-8144 / 227-4543 Local 133 Email Address: src@uic.edu.ph
Page 1 of 4	



		<b>UNIVERSITY OF THE IMMACULATE CONCEPTION</b> <b>SCIENCE RESOURCE CENTER</b>	
<hr/>			
UIC - SRC FORM NO. 3			
<b>TEST REPORT</b>			
CLIENT: MANOLO FORTICH WATER DISTRICT		CONTROL NO.:	11-585
ADDRESS: MANOLO FORTICH, BUKIDNON		DATE REPORTED:	06/28/2011
SAMPLE: WATER (07)		DATE ANALYSIS STARTED:	05/19/2011
DATE SAMPLED: 05/17/2011		DATE SAMPLE RECEIVED:	05/18/2011
RESULTS OF ANALYSIS :			
Lab. No.	W11-878		
Description	Dahilayan (SW)		
pH	6.9		
Sulfate, mg/L	<0.20		
Total Dissolved Solids (dried at 180°C), mg/L	58		
Calcium, mg/L	4.50		
Magnesium, mg/L	2.13		
Acidity, mg/L	5.00		
Alkalinity (as CaCO <sub>3</sub> ), mg/L	42.00		
Nothing follows			
REMARKS: 1. Results relate only to samples as submitted and tested.			
2. Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 21st ed.			
3. This test report consists of 4 pages and may not be reproduced unless in full.			
ANALYZED BY :			
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msoffice\excel\water\srr2011-585			
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Page 2 of 4			





# UNIVERSITY OF THE IMMACULATE CONCEPTION SCIENCE RESOURCE CENTER

UIC - SRC  
Form No 3

## TEST REPORT

<b>CLIENT:</b>	MANOLO FORTICH WATER DISTRICT	<b>CONTROL NO:</b>	18-1759
<b>ADDRESS:</b>	MANOLO FORTICH BUKIDNON	<b>DATE REPORTED:</b>	08/31/2018
<b>SAMPLE:</b>	WATER (12)	<b>DATE ANALYSIS STARTED:</b>	08/22/2018
<b>DATE SAMPLED:</b>	08/16/2018	<b>DATE SAMPLE RECEIVED:</b>	08/16/2018

### RESULTS OF ANALYSIS:

Lab No Description	W18-3396 Agusan River	Guideline Value (PNSDW 2017)
Arsenic, mg/L	<0.002	0.01
Cadmium, mg/L	<0.003	0.003
Lead, mg/L	<0.01	0.01
Nitrate, mg/L	<0.89	50
Color (Apparent) PCU	<5	10
Turbidity NTU	<5	5
pH	7.8	6.5-8.5
Total Dissolved Solids (dried at 180°C), mg/L	98	500
	Nothing follows	

- REMARKS:**
- 1 Results relate only to samples as submitted and tested
  - 2 Methods used are in accordance with the Standard Methods for the Examination of Water & Wastewater, 22nd ed  
 PCU Platinum Cobalt Unit NTU Nephelometric Turbidity Unit  
 PNSDW Phil National Standards for Drinking Water
  - 3 This test report consists of 3 pages and may not be reproduced unless in full

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modified version 2018-1759

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 • 227-8144 / 227-8303 Local 444  
 Email Address: [src@uic.edu.ph](mailto:src@uic.edu.ph)



## 2. Flow Measurement

Form r 2301

### NATIONAL IRRIGATION ADMINISTRATION DISCHARGE MEASUREMENT NOTES

Time Startad: 02:57 P.M.  
Time Completed: 3:24 P.M.

				Dist. From initial point (m)	Width (m)	Depth (m)	Obs. Depth	Revolu- tion	VELOCITY (mps)			Area (sq.m.)	Discharge (cms)
									Time (sec.)	RPS	Mean		
Station: <u>AGUSAN RIVER</u>				RWE 0.0	0.00	0.00	0.00	0	0.60	0.00	0.00	0.000	0.000000
Location: <u>Barangay Dahilayan, Manolo Fortich Bukidnon</u>				0.50	0.50	0.19	0.80	17	0.60	0.28	0.20	0.095	0.018842
Date: <u>October 8, 2019</u> , Party: <u>Bukidnon IMO</u>				1.00	0.50	0.24	0.60	23	0.60	0.38	0.27	0.120	0.032200
Width: <u>1.50</u> m, Area: <u>0.28</u> sq.m., vel.: <u>0.60</u> mps, Disch: <u>0.48</u> cms				1.50	0.50	0.28	0.60	29	0.60	0.48	0.34	0.140	0.047367
Metho: <u>No. Secs.</u> G.H change: <u>meter</u> hrs. Susp.:				2.00	0.50	0.31	0.60	33	0.60	0.55	0.39	0.155	0.059675
Method: <u>Vel.</u> Hor. Angle coef. <u>Susp. Coef.</u> Meter No.:				2.50	0.50	0.39	0.60	42	0.60	0.70	0.49	0.195	0.095550
GAGE READING				3.00	0.50	0.44	0.60	47	0.60	0.78	0.55	0.220	0.120633
for rod: <u>susp. Meter</u>				4.00	0.50	0.42	0.60	41	0.60	0.68	0.48	0.210	0.100450
above bottom wts. Tags checked				4.50	0.50	0.46	0.60	37	0.60	0.62	0.43	0.230	0.099283
Spin before meas. after				5.00	0.50	0.45	0.60	32	0.60	0.53	0.37	0.225	0.084000
wading, cable, boat, upstr., downstr.				LWE 5.46	0.46	0.46	0.60	25	0.60	0.42	0.29	0.212	0.061717
side bridge, meter, above, below													0.719717
gage, and													Factor x 0.92
Check-bar, chain found													Actual Q 0.662139
changed to at													Lps 662.14
Correct													
Weighted M.G.H.													
Levels obtained													
G.H. correction													
Note: Up to 6.26m. Price type of Instrument was				RWE 0.0	0.00	0.00	0.00	0	0.60	0.00	0.00	0.000	0.000000
Correct M.G.H. used to measured, & .80m. Of ( MC b-flume )				0.40	0.40	0.35	0.60	46	0.60	0.77	0.54	0.140	0.075133
Measurement rated excellent (2%), good (5%), fair (8%), poor (over 8%), based ff.				LWE 0.80	0.40	0.35	0.60	42	0.60	0.70	0.49	0.140	0.068600
Condit Cross section, Flow Weather fair													0.143733
Other Air F@, Water F@													Factor x 0.92
Record removed Intake flushed													Actual Q 0.132235
Observer													lps 132.23
Control													
Remarks: Taken at 20m. upstream at Agusan Diversion dam, No occurrence of rain during measurement.													
G.H. of zero flow Meter													
				TOTAL IN LITER PER SECOND									662.14

RONALD R. RUAYA  
SA A.

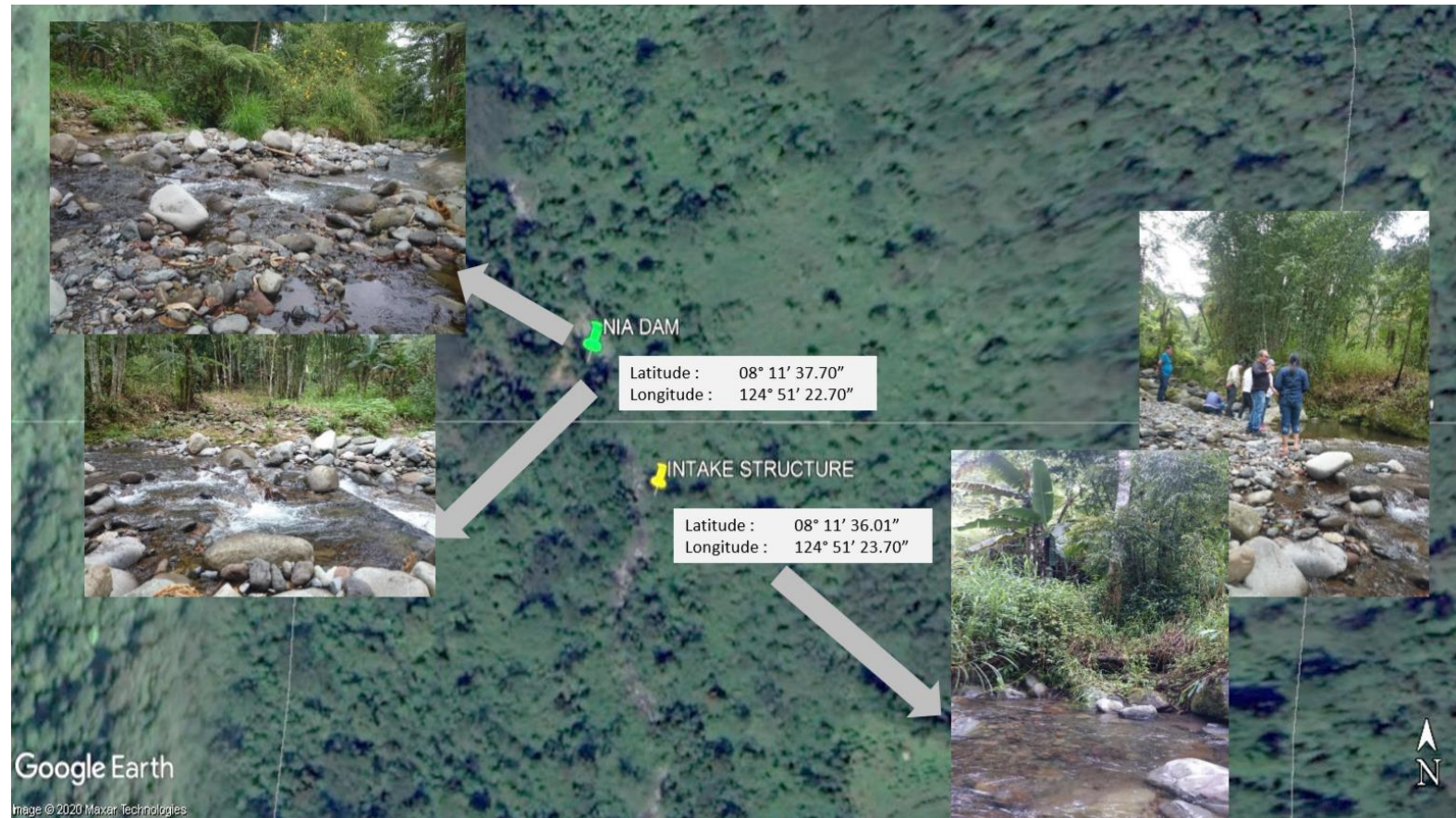
KATRINA B. QUILLO

ARMANDO E. ARIZALA  
ACTING DIVISION MANAGER



### ANNEX 3 LOCATION OF INTAKE

#### 1. Geographical Coordinates of Intake and NIA Dam





## **ANNEX 4**

### **SAMPLE CONTRACTOR'S ENVIRONMENTAL MONITORING PLAN (CEMP) OUTLINE**

#### **I. Brief Project and Contract Package/Lot Description**

*Note: include construction activities and map/s*

#### **II. Brief Description and Purpose of Contractor's Environmental Management Plan (CEMP)**

*Note: include applicable laws*

#### **III. Associated Project/Lot Facilities and Sensitive Receptors – description and location**

*Note: include photos*

- a) Construction and Workers' Camps
- b) Material Sources and Storage Areas – quarries, borrow pits, water
- c) Workshop and Fabrication Yards
- d) Hazardous Materials and Chemical Storage Areas – fuel, oil, bitumen, chemical additives
- e) Wastes and Spoils Disposal Areas – construction wastes, domestic wastes, hazardous waste
- f) Crushing and Batching Plants – asphalt and concrete
- g) Bridges and Bypass Roads
- h) Sensitive Receptors – schools, hospitals, religious institutions

#### **IV. Construction Impacts and Mitigation Measures; Institutional Arrangements and Timing for EMP Implementation – refer to the EMP table in the IEE and contract documents as basis and indicate the mitigation measures that will be implemented for the contract package for the following):**

- a) Soils and Material – topsoil, soil erosion, reclaimed pavement and spoils, slope stability
- b) Quarry and Borrow Sites – degradation of borrow sites
- c) Water Resources – operation of quarries on river banks, siltation, spills from asphalt plants/trucks, bridge activities
- d) Air, Noise and Vibration – emissions, dust, noise from construction vehicles and equipment, crushing, asphalt and cement mixing plants, construction activities
- e) Waste and Hazardous Materials – solid wastes, hazardous and chemical wastes, sewage
- f) Flora and Fauna
- g) Construction Camps, Storage Depots
- h) Local Roads – traffic management, access, congestion, road safety
- i) Community – safety, disruption, access
- j) Workers' Safety, Health and Sanitation – includes HIV/AIDS STD

#### **V. Environmental Baseline Measurements and Sampling – location of sampling sites, methodology, results (if not available yet, to be included in first SEMR for the lot)**

*Note: include photos*

#### **VI. Environmental Monitoring Program (EMoP) – schedule of inspection, parameters to be checked and methodology, checklist for EMP Compliance Monitoring, inspection monitoring form**

#### **VII. Public Consultation, if necessary; Training**

#### **VIII. Grievance Redress Mechanism (GRM) (See Annex 5) – detailed procedure for resolving complaints**

#### **IX. Annexes**

- a) copies of all relevant permits (batching plants, disposal sites, tree-cutting, quarries, ECCs, etc.)
- b) baseline sampling laboratory results (original copies)

***Note: The CEMP should be straightforward and concise. It need not be a lengthy document.***



## Annex 5 SAMPLE GRIEVANCE REDRESS FORM

The \_\_\_\_\_ Project welcomes complaints, suggestions, queries, and comments regarding project implementation. We encourage persons with grievance to provide their name and contact information to enable us to get in touch with you for clarification and feedback.

Should you choose to include your personal details but want that information to remain confidential, please inform us by writing/typing \*(CONFIDENTIAL)\* above your name. Thank you.

<b>Date</b>		<b>Place of Registration</b>			
<b>Contact Information/Personal Details</b>					
<b>Name</b>		<b>Gender</b>	<input type="checkbox"/> Male <input type="checkbox"/> Female	<b>Age</b>	
<b>Home Address</b>					
<b>Place</b>					
<b>Phone no.</b>					
<b>E-mail</b>					
<b>Complaint/Suggestion/Comment/Question</b> Please provide the details (who, what, where, and how) of your grievance below:  <div style="height: 40px;"></div>					
If included as attachment/note/letter, please tick here:					
<b>How do you want us to reach you for feedback or update on your comment/grievance?</b>					

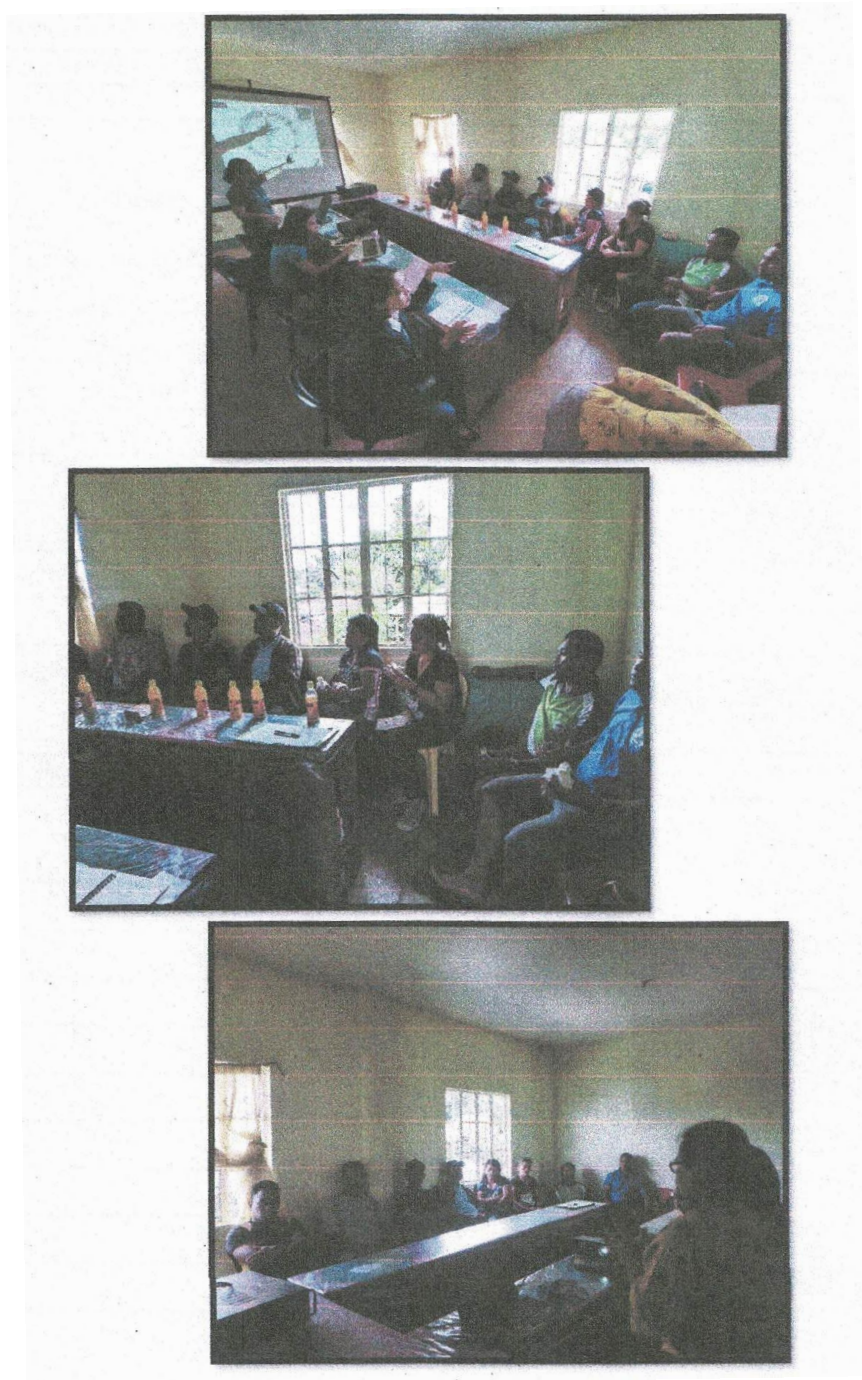
### FOR OFFICIAL USE ONLY

<b>Registered by:</b> (Name of Official registering grievance)	
<b>Mode of communication:</b> <input type="checkbox"/> Note/Letter <input type="checkbox"/> E-mail <input type="checkbox"/> Verbal/Telephonic	
<b>Reviewed by:</b> (Names/Positions of Officials Reviewing Grievance)	
<b>Action Taken:</b>	
<b>Whether Action Taken Disclosed:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Means of Disclosure:</b>	



## ANNEX 6 PUBLIC CONSULTATION PROCEEDINGS

1. MCWD Staff consultation with officials of Brgy. Dahilayan, Manolo Fortich – Dahilayan Water System Development Project (November 13, 2019)







**MANOLO FORTICH WATER DISTRICT**  
A. Ditona St., Tankulan, Manolo Fortich, Bukidnon  
Website: [www.mfwd.gov.ph/](http://www.mfwd.gov.ph/) Email: [mfwd\\_buk@yahoo.com](mailto:mfwd_buk@yahoo.com)  
Hotline: 0917-718-1311

MINUTES OF MANOLO FORTICH WATER DISTRICT (MFWD) CONSULTATION  
MEETING WITH BARANGAY DAHILAYAN COUNCIL ON THE DEVELOPMENT OF  
SURFACE WATER AT AGUSAN RIVER, DAHILAYAN, MANOLO FORTICH NOVEMBER  
13, 2019, 9:00 AM AT BARANGAY HALL, DAHILAYAN, MANOLO FORTICH, BUKIDNON

Present:

From the Barangay Council:

Hon. REY LUGMAY  
Hon. DANILO BAYOC  
Hon. DANIEL UBAYAN  
Hon. JOEREYMAR LUGMAY  
Hon. HAIDEE SOMOY  
Hon. EVELYN TOMAMPOC  
Hon. CARLITO BAYOC  
Hon. VENCHITO LUGMAY  
Sec. GANDELYN BAYOC

From the Manolo Fortich Water District

Ms. VENUS I. GUMALING	- Division Manager C
Engr. ERMITO L. GANAS	- Head, Eng'ng & Maintenance Division
Ms. EVELYN C. NARA	- Head, Commercial Section
Mr. BOBBY B. GALON	- Staff
Mr. TOLOMEO L. ORTEGO	- Staff
Ms. JOAN N. CAÑETE	- Staff
Ms. LUCITA S. DAVID	- Staff
Ms. JAYGRETH L. SAMBALOD	- Staff

The consultation meeting started with a Prayer led by Hon. Danilo Bayoc.

1. Call to Order and Determination of Quorum

Hon. Vincheto Lugmay, Punong Barangay, called the consultation meeting to order at exactly 9:00 in the morning and requested Brgy. Secretary Gandelyn G. Bayoc to determine a quorum of the meeting. With all members of the Barangay Council present, Ms. Bayoc declared a quorum.



44

45

46 **2. Agenda of the Meeting**

47 **A. Presentation of MFWD Proposed Project: Development of Surface Water at**  
48 **Agusan River, Dahilayan, Manolo Fortich, Bukidnon**

49

50 **B. Other Matters/Open Forum**

51

52 Hon. Daniel Ubayan, Brgy. Kagawad and Hon. Rey Lugmay, Brgy. Kagawad,  
53 moved and seconded respectively the approval of the agenda of the meeting.

54

55 **A. Presentation of MFWD Proposed Project: Development of Surface Water at**  
56 **Agusan River, Dahilayan, Manolo Fortich, Bukidnon**

57

58 Ms. Lucita S. David, MFWD designate Pollution and Control Officer, greeted  
59 the barangay officials present headed by Hon. Brgy. Captain Lugmay and  
60 introduced the MFWD Staff present.

61

62 Ms. David then elaborated the present problem of MFWD on water supply in  
63 the municipality, "Water shortage is currently faced with the District which needs  
64 immediate and long term solution in which MFWD had resorted to look for  
65 financing institution for the water system development project. Citing the  
66 preparation and documentation made by the District for the past three (3) years,  
67 MFWD finally come up with the development of water system project".

68

69 She introduced Ms. Joan Cafete, Engineering Staff, to present the  
70 schematic diagram of the proposed project location and piping system. Ms. Joan  
71 showed the PowerPoint presentation of the piping system assuring minimal  
72 impact on the properties of the affected owners since the pipe installation will be  
73 within the one (1) meter radius or within the Right-of-Way. She emphasized that  
74 it is also timely that DILG had issued circular on clearing of structures within the  
75 designated Road-Right-of-Way.

76

77 **B. Other Matters/Open Forum**

78

79 Hon. Brgy. Captain Lugmay, inquired on the possible obligation of MFWD on  
80 the environment. Ms. Venus I. Gumaling, MDC, replied that MFWD had already  
81 secured permit from National Irrigation Administration and Resolution from  
82 PAMB for MFWD commitment of an annual environmental fee of P25,000 per  
83 year.



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### 3. Adjournment

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Transcribed:

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EVELYN C. NARA  
CSA-A, Commercial Section



2. MCWD Staff consultation with officials of Brgy. Mampayag, Manolo Fortich – Dahilayan Water System Development Project (November 18, 2019)







## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Mobile Hotline: (0917) 718 1311 / e-mail: mfw\_d\_buk@yahoo.com

1

2

3 MINUTES OF THE MANOLO FORTICH WATER DISTRICT (MFWD) CONSULTATION  
4 MEETING WITH BARANGAY MAMPAYAG COUNCIL ON THE DEVELOPMENT OF  
5 SURFACE WATER AT AGUSAN RIVER, DAHILAYAN, MANOLO FORTICH ON  
6 NOVEMBER 18, 2019, 9:32 AM AT BARANGAY HALL, MAMPAYAG, MANOLO  
7 FORTICH, BUKIDNON.

8

9 Present:

10	Hon. SHIRLEY GALDO	- Brgy. Kagawad
11	Hon. GILBERT MANAPIL	- Brgy. Kagawad
12	Hon. ANTHONY PAUL EGAR	- Brgy. Kagawad
13	Hon. ANDREW SABANPAN	- Brgy. Kagawad
14	Hon. ELEAZAR ORINA, SR.	- Punong Barangay
15	Hon. JOBERT ABAO	- SK Chairman
16	Hon. ELLEN GRACE PAO	- Brgy. Kagawad
17	MARITES FABRO	- Brgy. Secretary
18	Hon. RESTER MACAPULAY	- Brgy. Kagawad
19	Ms. EVELYN NARA	- MFWD
20	Ms. LUCITA DAVID	- MFWD
21	Ms. JOAN CAÑETE	- MFWD
22	Ms. JAYGRETH SAMBALOD	- MFWD
23	Mr. GRATIAN MANAPIL	- MFWD
24	Mr. TOLOMEO ORTEGO	- MFWD
25	Mr. WILLIAM PAILAGAO	- MFWD

26

27

28

29 The consultation meeting started with a prayer led by Hon. Gilbert Manapil.

30

### 31 1. Call to Order and Determination of Quorum

32

33 Hon. Eleazar Orina, Sr., Punong Barangay, called the consultation meeting in  
34 order at exactly 9:32 in the morning and requested the Brgy. Secretary, Ms. Marites  
35 Fabro to determine a quorum of the meeting. With majority of the Barangay Council  
36 present, Ms. Fabro declared a quorum.

37

38

39

*Water is Life. Conserve Water. Preserve Life*





## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon  
Mobile Hotline: (0917) 718 1311 / e-mail: mfw\_d\_buk@yahoo.com

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41

### 42 2. Agenda of the meeting

43

44 A. Presentation of MFWD Proposed Project: Development of Surface Water at  
45 Agusan River, Dahilayan, Manolo Fortich, Bukidnon

46 B. Other Matters / Open Forum

47

48 Hon. Shirley Galdo, Brgy. Kagawad and Hon. Ellen Grace Pao, Brgy. Kagawad,  
49 moved and seconded respectively the approval of the agenda for the meeting.

50

#### 51 A. Presentation of MFWD Proposed Project: Development of Surface Water at 52 Agusan River, Dahilayan, Manolo Fortich, Bukidnon.

53

54 Ms. Evelyn Nara, introduced herself to the council and other staff of MFWD  
55 present. She cited the insufficiency of water supply experienced by the municipality.  
56 However, she emphasized that MFWD is presently looking for other possible water  
57 sources to address the concessionaires' increasing demand for potable water. With that,  
58 she gratefully presented to the body a brief description of the proposed project.

59

60 Ms. Nara called-on Ms. Joan Cañete, Engineering Staff, for the power point  
61 presentation of the site location plan, schematic diagram and piping system. The  
62 proposed project is situated at Dahilayan, Manolo Fortich with Geo Coordinates 124°  
63 51' 22.7" (longitude) and 08° 11' 37.7" (latitude). Ms. Cañete showed the pipeline  
64 network of the proposed project. She explained how the water travels from the source  
65 to the reservoir passing through the proposed intake box and filtration chamber.

66

67 Ms. Jaygreth Sambalod discussed on the socio-economic and environmental  
68 impact of the proposed project. She emphasized that a community-based approach will  
69 be adopted to develop this project. In which a consultation as such was made to ensure  
70 community involvement. MFWD ensured a sound implementation of the project. In  
71 particular, in order to withstand the environmental damage of the forest eco-system, all  
72 pipeline installation and excavation works will be conducted adjacent to the existing  
73 NIA canal. Thus, no trees and/or large vegetation will be harm and thereby promoting  
74 sustainable management of the forest ecosystem. Ms. Sambalod informed the council  
75 that MFWD has already secured approval from PAMB to appropriate surface water  
76 from Agusan River provided under PAMB Execom Resolution 690 s. 2018.

77

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78





## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Mobile Hotline: (0917) 718 1311 / e-mail: [mfwd\\_buk@yahoo.com](mailto:mfwd_buk@yahoo.com)

79

80

81 The environmental services will be based on the rehabilitation plan developed by  
82 PAMB.

83

84 Hon. Pao inquired on the beneficiaries of the project. Ms. Sambalod prompted  
85 that this project intends to produce potable water not only to augment the water supply  
86 requirements of existing concessionaires but will also cater the needs of the households  
87 in barangay Dahilayan and in the neighboring barangays – Mampayag, Sankan and  
88 Lindaban.

89

### 90 B. Other matters/ Open forum

91

92 Ms. Lucita David, MFWD – Pollution Control Officer -designate, facilitated the  
93 open forum. PB Orina Sr. inquired about the water source and was responded that this  
94 project will be developing the surface water of Agusan River in Dahilayan, Manolo  
95 Fortich, Bukidnon. She added that Regional Executive Director Arleigh J. Adorable,  
96 CESO III has already endorsed PAMB Res 690 s. 2018. Having known, PB Orina Sr.  
97 signified his full support to this endeavor and featured that he is confident that the  
98 project integrates resource management plan and nature conservation plans.

99

100 On the other hand, Hon. Manapil raised if there are possibilities that the project  
101 will affect any properties. Ms. David assured the body that there is nothing to worry  
102 since the pipelines will be installed within the Road Right of Way (RRW). Eventually,  
103 the DILG has already issued MC 2019-121 on clearing of structures obstructing the  
104 RRW.

105

106 Hon. Andrew Sabanpan inquired if the barangay can solicit assistance in the  
107 improvement of their water system. Ms. David confirmed that MFWD is more than  
108 willing in terms of technical aspect.

109

110 Ms. David requested the council to assist the MFWD's technical team in the  
111 conduct of survey. Hon. Pao being the Committee Chair on Infrastructure willingly  
112 conceded and proposed to conduct the survey on November 26, 2019.

113

114

115

116

117

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## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Mobile Hotline: (0917) 718 1311 / e-mail: mfwd\_buk@yahoo.com

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### 3. Adjournment

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With no other matters to be discussed, the meeting was adjourned at 11:56 in the morning on motion by Hon. Galdo, seconded by Hon. Jobert Abao.

123

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125

Hon. Egarr led the closing prayer.

126

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Transcribed:

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131

WILLIAM N. PAILAGAO

132

*Water is Life. Conserve Water. Preserve Life*



## ANNEX 7 PAMB RESOLUTION AND CERTIFICATION AND CENRO CERTIFICATION



Republic of the Philippines  
**Mt. Kitanglad Range Natural Park**  
ASEAN Heritage Park  
Malaybalay City, Bukidnon

### CERTIFICATION



### TO WHOM IT MAY CONCERN :

**THIS IS TO CERTIFY** that the Manolo Fortich Water District (MFWD), Manolo Fortich, Bukidnon intends to draw water for their water development and treatment plant facility from Agusan River, a tributary emanating from Mt. Kitanglad protected area.

Mt. Kitanglad Range Natural Park (MKNRP) is a full-fledged protected area per Republic Act 8978 otherwise known as the Mt. Kitanglad Act of 2000. It is a home of critically endangered flora and fauna such as the Philippines' national bird, the Philippine Eagle, and one of the world's largest flowers, *Rafflesia schadenbergiana*. As provided under RA 8978, a Protected Area Management Board (PAMB) shall be created as the park's governing body and is clothed with authority to issue regulations and adopt rules of procedure for the conduct of business within the park.

While the management board has already passed and approved PAMB Resolution No. 690, series of 2018 approving the proposed water tapping by MFWD in the aforementioned water source, it is understood that the proponent shall closely coordinate with the Protected Area Management Office (PAMO) prior the conduct of whatever future activities they deem within the site.

This certification is issued as one of the requirements needed to support the loan application of MFWD with Local Water Utilities Administration (LWUA).

  
**DANIEL F. SOMERA**  
Protected Area Superintendent  
Mt. Kitanglad Range Natural Park/  
ASEAN Heritage Park



**PAMB EXECOM RESOLUTION NO. 690  
SERIES OF 2018**

**A RESOLUTION APPROVING THE PROPOSED WATER TAPPING OF MANOLO  
FORTICH WATER DISTRICT IN DAHILAYAN, MANOLO FORTICH, BUKIDNON**

**WHEREAS**, per R.A. 8978 otherwise known as Mt. Kitanglad Act and the approved Mt Kitanglad Management Plan, the Protected Area Management Board (PAMB) through the Protected Area Superintendent (PASu) is mandated to decide matters relating to planning, resource protection and general administration of Mt. Kitanglad Range Natural park (MKRNP) in accordance with the General Management Planning and Strategy (GMPS);

**WHEREAS**, as stated in Section 18(d) of DAO 25, series of 1992, the PAMB shall promulgate rules and regulations to promote development programs and projects on biodiversity conservation and sustainable development consistent with the Management Manual of the protected area;

**WHEREAS**, one of the primary objectives of the management board is fair and equitable distribution of resources to resource users aligned with the existing rules and regulations of the protected area;

**WHEREAS**, the park is a major watershed area which supply adequate volume of water for domestic use and agriculture not only in Bukidnon but also in adjacent provinces of Cotabato and Misamis Oriental;

**WHEREAS**, considering their mandate to supply adequate potable water supply to the consumers of Manolo Fortich, the Manolo Fortich Water District (MFWD) as one of the Government- Owned and Controlled Corporation (GOCC), has proposed to tap an average of 500 liters/ second water from Agusan river with an average discharge of 1,500 liters/second, which is within Mt. Kitanglad protected area, to augment their existing water supply thus, address the issue on water crisis their municipality is experiencing more particularly during dry months;

**WHEREAS**, during the 52<sup>nd</sup> PAMB enbanc meeting, it was stressed by Engr. Rogelio Pangan, MFWD General Manager, that their company will be constrained to pay P3/cubic meter in cash for the volume of water utilized based on the new set of guideline/s on water use per PAMB Resolution No. 555, series of 2015;

**WHEREAS**, should the management board push for its payment based on the above-stated computation, it will be tedious for the company to abide/comply with based on the existing accounting and auditing regulations; and that their company has no other option but to incorporate the payment as additional fee of the consumers who are considered poorest among the poor;

**WHEREAS**, MFWD may opt to offset their deliverables not in cash but in a form of environmental services within Mt. Kitanglad protected area so as to ensure continuous water flow;

**WHEREAS**, the company can only guarantee as of the moment environmental



**NOW THEREFORE**, upon motion of For. Emmanuel Lumoyod and duly seconded by Mr. Eduardo Rautraut, be it:

**RESOLVED** as it is hereby resolved, to approve the proposed MFWD water tapping in Agusan river, Dahilayan, Manolo Fortich, subject to the following conditions, to wit:

1. Submit an Environmental Impact Assessment (EIA) Certificate from the Environmental Management Board (EMB);
2. Considering that the company is also collecting fee for water use of every consumer, they will explore possibility to augment and/or fix their environmental services effective CY 2020 onwards and will not only limit to P25,000.00, for incorporation in the MOA;
3. A work and financial plan prepared by PAMB secretariat will be submitted to their Office for special projects that they could fund in lieu of water use fee.

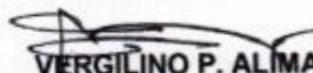
Unanimously approved.

**I HEREBY CERTIFY** to the correctness of the foregoing resolution.

FOR THE PAMB SECRETARIAT:

  
**DANIEL F. SOMERA**  
Protected Area Superintendent

RECOMMENDING APPROVAL:

  
**VERGILINO P. ALIMA**  
OIC, PENR Officer, PENRO-Bukidnon

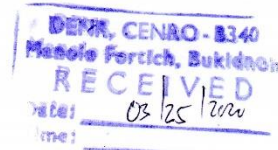
APPROVED:

  
**ARLEIGH J. ADORABLE, CESO III**  
Regional Executive Director, DENR-10, PAMB Chair

  
CERTIFIED XEROX COPY



March 24, 2020



**Mr. VIRGILIO N. BATOCAIL**  
DMO IV  
DENR, CENRO Manolo  
Calanawan, Manolo Fortich, Bukidnon

Dear CENRO Batocail,

Greetings!

The Manolo Fortich Water District (MFWD) has a P150M Loan application with Local Water Utilities Administration (LWUA) for a surface water development and treatment plant facility project. The project site of this undertaking is at Barangay Dahilayan, Manolo Fortich, and utilizing portion of surface water supply from Agusan River.

Considering that the source is situated within a protected area, we would like to request from your office a certification to that effect. Please include legal bases and factors considered (flora and fauna) and other pertinent information, that indeed it is a protected area.

Said certification document is part of the attachments required by the Asian Development Bank, the project financing entity, to ensure MFWD has prepared an appropriate and sustainable environmental protection program/s during project implementation and facility operation after project is completed.

We highly anticipate favour from your desk on this request as we quest for an improved water service to the community.

Thank you very much.

Very truly yours,

  
**Engr. ROGELIO R. PANGAN**  
General Manager



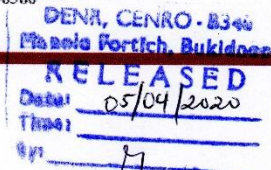


Republic of the Philippines

**Community Environment and Natural Resources-Manolo Fortich**

Kalanawan, Tankulan, Manolo Fortich, Bukidnon

E-mail add: [cenromanoloortich@r10.denr.gov.ph](mailto:cenromanoloortich@r10.denr.gov.ph) Tel/Mobile No.: 0917-522-8580



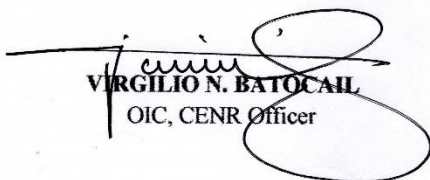
**CERTIFICATION**

**THIS IS TO CERTIFY** that the proposed surface water development and treatment facility project of Mnaolo Fortich Water District (MFWD) is located at Barangay Dahilayan, Manolo Fortich, Bukidnon thereby utilizing portion of surface water from Agusan river.

**FURTHER CERTIFIES** that Barangay Dahilayan where the proposed project will be established is within the area of responsibility of DENR-CENRO Manolo Fortich, Bukidnon.

**THIS CERTIFICATION** is being issued to Manolo Fortich Water District to form part of the requirements for its loan application with the Local Water Utilities Administration (LWUA).

Issued this 4<sup>th</sup> day of May 2020 at Manolo Fortich, Bukidnon.

  
**VIRGILIO N. BATOCAIL**  
OIC, CENR Officer



## ANNEX 8 NWRB WATER PERMIT

Republic of the Philippines <b>NATIONAL WATER RESOURCES BOARD</b> 8th Floor, NIA Bldg., EDSA Diliman Quezon City		<b>WATER PERMIT</b> <b>APPLICATION No. X-PWR-2018-C1-058</b> Filled in the Office of Date:	
BEFORE ACCOMPLISHING THIS FORM IN QUADRUPLICATE READ THE ACCOMPANYING INSTRUCTIONS			
1. Name of Applicant <b>MANOLO FORTICH WATER DISTRICT</b>		5. Filling & Legal Research fee Payable to National Water Resources Board	
2. Mailing Address <b>BGY. TANKULAN, MANOLO FORTICH, BUKIDNON</b>		a. Phil. Postal Money Order Nos.	
2a. Telephone No.		b. NWRB Official Receipt : DATE:	
3. Tax Account	4. Citizenship	Email Address: mfwd_buk@yahoo.com	
6. Name of Water Source <b>DAHILAYAN SOURCE (SURFACE WATER)</b>	7. Location of Diversion Point <b>DAHILAYAN, TANKULAN MANOLO FORTICH, BUK.</b>	8. Method of Diversion <b>GRAVITY</b>	
9. Months of Low Flow <b>APRIL - MAY</b>	10. Water Needed in Liters/Second <b>500 LPS</b>	11. Purpose <b>MUNICIPAL USE</b>	
12. If for Agriculture, Area of Land and Crops Raised <b>N/A</b>		13. If for Domestic Water Supply Population Served	
14. If for Industry, Brief Description on how Water will be used <b>N/A</b>		15. If for Power, Rated Capacity in kilowatts <b>N/A</b>	16. Other Uses <b>N/A</b>
17. Name of Person/s Holding or Claiming Rights to the use of Water including the Amount and Nature of Use Downstream and Upstream <b>MANOLO FORTICH WATER DISTRICT (MFWD)</b>			
I hereby certify that the information given above and in documents submitted are true and correct to the best of my knowledge and belief   <b>ENGR. ROGELIO K. PANGAN / GENERAL MANGER</b> Signature of Applicant		Subscribe and Sworn to before me on this date 403 01 <b>CTY. RAUL MANUEL P. PAAY</b> NOTARY PUBLIC Valid until October 31, 2016 Roll of Notaries No. 41670 PTR No. 8-11-16-0- 1-1-16-0-397 Notary Public/Administering Officer	
TO BE FILLED BY NWRB AGENT			
18 CHECKLIST ON General Information and Description			
a. <input type="checkbox"/> Ownership/right to land established b. <input type="checkbox"/> Citizenship as a Filipino established c. <input type="checkbox"/> Brief description of proposed project/development d. <input type="checkbox"/> Location plan of water source and point of diversion using a scale of 1:50,000.00		e. <input type="checkbox"/> Location plan of areas to be developed indicating the layout of proposed works f. <input type="checkbox"/> Certification of incorporation if applicant is an association or coporation g. <input type="checkbox"/> Other informations as specified under Sect.4 Rules & Regulations implementing Water Code	
19. Diversion Point: Latitude: <b>08° 11' 37.7 "</b> Longitude: <b>124° 51' 22.7"</b>		20. Possible adverse effect to Public and/ or private interest: <b>NONE</b>	
Prepared by: Date:		Submitted by: Date:	
21. Water Discharge ( To be filled by NWRB Hydrologist/Staff)			
a. 80% of time equaled of exceeded		b. Mean of Monthly Discharge (L/S)	
		c. Amount of Water Recommended for Approval	
22. Other comments and recommendations:			
Prepared by Date:		Submitted by: Date:	



**NATIONAL WATER RESOURCES BOARD**  
8th Floor NIA Bldg., EDSA, Diliman, Quezon City, Philippines 1106

January 22, 2020

The Honorable Board Members  
National Water Resources Board


Subject: WATER PERMITS

This is to recommend granting of seven (7) Water Permits whose applications have been processed, evaluated and found to be in order.

*Ref 04-0120*

Control No.	Name of Applicant	WPA No.	Source/Location	Available Water for Appropriation (80% dependable flow less 10% envl flow)	Total Amount of Water Appropriated w/ NWRB WP (lps)	Net Amount of Water Available for Appropriation (lps)	Amount of Water to be Granted (lps)
<b>A. MUNICIPAL</b>							
2-20-1	TUBIG PILIPINAS GROUP INC.	II-ISA-2018-05-057	Cagayan River, Brgy. Gucab, Echague, Isabela	467164	275454	191710	237.8
2-20-2	MANOLO FORTICH WATER DISTRICT	X-BUK-2018-01-058	Agusan River, Dahilayan Tankulan, Manolo Fortich, Bukidnon	320.11	168.75	151.36	151.36
<b>B. IRRIGATION</b>							
20	NIA-MACALELON SRIP	IV-QUE-2018-12-018	Macalelon River, Brgy. Vista Hermosa, Macalelon, Quezon	1442.717	None	1442.717	1075
20	SAPA PAMPANGA FIA INC.	III-PAM-2017-01-114	Buenavista Kawayan River, Brgy. San Antonio, Arayat, Pampanga	384.845	55	329.845	253.5
<b>C. POWER GENERATION</b>							
0	LEVAN MARKETING CORPORATION	V-CAM-2017-12-054	Caayunan River, Brgy. San Pascual Basud, Camarines Norte	318.01	None	318.01	318.01

Telephone no. (63-2)8 9202793, (63-2)8 9202603, (63-2)8 9202641  
TeleFax no. (63-2)8 9202834  
www.nwr.gov.ph


**Management System**  
ISO 9001:2015  
ID No. 9106053150



## ANNEX 9 ENVIRONMENTAL COMPLIANCE CERTIFICATE (ECC) APPLICATION CHECKLIST

### 1. ECC Evaluation Report

#### EVALUATION REPORT 3/23/2020 2:04:43 PM

Requirement	Compliant	Remarks
Project Description	Yes	for verification- please contact 8569362 for the schedule of site assessment  as of November 7, 2019: since your project is level III water system hence, you should comply the following: 1. submit Feasibility Study if 2. Detailed Process flow of your Project 3. Volumetric flow rate of the river 4. consider/include in your description , the wastewater treatment facility
Environmental Impact and Management Plan	Yes	as of January 29, 2020 submit comprehensive Environmental Management Plan (EMP) to consider slope protection, sludge lagoon disposal, measures on disturbance caused by installation of pipes and other mitigating measures
Abandonment / Decommissioning / Rehabilitation Information	Yes	present an abandonment plan
Geotagged photographs of project site (taken for last 30 days)	Yes	please clarify the source of your water, what river system? picture should be superimposed with geographical coordinates
Topographic Map of impact/affected areas (at least 1km from the project boundaries)	Yes	submit topo map with landmarks of the project site
Certification from LGU on the compatibility of proposed project with existing land use plan	Yes	
Site Development and/or Vicinity map signed by registered professionals	Yes	submit the specific site development plan to include the intake box and its pipelines please identify the no. of households to be served and no. of barangays to be served submit detailed site development plan to include intake structure, treatment facility road and include the Process Flow of Water Treatment  submit easement plan as of January 29, 2020 Let the following signed the plans: 1. Engr. Rogelio K. Pangan- General Manager 2. Engr. Ermito L. Ganas- Engineering and Maintenance Head 3. Joan N. Canete- Preparer  as of February 27, 2020 still i cannot open the attachment, may we request for your hard copy please.
Project/Plant layout signed by registered professionals	Yes	
Schematic diagram of wastewater treatment facility	Yes	
Schematic diagram of Air Pollution Control Facility	Yes	
Organizational Chart in charge on environmental concerns	Yes	
Proof of authority over the project site (land title, lease contract, deed of absolute sale, etc.)	Yes	SINCE your site is owned by the government, hence you should secure a certification from the CENRO-Manolo Fortich that Manolo Fortich Water District is allowed to operate within that area
Duly notarized accountability statement of proponent	Yes	
Others (Optional)	N/A	



Duly accomplished project environmental monitoring and audit prioritization scheme (PEMAPS) questionnaire	Yes	for verification- contact us thru tel nos. 8569362 an look for Nonette G. Atasan input data under waste generation and management as of October 23, 2019 1. please designate your Pollution Control Officer 2. input your contact number as of October 30, 2019 please fill-up the form that in consistent with your project quantifying the volume of waste , at least an estimated amount only
IEE Checklist Sworn Statement	Yes	
Bank Receipt (Application Fee)	No	we would like to inform you that the date of your payment to landbank was on May 30, 2018, based in our existing guidelines that your payment has been lapsed already because it must be within six months only from the date of payment., hence, you need to pay it again to landbank. please see attached Order-of-Payment.
Affidavit of No Complaint	Yes	as of November 7, 2019: you are required to conduct public consultation considering that your volume of water to be abstracted is 15,768,000 cubic meters
Project Components & Operation Information	Yes	for verification-contact us thru tel nos. 8569362 and look for Nonette G. Atasan fill-up the form

Over all Remarks: Requires submission of additional information or further clarification based on the above results.

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## 2. ECC Order of Payment

**Environmental Management Bureau  
Environmental Impact Assessment Division**

**ORDER OF PAYMENT**

Application Reference No.	:	fdd6d40e-7654-4700-93f2-a35fbd53fd0e
Name of Project Proponent	:	Manolo Fortich Water District
Project Name	:	Development of Surface Water at Agusan River
Project Location	:	Dahilayan, Manolo Fortich, Bukidnon Manolo Fortich, Bukidnon
Order of Payment Reference No.	:	8080809
Order of Payment Date	:	03/23/2020
Agency Code	:	D1609
Merchant/Agency Deposit Account No.	:	3402-2806-53
Total Application Fee (MC 2018-002)	:	Php 5,070.00

For internet-based payment, please visit <https://www.lbp-eservices.com/egps/portal/index.jsp>. For Over-the-counter payment, see instruction below.

1. Proceed to any landbank branches to fill-up the ONCOLL Payment Slip indicating the account reflected in the order of payment and the EMB as the Agency Name. Other fields should be accomplished as follows:

Reference No. 1: Project Name.

Reference No. 2: Agency Code.

Reference No. 3: Order of Payment Reference No.

2. Present Accomplished ONCOLL Payment Slip together with this Order of Payment and payment to the Bank Teller.

3. Secure Teller's Validation.

Note: Payment non-refundable.

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# **ANNEX 2**

## **Gender Action Plan**



## GENDER ACTION PLAN

1. **Gender Classification.** The purpose of the Project is to target less resilient water districts (WDs) in cities and municipalities outside Metro Manila including the WDs in San Fernando (La Union) and the City of Koronadal, to fund the extension and rehabilitation of their water supply (e.g., the construction of new deep wells, transmission and distribution pipelines) and sanitation projects, as well as capacity building development and institutional strengthening for the executing agency, Local Water Utilities Administration (LWUA) and WDs. Women will benefit from the Project through affordable tariffs and other pro-poor initiatives, capacity building and representation on WD Boards. The project is classified as effective gender mainstreaming (EGM) in design.

2. **Gender Action Plan (GAP) Purpose and Strategy.** The 2009 socio-economic survey shows that a small portion of households in the target WDs have piped water connections and sanitation facilities (11-18%). Among the poor in these cities, 90% of them don't have water connections despite LWUA's socialized tariff policy. The significant social and economic burden of illness, health care for the family, child care, water fetching, food preparation and other associated domestic responsibilities associated with not having water and sanitation connections, falls primarily on women. Women are positioned to benefit from the project's interventions due to their central role in water, hygiene and sanitation management. At the community level, women's participation in water system operations is low as there are no formal water associations in the pilot service areas in which they could participate in the operation and maintenance of water and sanitation facilities. The Government's existing framework for gender action is not being maximized by LWUA and the pilot WDs.<sup>1</sup> LWUA and the pilot WDs have designated gender focal points and gender and development (GAD) programs. However, their GAD budgets have not been fully utilized, with limited gender-specific activities such as capacity-building for increased women's participation in technical operational roles. The Project's gender strategy will facilitate women's participation and benefits through GAP implementation (see Table below). These include enhanced hygiene and sanitation awareness and training, connections to proper water supply and sanitation, capacity building, and representation on WD Boards. Pro-poor measures include lifeline tariffs and initiatives for affordable access (e.g. socialized and/or installment schemes for connection fees).

3. **Implementation and Monitoring Arrangements.** The Borrower shall ensure that it complies with all relevant laws and regulations related to gender actions.<sup>2</sup> A responsibility center will be created at LWUA/project management unit (PMU), with the designation of an employee to monitor GAP implementation by LWUA and participating WDs (including preparing 6-monthly progress reports and ensuring that the bidding documents and contracts include relevant provisions for contractors to comply with the measures set forth in the GAP) and to provide implementation support to the conduct of GAP activities, such as training and capacity-building on required competencies of the project implementation units (PIUs) in compliance with those aspects of the GAP applicable to the WD. Similarly, each WD will be set up a responsibility center and a gender focal person responsible for preparing and implementing a gender action plan for the WD in order to ensure the WD's compliance with those aspects of the GAP

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<sup>1</sup> Including Republic Act No. 7192 ("Women in Development and Nation-Building Act" passed on February 12, 1992), Executive Order No. 273 ("Approving and Adopting the Philippine Plan for Gender-Responsive Development, 1995 to 2025" passed on September 8, 1995), and Joint Circular No. 2004-1 issued by the Department of Budget and Management (DBM), the National Economic and Development Authority (NEDA) and the National Commission on the Role of Filipino Women which prescribes guidelines and procedures for the formulation and submission of agency annual GAD plans and budgets, and GAD accomplishment reports.

<sup>2</sup> See footnote 1.



applicable to the WD, including the preparation of budgets for, and the implementation, updating and monitoring of, the WD's gender action plan. Other staff members of the WD will be engaged to assist with various activities in the WD's gender action plan.

4. **GAP Budget.** LWUA will allocate a yearly budget for the implementation of the GAP, which will be taken from its GAD budget. In addition to enhancing its own GAD capacity, LWUA will work with participating WDs to ensure that compliance with those aspects of the GAP applicable to them.

**Table 11.1 GAP Budget (pesos)**

Budget Item	Year 1	Annual Budget Years 2 to 6
Training of LWUA's and WDs' gender focal points on GAP implementation and monitoring	400,000	200,000
Capacity building of LWUA and WDs staff on gender analysis, gender-responsive planning and budgeting	600,000	300,000
Supervision and monitoring of GAP implementation – database creation and maintenance	200,000	200,000
Total	1,200,000	700,000

GAP = Gender Action Plan, LWUA = Local Water Utilities Administration, WD = water district

**Table 11.2 Summary of Gender Action Plan**

Project Output	Proposed Actions and Targets
<b>Client-Focused</b>	
Output 1: Expansion and improvement of water supply systems; sanitation projects	<ul style="list-style-type: none"> <li>➤ Information dissemination on new water services targeting poor households in the existing and expansion water service areas.</li> <li>➤ Promoting affordability to low-income households including ensuring the minimum charge for monthly water consumption should meet LWUA's guidelines for low-income households in the areas served by participating water districts (WDs).</li> <li>➤ Partnership with barangay health workers/units and non-government organizations (NGOs) for delivery of sanitation information education and communication (IEC) and training. Per subproject, IEC training for 100 barangay health workers, science, public school teachers (50% are female).</li> <li>➤ Ensuring WDs consult with women and men separately about content, format, and media for IEC messages.</li> </ul>
<b>Organization-Focused</b>	
Output 2: Capacity and institutional development for participating WDs and LWUA.	<ul style="list-style-type: none"> <li>➤ Training to enhance sustainability of operations for WDs (business planning, project implementation, management information system [MIS], non-revenue water [NRW] reduction) (at least 30% of participants are female).<sup>3</sup></li> <li>➤ Designation of an employee to coordinate, monitor and report on implementation of GAP activities.</li> <li>➤ Capacity development of LWUAWDs in gender analysis, gender-responsive planning, gender budgeting, and GAP compliance.</li> <li>➤ At least 30% of LWUA's overall staff and management at project management unit are female.<sup>4</sup></li> <li>➤ Encouraging the appointment of at least 2 women on the Board of each participating WD, of which one is a representative of a women's organization (e.g. a relevant NGO or national women's group).</li> <li>➤ Allocation from LWUA's yearly GAD budget to its GAP budget to support project implementation.</li> <li>➤ Detailed project performance monitoring (including compliance with GAP), reporting, accounting, and auditing systems developed, with collection of sex-disaggregated data, provide 6-monthly reports and feed data into mid-term review and Project Completion Report.</li> </ul>

<sup>3</sup>Baselines will be collected for LWUA and each participating WD. If the baseline indicates a higher % of female representation than the 30% target, an appropriate higher target will be incorporated and reported to ADB.

<sup>4</sup>See footnote 3.



# **ANNEX 3**

## **Resettlement Framework and Indigenous Peoples Planning Framework**



# Resettlement Framework

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March 2014

## Philippines: Water District Development Sector Project

Prepared by Local Water and Utilities Administration for the Asian Development Bank.



## **CURRENCY EQUIVALENTS**

(as of 19 March 2014)

Currency unit	–	peso (Php)
Php1.00	=	\$0.0224074572
\$1.00	=	Php 44.63

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
AH	–	affected household
AP	–	affected person
CKWD	–	City of Koronadal Water District
DA	–	Department of Agriculture
DMS	–	detailed measurement survey
EA	–	executing agency
EMA	–	external monitoring agency
GAD	–	gender and development
GAP	–	gender action plan
GRC	–	Grievance Redress Committee
GRM	–	Grievance Redress Mechanism
HH	–	Household
IA	–	Implementing Agency
IOL	–	Inventory of losses
IP	–	Indigenous Peoples Plan
LGU	–	Local Government Unit
LWUA	–	Local Water and Utilities Administration
m3	–	cubic meter
MDG	–	millennium development goal
MSFWD	–	Metro San Fernando (La Union) Water District
NEDA	–	National Economic and Development Authority
NRW	–	non-revenue water
PCUP	–	Presidential Commission on the Urban Poor
PIB	–	public information booklet
PIU	–	project implementation unit
PMU	–	project management unit
PPTA	–	project preparatory technical assistance
OCR	–	ordinary capital resources
RF	–	Resettlement Framework
ROW	–	right-of-way
RP	–	Resettlement Plan
SAR	–	Subproject Appraisal Report
SES	–	Socio-economic Survey
SPS	–	ADB's Safeguard Policy Statement (2009)
UFPF	–	Urban Financing Partnership Facility
WACC	–	weighted average cost of capital
WD	–	Water District
WDDSP	–	Water District Development Sector Project
WDRC	–	Water District Resettlement Committee



## GLOSSARY

<b>Affected People (APs)</b>	– includes any person, entity or organization affected by the Project, who, on account of the involuntary acquisition of assets in support of the implementation of the Project, would have their (i) standard of living adversely affected; (ii) right, title or interest in all or any part of a house and buildings, pavements and other physical improvements, land (including residential, commercial, agricultural, plantations, forest and grazing land), water resources, annual or perennial crops and trees, or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily; and (iii) business, profession, work or source of income and livelihood lost, partly or totally, permanently or temporarily
<b>Compensation</b>	– the payment in cash or in kind at replacement cost for an asset affected or to be acquired by the Project.
<b>Eligibility cut-off date</b>	– the date that a population record or census, preferably at the project preparation stage, has been conducted and is determined to be the basis for qualifying persons who are eligible to receive entitlements under a Resettlement Plan (RP). The purpose of setting a cut-off date is to prevent a subsequent influx of encroachers or others who wish to take advantage of such benefits. The cut-off date will be the date of the start of the census for the RP.
<b>Entitlement</b>	– refers to a range of measures comprising compensation in cash and/or in kind for loss of land and non-land assets, including assistance for income restoration and relocation and special support to poor and vulnerable households.
<b>Land Acquisition</b>	– is the process whereby a person is compelled by the Government through the Executing Agency/Implementing Agency of the Project to alienate all or part of the land s/he owns or possesses in favor of the Government in the implementation of the Project or any of its components in return for compensation.
<b>Relocation</b>	– the physical shifting of an AP from his/her pre-project place of residence and/or business to another place.
<b>Replacement Cost</b>	– the amount in cash or in kind needed to replace an asset and is the value determined as compensation for: <ul style="list-style-type: none"> <li>a. Agricultural land based on market prices that reflect recent land sales prior to the commencement of the subproject or displacement, and in the absence of such recent sales, based on assessed and prevailing market value;</li> <li>b. Residential land based on market prices that reflect recent land sales prior to the commencement of the subproject or displacement, and in the absence of such recent land sales, based on similar location attributes;</li> <li>c. Houses and other related structures based on prevailing market prices of materials and labor, without depreciation nor deductions for salvaged building materials;</li> <li>d. Crops based on prevailing market value;</li> <li>e. Trees and other perennials based on prevailing market value; and</li> <li>f. Other assets (i.e., income, community facilities) based on</li> </ul>



replacement cost or the cost of mitigating measures.

<b>Rehabilitation</b>	– means assistance provided to severely affected APs due to the loss of 10% or more of productive assets (i.e., farmland, crops and trees, vegetable garden, etc.), incomes, and employment, or when sources of living such as shops and places of employment have to be reconstructed completely and/or relocated. The livelihood support may be given in cash or in kind or a combination of the two in order to improve or at least achieve full restoration of living standards to pre-project levels.
<b>Resettlement</b>	– is considered significant where 200 or more people experience major impacts. Major impacts are defined as involving APs being: (i) physically displaced from housing, place of residence and sources of income, and/or (ii) losing 10% or more of their productive, income-generating assets. APs experiencing major impacts are referred to as “severely affected APs”.
<b>Structures and structural losses</b>	– refer to losses to constructed assets, residential houses, pavements, driveways, institutional structures, utility structures, business structures with residences attached to it and other income-producing spaces
<b>Severely Affected Persons</b>	– are those who experience major impacts due to: (i) being physically displaced from their housing, place of residence and sources of income, and/or (ii) loss of 10% or more of their productive, income-generating assets.
<b>Vulnerable Groups</b>	– are distinct groups of people who might suffer disproportionately or face the risk of being further marginalized by the effects of resettlement and specifically include: (i) households headed by women, the elderly or disabled, (ii) households living below the poverty threshold, (iii) the landless, and (iv) indigenous people and ethnic minorities.

#### **NOTE**

In this report, "\$" refers to US dollars.

This resettlement framework is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the “terms of use” section of this website.

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## INTRODUCTION

### A. Project Background

1. The Project will fund the expansion and rehabilitation of water supply systems, and pilot sanitation projects of water districts (WDs) outside Metro Manila, in order to reduce the occurrence of water-related diseases. The total Project Cost is \$76 million. The Government has requested ADB to provide a \$60 million sector loan for WDs. The Urban Environmental Infrastructure Fund Grant under the Urban Financing Partnership Facility (UEIF-UFPF) will provide a \$2 million grant to subsidize pilot sanitation facilities. Funds are expected to be channeled to WDs through the Local Water Utilities Administration (LWUA).<sup>1</sup>

2. Rapid urbanization and inadequate water supply and sanitation investments have stretched to the limit the capacity of services and facilities in many urban areas outside Metro Manila, and increased water resources pollution. Less than 50% of urban households are estimated to have piped water, with most served by WDs. Various studies report that WDs provide better water service compared to local government unit (LGU)-run water utilities, and attribute this to corporatization (i.e., WDs do not receive subsidies from LGUs) and to access to financing, training and technical assistance from LWUA.

3. Supporting WDs will help the Government achieve its millennium development goals (MDGs) for safe water and improved sanitation. The Project will provide to WDs much-needed funds to rehabilitate and expand water facilities, strengthen institutional capacities, and enhance sustainability. According to LWUA, 511 WDs were operational at year-end 2012. Most WD operations are plagued with low profitability, high nonrevenue water (NRW) levels, and weak institutional and limited technical capacity; over half are relatively small (with <3,000 service connections). The Project will target WDs who rely primarily on LWUA for technical support and financing; these WDs are likely to be in less developed provinces, cities and municipalities. The Project will also raise awareness about sanitation and seek to fund pilot sanitation facilities.

4. A project preparatory technical assistance (PPTA) prepared feasibility studies and safeguard documentation for the subprojects of two pilot WDs, City of Koronadal WD (CKWD) and Metro San Fernando WD (MSFWD), which have affirmed their interest in participating in the Project.<sup>2</sup> LWUA confirmed strong interest from other WDs for the remaining available funding under the Project.

### B. Scope of the Resettlement Framework

5. This Resettlement Framework (RF) presents the general guidelines and procedures for preparing Resettlement Plans (RPs) for subprojects under the Project. The LGUs in the City of Koronadal confirmed that public land will be made available for CKWD's water supply and

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<sup>1</sup> In 1973, to address grossly inadequate water supply and sanitation infrastructure outside Metro Manila, the Provincial Water Utilities Act (Presidential Decree 198) was passed to (i) encourage local government units (LGUs) to form water districts (WDs), corporatized entities to supply water within a franchise area, without subsidies from LGUs, and (ii) establish LWUA, a government-owned specialized lender/tariff regulator/institutional development advisor for WDs.

<sup>2</sup> A \$1.5 million PPTA (including \$0.3 million from the Government) was approved in 2007. Five pilot WDs were selected based on criteria established in 2008 by the Project stakeholders (e.g., "creditworthiness" as defined by LWUA, interest to participate, and readiness), the PPTA prepared feasibility studies and the final PPTA report submitted in May 2010. Processing of the loan was put on hold until the appointment of a new management at LWUA. In January 2012, the Government renewed its interest in finalizing the Project and ADB reengaged the PPTA consultants. Of the original five pilot WDs, CKWD and MSFWD are the remaining pilot WDs.



sanitation subprojects. An RP was prepared under the PPTA for MSFWD's subproject (water supply) where land acquisition is expected. The RP follows a process consistent with ADB's **Safeguard Policy Statement 2009** (SPS),<sup>3</sup> and Philippine laws on land acquisition and compensation. RPs of additional subprojects under the Project, if required during implementation, will be formulated using this RF and will be reviewed and endorsed by the executing agency (EA), prior to submission for ADB's approval.

## A. LEGAL FRAMEWORK

### A. Philippine Laws and Policies

6. The Philippine Constitution states that the protection of property is State Policy and is essential for Filipinos to enjoy the benefits of democracy. Private property is the right of every citizen. The Constitution also states that it prohibits depriving any person of his property without due process and no taking of property is allowed by law without just compensation. Existing legislation and guidelines that address various aspects of land acquisition and resettlement include among others Executive Order 1035, Republic Act (RA) 6657, RA 7160, RA 7279, RA 8435, and RA 8974. **Table 16.1** describes the laws and statutes applicable to aspects of resettlement.

**Table 16.1: Laws and Statutes Governing Resettlement in the Philippines  
Applicable to WDDSP**

Aspects of Resettlement	Laws and/or Statutes	Description
Community Participation and Consultation	R.A. No. 7160 (Local Government Code), Sections 2 (c) and 27.	Provide prior consultation with affected communities on any project and require the approval of the concerned Sangguniang Panglunsod (municipal council)
	R.A. No. 7279 (UDHA Law), Article I, Sec. 2; Article V, Sec. 23; Article VII, Sec. 28 (2) and IRR of UDHA, Sec. 3 (e.1)	The provisions of this law also require consultations with affected persons and communities. The results of consultations will form part of the approval of the RP by the local government units (LGU's) Sangguniang Panglunsod (SP); Sangguniang Bayan (SB)
	RA No. 8435 (Agriculture and Fisheries Modernization Act of 1997)	Consultation and participation of farmers, fisher folks and agrarian reform communities (ARCs) and other stakeholders
Land Acquisition	R.A. No. 7160 (Local Government Code), Section 19.	Provision for the LGUs or sub-national administrative entities in the exercise of the power of eminent domain but it can only be applied for "public use or purpose or for the benefit of the poor and the landless" and property owners will be paid just compensation.
	EO 1035 R.A. No. 8974 (Guidelines for Government Acquisition of Right of Way or Site Location)	Facilitating the Acquisition of Right-of-Way (ROW), Site or Location of National Government Infrastructure Projects and for Other Purposes.
	R.A. No. 7279 (Urban Development and Housing Act of 1992)	Provision for the development, award and disposal of land under usufruct arrangement for purpose and use of socialized housing and urban services.

<sup>3</sup> <http://www.adb.org/sites/default/files/pub/2009/Safeguard-Policy-Statement-June2009.pdf>



Aspects of Resettlement	Laws and/or Statutes	Description
	<p>Comprehensive Agrarian Reform Law Republic Act 6657 (1988)</p> <p>Republic Act 6389</p>	<p>RA 6657 Section 28 states that landowner shall retain his share of any standing crop un-harvested at the time the Department of Agrarian Reform (DAR) shall take possession of the land under Section 16 of this Act, and shall be given a reasonable time to harvest</p> <p>RA 6389 states that "in the event of change in land use from agriculture to other uses, agricultural lessees are entitled to disturbance compensation equivalent to five times the average of the gross harvests on his landholding during the last five preceding calendar years."</p>
Compensation	R.A. No. 8974, Sections 8, 9, 10 and 13.	<p>Provides for the compensation of affected properties based on prevailing market prices. RA 8974 - An Act to Facilitate the Acquisition of ROW</p> <p>Site or Location for National Government Infrastructure Projects. The Implementing Rules and Regulations (IRR) of this law stipulates that the Implementing Agency shall negotiate with the owner for the purchase of the property by offering first the current zonal value issued by the Bureau of Internal Revenue (BIR) for the area where the private property is located. Further, that valuation of improvements and/or structures on land to be acquired shall be based on the replacement cost, defined as the amount necessary to replace the structure or improvement based on the current market prices for materials, equipment, labor, contractor's profit and overhead, and all other attendant costs associated with the acquisition and installation in place of the affected improvements/installation.)</p>
Poor/Informal Settler	<p>R.A. No. 7279 (UDHA Law), Article V, Sections 21 and 22. Implementing Rules and Regulations of UDHA, Section 3, III (b.3.0)</p> <p>EO 1035 Sec.17 and 18</p>	<p>For urban poor, provision for basic services and livelihood component under socialized housing and urban services. They are not to be evicted nor their dwellings demolished except in accordance with the law in a just and humane manner (Constitution). Assistance is limited to payment at replacement cost for structures and improvements. Additional assistance may be provided on a case by case basis.</p> <p>Relocation/resettlement of tenants /occupants affected by Property /ROW Acquisitions. Financial assistance to be given to tenants/farmers equivalent to the value of the gross harvest for one year on the principal and secondary crops of the area acquired, based on the average annual gross harvest of the last three preceding crop years and in no case, financial assistance be less than Php15,000 per hectare.</p>
Gender equality /Women in development	<p>RA 7192</p> <p>Sec. 5</p>	<p>Promotes the integration of women as full and equal partners of men in development and nation building. All government departments will ensure women benefit equally and participate directly in the development programs and projects specifically those funded under foreign development assistance, to ensure their full participation and involvement in the development process; to provide income and employment opportunities to women and assess extent to which such programs helped in enhancing their self reliance.</p> <p>Women of legal age has the capacity to enter into contract; has the capacity to borrow and obtain loans and execute security and credit arrangements under the same conditions as men/act as incorporators and enter into insurance contracts and secure travel</p>



Aspects of Resettlement	Laws and/or Statutes	Description
		visas without the consent of their spouses, among others.
Monitoring	Executive Order No. 152 (Series of 2002)	Prescribes the broad monitoring of all types of eviction and demolitions involving the underprivileged and homeless citizens by the PCUP. All national government agencies and local government units should apply for Certificate of Compliance prior to the implementation of eviction and demolition.
Disclosure	Constitution  RA 7279	States "full public disclosure by the State of all its transactions involving the public interest" and "the Citizens have the right of access to information on matters of public concern."  Requires that all households affected are informed of any proposed development plan.

## B. ADB Policies

7. Consistent with ADB's **Safeguard Policy Statement** 2009 (SPS)<sup>4</sup>, the aim of ADB's **Policy on Involuntary Resettlement** is to avoid involuntary resettlement wherever possible and to minimize involuntary resettlement by exploring project and design alternatives. It also aims to enhance, or at least restore, the livelihoods of all displaced persons in real terms relative to pre-project levels, and to improve the standards of living of the displaced poor and other vulnerable groups.

8. The specific objectives and principles of ADB's Policy on Involuntary Resettlement are as follows:

- a. Screen the project early to identify past, present and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.
- b. Carry out meaningful consultations with affected persons, host communities and concerned non-government organizations. Inform all displaced persons of their entitlements and resettlement options. Insure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, the landless, the elderly, women and children, and indigenous peoples, and those without legal title to land and ensure their participation in consultations. Establish a grievance redress mechanism to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.
- c. Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land-based where possible, or cash compensation at replacement value for land when the loss of land does not undermine livelihoods, (ii) prompt replacement of assets with access to assets of equal or higher value, (iii) prompt compensation at full replacement cost for assets that cannot

<sup>4</sup> <http://www.adb.org/sites/default/files/pub/2009/Safeguard-Policy-Statement-June2009.pdf>



be restored, and (iv) additional revenues and services through benefit-sharing schemes where possible.

- d. Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and productive opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.
  - e. Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal affordable access to adequate housing.
  - f. Develop procedures in a transparent, consistent and equitable manner if land acquisition is through negotiated settlement, to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.
  - g. Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.
  - h. Prepare the RP elaborating on displaced persons' entitlements, the income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget and time-bound implementation schedule.
  - i. Disclose a draft RP, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders.
  - j. Conceive and execute involuntary resettlement as part of a development project or program. Include the full costs of resettlement in the presentation of the project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.
  - k. Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the RP under close supervision throughout project implementation.
  - l. Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the RP have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring results.
9. The SPS also provides more specific policies to be observed by the borrower/client with regard compensation to displaced persons. These are:



- a. The absence of legal title to land is not a barrier to compensation and rehabilitation of affected people. All people adversely affected by the Project are entitled to the assistance to restore pre-project conditions through compensation, resettlement and livelihood restoration. The poorest and vulnerable affected people, including households headed by women, the elderly, disabled, ethnic minorities, and the landless, must be assisted to improve their socio-economic conditions.
- b. The rate of compensation for acquired housing, land and other assets will be calculated at full replacement cost. The calculation of full replacement cost will be based on the following elements: (i) fair market value; (ii) transaction costs; (iii) accrued interest; (iv) transitional and restoration costs; and (v) other applicable payments, if any. In the calculation, depreciation of structures will not be taken into account. It is expected that qualified and experienced experts will undertake the valuation of acquired assets.
- c. In the case of economically displaced persons, regardless of whether or not they are physically displaced, the borrower/client will promptly compensate for the loss of income or livelihood sources at full replacement cost. The borrower/client will compensate economically displaced persons for lost assets such as land, crops, irrigation infrastructure, and other improvements made to the land<sup>5</sup> at full replacement cost. In cases where land acquisition affects commercial structures, affected business owners are entitled to (i) the cost of reestablishing commercial activities elsewhere; (ii) the net income lost during the transition period; and (iii) the costs of transferring and reinstalling plant, machinery and other equipment. Business owners with legal rights or recognized or recognizable claims to land where they carry out commercial activities are entitled to replacement property of equal or greater value or cash compensation at full replacement cost.
- d. The borrower/client will ensure that no physical displacement or economic displacement will occur until (i) compensation at full replacement cost has been paid to each displaced person, (ii) other entitlements listed in the RP have been provided to displaced persons, and (iii) a comprehensive income and livelihood rehabilitation program, supported by an adequate budget, is in place to help displaced persons improve, or at least restore, their incomes and livelihoods.

10. ADB's **Policy on Indigenous Peoples** defines "indigenous peoples" in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (iii) customary cultural, economic, social or political institutions that are separate from those of the dominant society and culture; and (iv) a distinct language, often different from the official language of the country or region. In considering these characteristics, national legislation, customary law, and any international conventions to which the country is a party will be taken into account. A group that has lost collective attachment to geographically distinct habitats or ancestral territories in the project area because of forced severance remains eligible for coverage under this policy.

11. ADB's **Policy on Indigenous Peoples** is "designed to promote the participation of indigenous peoples in project preparation and implementation, to ensure that they benefit from

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<sup>5</sup> In the case of affected persons without legal title to land, the AP will be compensated at full replacement cost for affected non-land assets.



development interventions that would affect them, and to provide effective safeguards against any adverse impacts”. In any ADB interventions, the approaches to be used are as follows: (i) to achieve the greatest possible reduction of poverty among the affected indigenous peoples; (ii) when negative impacts are unavoidable, they should be minimized as much as possible, and appropriate measures will be taken to mitigate the adverse impacts; (iii) in enhancing the benefits of a development intervention for indigenous peoples or reducing negative impacts of a development intervention, clear mechanisms for accurate and objective analysis of their circumstances will be prepared; and (iv) the mechanisms for any intervention must be transparent and should ensure accountability.

12. ADB’s **Policy on Gender and Development** adopts gender mainstreaming as a key strategy for promoting gender equity, and for ensuring that women participate and that their needs are explicitly addressed in the decision-making process. For projects that have the potential to have substantial gender impacts, a gender action plan is prepared to identify strategies to address gender concerns and the involvement of women in the design, implementation and monitoring of the project.

13. The SR2 of SPS adopts a holistic approach in development as it mandates the incorporation of its other cross-cutting policy themes, such as the following:

- (i) **Gender and Development (1998)**. It adopts gender mainstreaming as a key strategy for promoting gender equity, and for ensuring that women participate and that their needs are explicitly addressed in the decision-making process for development activities;
- (ii) **Public Communications Policy (2011)**. It seeks the active participation of affected people and other stakeholders during the development and review of safeguard policies on ADB-assisted programs and projects, consistent with ADB’s OM Section F1/OP (March 2010); and
- (iii) **Accountability Mechanism Policy (2012)**. It is part of ADB’s continued efforts to enhance its capacity in responding to and/or resolving the problems associated with the implementation of its policies in all programs or projects it assists. It consists of a consultation phase and a compliance review phase, by which the problems or issues raised by the affected people and/or stakeholders are investigated and resolved.

### **C. Gap Analysis and Reconciliation of Laws and Policies**

14. In the design of compensation and entitlements of affected persons or households, consideration was given to the resettlement policies of the Philippine Government and that of ADB. The policies are shown in **Table 16.2** citing comparison, applicability and reconciliation in order to address the gaps in this Project.



**Table 16.2: Comparison and Reconciliation of Applicable Philippine Laws, ADB's Safeguard Policy Statement 2009 and WDDSP Project Policy**

<b>Key Issues</b>	<b>Philippine Laws/ Policies</b>	<b>ADB Policy</b>	<b>WDDSP Project Policy</b>
1. Non-titled land users, caretakers/tenants of land, sub-leased space not covered by contracts between and among the owners of land, and informal settlers of private government property, including community facilities.	<b>Philippine Constitution</b> , Article XIII, Section 10: Urban or rural poor dwellers shall not be evicted nor their dwellings demolished, except in accordance with the law and in a just humane manner. Focus is on urban poor as per UDHA. Limited assistance or protection is given to rural poor unless they are tenured agricultural underclass. The law is not very clear on assistance to small enterprises, renters.	Non-titled affected persons (APs) are not entitled to compensation of land but APs including renters, informal settlers/squatters are entitled to payment for non-land assets and assistance to restore their pre-project living conditions. If they are poor and vulnerable, appropriate assistance must be provided to help them improve their socio-economic status.	Non-titled APs are not entitled to compensation of land but APs including renters, informal settlers/squatters are entitled to payment for non-land assets and assistance to restore their pre-project living conditions. If they are poor and vulnerable, appropriate assistance must be provided to help them improve their socio-economic status. If government infrastructure is affected, owners are consulted and compensation and replacement will be provided.
2. Compensation for land, commercial structures, residential and income-generating spaces with attached mixed-use structures, crops and trees.	<b>Republic Act (RA) No. 8974</b> , Sections 8, 9, 10 and 13 provides compensation of affected properties based on fair market value. <b>Executive Order (EO) 1035</b> (1985) provides for the procedures and guidelines for the expeditious acquisition of properties and rights by the Philippine Government for infrastructure and other government projects.	All compensation will be based on the principle of replacement cost.	All compensation will be based on the principle of replacement cost.
3. Provision of rehabilitation assistance to displaced households and vulnerable groups	Income restoration/ rehabilitation assistance is available only to resettled families and beneficiaries of socialized housing.	All eligible APs including tenants, employees of affected businesses who stand to lose their jobs, incomes or livelihoods because of project	Rehabilitation assistance will be provided to those who lose 10% or more of their income generating assets and/or are physically displaced.



Key Issues	Philippine Laws/ Policies	ADB Policy	WDDSP Project Policy
	<p>The Philippines has laws protecting women, elderly and children, persons with disabilities, and indigenous peoples. However, the issue is proper implementation and attention given to these groups based on resettlement impacts.</p>	<p>impacts are entitled to receive one-time financial assistance to cover losses of the move, as well as economic and social rehabilitation.</p> <p>Measures to address the status of the poor and vulnerable should focus on strategies to avoid their future impoverishment and create new opportunities for them.</p>	<p>Strategies to create new opportunities to improve incomes of poor and vulnerable people to avoid further impoverishment will be developed.</p> <p>The project will provide additional assistance on a case to case basis depending on the type of vulnerability identified. This assistance will be included in each RP.</p>



### **III. PROJECT PRINCIPLES**

15. The Project's Resettlement Framework (RF) and entitlements have been built upon the laws of the Government of Philippines, principally the Philippine Constitution that provides basic principles of water resources development and management, which stipulate that all waters of the Philippines belong to the state and applicable laws and regulations covering land acquisition, resettlement and compensation of land and structures, and the SPS. Whenever a gap exists, ADB's Policy on Involuntary Resettlement will prevail. The basic project principles of the RF are as follows:

- (i) The acquisition of land and other assets and the relocation of APs will be minimized as much as possible by exploring all viable options.
- (ii) All compensation will be based on the principle of replacement cost.
- (iii) Rehabilitation assistance will be provided to severely affected people and other vulnerable groups to assist them to improve or at least restore their pre-project living standards, incomes and productive capacity.
- (iv) Particular attention will be paid to the needs of the poorest people and vulnerable groups that may be at high risk of impoverishment. This may include those without legal title to land or other assets, landless households, households headed by females, the elderly or disabled and other vulnerable groups. Appropriate assistance must be provided to help them improve their socio-economic status.
- (v) Lack of legal title to affected assets is not a bar to compensation and assistance.
- (vi) In case of the relocation of APs, replacement houses and/or agricultural land will be located as close as possible to the assets that were lost, and at locations acceptable to the APs.
- (vii) Efforts shall be made to maintain, to the extent possible, the existing social and cultural institutions of the resettled people and host communities.
- (viii) APs will be fully informed and closely consulted and will participate in the preparation and implementation of the RP for each subproject. The comments and suggestions of APs and communities will be taken into account during the design and implementation phases of resettlement activities.
- (ix) Adequate resources will be identified and committed during resettlement planning for each subproject and the overall Project. This includes adequate budgetary support, fully committed, for each subproject and made available to cover the costs of land acquisition, compensation, resettlement and rehabilitation within the agreed implementation period for the subproject; and adequate human resources for supervision, liaison and monitoring of land acquisition, resettlement and rehabilitation activities.
- (x) Appropriate reporting, internal and external monitoring and evaluation mechanisms will be identified and set in place as part of the resettlement management system.



(xi) Key information in each RP will be translated into Filipino or, where necessary, the local language and placed in the WD's offices for the reference of APs as well as other interested groups.

(xii) ADB shall not approve any award of civil works contract for any subproject to be financed from the loan proceeds unless following detailed design and based on detailed measurement survey (DMS), the RP has been submitted to and approved by ADB.

#### IV. THE PROJECT ENTITLEMENTS

16. The EA through its Project Management Unit (PMU) and the WDs as the IA/sub-borrowers through their respective Project Implementation Units (PIUs) for the infrastructure investment covered under the Project, will ensure that the RP activities of any subproject submitted for funding under the sector loan are conducted in accordance with ADB's Policy on Involuntary Resettlement and the Philippine Government's applicable laws and regulations.

- **Cut-off Date.** All APs who are identified in the subprojects sites on the cut-off date will be entitled to compensation for their affected assets and rehabilitation measures adequate to assist APs to improve or at least maintain their pre-project income- earning capacity, production levels, and living standards. The cut-off date will be the first day of the census in each subproject site conducted during project feasibility stage. Those who enter in the subproject site illegally after the cut-off date will not be entitled to compensation or any form of subproject assistance.
- **Potential Impacts and Entitlements.** Table 16.3 provides the types of losses and corresponding nature and scope of entitlements. However, this matrix may not cover all resettlement impacts and/or losses specific and particular to each subproject. The DMS will be the basis for the determining the final entitlements based on the actual impact and/or losses, appropriate project assistance, relocation and, special assistance to poor and vulnerable groups during the preparation of the RP. A replacement cost survey will be carried out to determine the actual replacement costs and rates.
- **Donation.** Where individuals opt to make voluntary contribution of affected land, this will be acceptable only with the following safeguards in place: (i) full consultation with APs on project entitlements with consultations conducted in a free and transparent manner, (ii) ensuring that voluntary contributions do not severely affect living standards of households and are linked directly to benefits for the AP, (iii) any voluntary contribution will be confirmed through verbal or written record and verified by an independent third party (such as representative of a peoples' organization, NGO or legal authority), (iv) adequate grievance redress mechanisms are in place, (v) land and non-land assets contributed do not belong to the poorest and most vulnerable households, (vi) the land is free from any legal disputes or controversies, and (vii) land transactions are supported by transfer of titles.



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**Table 16.3: Project Entitlement Matrix**

Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
<b>1a</b>	Permanent loss of land	Agricultural/residential/commercial land/vacant plot	APs listed in the survey. with proof of ownership/claim to the land.	<p>Compensation for <b>entire loss of land</b> (i.e., the whole land is affected by the Project, or the residual unaffected portion is no longer viable for continued use and, therefore, the entire land will be acquired by the Project) and <b>partial loss</b> (i.e., only a portion of the land of the AH is acquired by the Project and the residual unaffected portion still viable for continued use or meets the expected yield) is based on the principle of replacement cost which is the method of valuing assets to replace the loss at prevailing market value, plus any transaction costs such as administrative charges, taxes, registration and titling costs.</p> <p>If AH is found to be severely affected (i.e., the loss is equivalent to 10% or more of their total income capacity or they are physically displaced from housing or place of business), the AH will be provided additional assistance as discussed under item 4 (severe impacts) of this entitlement matrix.</p>	<p>Computation of valuation of land must be transparent and explained to the entitled persons</p> <p>If there are grievances in valuation, entitled persons must be informed of the grievance mechanism</p>
<b>1b</b>	Permanent loss of land	Agricultural/residential/commercial land/vacant plot	APs without proof of ownership/claim to the land they occupy.	<p>Not entitled to payment for land, but will be compensated for non-land assets (structures, crops, trees, etc) at replacement cost.</p> <p>Entitled to cash or in-kind assistance if severely affected.</p>	<p>List of non-land assets to be compensated must be signed off by entitled persons</p> <p>Vulnerable and severely affected persons to be identified during census</p>



Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
1c	Permanent loss of land	Agricultural/ residential/ commercial land/vacant plot	Tenants/ shareholders	Entitled to compensation for non-land assets (structures, crops, trees) at replacement cost. Entitled to cash or in-kind assistance if severely affected.	List of non-land assets to be compensated must be signed off by entitled persons Vulnerable and severely affected persons to be identified during census
2	Permanent full or partial loss of structures or income-generating spaces	Residential/ commercial/ institutional structures and income-generating spaces	AP owners located at the site during the cut-off date of the survey, regardless of tenure and status (i.e., owners, renters, sharers, caretakers)	Compensation for permanent houses and other structures affected either in <b>full</b> (i.e., entire main structure is affected, or the unaffected portion of the main structure is no longer viable for continued use), or in <b>part</b> (i.e., only a portion of the main structure of the house, house-and-store, or shop is affected and the remaining unaffected portion is still viable for use), will be determined according to replacement value for materials and labor to rebuild similar structures, at prevailing market prices in the locality. In determining replacement costs, depreciation of assets and salvage value of materials will not be taken into account. In determining compensation for movable structures including houses, where the structures can be moved easily, transfer, relocation and repair allowances will be calculated. An assessment of material replacement will be made, based on the condition of materials, with valuations calculated based on standard replacement and restoration costs. Provision of transition and moving allowance/assistance (cash or in-kind) for	List of structures to be compensated must be signed off by entitled persons Computation of the valuation of affected structures must be explained to entitled persons If there are grievances in valuation, entitled persons must be informed of the grievance mechanism



Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
				APs that opt for voluntary relocation.	
3	<b>Permanent loss of crops and trees</b>	All trees of any age, crops	All APs regardless of tenure status	Cash compensation equivalent to (i) for annual standing crops, prevailing market value of crops; (ii) for perennial crops, prevailing market value given the type, age and productive value; and (iii) for trees, the productive value or the annual production as determined by the municipal agriculturist multiplied by the estimated number of productive years; all at the time of compensation. 60 days notice to allow owners to harvest any standing crops	List of trees and crops to be compensated must be signed off by entitled persons Computation of the valuation of trees and crops must be explained to entitled persons
4	<b>Severe impacts (more than 10% of productive income affected) on productive assets</b>	Land-based income, income from trees and crops, income from business	All APs losing 10% or more of their productive income from business and other income-generating assets. regardless of tenure status	Compensation for lost income based on actual impacts as a result of DMS. Appropriate rehabilitation measures and income restoration programs Project assistance for affected households such as job referral and placements and assistance to be trained additional skills for local employment or income-generating ventures. Additional project assistance (cash or in-kind) to poor and vulnerable households will be provided	Severely impacted (more than 10% impacted) households to be identified during census
5	<b>Temporary loss/impact on assets during construction</b>	Residential structures, improvements and other physical assets affected during	APs with improvements of their residential or business structure (e.g. fences, driveways)	Cash or in-kind compensation for fixed and movable assets such as houses, pavements, fences community facilities, farm structures for animals and farmers at replacement cost. Restoration or replacement of a fixed asset one month after construction of water transmission and distribution lines,	List of affected structures to be signed off by entitled persons Schedule construction activities to minimize the period of disruption Computation of the compensation must be explained to entitled persons



Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
		construction	and other physical assets on lots to be traversed by transmission pipes	sanitation facilities, reservoirs and other water facilities. Compensation for residential structures and community facilities, lost in full or part	
6	<b>Temporary loss of income</b>	Income from livelihood, business or employment	APs with businesses or employment disrupted during construction	Compensation for lost income or wages calculated at prevailing and/or average historical rate multiplied by the number of days of disruption	APs and corresponding income losses per day to be identified during census
7	<b>Temporary loss/impact on access</b>	Roads, pathways and access routes used by APs to conduct economic, social or cultural activities	APs whose access to land or facilities will be affected during construction	Alternative access routes shall be provided to temporarily replace the affected route.	Convincing owners of land to provide temporary access on their land
8	<b>Any unanticipated impacts/losses</b>		APs entitled to compensation as per RF	Any unanticipated impact or loss will be mitigated as per WDDSP RF	Close monitoring of unanticipated impacts during implementation phase



## V. SCREENING AND PREPARATION OF RESETTLEMENT PLANS

### A. Screening

17. Resettlement screening for all subprojects will take place during the identification and selection process for funding by the Project. The EA with the assistance of a social development specialist for resettlement will determine impacts and prepare RPs based on the ADB's and Philippine Government's safeguards requirements on involuntary resettlement. Assessment of project impact such as physical displacement, loss in productive and income assets, gender, ethnicity and vulnerability impact will be appraised, and measures to mitigate them will be included in the RPs.

### B. Resettlement Plan Preparation

18. If resettlement impacts cannot be avoided for a subproject, the preparation of an RP is required. Preparation of an RP follows the procedures below:

- (i) Carry out a census of all the APs;
- (ii) Undertake DMS<sup>6</sup> of all losses of all APs. At the same time, inform potential APs (without discrimination) of the subproject, its likely impacts, and principles and entitlements as per the RF;
- (iii) Conduct a socio-economic survey (SES)<sup>7</sup> of at least 10% of all affected households, and 100% of severely affected households;
- (iv) Carry out replacement cost (valuation) survey for various types of affected assets as a basis for determining compensation rates at replacement cost. Identify losses in accordance with the entitlement matrix<sup>8</sup>;
- (v) Provide project and resettlement information to all affected in a form and language that are easy to understand, and closely consult with them on compensation and resettlement options, including relocation sites and economic rehabilitation;
- (vi) A draft RP will be prepared with an implementation schedule that harmonizes with the project schedule, a budget, procedures for grievance mechanism and monitoring and evaluation;
- (vii) Public consultation to be conducted throughout the project cycle.

### C. Surveys for Resettlement Plan Preparation

19. **Socio-economic Survey (SES).** Apart from the basic socioeconomic information<sup>9</sup> on APs that will be collected as part of the Inventory of Loss survey (IOL), a separate SES will be carried out to collect detailed socioeconomic information from 10% of marginally affected APs and 100% of severely affected APs, disaggregated by gender. The purpose of the SES is to provide baseline data on APs or households to assess resettlement impacts and design rehabilitation measures, and to be used for resettlement monitoring. The scope of data to be collected via the SES includes:

<sup>6</sup> Data will be gender and ethnic minorities disaggregated.

<sup>7</sup> It will include gender analysis and data will be gender and indigenous peoples disaggregated.

<sup>8</sup> If there are new categories of APs and or losses identified during the DMS (aside from those described in the entitlement matrix), the entitlement will be revised in accordance with ADB's policy and guidelines.

<sup>9</sup> Including AP civil status, gender, age, household size, monthly household income from different sources, tenure status over affected assets.



- (i) Names and basic information about the households (civil status and gender, information on women-headed households, elderly members, number of family members, their education levels, etc.);
- (ii) housing, institutional, commercial/selling spaces and security of tenure that denotes status of ownership, type of real property and their location;
- (iii) economic profile of the households which indicates monthly incomes and expenses, information on savings, assets owned, and borrowings;
- (iv) health, water and sanitation;
- (v) access to basic services and facilities;
- (vi) social networks as in membership in associations, types and projects of the associations, as registered voter(s) of the community, and type of assistance extended by the neighborhood;
- (vii) risks and vulnerabilities (pertaining to environmental risks, calamities, impoverishment brought about by relocation, social exclusion by being very poor, and households headed by women, elderly, disabled, etc.), peace and order and discrimination experience in the community, in which all data collected will be disaggregated for gender.

20. **Assets Inventory.** An inventory of assets or losses survey (IOL) is needed to collect data on the affected assets from 100% of APs during the project preparatory stage. If data available is based on the preliminary design, the data will be finalized during the DMS following the completion of detailed engineering design. Data collected during the DMS will constitute the formal basis for determining AP entitlements and levels of compensation and project assistance. An updated RP will be prepared and implemented prior to commencement of civil works. A list of APs resulting from the DMS will be kept by the WD. For each AP, the scope of the data will include:

- (i) Total and affected areas of land, by type of land assets;
- (ii) Total and affected areas of structures, by type of structure (main or secondary);
- (iii) Legal status of affected land and structure assets, and duration of tenure and ownership;
- (iv) Quantity and types of affected crops and trees;
- (v) Quantity of other losses, e.g., business or other income, jobs or other productive assets;
- (vi) Quantity/area of affected common property, community or public assets, by type;
- (vii) Computed replacement cost of affected assets, i.e., land, structures and improvements, income from business, crops and trees, etc.;



- (viii) Ethnicity, gender of head of household, household size, primary and secondary source of household income, income of household headed by women, elderly or disabled;
- (ix) Whether the affected land for acquisition is primary source of income;
- (x) The AP's project information and/or knowledge of the subproject and preferences for compensation (cash or in-kind) as long as it is comparable to pre-project conditions and, as required provisions of relocation sites with comparable facilities and access to income sources and the provision of rehabilitation measures are in place.

21. **Replacement Cost (Valuation) Survey.** LWUA can also engage the services of a qualified private appraiser to carry out replacement cost surveys for land and non-land assets.

## **VI. CONSULTATION, GRIEVANCES REDRESS, AND DISCLOSURE**

### **A. Consultation and Participation**

22. The participatory and consultative process for the RP preparation will emphasize community participation aimed at increasing opportunities for both men and women to take active roles and responsibilities, harness their capacities and resources in planning, implementation and monitoring in all stages of the RP process such as in DMS, site identification, entitlement allocation, monitoring of impact and benefits, discussion and settlements of grievances and participation in meetings, and discussions pertinent to the subproject components. Information to be discussed with the community will include the (i) description and general schedule of the subproject; (ii) the DMS results; (iii) policy principles, and entitlements and special provisions; (iv) grievance procedures; (iv) the period for payments and displacement schedules; and (v) institutional responsibilities.

### **B. Grievance Redress**

23. LWUA will create a Water District Grievance Redress Committee (WDGRC which will also handle resettlement) in each WD to determine qualified APs and safeguard their rights. The WDRC will be composed of the WD-PIU head as chair, concerned NGOs, barangay officials and households headed by women as members.

24. The Project's grievance redress mechanism shall in no way impede access to the formal legal system or the courts. The decision of the courts is for finality of case resolution. Below are the steps to be followed in filing grievances and the procedures for redress.

**Step 1:** The complainant provides the background and files the grievance/complaint verbally or in writing to the WDRC. If unwritten, the WDRC Secretary will put it in writing and will reproduce it in four copies for distribution; the original copy to WDRC; two for the WD-PIU; and one for the file of the complainant. The complainant, WDRC and representatives of PIU will meet to discuss the complaint and resolve it within 15 days.

**Step 2:** If no resolution or understanding is reached, the complainant files the grievance/complaint to the WDRC central desk at the PMU for it to be resolved within 15 days after filing. The written complaint shall be reproduced in four copies; the original to EA-PMU, two for WD-PIU, and one for the file of the complainant.



**Step 3:** Again, if no resolution or understanding is reached and if the grievance/complaint qualifies for hearing at the Municipal Trial Court (MTC) or Regional Trial Court (RTC), the household may request for assistance of the *pro bono* lawyer from the Public Attorney's office, through the WDRC. The *pro bono* lawyer shall assist the household in reproducing the formal complaint in five copies to be distributed as follows: the original to the appropriate court, one each for PMU, PIU, WDRC and for the file of the complainant.

**Step 4:** The MTC or RTC assesses the merit of the grievance/complaint, schedules the hearing and renders a decision. Appeals can be elevated to the high court. The Supreme Court's decision is final and executory.

Aggrieved parties may also inform the Office of Special Project Facilitators (OSPF) of the ADB of any project-related grievances.

APs will be exempted from all administrative and legal fees.

25. Unresolved grievance can be elevated to the proper courts. However, resorting to courts prior to availment of this complaint and grievance process will make the appellant's action dismissible, on the ground of non-exhaustion of administrative remedies. The WDRC will maintain a full record of all complaints and grievances received, and the actions taken.

### **C. Disclosure**

26. As per ADB's Public Communications Policy (2012) and the Safeguard Policy Statement, 2009 (SPS), the EA (LWUA) and each IA (each WD) will disclose to the APs the draft RP and following detailed technical design and DMS or change in scope of the subproject, the updated RP. The RP will be uploaded on the EA's and ADB's websites. It will also be uploaded on the IA/WD's website, if it has one, or posted in a public place in the IA/WD's office.

27. Information from the RP for disclosure to APs includes: (i) compensation, entitlement, relocation and rehabilitation options; (ii) the DMS results; (iii) entitlement and special provisions; (iv) grievance procedures; (v) the schedule of payments/replacements of losses; and (vi) relocation and transfer schedule. This information will be made available in leaflets or brochures to APs at the WD's offices and the public information bulletin in Filipino or a language that is easy to understand in the locality where the subproject is situated.

## **VII. RELOCATION AND INCOME RESTORATION STRATEGY**

28. The relocation and income restoration strategy will be designed with the APs during the preparation of the RP. No AP will be displaced until they are fully compensated and provided with project assistance and entitlements. APs will be provided with temporary or permanent place of land, residence (if needed), cash or in-kind assistance during disturbance or transition, and space for mixed-use (income and residence) within the vicinity of the subproject.

## **VIII. VULNERABILITY, GENDER AND ETHNICITY**

29. This RF acknowledges that specific social groups may be less able to restore their living conditions, livelihoods and income levels; and may be at greater risk of impoverishment when their land and other assets are affected. The Project will identify any specific needs or concerns that need to be considered for ethnic minorities and other vulnerable groups such as landless, poor, and households headed by women, disabled, elderly or children without means of support.



A strategy with specific actions addressing gender and ethnicity needs, as required, will be included in each RP.

## IX. INSTITUTIONAL ARRANGEMENTS

30. The overall responsibility for enforcing the RF, including RP preparation and implementation is with LWUA and the WDs. The PMU at LWUA will review and endorse the RPs to ensure compliance with the RF prior to ADB's approval. The PMU is responsible for the overall monitoring of the RPs of all subprojects. It will be assisted by project implementation consultants.

31. At the WD level, a PIU will be established and will be responsible for the preparation, updating and implementation of the RP. A resettlement focal person within the PIU will ensure that the social safeguards policies contained in the RF/RP are adhered to. The PIU will be responsible for (i) ensuring that sustained efforts will be made to enhance community relationships in the conduct of resettlement activities such as the DMS, physical design development and technical verifications, and the disclosure, preparation and implementation of income restoration program, (ii) timely delivery of compensation and entitlement to all APs, (iii) acting as grievance officers, and (iv) preparing quarterly resettlement progress reports.

## X. MONITORING AND EVALUATION

32. Monitoring and evaluation of the RP implementation assesses the degree to which the resettlement activities have achieved the resettlement objectives. In harmony with the civil works schedule, it allows the proponent to assess its accomplishments against their desired outcomes. Specifically, monitoring defines the RP's progress and provides helpful information in assessing the following critical milestones in the RP: (i) compliance with the RF and RP; (ii) the availability of resources and efficient, effective use of these resources to implement resettlement activities in accordance with the implementation schedule; (iii) the establishment of a well-functioning resettlement unit during the course of project implementation; and (iv) identification of problems, if any, and corrective actions.

33. The PMU will develop internal monitoring indicators, procedures and reporting requirements for all subprojects. Periodic reports will be submitted by the PIU to the PMU and ADB. Reports will include: (i) the status of payment of compensation and provision of assistance to APs in accordance with the approved RP; (ii) coordination and completion of compensation and, as required, resettlement activities and commencement of civil works; (iii) adherence to public information dissemination and consultation procedures, and report on activities; and (iv) adherence to grievance redress procedures, and (v) an account of project activities.

34. The subprojects of the two pilot WDs (CKWD and MSFWD) have limited impacts and will thus not require external monitoring. For subsequent subprojects that are category B with limited impacts, external monitoring is a good practice but is not a requirement as per SPS. However, should the EA decide to engage an independent agency to conduct external monitoring, this will aim to ensure that provisions in the compensation and project assistance indicated in the RP are adhered to accordingly. External monitors, when engaged by the Project, will submit periodic monitoring reports. **Table 16.4** discusses the types of indicators and information required in the conduct of external monitoring and evaluation.



**Table 16.4: Indicators for External Monitoring**

Type of Indicators	Indicators	Information Required in Monitoring and Evaluation
Input Indicators	Staffing	<ul style="list-style-type: none"> <li>• Number of WD staff assigned for RP implementation.</li> <li>• Number of Social Development and Resettlement Specialist(s) assigned by the PMU.</li> </ul>
Process Indicators	Consultation, Participation, and Grievances Resolution	<ul style="list-style-type: none"> <li>• Number of consultations and participation programs held with APs and various stakeholders.</li> <li>• PIBs distributed to APs.</li> <li>• Number and types of grievances received from APs and the number of days consumed by concerned GRCs in resolving them.</li> <li>• Number and names of representatives of community and APs who participated in the consultations and in RP implementation.</li> <li>• Reporting and feedback mechanism in place.</li> </ul>
	Operational Procedures	<ul style="list-style-type: none"> <li>• Types of forms used in recording the activities undertaken in RP implementation.</li> <li>• Type of database being maintained.</li> <li>• Adequacy of logistical support for implementing the RP;</li> <li>• Assess if the project policies in RP have adequately been complied with.</li> </ul>
	Issues and Problems Encountered	<ul style="list-style-type: none"> <li>• Indicate the issues and problems encountered in staffing, during consultations and grievances resolution, and in the execution of operational procedures.</li> <li>• Indicate number of consultations conducted to resolve issues and problems pertinent to compliance by the WD with the provisions of the RP.</li> </ul>
Output Indicators	Compensation and Entitlement	<ul style="list-style-type: none"> <li>• Indicate if the APs who are engaged in micro business that were affected were compensated for their temporary loss of business incomes due to project construction.</li> <li>• Indicate recorded disbursements to and acceptance of APs of their entitlement.</li> </ul>

## **XI. IMPLEMENTATION SCHEDULE AND BUDGET**

35. All costs relating to RP implementation are part of the subproject budget. Land acquisition, compensation for non-land assets, project assistance, subproject administration, monitoring, including contingencies will be funded by the WD. Subprojects with significant impacts will engage an external monitor.

36. The PMU will ensure the timely delivery of budget for the implementation of resettlement activities. All compensation and payments for land and non-land assets and assistance will be prepared by the PIU and the finance office of the WD. A compensation schedule chart approved by the WD will be undertaken before the project construction. Procedures for funds disbursement to APs will follow the new accounting rules and regulations of the Philippine



Government. The PIU in coordination with the budget and finance office of the WD will process the necessary documents for payments and compensation stipulated in the RP. Land acquisition, compensation and relocation of affected households cannot commence until the RP has been reviewed and approved by ADB. The PMU will allow construction activities in specific sites after all resettlement activities have been satisfactorily completed for that specific site, agreed compensation, project assistance, rehabilitation assistance is in place, and the site is free of all encumbrances.



## **ANNEX 1**

### **SAMPLE TERMS OF REFERENCE FOR SOCIAL DEVELOPMENT AND RESETTLEMENT SPECIALIST AS PART OF PROJECT IMPLEMENTATION SUPPORT SERVICES**

#### **A. Project Background**

1. The Water District Development Sector Project (the Project) will provide financing for improving water supply and sanitation services of water districts (WDs) in the Philippines. A feasibility study to prepare the Project has been undertaken, including documents on social safeguards to comply with ADB's financing requirements, among them the Resettlement Framework (RF) and the subproject Resettlement Plan (RP) for a pilot WD, Metro San Fernando Water District (MSFWD).

#### **B. Objectives of the Consulting Services**

2. The consulting services will support the Project by providing project implementation support on resettlement issues in the implementation of the Project. The services include support to the Local Water Utilities Administration (LWUA) and the WDs for conducting the Detailed Measurement Survey (DMS), updating and implementation of MWSFWD's RP based on the detailed engineering design, and preparing RPs for other subprojects to be funded under the sector loan.

3. The services will be provided to the staff of the Project Management Unit (PMU) to be established in LWUA, and to the staff of the Project Implementation Units (PIUs) of the implementing agencies (the participating WDs).

4. One national social development and resettlement consultant will be hired to provide project implementation support. They will be attached to the PMU to ensure that all work is carried out in accordance with the RF, which is in accordance with the SPS and national laws on resettlement. The consultant will bring management and technical experience and proven methods from other projects to complement and build upon the EA's knowledge of project context and implementation experience in the Philippines. The consultant will have a minimum of 8 years experience in resettlement.

#### **C. Scope of Work - Social Development and Resettlement Specialist (National, 4 person-months)**

5. The expert will:

- a. Ensure all RPs and IPPs for all subprojects are in line with the RF and IPPF, which reflects both national regulations and the SPS.
- b. Prepare RPs and IPPs in accordance with RF and IPPF; review and update MSFWD's RP and inventory of losses following detailed design, including (i) identification of affected assets and affected households, (ii) replacement cost of affected assets, and (iii) cost of affected trees and crops.
- c. Assist PMU and WDs conduct necessary surveys and consultations with stakeholders, information campaigns and community participation; conduct follow-up



consultations as necessary with affected households to disclose project-related information including updated RPs and IPPs and grievance redress mechanism procedures.

- d. Assist PMU and WDs with consultations and finalization of RPs and IPPs, as necessary during implementation, based on detailed design to reflect changes in impacts, mitigation measures, costs and monitoring plans including new compensation rates, updated budget and implementation schedules, as required; update RPs and IPPs as per detailed design and reassess all impacts case by case at the time of census update during the DMS.
- e. Assist PMU in conducting public consultations, information campaigns and community participation.
- f. Support PMU in ensuring that work carried out under RF and IPPF is in accordance with the SPS and national laws on resettlement and indigenous people: (i) Review institutional arrangements for RP and IPP implementation, assess adequacy of personnel and budget; (ii) Review PMU's and each PIU's internal monitoring system for RP and IPP implementation and internal monitoring reports, and recommend measures for enhancement; (iii) Provide necessary support and capacity building to PMU/EA and each PIU/WD for RP and IPP preparation and implementation, including orientation and training on RP and IPP activities and implementation mechanisms.
- g. Review and reconfirm entitlement matrix and make necessary adjustments acceptable to the government and ADB.
- h. Undertake due diligence assessment and prepare corrective action plans to identify permanent and temporary socio-economic impacts resulting from land acquisition, changes in land use or restrictions of access to assets and common property resources, and handle grievance and redress cases.
- i. Define categories of impact and eligibility of affected households for compensation, and prepare entitlement matrix covering compensation for lost assets and income including assistance to achieve full replacement costs for lost assets, income and livelihoods.
- j. Assist PMU monitor implementation of both involuntary resettlement and IP safeguards in accordance with updated and approved RPs and IPPs with a focus on community consultation, compensation assessment, and grievance procedures.
- k. Assist PMU engage the services of a qualified private appraiser to carry out replacement cost surveys for land and non-land assets.
- l. Assist PMU with monitoring and liaising with the external monitoring consultant as required and assist in RP and IPP monitoring and reporting formats.
- m. Work closely with local authorities and resettlement committees at all levels on resettlement-related activities and assist PMU obtain local and national clearances and approvals for RPs and IPPs.



- n. Establish and implement liaison mechanisms to ensure proper technical and logistical support between PMU, PIUs, local administrative authorities, resettlement committees and concerned government departments.
- o. Review the operation and appropriateness of the grievance redress mechanism; identify issues, if any, and advise measures if necessary for speedy resolution.
- p. Review and update the Consultation and Participation Plan including (i) the identification of key stakeholders; and (ii) key activities and their respective objectives.
- q. Assist WDs in the implementation of the Consultation and Participation Plan, including (i) identification of barriers to participation and measures to overcome or resolve them; and (ii) identification of performance gaps and measures to address them.



# Indigenous Peoples Planning Framework

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March 2014

## Republic of the Philippines: Water District Development Sector Project

Prepared by Local Water and Utilities Administration for the Asian Development Bank.



## **CURRENCY EQUIVALENTS**

(as of 19 March 2014)

Currency unit      –      Philippine peso (Php)

Php1.00      =      \$0.0224074572

\$1.00      =      Php 44.63

## **ABBREVIATIONS**

ADB	–	Asian Development Bank
AH	–	affected household
AP	–	affected person
EA	–	executing agency
EMA	–	external monitoring agency
GAD	–	gender and development
GAP	–	gender action plan
HH	–	Household
IA	–	Implementing Agency
IOL	–	Inventory of losses
IP	–	Indigenous Peoples
IPP	–	Indigenous Peoples Plan
LGU	–	Local Government Unit
LWUA	–	Local Water and Utilities Administration
m <sup>3</sup>	–	cubic meter
MSFWD	–	Metro San Fernando (La Union) Water District
NEDA	–	National Economic and Development Authority
PIB	–	public information booklet
PIU	–	project implementation unit
PMU	–	project management unit
PPTA	–	project preparatory technical assistance
RF	–	Resettlement Framework
RP	–	Resettlement Plan
SES	–	Socio economic Survey
SPS	–	ADB's Safeguard Policy Statement (2009)
WD	–	Water District
WDGRC	–	Water District Grievance Redress Committee



## GLOSSARY

<b>Ancestral Domain Sustainable Development &amp; Protection Plan (ADSDPP)</b>	– Consolidation of plans of Indigenous Peoples (IPs)/Indigenous Cultural Communities (ICCs) within an ancestral domain for the sustainable management and development of their land and natural resources as well as the development of human and cultural resources based on their indigenous knowledge systems and practices.
<b>Affected People (APs)</b>	– includes any person, entity or organization affected by the Project, who, on account of the involuntary acquisition of assets in support of the implementation of the Project, would have their (i) standard of living adversely affected; (ii) right, title or interest in all or any part of a house and buildings, pavements and other physical improvements, land (including residential, commercial, agricultural, plantations, forest and grazing land), water resources, annual or perennial crops and trees, or any other moveable or fixed assets acquired or possessed, in full or in part, permanently or temporarily; and (iii) business, profession, work or source of income and livelihood lost, partly or totally, permanently or temporarily.
<b>Ancestral Domain</b>	– Areas generally belonging to IPs comprising lands, inland waters, coastal areas, and natural resources therein, held under a claim of ownership, occupied or possessed by the IPs, by themselves or through their ancestors, communally or individually since time immemorial, continuously to the present except when interrupted by war, force majeure or displacement by force, deceit, stealth or as a consequence of government projects or any other voluntary dealings entered into by government and private individuals/corporations, and which are necessary to ensure their economic, social and cultural welfare. It will include ancestral lands, forests, pasture, residential, agricultural, and other lands individually owned whether alienable and disposable or otherwise, hunting grounds, burial grounds, worship areas, bodies of water, mineral and other natural resources, and lands which may no longer be exclusively occupied by IPs but from which they traditionally had access to for their subsistence and traditional activities, particularly the home ranges of IPs who are still nomadic and/or shifting cultivators.
<b>Ancestral Land</b>	– Land occupied, possessed and utilized by individuals, families and clans who are members of the IPs since time immemorial, by themselves or through their predecessors-in-interest, under claims of individual or traditional group ownership, continuously, to the present except when interrupted by war, force majeure or displacement by force, deceit, stealth, or as a consequence of government projects and other voluntary dealings entered into by government and private individuals/corporations including, but not limited to, residential lots, rice terraces or paddies, private forests, swidden farms and tree lots.
<b>Certificate of Ancestral Domain Title (CADT)</b>	– A title formally recognizing the rights of possession and ownership of IPs over their ancestral domains identified and delineated in accordance with the Indigenous Peoples Rights Act (IPRA).
<b>Certificate of Non-Overlap</b>	– A certificate issued by the National Commission on Indigenous Peoples (NCIP) attesting to the fact that the area where a particular



plan, program, project or activity will be done, does not overlap with or affect any ancestral domain.

<b>Certification Precondition (CP)</b>	– A certificate issued by the NCIP, signed by the Chairperson, attesting to the grant of free and prior informed consent (FPIC) by the concerned IPs/ICCs after appropriate compliance with the requirements provided in this guidelines.
<b>Free and Prior Informed Consent</b>	– A consensus of all members of an IP community to be determined in accordance with their respective customary laws and practices, free from any external manipulation, interference and coercion, and obtained after fully disclosing the intent and scope of the activity, in a language and process understandable to the community.
<b>Rehabilitation</b>	– means assistance provided to severely affected APs due to the loss of 10% or more of productive assets (i.e., farmland, crops and trees, vegetable garden, etc.), incomes, and employment, or when sources of living such as shops and places of employment have to be reconstructed completely and/or relocated. The livelihood support may be given in cash or in kind or a combination of the two in order to improve or at least achieve full restoration of living standards to pre-project levels.
<b>Vulnerable Groups</b>	– are distinct groups of people who might suffer disproportionately or face the risk of being further marginalized by the effects of resettlement and specifically include: (i) households headed by women, the elderly or disabled, (ii) households living below the poverty threshold, (iii) the landless, and (iv) indigenous people and ethnic minorities.

#### **NOTE**

In this report, "\$" refers to US dollars.

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## I. INTRODUCTION

1. The Water District Development Sector Project (WDDSP) aims to improve health conditions in the proposed service expansion areas through the improvement in the distribution of urban water and sanitation services. The project will be implemented as a sector loan. The Executing Agency (EA) is the Local Water and Utilities Administration (LWUA) while the implementing agencies (IAs) are the local water districts (WD) in the subproject areas.
2. The Asian Development Bank's (ADB) Poverty Reduction Strategy recognizes that indigenous peoples (IPs) may suffer from social exclusion, and lack basic services and social capital, and therefore remain in poverty. As such, they require special support.
3. IPs are accorded protection by the project based on ADB's Policy on Indigenous Peoples as contained in its *Safeguard Policy Statement (2009)* as well as on the country's *Indigenous People's Rights Act of 1997*.
4. The proposed sites for water supply expansion in the franchise area of Metro San Fernando (La Union) Water District and for water supply expansion and for the septage treatment in the franchise area of City of Koronadal Water District (CKWD) being considered for the Project do not have distinct IP groups which may be affected in any way by the proposed infrastructure interventions. Should there be any IPs in other subproject areas to be identified during implementation of the sector loan, an Indigenous Peoples Plan (IPP) shall be prepared in accordance with the Indigenous Peoples Planning Framework (IPPF).

## II. OBJECTIVES AND POLICY FRAMEWORK

5. The principles and objectives governing the preparation and implementation of IPPs shall be consistent with applicable Philippine laws and ADB safeguard policies on IPs. They aim to uphold the dignity, rights and well-being of IP communities and their right to participate in decision-making on development projects, programs and plans that affect their rights, lives, and well-being.

### A. APPLICABLE PHILIPPINE LAWS ON INDIGENOUS PEOPLES

6. To date, the most comprehensive law recognizing and protecting the rights of IPs in the Philippines is Republic Act 8371 also known as the Indigenous Peoples Rights Act (IPRA) enacted in 1997. Pertinent provisions of the law include:

- a. **Definition of indigenous peoples.** Under the IPRA, the term Indigenous Peoples/Indigenous Cultural Communities (IPs/ICCs) "refers to a group of people or homogenous societies identified by self-ascription and ascription by others, who have continuously lived as an organized community on communally-bounded and defined territory, and who have, under claims of ownership since time immemorial occupied, possessed customs, traditions and other distinctive cultural traits, and who have, through resistance to political, social and cultural inroads of colonization, non-indigenous religions and cultures became historically differentiated from the majority of Filipinos. IPs/ICCs shall likewise include peoples who are regarded as indigenous on account of descent from the populations which inhabited the country at the time of conquest or colonization or at the time of inroads of non-indigenous religions and cultures or the establishment of present state boundaries, who retain some or all of their own social, economic, cultural and political institutions, but



who may have been displaced from their traditional domains or who may have resettled outside their ancestral domains.” (Sec. 3.h)

**b. Establishment of the National Commission on Indigenous Peoples (NCIP) and defining its powers and functions.** The NCIP “shall be the primary government agency responsible for the formulation and implementation of policies, plans and programs to promote and protect the rights and well-being of the IPs/ICCs and the recognition of their ancestral domains and their rights thereto” (Sec.38). As such, it is mandated to protect and promote the interest and well-being of the IPs/ICCs with due regard to their beliefs, customs, traditions and institutions” (Sec. 39). Among its powers and functions that are pertinent to the WDDSP are: (i) to issue certificates of ancestral land/domain title (sec 44.e); (ii) to enter into contracts, agreements or arrangement with government or private agencies as may be necessary to attain the objectives of the IPRA (Sec. 44.f) (iii) to coordinate development programs and projects for the advancement of IPs/ICCs and to oversee their proper implementation (Sec 44.h); (iv) to issue appropriate certifications as a pre-condition to the grant of permit, lease, grant or any similar authority for the disposition, utilization, management or appropriation by any private individual, corporate entity or government agency on any part or portion of the ancestral domain, taking into consideration the consensus approval of the IPs/ICCs (Sec 44.m).

**c. Right to decision-making and participation.** The IPRA explicitly upholds the right of IPs/ICCs to “determine and decide priorities for development affecting their lives, beliefs, institutions, spiritual well-being, and the lands they own, occupy or use. They shall participate in the formulation, implementation and evaluation of policies, plans and programs for national, regional and local development which may directly affect them” (Sec. 17). They also have the “right to participate fully, if they so choose, at all levels of decision-making in matters which may affect their rights, lives and destinies through procedures determined by them as well as to maintain and develop their own indigenous political structures (Sec. 16).

**d. Free and prior informed consent** is defined under IPRA as “the consensus of all members of the IPs/ICCs, to be determined in accordance with their respective customary laws and practices, free from any external manipulation, interference and coercion, and obtained after fully disclosing the intent and scope of the activity in a language and process understandable to the community” (Sec. 3.g).

**e. Natural resources within ancestral domains.** “The IPs/ICCs shall have the priority rights in the harvesting, extraction, development or exploitation of any natural resources within the ancestral domains” (Sec. 57).

7. Other relevant laws include the following:

8. **The Comprehensive Agrarian Reform Law or CARL (RA 6657)**, which requires the government to apply the principles of agrarian reform, or stewardship, whenever applicable, in the disposition or utilization of other natural resources, including lands of the public domain, and their lease or concession, suitable to agriculture, subject to prior rights of indigenous communities to their ancestral lands.

9. **The Local Government Code of 1991 (RA 7160)** provides IPs with the option to establish tribal barangays as similarly recognized by the IPRA.<sup>1</sup>

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<sup>1</sup> Section 18 of the IPRA states that IPs “living in contiguous areas or communities where they form the predominant population but which are located in municipalities, provinces, or cities where they do not



10. **The National Integrated Protected Areas System (NIPAS) Act of 1992 (RA 7586)** safeguards protected areas (PAs) from further encroachment. It allows the implementation of development projects with compatible uses, or which enhance the protection of these PAs. It includes specific provisions that protect the rights of IP communities to their ancestral domain.<sup>2</sup>

11. **The Philippine Mining Act of 1995 (RA 7942)** requires proponents of mining projects in IP areas to secure an IPs' free and prior informed consent.

12. **The Conservation and Protection of Wildlife Resources and their Habitats Act of 2001(RA 9147)** mandates that the collection of wildlife by IPs may be allowed for traditional use and not primarily for trade.<sup>3</sup>

## **B. ADB POLICY PRINCIPLES**

13. The objective of ADB's Safeguard Policy Statement (2009) and its Policy on Indigenous Peoples is to design and implement projects in a way that fosters full respect for IPs' identity, dignity, human rights, livelihood system, and cultural uniqueness as defined by the IPs themselves so that they (i) receive culturally appropriate social and economic benefits, (ii) do not suffer adverse impacts as a result of project, and (iii) can participate actively in projects that affect them.

14. ADB's Policy on Indigenous Peoples defines "indigenous peoples" in a generic sense to refer to a distinct, vulnerable, social and cultural group possessing the following characteristics in varying degrees: (i) self-identification as members of a distinct indigenous cultural group and recognition of this identity by others; (ii) collective attachment to geographically distinct habitats or ancestral territories in the project area and to the natural resources in these habitats and territories; (iii) customary cultural, economic, social or political institutions that are separate from those of the dominant society and culture, and (iv) a distinct language, often different from the official language of the country or region. In considering these characteristics, national legislation, customary law, and any international conventions to which the country is a party will be taken into account. A group that has lost collective attachment to geographically distinct habitats or ancestral territories in the project area because of forced severance remains eligible for coverage under this policy.

15. To achieve the above objective, the following principles will be observed:

- a) Screen early on to determine (i) whether IPs are present in, or have collective attachment to, the subproject sites; and (ii) whether subproject impacts on IPs are likely.
- b) Undertake a culturally appropriate and gender-sensitive social impact assessment or use similar methods to assess potential subproject impacts, both positive and adverse, on IPs. Give full consideration to options the affected IPs

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constitute the majority of the population, may form or constitute a separate barangay in accordance with the Local Government Code on the creation of tribal barangays"

<sup>2</sup> Related to this is the Implementing Rules and Regulations (IRR) of Department AO (DAO) 92-25 that states "The zoning of a protected area and its buffer zones and management prescriptions within those zones will not restrict the rights of indigenous communities to pursue traditional and sustainable means of livelihood within their ancestral domain unless they so concur."

<sup>3</sup> "Traditional use" means utilization of wildlife by indigenous people in accordance with written or unwritten rules, usage, customs, and practices traditionally observed, accepted and recognized by them.



prefer in relation to the provision of subproject benefits and the design of mitigation measures. Identify social and economic benefits for affected IPs that are culturally appropriate and gender and inter-generationally inclusive and develop measures to avoid, minimize, and/or mitigate adverse impacts on IPs.

- c) Undertake meaningful consultations with affected IP communities and concerned IP organizations to solicit their participation in: (i) designing, implementing and monitoring measures to avoid adverse impacts or when avoidance is not possible, to minimize, mitigate, or compensate for such effects; and (ii) tailoring subproject benefits for affected IP communities in a culturally appropriate manner. To enhance IPs' active participation, subprojects affecting them will provide for culturally appropriate and gender inclusive capacity development and establish a culturally appropriate and gender inclusive grievance mechanism to receive and facilitate resolution of the IPs' concerns.
- d) Ascertain the consent of affected IP communities to the following project activities: (i) commercial development of the cultural resources and knowledge of IPs; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within customary lands under use that would impact the livelihoods of the cultural, ceremonial, or spiritual uses that define the identity and community of IPs. For the purposes of policy application, the consent of affected IP communities refers to a collective expression by the affected IP communities, through individuals and/or their recognized representatives, of broad community support for such subproject activities. Broad community support may exist even if some individuals or groups object to the subproject activities.
- e) Avoid, to the maximum extent possible, any restricted access to and physical displacement from protected areas and natural resources. Where avoidance is not possible, ensure that the affected IP communities participate in the design, implementation, and monitoring and evaluation of management arrangements for such areas and natural resources and that the benefits are equitably shared.
- f) Prepare an IPP that is based on the social impact assessment with the assistance of qualified and experienced experts and that draws on indigenous knowledge and participation by the affected IP communities. The IPP should include a framework for continued consultation with the affected IP communities during subproject implementation; specifies measures to ensure that IPs receive culturally appropriate benefits; identifies measures to avoid, minimize, mitigate, or compensate for any adverse subproject impacts; and includes culturally appropriate grievance procedures, monitoring and evaluation arrangements, and a budget and time-bound actions for implementing the planned measures.
- g) Disclose a draft IPP, including documentation of the consultation process and the results of the social impact assessment in a timely manner, before subproject appraisal, in an accessible place and in a form and language(s) understandable to affected IP communities and other stakeholders. The final IPP and its updates should also be disclosed to the affected IP communities and other stakeholders.
- h) Prepare an action plan for legal recognition of customary rights to lands or territories or ancestral domains when the project involves (i) activities that are contingent on establishing legally recognized rights to lands and territories that IPs have traditionally owned or customarily used or occupied, or (ii) involuntary acquisition of such lands.



- i) Monitor implementation of the IPP using qualified and experienced experts; adopt a participatory monitoring approach, wherever possible; and assess whether the IPP's objective and desired outcome have been achieved, taking into account the baseline conditions and the results of IPP monitoring. Disclose monitoring reports.

### **C. GAP ANALYSIS**

16. ADB's policy principles on IPs as outlined above are mostly consistent with the policies and principles found in the IPRA. The WDDSP will adopt ADB's policies as these have more direct and application to the specific circumstances of the Project. A possible gap pertains to the definition of free and prior informed consent (FPIC). Whereas the IPRA defines FPIC as a consensus of all members of the IP community, to be determined in accordance with customary laws and practices, ADB's policy defines consent as a collective expression of broad community support through individuals or recognized representatives. Reconciling the two policies, the WDDSP policy will follow legally mandated procedures for obtaining FPIC as required by IPRA. Consent may be expressed through individuals and/or recognized representatives and will be considered as consent if consensus was obtained through a community process conducted in accordance with customary laws or practices as certified by NCIP and fully documented in the subproject IPP.

### **D. CRITERIA FOR SELECTING AND SCREENING SUBPROJECTS AND COMPONENTS**

17. In selecting and screening project components and subprojects, likely impacts, both positive and negative, on IP groups will be considered. Subprojects and project components that are likely to result in negative impacts for IPs should be avoided. Should any issues be identified and not resolved, then the subproject should be rejected as infeasible unless there are extenuating circumstances that require further action.

18. If certain project components or subprojects with negative impacts are unavoidable in order to bring about greater benefits to the local population, including IP communities or groups, an IPP will be prepared containing the measures to be undertaken to minimize, mitigate and compensate for the negative impacts and ensure that the IP population is not disadvantaged in any way because of the Project, ensure the meaningful and culturally-appropriate participation of the IP groups in the planning and implementation of the subproject, that they are equal beneficiaries of the subproject, and that project benefits are culturally-appropriate.

## **III. IDENTIFICATION OF AFFECTED INDIGENOUS PEOPLES**

19. The presence of some of the following characteristics in varying degrees is used to identify tribal or indigenous communities in the Philippines:

- (i) A close attachment to their ancestral territories and natural resources.
- (ii) Self-identification and identification by others as members of a distinct cultural group.
- (iii) An indigenous language, often different from the national language.
- (iv) The presence of distinct social, cultural and political institutions.
- (v) Primarily subsistence oriented production.



20. The total IP population in the Philippines is approximately 12-15 million. There are about 171 ethnolinguistic groups.<sup>4</sup> The exact numbers of IP communities which are likely to be affected will be determined for each subproject. Subprojects may potentially affect IP households in ancestral domains, upland barangays and water source communities. There may also be concentrated IP populations or migrant ethnic groups in rural and urban settings. Potential impacts may include restrictions in the use of land and water resources traditionally used by the IP communities or within their ancestral domain, and their exclusion from project benefits if the water source communities are not part of the targeted service areas of the project. Potential positive effects may include the IP communities' increased access to water and sanitation services and provision of livelihood activities that are compatible with watershed enhancement.

21. The initial identification of IPs in a subproject area will be based on population data submitted by the water district (WD) in its initial subproject application. The initial social impact assessment should establish the presence of IPs, if any, and provide an overview of the IP population in terms of territory occupied within the subproject site, to ensure IP participation at the earliest instance.

22. There are no distinct IP groups which may be affected in any way by the proposed infrastructure interventions of the subprojects of the pilot WDs. In the City of Koronadal, there are IPs living in potential water source areas. Two of the most well-known IPs in the City of Koronadal area are the B'laan and the T'boli. They live in the regions between northwestern Koronadal to Lake Sebu (B'laan) and between Lake Sebu to Lake Buluan (T'boli). The T'bolis also inhabit the areas between Lake Buluan and the highlands of Davao City. However, the proposed subproject of CKWD will not be tapping water sources in the areas where there are IP groups. Watershed management is not a component of this subproject.

#### **IV. SOCIAL IMPACT ASSESSMENT AND INDIGENOUS PEOPLES PLAN FOR SUBPROJECTS AND/OR COMPONENTS**

23. A social impact assessment, including carrying out a socioeconomic survey (SES) shall be carried out by the implementing agency (IA) with the support of the project implementation consultants. Information gathered through the SES will provide baseline information on IP and/or ethnic minority living conditions and any challenges to their effective participation in the Project, which will be used in the development of specific actions in the IPP to address these concerns and maximize benefits to ethnic minority communities. Outputs of the social impact assessment will include the following:

- a. A review of the legal and institutional framework applicable to IPs in the subproject context.
- b. Baseline information on the demographic, social, cultural and political characteristics of the IP communities, the land and territories they have traditionally owned or customarily used or occupied; and the natural resources on which they depend.
- c. Key project stakeholders and a culturally appropriate and gender-sensitive process for meaningful consultation with IPs at each stage of project preparation and implementation.

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<sup>4</sup> Indigenous Peoples of the Philippines,  
[http://www.adb.org/Documents/Reports/Indigenous\\_Peoples/PHI/chapter\\_3.pdf](http://www.adb.org/Documents/Reports/Indigenous_Peoples/PHI/chapter_3.pdf)



- d. An assessment, based on meaningful consultation with the affected IP communities, of the potential adverse and positive effects of the project and its components, including a gender sensitive analysis of the specific vulnerabilities of, and risks to, the affected IPs.
  - e. A gender-sensitive assessment of the IPs' perceptions about the project and its impact on their social, economic and cultural status.
  - f. Measures necessary to avoid, minimize, mitigate and/or compensate for adverse effects, as determined based on meaningful consultation with the affected IP communities.
24. Data sets include population size in relation to total population of franchise area, a profile of the economic activities of the group/s, differences in socioeconomic status between IPs and majority populations, identification of the existing problems in performing economic activities or access to basic services such as water and sanitation, and local government capacity in addressing IP issues, particularly in connection with development projects.
25. Guidelines to be observed in conducting the social impact assessment are as follows:
- IPs shall be represented<sup>5</sup> in the socio-economic survey that will be conducted. Data will be gathered to identify vulnerable groups, indigenous knowledge systems and practices, and structures that can help improve management of water user groups and natural resources.
  - Design activities will include a participatory walk-through with members of the IP community, local government officials and project technical staff. Specific issues that may affect IP group/affected persons will be formally noted at this point.
  - The WD will identify the leadership of the IPs, and community consultation(s) will be convened to identify specific concerns related to project design and implementation for both water and sanitation.
  - Guidelines for affected IP households/properties shall follow those established under the resettlement framework. Apart from compensation for affected assets, additional measures will be taken to improve their living conditions and not just return them to pre-disturbance status.
  - The WD will assess whether IPs have any water access issues and should note whether any of these are due to ethnic factors.
  - Indigenous knowledge shall be harnessed with the full participation and consent of the IP communities, including determining water sources and natural environmental flows and determining local products and economic opportunities for livelihood development.
26. A proposed IPP outline is found in Annex C. The IPPs will be submitted to and agreed upon by the Government of the Philippines (through the EA) and ADB.

## **V. CONSULTATION AND PARTICIPATION**

27. WDDSP will adopt a culturally appropriate and participatory approach for IP communities, wherever they are identified to be within a subproject's target areas. IP and/or

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<sup>5</sup> IP coverage in the SES will correspond to the relative proportion of IPs to the general population in the subproject area.



ethnic minority communities, where present in the project areas, will be meaningfully consulted<sup>6</sup> at each stage of subproject preparation and implementation.

28. The planning process shall include a separate community consultation process for IPs within the target area so that IP interests are fully reflected in the WD's plans. The subproject details and its outputs including potential project impacts and mitigation measures, will be disclosed at IP community level meetings and discussed with community groups through participatory focus groups. Groups to be involved in such consultations include IP leaders, IP organizations, IP women, representatives of traditional councils, and barangay and LGU representatives. Consultations will also be held with the National Commission on Indigenous Peoples (NCIP).

29. Consistent with the principle of social equity and environmental justice, the WD will make provisions to give IPs improved access to water and sanitation. The subproject design will be carried out with the support of IPs and/or those affected by project activities. The WD will ensure participation of IPs in all subproject activities and their equal participation in training programs (e.g. sanitation IEC) and evaluations. IP women's participation shall be encouraged through training and participation. Due to watershed degradation and emerging water issues in urban areas, it is critical to ensure sustainable water resources. The IPs' potential role in watershed management shall be recognized, since often they reside in the vicinity of watersheds and major water sources. The WDs can advocate for and support integrated resource management of such areas. Since affordability may be a problem, the WD may actively work with the private sector, NGOs and local government units to leverage resources to expand the reach of water and sanitation services in IP territory.

30. The approach is to improve development outcomes for indigenous communities through their informed participation and decision making. Detailed social analysis and field assessments can be guided by the ADB's Handbook for Incorporation of Social Dimensions in Project Design and the ADB Operations Manual on Indigenous Peoples.

31. The prior and free informed consent of affected IP communities as defined under the IPRA shall be secured in all cases involving the following project activities: (i) commercial development of the cultural resources and knowledge of IPs; (ii) physical displacement from traditional or customary lands; and (iii) commercial development of natural resources within customary lands under use that would impact the livelihoods of the cultural, ceremonial, or spiritual uses that define the identity and community of IPs. For the purposes of policy application, the consent of affected IP communities refers to a collective expression by the affected IP communities, through individuals and/or their recognized representatives, of broad community support for such project activities. Broad community support may exist even if some individuals or groups object to the project activities.

32. Such consent will be documented through a written attestation by the duly recognized representatives of the IP community and the documentation of the minutes of the consultations

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<sup>6</sup> As per the ADB SPS (2009), meaningful consultation is defined as a process that (i) begins early in the project preparation stage and is carried out on an ongoing basis throughout the project cycle; (ii) provides timely disclosure of relevant and adequate information that is understandable and readily accessible to affected people; (iii) is undertaken in an atmosphere free of intimidation or coercion; (iv) is gender inclusive and responsive, and tailored to the needs of disadvantaged and vulnerable groups; and (v) enables the incorporation of all relevant views of affected people and other stakeholders into decision making, such as project design, mitigation measures, the sharing of development benefits and opportunities, and implementation issues.



undertaken in which such consent was expressed, including a list of the names of the attendees along with their signatures or other forms of identification.

## **VI. DISCLOSURE**

33. The affected IP community shall be informed of all project related information, including the social impact assessment, and shall be provided translated copies of the safeguard documents including the Resettlement Plan, the Gender Action Plan, the Indigenous Peoples Plan and the Environmental Impact Assessment Report. The responsibility center in the PIU/WD shall be responsible for disseminating the required information to the IP community.

34. The IPP shall describe the information disclosure, consultation and participation process with the affected IP communities during project preparation as well as the consultation and participation mechanisms to be used during implementation to ensure IP participation. The IPP will also summarize the IP communities' comments on the social impact assessment, identifies the concerns raised during consultations and how these have been addressed in project design.

35. In the case of project activities requiring broad community support and FPIC, the IPP shall document the process and outcome of the consultations for the project activities and safeguard measures addressing the impacts of these activities.

36. The IPP will confirm disclosure of the IPP to the affected IP communities. The IPPs shall be made available to the public through posting on the ADB website. The IPPF will be disclosed on websites of the EA and ADB.

## **VII. GRIEVANCE REDRESS MECHANISM**

37. The Project's grievance redress mechanism (GRM) will be used as the mechanism for IPs to air project-related complaints or grievances. The IA with the support of project implementation consultants will inform indigenous groups about this system at the start of subproject implementation.

38. The Project's GRM, however, should not impede access to the country's jurisdiction or administrative remedies. To the extent possible, the resolution of grievances will be through traditional IP grievance resolution processes and systems, following the principle of precedence of customary laws in the IPRA. All costs involved in resolving the complaints (meetings, consultations, communication and reporting/information dissemination) will be borne by the EA.

39. The Water District Grievance Redress Committee (WDGRC, which will also handle IP issues) formed in each WD will receive grievance cases from affected IP community members. All the affected IP households will be informed of the GRM by means of community assemblies and/or the IP community leaders. The assistance of IP community leaders will be obtained to ensure that the grievance redress mechanism is accessible to the members of the community and is gender-inclusive. The WDGRC will be composed of the WD-PIU head as chair, concerned NGOs and barangay officials and women heads of households as members.

40. Cases of grievances will be documented in a culturally appropriate manner so as to establish a record of the nature of the grievance, the parties involved, the details of the discussion or deliberation on the case, and the agreement or decision reached which shall be signed or attested to in a manner customarily practiced by the parties concerned.



41. The decision of the court is for finality of case resolution. Below are the steps to be followed in filing grievances and the procedures for redress.

**Step 1:** The complainant, assisted if needed by a non-government organization (NGO) or an IP community leader, provides the background and files the grievance/complaint verbally or in writing to WDGRG. If unwritten, the WDGRG Secretary will put it in writing and will reproduce it in four (4) copies for distribution; the original copy to WDGRG, two are for the WD-PIU, and one for file of the complainant. The complainant, WDGRG, as well as representatives of PIU will meet to discuss the complaint and resolve it within 15 days.

**Step 2:** If no solution or understanding is reached within 15 days, the complainant files the grievance/complaint to the WDGRG central desk at the PMO for it to be resolved within 15 days after filing. The written complaint shall be reproduced in four (4) copies; the original to PMU/RC, two for WD-PIU, and one for the file of the complainant.

**Step 3:** Again, if no solution or understanding is reached within 15 days and if the grievance/complaint qualifies for hearing at the Municipal Trial Court (MTC) or Regional Trial Court (TRC), the household may request for assistance of the *pro bono* lawyer from the Public Attorney's office, through the WDGRG. The *pro bono* lawyer shall assist the household in reproducing the formal complaint in five (5) copies to be distributed as follows; the original to the appropriate court, one each for PMU, PIU, WDGRG and for the file of the complainant.

**Step 4:** The MTC or RTC assesses the merit of the grievance/complaint, schedules the hearing and renders a decision. Appeals can be elevated to the high court. The Supreme Court's decision is final and executory.

## **VIII. INSTITUTIONAL AND IMPLEMENTATION ARRANGEMENTS**

42. WDDSP seeks to maximize the participation of IPs in the subproject areas, to ensure their equal inclusion in all subproject benefits, activities and training programs and to avoid or mitigate any adverse impacts of subprojects on IPs.

43. All IP activities will be carried out as part of the normal subproject development activities. Ethnic minority issues will be resolved or compensated through the agreed Project mechanisms and as established in the Project's resettlement framework/resettlement plan and in this IPPF.

44. Implementation of IPPs will be in partnership with NGOs and with concerned agencies such as the NCIP, Department of Environment and Natural Resources (DENR) and barangays and city government. Monitoring of the implementation of the IPPs will be the responsibility of the PMU at LWUA.

45. Survey and consultations will be done by the project preparation team. A responsibility center for social preparation, capacity building, social impact assessment, communication and preparation of IPPs, if required, shall be established within the WD. An NGO may be engaged to assist in the social development activities and shall be chosen following a selection process and criteria. (Please check Annex A: Sample Terms of Reference for NGO Participation.)

46. Since certain components require coordination with other agencies, the responsibility center is also designated to strengthen partnerships on such components as sanitation, pro-poor water provision, hygiene education and integrated watershed management plan implementation,



etc. Among others, partners for watershed management include DENR, NCIP, local government and appropriate agencies which may take the lead in plan implementation. Alternatively, the WD can initiate its own water source protection program. LWUA shall see to it that ADB's Policy on Indigenous Peoples is implemented through its monitoring and training support functions.

## **IX. MONITORING AND REPORTING ARRANGEMENTS**

47. The PMU/LWUA, with assistance from the project implementation consultants, will be responsible for supervision and monitoring of IP- and ethnic minority-related issues for the Project, including documentation and reporting. The PMU will report on IPP implementation progress as part of quarterly project progress reports submitted to the EA and ADB. ADB supervision missions will also periodically review IPP progress and whether or not the subproject is successful in delivering culturally appropriate benefits and mitigating adverse impacts on ethnic minorities. The PMU will closely coordinate with the NCIP on monitoring of IP engagement, as per IPRA requirements.<sup>7</sup>.

48. Some indicators relating to process as well as attainment of targets are:

- Social equity can be gauged by size of the population that is served/proportionally represented as targets for access to services and in the water user groups.
- Number of IP households vs. number benefited (for water and sanitation).
- Number of IP workers/staff hired.
- Enhanced role of IPs in community resource management.
- Mechanisms/organizations established.
- Number of livelihood options established/number benefited.
- Linkages established in support of resource management initiatives.
- Output of specific interventions planned—e.g. number of seedlings produced/planted; number of hectares reforested/rehabilitated; survival rate of seedlings planted; number of water user groups established, repayment of microfinance funds.
- Level and quality of participation of IPs—organization of sanitation/water user group, when appropriate; number of participants/women in survey, focus group discussion, key informant interview; number and type of issues resolved.

## **X. BUDGET AND FINANCING**

49. Budget for data-gathering is built into project survey and consultation expenses, including inventory of losses (IOL) for affected persons. IPs shall be targeted as beneficiaries of appropriate and affordable water and sanitation services. This shall be reflected in cost estimates for public faucets, septic tanks and other project features.

50. A special opportunity exists to strengthen forestry stewardship by residents in the vicinity of watersheds. Budgetary support should be established for elements of an IPP such as community organizing, resource management planning and development of livelihood options for buffer zone communities. Budget components will depend on available funding from the

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<sup>7</sup> Section 44 (h) in Chapter III of the IPRA mandates that the NCIP be involved in monitoring of project implementation in relation to indigenous peoples engagement.



WD's own resources, local government counterpart funds, Gender and Development funds and other external resources, and may include:

- Cost of appropriate and affordable water facility as determined by IP users.
- Microfinance allocation for appropriate sanitation facilities.
- Budgetary support for participatory watershed planning—this may be arranged as DENR/local government counterpart.
- Microfinance facility for development of compatible livelihood options such as seedling production, watershed protection, restocking of renewable resources to support rural industry such as bamboo and rattan, etc.
- Watershed management fund (may be managed as a component of WD operations or as contributions for implementation of a local watershed management plan).
- Water user fees, royalties or equivalent (which can be negotiated as contribution for watershed maintenance) – which may be 1% of gross income.
- Participatory monitoring and evaluation.



## **Annex A: Sample Guide for NGO Engagement**

1. The project shall invite applications for the pre-qualification process from organizations interested to be engaged as support organization for social development work in the Water District Development Sector Project (WDDSP).

2. Non-government organizations (NGOs) can be engaged for gender mainstreaming and community mobilization depending upon their capability to render the required services as shown in the criteria set for social activities both in pre-qualification and competitive bidding.

3. **Prerequisites for Pre-Qualification for NGOs.** A public notice in local newspaper and public billboards shall be published giving reasonable time for NGOs to apply for pre-qualification. The prerequisites to apply for pre-qualification shall be as follows:

- Must be registered as an NGO.
- Must have written constitution indicating objectives of organization.
- Must have its account audited each year and must submit the latest audit report.
- Must have at least two years of experience in implementation of participatory projects or community development in recent years.
- Newly established NGOs lacking two years of track record but staffed with adequate professionals in required disciplines having at least 5 years experience can also apply for corresponding pre-qualification package.
- Must have engaged professionals and other support staff or is in a position to engage staff.
- The organization must be based in the region or have permanent affiliated office in the province or city.
- The previously pre-qualified NGOs willing to apply for the present work are required to submit copies of renewal of registration and certificate of audit of preceding year.
- NGOs with female staff have an advantage.

4. **Competitive Bidding.** Evaluation of technical proposal and financial proposal will form the main basis for selection of organizations for social development work. Selection will be done by the water district (WD) with assistance of LWUA.

5. **Evaluation of Technical Proposals.** After preparing a list of organizations passing through pre-qualification process, WDDSP shall publish public notice for submission of technical and financial proposals from pre-qualified NGOs. Terms of reference for preparing technical proposal will be provided for competing organizations.

6. Evaluation of technical proposals for the social component will be done by scoring the marks on experience, concept and methodology, qualification and experience of proposed personnel, and financial soundness of the organization:

✓ Experience of organization	15
✓ Proposed concept and methodology	25
✓ Qualification and experience of proposed personnel	50
✓ Completeness of required document	10



7. The type of human resources required:

Type of Staff	Desired Qualification	Experience
Field Coordinator	Bachelor degree in any discipline	Two years in rural development
Community Organizer	Bachelor degree in social sciences	Two years in rural development
Community Mobilizer	Twelve years of schooling	Two years in the area

8. **Functions.** NGO may be contracted out to assist WD in community mobilization, microcredit, income generation, gender mainstreaming, organization of water user groups, training, and delivery of health and education services for the entire project site, with functions as follows:

- a. Assist in conduct of socio-economic survey, consultations and disclosure on project.
- b. Facilitate community planning for delivery of appropriate water and sanitation facilities.
- c. Formation and training of user groups for common water and sanitation facilities.
- d. Lending and management of microfinance facility for sanitation with training of organizations for community management.
- e. Conduct information dissemination on hygiene and sanitation.
- f. Assist WD in gender mainstreaming among clientele.
- g. Assess training needs of water user groups and facilitate training and community meetings.
- h. Participate in natural management planning and prepare resource management plan for specific area covered.
- i. Mobilize external resources for water-related income generating projects, for identified natural resource management and livelihood options and to expand reach of project benefits—e.g. to increase number of beneficiaries for public faucets, sanitation through coordination with other agencies.
- j. Facilitate integration of indigenous knowledge systems and practices in project planning and activities.
- k. Establish participatory monitoring and evaluation system.
- l. Training of WD staff and community volunteers on community organizing principles and techniques.



## Annex B

### Sample Budget Formulation and Implementation of IPP

Expense Category	Proposed Budget
Socio-economic survey	PhP 50,000
Social preparation and NGO community organizing	PhP 1,250,000
Cost of appropriate and affordable water facility	PhP 30,000 for 3 public faucets
Funds for microfinance facility for development of compatible livelihood options such as seedling production, watershed protection, planting of renewable resources to support rural industry such as bamboo and rattan, etc.	PhP 1,500,000
Cost for provision of appropriate sanitation facilities	PhP 40,000 for 2 shared sanitation facilities
Support for participatory watershed planning activities – may be arranged as local government counterpart	PhP 10,000
Watershed management fund for area to be managed by the WD	PhP 500,000
Watershed management fund reflected as water user fees, royalties or equivalent (which can be negotiated for use in watershed maintenance)	computed as 1% of gross income
Monitoring and evaluation	PhP 20,000
Total	PhP 2,400,000+



## Annex C

### Outline Of An Indigenous Peoples Plan<sup>8</sup>

This outline is part of the Safeguard Requirements. An Indigenous Peoples Plan (IPP) is required for all subprojects with impacts on Indigenous Peoples (IPs). Its level of detail and comprehensiveness is commensurate with the significance of potential impacts on IPs. The substantive aspects of this outline will guide the preparation of IPPs, although not necessarily in the order shown.

- A. **Executive Summary.** This section concisely describes the critical facts, significant findings, and recommended actions.
- B. **Description of the Subproject.** This section provides a general description of the subproject; discusses project components and activities that may bring impacts on IPs; and identifies the subproject area.
- C. **Social Impact Assessment.** This section:
- Reviews the legal and institutional framework applicable to IPs in the subproject context.
  - Provides baseline information on the demographic, social, cultural, and political characteristics of the affected IP communities; the land and territories that they have traditionally owned or customarily used or occupied; and the natural resources on which they depend.
  - Identifies key project stakeholders and elaborate a culturally appropriate and gender-sensitive process for meaningful consultation with IP at each stage of project preparation and implementation, taking the review and baseline information into account.
  - Assesses, based on meaningful consultation with the affected IP communities, the potential adverse and positive effects of the subproject. Critical to the determination of potential adverse impacts is a gender-sensitive analysis of the relative vulnerability of, and risks to, the affected IP communities given their particular circumstances and close ties to land and natural resources, as well as their lack of access to opportunities relative to those available to other social groups in the communities, regions, or national societies in which they live.
  - Includes a gender-sensitive assessment of the affected IPs' perceptions about the subproject and its impact on their social, economic, and cultural status.
  - Identifies and recommends, based on meaningful consultation with the affected IP communities, the measures necessary to avoid adverse effects or, if such measures are not possible, identifies measures to minimize, mitigate, and/or compensate for such effects and to ensure that the IPs receive culturally appropriate benefits under the subproject.
- D. **Information Disclosure, Consultation and Participation.** This section:
- Describes the information disclosure, consultation and participation process with the affected IP communities that was carried out during project preparation;
  - Summarizes their comments on the results of the social impact assessment and identifies concerns raised during consultation and how these have been addressed in project design;
  - In the case of subproject activities requiring broad community support, documents the process and outcome of consultations with affected IP communities and any agreement resulting from such consultations for the subproject activities and safeguard measures addressing the impacts of such activities;
  - Describes consultation and participation mechanisms to be used during implementation to ensure IPs participation during implementation; and
  - Confirms disclosure of the draft and final IPP to the affected IP communities.
- E. **Beneficial Measures.** This section specifies the measures to ensure that the IPs receive social and economic benefits that are culturally appropriate, and gender responsive.

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<sup>8</sup> Source: ADB. 2009. *Safeguard Policy Statement*. Manila.



**F. Mitigative Measures.** This section specifies the measures to avoid adverse impacts on IPs; and where the avoidance is impossible, specifies the measures to minimize, mitigate and compensate for identified unavoidable adverse impacts for each affected IP groups.

**G. Capacity Building.** This section provides measures to strengthen the social, legal, and technical capabilities of (a) government institutions to address IP issues in the subproject area; and (b) IP organizations in the subproject area to enable them to represent the affected IPs more effectively.

**H. Grievance Redress Mechanism.** This section describes the procedures to redress grievances by affected IP communities. It also explains how the procedures are accessible to IPs and culturally appropriate and gender sensitive.

**I. Monitoring, Reporting and Evaluation.** This section describes the mechanisms and benchmarks appropriate to the project for monitoring, and evaluating the implementation of the IPP. It also specifies arrangements for participation of affected IPs in the preparation and validation of monitoring, and evaluation reports.

**J. Institutional Arrangement.** This section describes institutional arrangement responsibilities and mechanisms for carrying out the various measures of the IPP. It also describes the process of including relevant local organizations and NGOs in carrying out the measures of the IPP.

**K. Budget and Financing.** This section provides an itemized budget for all activities described in the IPP.



# **ANNEX 4**

## **Social Safeguards Due Diligence Report**





# Social Safeguards Due Diligence Report

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May 2020

## Philippines: Water District Development Sector Project

MANOLO FORTICH WATER DISTRICT

Prepared by Manolo Fortich Water District for the Local Water Utilities Administration and the Asian Development Bank.





## CURRENCY EQUIVALENTS

(as of 20 March 2020)

Currency unit	–	peso (Php)
Php1.00	=	\$0.01955
\$1.00	=	Php 51.15

## ABBREVIATIONS

ADB	–	Asian Development Bank
AH	–	Affected Household
AP	–	Affected Person
DA	–	Department of Agriculture
DMS	–	Detailed Measurement Survey
EA	–	Executing Agency
EMA	–	External Monitoring Agency
GAD	–	Gender and Development
GAP	–	Gender Action Plan
GRC	–	Grievance Redress Committee
GRM	–	Grievance Redress Mechanism
HH	–	Household
IA	–	Implementing Agency
IOL	–	Inventory of Losses
IPP	–	Indigenous Peoples Plan
LGU	–	Local Government Unit
LWUA	–	Local Water and Utilities Administration
m3	–	Cubic Meter
MDG	–	Millennium Development Goal
MFWD	–	Manolo Fortich Water District
NEDA	–	National Economic And Development Authority
NRW	–	Non-Revenue Water
PCUP	–	Presidential Commission on the Urban Poor
PIB	–	Public Information Booklet
PIU	–	Project Implementation Unit
PMU	–	Project Management Unit
PPTA	–	Project Preparatory Technical Assistance
OCR	–	Ordinary Capital Resources
RF	–	Resettlement Framework
ROW	–	Right-of-Way
RP	–	Resettlement Plan
SAR	–	Subproject Appraisal Report
SES	–	Socio-Economic Survey
SPS	–	ADB's Safeguard Policy Statement (2009)
UFPF	–	Urban Financing Partnership Facility
WACC	–	Weighted Average Cost of Capital
WD	–	Water District
WDDSP	–	Water District Development Sector Project



# **NOTE**

In this report, "\$" refers to US dollars.

This social safeguards due diligence report is a document of the borrower. The views expressed herein do not necessarily represent those of ADB's Board of Directors, Management, or staff, and may be preliminary in nature. Your attention is directed to the "terms of use" section of this website.

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Appendix 3	Public Consultation Proceedings
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Appendix 5	Land Acquisition Report



## SOCIAL SAFEGUARDS DUE DILIGENCE REPORT MANOLO FORTICH WATER DISTRICT

### A. PROJECT BACKGROUND

1. Rapid urbanization and inadequate water supply and sanitation investments have stretched to the limit the capacity of services and facilities in many urban areas outside Metro Manila, and increased water resources pollution. Less than 50% of urban households are estimated to have piped water, with most served by WDs. Various studies report that WDs provide better water service compared to local government unit (LGU)-run water utilities, and attribute this to corporatization (i.e., WDs do not receive subsidies from LGUs) and to access to financing, training and technical assistance from LWUA.

2. The Project will provide to WDs much-needed funds to rehabilitate and expand water facilities, strengthen institutional capacities, and enhance sustainability. According to LWUA, 511 WDs were operational at year-end 2012. Most WD operations are with low profitability, high nonrevenue water (NRW) levels, and weak institutional and limited technical capacity; over half are relatively small (with <3,000 service connections). The Project will target WDs who rely primarily on LWUA for technical support and financing; these WDs are likely to be in less developed provinces, cities and municipalities.

3. The Resettlement Framework was developed in 2014 and locations of subprojects have been finalized in 2019 requiring further due diligence for social safeguards.

4. The Manolo Fortich Water District has a provision to provide additional source, expand water treatment capacity, improved transmission and distribution pipelines that will assure the constituents of Manolo Fortich and neighboring municipalities within the service area a stable supply of potable water even during dry season and on peak hours.

5. MFWD is currently only serving 36% of the total population of Manolo Fortich Water District. With the completion of the project an additional 5,610 HH in the next 10 years will be connected. People will have easy access to clean, potable drinking water thereby improving their health.

### B. SCOPE OF REPORT

6. This Due-Diligence report covers the civil works which are detailed in Table 1. The report will detail the screening of project activities for potential IR and IP impacts.

**Table 1 – Scope of Works**

Activities	Description
Surface Water Development	Utilizing Agusan River surface water for an additional treated water supply
Transmission/Distribution Pipelines	23,500 lineal meters of Transmission/Distribution Pipelines
Water Treatment Plant Facilities	Purchase of water treatment facility equipment, no civil works
Lot Acquisition	2 plots of land required, both will be acquired through negotiated settlement (sale), one for the water treatment plant facility while the other is for mini laboratory facility for water quality monitoring, and construction of clean water tank, as well as access to the whole facility.



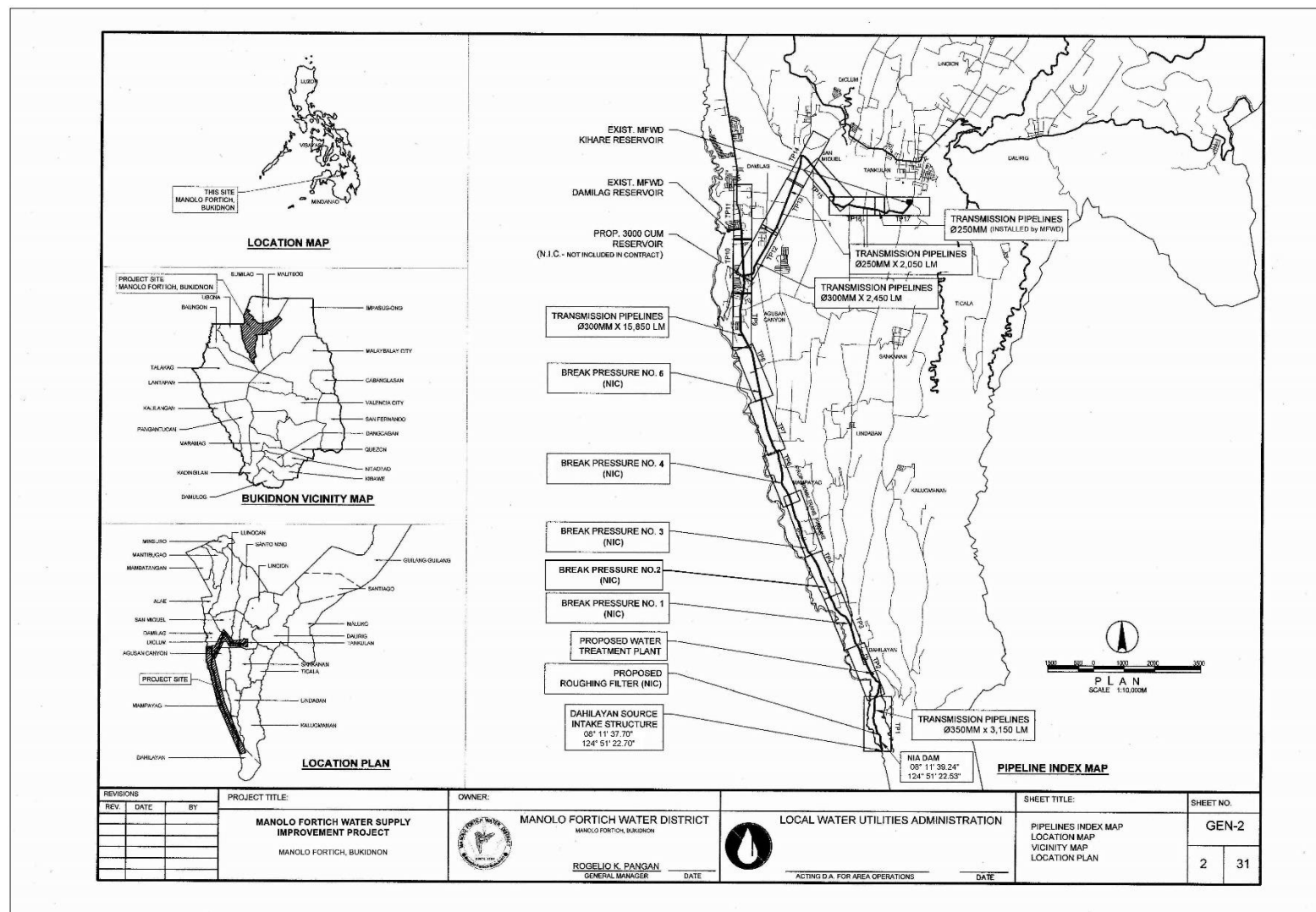


Figure 2 – MFWD Recommended Improvements



## C. SOCIAL SAFEGUARDS ASSESSMENT

7. This due diligence assessment has been carried out with reference to ADB Social Safeguards Policy Statement (SPS 2009)

8. The assessment has been informed by project plans (e.g. engineering designs), field visits to sub-project sites and representative sites of construction activities. Consultations with the barangay officials/council of barangays Dahilayan and Mampayag were conducted. Time constraints did not permit village consultation. MFWD however will conduct one village consultation prior commencement of the project. A joint site inspection was also conducted between MFWD and representatives from the two (2) barangays for the proposed project as well as possible affected structures, plants, properties for the transmission lines along ROW. Minutes, attendance sheet and photos to said consultations is presented **Appendix 3**.

**Table 2 – Impact Description**

Contract Packages	Description	Impact Description
Source Development	Water Quality is suitable for drinking and domestic use, no existing structure. Intake structure will be constructed	Proposed intake structure will be constructed in Agusan River and is located within protected area. The PAMB certification and resolution as well as CENRO Certification is attached in <b>Appendix 4</b> .
Transmission/Distribution Pipelines	21.30km transmission pipeline	Pipes will be laid along provincial road and within the existing ROW
Water Treatment Plant Facility	Equipment for the WTP Facility purchase during project implementation	MFWD will acquire a 2,500 sq.m form a property owned by Mrs. Pilar Lugmay and a 975 sq.m lot area from an adjacent land owned by the heirs of Gregorio Bayoc, all located in Dahilayan, Manolo Fortich. A total of 3,297 sq.m will be acquired through negotiated settlement. Land Acquisition Report is presented in Appendix 5.
Electricity Supply	Electrical posts and transmission lines will be put up during project implementation	None - equipment provision only
Equipment	Equipment to facilitate 5,610 service connections	None - equipment provision only
Lot acquisition	2 plots of land required	2 plots will be acquired via negotiated settlement

## D. CATEGORIZATION

9. Based on the assessment of planned works, all civil works will be conducted within the ROW and within a further limited COI to avoid impact. The work will have no impact on primary structures, secondary structures, agricultural land, crops, trees and/or personal/communal assets. As there will be temporary disturbance but no anticipated economic displacement or business disruption a functional GRM is of utmost importance.

10. Planned acquisition for the two (2) plots for the location of water treatment facility is via negotiated settlement.



11. The Project is therefore categorized as C for involuntary resettlement impacts as per ADB's Safeguard Policy Statement, 2009 (SPS) and the checklist can be found in Appendix 1

12. To trigger the IP safeguard policy statement, the proposed sub project will impact (positively or negatively) people who;

- Self-identify as members of a distinct cultural group which is recognized by others
- Have a collective attachment to geographically distinct territories
- Have cultural, economic, social or political institutions that are separate from
- Have a distinct language.

13. Sociocultural groups therefore need to be both distinct and vulnerable to trigger application of the term Indigenous Peoples in the SPS for ADB-supported projects.

14. This sub-project does not impact on any households, structures or land who meet the above criteria. The sub-project is therefore categorized as C for Indigenous People as per ADB's Safeguard Policy Statement, 2009 (SPS) and the checklist can be found in Appendix 2

## E. MITIGATION MEASURES

15. Proposed mitigation measures to minimize risk of potential impacts are summarized in the table below. This sub-project does not trigger ADB SPS for IR as there is no involuntary land acquisition and any disruption of access will be temporary. Therefore, the mitigation measures shown below will be described within an Environmental Management Plan (EMP).

16. These mitigation measures will also be detailed in the bidding documents and contractor TORs and reported on in the integrated ESMR which will be submitted twice a year. A functional Grievance Redress Mechanism will be integrated into the current customer services feedback mechanism that has already been developed by Manolo Fortich Water District.

**Table 3 – Mitigation Measures**

Potential Impacts	Mitigation Measures	Detailed in:
Impact to any existing road or pavement surfaces,	Contractor will restore to the original condition.	EMP, bidding documents and TORs of contractors.
Restricted access to residences and commercial premises due to replacement / installation of pipelines. All works will be within the ROW but there may be traffic disruption.	Avoid disturbances by carrying out works overnight and reducing traffic disruption during the day using metal sheeting.  Avoid blocking access to properties alongside the road during any construction activities;  Provide steel sheets to reduce access issues	EMP, bidding documents and TORs of contractors.
Unanticipated impacts – Management of construction	GRM to be set up and integrated into current system, single point of entry, contractors to be aware, signboards at construction locations and in Barangay office to inform any affected person of entry point into GRM.	EMP, bidding documents and TORs of contractors.



Potential Impacts	Mitigation Measures	Detailed in:
	Ensure contractor implements agreed measures to reduce impact and temporary disturbance.	
Unanticipated impacts	Any unanticipated resettlement impacts will be subject to mitigation measures as detailed in the entitlement matrix.	EMP

## F. CONSULTATION AND PARTICIPATION

17. This section has been updated from the RF as meetings with Water Districts have refined the procedures for community consultation that will ensure successful implementation and are a supplement to those measures already set out in the RF.

18. MFWD will inform the Barangay of the planned construction schedule and ensure that information about expected timelines and road disruption is clearly communicated prior to the start of any civil works.

## G. GRIEVANCE REDRESS

19. Following discussions during the DDR mission, it was agreed to integrate the ADB required GRM into the current consumer feedback measures that are already implemented and are well established.

20. The DDR mission observed a publicly displayed customer charter and system to record issues with water supply, billing and complaints.

21. The management team were aware of the need to be able to respond to issues in a timely manner and will separate project related grievances from ongoing supply issues for reporting to ADB and LWUA.

22. A member of the MFWD team will be appointed to be the focal point for GRM management and will liaise and inform Barangay administration of procedures in case of any issues.

23. The Project's grievance redress mechanism shall in no way impede access to the formal legal system or the courts. The decision of the courts is for finality of case resolution. Below are the steps to be followed in filing grievances and the procedures for redress.

**Step 1:** The complainant provides the background and files the grievance/complaint verbally or in writing to the MFWD. If unwritten, the Secretary in the MFWD Office will record it in the MFWD complaints system noting it as a project grievance. The focal point for MFWD will respond to the complainant within 3 days to assess whether the issue is project related and aim to resolve the issue and record it within the project grievance register.

**Step 2:** If no resolution or understanding is reached, the complainant files the grievance/complaint to the PMU within LWUA for it to be resolved within 15 days after filing. The written complaint shall be reproduced in four copies; the original to EA-PMU, two for WD-PIU, and one for the file of the complainant.



**Step 3:** The Lupon ng Kapayapaan ng barangay (justice system members) whenever possible, to resolve the issue at the barangay level. The barangay process may take 15 days or more, including submission of complaint, recording, hearing and resolution.

**Step 4:** Again, if no resolution or understanding is reached and if the grievance/complaint qualifies for hearing at the Municipal Trial Court (MTC) or Regional Trial Court (RTC), the household may request for assistance of the *pro bono* lawyer from the Public Attorney's office, through the MFWD. The *pro bono* lawyer shall assist the household in reproducing the formal complaint in five copies to be distributed as follows: the original to the appropriate court, one each for PMU, PIU, WDRC and for the file of the complainant.

**Step 5:** The MTC or RTC assesses the merit of the grievance/complaint, schedules the hearing and renders a decision. Appeals can be elevated to the high court. The Supreme Court's decision is final and executory.

Aggrieved parties may also inform the Office of Special Project Facilitators (OSPF) of the ADB of any project-related grievances.

APs will be exempted from all administrative and legal fees.

24. Unresolved grievance can be elevated to the proper courts. The MFWD will maintain a full record of all complaints and grievances received, and the actions taken.

25. MFWD will also ensure grievances are recorded and reported on in the Integrated Environmental and Social Safeguards reports that are submitted to ADB every 6 months during project implementation



**Table 4 – Site Photos**

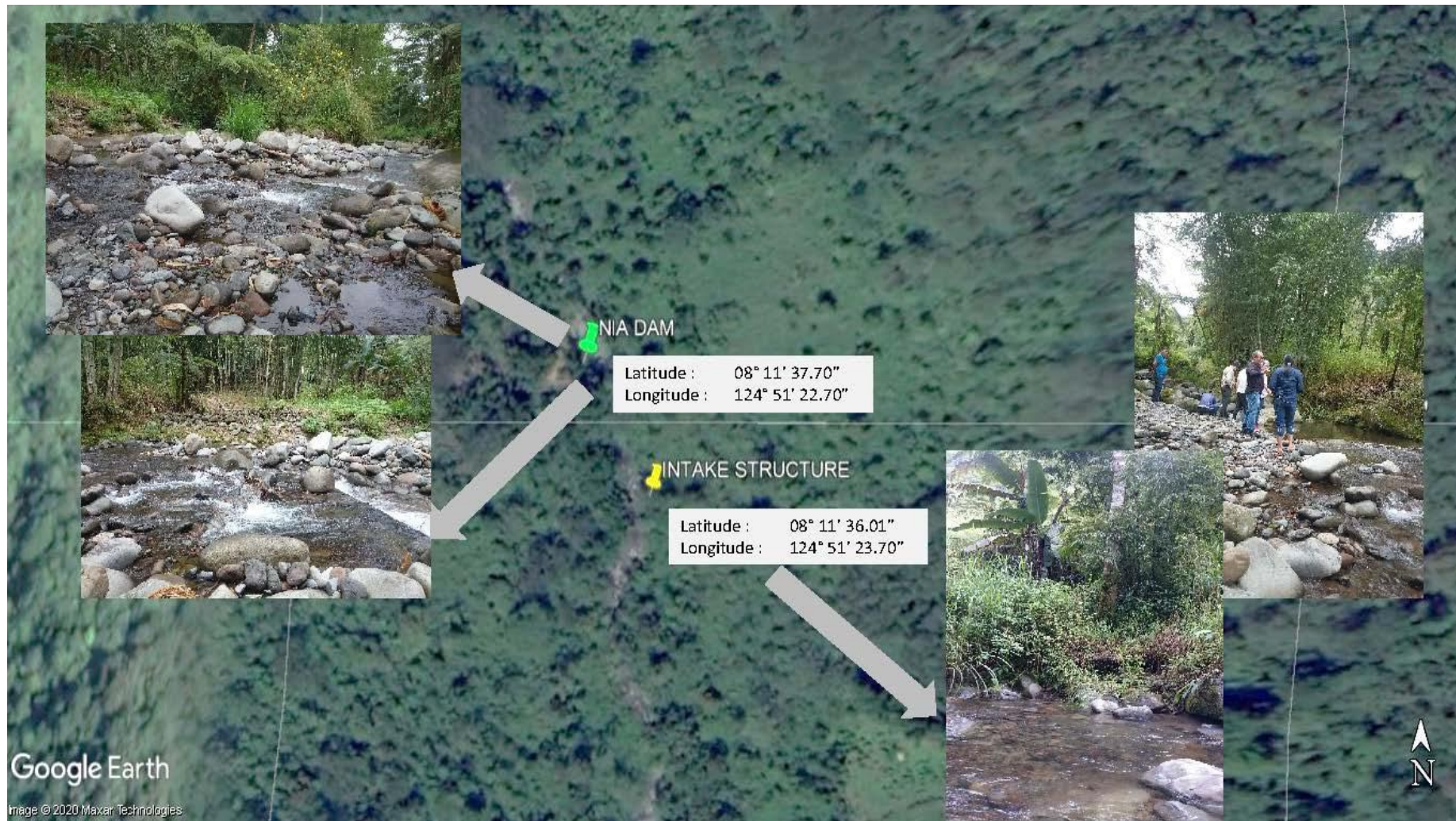


Gregorio Bayoc Property



Pilar Lugmay Property





Intake Structure



**Table 3 - Project Entitlement Matrix**

Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
1a	Permanent loss of land	Agricultural/ residential/ commercial land/vacant plot	APs listed in the survey with proof of ownership/ claim to the land.	Compensation for entire loss of land (i.e., the whole land is affected by the Project, or the residual unaffected portion is no longer viable for continued use and, therefore, the entire land will be acquired by the Project) and partial loss (i.e., only a portion of the land of the AH is acquired by the Project and the residual unaffected portion still viable for continued use or meets the expected yield) is based on the principle of replacement cost which is the method of valuing assets to replace the loss at prevailing market value, plus any transaction costs such as administrative charges, taxes, registration and titling costs. If AH is found to be severely affected (i.e., the loss is equivalent to 10% or more of their total income capacity or they are physically displaced from housing or place of business), the AH will be provided additional assistance as discussed under item 4 (severe impacts) of this entitlement matrix.	Computation of valuation of land must be transparent and explained to the entitled persons. If there are grievances in valuation, entitled persons must be informed of the grievance mechanism.
1b	Permanent loss of land	Agricultural/ residential/ commercial land/vacant plot	APs without proof of ownership/claim to the land they occupy	Not entitled to payment for land, but will be compensated for non-land assets (structures, crops, trees, etc) at replacement cost. Entitled to cash or in-kind assistance if severely affected.	List of non-land assets to be compensated must be signed off by entitled persons. Vulnerable and severely affected persons to be identified during census.



Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
1c	Permanent loss of land	Agricultural/ residential/ commercial land/vacant plot	Tenants/ shareholders	Entitled to compensation for non-land assets (structures, crops, trees) at replacement cost. Entitled to cash or in-kind assistance if severely affected.	List of non-land assets to be compensated must be signed off by entitled persons Vulnerable and severely affected persons to be identified during census
2	Permanent full or partial loss of structures or income-generating spaces	Residential/commercial /institutional structures and income-generating spaces	AP owners located at the site during the cut-off date of the survey, regardless of tenure and status (i.e., owners, renters, sharers, caretakers)	Compensation for permanent houses and other structures affected either in full (i.e., entire main structure is affected, or the unaffected portion of the main structure is no longer viable for continued use), or in part (i.e., only a portion of the main structure of the house, house-and- store, or shop is affected and the remaining unaffected portion is still viable for use), will be determined according to replacement value for materials and labor to rebuild similar structures, at prevailing market prices in the locality. In determining replacement costs, depreciation of assets and salvage value of materials will not be taken into account. In determining compensation for movable structures including houses, where the structures can be moved easily, transfer, relocation and repair allowances will be calculated. An assessment of material replacement will be made, based on the condition of materials, with valuations calculated based on standard replacement and restoration costs. Provision of transition and moving allowance/assistance (cash or in-kind) for APs that opt for voluntary relocation.	List of structures to be compensated must be signed off by entitled persons. Computation of the valuation of affected structures must be explained to entitled persons. If there are grievances in valuation, entitled persons must be informed of the grievance mechanism.



Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
3	Permanent loss of crops and trees	All trees of any age, crops	All APs regardless of tenure status	Cash compensation equivalent to (i) for annual standing crops, prevailing market value of crops; (ii) for perennial crops, prevailing market value given the type, age and productive value; and (iii) for trees, the productive value or the annual production as determined by the municipal agriculturist multiplied by the estimated number of productive years; all at the time of compensation. 60 days' notice to allow owners to harvest any standing crops	List of trees and crops to be compensated must be signed off by entitled persons. Computation of the valuation of trees and crops must be explained to entitled persons
4	Severe impacts (more than % of productive income affected) on productive assets	Land-based income, income from trees and crops, income from business	All APs losing 10% or more of their productive income from business and other income-generating assets, regardless of tenure status	Compensation for lost income based on actual impacts as a result of DMS. Appropriate rehabilitation measures and income restoration programs. Project assistance for affected households such as job referral and placements and assistance to be trained additional skills for local employment or income-generating ventures. Additional project assistance (cash or in-kind) to poor and vulnerable households will be provided	Severely impacted (more than 10% impacted) households to be identified during census
5	Temporary Loss / impact on assets during construction	Residential structures, improvements and other physical assets affected during construction	APs with improvements of their residential or business structure (e.g. fences, driveways) and other physical assets on lots to be traversed by transmission pipes	Cash or in-kind compensation for fixed and movable assets such as houses, pavements, fences, community facilities, farm structures for animals and farmers at replacement cost. Restoration or replacement of a fixed asset one month after construction of water transmission and distribution lines, sanitation facilities, reservoirs and other water facilities. Compensation for residential structures and community facilities, lost in full or part.	List of affected structures to be signed off by entitled persons. Schedule construction activities to minimize the period of disruption. Computation of the compensation must be explained to entitled persons



Item	Type of Loss	Application	Entitled Persons	Compensation Policy	Implementation Issues
6	Temporary loss of income	Income from livelihood, business or employment	APs with businesses or employment disrupted during construction	Compensation for lost income or wages calculated at prevailing and/or average historical rate multiplied by the number of days of disruption	APs and corresponding income losses per day to be identified during census
7	Temporary Loss/impact on access	Roads, pathways and access routes used by APs to conduct economic, social or cultural activities	APs whose access to land or facilities will be affected during construction	Alternative access routes shall be provided to temporarily replace the affected route.	Convincing owners of land to provide temporary access on their land
8	Any unanticipated impacts/losses		APs entitled to compensation as per RF	Any unanticipated impact or loss will be mitigated as per WDDSP RF	Close monitoring of unanticipated impacts during implementation phase



## APPENDIX 1 INVOLUNTARY RESETTLEMENT IMPACT CATEGORIZATION

Date: 8 April 2020

<b>A. Project Data</b>			
Country/Project No./Project Title : <b>Loan 3389/Grant 0477 – PHI: Water District Development Sector Project Manolo Fortich Water District Subproject</b>			
Department/ Division : <b>SEUW</b>			
Processing Stage : <b>Active</b>			
Modality :			
<input type="checkbox"/> Project Loan <input type="checkbox"/> Program Loan <input type="checkbox"/> Financial Intermediary <input type="checkbox"/> General Corporate Finance <input checked="" type="checkbox"/> Sector Loan <input type="checkbox"/> MFF <input type="checkbox"/> Emergency Assistance <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Other financing modalities: Sector development program (linked program loan + project loan)			
<b>B. Involuntary Resettlement Category</b>			
<input checked="" type="checkbox"/> New <input type="checkbox"/> Recategorization — Previous Category <input type="checkbox"/>			
<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input checked="" type="checkbox"/> Category C	<input type="checkbox"/> Category FI
<b>C. Comments</b>			
<p>The proposed project of the Manolo Fortich Water District (MFWD) will not entail any involuntary resettlement. There are no adverse impact on structures and the impact on people, which is temporary, may be on access to their residences or places of business/livelihood during construction.</p> <p>There will be acquisition of two (2) plots via negotiated settlement. 2,500 m<sup>2</sup> owned by Mrs. Pilar Lugmay and 975 m<sup>2</sup> owned by the heirs of Gregorio Bayoc, all located at Dahilayan, Manolo Fortich.</p>			
<b>D. Approval</b>			
<b>Proposed by:</b> Joseph Lalo Social Safeguards Consultant CDTA Date: 8/4/2020		<b>Reviewed by:</b> Social Safeguard Specialist, SEUW Date:	
<b>Endorsed by:</b> Social Development Specialist, Date:		<b>Endorsed by:</b> Director, Date:	
<b>Endorsed by:</b> Director Date:		<b>Approved by:</b> Chief Compliance Officer Date:	<input type="checkbox"/> Highly Complex and Sensitive Project



### Involuntary Resettlement Impact Categorization Checklist

Probable Involuntary Resettlement Effects	Yes	No	Not Known	Remarks
<b>Involuntary Acquisition of Land</b>				
1. Will there be land acquisition?	X			Negotiated settlement to be utilized for the reservoir sites.
2. Is the site for land acquisition known?		N/A		
3. Is the ownership status and current usage of land to be acquired known?		N/A		
4. Will easement be utilized within an existing Right of Way (ROW)?	X			All pipeline works will be within the ROW of the road.
5. Will there be loss of shelter and residential land due to land acquisition?		X		
6. Will there be loss of agricultural and other productive assets due to land acquisition?		X		
7. Will there be losses of crops, trees, and fixed assets due to land acquisition?		X		
8. Will there be loss of businesses or enterprises due to land acquisition?		X		Any disruption is expected to be temporary, EMP contains measures to limit the disruption to traffic and businesses.
9. Will there be loss of income sources and means of livelihoods due to land acquisition?		X		
<b>Involuntary restrictions on land use or on access to legally designated parks and protected areas</b>				
10. Will people lose access to natural resources, communal facilities and services?		X		
11. If land use is changed, will it have an adverse impact on social and economic activities?		X		
12. Will access to land and resources owned communally or by the state be restricted?		X		
<b>Information on Displaced Persons:</b>				
Any estimate of the likely number of persons that will be displaced by the Project? [ ] No [X] Yes				
If yes, approximately how many? <u>No displacement – economic or physical is anticipated related to project impacts.</u>				
Are any of them poor, female-heads of households, or vulnerable to poverty risks? [X] No [ ] Yes				
<b>Not applicable – as there will be no physical displacement of persons</b>				
Are any displaced persons from indigenous or ethnic minority groups? [X] No [ ] Yes				

Note: Further information regarding strategies to reduce disruption are contained within the EMP.



## APPENDIX 2 INDIGENOUS PEOPLES IMPACT CATEGORIZATION

Date: 8 April 2020

<b>A. Project Data</b>								
Country/Project No./Project Title		Loan 3389/Grant 0477-PHI: Water District Development Sector Project Manolo Fortich Water District Subproject						
Department/ Division		SEUW						
Processing Stage		Active						
Modality								
<input type="checkbox"/> Project Loan <input type="checkbox"/> Program Loan <input type="checkbox"/> Financial Intermediary <input type="checkbox"/> General Corporate Finance <input checked="" type="checkbox"/> Sector Loan <input type="checkbox"/> MFF <input type="checkbox"/> Emergency Assistance <input checked="" type="checkbox"/> Grant <input type="checkbox"/> Other financing modalities: Sector development program (linked program loan + project loan)								
<b>B. Indigenous Peoples Category</b>								
<input checked="" type="checkbox"/> New <input type="checkbox"/> Recategorization — Previous Category <input type="checkbox"/>								
<input type="checkbox"/> Category A	<input type="checkbox"/> Category B	<input checked="" type="checkbox"/> Category C	<input type="checkbox"/> Category FI					
<b>C. Project requires the broad community support of affected Indigenous Peoples communities.</b>								
<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No						
<b>D. Comments</b>								
The proposed project of the Manolo Fortich Water District (MFWD) will not impact on any indigenous cultural community/person or encroach on any ancestral domain.								
<b>E. Approval</b>								
<b>Proposed by:</b>		<b>Reviewed by:</b>						
Joseph Lalo								
Consultant for CDTA team		Social Safeguard Specialist, SEUW						
Date: 8/4/2020		Date:						
		<b>Endorsed by:</b>						
Date:		Director, Date:						
<b>Endorsed by:</b>		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;"><b>Approved by:</b></td> <td rowspan="2" style="width: 50%; text-align: center; vertical-align: middle;"> <input type="checkbox"/> Highly Complex and Sensitive Project           </td> </tr> <tr> <td>Chief Compliance Officer</td> </tr> <tr> <td colspan="2">Date:</td> </tr> </table>		<b>Approved by:</b>	<input type="checkbox"/> Highly Complex and Sensitive Project	Chief Compliance Officer	Date:	
<b>Approved by:</b>	<input type="checkbox"/> Highly Complex and Sensitive Project							
Chief Compliance Officer								
Date:								
Director, Date:								



### Indigenous Peoples Impact Screening Checklist

KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
<b>A. Indigenous Peoples Identification</b>				
1. Are there socio-cultural groups present in or use the project area who may be considered as "tribes" (hill tribes, schedules tribes, tribal peoples), "minorities" (ethnic or national minorities), or "indigenous communities" in the project area?		X		
2. Are there national or local laws or policies as well as anthropological researches/studies that consider these groups present in or using the project area as belonging to "ethnic minorities", scheduled tribes, tribal peoples, national minorities, or cultural communities?		N/A		There is a national law (Republic Act 8371 s. 1997) for protecting IP but it is not applicable in the project area because they are not present there.
3. Do such groups self-identify as being part of a distinct social and cultural group?		N/A		
4. Do such groups maintain collective attachments to distinct habitats or ancestral territories and/or to the natural resources in these habitats and territories?		N/A		
5. Do such groups maintain cultural, economic, social, and political institutions distinct from the dominant society and culture?		N/A		
6. Do such groups speak a distinct language or dialect?		N/A		
7. Has such groups been historically, socially and economically marginalized, disempowered, excluded, and/or discriminated against?		N/A		
8. Are such groups represented as "Indigenous Peoples" or as "ethnic minorities" or "scheduled tribes" or "tribal populations" in any formal decision-making bodies at the national or local levels?		N/A		
<b>B. Identification of Potential Impacts</b>				
9. Will the project directly or indirectly benefit or target Indigenous Peoples?		X		
10. Will the project directly or indirectly affect Indigenous Peoples' traditional socio-cultural and belief practices? (e.g. child-rearing, health, education, arts, and governance)		X		
11. Will the project affect the livelihood systems of Indigenous Peoples? (e.g., food production system, natural resource management, crafts and trade, employment status)		X		



KEY CONCERNS (Please provide elaborations on the Remarks column)	YES	NO	NOT KNOWN	Remarks
12. Will the project be in an area (land or territory) occupied, owned, or used by Indigenous Peoples, and/or claimed as ancestral domain?		X		
<b>C. Identification of Special Requirements</b> <i>Will the project activities include:</i>				
13. Commercial development of the cultural resources and knowledge of Indigenous Peoples?		X		
14. Physical displacement from traditional or customary lands?		X		
15. Commercial development of natural resources (such as minerals, hydrocarbons, forests, water, hunting or fishing grounds) within customary lands under use that would impact the livelihoods or the cultural, ceremonial, spiritual uses that define the identity and community of Indigenous Peoples?		X		
16. Establishing legal recognition of rights to lands and territories that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		X		
17. Acquisition of lands that are traditionally owned or customarily used, occupied or claimed by indigenous peoples?		X		
<b>D. Anticipated project impacts on Indigenous Peoples</b>				
<b>Project component/ activity/ output</b>	<b>Anticipated positive effect</b>		<b>Anticipated negative effect</b>	
This subproject will improve water and infrastructure in Manolo Fortich where there are no IPs present	None as there are no IPs present		None as there are no IPs present	



## APPENDIX 3 PUBLIC CONSULTATIONS PROCEEDINGS



**MANOLO FORTICH WATER DISTRICT**  
A. Ditona St., Tankulan, Manolo Fortich, Bukidnon  
Website: [www.mfwd.gov.ph/](http://www.mfwd.gov.ph/) Email: [mfwd\\_buk@yahoo.com](mailto:mfwd_buk@yahoo.com)  
Hotline: 0917-718-1311

MINUTES OF MANOLO FORTICH WATER DISTRICT (MFWD) CONSULTATION  
MEETING WITH BARANGAY DAHILAYAN COUNCIL ON THE DEVELOPMENT OF  
SURFACE WATER AT AGUSAN RIVER, DAHILAYAN, MANOLO FORTICH NOVEMBER  
13, 2019, 9:00 AM AT BARANGAY HALL, DAHILAYAN, MANOLO FORTICH, BUKIDNON

Present:

From the Barangay Council:

Hon. REY LUGMAY  
Hon. DANILO BAYOC  
Hon. DANIEL UBAYAN  
Hon. JOEREYMAR LUGMAY  
Hon. HAIDEE SOMOY  
Hon. EVELYN TOMAMPOC  
Hon. CARLITO BAYOC  
Hon. VENCHITO LUGMAY  
Sec. GANDELYN BAYOC

From the Manolo Fortich Water District

Ms. VENUS I. GUMALING	- Division Manager C
Engr. ERMITO L. GANAS	- Head, Eng'ng & Maintenance Division
Ms. EVELYN C. NARA	- Head, Commercial Section
Mr. BOBBY B. GALON	- Staff
Mr. TOLOMEO L. ORTEGO	- Staff
Ms. JOAN N. CAÑETE	- Staff
Ms. LUCITA S. DAVID	- Staff
Ms. JAYGRETH L. SAMBALOD	- Staff

The consultation meeting started with a Prayer led by Hon. Danilo Bayoc.

### 1. Call to Order and Determination of Quorum

Hon. Vincheto Lugmay, Punong Barangay, called the consultation meeting to order at exactly 9:00 in the morning and requested Brgy. Secretary Gandelyn G. Bayoc to determine a quorum of the meeting. With all members of the Barangay Council present, Ms. Bayoc declared a quorum.



44  
45  
46 2. Agenda of the Meeting  
47 A. Presentation of MFWD Proposed Project: Development of Surface Water at  
48 Agusan River, Dahilayan, Manolo Fortich, Bukidnon  
49  
50 B. Other Matters/Open Forum  
51  
52 Hon. Daniel Ubayan, Brgy. Kagawad and Hon. Rey Lugmay, Brgy. Kagawad,  
53 moved and seconded respectively the approval of the agenda of the meeting.  
54  
55 A. Presentation of MFWD Proposed Project: Development of Surface Water at  
56 Agusan River, Dahilayan, Manolo Fortich, Bukidnon  
57  
58 Ms. Lucita S. David, MFWD designate Pollution and Control Officer, greeted  
59 the barangay officials present headed by Hon. Brgy. Captain Lugmay and  
60 introduced the MFWD Staff present.  
61  
62 Ms. David then elaborated the present problem of MFWD on water supply in  
63 the municipality, "Water shortage is currently faced with the District which needs  
64 immediate and long term solution in which MFWD had resorted to look for  
65 financing institution for the water system development project. Citing the  
66 preparation and documentation made by the District for the past three (3) years,  
67 MFWD finally come up with the development of water system project".  
68  
69 She introduced Ms. Joan Cañete, Engineering Staff, to present the  
70 schematic diagram of the proposed project location and piping system. Ms. Joan  
71 showed the PowerPoint presentation of the piping system assuring minimal  
72 impact on the properties of the affected owners since the pipe installation will be  
73 within the one (1) meter radius or within the Right-of-Way. She emphasized that  
74 it is also timely that DILG had issued circular on clearing of structures within the  
75 designated Road-Right-of-Way.  
76  
77 B. Other Matters/Open Forum  
78  
79 Hon. Brgy. Captain Lugmay, inquired on the possible obligation of MFWD on  
80 the environment. Ms. Venus I. Gumaling, MDC, replied that MFWD had already  
81 secured permit from National Irrigation Administration and Resolution from  
82 PAMB for MFWD commitment of an annual environmental fee of P25,000 per  
83 year.



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### 3. Adjournment

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Transcribed:

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EVELYN C. NARA  
CSA-A, Commercial Section





## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Mobile Hotline: (0917) 718 1311 / e-mail: mfw\_d\_buk@yahoo.com

1

2

3 MINUTES OF THE MANOLO FORTICH WATER DISTRICT (MFWD) CONSULTATION  
4 MEETING WITH BARANGAY MAMPAYAG COUNCIL ON THE DEVELOPMENT OF  
5 SURFACE WATER AT AGUSAN RIVER, DAHILAYAN, MANOLO FORTICH ON  
6 NOVEMBER 18, 2019, 9:32 AM AT BARANGAY HALL, MAMPAYAG, MANOLO  
7 FORTICH, BUKIDNON.

8

9 **Present:**

10	Hon. SHIRLEY GALDO	- Brgy. Kagawad
11	Hon. GILBERT MANAPIL	- Brgy. Kagawad
12	Hon. ANTHONY PAUL EGAR	- Brgy. Kagawad
13	Hon. ANDREW SABANPAN	- Brgy. Kagawad
14	Hon. ELEAZAR ORINA, SR.	- Punong Barangay
15	Hon. JOBERT ABAO	- SK Chairman
16	Hon. ELLEN GRACE PAO	- Brgy. Kagawad
17	MARITES FABRO	- Brgy. Secretary
18	Hon. RESTER MACAPULAY	- Brgy. Kagawad
19	Ms. EVELYN NARA	- MFWD
20	Ms. LUCITA DAVID	- MFWD
21	Ms. JOAN CAÑETE	- MFWD
22	Ms. JAYGRETH SAMBALOD	- MFWD
23	Mr. GRATIAN MANAPIL	- MFWD
24	Mr. TOLOMEO ORTEGO	- MFWD
25	Mr. WILLIAM PAILAGAO	- MFWD

26

27

28

29 The consultation meeting started with a prayer led by Hon. Gilbert Manapil.

30

31 **1. Call to Order and Determination of Quorum**

32

33 Hon. Eleazar Orina, Sr., Punong Barangay, called the consultation meeting in  
34 order at exactly 9:32 in the morning and requested the Brgy. Secretary, Ms. Marites  
35 Fabro to determine a quorum of the meeting. With majority of the Barangay Council  
36 present, Ms. Fabro declared a quorum.

37

38

39

*Water is Life. Conserve Water. Preserve Life*





## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Mobile Hotline: (0917) 718 1311 / e-mail: mfwd\_buk@yahoo.com

40

41

### 42 2. Agenda of the meeting

43

44 A. Presentation of MFWD Proposed Project: Development of Surface Water at  
45 Agusan River, Dahilayan, Manolo Fortich, Bukidnon

46 B. Other Matters / Open Forum

47

48 Hon. Shirley Galdo, Brgy. Kagawad and Hon. Ellen Grace Pao, Brgy. Kagawad,  
49 moved and seconded respectively the approval of the agenda for the meeting.

50

#### 51 A. Presentation of MFWD Proposed Project: Development of Surface Water at 52 Agusan River, Dahilayan, Manolo Fortich, Bukidnon.

53

54 Ms. Evelyn Nara, introduced herself to the council and other staff of MFWD  
55 present. She cited the insufficiency of water supply experienced by the municipality.  
56 However, she emphasized that MFWD is presently looking for other possible water  
57 sources to address the concessionaires' increasing demand for potable water. With that,  
58 she gratefully presented to the body a brief description of the proposed project.

59

60 Ms. Nara called-on Ms. Joan Cañete, Engineering Staff, for the power point  
61 presentation of the site location plan, schematic diagram and piping system. The  
62 proposed project is situated at Dahilayan, Manolo Fortich with Geo Coordinates 124°  
63 51' 22.7" (longitude) and 08° 11' 37.7" (latitude). Ms. Cañete showed the pipeline  
64 network of the proposed project. She explained how the water travels from the source  
65 to the reservoir passing through the proposed intake box and filtration chamber.

66

67 Ms. Jaygreth Sambalod discussed on the socio-economic and environmental  
68 impact of the proposed project. She emphasized that a community-based approach will  
69 be adopted to develop this project. In which a consultation as such was made to ensure  
70 community involvement. MFWD ensured a sound implementation of the project. In  
71 particular, in order to withstand the environmental damage of the forest eco-system, all  
72 pipeline installation and excavation works will be conducted adjacent to the existing  
73 NIA canal. Thus, no trees and/or large vegetation will be harm and thereby promoting  
74 sustainable management of the forest ecosystem. Ms. Sambalod informed the council  
75 that MFWD has already secured approval from PAMB to appropriate surface water  
76 from Agusan River provided under PAMB Execom Resolution 690 s. 2018.

77

78

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## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon  
Mobile Hotline: (0917) 718 1311 / e-mail: mfwd\_buk@yahoo.com

79

80

81 The environmental services will be based on the rehabilitation plan developed by  
82 PAMB.

83

84 Hon. Pao inquired on the beneficiaries of the project. Ms. Sambalod prompted  
85 that this project intends to produce potable water not only to augment the water supply  
86 requirements of existing concessionaires but will also cater the needs of the households  
87 in barangay Dahilayan and in the neighboring barangays – Mampayag, Sankanana and  
88 Lindaban.

89

### 90 B. Other matters/ Open forum

91

92 Ms. Lucita David, MFWD – Pollution Control Officer -designate, facilitated the  
93 open forum. PB Orina Sr. inquired about the water source and was responded that this  
94 project will be developing the surface water of Agusan River in Dahilayan, Manolo  
95 Fortich, Bukidnon. She added that Regional Executive Director Arleigh J. Adorable,  
96 CESO III has already endorsed PAMB Res 690 s. 2018. Having known, PB Orina Sr.  
97 signified his full support to this endeavor and featured that he is confident that the  
98 project integrates resource management plan and nature conservation plans.

99

100 On the other hand, Hon. Manapil raised if there are possibilities that the project  
101 will affect any properties. Ms. David assured the body that there is nothing to worry  
102 since the pipelines will be installed within the Road Right of Way (RRW). Eventually,  
103 the DILG has already issued MC 2019-121 on clearing of structures obstructing the  
104 RRW.

105

106 Hon. Andrew Sabanpan inquired if the barangay can solicit assistance in the  
107 improvement of their water system. Ms. David confirmed that MFWD is more than  
108 willing in terms of technical aspect.

109

110 Ms. David requested the council to assist the MFWD's technical team in the  
111 conduct of survey. Hon. Pao being the Committee Chair on Infrastructure willingly  
112 conceded and proposed to conduct the survey on November 26, 2019.

113

114

115

116

117

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## MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Mobile Hotline: (0917) 718 1311 / e-mail: mfw\_d\_buk@yahoo.com

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### 3. Adjournment

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With no other matters to be discussed, the meeting was adjourned at 11:56 in the morning on motion by Hon. Galdo, seconded by Hon. Jobert Abao.

123

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125

Hon. Egarr led the closing prayer.

126

127

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Transcribed:

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131

WILLIAM N. PAILAGAO

132

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Attendance Sheet of attendees to consultation with barangay council and officials

**MANOLO FORTICH WATER DISTRICT**  
Manolo Fortich 8703, Bukidnon

Activity: BARANGAY CONSULTATION - BKYT DAHILAYAN  
DAHILAYAN WATER SYSTEM DEVELOPMENT PROJECT

Date: 11-13-2019

**ATTENDANCE SHEET**

NAME	SIGNATURE
1. REY S. LUGMAT	
2. DANILO A. BAYOC	
3. DANILO H. MANGON	
4. BERYNNA S. LUGMAT	
5. ANDRE J. Somo-oy	
6. EVELYN S. MAMPAYAG	
7. CARLOS S. BAYOC	
8. VENANCIO S. LUGMAT	
9. LUCIA S. DAVIO	
10. EVELYN C. NARA	
11. CARLOS S. BAYOC	
12. TOLANEO L. ORTEGA	
13. P. Galon	
14.	
15.	
16.	
17.	

**MANOLO FORTICH WATER DISTRICT**  
Manolo Fortich 8703, Bukidnon

Activity: Information Education Campaign  
Venue: Barangay Mampayag  
Date: November 18, 2019

**ATTENDANCE SHEET**

NAME	DESIGNATION / POSITION	SIGNATURE
1. Shirley H. Halsa	Kagawad	
2. Gilbert S. Manapil	Kagawad E.Duc.	
3. EGAR ANTHONY PAUL	KAGAWAD	
4. ANDREW B. SABANPAN	K.G.S.	
5. Eleanor S. Ochoa	Barangay P. Sec.	
6. JAMES D. XERO	SK Chairman	
7. Ellen Grace P. Pio	Commit	
8. MARITES B. FABRO	B. Sec.	
9. Rector P. Acapalan	Kagawad	
10. LUCIA S. DAVIO		
11. TOLANEO L. ORTEGA	MFWD	
12. EVELYN C. NARA	MFWD	
13.		
14.		
15.		




Attendance Sheet of attendees during conduct of joint inspection committee

**Manolo Fortich Water District Employees Union**  
**A. Ditona St., Tankulan, Manolo Fortich, Bukidnon**

Attendance Sheet


ACTIVITY: JOINT INSPECTION FOR DAHILAYAN WATER SYSTEM DEVELOPMENT  
 DATE: NOVEMBER 25, 2019  
 LOCATION: BARANGAY DAHILAYAN

Name	Office / Designation	Signature
1. <u>LUCHA S. DAVID</u>	<u>MPWD</u>	
2. <u>Evelyn S. Tomampoc</u>	<u>Barangay Kag.</u>	
3. <u>RAMON S. LUGERO</u>	<u>MPWD</u>	
4. <u>AMADOR HINDOYOG</u>	<u>M.F.W.D</u>	
5. <u>REYES, C.</u>	<u>MPWD</u>	
6. <u>GABRIEL ERMIPO</u>	<u>MPWD</u>	
7. _____	_____	
8. _____	_____	
9. _____	_____	
10. _____	_____	
11. _____	_____	

**Manolo Fortich Water District Employees Union**  
**A. Ditona St., Tankulan, Manolo Fortich, Bukidnon**

Attendance Sheet

ACTIVITY: JOINT INSPECTION FOR DAHILAYAN WATER SYSTEM DEVELOPMENT  
 DATE: NOVEMBER 26, 2019  
 LOCATION: BARANGAY MAMPAYAG

Name	Office / Designation	Signature
1. <u>Kag. Ethel GARCIA P. MAG</u>	<u>Barangay Kag.</u>	
2. <u>AMADOR HINDOYOG</u>	<u>MPWD</u>	
3. <u>REYES, C.</u>	<u>MPWD</u>	
4. <u>JOAN LARTE</u>	<u>MPWD</u>	
5. <u>JAYRETA S. MARIANO</u>	<u>MPWD</u>	
6. <u>GRACIAN MANAPIL</u>	<u>MPWD</u>	
7. <u>LUCHA S. DAVID</u>	<u>MPWD</u>	
8. <u>RAMON S. LUGERO</u>	<u>MPWD</u>	
9. _____	_____	
10. _____	_____	
11. _____	_____	



ACTIVITY: **BARANGAY CONSULTATION - BRGY. DAHILAYAN, MANOLO FORTICH - DAHILAYAN WATER  
SYSTEM DEVELOPMENT PROJECT**

DATE: **NOVEMBER 13, 2019**





**ACTIVITY:** BARANGAY CONSULTATION – BRGY. MAMPAYAG, MANOLO FORTICH – DAHILAYAN WATER SYSTEM DEVELOPMENT PROJECT

**DATE:** NOVEMBER 18, 2019





## APPENDIX 4 PAMB Resolution AND CENRO Certification



### MANOLO FORTICH WATER DISTRICT

Manolo Fortich 8703, Bukidnon

Telefax No. (088)228-2271 / 2512 / Mobile Hotline: (09177181311)

e-mail: mfwd\_buk@yahoo.com

April 1, 2020

**For. DANIEL SOMERA**

Protected Area Superintendent  
Department of Environment and Natural Resources  
Malaybalay City

Dear PASu Somera,

The Manolo Fortich Water District (MFWD) has a P150M Loan application with Local Water Utilities Administration (LWUA) for a surface water development and treatment plant facility project. The project site of this undertaking is at barangay Dahilayan, Manolo Fortich, utilizing portion of surface water supply from Agusan River.

Considering that the source site is situated within a protected area, we would like to request from your office certification to that effect. Please include legal bases and factors considered (flora and fauna) and other pertinent information, that indeed it is a protected area.

Said certification document is part to attachments required by the Asian Development Bank, the project financing entity, to ensure MFWD has prepared an appropriate and sustainable environmental protection program/s during project implementation and facility operation after project is completed.

Kindly be informed that the PAMB has already issued Resolution No. 690 s. 2018 re: Resolution Approving the Proposed Water Tapping of Manolo Fortich Water District in Dahilayan, Manolo Fortich, Bukidnon.

We highly anticipate favour from your desk on this request as we quest for an improved water service to the community. For any clarification, please feel free to reach mobile no. 09177181311

Thank you very much.

Very respectfully yours,

  
**Engr. ROGELIO K. PANGAN**  
General Manager

*Water is Life. Conserve Water, Preserve Life*







Republic of the Philippines

**Department of Environment and Natural Resources, Region 10**

Puntod, Cagayan de Oro City

E-mail add: [ced@r10.denr.gov.ph](mailto:ced@r10.denr.gov.ph) Telephone/Fax No.: 856-8200

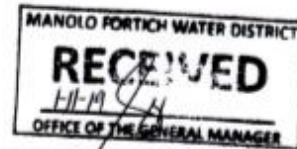
January 8, 2019

**MR. SEVILLO D. DAVID JR., CESO III**

Executive Director

National Water Resources Board

8<sup>th</sup> Floor, NIA Building, EDSA, Diliman, Quezon City



Dear Dir. David:

Respectfully forwarding the approved Protected Area Management Board-Executive Committee Resolution No. 690 of the Protected Area Management Board of Mt. Kitanglad Range Natural Park, Bukidnon. The Resolution is approving the request of Manolo Fortich Water District to tap water from Agusan River, inside the mentioned protected area.

This Resolution is submitted to comply the requirements relative to Water Permit Application of Manolo Fortich Water District, Manolo Fortich, Bukidnon.

Thank you.

Very truly yours,

**ARLEIGH J. ADORABLE, CESO III**

Regional Executive Director





Republic of the Philippines  
**Mt. Kitanglad Range Natural Park**  
ASEAN Heritage Park  
Malaybalay City, Bukidnon

### CERTIFICATION



### TO WHOM IT MAY CONCERN :

**THIS IS TO CERTIFY** that the Manolo Fortich Water District (MFWD), Manolo Fortich, Bukidnon intends to draw water for their water development and treatment plant facility from Agusan River, a tributary emanating from Mt. Kitanglad protected area.

Mt. Kitanglad Range Natural Park (MKRNP) is a full-fledged protected area per Republic Act 8978 otherwise known as the Mt. Kitanglad Act of 2000. It is a home of critically endangered flora and fauna such as the Philippines' national bird, the Philippine Eagle, and one of the world's largest flowers, *Rafflesia schadenbergiana*. As provided under RA 8978, a Protected Area Management Board (PAMB) shall be created as the park's governing body and is clothed with authority to issue regulations and adopt rules of procedure for the conduct of business within the park.

While the management board has already passed and approved PAMB Resolution No. 690, series of 2018 approving the proposed water tapping by MFWD in the aforementioned water source, it is understood that the proponent shall closely coordinate with the Protected Area Management Office (PAMO) prior the conduct of whatever future activities they deem within the site.

This certification is issued as one of the requirements needed to support the loan application of MFFWD with Local Water Utilities Administration (LWUA).

  
**DANIEL F. SOMERA**  
Protected Area Superintendent  
Mt. Kitanglad Range Natural Park/  
ASEAN Heritage Park



**PAMB EXECOM RESOLUTION NO. 690  
SERIES OF 2018**

**A RESOLUTION APPROVING THE PROPOSED WATER TAPPING OF MANOLO  
FORTICH WATER DISTRICT IN DAHILAYAN, MANOLO FORTICH, BUKIDNON**

**WHEREAS**, per R.A. 8978 otherwise known as Mt. Kitanglad Act and the approved Mt Kitanglad Management Plan, the Protected Area Management Board (PAMB) through the Protected Area Superintendent (PASu) is mandated to decide matters relating to planning, resource protection and general administration of Mt. Kitanglad Range Natural park (MKRNP) in accordance with the General Management Planning and Strategy (GMPS);

**WHEREAS**, as stated in Section 18(d) of DAO 25, series of 1992, the PAMB shall promulgate rules and regulations to promote development programs and projects on biodiversity conservation and sustainable development consistent with the Management Manual of the protected area;

**WHEREAS**, one of the primary objectives of the management board is fair and equitable distribution of resources to resource users aligned with the existing rules and regulations of the protected area;

**WHEREAS**, the park is a major watershed area which supply adequate volume of water for domestic use and agriculture not only in Bukidnon but also in adjacent provinces of Cotabato and Misamis Oriental;

**WHEREAS**, considering their mandate to supply adequate potable water supply to the consumers of Manolo Fortich, the Manolo Fortich Water District (MFWD) as one of the Government- Owned and Controlled Corporation (GOCC), has proposed to tap an average of 500 liters/ second water from Agusan river with an average discharge of 1,500 liters/second, which is within Mt. Kitanglad protected area, to augment their existing water supply thus, address the issue on water crisis their municipality is experiencing more particularly during dry months;

**WHEREAS**, during the 52<sup>nd</sup> PAMB enbanc meeting, it was stressed by Engr. Rogelio Pangan, MFWD General Manager, that their company will be constrained to pay P3/cubic meter in cash for the volume of water utilized based on the new set of guideline/s on water use per PAMB Resolution No. 555, series of 2015;

**WHEREAS**, should the management board push for its payment based on the above-stated computation, it will be tedious for the company to abide/comply with based on the existing accounting and auditing regulations; and that their company has no other option but to incorporate the payment as additional fee of the consumers who are considered poorest among the poor;

**WHEREAS**, MFWD may opt to offset their deliverables not in cash but in a form of environmental services within Mt. Kitanglad protected area so as to ensure continuous water flow;

**WHEREAS**, the company can only guarantee as of the moment environmental



**NOW THEREFORE**, upon motion of For. Emmanuel Lumoyod and duly seconded by Mr. Eduardo Rautraut, be it:

**RESOLVED** as it is hereby resolved, to approve the proposed MFWD water tapping in Agusan river, Dahilayan, Manolo Fortich, subject to the following conditions, to wit:

1. Submit an Environmental Impact Assessment (EIA) Certificate from the Environmental Management Board (EMB);
2. Considering that the company is also collecting fee for water use of every consumer, they will explore possibility to augment and/or fix their environmental services effective CY 2020 onwards and will not only limit to P25,000.00, for incorporation in the MOA;
3. A work and financial plan prepared by PAMB secretariat will be submitted to their Office for special projects that they could fund in lieu of water use fee.

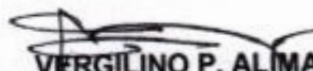
Unanimously approved.

**I HEREBY CERTIFY** to the correctness of the foregoing resolution.

FOR THE PAMB SECRETARIAT:

  
**DANIEL F. SOMERA**  
Protected Area Superintendent

RECOMMENDING APPROVAL:

  
**VERGILINO P. ALIMA**  
OIC, PENR Officer, PENRO-Bukidnon

APPROVED:

  
**ARLEIGH J. ADORABLE, CESO III**  
Regional Executive Director, DENR-10, PAMB Chair

  
CERTIFIED XEROX COPY



March 24, 2020



**Mr. VIRGILIO N. BATOCAIL**  
DMO IV  
DENR, CENRO Manolo  
Calanawan, Manolo Fortich, Bukidnon

Dear CENRO Batocail,

Greetings!

The Manolo Fortich Water District (MFWD) has a P150M Loan application with Local Water Utilities Administration (LWUA) for a surface water development and treatment plant facility project. The project site of this undertaking is at Barangay Dahilayan, Manolo Fortich, and utilizing portion of surface water supply from Agusan River.

Considering that the source is situated within a protected area, we would like to request from your office a certification to that effect. Please include legal bases and factors considered (flora and fauna) and other pertinent information, that indeed it is a protected area.

Said certification document is part of the attachments required by the Asian Development Bank, the project financing entity, to ensure MFWD has prepared an appropriate and sustainable environmental protection program/s during project implementation and facility operation after project is completed.

We highly anticipate favour from your desk on this request as we quest for an improved water service to the community.

Thank you very much.

Very truly yours,

  
**Engr. ROGELIO N. PANGAN**  
General Manager



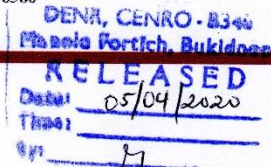


Republic of the Philippines

**Community Environment and Natural Resources-Manolo Fortich**

Kalanawan, Tankulan, Manolo Fortich, Bukidnon

E-mail add: [cenromanoloortich@r10.denr.gov.ph](mailto:cenromanoloortich@r10.denr.gov.ph) Tel/Mobile No.: 0917-522-8580



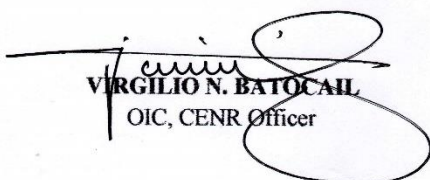
**CERTIFICATION**

**THIS IS TO CERTIFY** that the proposed surface water development and treatment facility project of Mnaolo Fortich Water District (MFWD) is located at Barangay Dahilayan, Manolo Fortich, Bukidnon thereby utilizing portion of surface water from Agusan river.

**FURTHER CERTIFIES** that Barangay Dahilayan where the proposed project will be established is within the area of responsibility of DENR-CENRO Manolo Fortich, Bukidnon.

**THIS CERTIFICATION** is being issued to Manolo Fortich Water District to form part of the requirements for its loan application with the Local Water Utilities Administration (LWUA).

Issued this 4<sup>th</sup> day of May 2020 at Manolo Fortich, Bukidnon.

  
**VIRGILIO N. BATOCAIL**  
OIC, CENR Officer



## APPENDIX 5 LAND ACQUISITION REPORT

# Land Acquisition Report

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April 2020

Philippines: Water District Development  
Sector Project

Manolo Fortich Water District



The following report documents the land acquisition of MFWD for the development of the Manolo Fortich water system.







### MFWD ACQUISITION OF 2,500 SQ.M. LOT CURRENTLY OWNED BY MRS. PILAR LUGMAY

The following report documents the land acquisition of MFWD for the development of the **MANOLO FORTICH WATER DISTRICT** water system.

#### Third Party Verification Checklist

Verifies the observance of the transaction and that all details contained in the presented documents are correct.

Checklist for Notary, Barangay Captain, Local People's Organization representative, Local NGO representative or similar.

Item	Signature and/or stamp
Original land title has been seen	SUNDAY BRANDALES 
Owner of land is confirmed as having authority to sell and matches land title and ID	Sunday Brandales 
Owner has stated in writing that the land is free of encumbrances or dispute and no person or structure that does not belong to the landowner will be affected.	Sunday Brandales 
Price of land purchased is at locally agreed market value as per zonal assessment and recent transactions	Sunday Brandales 
The authority signing this document has no association with the project in any past or present capacity.	Sunday Brandales 
The sale of the land will not negatively impact on the livelihood of the landowner or anyone currently utilizing the land. This will be in a statement from the purchaser	Sunday Brandales 



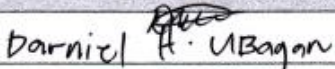
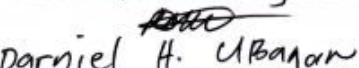
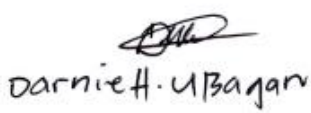
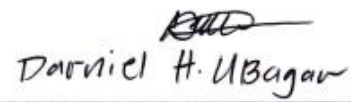
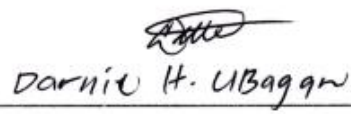
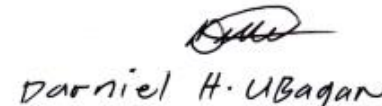
## MFWD ACQUISITION OF 975 SQ.M. LOT CURRENTLY OWNED BY THE HEIRS OF GREGORIO BAYOC

The following report documents the land acquisition of MFWD for the development of the **MANOLO FORTICH WATER DISTRICT** water system.

### Third Party Verification Checklist

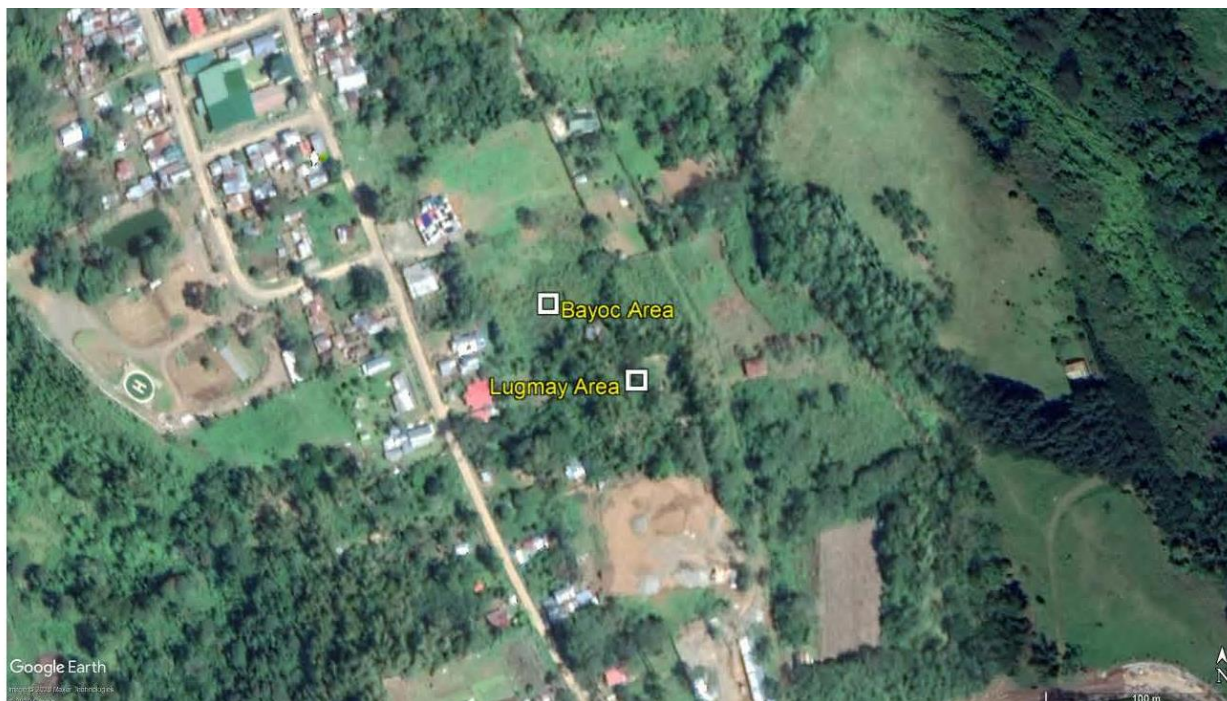
Verifies the observance of the transaction and that all details contained in the presented documents are correct.

Checklist for Notary, Barangay Captain, Local People's Organization representative, Local NGO representative or similar.

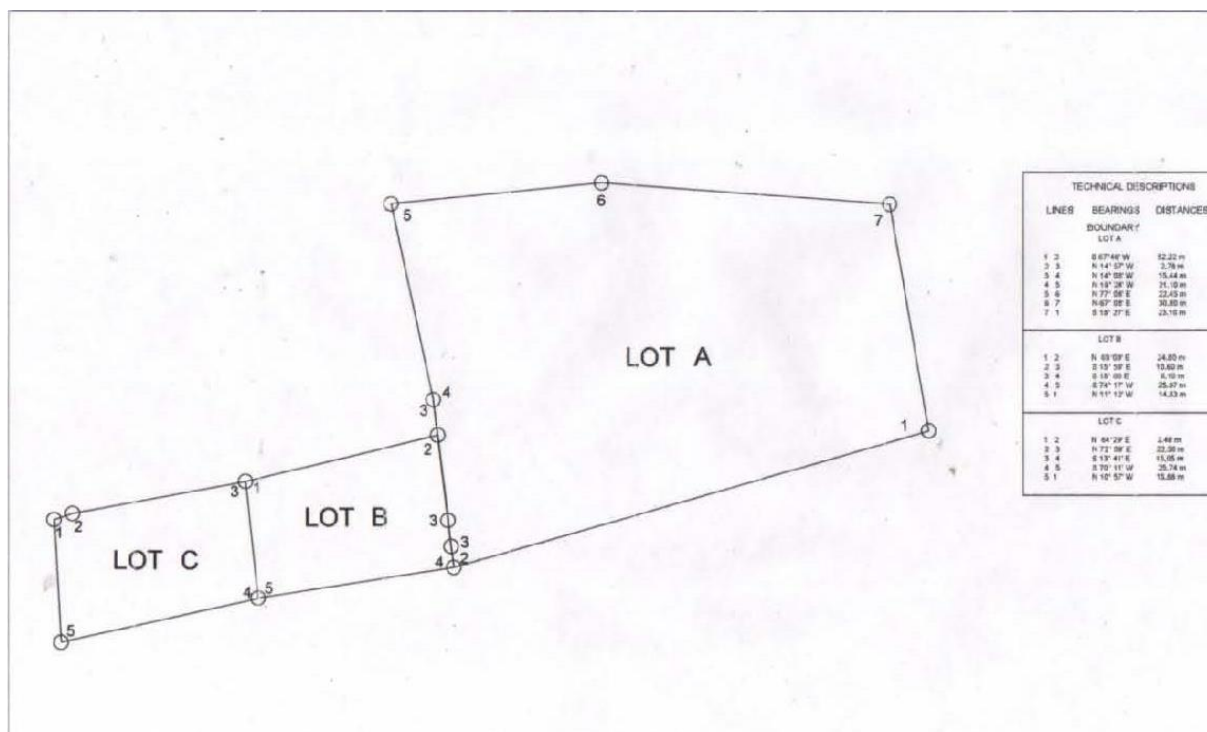
Item	Signature and/or stamp
Original land title has been seen	 Darniel H. UBagan
Owner of land is confirmed as having authority to sell and matches land title and ID	 Darniel H. UBagan
Owner has stated in writing that the land is free of encumbrances or dispute and no person or structure that does not belong to the landowner will be affected.	 Darniel H. UBagan
Price of land purchased is at locally agreed market value as per zonal assessment and recent transactions	 Darniel H. UBagan
The authority signing this document has no association with the project in any past or present capacity.	 Darniel H. UBagan
The sale of the land will not negatively impact on the livelihood of the landowner or anyone currently utilizing the land. This will be in a statement from the purchaser	 Darniel H. UBagan



## LOCATION MAP



Location sites of lots to be acquired for the project



Schematic Diagram of Areas to be Acquired



## LAND TITLES

JUDICIAL FORM No. 64  
(Revised October, 1956)

Book \_\_\_\_\_  
Page \_\_\_\_\_

REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF JUSTICE  
Land Registration Commission  
OFFICE OF THE REGISTER OF DEEDS FOR THE PROVINCE OF BUKIDNON

### Original Certificate of Title

No. F-6488

Entered in accordance with section 122 of Act No. 496, of the Philippine Commission, pursuant to a patent issued by the President of the Philippines, dated at Malaybalay, Bukidnon on the 9th day of November, in the year nineteen hundred and seventy-three and spread in the records of the Bureau of Lands, as follows:

B. L. FORM No. 28-13

REPUBLIC OF THE PHILIPPINES  
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES  
BUREAU OF LANDS  
MALAYBALAY, BUKIDNON  
FREE PATENT No. (X-1) 55

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETING:

WHEREAS, ANSELMO P. LUGMAY, possessing all the qualifications required by law in the premises, has fully complied with all the conditions, requirements, and provisions of Republic Act No. 782 and Chapter VII of Commonwealth Act No. 141, as amended, governing the granting of free patents to native settlers, and is therefore, entitled to a free patent to the following described agricultural public land situated in the municipality of Manolo Fortich, province of Bukidnon, island of Philippines, containing an area of 1 hectares, 66 area, 00 centares, according to the official plat of the survey thereof on file in the Bureau of Lands, Manila and described on the back hereof.

NOW, THEREFORE, KNOW YE, That by authority of the Constitution of the Philippines, and in conformity with the provisions thereof and of the aforesaid Republic Act No. 782 and Commonwealth Act No. 141, as amended, there is hereby granted unto the said ANSELMO P. LUGMAY, Filipino, of legal age, married to Flor S. Lugmay and residing in Bahilayan, Manolo Fortich, Bukidnon the tract of land above-described.

TO HAVE AND TO HOLD the said tract of land, with the appurtenances thereunto of right belonging unto the said ANSELMO P. LUGMAY and to his heirs and assigns forever, subject to the provisions of sections 116, 119, 121, 122 and 124 of Commonwealth Act No. 141, as amended, which provide that except in favor of the Government or any of its branches, units, or institutions, the land hereby acquired shall be inalienable and shall not be subject to encumbrance for a period of five (5) years from the date of this patent, and shall not be liable for the satisfaction of any debt contracted prior to the expiration of said period; that every conveyance of land acquired under the free patent provisions when proper, shall be subject to repurchase by the applicant, his widow, or legal heirs, within a period of five years from the date of the conveyance; that it shall not be encumbered, alienated, or transferred to any person, corporation, association or partnership not qualified to acquire lands of the public domain under said Commonwealth Act No. 141, as amended; and that it shall not be subject to any encumbrance whatsoever in favor of any corporation, association or partnership except with the consent of the grantee and the approval of the Secretary of Agriculture and Natural Resources and solely for educational, religious or charitable purposes or for a right of way; and subject finally to all conditions and public easements and servitudes recognized and prescribed by law especially those mentioned in sections 109, 110, 111, 112, 113, and 114 of Commonwealth Act No. 141, as amended, and the right of the Government to administer and protect the timber found thereon for a term of five (5) years from the date of this patent, provided, however, that the grantee or heirs may cut and utilize such timber as may be needed for his or their personal use.

IN TESTIMONY WHEREOF, and by authority vested upon me by law, I, FREDERICK S. MARCOS, President of the Philippines, have caused these letters to be made patent, and the seal of the Republic of the Philippines to be hereunto affixed.

Given under my hand at Manila on this, the 9th day of November in the year of Our Lord one thousand nine hundred and seventy-three.

PURSUANT TO THE PROVISIONS OF REPUBLIC ACT NO. 6516

BY AUTHORITY OF THE PRESIDENT OF THE PHILIPPINES  
MACARIO D. YCARO  
Undersecretary and District Land Officer

Transcribed in the "Registration Book" for the Province of Bukidnon, pursuant to the provisions of section 41 of Act No. 496, on the 1st day of February, in the year nineteen hundred and seventy-four at 1:00 p.m.

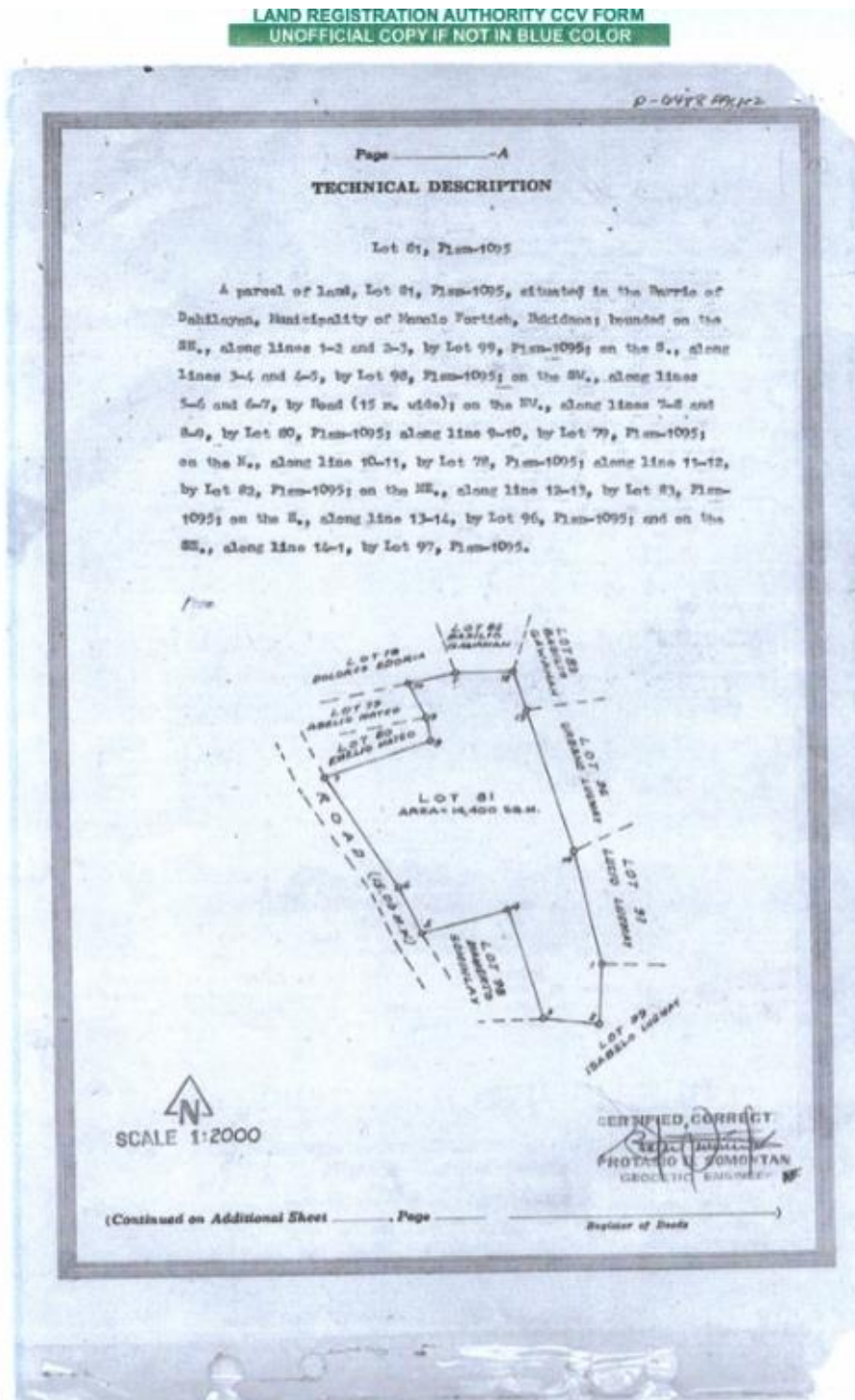
FERDINANDO S. SANTIAGO  
Register of Deeds

Bahilayan, Manolo Fortich, Bukidnon  
(Owner's Postal Address)

is hereby certified that this is a true electronic copy of OCT P-6488 on file in Registry of Deeds of Malaybalay, Bukidnon, which consists of 4 page(s). This is a system generated Certified True Copy, and does not require a manually-affixed signature. Printed at Registry of Deeds of Malaybalay, Bukidnon. Requested By: LUGMAY ANSELMO P.

Ref. No.: 2020003749 OR No.: 1021054254  
Date: 03/03/2020 OR Date: Mar 3 2020  
Time: 08:56:36 AM Amt Paid: 546.70





It is hereby certified that this is a true electronic copy of OCT P-6488 on file in Registry of Deeds of Malaybalay, Bukidnon, which consists of 4 page(s). This is a system generated Certified True Copy, and does not require a manually-affixed signature. Printed at Registry of Deeds of Malaybalay, Bukidnon. Requested By: LUGMAY ANSELMO P.

Ref. No. : 202003749 OR No. : 1021054254  
 Date : 03/03/2020 OR Date : Mar 3 2020  
 Time : 08:55:36 AM Amt Paid: 546.70

Page 2 of 4

LTCP Form No.: 0019 version 2  
 (revision date: 2017.08.03)



**REPUBLIC OF THE PHILIPPINES**  
**MINISTRY OF JUSTICE**  
**NATIONAL LAND TITLES AND DEEDS REGISTRATION ADMINISTRATION**  
**(Land Registration Commission)**

**Registry of Deeds for the**

**Transfer Certificate of Title**

No. 232524

IT IS HEREBY CERTIFIED that certain land situated in the Municipality of Malaybalay  
Province of Bukidnon, more particularly bounded and described as follows:  
Lot 78, Pls-1095  
A parcel of land, Lot 78, Pls-1095, situated in the Barrio  
of Dahilayan, Municipality of Manolo Fortich, Province of  
Bukidnon. Bounded on the E., along lines 1-2-3 by Lot 82, Pls-  
1095, on the SE., along line 3-4 by Lot 81, Pls-1095, on the  
S., along line 4-5, by Lot 79, Pls-1095, on the SW., along  
lines 5-6-7 by Road (10 m. wide), and on the NW., and N.,  
is registered in accordance with the provisions of section 103 of the Property Registration Decree in  
the name of \* GRISORIO BAYOC, Filipino, of legal age, married to  
Carmen Bayoc, resident of Dahilayan, Manolo Fortich,  
Bukidnon, Philippines.-  
subject to the provisions of the said Property Registration Decree and the Public Land Act, as well as  
to those of the Mining Laws, if the land is mineral, and subject, further, to such conditions contained  
in the original title as may be subsisting, and to

IT IS FURTHER CERTIFIED that said land was originally registered on the 7th day  
of February in the year nineteen hundred and seventy-four  
in Registration Book No. 17 page 6457 of the Office of the Register of Deeds  
of Bukidnon as Original Certificate of Title No. P-6457 pursuant to  
a Free patent, in the name of Dolores Muri granted by the President of the  
Philippines, on the 9th day of November in the year nineteen  
hundred and seventy-three under Act No. 141

This certificate is a transfer from Original Certificate of Title No. P-6457  
which is cancelled by virtue hereof in so far as the above described land is concerned

Entered at Malaybalay, Bukidnon  
Philippines, on the 24th day of February  
in the year nineteen hundred and eighty-nine  
at 2:00 P.M.

(Register of Deeds)

Dahilayan, Manolo Fortich, Bukidnon  
(Owner's Postal Address)

\*State the civil status, name of spouse if married, age if a minor, citizenship and residence of the registered  
owner. If the owner is a married woman, state also the citizenship of her husband. If the land is registered in the  
name of the conjugal partnership, state the citizenship of both spouses.

is hereby certified that this is a true electronic copy of TCT T-28132 on file in Registry of Deeds of Malaybalay, Bukidnon.  
which consists of 4 page(s). This is a system generated Certified True Copy, and does not require a manually-affixed signature. Printed at  
Registry of Deeds of Malaybalay, Bukidnon. Requested By: BAYOC, DANILO ANLAGAN  
Ref. No.: 2020004569 OR No.: 1021055535  
Date: 03/13/2020 OR Date: Mar 13 2020  
Time: 08:42:23 AM Amt. Paid: 546.70





Republic of the Philippines  
PROVINCE OF BUKIDNON  
Provincial Capitol

PROVINCIAL ASSESSOR'S OFFICE  
Provincial Appraisal Committee

EXCERPTS FROM THE MINUTES OF MEETING OF THE PROVINCIAL  
APPRAISAL COMMITTEE HELD ON FEBRUARY 12, 2020, 9:00, AM AT PASSO  
CONFERENCE ROOM, PROVINCIAL ASSESSOR'S OFFICE, MALAYBALAY CITY.

Present:

- |  |                      |
|--|----------------------|
| 1. Mr. Roger G. Guillermo, REA, REB, EnP | PAC Chairman         |
| 2. Mr. Felix G. Nambatac                 | PTO Representative   |
| 3. Mr. Romel B. Leona                    | PEO Representative   |
| 4. Mr. George P. Flores                  | PGO Representative   |
| 5. Mr. Noel A. Cabugsa                   | PASSO Representative |
| 6. Mr. Rolie P. Ladao                    | PASSO Representative |
| 7. Mr. Reuben G. Veto                    | PASSO Representative |
| 8. Ms. Ruth V. Belican                   | Acting Secretary     |

RESOLUTION NO. 08-2020

A RESOLUTION OF THE PROVINCIAL APPRAISAL COMMITTEE ADOPTING  
THE PROVINCIAL APPRAISAL COMMITTEE REPORT DATED FEBRUARY 3, 2020  
FOR THE DETERMINATION OF FAIR MARKET VALUE OF LAND TO BE  
ACQUIRED BY MANOLO FORTICH WATER DISTRICT (MFWD), MANOLO  
FORTICH, BUKIDNON

WHEREAS, the Provincial Appraisal Committee acted on the letter request of  
Engr. Rogelio K. Pangan, General Manager of Manolo Fortich Water District of Manolo  
Fortich, Bukidnon dated January 21, 2020 for the conduct of appraisal of land located  
at Barangay Dahilayan, Manolo Fortich, Bukidnon;

WHEREAS, the Committee representatives together with the MFWD staff  
conducted the actual inspection and verification of the subject property on January 29,  
2020;

WHEREAS, the offered property is a 2,000 square meters residential land,  
portion of the total area of 14,400 square meters owned by Anselmo P. Lugmay  
covered under Original Certificate of Title No. P-6488 with an offered price of FOUR  
MILLION PESOS (P4,000,000.00) and or TWO THOUSAND PESOS (P2,000.00) per  
square meter;

WHEREAS, as per approved Committee Report dated February 3, 2020, the  
Fair Market Value of the subject property within the vicinity and or location of the  
property as determined by the assessor is TWO THOUSAND THIRTY EIGHT AND  
40/100 PESOS (P2,038.40) per square meter;

WHEREAS, for purposes of just compensation in case of private property  
acquired by the government for public use, the basis shall be the current and fair market  
value declared by the owner, or such market value as determined by the assessor,  
whichever is lower;

NOW THEREFORE, after due deliberation and upon motion of Mr. Felix  
Nambatac, unanimously seconded by the Committee present, BE IT:

IT IS HEREBY RESOLVED to adopt the Committee Report  
020 wherein the offered price of TWO THOUSAND PESOS  
are meter be considered as the lower price, most fair and  
ue than that of the value determined by the Assessor;

NALLY, that copies of this Resolution and Committee Report be  
, Fortich Water District, and all the members of the Provincial

th day of February 2020, at Malaybalay City, Bukidnon  
to the correctness of the foregoing statements.

RUTH V. BELICAN  
Acting Secretary

GEORGE P. FLORES  
Administrative Aide III  
PGO Representative

REUBEN G. VETO  
Administrative Aide III  
PASSO Representative

NOEL A. CABUGSA  
Administrative Assistant II  
PASSO Representative

ROMEL B. LEONA  
Draftsman I  
PEO Representative

ROLIE P. LADAO, REA, REB  
Local Assessment Operations Officer II  
PASSO Representative

APPROVED BY:

ROGER G. GUILLERMO, REA, REB, EnP  
Provincial Assessor  
PAC Chairman



## OFFER TO SELL

January 6, 2020

**Engr. ANGELES L. BONTILAO**

*Chairman*  
Board of Directors

*Thru: Engr. ROGELIO K. PANGAN*  
*General Manager*

**Subject: OFFER TO SELL**

Dear Chairman Bontilao,

Please consider our offer for the following property:

*Title:* F6488

*Owner:* ANSELMO P. LUGMAY (D), married to PILAR LUGMAY

*Location:* Dahilayan, Manolo Fortich, Bukidnon

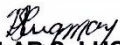
*Area for Disposal:* 2,500 sq. m

*Amount/ sq.m. :* P2,000.00

May above proposal finds merit from you end.

Thank you very much

Respectfully yours,

  
**PILAR S. LUGMAY**  
*Owner/Seller*

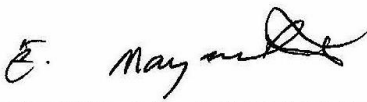


***Ako si Editha B. Mayantao hingkod ang panuigon, menyo og taga Purok 2, Dahilayan, Manolo Fortich, Bukidnon nagamatood niining mosunod nga.***

***Ako nagsogot nga moagi ang lingya sa water district sa akong area apan kini ilang pagabayaran ang kalapdon nga 1,000 square meter sa presyo nga dos mil (php 2,000.00) per square meter nga gitipak sa titulo nga adonay numero LOT 78 og adonay gilapdon nga 10,005 kini nakapagalan ni GREGORIO BAYOC.***

***Kining maong lote nga 1,000 square meter ibaligya ngadto sa Water District sa Manolo Fortich, Bukidnon nga maoy dalan padolong sa area ni Joe Rey Mar S. Lugmay.***

***Timaan s apagmatood niini kini akong permahan sa ubos sa petsa 30 sa Enero 2020 dinhi sa Purok 2, Dahilayan, Manolo Fortich, Bukidnon.***

  
**EDITHA B. MAYANTAO**



## CONTRACT TO SELL

### KNOW ALL MEN BY THESE PRESENTS:

I, **PILAR SAHONLAY LUGMAY**, of legal age, widow and a resident of Dahilayan, Manolo Fortich, Bukidnon, herein referred to as **SELLER**, for and in consideration of the sum of the **FIVE MILLION PESOS (Php5,000,000.00)** to be paid to me by the **MANOLO FORTICH WATER DISTRICT (MFWD)**, a government agency engaged in water services with address at Tankulan, Manolo Fortich, Bukidnon, herein referred to as **BUYER** hereby convey, sell, transfer by installment a 2,500.0 sq. m. portion of my property described herein below, to wit:

That the terms of this contract shall be that the **BUYER** and **SELLER** agree to the following:

1. That upon execution of this Contract to Sell, fifty percent (50%) of the total cost will be tendered by the **BUYER** as partial payment;
2. That the remaining balance will be paid in full should necessary documents needed for the transfer will be tendered by the surveying party;
3. That the expense for survey to effect transfer of property will be borne by the **BUYER**;
4. That upon full payment, the **SELLER** shall execute a **DEED of ABSOLUTE SALE** for this purpose
5. That Gains Tax for Certification of Authorizing Transfer Registration will be shared by both **SELLER** and **BUYER**.

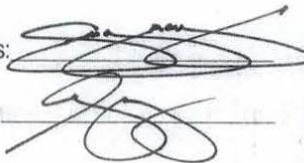
In witness whereof, I have hereunto affixed my signature this \_\_\_\_\_ at \_\_\_\_\_.

  
**PILAR SAHONLAY LUGMAY**  
Seller

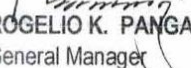
With conformity:

**MANOLO FORTICH WATER DISTRICT**  
Buyer

Witness:

  
\_\_\_\_\_

By:

  
**Engr. ROGELIO K. PANGAN**  
General Manager



January 6, 2020

**Engr. ANGELES L. BONTILAO**  
Chairman  
Board of Directors

*Thru: Engr. ROGELIO K. PANGAN*  
General Manager

**Subject: OFFER TO SELL**

Dear Chairman Bontilao,

Please consider our offer for the following property:

*Title:* T-28132

*Owner:* GREGORIO BAYOC (D)

*Location:* Dahilayan, Manolo Fortich, Bukidnon

*Area for Disposal:* 975.0 sq. m

*Amount/ sq.m. :* P2,000.00

May above proposal finds merit from you end.

Thank you very much

Respectfully yours,

**Heirs of GREGORIO BAYOC**

*E. Mayantao*  
**EDITHA BAYOC-MAYANTAO**  
Daughter –Heir

*Guillermo*  
**GUILLERMA BAYOC- LUGMAY**  
Daughter –Heir

*E. Hinateo*  
**EDILWINA BAYOC-MATEO**  
Daughter –Heir

*Erma Hinayon*  
**ERMA BAYOC-HINAYON**  
Daughter –Heir

*Danielo*  
**DANILO ANLAGAN-BAYOC**  
Son-Heir

*Lorcita*  
**LORCITA BAYOC-SIGMOCAN**  
Daughter –Heir

**LEONIDA BAYOC QUISQUIS**  
Daughter –Heir



## CONTRACT TO SELL

### KNOW ALL MEN BY THESE PRESENTS:

We, **EDITHA BAYOC-MAYANTAO, LEONIDA BAYOC-QUISQUIS, GUILLERMA BAYOC-LUGMAY, DANILO ANLAGAN BAYOC, EDILWINA BAYOC-MATEO, LORCITA BAYOC-SIGMOCAN, ERMA BAYOC-HINAYON**, all of legal age and heirs of **GREGORIO BAYOC (D)** and all residents of Dahilayn, Manolo Fortich, Bukidnon herein referred to as **SELLER** for and in consideration of the sum of **ONE MILLION NINE HUNDRED FIFTY THOUSAND PESOS ONLY (Php1,950,000.00)** to be paid to me by the **MANOLO FORTICH WATER DISTRICT (MFWD)**, a government agency engaged in water services with address at Tankuian, Manolo Fortich, Bukidnon, herein referred to as **BUYER** hereby convey, sell, transfer by installment a 975.0 sq. m. portion of my property described herein below, to wit:

That the terms of this contract shall be that the **BUYER** and **SELLER** agree to the following:

1. That upon execution of this Contract to Sell, fifty percent (50%) of the total cost will be tendered by the **BUYER** to the seller as partial payment;
2. That the **SELLER** will shoulder all expenses relative to survey of the lot area to be bought by the **BUYER**, and that the area will be properly delineated with land marks (mohon) properly posted;
3. That **SELLER** will provide all essential documents including but not limited to DENR Region Office 10-approved subdivision plan for the titling;
4. The **SELLER** will borne payment of Estate Tax/es and other expenses relative to titling of the said area;
5. That full payment of the property will be tendered by the **BUYER** upon handling of required documents for titling and that **SELLER** will immediately execute **EXTRA JUDICIAL SETTLEMENT OF ESTATE WITH SALE** for this purpose.

In witness whereof, I have hereunto affixed my signature this \_\_\_\_\_ at \_\_\_\_\_.



*E. Mayantao*  
**EDITHA BAYOC-MAYANTAO**

Daughter - Heir

*Guilma*  
**GUILLERMA BAYOC-LUGMAY**

Daughter - Heir

*E. Mateo*  
**EDILWINA BAYOC-MATEO**

Daughter - Heir

**ERMA BAYOC-HINAYON**

Daughter - Heir

*Erma Hinayon*

**LEONIDA BAYOC-QUISQUIS**

Daughter - Heir

*Dani*  
**DANILO ANLAGAN BAYOC**

Son - Heir

*Lorcita*  
**LORCITA BAYOC-SIGMOCAN**

Daughter - Heir

With conformity:

**MANOLO FORTICH WATER DISTRICT**

Buyer

By: *Rogelio K. Pangan*  
**Engr. ROGELIO K. PANGAN**  
General Manager

Witness:

*Dani*  
**DANILO A. BAYOC**

*Carlito Bayoc*  
**Carlito Bayoc**