

Republic of the Philippines Department of Environment and Natural Resources PENRO Marinduque

2 Aug 2022

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MEMORANDUM

FOR

The Regional Executive Director

DENR MIMAROPA Region

THRU

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The Assistant Regional Director for Technical Services

FROM

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The OIC-PENR Officer

SUBJECT

SUBMISSION OF REPORT ON SURVEY, MAPPING AND PLANNING (SMP) CONDUCTED UNDER ENHANCED NATIONAL GREENING PROGRAM FOR CY 2022 WITHIN THE JURISDICTION OF PENRO

MARINDUQUE

DATE

:

Respectfully, submitted is the report on the survey, mapping and planning conducted under Enhanced NGP for CY 2022 within the jurisdiction of PENRO Marinduque.

For information and further instruction.

IMELDA M.DIAZ

MEMORANDUM

FOR : The OIC- PENR Officer

THRU : The Chief, Technical Services Division

FROM : The PENRO – CDS/NGP Unit

SUBJECT : SUBMISSION OF REPORT ON SURVEY, MAPPING AND

PLANNING (SMP) CONDUCTED UNDER ENHANCED NATIONAL GREENING PROGRAM FOR CY 2022 WITHIN THE JURISDICTION OF PENRO MARINDUQUE

DATE : JUNE 25, 2022

In compliance with the target activities under Enhanced NGP for CY 2022, respectfully submitting is the result of conducted Surveying, Mapping and Planning (SMP) for the identified potential area of comprehensive site development in CY 2023 implementation, to wit:

I.ACTIVITIES UNDERTAKEN

A. Conduct of Consultation and Information Education, Communication (IEC) Campaign

Last November 25- 26, 2021, NGP Staff conducted the IEC and Focus Group Discussion (FGD) in Brgy. Talawan, Brgy. Malibago, Torrijos and Brgy. Sabong, Boac, Marinduque regarding NGP Project targeted for CY 2022 and CY 2023. Discussion during the meeting focused on Technical Bulletin No. 1A, 1B and 30 (Family Approach). Important information regarding the implementation of e-NGP project and the detailed role of the LGUs/community member was emphasized to the Sangguniang Barangay Officials and selected community members present. As agreed, SMP is set in the first quarter and presentation of the result for planning in a community meeting. Also, the concerned LGU to join the survey/assess the identified area together with the NGP/Survey Team.

On March 15, 2022, another meeting was held to discuss the result of the SMP likewise presented all the GIS maps generated from the surveyed area. All the identified areas are potential for Agroforestry Plantation.

Barangay Sabong, Boac was excluded from the list and replaced by Brgy. Sibuyao since it is the area adjoining the Brgy. Talawan, Torrijos and not the former as identified in the initial SMP in 2019, conducted by the NGP Regional Office.

B. Conduct of Soil Sampling and Soil Analysis

ERDB Technical Bulletin No. 2018-01 was used for gathering soil sampling and conduct of soil analysis. This technical bulletin provides the proper way of collecting soil samples, the methods used in the analysis of soil and how to interpret the results of the analysis.

Three (3) barangays were subjected for soil sampling and soil analysis- Brgy. Malibago, Sibuyao and Talawan, Torrijos.

Soil Sample Collection

The soil sample collection was done in January 2022 by the NGP Staff, respective LGU's and hired laborer in the three (3) Barangays - Brgy. Malibago, Brgy. Talawan and Brgy. Sibuyao, Torrijos. Soil sampling is determined in the three (3) sampling points per area located in the higher, middle and lower elevation. There are three (3) sampling points identified in each area assessed. Other factors considered were topography, existing vegetation, drainage and soil texture. Also, the GPS reading of each sampling points were taken. The collected soil samples were properly labeled for soil analysis.

Table 1. Location of the area surveyed/assessed.

table 1. Location of the area surveyed/assessed.							
	Brgy. Malibago, Torrijos						
Upper	13°17'40"N, 121°59'37"E						
Middle	13°17'40'N, 121°59'44"E						
Lower	13°17'26"N, 122°0'1"E						
	Brgy. Sibuyao, Torrijos						
Upper	13°19'34"N, 121°0'23"E						
Middle	13°19'19'N, 121°0'40"E						
Lower	13°19'26"N, 122°0'34"E						
	Brgy. Talawan, Torrijos						
Upper	13°19'18"N, 122°0'32"E						
Middle	13°19'21'N, 122°0'12"E						
Lower	13°19'11"N, 122°0'20"E						



Soil sample collection conducted in Barangay Malibago, Torrijos Marinduque.



Soil sample collection conducted in Barangay Sibuyao, Torrijos Marinduque



Soil sample collection conducted in Barangay Talawan, Torrijos Marinduque.

O Soil Analysis

The collected soil samples in every barangay were spread on a labeled paper. It was air dried at room temperature and crashed the clods occasionally. This is done before the soil samples were analyzed for various parameters such as soil pH, Nitrogen, Phosphorus, and Potassium using Soil Test Kit (STK). The activity was completed in February 2022.

Data Analysis and Interpretation

Soil Physical Properties

The result of soil analysis for the potential area identified for enhanced NGP revealed that the three (3) Barangays have almost the same soil physical properties.

Table 2. Data interpretation for Soil Physical Properties

	Malibago	Talawan	Sibuyao
Soil texture	Clay loam	Clay loam	Clay loam
Soil Drainage	Medium water transportability	Medium water transportability	Medium water transportability
Topography	Flat, Sloping or hilly	Flat	Sloping or hilly
Existing vegetation	Grassland, shrubs coconut plantation, forestland/timberland	Grassland, shrubs coconut plantation, forestland/timberland	Grassland, shrubs coconut plantation, forestland/timberland

Soil Chemical Properties

The result of the soil chemical properties showed that Brgy. Malibago has high nitrogen level, Brgy. Talawan has medium nitrogen level and Brgy. Sibuyao has a low nitrogen (N) level. Nitrogen is a major element needed for plant growth. The lack of nitrogen in plants may result to stunted growth, yellowing of leaves, produced smaller flowers/fruits and sometimes die at early stage. There are some factors that may affect the nitrogen level in the soil, for example is leaching due to heavy rainfall.

On the other hand, the soil phosphorus (P) content in Brgy Talawan and Brgy. Sibuyao is low while in Brgy. Malibago, it has medium level. This may be affected by the soil pH, amount of organic matter and proper placement of phosphorus fertilizer. If soil is too acidic, phosphorus reacts with iron and aluminum that makes it unavailable to the plants. But if soils are too alkaline, phosphorus reacts with calcium and also becomes inaccessible.

Another soil chemical property analyzed using the soil test kit is the level of potassium (K). For the three (3) barangays, the presence of potassium is sufficient. A good indicator that the movement of water, nutrients and carbohydrates in plants happens substantial for the growth and development.

Soil pH is a measure of the acidity or alkalinity of a soil. The three (3) barangays have slightly acidic soil pH. Forest trees prefer slightly acidic to neutral soils.

With these test, we can determine the species appropriate to the area as well as the interventions on how to improve the soil condition of the targeted e-NGP sites.

Table 3. Data for Soil Chemical Properties

	Brgy.Malibago	Brgy.Talawan	Brgy. Sibuyao
Soil N	High	Medium	Low
Soil P	Low	Low	Low
Soil K	Sufficient	Sufficient	Sufficient
Soil pH	Slightly acidic	Slightly acidic	Slightly acidic

C. Survey, Assessment and Preparation of GIS-generated map of all planting sites programmed to be established for succeeding year of implementation.

All identified planting sites had been subjected to perimeter survey by NGP staff together with the representatives from each barangays. GIS- generated map in shape file format was also completed by GIS mapper- Forest Technician II Carlo M. Watiwat (please see annex 1).

A total of 151.6531 hectares is identified as potential area for reforestation in CY 2023, located in the Municipality of Torrijos particularly in Brgy. Malibago with 44.1480 hectares, Brgy. Talawan with 63.4906 hectares, and Brgy. Sibuyao with 44.0145 hectares. All areas are suited for Agroforestry Plantation. The total area to be developed for the protection forest is 87 hectares and 62 - hectares for the production forest. Narra, Batino, Wisak, Bacan and Molave are some of the identified indigenous forest tree species to be planted in the protection zone while Jackfruit, Cacao, Avocado, Calamansi and Rambutan are other fruit trees identified for the production zone.

Table 4. Identified potential area for reforestation in CY 2023

LOCATION	AREA (Has.)				
Malibago, Torrijos	44.1480				
Talawan, Torrijos	63.4906				
Sibuyao, Torrijos	44.0145	***************************************			
TOTAL	151.6531				

Vegetation

The vegetation found in the area are grasses, shrubs, perennial and annual crops. Ipil-ipil, Narra and Gmelina trees were noticed in Brgy. Sibuyao and Brgy. Talawan. The type of forest found in the area is Dipterocarp forest. It is usually dominated with premium species like White Lauan, Red Lauan, Narra, Wisak, and Batino.

Topography

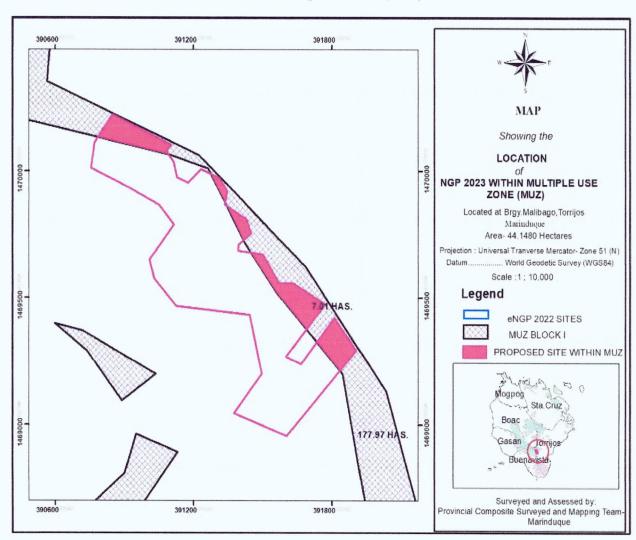
The highest elevation in the identified/targeted areas ranged from 450 -550 meters while the lowest elevation is 150-250 meters. The large portion of the area has an elevation of 250-350 meters above sea level (masl).

Table 5. Elevation Category of the 151,6531 hectares

Table 5. Elevati	table 3. Elevation Category of the 131,0531 nectates									
		Elevation Category								
Barangay	150-250 m	250-350 m	350-450 m	450-550 m						
Malibago	0.428 has	26.0716 has	17.6396 has	0.0087 has						
Talawan	0.428 has	26.0716 has	17.6396 has	0.0087 has						
Sibuyao	7.6303 has	39.6024 has	16.2579 has	none						

Only the identified area in Barangay Malibago falls within the Protected Area - Multiple Use Zone (MUZ).

Figure 1. Map showing the area located within Multiple Use Zone (MUZ)



Forest Occupants in the proposed e-NGP Area

There are twenty (20) tenured migrants occupying an area of 75.42 hectares in the identified potential e-NGP for site development. At present, the status of the tenurial instrument of the holders have already expired.

Table 6. No. of Tenured Migrants in the Proposed Area

Barangay	No. of claimants	Total Area Occupied (Has)	Total Area (Has.)
Malibago	10	5.87	44.1480
Talawan	4	35.9	63.4906
Sibuyao	6	33.6	44.0145
Total	20	75.37	151.6531

D. Planning

The target planting and budget requirement necessary for the different activities to be undertaken from year 1 to year 3 is indicated below, to wit:

Table 7. WFP for Comprehensive Site Development of 150 hectares Agroforestry Project

Activities	Target	Total	Breakdown of Physical Target CY 2023					
Activities	/Quantity	Budget	Q1 Q2		Q3	Q4	Total	
1. Seedling Production	85,375	1,737,500.00		85,375			85,375	
Indigenous Trees	54,375	652,500.00		54,375			54,375	
Other Fruit Trees	31,000	1,085,000.00		31,000			31,000	
2. Site Preparation and								
planting, including construction of firelines	149 ha	968,500.00			149 ha		149 ha	
Indigenous Trees Other Fruit Trees	87 62	565,500.00 403,000.00			87 62		87 62	
3. First Year Maintenance & Protection	149 ha	298,000.00				149 ha	149 ha	
Total		3,004,000.00						

Table 8. WFP for Year 2 M&P of 149 hectares Agroforestry Project

Activities	Target /Quantity	Total Budget	Breakdown of Physical Target CY 2022				
	Quantity	Duugei	Q1	Q2	Q3	Q4	Total
1. Maintenance & Protection Activities							
Ring Weeding & Re-staking painted Replanting including seedling production	59,762	358,572.00		17,928	29,881	11,953	59,762
Indigenous Trees Other Fruit Trees	16,312 9,300	163,120.00 93,000.00		4,893 2,790	8,156 4,650	3,263 1,860	16,312 9,300
Patrol Works & Inventory	149 ha	130,308.00	149	149	149	149	149
Total		745,000.00					

Table 10. WFP for Year 3 M&P of 149 hectares Agroforestry Project

Activities	Target /Quantity	Total Budget	Breakdown of Physical Target CY 2022					
	Quantity	Duuget	Q1	Q2	Q3	Q4	Total	
1. Maintenance & Protection Activities								
Ring Weeding & Re-staking painted Replanting including seedling production	59,762	358,572.00		17,928	29,881	11,953	59,762	
Indigenous Trees Other Fruit Trees	16,312 9,300	163,120.00 93,000.00		4,893	8,156	3,263	16,312	
Patrol Works & Inventory	149 ha	130,308.00	149	2,790 149	4,650 149	1,860	9,300	
Total		745,000.00						

The involvement and participation of the LGUs concerned, community members, and among other stakeholders will be encouraged in the implementation of the project. And such activities of meetings, forum and/or workshops, ocular visitation of the area will be done to regularly monitor the project implementation. Technical assistance from the NGP Staff will be provided from the start of the project until its end.

E. **Appendices**

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- ➢ GIS- maps
- > Tabulated Information

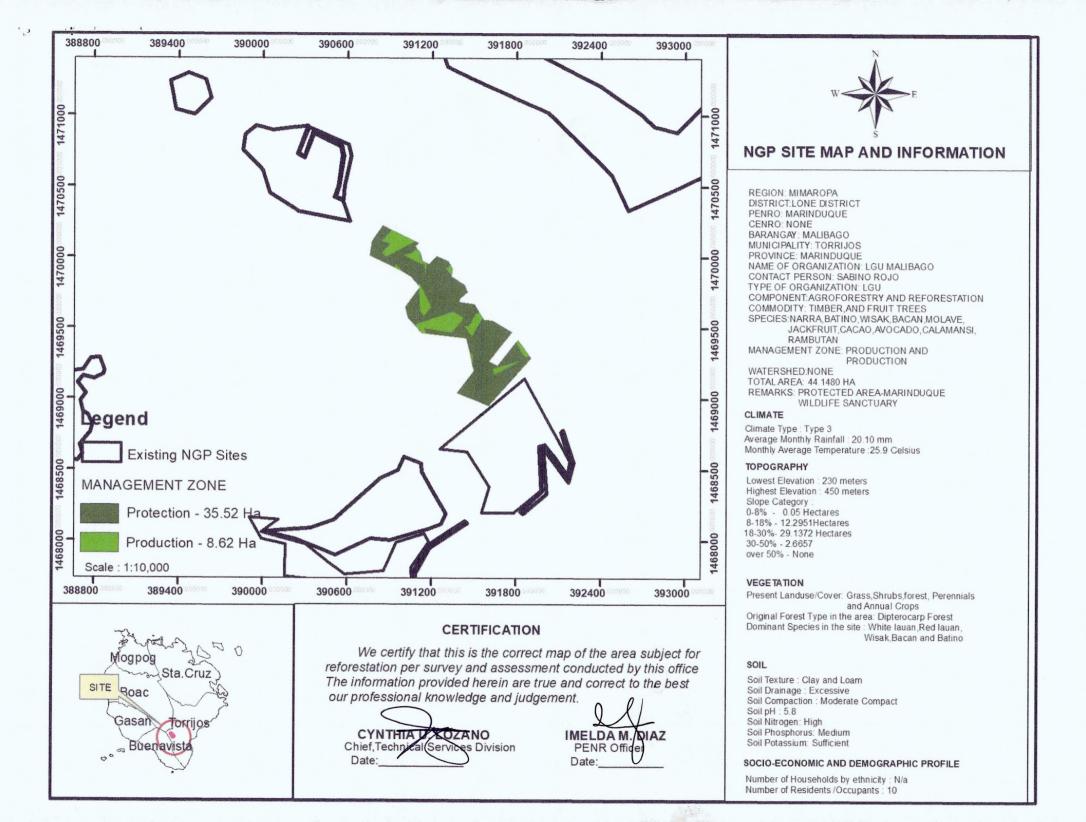
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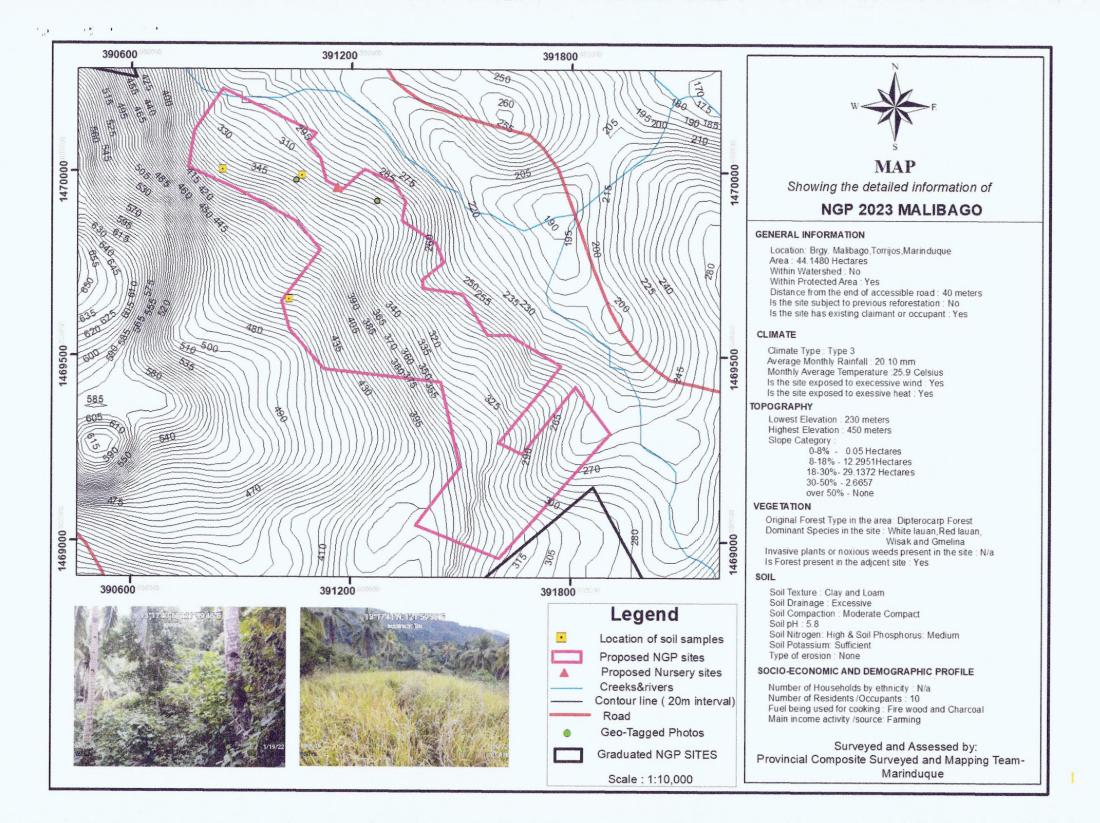
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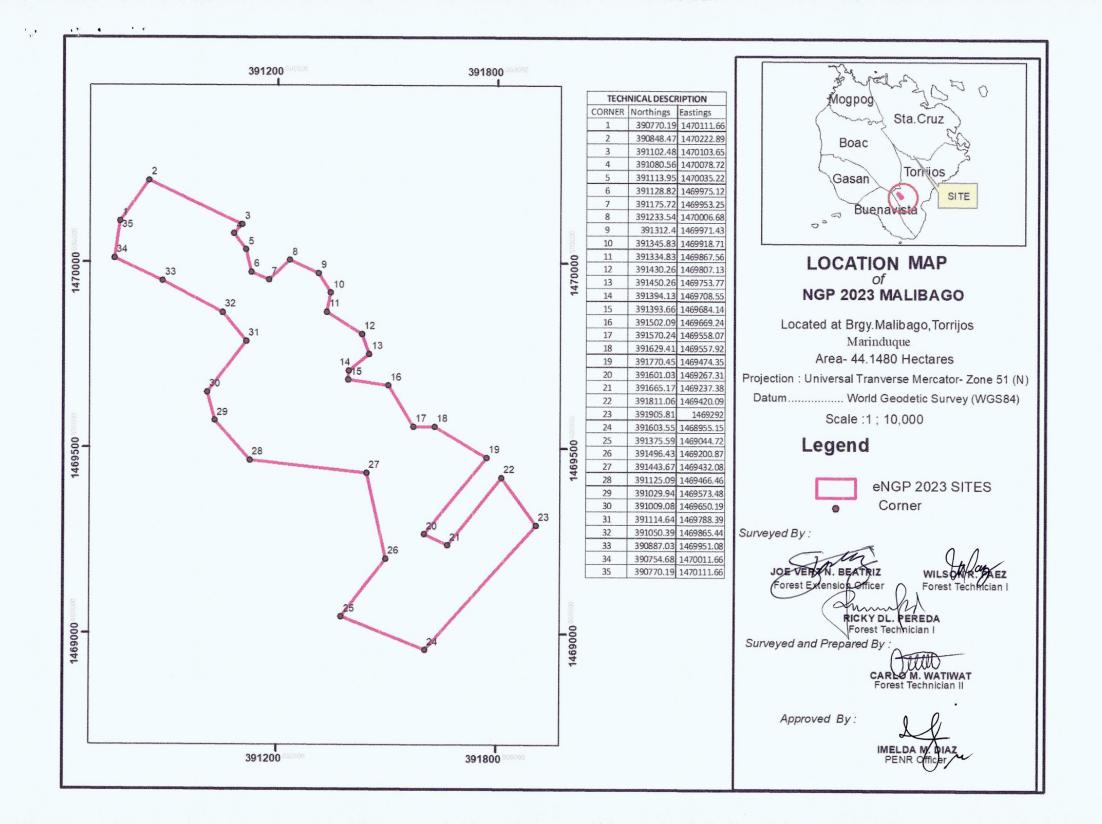
MARIA ELENA MERARA For. I/NGP Coordinator

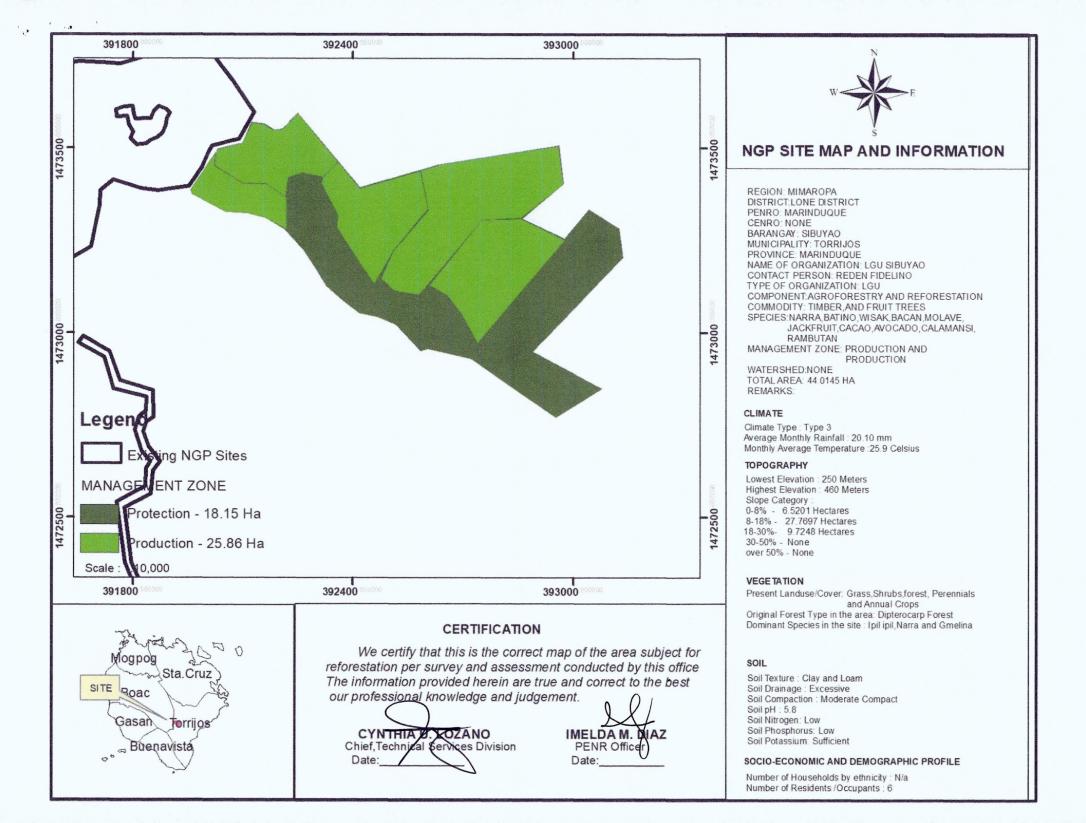
SMP of the Identified Potential Areas for Enhanced NGP CY 2023

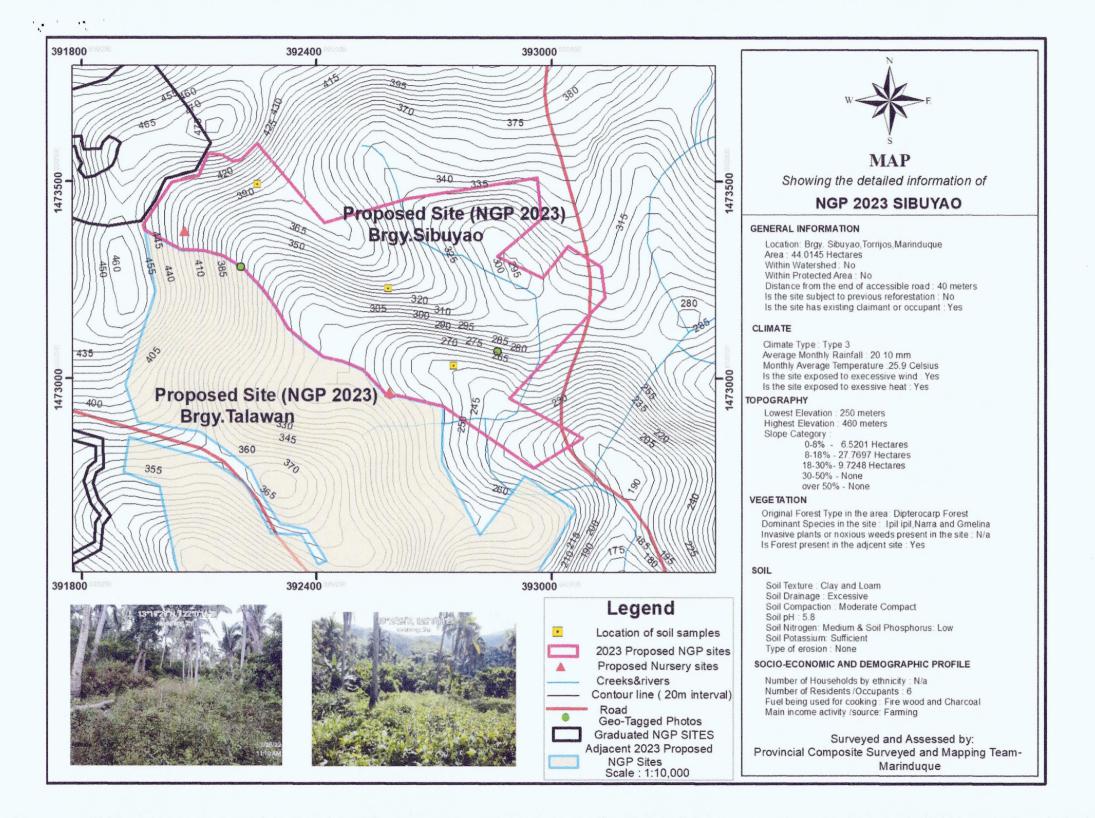
	Total Area	Total Area Based on SMP (ha) conducted		Seedling Di	stribution	Total	No. of	Total Area	Identified Species to be	Proposed Year
Location	for Reforestation (ha)	Protection Forest	Production Forest	Indigenous Forest Trees	Other Fruit Trees	Total Seedlings	1	Occupied (ha)	Identified Species to be Planted	of Plantation Development
Brgy. Malibago, Torrijos	44.1	36	8	22,500	4,000	26,500	10	5.87	Bacan/Batino/ Molave/Wisak/ Avocado/Cacao/ Calamansi/ Langka/ Rambutan	CY 2023
Brgy. Sibuyao, Torrijos	44	18	26	11,250	13,000	24,250	6	36.6	Narra/Molave/ Cacao/Calamansi/ Coffee/Guyabano/ Langka/	CY 2023
Brgy. Talawan, Torrijos	63.5	33	30	20,625	15,000	35,625	4	35.9	Bacan/Batino/ Molave/Wisak/A vocado/Cacao/ Calamansi/ Langka/ Rambutan	CY 2023
Total	151.6	87	64	54,375	32,000	86,375	20	78.37		

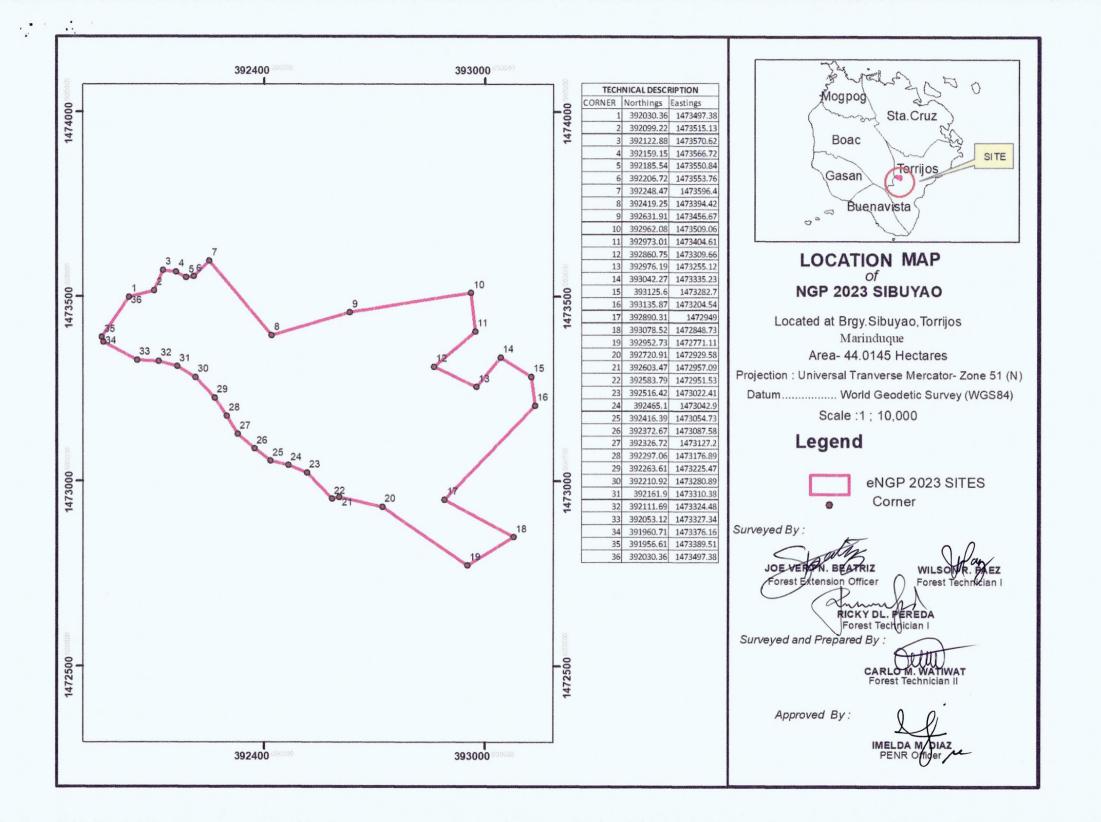


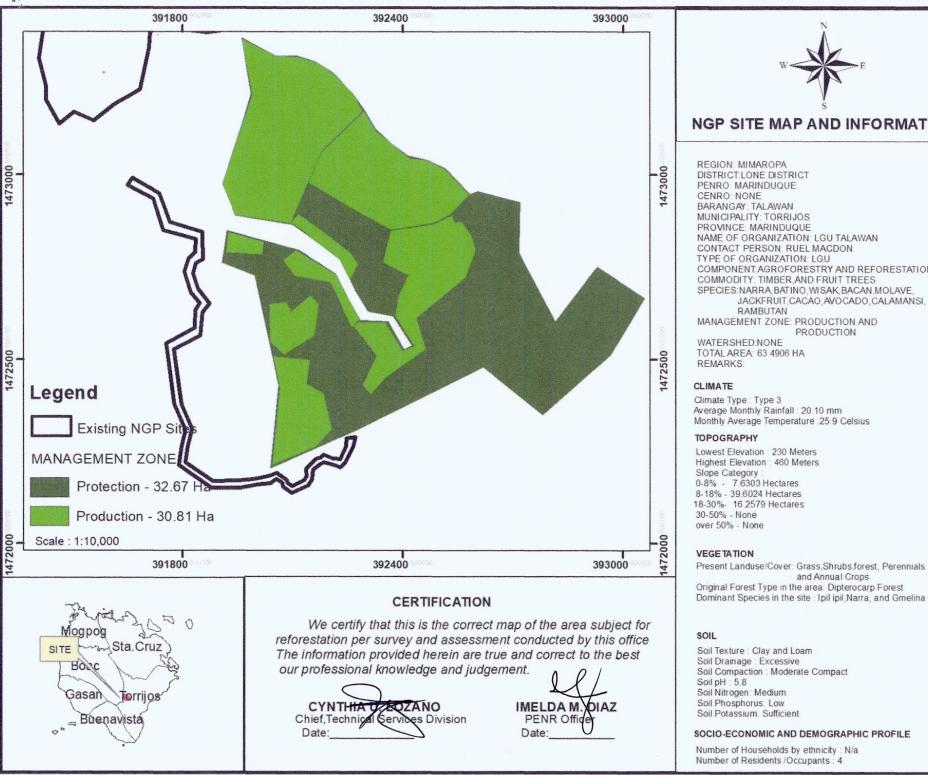












NGP SITE MAP AND INFORMATION

COMPONENT: AGROFORESTRY AND REFORESTATION SPECIES: NARRA, BATINO, WISAK, BACAN, MOLAVE, JACKFRUIT, CACAO, AVOCADO, CALAMANSI,

Original Forest Type in the area: Dipterocarp Forest Dominant Species in the site : Ipil ipil, Narra, and Gmelina

