



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
PROVINCIAL ENVIRONMENT AND NATURAL RESOURCES OFFICE

SEP 23 2022

MEMORANDUM

FOR : The Regional Executive Director
DENR MIMAROPA Region
1515 L&S Bldg, Roxas, Blvd.,
Ermita, Manila

THRU : The ARD for Technical Services

FROM : The OIC, PENR Officer

SUBJECT : **CANSUBONG CAVE ASSESSMENT REPORT**



Forwarded is the memorandum dated September 14, 2022 of CENRO San Jose, Occidental Mindoro regarding report on the assessment of Cansubong Cave (under the Management of Cave and Cave Resources particularly Cave Assessment and Classification-Cave Assessment with MFO Code 310201100001000 located in Sitio Cansubong, Brgy. Labangan Ilin, Ilin Island, San Jose, Occidental Mindoro.

Based on the assessment report, the activity was conducted on July 6-7, 2022 and it was recommended that the said cave be classified as Class II based on DMC No. 2018-09 dated August 16, 2018.

Attached are the Cansubong Cave Assessment form and maps together with the photo documentation during the conduct of the above-mentioned activity.

For information and record.


ERNESTO E. TAÑADA

TSD-CSD9/22/2022

Copy furnished:

1. Planning Section
2. File

So. Pag-asa, Brgy. Payompon, Mamburao, Occidental Mindoro
Email: penroccemin@denr.gov.ph



Republic of the Philippines
Department of Environment and Natural Resources
MIMAROPA Region
Community Environment and Natural Resources Office

SEP 14 2022

MEMORANDUM

FOR : The Regional Executive Director
DENR - MIMAROPA Region
Roxas Blvd., Ermita, Manila

THRU : The OIC, PENR Officer
Mamburao, Occidental Mindoro

FROM : The CENR Officer

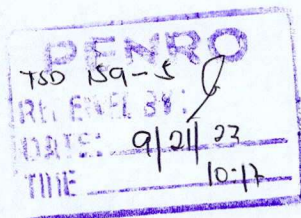
SUBJECT : CANSUBONG CAVE ASSESSMENT REPORT

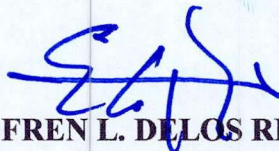
Respectfully submitted is the report on the assessment of Cansubong Cave (under the Management of Caves and Cave Resources particularly Cave Assessment and Classification – Cave Assessment with MFO Code 310201100001000) located in Sitio Cansubong, Brgy. Labangan Ilin, Ilin Island, San Jose, Occidental Mindoro.

Based on the result of the assessment conducted by CENRO San Jose Cave Assessment Team together with LGU representatives on July 6 - 7, 2022, the undersigned concurred the recommendation that the said cave be classified as Class II based on DMC No. 2018-09 dated August 16, 2018.

Also attached are the Cansubong Cave Assessment form and maps together with the photo documentation during the conduct of the above-mentioned activity.

For your information and record.




EFREN L. DELOS REYES



NARRATIVE REPORT ON
CANSUBONG CAVE ASSESSMENT
BRGY. LABANGAN ILIN, SAN JOSE, OCCIDENTAL MINDORO
JULY 6 – 7, 2022

I. INTRODUCTION

Caves are any naturally occurring void, cavity, recess or system of interconnected passages beneath the surface of the earth or within a cliff or ledge and which is large enough to permit an individual to enter, whether or not the entrance, located either in private or public land, is naturally formed or man-made.

Caves are important natural resources because of their unique beauty, their history, and their role in a healthy environment. They play key roles in groundwater movement, serve as habitat for threatened and endangered animal species. They provide outstanding opportunities for studying and gaining a better understanding of our history through bones of prehistoric animals, the artifacts left by our ancestors as well as the geology of our country, and the relationships between the environment we see at the surface and the one that is hidden underground.

Caves can be classified as Class I, Class II or Class III based on DMC No. 2018-09 dated August 16, 2018. The DENR issues an annual list of Classified Caves through a DENR Memorandum Circular. To date, there were 616 classified caves listed in the DMC Nos. 2012-03, 2014-03, 2016-05, and 2018-09, respectively.

II. OBJECTIVES

The assessment of Cansubong Cave was guided by the following objectives, to wit:

1. To identify the extent and measurement of Cansubong Cave;
2. To assess the biodiversity, geologic formations, threats and hazards present inside and outside the cave; and
3. To provide technical recommendations on the classification, management, protection, and conservation of Cansubong Cave.

III. AREA / DURATION OF ASSESSMENT AND TEAM COMPOSITION

The assessment was undertaken in Cansubong Cave located in Brgy. Labangan, Ilin, San Jose, Occidental Mindoro with geographical coordinates of UTM 51 P 287108 1359097.

The Cave assessment was conducted on July 6-7, 2022 by the San Jose Cave Assessment team composed of the selected technical staffs of CENRO San Jose and representatives from LGU- San Jose namely: MENRO and MTCDO. Before proceeding to the cave, the team had a courtesy call to the BLGU of Labangan Ilin and discussed the purpose of the cave assessment team during the 2-day field work. The team was assisted by the designated Barangay Officials and stakeholders.

IV. METHODOLOGY

a. Cave Assessment

The San Jose Cave Assessment Team (CAT) used the techniques of the British Caving Research Association (BCRA) on survey center gradings and cave survey details. The Survey and Mapping team designated a Tape Man, Reader, and Recorder/ Mapper. The said team was then followed by the Biology and Geology Team that records all observed flora, fauna, geologic forms as well as hazards and threats in every station. The observers used the Field Guide in the Philippine Cave Handbook as reference in the identification and recording.

b. Key Informant Interview (KII)

The members of the team conducted a socio-economic survey thru a Key Informant Interview (KII) on the 30 randomly selected residents of the community of Brgy. Labangan Ilin, Ilin Island, San Jose, Occidental Mindoro. The KII aims to gauge the socio-economic status and awareness of the respondents in cave conservation and management, as well as the direct or indirect impact of caves in their community and livelihood. The team used house-to-house approach to create rapport with the community, resulting to positive response during the course of interview.

V. RESULTS AND DISCUSSIONS

a. Cave Assessment Result

The cave has a horizontal entrance. It has a second growth forest above and outside the cave, which helps in maintaining the moisture/ wetness inside the cave. The cave serves as habitat to insect bats, swifts, unidentified lizard that looks like the green-eyed Gecko, whip scorpions, crabs and insects. This indicates a healthy food chain inside the cave. It also possessed good cave formations such as flowstones, draperies, moon milks and many others. The team also noted a dome/ area rich with guano deposits.

b. Threats and Challenges

The diggings created by the treasure hunting activities in the cave posed a threat for the visitors, as well as unstable footing due to loose rocks. Vandalism in the walls of the cave was also observed, defacing the natural beauty and life of the cave. Improper disposal of solid waste such as food wraps was also observed.

The cave has an area with limited or low oxygen level, which is a possible threat to visitors, causing anxiety and stress during the caving experience. Also, there are areas that are accessible on through tight crawling and squeezes.


The limited knowledge, lack of concern and support from the local officials and caretaker of the vicinity limit the supposedly management of visitors, regular conduct of patrolling and public awareness, religiously.


VI. RECOMMENDATIONS


Upon consolidation of the data gathered, the team recommends the following:


- a. The Cansubong Cave shall be Class II Cave due to its ecotourism potential. Class II Caves are cave with areas or portions which have sections that have hazardous conditions and contain sensitive geological, biological, archeological, cultural, historical, and biological values of high-quality ecosystem. It may be necessary to close sections of these caves seasonally or permanently. It is open only to experienced cavers or guided educational tours/ visits;
- b. The monitoring should be intensified to prevent further damage and disturbance to the cave; and
- c. Communication, Education, and Public Awareness (CEPA) should be continuously conducted in the communities on the cave importance, benefits, and conservation, as well as the responsible waste disposal and management.


Prepared by: CENRO -San Jose Cave Assessment Team



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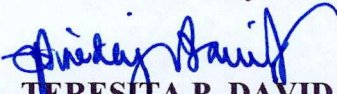

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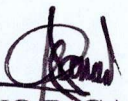

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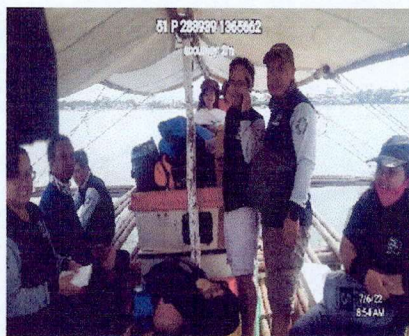

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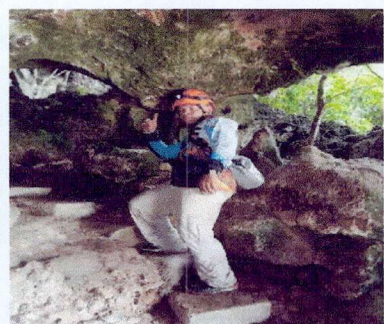
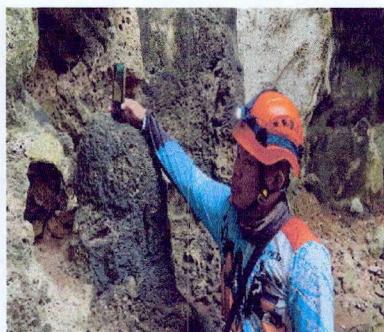

EFREN L. DELOS REYES
CENR Officer

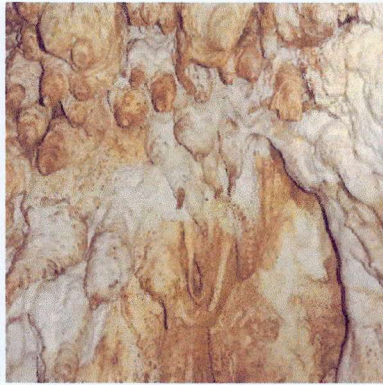
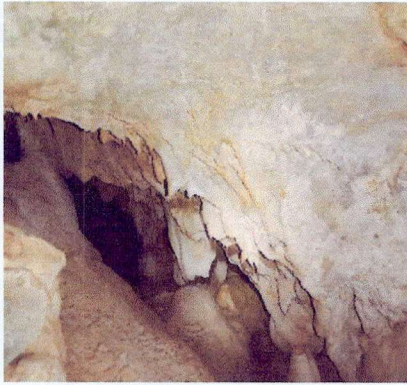
VII. PHOTO DOCUMENTATIONS

A. Arrival and Courtesy Call to BLGU Labangan Ilin

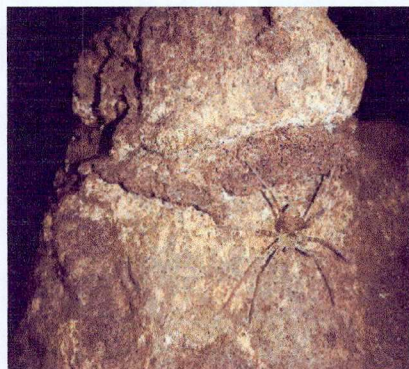
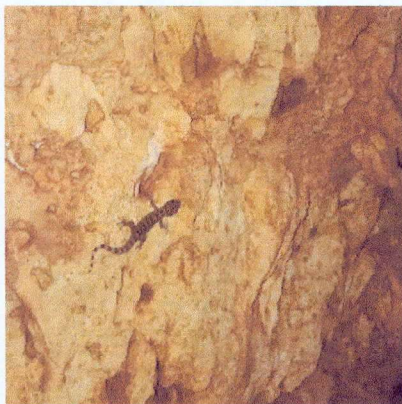


B. Cansubong Cave Assessment





Geological Assessment



Biological Assessment

Cave Assessment Form

Name of Compiler : CENRO San Jose Cave Assessment Team
Date Compiled : 21 JUL 2022
Name of Cave : Cansubong Cave
Region : MIMAROPA Region Province: Occidental Mindoro 5100
Municipality : San Jose Barangay: Labangan Ilin
Sitio : Sitio Cansubong
Size of the Area : 494.95 m² (area enclosed by the proposed boundary)
Period of Assessment : July 6-7, 2022

I. GENERAL INFORMATION

1. **Evolution of the Cave** (Include cave's origin, solution, tectonic movement, degradation/ formation of talus, erosion, etc.)

The area where Cansubong Cave is situated is underlain by coralline limestone of the Pleistocene Oreng Formation (JICA, 1984). Coralline limestone is generally known for its high solubility to acidic solution, including the slight acidic groundwater, and its high porosity and permeability. These properties allow the formation and widening of the different types of opening and cavities, both in the surface and underground as observed within the vicinity of the cave.

2. **Geographic location and description**

Coordinates (UTM): 51 P 287108 1359097

Elevation: 12 MASL

Land Status (please check)

☐ Agricultural
☐ Mineral land
☐ National Park
☒ Timberland
☐ Residential
☐ Others (specify) _____

Description:

3. **Accessibility** (State how the cave can be reached from the nearest barangay, major cities, municipalities, regional centers, indicate distance, means of transportation)

It is necessary to cross the Pandurucan River by flat boat from San Jose town proper to the beach where the passenger motorized boat departs for Barangay Labangan Ilin community with more or less forty-five minutes of travelling. From there, another 10 minutes boat ride to reach the Jaravata Beach Front wherein the Cansubong Cave is located.

4. Climatological data (rainfall pattern, climate type)

Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Year
Ave. precipitation mm (inches)	30 (1.2)	26 (1.0)	39 (1.5)	58 (2.3)	192 (7.6)	283 (11.1)	341 (13.4)	323 (12.7)	317 (12.5)	231 (9.1)	119 (4.7)	56 (2.2)	2,015 (79.3)
Ave. rainy days	10.3	8.3	12.4	16.3	23.5	27.1	13.4	27.3	27.6	26.3	19.2	13.6	240.3

5. Existing land-use patterns in area adjacent to the cave.

Listing by Type	Area (ha)	
	Adjacent to Cave	Above the Cave
Reforestation area		
Reservation		
Logging	N/A	
Grazing/Pasture	N/A	
Settlements	N/A	
Mineral Extraction	N/A	
Others		

6. Demographic Information

Name of Barangay	Barangay Population	No. of Households	Number of Families	Major means of Livelihood
Barangay Labangan Ilin	1, 055	264	264	Fishing, animal backyards raising (cattle, buffalo, goats, pigs, poultry), Upland Farming

6.1. Discussion of the Result of Socio- Economic Survey

The livelihood of majority of the population of Barangay Labangan Ilin include work as a fisherman, store owner, farmer, housewife, and so on, according to the key informant interview (KII) done utilizing random sample on thirty (30) respondents. Most of them, which is around 63%, had a monthly salary of around two thousand pesos and below. About 90% of the residents wants the Cansubong and other caves in their Barangay to become a tourist's destination.

7. Uses/ Human Activities

7.1 Identify the current activities inside the cave (indicate in the cave map)

Type of activity	Implementation Period	Station/s Covered*	Implementing Agencies	Remarks
Tourist Attraction	2000-present	1-5	Locals	
Treasure Hunting	Unknown	3	Unknown	

*Refer to the identified station in the cave map

7.2 Identify past uses / activities (indicate in the cave map)

Type of activity	Implementation Period	Station/s Covered*	Implementing Agencies	Remarks
Treasure Hunting	Unknown		Unknown	

*Refer to the identified station in the cave map

8. Physical Features

- a. **Cave Map** (Describe the size of the cave, length, height and width, its mouth, floor, ceiling) Cave map should conform to international standard or equivalent to British Cave Research Association standard of Grade 3C or higher.

The cave has a total land area of **494 m²**, a total length of **84.52** meters, cave mouth opening width of **8.7** meters and ceiling height of **2.10** meters.

The Survey and Mapping team used Survey Compass (+/- 0.5), Inclinometer, Fiber Glass Measuring Tape and Laser Range Finder to get/ measure the accuracy of the details appropriate to the accuracy of the center line to attain the grade combination of Grade 5C according to British Caving Research Association (BCRA)^[4].

- b. **Status of the Cave** (please check, provide pictures)

b.1. ☐ Undisturbed Cave (newly discovered cave)

b.2. ☐ Intact (State what probable factors could have worked for their protection)

- ☐ Difficult access
- ☐ Within protected area
- ☐ Inside private property
- ☒ Others (claim)

b.3. ☒ Vandalized (State extent, location of vandalism, describe vandalism)

Walls between the cave opening/ station 0 and station 3 covered in graffiti. Most of the vandalisms that were seen bore the names of prior cave visitors.

b.4. ☐ Exploited (State cause and extent of exploitation)

The cave were exploited by the previous visitors based on the solid waste observed within and adjacent to the cave.

☒ Claimant (State name):

Atty. Ernesto Jaravata

b.5. ☒ For status not included in the criteria (specify e.g. part of the cave is undisturbed and part of the cave is disturbed)

Part of the stations 1-8 is disturbed while stations 9-13 and other small chambers are undisturbed.

II. NATURAL FEATURES

1. Vegetative Cover

Scientific Name	Local/ Common Name	Uses	Importance/ value	Conservation Status ¹	Stratifi- cation ²	DBH	Remarks
<i>Swietenia macrophylla</i>	Mahogany	Fuel, lumber	Controlling the quantity and quality of rainwater.	Vulnerable	Emergent	N/A	Abundant
<i>Leucaena glauca</i>	Ipil-ipil/ Agho	Fuelwood, Fodder	Prevent erosion, legumes for fertilization	Vulnerable	Understory	N/A	Abundant
<i>Toona calantas</i>	Kalantas	Timber veneers, lumber	Controlling the quantity and quality of rainwater./ Construction	Data Deficient	Canopy	N/A	Abundant
<i>Acacia farnesiana</i>	Aroma/ Sweet Acacia	Medicinal/ Fuelwood		Data Deficient	Understory	N/A	Abundant
<i>Plumeria rubra</i>	Kalachuchi/ White Frangipani	Ornamental	Ornamental value	Data Deficient	Understory	N/A	Abundant
<i>Bambusa vulgaris</i> Schrad.	Kawayan-Kiling	Outriggers for boats, fencing and props, fuel	Construction/ Paper, Cosmetics, Veterinary	Vulnerable	Emergent	N/A	Abundant
<i>Tectona philipinensis</i>	Bunglas/ Phil. Teak	Lumber	Endemic species/ Construction	Endangered	Emergent	N/A	Abundant

¹Based on DAO 2007-01 or succeeding amendments

²emergent, canopy, understory, forest floor, etc.

1.1 Flora outside the cave

Scientific Name	Local/ Common Name	Uses	Importance/ value	Conservation Status ¹	Stratification ²	DBH	Remarks
<i>Terminalia catappa</i>	Talisay/ Tropical Almond	Fruit, Gum, Oil	Help to improved survival, growth, and health of cultured aquatic species.	Threatened	Understory	N/A	
<i>Ficus benjamina</i>	Balete/ Weeping Fig	Folk Medicine	Food source of wild animals and insects	Least Concern	Emergent	N/A	
<i>Entada phaseoloides</i>	Lipay/Gugo / Watervine	Medicine, Shampoo	Used as raw material in the production of gift items, housewares, baskets, others.	Threatened	Understory	N/A	

¹Based on DAO 2007-01 or succeeding amendments

²emergent, canopy, understory, forest floor, etc.

The Cave Assessment Team uses the transect walk method of Biodiversity Monitoring System, recording the present species adjacent to the cave.

1.2 Flora inside the cave (entrance to twilight zone)

Scientific Name	Common Name	Uses	Importance/ value	Conservation Status*	Remarks
<i>Grimmia olneyi</i>	Rock mosses	Shelter of native plants and animals	Foods for other cave fauna	Apparently Secure	Twilight
<i>Suillus sibiricus</i>	Mushroom	Exchanges soil mineral nutrients for photosynthates from its host	Mitigate the risk of developing serious health conditions, such as Alzheimer's, heart disease, cancer, and diabetes	Vulnerable	Twilight

2. ¹Based on DAO 2007-01 or succeeding amendments

3. ²emergent, canopy, understory, forest floor, etc.

4. Fauna

Instructions: Enumerate the fauna observed in the cave. Indicate/ estimate their abundance accordingly. Indicate the location and/or station/s where the organisms were observed. Write additional observations under Remarks (For bats, note if nursing mothers or baby bats are present; for birds, note if nest, eggs or hatchlings are present). Attach additional sheets if necessary.

4.1. Fauna inside the cave (enumerate species)

a. Vertebrates

Scientific Name	Common Name	Abundance (range)	Location (station #)	Conservation Status*	Remarks
<i>Microchiroptera</i>	Insect Bats	2-10	Stations 4,8,9,10,11,12	Threatened	Indistinct
<i>Microchiroptera</i>	Insect Bats	500	Station 13	Threatened	Indistinct
	Cave Lizard	1	Station 5	No Data/ Possible new species	For further identification and research

*Based on DAO 2004-15 or succeeding amendments

b. Arthropods and other invertebrates

Scientific Name	Common Name	Abundance (range)	Location (station #)	Conservation Status*	Remarks
<i>Vespula vulgaris</i>	Wasp	2	1	Least concern	
<i>Lycoriella spp.</i>	Gnat/ Niknik	1	1	Data Deficient	
<i>Acheta domesticus</i>	Kuliglig/Cricket	1	2	Data Deficient	
<i>Achaearanea tepidariorum</i>	Spider	2-5	2,3,4,14	Data Deficient	For further identification and research
<i>Isoptera</i>	Termite	1000	3	Data Deficient	
<i>Meliponini</i>	Stingless Bee	100	4, 5	Data Deficient	

<i>Aleurodicus disperus</i>	White Fly	3-6	4	Data Deficient	
<i>Culicidae</i>	Mosquito	200	5,6,13	Data Deficient	
<i>Cancrocaeca xenomorpha</i>	Crab	1	13	Data Deficient	
<i>Mastigoproctus giganteus</i>	Whip Scorpion	2	7,9,10,14	Data Deficient	

*Based on DAO 2004-15 or succeeding amendments

c. Guano Characterization

Sample #	Species (e.g. fruit bat, insect bat, swiftlet)	Location (station #)	Depth (m)	Area (m ²)	Physical Characteristics (e.g. texture, consistency, dry or wet)	Relative age (old or new)	Other observation (presence of feathers, plant fibers)
N/A	Insect Bats	13,14	N/A	10	wet	new	Presence of decomposers/insect

2.2.Fauna outside the cave

Scientific Name	Common Name	Abundance (range)	Location (station #)	Conservation Status*	Remarks
<i>Culicidae</i>	Mosquitoes		Station 0	Least Concern	
<i>Formicidae</i>	Ants	Colony	Station 0		
<i>Aves</i>	Birds	2-6	Station 0		

*Based on DAO 2004-15 or succeeding amendments

5. Geology

5.1. Speleothems inside the cave

Speleothem	Approx. no.	Zone		Remarks (e.g.damage, dirty, etc)
		Twilight	Dark	
Draperies	500	/	/	dry
Flowstones sheet	300	/	/	dry
Stalactites	2,400	/	/	Alive, Dry
Stalagmites	1,600	/	/	Alive, Dry
Columns	150	/	/	Alive, Dry
Mammillary	0	-	-	
Erratic forms (crystal growth controlled)	0	-	-	
Shields	0	-	-	
Helictites	0	-	-	
Botryoidal Forms (popcorns, grapes, etc)	50	-	/	Dry
Anthodites	0	-	-	
Oulopholites (gypsum flowers)	0	-	-	
Moonmilk	3	-	/	Dry
Subaqueous Forms	200	/	/	Dry
Rimstone dams (gour pods)	0	-	-	
Concretions of various kinds (limestone)	0	-	-	

concretions e.g. cave pearls, iron, basalt)				
Pool deposits	0	-	-	
Crystal Linings	0	-	-	
Others				Dry
Soda straws	1000	/	/	
Bulbous Stalactite	0	-	-	
War-club Stalactite	0	--	-	

5.2. Mineral deposits inside the cave

Minerals	Location (Station #)	Remarks
Aragonite	N/A	N/A
Calcite	N/A	N/A
Dolomite	N/A	N/A
Huntite	N/A	N/A
Hydromagnesite	N/A	N/A
Magnesite	N/A	N/A
Others	N/A	N/A

5.3. Other geological features inside the cave

Features	Location (Station #)	Remarks
Faults	N/A	N/A
Joints	N/A	N/A
Cracks	N/A	N/A
Fossil (paleontological feature)	N/A	N/A
Others	N/A	N/A
- Karst Window		

6. Hydrology

6.1. Hydrological features inside the cave

Features	Location (Station #)	Flow		Origin		Size/ Volume	pH	Temperature	Remarks
		Perennial	Intermittent	Natural	Man-made				
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

*for rivers, indicate direction of flow relative to the entrance. Indicate location and reference points.

6.2. Hydrological features outside the cave (within 2 km radius)

Features	Location (Station #)	Flow		Origin		Size/ Volume	pH	Temperature	Remarks
		Perennial	Intermittent	Natural	Man-made				
N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

7. Cave Hazards. Please indicate if any of the following are present. Please indicate location inside the cave.

Cave Hazards	Location (Station #)	Remarks
Bad air ¹ (from guano, poor air circulation, low supply of oxygen)	Location 8	Low supply of oxygen
Presence of swiftly running underground river system	N/A	N/A
Deep sumps or pools	N/A	N/A
Flooding indicators	N/A	N/A
Vertical pitches/ entrances	N/A	N/A
Tight crawl ways/ squeezes	Station 7	Not advisable on people with phobia on tight spaces
Cavern roof collapse	N/A	N/A
Deep mud	N/A	N/A
Unstable flooring	Station 4, 5, 6	Use proper footwear for caving
Sharp rocks	Station 5,7	Use proper footwear for caving
Spalling ²	N/A	N/A
Heaving ³	N/A	N/A
Extremely cold temperatures	N/A	N/A
Others	Station 2	Low ceiling

¹refers to the condition of air in caves characterized by low levels of oxygen, high levels of carbon dioxide and other hazardous gases such as methane. Low levels of oxygen and high levels of carbon dioxide or certain cave passes pose dangers to the human body. Bad air is indicated by hyperventilation, increased heart rate, dizziness, dry acidic taste of the mouth, increased pulse rate, labored breathing and headache. Annexes C to E provides general information on the relationship between caves and levels of CO₂ and O₂.

²refers to breaking down and chipping of the rocks faces/ surfaces due to stress

³refers to a process where cracks form in the rock due to subsidence

III. ANTHROPOLOGICAL FEATURES

Are there indigenous peoples (IPs) or settlers living within the general location? If yes, then specify the name of the IP and other information listed below.

IP	Approximate Population	Livelihood Activities	Traditional Uses/ Cultural Activities
N/A	N/A	N/A	N/A

IV. ARCHEOLOGICAL FEATURES

Are there artifacts and/or ecofacts on the present floor area of the cave, rock shelter and overhang?

_____ Yes _____ / _____ None. If yes, indicate location/s (station # / chamber)

Artifacts	Location (Station #)	Remarks
Stone tools (flaked)	N/A	N/A
Stone tools (polished)	N/A	N/A
Shell tools	N/A	N/A
Tradeware ceramics (porcelain, stoneware)	N/A	N/A
Pottery (earthenware)	N/A	N/A
Pottery (earthenware with designs)	N/A	N/A
Metal implements	N/A	N/A

Wooden coffins	N/A	N/A
Ecofacts		
Fossils	N/A	N/A
Human bones	N/A	N/A
Animal bones	N/A	N/A
Wood	N/A	N/A
Shells (land)	N/A	N/A
Shells (freshwater)	N/A	N/A
Shells (marine)	N/A	N/A
Artworks		
Charcoal drawings	N/A	N/A
Hematite paintings	N/A	N/A
Engraved artwork	N/A	N/A
Others	N/A	N/A

V. THREATS, PROBLEMS AND POSSIBLE SOLUTIONS

Identify and describe the actual and/or potential threats, conflicts (man-made or natural) and other forms of disturbances that would affect the integrity of the cave.

Threats/Problems	Current	Potential	Possible Solutions	Remarks
Deforestation	/	/	Promote reforestation in the adjacent forest of the cave as stipulated in the needed management plan of the cave.	Intensify the CEPA on the negative effects of deforestation and encourage the community in engaging to reforestation and rehabilitation efforts to be include in the management plan of the cave
Agriculture	N/A	N/A	N/A	
Urbanization	N/A	N/A	N/A	
Industrialization	N/A	N/A	N/A	
Tourism and Recreation	/	/	Promote sustainable ecotourism of the cave as stipulated in the needed management plan of the cave.	
Chemical Waste			N/A	
Water Exploitation (dams, groundwater pumping, inundation)	N/A	N/A	N/A	
Treasure hunting	/	N/A	N/A	
Used by insurgents				
Others i.e. Amulet hunting	N/A	N/A	N/A	
Fault line	N/A	N/A	N/A	
Solid Waste	/	/	To reduce the solid waste inside and outside the parameter of the cave thru implementation of RA 9003 stipulated in the needed management plan of the cave.	Strict implementation of RA 9003, including the violations, fines and penalties in accordance to the mandate of the Local Government Unit of San Jose and BLGU Labangan Ilin.

Vandalism	/	/	Promote conservation and protection of the cave resources as stipulated in the needed management plan of the cave.	Strict implementation of RA 9072 or Cave Act, including the violations, fines and penalties in accordance to the mandate of the Local Government Unit of San Jose and BLGU Labangan Ilin.
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VI. POTENTIAL USES OF THE CAVE

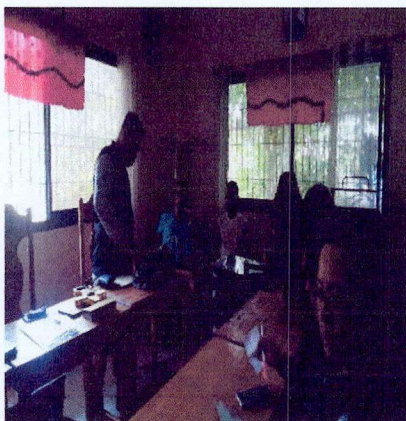
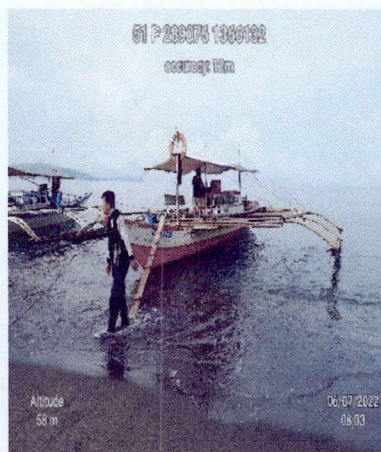
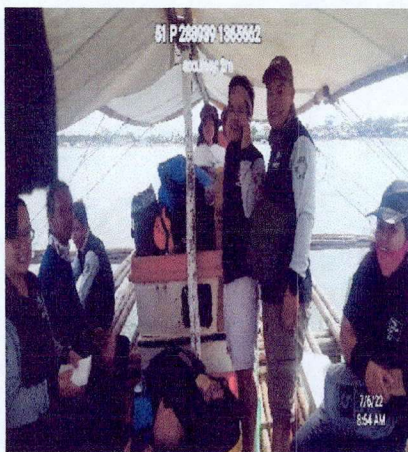
Potential Uses	Remarks
Scientific Research	There is one species found inside the cave that is located in station 7, this species is tend to be a subject for research.
Tourism and Recreation	Possesses good ecotourism opportunity
Exploration	
Others	

VII. RECOMMENDATIONS

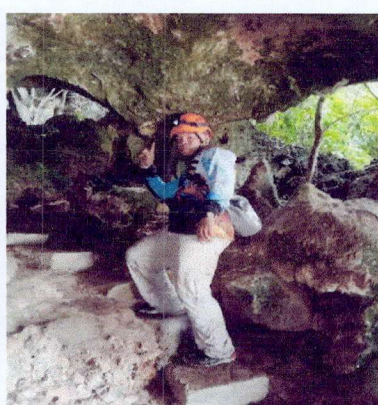
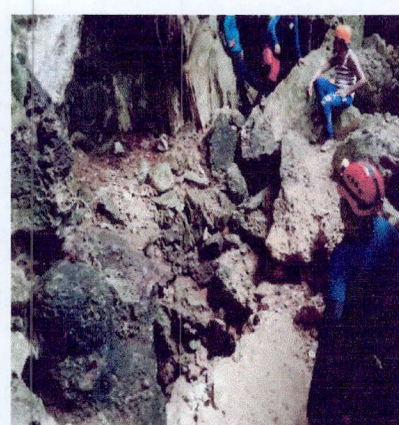
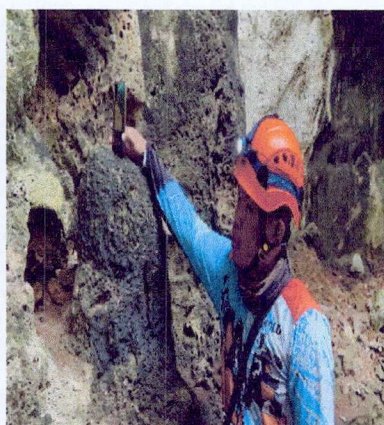
Cansubong Cave is recommended as **Class II**, whereas caves with areas or portions which have sections that have hazardous conditions and contain sensitive geological, biological archeological, cultural, historical and biological values or high-quality ecosystem. It may be necessary to close sections of these caves seasonally or permanently.

VIII. PHOTO DOCUMENTATIONS

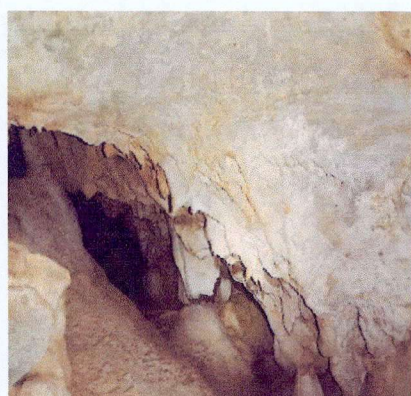
A. Arrival and Courtesy Call to BLGU Labangan Ilin



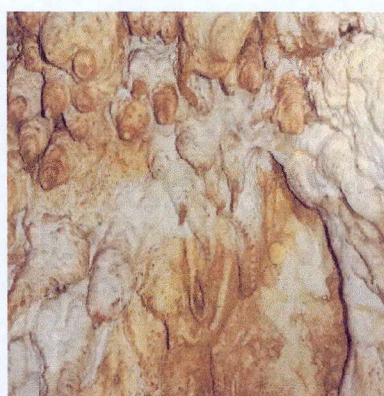
B. Cansubong Cave Assessment



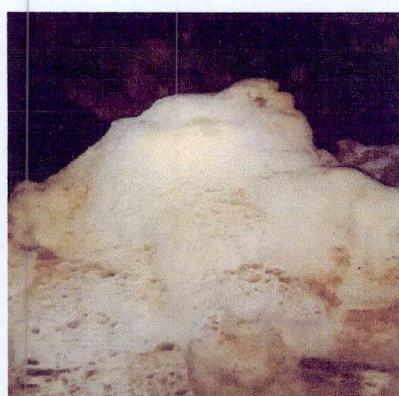
Geological Assessment



Draperies



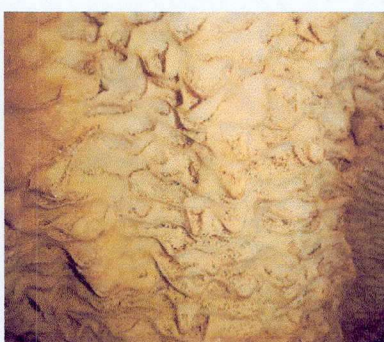
Speleothems



Rimstones



Popcorns



Rimstones



Flowstones

Biological Assessment



Stingless Bee



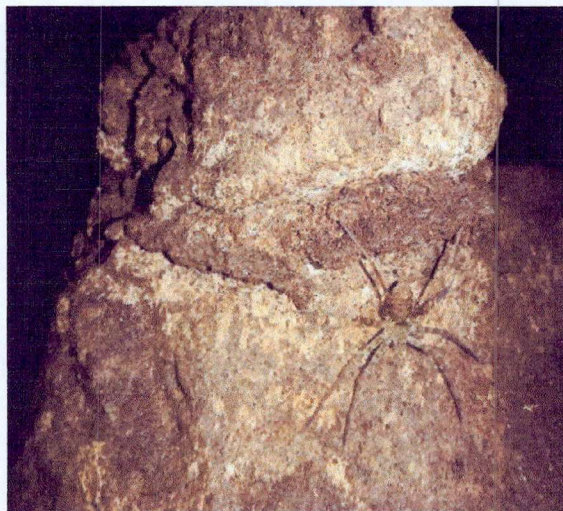
Cave Lizard



Crab



Whip Scorpion



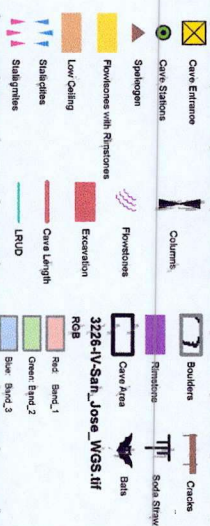
Spider



CANSUBONG CAVE

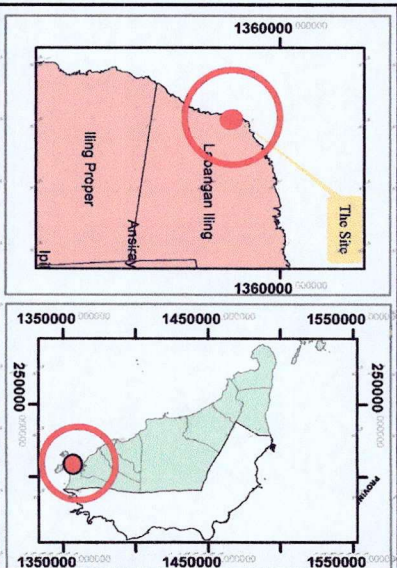
Location: So. Cansubong, Brgy. Labangan Ilin,
Ilin Island, San Jose, Occidental Mindoro
Projection: Transverse Mercator
Horizontal Datum: WGS 1984 UTM Zone 51N
Spheroid: WGS 1984

APPROXIMATE AREA: 494.95 sq.m.
CAVE LENGTH: 84.52 m.



NOTE
1. This map indicates the boundaries of the Cave based on the Re-Assessment undertaken by the Cave Assessment Team.
2. Map template based on BIR Technical Bulletin No. 2021-01.
3. All information in this map is strictly for Planning Use only. No inference in Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries.

LOCATION MAP



Prepared by:

NINO ALABO E. CUEGADO
Office: Technical / GIS Operator

Attested by:

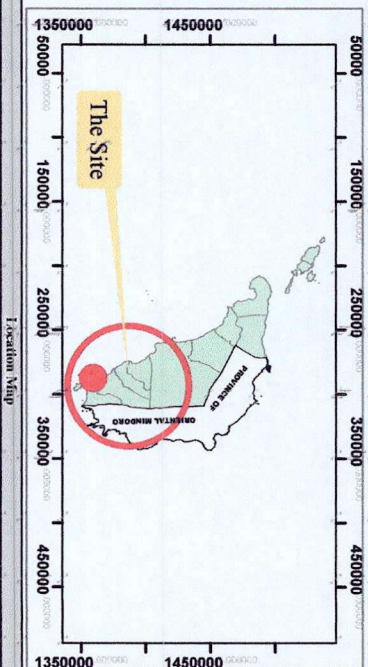
ERNESTO C. TANADA
Senior Officer

Under the Supervision of:

ORLINO E. GARCIA
Senior Officer / GIS Operator

Noted by:

MAXIMO C. LANDRITO
Officer / GIS Operator




LOCATION MAP OF CANSUBONG CAVE




APPROXIMATE AREA: 494.95 Sq.m.
 CAVE LENGTH: 84.52 m.

LOCATED AT:
 Site: Cansubong
 Barangay: Labangan Iling, Ilin Island
 Municipality: San Jose
 Province: Occidental Mindoro


 Cansubong Cave


 Forestland Boundary


 Barangay Boundary

OCMTOPO.tif

RGB

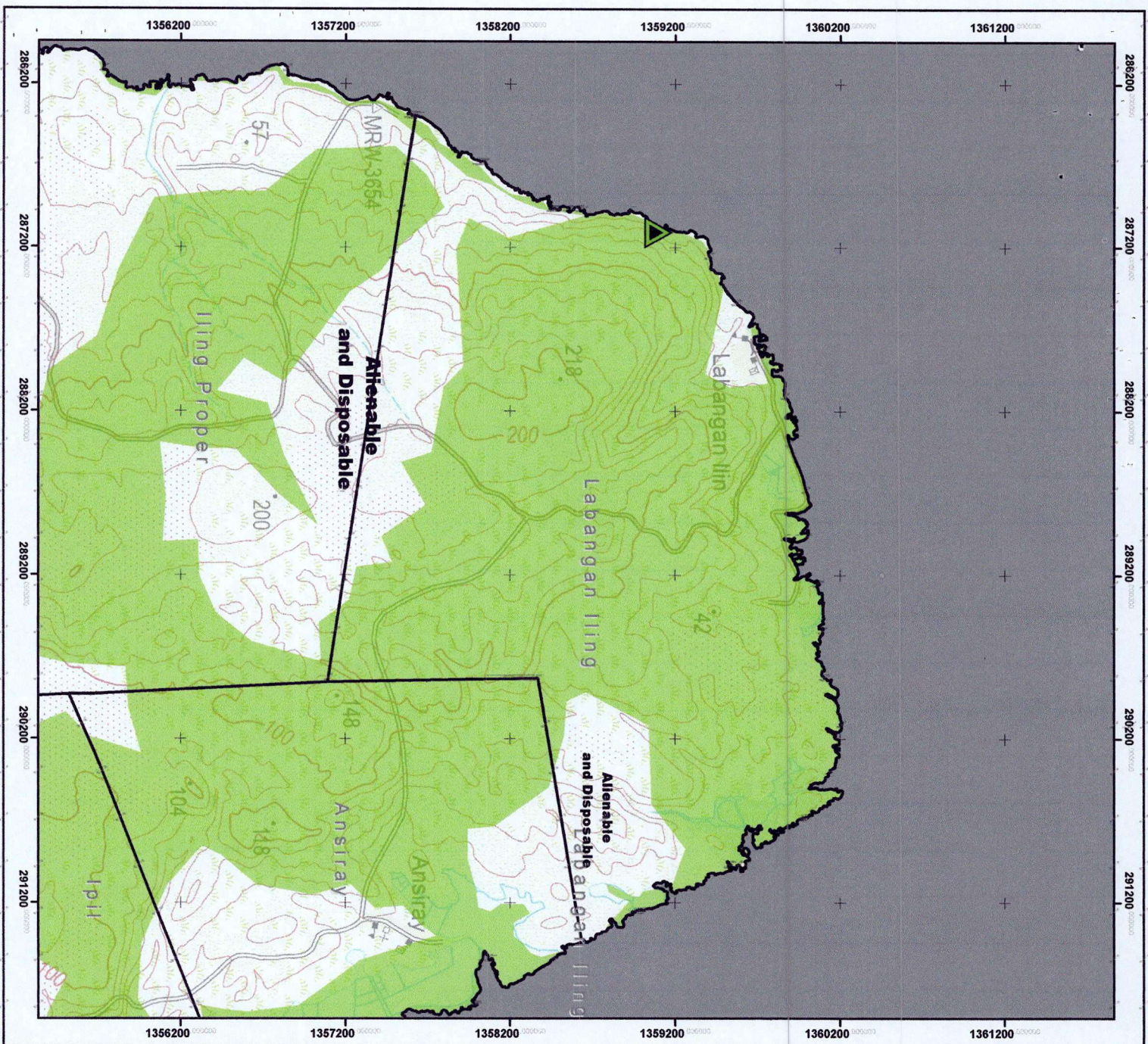
 Red: Band_1

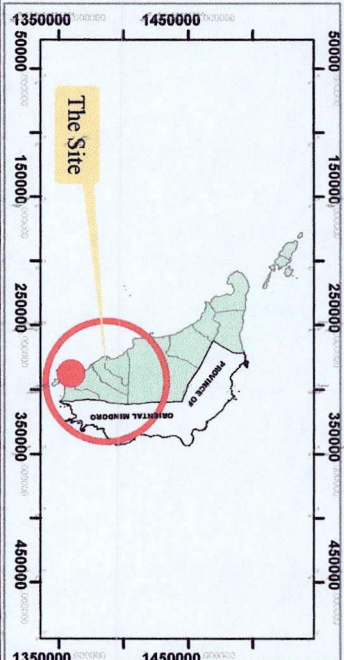
 Green: Band_2

 Blue: Band_3

NOTE:

1. Cave Assessment Conducted: July 7, 2022
2. Cave Assessment for Use: Strictly for Planning Use Only. No interference on Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries.
3. All information in this Map is based on the best available data.



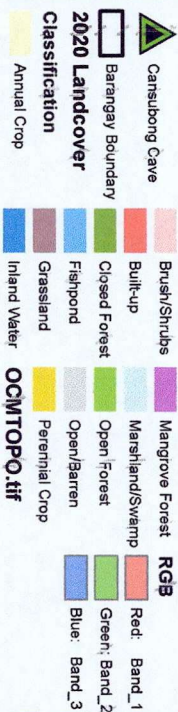


2020 LANDCOVER MAP OF CANSUBONG CAVE



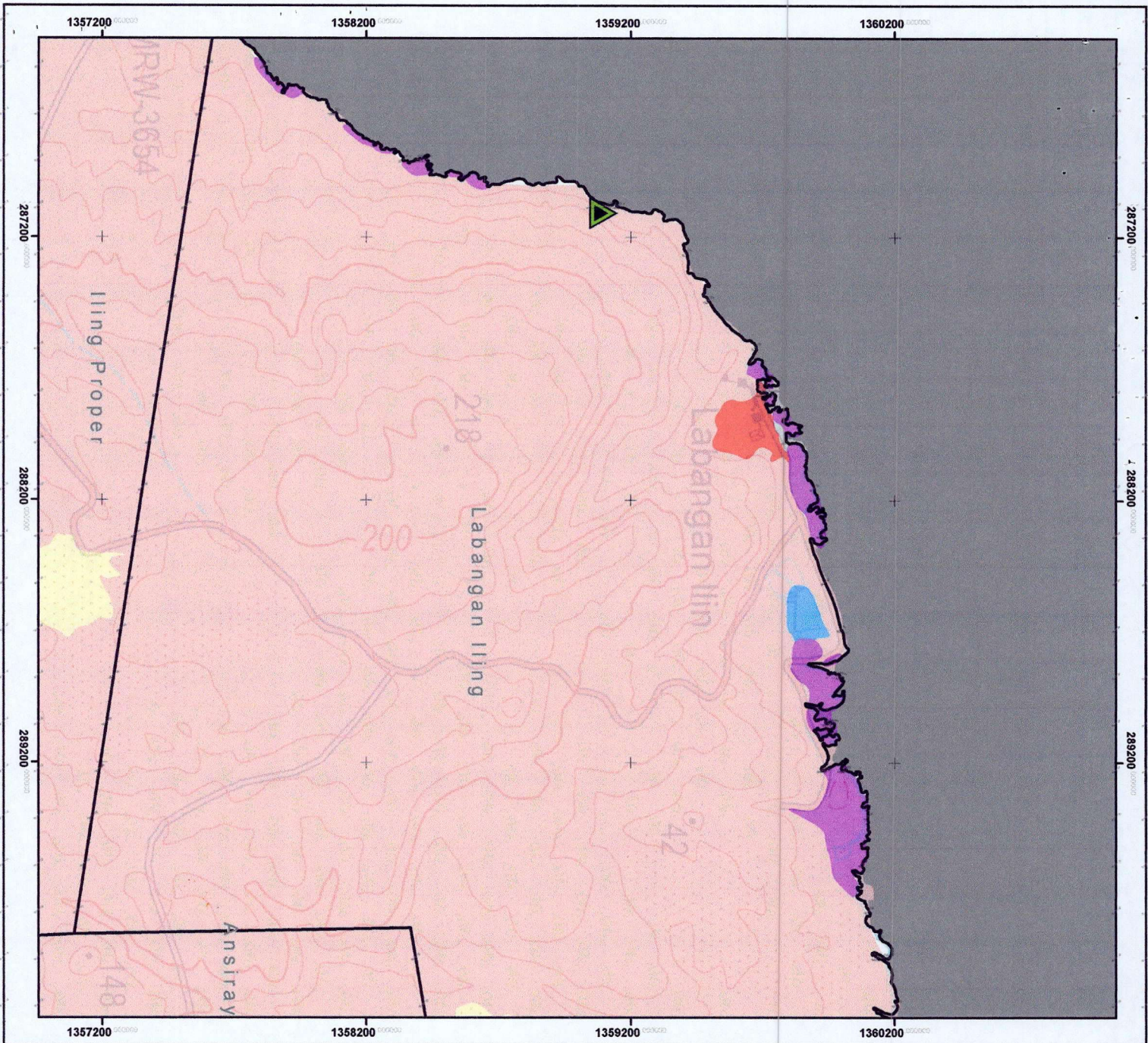
APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

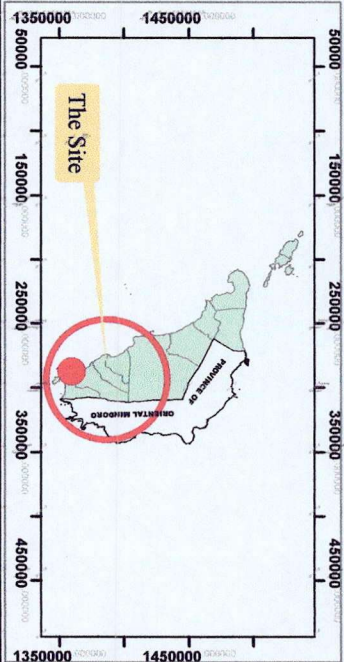
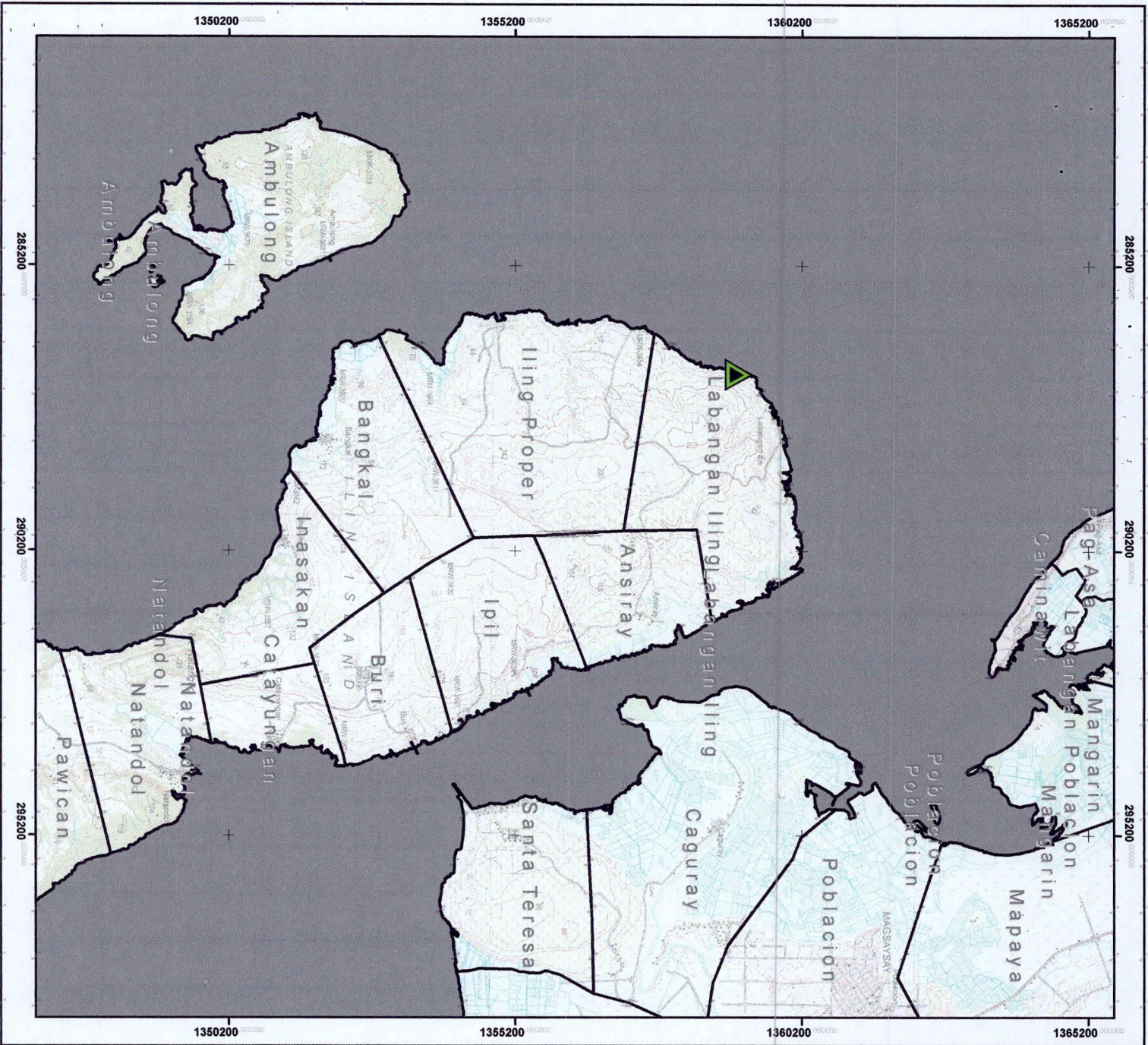
LOCATED AT:
Sitio Cansubong
Barangay: Labangan Iling, Ilin Island
Municipality: San Jose
Province: Occidental Mindoro



NOTE:

1. Cave Assessment Conducted July 7, 2022
2. Cave Classification: Class II
3. 2020 Landcover: Brush/Shrubs (Reference: NARRA)
4. All data are for Planning Use Only. No inference on Claims shall be made as to the extent of Political Boundary or Jurisdictional boundaries.





ADMINISTRATIVE MAP OF CANSUBONG CAVE

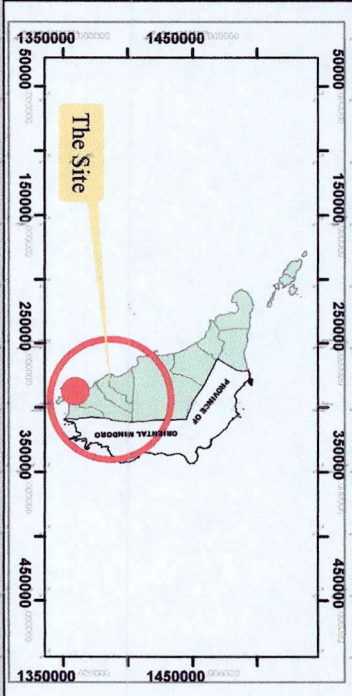


LOCATED AT:
 Site: Cansubong
 Barangay: Labangan Iling, Ilin Island
 Municipality: San Jose
 Province: Occidental Mindoro

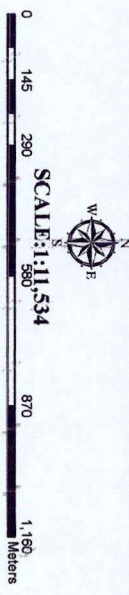
 Cansubong Cave
 Barangay Boundary
 OCMTOPO.tif
 RGB
 Red: Band_1
 Green: Band_2
 Blue: Band_3

1. Cave Assessment Conducted: July 7, 2022
 2. Cave Classification: Class II
 3. All information in this Map is Strictly for Planning Use Only. No inference on Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries.

NOTE:



LAND CLASSIFICATION MAP OF CANSUBONG CAVE



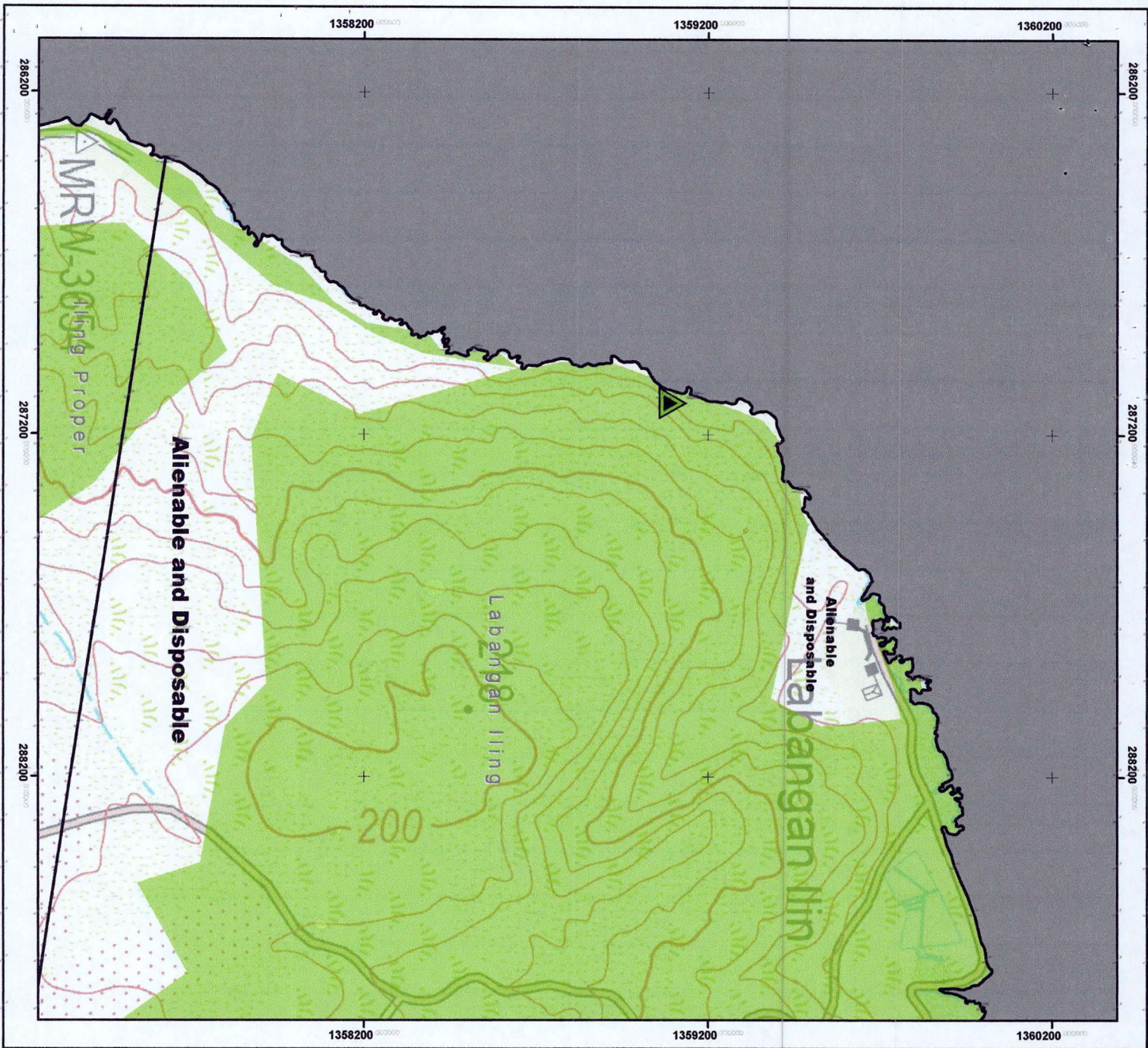
APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

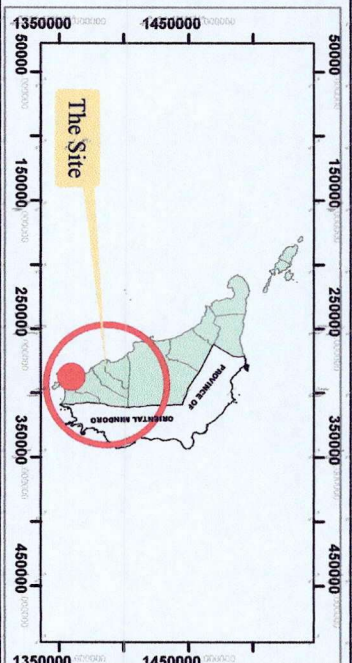
LOCATED AT:
Sitio Cansubong
Barangay: Labangan Iling, Tinian Island
Municipality: San Jose
Province: Occidental Mindoro

- LEGEND**
- Cansubong Cave
 - Forestland Boundary
 - Barangay Boundary
 - OCMTOPO.tif
 - RGB**
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3

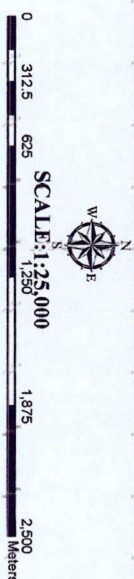
NOTE:

1. Cave Assessment Conducted July 7, 2022
 2. Cave Classification: Class II
 3. Land Classification: Forestland
 4. All Coordinates are in UTM Zone 51N
- the extent of Political Boundary or Jurisdictional Boundaries.





LAND USE MAP OF CANSUBONG CAVE



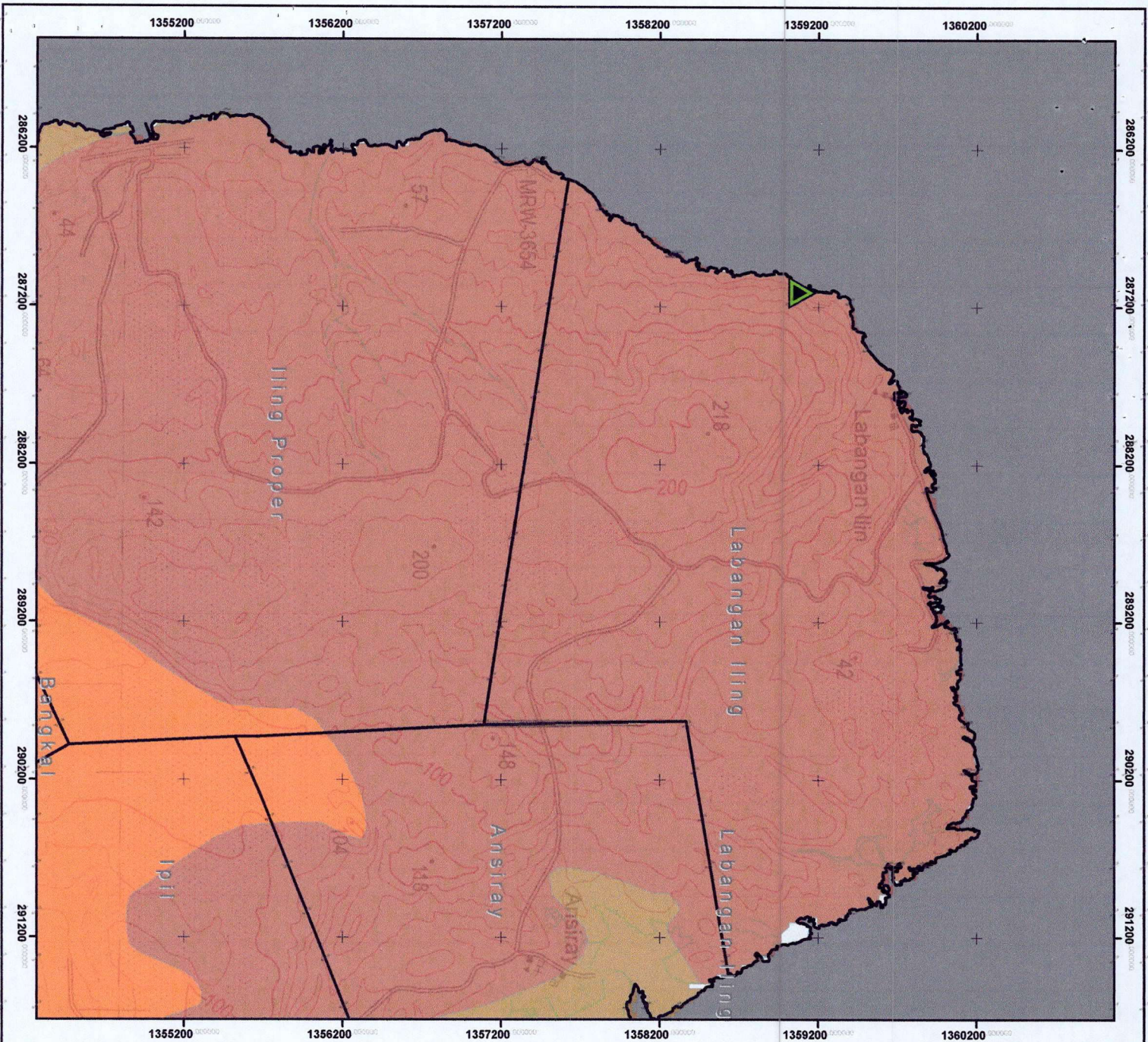
APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

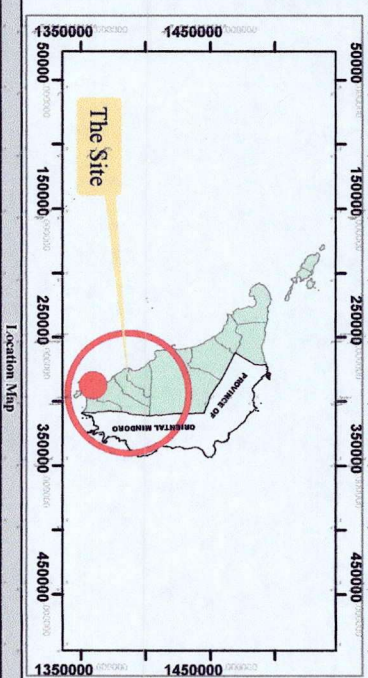
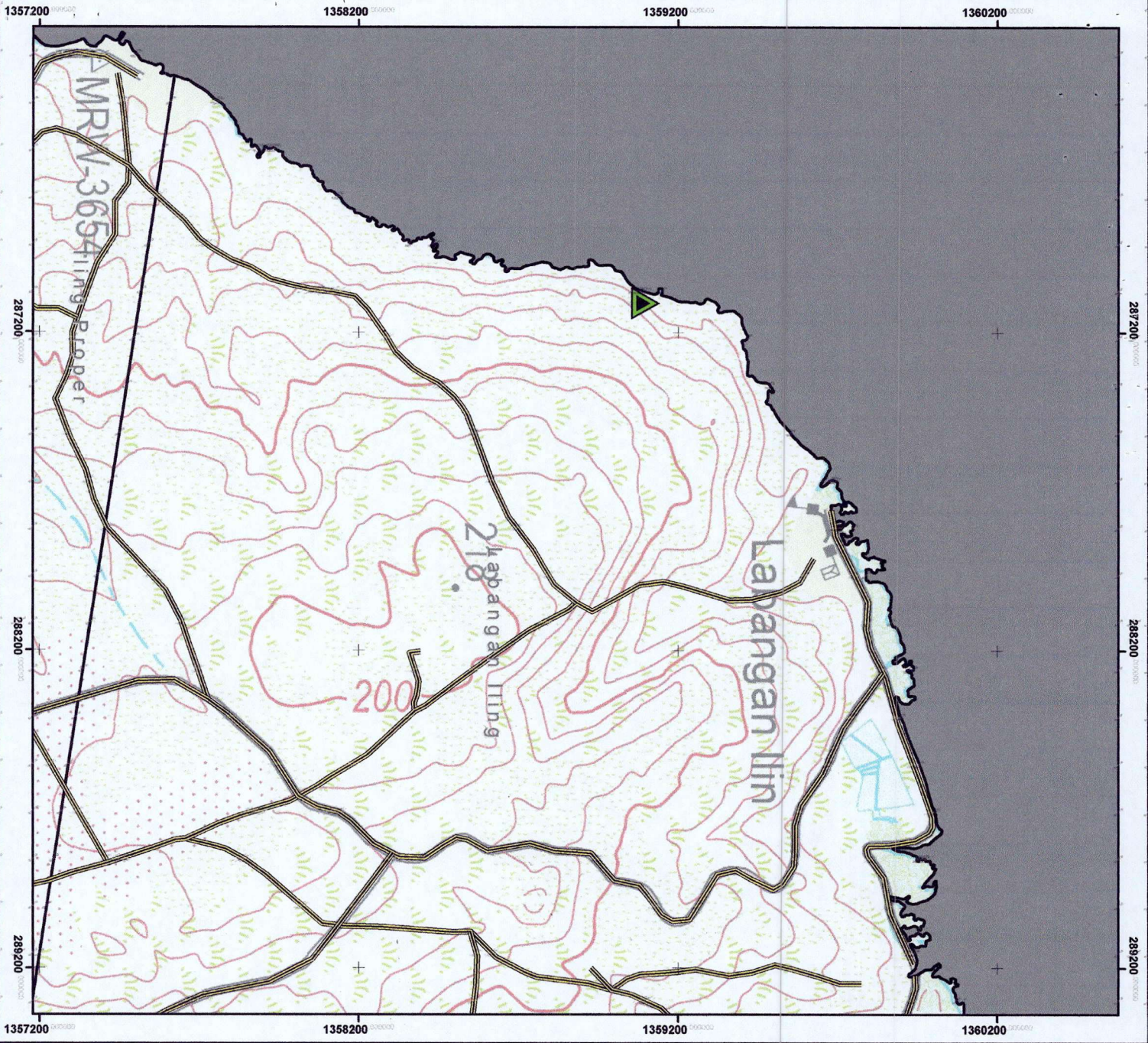
LOCATED AT:
Sitio Cansubong
Barangay: Labangan Iling, Ilin Island
Municipality: San Jose
Province: Occidental Mindoro

Legend	Legend
Cansubong Cave	Cansubong Cave
Barangay Boundary	Barangay Boundary
Land Use	Land Use
DESCRIBE	DESCRIBE
Cultivated areas mixed with brushland/grassland	Cultivated areas mixed with brushland/grassland
Grassland, grass covering > 70 percent	Grassland, grass covering > 70 percent
Mangrove vegetation	Mangrove vegetation
Mangrove area and swamp	Mangrove area and swamp
Open canopy, mature trees covering < 50 percent	Open canopy, mature trees covering < 50 percent
Riverbeds	Riverbeds
Shallow pattern in lake	Shallow pattern in lake
Undersized	Undersized
OCMTOPO. #1	OCMTOPO. #1
Red, Band 1	Red, Band 1
Green, Band 2	Green, Band 2
Blue, Band 3	Blue, Band 3

NOTE:

1. Cave Assessment Conducted July 7, 2022
2. Cave Classification: Class II
3. All information is for planning use only. No interference on claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries.





ROAD NETWORK MAP OF CANSUBONG CAVE



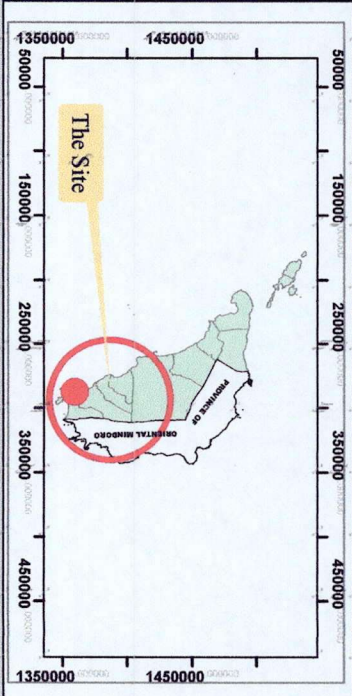
Projection: Transverse Mercator
Horizontal Datum: WGS 1984 UTM Zone 51N
Spheroid: WGS_1984
APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

LOCATED AT:
Site: Cansubong
Barangay: Labangan Iin, Iin Island
Municipality: San Jose
Province: Occidental Mindoro

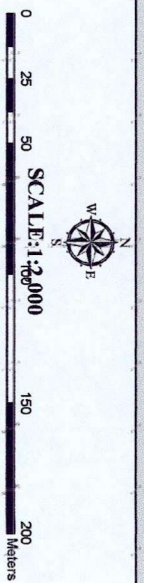
- LEGEND**
- Cansubong Cave
 - Roads
 - Barangay Boundary
 - OCMTOPO.tif
 - RGB**
 - Red: Band_1
 - Green: Band_2
 - Blue: Band_3

NOTE:

1. Cave Assessment Conducted: July 7, 2022
2. Cave Classification: Class II
3. All information in this Map is Strictly for Planning Use Only. No interference on Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries.



ELEVATION MAP OF CANSUBONG CAVE



APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

LOCATED AT:

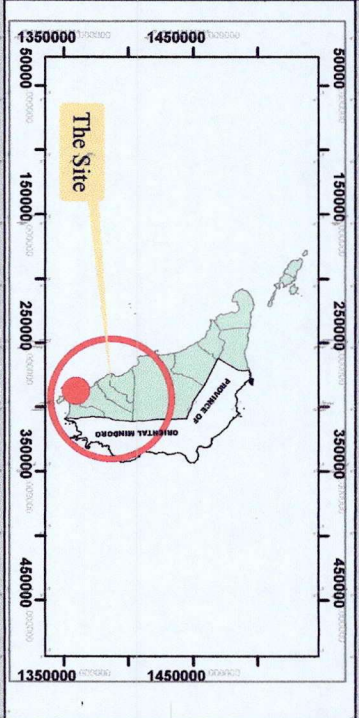
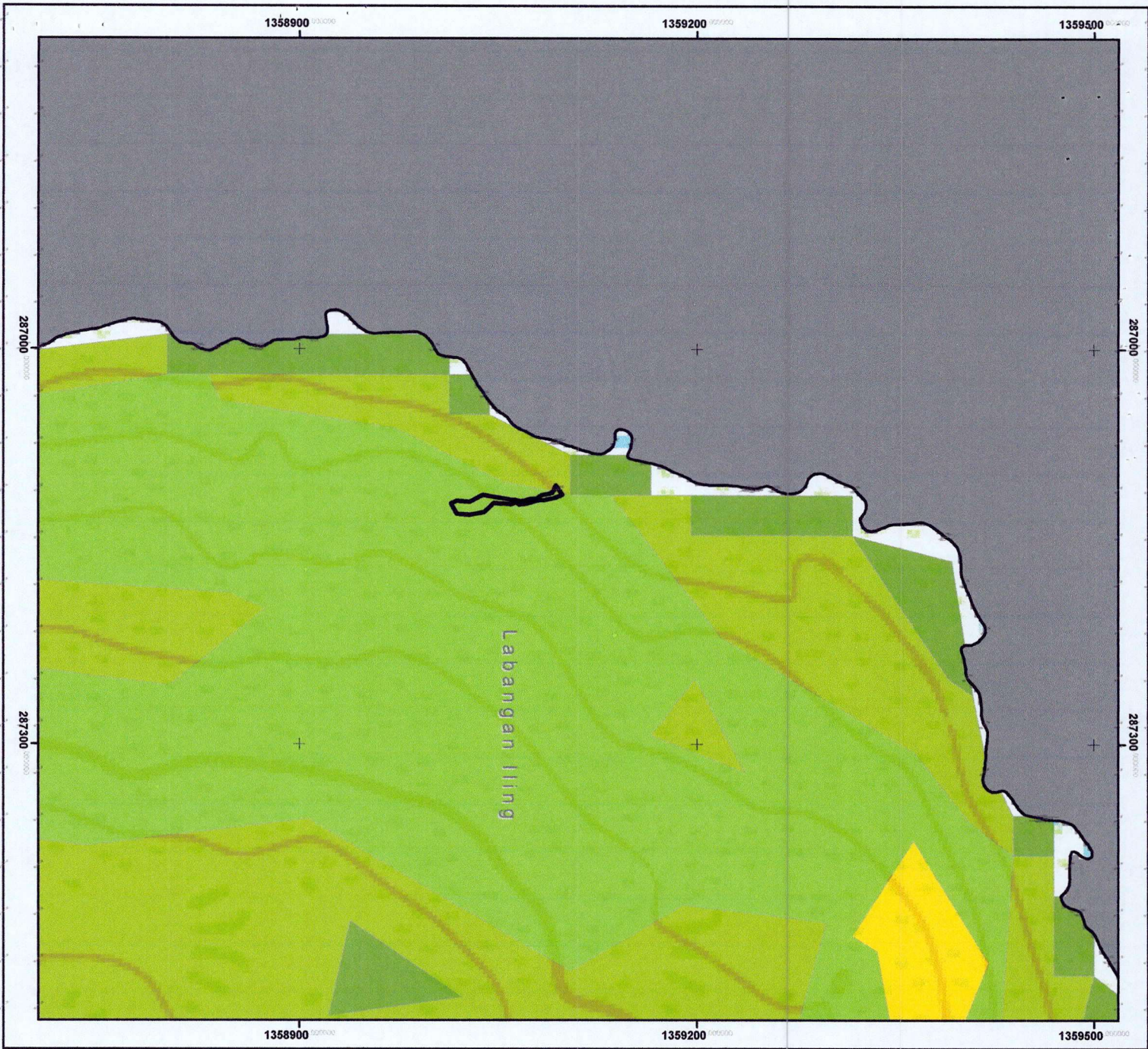
Site: Cansubong
Barangay: Labangan Iling, Tinian Island
Municipality: San Jose
Province: Occidental Mindoro

LEGEND

	Area		OCMTOPO.tif
	Elevation (masl)		RGB
	0-100		Red: Band_1
	101-250		Green: Band_2
	251-500		Blue: Band_3
	501-750		
	751-2302		
	Barangay Boundary		

NOTE:

1. Cave Assessment Conducted: July 7, 2022
2. Cave Classification: Class II
3. Elevation: 0-100 masl (Reference: Digital Elevation Model/DEM/Raster File)
4. All information in this Map is Strictly for Planning Use Only. No inference on Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries



SLOPE MAP OF CANSUBONG CAVE

0 35 70 140 210 280
Meters

SCALE: 1:3,000

Projection: Transverse Mercator
Horizontal Datum: WGS 1984 UTM Zone 51N
Spheroid: WGS_1984

APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

LOCATED AT:
Site: Cansubong
Barangay: Labangan Iling, Tinian Island
Municipality: San Jose
Province: Occidental Mindoro

LEGEND

- | | |
|--|--|
| <input type="checkbox"/> Cansubong Cave | <input type="checkbox"/> OCMTOPO.tif |
| <input type="checkbox"/> 0-3 - Level to Nearly Level | <input type="checkbox"/> RGB |
| <input type="checkbox"/> 3-8 - Gently Sloping to Undulating | <input type="checkbox"/> Red: Band_1 |
| <input type="checkbox"/> 8-18 - Undulating to Rolling | <input type="checkbox"/> Green: Band_2 |
| <input type="checkbox"/> 18-30 - Rolling to Moderately Steep | <input type="checkbox"/> Blue: Band_3 |
| <input type="checkbox"/> 30-50 - Steep | <input type="checkbox"/> Barangay Boundary |
| <input type="checkbox"/> 50 & Above - Very Steep | |

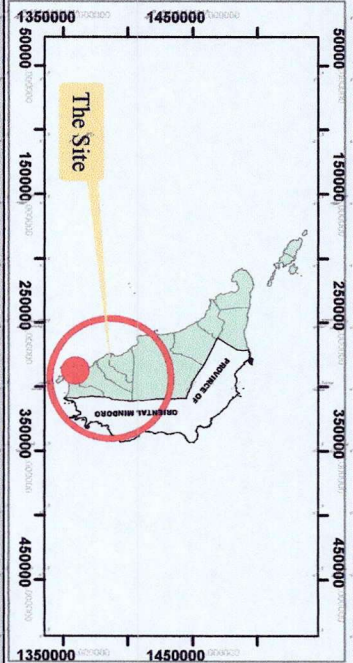
NOTE:

1. Cave Assessment Conducted July 7, 2022

2. Cave Classification: Class II

3. Slope is 0-18 - Undulating to Steep (Generated from DTM)

4. All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or by any information storage and retrieval system, without prior written permission from the Department of Environment and Natural Resources.





LANDSLIDE SUSCEPTIBILITY MAP OF CANSUBONG CAVE







APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.




LOCATED AT:
Site: Cansubong
Barangay: Labangan Iling, Tinian Island
Municipality: San Jose
Province: Occidental Mindoro



Cansubong Cave
Barangay Boundary



Landslide
Low Landslide Susceptibility
Moderate Landslide Susceptibility
High Landslide Susceptibility
Very High Landslide Susceptibility

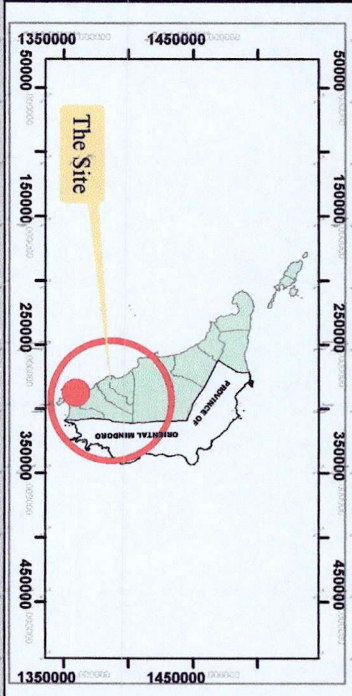


RGB
Red: Band_1
Green: Band_2
Blue: Band_3

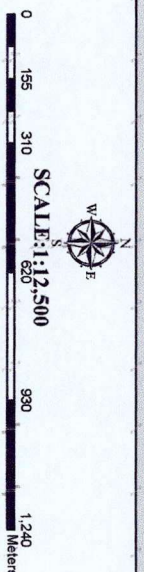
OCMTOPO.tif

NOTE:

1. Cave Assessment Conducted: July 7, 2022
2. Cave Classification: Class II
3. Landslide Susceptibility: High Landslide - Moderate Landslide Susceptibility (Reference: Regional Office)
4. All rights reserved. This map is for reference only. No warranty is made as to the accuracy of the data or the extent of Political Boundary or Jurisdictional Boundaries.

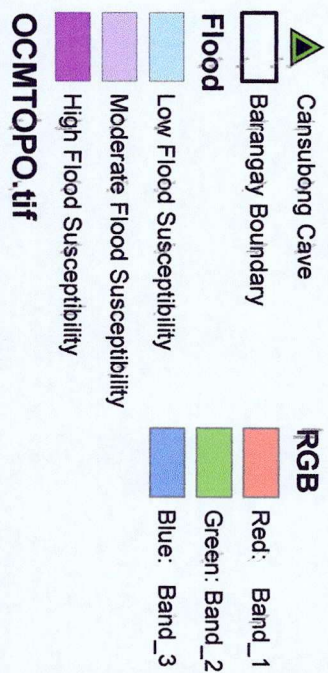


FLOOD SUSCEPTIBILITY MAP OF CANSUBONG CAVE



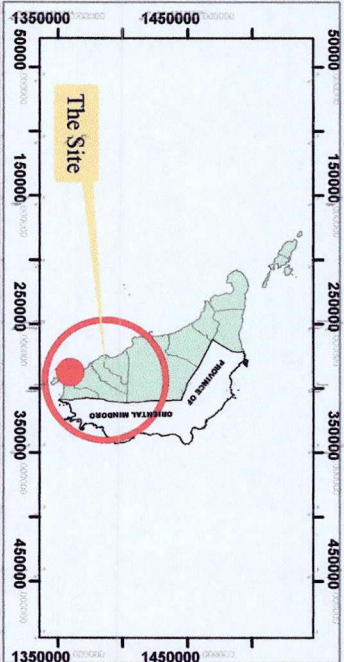
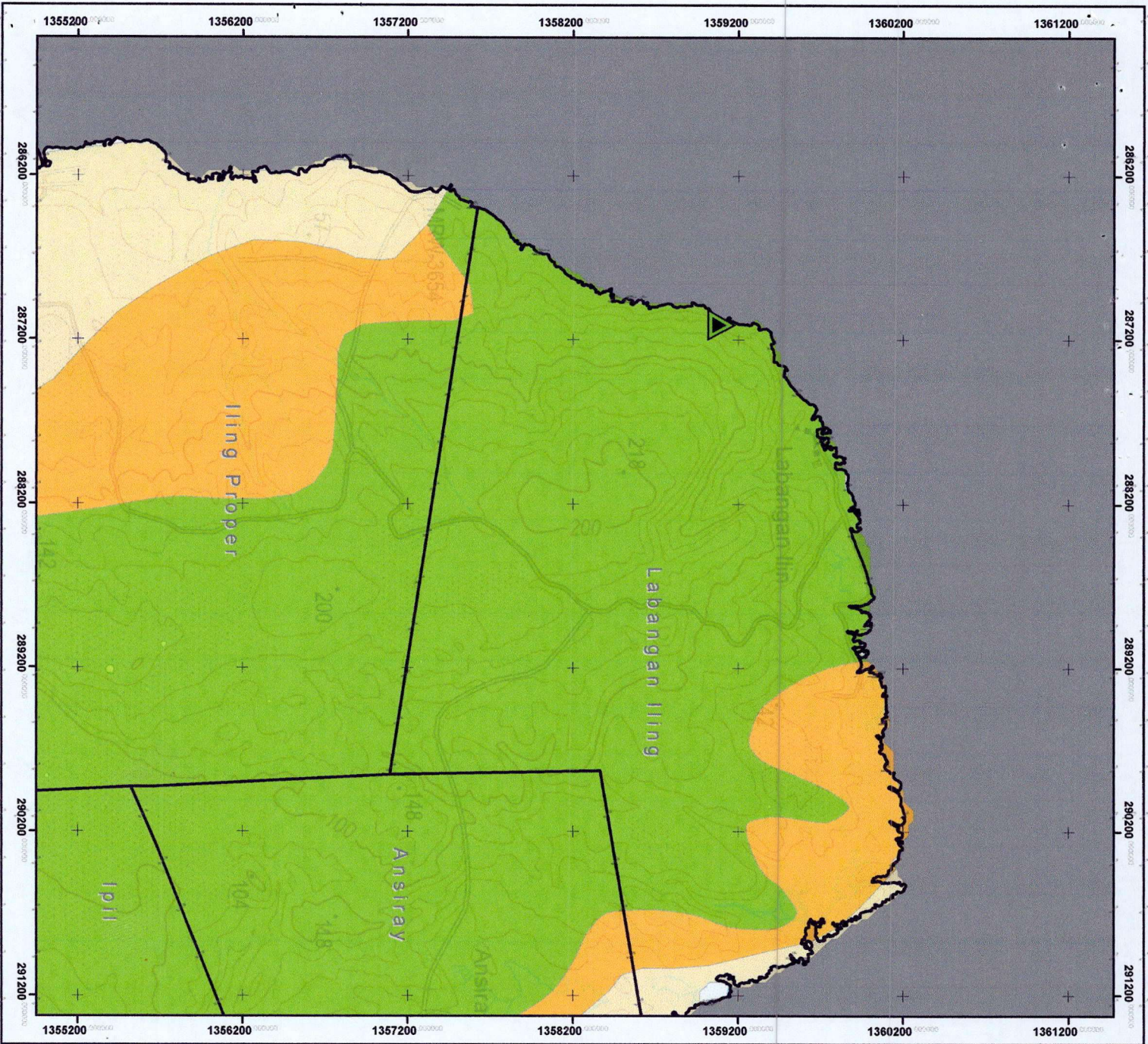
APPROXIMATE AREA: 494.95 Sq.m.
CAVE LENGTH: 84.52 m.

LOCATED AT:
Site: Cansubong
Barangay: Labangan Iling, Tinian Island
Municipality: San Jose
Province: Occidental Mindoro

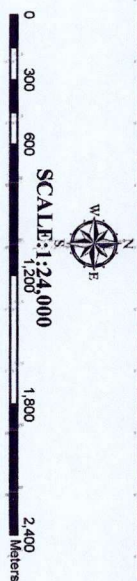


NOTE:

1. Cave Assessment Conducted July 7, 2022
2. Cave Classification: Class II
3. Flood Susceptibility: Moderate Flood Susceptibility (Reference: Regional Office)
4. All Flood Susceptibility: Moderate Flood Susceptibility (Reference: Regional Office)
5. No interference on Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries.

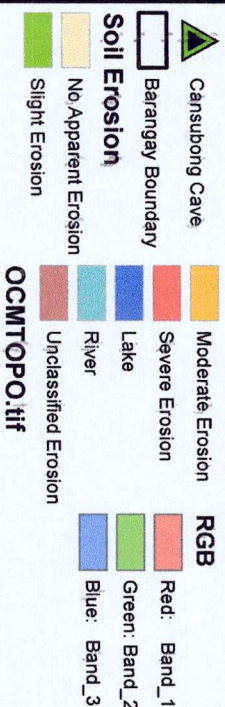


SOIL EROSION MAP OF CANSUBONG CAVE



APPROXIMATE AREA: 494.95 Sq.m.
 CAVE LENGTH: 84.52 m.

LOCATED AT:
 Site: Cansubong
 Barangay: Labangan Iling, Ilin Island
 Municipality: San Jose
 Province: Occidental Mindoro



1. Cave Assessment Conducted July 7, 2022
 2. Cave Closed for Assessment
 3. Soil Erosion Map is for Reference Only
 4. All information in this Map is for Planning Use Only. No interference on Claims shall be made as to the extent of Political Boundary or Jurisdictional Boundaries