

MEMORANDUM OF AGREEMENT

KNOW ALL MEN BY THESE PRESENTS:

This **MEMORANDUM OF AGREEMENT** is entered into and executed by and between:

The **DEPARTMENT OF SCIENCE AND TECHNOLOGY-MIMAROPA**, hereinafter referred to as **DOST-MIMAROPA** with principal office at 4/F DOST-PTRI Building, General Santos Avenue, Bicutan, Taguig City and represented in this Agreement by its Regional Director, **DR. MA. JOSEFINA P. ABILAY**;

-and-

The **MINDORO STATE UNIVERSITY**, hereinafter referred to as **MinsU**, with principal address at Brgy. Alcate, Victoria, Oriental Mindoro represented in this Agreement by its President, **DR. LEVY B. ARAGO, JR.**;

WITNESSETH THAT:

WHEREAS, **DOST-MIMAROPA** is primarily tasked to effectively respond to the social, economic, and ecological development challenges of the region through appropriate Science and Technology interventions and quality S & T Services to uplift the socio-economic well-being of the Filipino people and ensure sustainability for future generations by extending innovation system for the implementation of the project of the proponent.

WHEREAS, **DOST-MIMAROPA** has identified the project "**Strengthening Weather Monitoring System Through Hydrologic Response Modeling in Mag-Asawang Tubig Watershed**" as a project under the **DOST-MIMAROPA LOCAL GIA** and has provided funds therefore;

WHEREAS, **DOST-MIMAROPA** has identified **MinsU** as the beneficiary of the project and has sought support and assistance from **DOST-MIMAROPA** to implement the same;

WHEREAS, **DOST-MIMAROPA**, **MinsU** pledge to extend their full cooperation for the effective and efficient implementation of the aforesaid project;

NOW, THEREFORE, for and in consideration of the above premises, and of the mutual covenants and stipulations hereinafter set forth, the parties hereto agree to enter into this Memorandum of Agreement under the following terms and conditions:

1. DOST MIMAROPA shall:

- 1.1 Provide funds amounting to **TWO MILLION FIVE HUNDRED EIGHTY-SEVEN THOUSAND EIGHT HUNDRED PESOS (PhP 2,587,800.00)**, for the implementation of the project as described in the Line-Item Budget of the proposal marked as **Annex A** which is made an integral part of this Agreement;
- 1.2 Implement the above project in accordance with the attached Workplan in the proposal marked as **Annex B** and which is also attached and made an Integral part of this Agreement;

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MA. JOSEFINA P. ABILAY
DR. LEVY B. ARAGO, JR.
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MinsU
JHR

1.3 Facilitate the pull out of all materials, tools and /equipment procured out of project funds in the event that Minsu fails to implement the project as stipulated in the project proposal made as Annex C hereof;

1.4 Monitor, evaluate and document project activities and identify alternative courses of action to address technical problems met, if any, during the implementation of the project.

2. Minsu shall:

2.1 Ensure that technologies received from DOST-MIMAROPA are used according to the provisions stipulated in this agreement unless otherwise revoked with acknowledgement from all parties involved;

2.2 Implement project in accordance with the methodology stated in the proposal and seek permission/clearance from DOST-MIMAROPA regarding any major decision or action in the implementation of the project;

2.2.1 Develop an automated Arduino-based synoptic weather station equipped with microprocessors and wireless fidelity data-transmitting device;

2.2.2 Deploy and evaluate the performance of the developed Arduino-based synoptic weather station in accordance with the required statistical weather parameters (rainfall, relative humidity, air temperature, solar radiation, wind speed, wind direction, soil moisture content, soil temperature, pressure and stream flow);

2.2.3 Assess and analyze microclimate data transmitted by the deployed synoptic weather station;

2.2.4 Evaluate the suitability of SWAT model in Mag-asawang Tubig watershed using remotely sensed climatic data;

2.2.5 Simulate the hydrologic responses to land use and land cover change of Mag-asawang Tubig watershed; and

2.2.6 Calibrate and validate the model at the streamflow monitoring point of the watershed using SUFI-2 algorithm in SWAT-CUP.

2.3 Allow DOST-MIMAROPA Representatives access to the premises and facilities of the identified cooperators of Minsu for activities relevant to the implementation of the project;

2.4 Provide counterparts necessary for the effective implementation of this project as specified in the project proposal and attached LIB;

2.5 Submit the following progress reports:

2.5.1 Monthly report on the volume of production, employment, sales, and productivity improvement not later than one (1) week after the end of each month;

2.5.2 Semi-annual progress reports marked as Annex D hereof not later than 15 days after the end of the semester;

2.5.3 Annual progress report marked as Annex E hereof together with the List of Equipment Purchased marked as Annex F hereof not later than 30 days after the end of the year;

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- 2.6 Submit the completion report two months after the project duration or after the achievement of the objectives as stated in the proposal;
- 2.7 Allow **DOST-MIMAROPA** to monitor and collect necessary data/information when required;
- 2.8 Allow **DOST-MIMAROPA** to place inventory tag stickers on the individual equipment acquired out of project funds;
- 2.9 Be responsible and accountable for the maintenance and safekeeping of the tools and equipment assigned to the cooperators. Ownership of the equipment shall remain with **DOST-MIMAROPA** until after full ownership shall have been requested and transferred;
- 2.10 Authorize/allow **DOST-MIMAROPA** to pull-out all the materials, tools and equipment and other assets procured out of projects funds in case of failure of project implementation or for any violation of the contract or agreement that may be entered into by **DOST-MIMAROPA** with the beneficiary;
- 2.11 Liquidate the funds received and submit an Audited Financial Report, including official receipts of expenditures and Property Acknowledgement Receipt (PAR) to **DOST-MIMAROPA** not later than six (6) months after the release of funds; submit at least three (3) quotations for each item in the LIB to ensure that actions taken are most advantageous to the government;
- 2.12 Put up at the project site a signboard (4 ft x 6 ft), two weeks after receipt of project funds following the recommended billboard format (Annex D);
- 2.13 Assist **DOST-MIMAROPA** in baseline data gathering for the project and in final data gathering for assessment of project outcomes and impacts.

3. OTHER CONDITIONS

- 3.1 That this Agreement shall take effect upon signing hereof and shall remain in force for a period of one (1) year, unless otherwise extended or sooner terminated upon mutual consultation and written agreement of both parties;
- 3.2 That this Agreement shall not prohibit both parties to publish technical papers that may be derived from the above activities given their mandate of developing and promoting science and technology;
- 3.3 That any changes, modifications, and alterations on the foregoing provisions of this agreement shall only be made upon mutual consultation and agreement of all parties concerned.

4. PUBLICATION

Any publication arising from this contract and other related activities undertaken shall identify **DOST-MIMAROPA** as the source of assistance.

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5. EFFECTIVITY:

This Memorandum of Agreement shall take effect immediately upon signing of the parties hereto and shall remain in the force for the duration of the project unless sooner terminated by **DOST-MIMAROPA** for any, but not limited to the following:

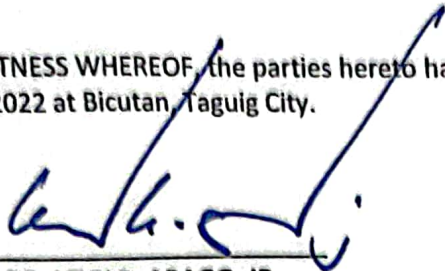
- Failure of **MinSU** to submit the required financial and progress reports within the prescribed period; and
- Any violation of the condition that, as determined by **DOST-MIMAROPA**, will prejudice the successful completion of the project.

6. PROGRAM DURATION

The project shall be completed within a period of **One (1) Year**, from **October 2022 to September 2023**. The project shall be implemented during the said period or immediately after the release of funds.

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IN WITNESS WHEREOF, the parties hereto have signed this Memorandum of Agreement this ____ day of ____, 2022 at Bicutan, Taguig City.



DR. LEVY B. ARAGO, JR.
President
Mindoro State University

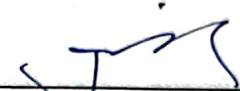


DR. MA. JOSEFINA P. ABILAY
Regional Director
DOST-MIMAROPA

SIGNED IN THE PRESENCE OF:




DR. CHRISTIAN ANTHONY C. AGUTAYA
Vice President for RD
Mindoro State University



JESSE M. PINE
Provincial S&T Director
DOST-Oriental Mindoro

CERTIFIED FUNDS AVAILABLE:



JEFFREY D. VARELA
DOST-MIMAROPA Accountant

ACKNOWLEDGEMENT
REPUBLIC OF THE PHILIPPINES)
TAGUIG CITY) S.S

IN WITNESS WHEREOF, the parties hereto have signed this Memorandum of Agreement this ____ day of ____, 2022 at Bicutan, Taguig City.

Before me, a Notary Public for and in the **TAGUIG CITY** this **28 SEP 2022** day of ____ 2022, personally appeared

NAME
DR. MA. JOSEFINA P. ABILAY

RES. CERT. NO
PO255592B

Place/Date Issued
01/15/2019-DFA Manila

DR. LEVY B. ARAGO, JR.

05104045

01/03/2022/Victoria, Or. Mdo.

All known to me be the same person who executed the foregoing instrument and they acknowledged to me that the same is their free and voluntary act and deed as well as the voluntary act of the institution agencies they represent.

This instrument consists of six (6) pages including this page wherein the acknowledgement is written, duly signed by the parties and their witnesses on each and every page hereof.

WITNESS MY HAND AND SEAL, on the date and the place first above written.

NOTARY PUBLIC
DOC No.: 10
Page No.: 3
Book No.: XIV
Series of 2022

RACHEL GIMMYA W. COPANUT-PANGWI
NOTARY PUBLIC UNTIL Dec. 31, 2023/TAGUIG CITY
Not. Con: Appl. No. 18 (2022-2023)
2/F, Pacura Bldg. 427 M.L. Q. St., Lower Bicutan, Taguig City
PTR No. A-5334323/1-4-2022, Taguig City
IBF O.R. No. 165796/10-14-2021, RSM
MCLE Comp. No. VII-0007104/11-22-2021
ROLL No. 61627

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DOST Form A

DEPARTMENT OF SCIENCE AND TECHNOLOGY
Project Line Item Budget
CY 2022

Project Title: Strengthening Weather Monitoring System Through Hydrologic Response Modeling In Mag-Asawang Tubig Watershed

Project Duration: One (1) Year

Project Duration: October 2022 - September 2023

Implementing Agency: MinSU- Main Campus

Project Leader: Engr. Christian B. Hernandez / Instructor 1

Monitoring Agency: DOST-MIMAROPA

	COUNTERPART FUNDING			GRAND TOTAL
	MinSU (Oct.-Dec.)	MinSU (Jan.-September.)	DOST-MiMaRoPa	
I. Personal Services				
A. Direct Cost				
Salaries				
Three (3) Instructor I @ PhP 29,608.00/mo	266,472.00	799,416.00		
Honoraria				
1 Project Leader (PhP8,800 x 12 mo.)			105,600.00	105,600.00
2 Project Staff Level 2 (PhP6,600 x 12 mo.)			144,000.00	144,000.00
Sub-total for PS	P 266,472.00	P 799,416.00	P 249,600.00	P 1,315,488.00
II. Maintenance and Operating Expenses				
A. Direct Cost				
Travelling expenses				
Local	30,000.00		142,141.00	172,141.00
Supplies and Materials				
Office supplies	12,500.00		12,500.00	25,000.00
Semi-Expendable-Machinery Expenses				
1 Printer (L3110 Eco-Tank 3-in-1)			12,500.00	12,500.00
Fuel, Oil and Lubricants Expenses	15,000.00		50,069.42	65,069.42
Communication (Internet, Postage, Telephone)				
Postage and Courier Expenses			6,000.00	6,000.00
Telephone Expenses - Mobile			20,650.00	20,650.00
1 Year Load Subscription 3mbps @ PhP 2,000.00 per mo			24,000.00	24,000.00
Internet Subscription Expenses			47,282.00	47,282.00
Dedicated Server 1 year Subscription + Domain Name (www.sample.com) @			104,349.96	104,349.96
Utility Expenses				
Water Expenses				
Electricity Expenses				
Training and Scholarship Expenses (Please Indicate)				
Printing and Binding Expenses			5,000.00	5,000.00
Rent Expenses (van and boat rental)			25,000.00	25,000.00
Presentation Expenses (e.g. food for meetings, etc.)	20,000.00		15,000.00	35,000.00
Professional Services				
Two (2) Science Research Assistant SG 11 (PhP 23,877 x 3mo.)	143,262.00			143,262.00
One (1) Computer Programmer (Software) SG 11 (PhP 23,877 x 3mo.)	71,631.00			71,631.00
One (1) Utility Foreman (Hardware) SG 7 (PhP 17,899 x 3mo.)	53,697.00			53,697.00
Sub-total for MOOE	P 346,090.00	P	P 464,492.38	810,582.38
III. Equipment Outlay				
2 High-end Laptop				
50YE i5 8gb 512 SSD RTX 3050			120,000.00	120,000.00
15.6" FHD IPS 144H				
2 sets Arduino-based synoptic weather station			1,453,707.62	1,453,707.62
2 sets Perimeter Fence and Tower			250,000.00	250,000.00
1 set Perimeter Fence and Pole at Bridge Outlet			50,000.00	50,000.00
Sub-total for Equipment Outlay	P	P	P 1,873,707.62	1,873,707.62
GRAND TOTAL	P 612,562.00	P 799,416.00	P 2,587,800.00	3,999,778.00

Prepared by:

ENGR. CHRISTIAN B. HERNANDEZ
Instructor I, MinSU

Noted by:

DR. LEVY B. ARAGO, JR.
President, MinSU

Endorsed By:

JESSE M. PINE
Provincial S&T Director, DOST-Oriental Mindoro

Certified Funds Available

JEFFREY D. VARELA
Chief Administrative Officer, DOST-MIMAROPA

MARIA CRISTINA D. SISCAR, C.P.A.
Accountant III, MinSU

CLARISE IRIGORIN, LOPE
ACCOUNTANT I

Approved by:

DR. MA. JOSEFINA P. ABILAY
Regional Director, DOST-MIMAROPA

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**DOST Form B
PROJECT WORKPLAN**

(1) Program Title: Local GIA

(2) Project Title: STRENGTHENING WEATHER MONITORING SYSTEM THROUGH HYDROLOGIC RESPONSE MODELING IN MAG-ASAWANG TUBIG WATERSHED

(3) Total Duration (in months): 12 months

(4) Planned Start Date: October 2022

(5) Planned End Date: September 2023

(6) OBJECTIVES	(7) TARGET ACTIVITIES	(8) TARGET ACCOMPLISHMENTS (quantify, if possible)	Y1				Y2				Y3			
			Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4	Q 1	Q 2	Q 3	Q 4
Develop an automated Arduino-based synoptic weather station equipped with microprocessors and wireless fidelity data-transmitting device.	1. Coordination/Linkages 2. Project proposal preparation 3. Proposal revision and compliance of documents requirements 4. MOA signing and approval 5. Procurement of hardware components and other materials	Project proposal presented to RTEC, DOST-MIMAROPA and MinSU and revised accordingly. MOA signed based on the completion of documentary requirements Procurement of hardware components and other materials												
	6. Coordination with LGUs and respective barangays Training on operation, maintenance and troubleshooting of developed device 7. Site validation and assessment 7. Installment of perimeter fence Deployment of device in identified and validated sites	Coordinated with respective LGUs and barangays Capacitated DRRM and LGU staff Identified sites for deployment of device Installed parameter fence for the device Deployed device in identified sites												
Assess and analyze microclimate data transmitted by the deployed synoptic weather station.														

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