Report on the Physical Component of the Conservation Needs Assessment of Mindoro Island, Philippines

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List of Acronyms

CADC	-	Certificate of Ancestral Domain Claim
CADT	-	Certificate of Ancestral Domain Title
CBFM	-	Community-Based Forest Management
DENR	-	Department of Environment and Natural Resources
DOST	-	Department of Science and Technology
EP	-	Exploratory Permit
FMB	-	Forest Management Bureau
FTAA	-	Financial/Technical Assistance Agreement
GIS	-	Geographic Information System
IBA	-	Important Bird Areas
MBCFI	-	Mindoro Biodiversity Conservation Foundation Incorporated
MGB	-	Mines and Geosciences Bureau
MPSA	-	Mineral Production and Sharing Agreement
NAMRIA	-	National Mapping and Resource Information Authority
NBSAP	-	National Biodiversity Strategy and Action Plan
NIPAS	-	National Integrated Protected Areas System
NCIP	-	National Commission on Indigenous Peoples
PAWB	-	Protected Areas and Wildlife Bureau
PBCPP	-	Philippine Biodiversity Conservation Priority-setting Program
PCARRD	-	Philippine Council for Agriculture, Forestry, and Natural Resources Research and Development
RA	-	Republic Act
SPPF	-	Sablayan Prison and Penal Farm

Introduction

The Philippines is one of the richest countries in the world in terms of biological diversity. It holds greater than 50,000 species of plants and animals, of which more than half exist only within its islands and are found nowhere else in the world (Ong et al.2002). It even boasts, as a point of comparison, more endemic species on a per area basis than much larger countries like Brazil and Madagascar, such that the Philippines is commonly thought of as the "Galapagos Island multiplied tenfold" (Heaney and Regalado 1998).

However, the Philippine archipelago is also recognized as one of 34 global biodiversity hotspots, or biologically-rich countries that are under a high degree of threat. In fact, less than 6% of its original forest remains and 641 species are listed as globally-threatened under the 2008 IUCN Red List of Threatened Species (IUCN 2008; Conservation International-Philippines et al. 2006). The main threats to Philippine biodiversity include the destruction of natural habitats, and unsustainable resource use practices and development activities due to increasing human population pressure. This situation has led to the Philippines being regarded as one of the highest global priorities for conservation of biodiversity.

In 2002, 206 conservation priority areas, comprised of both terrestrial and marine areas, have been identified under the National Biodiversity Strategy and Action Plan. From the list of conservation priority areas, 128 were identified as Key Biodiversity Areas (KBA) based on the standard criteria of vulnerability and irreplaceability. These KBAs represent the diverse range of habitats found within the archipelago, including forests, coastal/marine, and wetland ecosystems in general.

Mindoro Island, situated in the central part of the Philippines, constitutes one of the major biogeographic regions in the country, exhibiting high levels of species richness and a diverse range of habitats. It is home to the critically endangered Mindoro Dwarf Buffalo (*Bubalus mondorensis),* locally known as the "Tamaraw", which is found only in Mindoro and is considered as the largest endemic mammal in the Philippines (IUCN 2008). For birds alone, six endemic species have been recorded on the island out of the total 576 species found in the country (Haribon Foundation 2004; Ong et al.2002). Apart from its wealth of biological resources, it is also the home of the indigenous Mangyan tribes, making the island one of the important cultural centers of the Philippines.

But like many of the unique islands of the country, Mindoro's immense natural wealth is threatened by anthropogenic activities such as land conversion, illegal wildlife hunting, and timber poaching; it is also consistently assailed by large-scale mining applications. Most of the original forest cover of the island has already declined in the last century, as shown by the forest cover maps of the ESSC (1999). Protection efforts in the past were either implemented but not sustained, or were sadly unsuccessful at all. Existing conservation programs may also not be enough to significantly secure the island's natural wealth for the future generations.

Mindoro Island is considered as one of the top priority conservation areas both locally and internationally, requiring the need for immediate conservation interventions to protect and preserve the islands' remaining habitats and important wildlife. The Mindoro Biodiversity Conservation Foundation, Inc. (MBCFI) was established to address the long-term conservation of Mindoro's endemic wildlife and their natural habitats for the benefit of future generations of all peoples through its mandate to develop integrated biodiversity conservation and development programs, which include improved dissemination of knowledge, management practices and the active participation and collaboration of relevant stakeholders.

The conservation needs assessment of Mindoro Island was proposed to aid in decision-making and developing conservation interventions. This report focuses on the mapping and physical aspect of the conservation needs assessment.

Objectives

Using geomatics tools, the physical component seeks to provide background information on relevant geographic and spatial features of Mindoro Island, relevant to addressing its conservation needs. It will also assess the extent and distribution of remaining key habitats on Mindoro Island and its municipalities, and within the conservation priority sites identified by MBCFI. The analyses will also provide an indication of the potential coverage of each conservation site as input for the future delineation of their extent or boundaries.

Specifically, the geomatics component aims to:

1. Gather relevant secondary data and information on the mapping and physical aspects of Mindoro Island, including administrative boundaries, topography and hydrology, land cover, mineral resources, and tenurial instruments; and

2. Provide inputs and recommendations on the mapping and physical aspects of Mindoro Island in support of program development activities of MBCFI.

Methodology

Secondary data gathering

Available maps and secondary data pertaining to the physical and land use aspect were obtained including topography, climate, land cover, tenurial instruments, administrative boundaries, among other pertinent data. Boundary monuments and benchmarks were secured for geo-referencing of scanned images of tenurial instruments. A review of related literature was conducted and integrated in the report, including geographical references and conservation studies on Mindoro, relevant policies and local land use plans, if available, which were requested from different concerned agencies and organizations.

Map digitizing

Hardcopy maps were procured, scanned, digitized, and converted to electronic formats, particularly as shapefiles or JPEG images, for incorporation in a geographic information system (GIS). Tabular data such as technical descriptions and other coordinate data were encoded into spreadsheets and converted into tab delimited text files, which were imported into a GIS software.

Spatial analyses

All spatial data were incorporated into a GIS as shapefiles to facilitate better data integration, manipulation, and analyses. All scanned maps were saved in JPEG or TIFF formats. Thematic datasets adopt the Universal Transverse Mercator projection Zone 51 North and the Luzon datum. ArcView® GIS 3.2 developed by ESRI was used as the primary software including some 3rd party developer extension tools for geo-processing, conversion between projections, area computations, plotting technical descriptions, and topographical analysis.

Results and Discussion

Location

Mindoro Island is situated at the central portion of the Philippine archipelago, off the southern coast of mainland Luzon. The island is bounded on the north by the Verde Island Passage, and partly by the South China Sea; on the east by Tablas Strait; on the west by Mindoro Strait; and on the south by the Sulu Sea.

Its neighboring islands and provinces include:
Batangas province on mainland Luzon to the north; the Calamianes Island Group of the province of Palawan to the southwest; the island province of Marinduque to the northeast; and the island group province of Romblon, and the provinces of Antique and Aklan on Panay Island to the southeast.

Administrative Coverage

Mindoro Island is composed of 247 islands and islets, including seven major islands, namely (in order of land area, beginning from the largest): Mindoro, Lubang, Ilin, Ambil, Golo, Ambulong, and Cabra Islands. The islands have a total land area of 1,003,854 hectares (based on the municipal boundary data digitized by Conservation International-Philippines from NAMRIA 1:50,000 topographic maps). It is divided into two administrative provinces: Mindoro Occidental and Mindoro Oriental, each having 11 and 15 municipalities, respectively (Table 1).

Mindoro Occidental has a total land area of 582,748 hectares (which is 58.05% of the total land area of Mindoro), and occupies the eastern half of Mindoro. Mamburao is the provincial capital. Sablayan is the largest municipality in terms of land area, not only for the province but for the entire island, comprising almost 23% of the total land area of Mindoro; it is even almost twice the size of the province of Cavite.

Table 1. Land area of the municipalities and provinces Mindoro.

Province	**Municipality / City**	**No. of Barangays**	**Land Area (ha.)**	**% of total land area of Mindoro**
Mindoro Occidental Total land area: 582,748 hectares (58.05% of total land area of Mindoro)	1. Abra de Ilog	9	58,796	5.86
	2. Calintaan	7	31,399	3.13
	3. Looc	9	12,821	1.28
	4. Lubang	16	12,491	1.24
	5. Magsaysay	12	35,222	3.51
	6. Mamburao	15	30,962	3.08
	7. Paluan	12	52,870	5.27
	8. Rizal	11	18,870	1.88
	9. Sablayan	22	230,336	22.95
	10. San Jose	38	39,310	3.92
	11. Santa Cruz	11	59,670	5.94
Mindoro Oriental Total land area: 421,106 hectares (41.95% of total land area of Mindoro)	12. Baco	27	29,069	2.90
	13. Bansud	13	24,657	2.46
	14. Bongabong	36	48,054	4.79
	15. Bulalacao	15	32,470	3.23
	16. Calapan City	62	24,651	2.46
	17. Gloria	27	27,492	2.74
	18. Mansalay	17	50,547	5.04
	19. Naujan	70	39,759	3.96
	20. Pinamalayan	37	24,347	2.43
	21. Pola	23	10,884	1.08
	22. Puerto Galera	13	22,577	2.25
	23. Roxas	20	8,867	0.88
	24. San Teodoro	8	34,244	3.41
	25. Socorro	26	18,525	1.85
	26. Victoria	32	24,965	2.49
TOTAL		588	1,003,854	100.00

Mindoro Oriental, on the other hand, has a total land area of 421,106 hectares (or 41.95% of the total land area of Mindoro), and occupies the western half of Mindoro Island. Calapan City is the provincial capital. The municipality of Mansalay is the largest town of the province.

Based on NSO DATOS 2002 data, there are 588 barangays found in both provinces of Mindoro with 162 and 426 barangays in Mindoro Occidental and Mindoro Oriental, respectively. Naujan has the most number of barangays followed by Calapan City, both in Mindoro Oriental province. San Jose consists of 38 barangays, the highest number of barangays in Mindoro Occidental.

Topography

Topography describes the nature of the surface of the land. Slope and contour information were interpolated from the Shuttle Radar Topography Mission (SRTM) data produced by the joint efforts of the United States National Geospatial Intelligence Agency, the National Aeronautics and Space Administration, the National Imagery and Mapping Agency (NIMA), and the Italian and German space agencies (Rodriguez et al.2005). Slope categories used in this report adopts the standard slope classification used by the Department of Environment and Natural Resources.

Mindoro Island is basically considered as highland owing to its high relief and dominantly steeply sloping to mountainous terrain (Figure 1, Table 2). Mt. Halcon is the highest summit on the island, standing at an estimated elevation of 2,560 meters above mean sea level. High elevations and steeply sloping areas are concentrated at the central axis of the island, running from northwest to southeast. Mountainous terrain accounts for 13.94% of the island.

Lowland flat areas are mostly situated at the eastern portion of the island, mainly at Mindoro Oriental; the most extensive flat areas are situated in the municipalities of Naujan, Victoria, Baco, and the City of Calapan, which are typically used for agricultural purposes. Although not as extensive as its neighboring province, lowland flat areas in Mindoro Occidental are situated in the municipalities of Sablayan, Santa Cruz, Rizal, San Jose, and Magsaysay.

Table 2. Slope categories of Mindoro Island.

Slope Category	Description	Area (ha.)	% to total land area of Mindoro
0 – 3%	Level to gently sloping	278,375	27.70
3 – 8%	Gently sloping to undulating	61,965	6.17
8 – 18%	Moderately sloping	132,690	13.20
18 – 30%	Steeply sloping	164,162	16.34
30 – 50%	Very steeply sloping	227,687	22.66
Over 50%	Mountainous	140,059	13.94
T O T A L		1,004,938	100.00

Note: The area total from the slope computations differ by approximately 11 square kilometers from the computed administrative land area of the islands. This discrepancy is due to the inherent difference in data formats (i.e., raster vs. vector data formats for slope and administrative boundary, respectively), which is best manifested along the coastlines.

Climatic Condition

Climate refers to the average weather conditions of a place over a certain period or the historical record of average daily and seasonal weather events. It encompasses the temperatures, humidity, rainfall, and other meteorological factors in a given region over long periods of time.

Climate Types

Mindoro Island experiences to two climatic types: Type I and Type III based on the Coronas climate classification (PAGASA et al.1992). The two types are described as follows:

> Type I: two pronounced seasons, dry from December to May and wet from June to December. Maximum rain period is from June to September. Areas characterized by this climate type are generally exposed to the southwest monsoon (*habagat)* and get a fair share of the rainfall brought about by tropical cyclones occurring especially during the maximum rain period.
>
> Type III: No very pronounced maximum rain period, with a short dry season lasting only from one to three months. This type is intermediate between Types I and II, although it resembles the first type more closely because it has a short dry season. Areas of this climate type are partly shielded from the northeast monsoon (*amihan)* but are exposed to the southwest monsoon and are also benefited by the rainfall caused by tropical cyclones.

The boundary between the two climate types is roughly situated over the highlands, stretching from Abra de Ilog going southwest along high elevations to Bulalacao (Figure 2). Areas classified under Type I comprise almost the entire province of Mindoro Occidental, including Lubang and Ilin Islands; Bulalacao in Mindoro Oriental; but excluding western portions of Abra de Ilog. Mindoro Oriental is mostly classified under Type III, with the exception of Bulalacao and portions of Mansalay and Bongabong.

The noticeable difference in vegetation types on both sides of Mindoro's highlands, for example: grasslands at Sablayan side, and forests at Mindoro Oriental side, is a classic rain shadow effect generally resulting from the two different climate types experienced by Mindoro, the frequency of tropical cyclones, and its topography.

Rainfall, Humidity, and Temperature

As of this writing, no substantial secondary data has been gathered yet concerning the rainfall, humidity, and temperature information of the island.

Land Cover and Habitat Types

For the purposes of gathering available secondary data on land cover, this report uses two series of national land cover maps: the 1987 data produced by Swedish Space Corporation (SSC), and the 2003 joint NAMRIA and Forest Management Bureau data; the latter being the most recent available land cover data of Mindoro Island. An overlay of the two datasets was also implemented to derive possible changes in land cover during a period of 16 years.

Due to the variance in land area baselines used in each dataset owing to the differing methodologies employed by its developers, both datasets were geo-processed to conform to the extent of administrative boundary data digitized from 1:50,000 topographic maps. This has resulted in non-existent areas in both land cover datasets being treated as existing land in the administrative boundary data; these discrepancies, while negligible (i.e., 0.16% and 0.67% for 2003 and 1987 data, respectively), are reflected nonetheless as "no data" types for purposes of consistency in land area figures.

It should also be noted early on in this section that assessments on the integrity of the datasets have been published in other studies. In the case of SSC data, Kummer (1992) described inherent limitations such as the inadequacy of ground reference data for such an extensive scope, and its incompatibility for comparisons with previous forest inventories. Further, De Alban (2005) similarly highlighted the implications of the SSC data limitations in terms of area calculations and its coarseness for site conservation planning. The Asian Development Bank (2004) also pointed out uncertainties pertaining to the NAMRIA-FMB forest cover data.

Despite these weaknesses, the two datasets
are used here mainly on the basis of practicality and the scope of this preliminary geomatics work. This report only consolidates as much relevant secondary information to come up with a quick assessment of the conservation needs of Mindoro Island. Time constraint then rules out the use of more reliable land cover data, such as those derived from satellite image interpretation, which require a considerable period of time to process and interpret, and is thus beyond the time frame of this preliminary study. But basically both datasets are nevertheless official data and are also the best available in the absence of interpreted satellite imagery.

1987 Land Cover Data

For this dataset, eighteen (18) land cover types are discriminated (Figure 4, Table 3). The dominant land cover features include brushlands, cultivated lands, forests (in this case, divided into 3 subtypes), and grasslands.

In 1987, forests took up less than a tenth (8.62%) of the total area of Mindoro, and were mostly situated at the central highlands. Forest types were mainly classified in terms of canopy cover—e.g., greater than 50% cover was treated as closed canopy; pine forests however were not distinguished. Mangroves were similarly sparse and were situated along coastlines and at Apo Reef.

2003 Land Cover Data

Sixteen (16) land cover types, excluding No Data, are reflected in the 2003 data (Figure 3, Table 3). The dominant land cover features include shrublands, forests (which are divided into 4 subtypes), grasslands, and cultivated lands. Forests account for almost one-fifth (19.15%) of the total area of Mindoro; these are mainly found on highlands located at the northern half of the island. Sablayan, being the largest
municipality, holds approximately 74,666 hectares (38.84%) of the total forest cover of Mindoro. Forest patches of varying types are scattered in the municipalities of Sablayan, San Jose, Paluan; between the boundary of Pola and Naujan; and Lubang Island, among a few others. Pine forest patches, or conifers, occur only in the municipality of Santa Cruz. Mangroves are sparse and are located along coastlines and at Apo Reef Marine Natural Park.

Shrublands, the dominant land cover which occupies an estimated 33% of the total area of Mindoro, are mainly situated in the northwest, eastern, and southern portions of the island. Grasslands, including partially wooded grasslands, take up a quarter (25.63%) of the total land area of Mindoro. These occur more extensively at the western side of Mindoro, due to the effect of its climate type and topography. Small patches of grasslands also occur on the Mindoro Oriental side, such as in the municipalities of Bulalacao, Bansud, Bongabong, Mansalay, Gloria, and Pinamalayan.

Cultivated areas also account for almost one-fifth (19.40%) of total area of Mindoro. Annual crops generally suggest at most a single planting and harvesting season throughout the year; these types of cultivated lands are scattered across the lowland areas of both provinces. Perennial crops involve at least two planting and harvesting cycles in a year, suggesting the utilization of irrigation; these crop types are more present in Mindoro Oriental, which is easily explained by its generally even rainfall distribution across the year due to the type of climate it experiences. Fishponds are present only in a few municipalities: San Jose, Magsaysay, Roxas, and Calapan.

Table 3. Land cover type classifications of Mindoro Island for 1987 and 2003.

1987 Land Cover Type	Land Area (ha.)	% to total land area of Mindoro	2003 Land Cover Type	Land Area (ha.)	% to total land area of Mindoro
Arable land, crops mainly cereals and sugar	101,934	10.15	Closed forest, broadleaved	49,495	4.93
Built-up area	598	0.06	Forest plantation, broadleaved	38,441	3.83
Closed canopy, mature trees covering > 50%	20,606	2.05	Open forest, broadleaved	103,608	10.32
Coconut plantations	9,324	0.93	Open forest, coniferous	695	0.07
Coral reef	549	0.05	Mangrove forest	1,133	0.11
Crop land mixed with coconut plantations	120,217	11.98	Inland water	4,058	0.40
Crop land mixed with other plantation	849	0.08	Built-up area	2,243	0.22
Cultivated area mixed with brushland/grassland	545,922	54.38	Cultivated land, annual crop	116,504	11.61
Fishponds derived from mangrove	6,951	0.69	Cultivated land, perennial crop	78,155	7.79
Grassland, grass covering > 70%	104,915	10.45	Fishpond	5,096	0.51
Lake	437	0.04	Barren land	11,545	1.15
Mangrove vegetation	1,615	0.16	Grassland	183,197	18.25
Marshy area and swamp	55	0.01	Marshland	1,904	0.19
Mossy forest	14,124	1.41	Fallow land	595	0.06
Open canopy, mature trees covering < 50%	51,830	5.16	Shrubland	331,529	33.03
Riverbeds	11,743	1.17	Wooded grassland	74,057	7.38
Siltation pattern in lake	94	0.01	No data	1,600	0.16
Unclassified	5,414	0.54	--	--	--
No data	6,676	0.67	--	--	--
1987 TOTAL	1,003,854	100.00	**2003 TOTAL**	1,003,854	100.00

Brushlands, although partly cultivated and mixed with grasslands, similarly formed the dominant land cover which occupied more than half of the total area of Mindoro. Grasslands, mainly referring to those areas covered with grasses by greater than 70%, took up only close to a tenth (10.45%) of the total land area of Mindoro. Again, grasslands occurred more prominently at the western side of Mindoro through the effect of geographical factors, with minor patches of grasslands also occurring on the Mindoro Oriental side.

Plantations and cultivated areas accounted for almost one-fourth (23. 14%) of total area of Mindoro. It is

not clear, however, which areas are identified
as annual or perennial agricultural plots based on the 1987 classification. The land cover map suggests that croplands mixed with plantations such as coconuts were perennial crops based on their general location; arable lands indicated seasonal cropping. Fishponds were also present in the municipalities of San Jose, Magsaysay, Roxas, Calapan, Pola, and Mansalay.

Changes in Land Cover from 1987 to 2003

Despite the inherent weaknesses of the datasets mentioned earlier in this section, an attempt was made to group similar cover types and to match these corresponding broad types between datasets in order to determine changes in land cover from 1987 to 2003. The groupings resulted in a generalization of land cover types into broader categories to allow a plausible comparison between the two maps (Table 4). Land cover types were broadly categorized into four (4) major classifications: forests, grasslands, brushlands, and cultivated areas and plantations; minor classifications (in terms of area) include six (6) types: built-up areas, fishponds, barren lands, inland water bodies, mangroves, and marshes.

Table 4. Matrix of broad land cover categories from matching of 1987 and 2003 land cover types.

Outcome	Broad Land Cover Category	1987 Land Cover Type	2003 Land Cover Type
Plausible reconciliation	MAJOR		
	Cultivated areas and plantations	• Arable land, crops mainly cereals and sugar • Coconut plantations • Crop land mixed with coconut plantations • Crop land mixed with other	• Cultivated land, annual crop • Cultivated land, perennial crop • Fallow land
	Grasslands	• Grassland, grass covering > 70%	• Grassland • Wooded grassland
	Forests	• Closed canopy, mature trees covering > 50% • Open canopy, mature trees covering <50% • Mossy forest	• Closed forest, broadleaved • Forest plantation, broadleaved • Open forest, broadleaved • Open forest, coniferous
	Brushlands	• Cultivated area mixed with brushland/grassland	• Shrubland
	MINOR		
	Built-up areas	• Built-up area	• Built-up area
	Fishponds	• Fishponds derived from mangrove	• Fishpond
	Barren lands	• Riverbeds • Siltation pattern in the lake	• Barren land
	Inland water bodies	• Lake	• Inland water
	Mangroves	• Mangrove vegetation	• Mangrove forest
	Marshes	• Marshy area and swamp	• Marshland
Cannot be reconciled	NO CATEGORY	Coral reefs; Unclassified; No data	No data

Table 5 shows the variance (in percentage change) between the different land cover types from 1987 to 2003, a temporal difference of 16 years. The highlighted values represent the percentage of a particular land cover type that had not changed from 1987 through 2003, or in other words, had remained unchanged either by natural or anthropogenic factors (e.g., 65.94% of cultivated areas in 1987 had remained unchanged as cultivated areas in 2003). For major land cover types, with the inclusion of fishponds and built-up areas, changes that occurred as land conversion into other types are less than 50%; grasslands, for example, remains the highest unchanged cover type (80.21%) in 16 years. Other minor land cover types, such as mangroves, barren lands, inland water bodies, and marshes, have experienced rather drastic changes from 1987 to 2003.

Table 5. Variance between 1987 and 2003 land cover (in percentage).

%	2003											
1987	1	2	3	4	5	6	7	8	9	10	11	Total
1	65.94	23.13	0.93	5.56	0.60	0.42	1.68	0.67	0.26	0.71	0.12	100.00
2	2.11	80.21	7.50	9.46	-	-	0.05	0.63	-	-	0.03	100.00
3	0.51	2.65	67.94	28.65	-	0.00	0.15	-	0.09	-	0.00	100.00
4	5.28	20.10	22.42	51.50	0.02	0.00	0.39	0.18	0.01	0.02	0.07	100.00
5	13.59	11.31	1.78	-	70.21	0.74	-	1.64	-	-	0.73	100.00
6	25.67	13.39	0.03	0.66	1.56	51.09	0.46	3.29	2.60	-	1.26	100.00
7	23.28	24.20	0.27	5.39	0.00	-	44.31	2.46	0.03	-	0.06	100.00
8	24.70	2.77	37.58	-	-	-	-	16.69	-	18.26	-	100.00
9	83.36	2.06	-	-	0.26	1.16	0.45	5.74	6.05	0.91	0.01	100.00
10	56.52	39.50	0.64	0.05	3.29	-	-	-	-	-	0.01	100.00
11	35.25	26.74	6.18	16.13	1.89	4.17	0.49	1.30	1.05	0.37	6.44	100.00
Total	19.45	25.63	19.15	33.03	0.22	0.51	1.15	0.40	0.11	0.19	0.16	100.00

Key for Broad Land Cover Categories: 1 – cultivated areas; 2 – grasslands; 3 – forests; 4 – brushlands; 5 – built-up areas; 6 – fishponds; 7 – barren lands; 8 – inland water bodies; 9 – mangroves; 10 – marshes; 11 – no data.

The following is a brief analysis and description of changes for each particular land cover type:

1.) Cultivated areas. An estimated 65.94% of cultivated areas had remained unchanged. About 23.13% have reverted into grasslands, of which the possible causes of conversion could be the abandonment of these farm lands or a prolonged fallow period. About 5.56% have changed into brushlands, or possibly have been developed as agroforests.

2.) Grasslands. A large proportion (80.21%) of grasslands had remained unchanged. From the data, 9.46% of grasslands may have succeeded into brushlands by natural progression of vegetation growth and expansion; the change to forests from grasslands may similarly have been through the natural growth of vegetation, or possibly through human-induced reforestation. A small portion (2.11%) of grasslands have also been converted into cultivated areas and other agricultural purposes.

3.) Forests. Changes in forest areas were dominantly into brushlands (almost 29%). This may be due to the extraction of forest resources and degradation. Two-thirds of forests (67.94%) remained unchanged from 1987 to 2003.

4.) Brushlands. Only a little more than half (or 51.50%) of brushlands had remained unchanged from 1987 to 2003. About 22.42% may have progressed into forests, according to the data. About 5.28% have been converted for agricultural purposes while 20.10% have transformed into grasslands (possibly from conversion into agricultural areas which were later on abandoned, since direct change may be highly unlikely unless evidence to support this observation is available).

5.) Built-up areas. Almost three-fourths of built-up areas (70.21%) had remained unchanged. Major changes into other types are into cultivated areas (13.59%) and grasslands (11.31%), which may be considered as highly unlikely.

6.) Fishponds. Majority of fishponds (51.09%) had remained unchanged. Changes that occurred were into cultivated areas (25.67%), which is not unlikely; and into grasslands (13.39%), which may have occurred as a result of abandonment.

7.) Barren lands. Changes were mainly into grasslands (24.20%). Since these barren lands include riverbeds, the encroachment of grassy vegetation may be possible. On the other hand, 23.28% were converted for cultivation. Less than half (44.31%) of 1987 barren lands had remained unchanged in 2003.

8.) Inland water bodies. Only 16.69% of inland water bodies remained unchanged, although

18.26% may have been misclassified
instead as marshes. Conversion into cultivated areas or forests could be unlikely, but may be explained instead through the limitation of the data (since small areas can be easily generalized at coarse map scales).

9.) Mangroves. Only 6.05% of mangroves remained unchanged. Much of the change was the result of conversion into cultivated areas (83.36%), which is a highly likely land use change scenario. Other changes involve 1.16% of mangroves converted into fishponds, while 5.74% had reverted into inland water bodies (possibly through the accretion of rivers and inland water bodies on mangrove areas).

10.) Marshes. Existing marshes in 1987 became virtually non-existent as of 2003. But again, the limitation of the data should be considered at this point since small areas, such as the condition of marshes in 1987, can be easily generalized at coarse map scales.

11.) No data. Changes occurring in this category are not considered for analysis due to the data limitations mentioned earlier in this section.

It may be noted from the result of the land cover change analysis that forest cover increased from 1987 to 2003. However, it can also be argued that forest types in 2003 include forest plantations, unlike 1987 types which were confined to natural forests. The land cover change analysis also had not considered the changes of forest cover in terms of different subtypes or habitats as the classification of forest cover data in both datasets are not readily comparable (i.e., 1987 mainly in terms of canopy cover; 2003 mainly in terms of forest types).

Possibly, the coarse resolution of both land cover maps explains the discrepancies in some improbable changes in cover types such as built-up areas into cultivated areas or grasslands, and inland water bodies into cultivated areas or forests. The analysis, nevertheless, yielded some plausible land cover change outcomes in the 16-year temporal difference. It is suggested that the changes in land cover types could be verified later on through primary data gathering (e.g., accounts or testimonies of local communities concerning land cover and land use changes, municipal government records, provincial DENR offices). But ultimately, the analysis reveals changes in major land cover or habitat types should be monitored for biodiversity conservation assessment and planning.

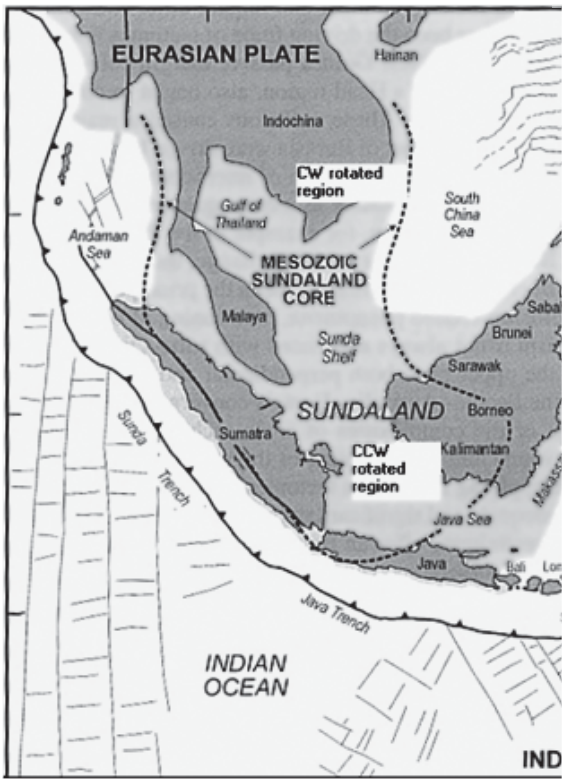
Geology and Mineral Resources

Geology

Philippine tectonics is one of the most active in the world. The country's tectonic activity is the result of the interaction of three (3) major tectonic plates, namely: the Pacific, the Eurasian, and Indian-Australian Plates (see inset figure A). The boundary between the eastern margin of the Eurasian Plate and the Philippine Sea Plate

is a complex system of subduction zones, collision zones, and marginal sea basin openings (Aurelio and Peña 2004). An actively deforming zone is created in between these two plates, which is referred to as the Philippine Mobile Belt.

The Philippine archipelago, in general, can be divided into two (2) geologic entities, particularly: 1) the Philippine Mobile Belt, and 2) the North Palawan Block. Each of these 2 entities is composed of different types of lithologic units including metamorphic rocks, ophiolites and ophiolitic rocks, magmatic rocks and active volcanic arcs, and sedimentary basins. The country is generally interpreted as a collage of insular arcs, ophiolitic suites, and continental rocks of Eurasian affinity.



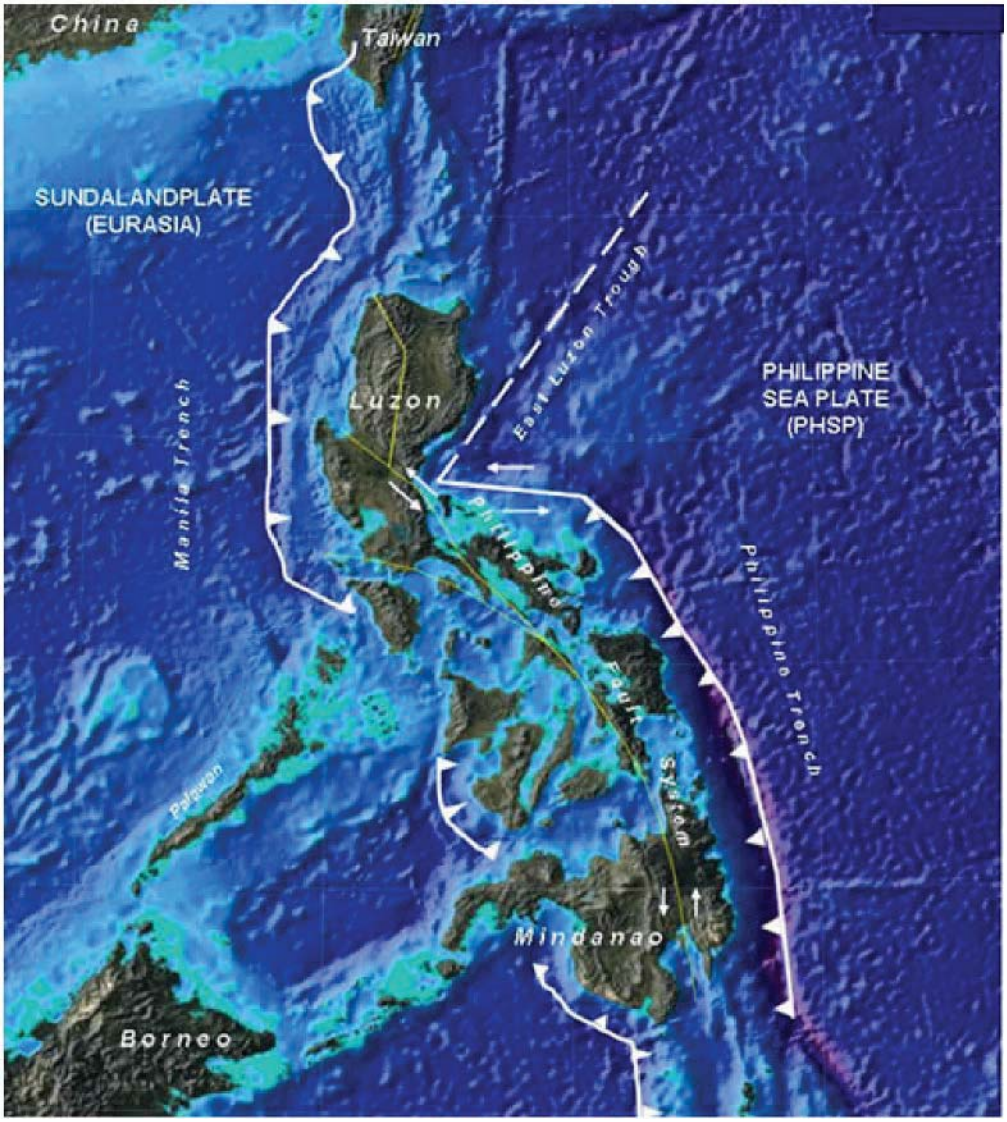
Inset Figure A. Map showing the interactions of three (3) major tectonic plates, namely: the Pacific, the Eurasian, and Indian-Australian Plates. (Source: Michael D. Fuller at http://www.higp.hawaii.edu).

Metamorphic rocks (or rocks that have been changed from its original form by subjection to heat and pressure) of continental origin are located in northern Palawan, Mindoro, and Panay, and some neighboring islands; metamorphic formations of insular affinity are sporadically distributed throughout the archipelago.

Ophiolites, an assemblage of ultramafic rock fragments of the ocean crust that has been uplifted onto a continental crust, are widely spread throughout the archipelago and represent the basement on which magmatic arcs are developed. Magmatic arcs in the Philippines, however, according to Aurelio and Peña (2004), are still poorly understood.

Sedimentary basins, particularly for Mindoro, are both sedimentary formations thrust over continental formations (belonging to the North Palawan Block) and juxtaposed with the South China Sea ophiolitic crust; the sedimentation fill is composed of a limestone body and overlain by volcaniclastic rocks becoming more carbonaceous towards the surface.

The Philippine Fault is a designated fault zone cutting through almost the entire length of the archipelago (see inset figure B); this fault has been observed to extend to more than 1,200 kilometers from Luzon to Mindanao. The Mindoro/Aglubang Fault, one of several active faults in the country in addition to the Philippine Fault and its branches, represents the break in slope between the mountainous western portion of Mindoro and the flatlands of the eastern portion, as observed in Figure 1.



Inset Figure B. Map showing the Philippines flanked by the Philippine Sea and Eurasian Plates. The Philippine Fault traverses the whole length of the archipelago, and is divided into three major segments: northern (NW Luzon to Lamon Bay), central (Bondoc Peninsula to Leyte), and southern (Mindanao and the Moluccas). (Source: Bahay Kubo Research at http://www.bahaykuboresearch.net).

Mineral Resources

Mineral deposits in the Philippines have formed in three distinct geologic environments: oceanic, island arc, and continental. Many of the tectonic regions in the Philippines are a mixture of several environments due

to the amalgamation of different tectonic terrain and the replacement of older geologic environments by younger ones (BMG 1986). Geologic processes lead to the formation of mineral deposits, of which when removed from the earth's surface can never be replaced again and are thus regarded as non-renewable resources.

Due to its complex geologic history, the Philippines' mineral endowments have been recognized as one of the highest in the world, with established reserves of 13 metallic and 29 non-metallic minerals despite its relatively small land area (MGB 2009). According to the Mines and Geosciences Bureau, the most prominent metallic mineral reserves are gold, copper, nickel, and chromite, of which the country is ranked at 3rd, 4th, 5th, and 6th in world mineral endowments, respectively. Copper makes up the bulk of all metallic reserves in the country; limestone on the other hand constitutes the largest non-metallic mineral deposits followed by marble.

The Philippine mining industry produces a variety of mineral products, classified into six general categories of minerals, namely: precious metals; iron and ferro-alloy metals; base metals; fertilizer minerals; industrial minerals; gemstone and decorative minerals. Table 6 shows the minerals included in each of these categories and those found in Mindoro Island (MGB 2009; BMG 1986):

Table 6. Classification of Mineral Products found in Mindoro.

Category	Minerals Included	Major Location
Precious metals	Gold, Silver	San Teodoro
Iron and ferro-alloy metals	Chromite, Iron, Nickel	Ambil Island, Abra de Ilog, Sablayan
Base metals	Copper	Lubang Island
Fertilizer minerals	Phosphate Rock, Guano	Ilin Island, San Jose, Bulalacao
Industrial materials	Limestone, Feldspar, Marble, Silica	Abra de Ilog, Lubang Island
Gemstones, decorative minerals	Gemstones	

Gold deposits are widely distributed throughout the Philippine archipelago but most of the large and productive deposits are situated along the Philippine Fault. While Mindoro is way out of the country's premier gold districts (e.g., Baguio, Masbate, Surigao), one well-known gold deposit in Mindoro is situated in San Teodoro area. Silver in the Philippines is always associated with gold and recovered mainly as a by-product of gold and gold-bearing copper mines.

Iron and ferro-alloys—important for the production of iron and steel—also occur in Mindoro, particularly within the Abra de Ilog district and Sablayan. Iron deposits found in Abra de Ilog are classified as contact metasomatic deposits, which are usually the main source of lump iron ore; these are also considered to be the one of the oldest iron deposits in the country. Those concentrated in Sablayan are classified as laterite deposits of the nickeliferous types which are found over ultramafic rocks, and contain significant amounts of nickel, lead, and silicate nickel ore, apart from iron (BMG 1986). Chromite was first discovered in Mindoro, particularly in Ambil Island, during the early part of the American occupation of the country. Potential chromite deposits are concentrated at the northwestern portion of Mindoro Island.

For base or non-ferrous metals, copper is the primary metal with lead, zinc, and molybdenum occurring as co-products; gold and silver also occur as important co-products of copper mineralization. Prospects of copper deposits are scattered across Mindoro, but the most significant occurs in Lubang Island. The oldest known lead-zinc mineralization, occurring as a co-product of copper, is found in Sta. Cruz and Lubang Island.

Prospects of phosphate rock and guano are identified in Ilin Island, San Jose, and Bulalacao. These minerals are utilized as natural raw fertilizers and soil conditioners, and serve as ingredients for the manufacture of inorganic and chemical fertilizers. Guano, for instance, is an important source of phosphorous and nitrogen; these deposits are mostly found in limestone caves, which accumulate

through the excrement of birds and bats. Phosphate rock, on the other hand, is the main source for phosphate in chemical fertilizers.

For industrial materials, minerals found in Mindoro include asbestos, barite, bentonite, feldspar, talc, and silica. Asbestos, utilized for fire-proofing, insulation, and brake lining, are found in Abra de Ilog. Barite, a filler and adulterant for glass and oil well drilling industries, are found in the towns of Mansalay and Roxas. Feldspar, which occurs in Looc in Lubang Island, Abra de Ilog, and Pinamalayan, is mainly used as a constituent of glass, fired clay products, and enamels. Silica, similarly found in Lubang Island, is mainly used in glass manufacturing. Talc deposits, mainly used in ceramics and electrical insulators, are identified in Abra de Ilog.

Finally, gemstones were first discovered in the 1960s along Pagbahan River in Sta. Cruz, Mindoro Occidental by Mangyans. Generally associated as "Mindoro Jade" based on their geologic environments and rock associations, these gemstones greenish gray to light green in color and are underlain by greenschist, gneiss, metagabbro, and marble.

Figure 5 shows the point locations of mineral resource occurrences in Mindoro Island. Further information on these mineral resources can be consulted from BMG (1986).

Watershed Areas

PCARRD-DOST et al.(1999) defines a watershed as a topographically delineated area of land from which rainwater can drain, as surface runoff, via a specific stream or river system to a common outlet point which may be a dam, irrigation system or municipal/urban water supply off take point, or where the stream/river discharges into a larger river, lake or the sea.

Ridges of higher elevation generally form the boundaries between two watersheds. At these boundaries, rain falling on one side flow toward the low point of one watershed, while rain falling on the other side of the boundary flows toward the low point of a different watershed.

Watersheds are also interchangeably referred to as a river basin, or a drainage basin, or a catchment. In the Philippines, watersheds vary greatly in size and extent, and usually transcend the boundaries of administrative units. A watershed typology was developed by PCARRD-DOST et al. (1999) as a mechanism for managing watersheds in the country (Annex 1). The provincial scale was chosen as the minimum resolution for delineating and identifying watersheds in this report; watersheds smaller than this scale have not yet been delineated due to time constraint limitations. Watersheds at the provincial level, classified as medium-sized watersheds, range from 100 to 500 km^2, of which the topographic boundaries occur within at least one but not more than two provinces.

A total of 20 watersheds (with areas ≥ 10,000 hectares, or 100 km^2, and above) have been identified in Mindoro Island, and are treated as major watersheds for the purposes of this report. One out of the 20 major watersheds qualifies as a river basin: Magasawang Tubig. Three are considered as large watersheds, including Busuanga, Bongabong, and Amnay; the rest as medium-sized watersheds. These major watersheds occupy a total land area of 716,413 hectares (or 71.37% of the land area of Mindoro Island).

Nine of these major watersheds are situated in both provinces of Mindoro, particularly: Magasawang Tubig, Busuanga, Bongabong, Amnay, Cagaray, Pagbahan, Pula, Polo-Salagan, and Balete (Figure 6, Table 7). Magasawang Tubig River Basin, the largest of Mindoro's watersheds, is situated across 8 municipalities.

Forest Cover within Major Watersheds

Forests are an important component of healthy watersheds. Forests help regulate water flow, maintain water and air quality, provide soil stability through its root system up to some extent (Bruijnzeel 2004), and serve as important habitats for wildlife. Adequate forest cover should be kept within watersheds to maintain the ecological services that it provides.

The percentage of forest cover within these major watersheds ranges from 0.00% to 59.87% with an average of 21.69% (Figure 7, Table 7). Magasawang Tubig River Basin has the highest proportion of forest cover in relation to its land area. Wasig Watershed, on the other hand, is devoid of significant forest areas and is more dominantly covered by brushlands. Only four watersheds, namely: Magasawang Tubig, Bongabong, Rayusan, and Mongpong, have a forest-watershed area ratio above the average.

Table 7. Major watersheds within Mindoro Island vis-à-vis forest cover.

Watershed Name	Type (PCARRD et al.1999)	Land Area (ha.)	% of total land area of Mindoro	Forest Area (ha.)	% of Forest within Watershed
1. Magasawang Tubig	River Basin	140,222	13.97	83,956	59.87
2. Busuanga	Large Watershed	55,591	5.54	1,717	3.09
3. Bongabong	Large Watershed	55,497	5.53	13,110	23.62
4. Amnay	Large Watershed	53,880	5.37	11,668	21.66
5. Rayusan	Medium Watershed	44,122	4.40	12,086	27.39
6. Butas-Lumangbayan	Medium Watershed	44,028	4.39	3,028	6.88
7. Cagaray	Medium Watershed	42,930	4.28	3,662	8.53
8. Pinagsabaran	Medium Watershed	38,879	3.87	1,012	2.60
9. Lumintao	Medium Watershed	36,991	3.68	1,801	4.87
10. Mongpong	Medium Watershed	32,305	3.22	7,721	23.90
11. Pagbahan	Medium Watershed	31,492	3.14	4,253	13.51
12. Pula	Medium Watershed	24,149	2.41	1,230	5.09
13. Polo-Salagan	Medium Watershed	24,009	2.39	816	3.40
14. Wasig	Medium Watershed	16,382	1.63	-	0.00
15. Labangan	Medium Watershed	14,227	1.42	1,315	9.24
16. Abra de Ilog	Medium Watershed	13,438	1.34	2,527	18.80
17. Balete	Medium Watershed	13,153	1.31	1,563	11.89
18. Anahawin	Medium Watershed	12,304	1.23	676	5.49
19. Maragooc	Medium Watershed	11,604	1.16	1,568	13.51
20. Sumagui	Medium Watershed	11,211	1.12	1,697	15.14
TOTAL		716,413	71.37	155,406	

Tenurial Instruments

Land tenure instruments affect how site conservation management and planning are implemented in the country. It is necessary to take these prior rights and arrangements into consideration to come up with an appropriate management system, especially if the critical wildlife habitats and conservation sites are already under an existing tenurial instrument.

Figure 8 shows the tenurial arrangements within Mindoro Island, including mining tenements found in both

Mindoro provinces as of January 2008 from data
produced by the Mines and Geosciences Bureau. Annexes 2 to 5 provide the details of each instrument. The listing and maps of tenurial instruments provided in this report are by no means exhaustive and complete as of the time of writing; the sheer volume, scope, and coverage of tenurial instrument data and time constraints on data input had implications in the full consolidation of all spatial data into the GIS. The completion and integration of the tenurial instrument data in a common coordinate space and geodatabase is one of the major recommendations of this preliminary geomatics work.

Major tenurial instruments in Mindoro Island include, but are not limited to, the following: protected areas, certificates of ancestral domain titles and claims (CADT/CADC), mining tenements, community-based forest management areas (CBFM), and special reservations.

A total of six (6) protected areas are found in Mindoro. Annex 2 provides a detailed list of protected areas under the National Integrated Protected Areas System (RA 7586), including initial components and areas proclaimed under the NIPAS Act. Identified protected areas more or less represent each of the major habitat types or ecosystems in Mindoro, particularly: forests and grasslands (Mts Iglit-Baco, Mt Calavite); lake or wetland/freshwater systems (Lake Naujan); mangroves (Apo Reef, Mindoro), coastal/marine (Apo Reef). The status of each protected area is in various steps or stages under the NIPAS Act. F.B. Harrison, in particular, although still listed under the NIPAS has been proposed for declassification as a protected area and delisted from the initial NIPAS components (Haribon Foundation 2004).

Ancestral domains in Mindoro belong to the Mangyan tribes, which consists of eight (8) sub-tribes including: Alangan, Batangan, Buhid, Iraya, Hanunuo, Sulodnon, Tadyawan, and Tau-Buid. Annex 3 provides a comprehensive list of approved titles and existing claims of ancestral domains in Mindoro. Two (2) ancestral domain titles have been approved to the Iraya Mangyan tribe situated in Mindoro Oriental in 2004; eleven (11) claims are presently in the pipeline for application as ancestral domain titles. Ancestral domains have an aggregate land area of 296,664 hectares, covering almost 30% of the total land area of Mindoro.

A total of 92 mining tenements, with a total land area of 607,759 hectares (60.54% of the total land area of the entire island), have been applied over Mindoro Island (Figure 8, Annex 4). These mining tenements are classified into exploratory permits, mineral production sharing agreements, and finance/technical assistance agreements.

The data and maps on community-based forest management areas, so far as of this writing, include areas found in the municipalities of Bulalacao and San Teodoro in Mindoro Oriental. Annex 5 provides a partial list of CBFM areas. The number of CBFM areas in each town consists of, but is not limited to, the following: four (4) in Bulalacao, and two (2) in San Teodoro. One (1) CBFM area has been reported in Sablayan, Mindoro Occidental, particularly in Sitio Palbong, adjacent to the Sablayan Prison and Penal Farm covering Mt Siburan (Haribon Foundation 2004).

Other tenurial instruments include government reservations and special projects. Sablayan Prison and Penal Farm (SPPF) in Sablayan, Mindoro Occidental was established by Proclamation No. 72 on 26 September 1954 as a special reservation among other government penal colonies in the country. The SPPF is situated over the forests of Mt Siburan. Haribon Foundation (2004) identified two (2) DENR special projects within the same municipality, particularly: 1) the Mindoro Pines Seeds Production Area, and 2) the FORI Experimental Forest Area.

Boundary Overlaps and Conflicts between Tenurial Instruments

Boundary overlaps exist between many tenurial instruments, which imply a complication of land use management and potential conflicts in jurisdiction. Notable overlaps occur between ancestral domains, which are sprawled across Mindoro Island, and protected areas. Fortunately, both the NIPAS Act (RA 7586) and the Indigenous Peoples Rights Act (RA 8371), the supporting legal frameworks of both tenurial instruments, contain provisions for the harmonious management and planning of areas classified under

both protected areas and ancestral domains, particularly on ancestral land recognition in protected areas and natural resources management with ancestral domains.

Mining tenements, which are applied across many areas on Mindoro, have extensive overlaps with CBFM areas in Bulalacao, Mindoro Oriental; with some portions of identified protected areas (such as Mts IglitBaco National Park and F.B. Harrison GBRS); and most especially ancestral domains, which can result in potential conflicts. The Provincial Government of Mindoro Oriental, in fact, enacted a 25-year mining moratorium in the province in 2002, particularly Provincial Ordinance No. 001-002 which is pursuant to Republic Act 7160 or the Local Government Code of 1991, which empowers local government units to enact laws to protect the environment and mineral resources.

Other overlaps occur between ancestral domains and CBFM areas, particularly within the municipalities of Bulalacao and San Teodoro, Mindoro Oriental. Portions of SPPF in Sablayan, Mindoro Occidental are also subjected to mining applications, particularly under the Kanlaon Mining Corporation FTAA application.

Priority Biodiversity Conservation Areas

Biogeography and Conservation Importance of the Philippines

The biodiversity of the Philippine Islands is one of the richest and most important in the world, having exhibited extraordinarily high levels of endemism as a result of its complex biogeographic history. Sadly, it also has a high rate of habitat destruction and deforestation, making it a global priority for biodiversity conservation (Mallari et al. 2001). It is, in fact, regarded as the hottest of global biodiversity hotspots around the world (Myers et al. 2000).

The biogeography of the Philippine archipelago falls into fifteen (15) biomes, based on the floral, faunal, and geological composition of geographical areas in the country (Simpson et al. 2001). Mindoro Island is a unique biogeographic zone in itself compared to the rest of the islands in the country. Mindoro is also one among seven (7) major Endemic Bird Areas in the country identified by BirdLife International; it hosts ten (10) restricted-range bird species, of which five (5) species are concurrently globally threatened and endemic (Stattersfield et al. 1998; Mallari et al. 2001).

National Biodiversity Conservation Priorities

In 2001, Haribon Foundation and BirdLife International identified and compiled a directory of Important Bird Areas (IBA) in the Philippines. The IBAs were good tools for identifying spatial priorities for conservation because they are significant for the conservation of other flora and fauna in addition to birds (e.g., Stattersfield et al.1998, Mallari et al. 2001, BirdLife International 2004, De Alban 2005). Birds were also the best known and most documented terrestrial taxonomic group in the Philippines, and were a good indicator for other terrestrial taxa at coarse scales (e.g., Tabaranza and Mallari 1997, Stattersfield et al.1998, Balmford 2002).

The IBA directory along with other studies has influenced the revision of the first National Biodiversity Strategy and Action Plan (NBSAP) for the Philippines in 1997, which was developed and adopted by the national government to address the country's grave biodiversity crisis (Ong et al. 2002). This revision is embodied in the Philippine Biodiversity Conservation Priority-setting Program (PBCPP) or the second iteration of the NBSAP, which incorporated the IBAs as part of the 206 identified biodiversity conservation priority areas in the country. The PBCPP outlined the biological justification and recommendations for prioritizing geographic areas for conservation in the country. Several priority areas were identified in Mindoro Island under different priority levels and degrees of conservation efforts (Table 8).

Table 8. Terrestrial conservation priorities in Mindoro.

Conservation Priorities	Priority Level	Conservation Efforts
Iglit and Baco Mountains	Extremely high critical	Moderate
Mt. Hinunduang	Extremely high critical	Moderate
Mt. Halcon	Extremely high critical	Moderate
Puerto Galera	Extremely high critical	Moderate
Sablayan	Extremely high critical	Moderate
Lubang Island	Very high	Moderate
Lake Naujan National Park	Very high	High
Mt. Calavite Wildlife Sanctuary	Very high	High
Bogbog, Bongabong, and Mt. Hitding	Insufficient data	Low
Malpalon	Insufficient data	Insufficient data

Five (5) areas were identified as extremely high critical; three (3) under very high; and two (2) areas were deemed to have insufficient data. Conservation efforts show the degree of intervention conducted at the identified locations. The identified marine conservation priorities in Mindoro include the Verde Island Passage (high) and Tablas Strait (very high).

Key Biodiversity Areas (KBA), which similarly builds on the IBA concept, are sites of global biodiversity conservation significance, that intends to support viable populations of trigger species across several taxonomic groups (Eken et al.2004). It is an appropriate framework for identifying fine-scale conservation priorities in the country (Conservation International-Philippines et al.2006). In Mindoro, a total of 10 KBAs have been identified, which are concurrent with identified IBAs on the island (Table 9).

Table 9. Matrix of identified conservation priority areas in Mindoro vis-à-vis MBCFI priority sites.

No.	Conservation Priority Areas	IBA (Mallari et al.	PBCPP (Ong et al. 2002)	KBA (CI-Phils et al.	MBCFI
1	Mt. Calavite Wildlife Sanctuary	X	X	X	X
2	Puerto Galera (incl. Mt. Malasimbo)	X	X	X	X
3	Mt. Halcon	X	X	X	X
4	Lake Naujan National Park	X	X	X	X
5	Iglit and Baco Mountains	X	X	X	
6	Siburan (or Sablayan)	X	X	X	X
7	Malpalon	X	X	X	
8	Mt. Hitding (incl. Bogbog and	X	X	X	
9	Mt. Hinunduang	X	X	X	X
10	Apo Reef Marine Natural Park	X		X	X
11	Abra de Ilog				X
12	Bulalacao				X
13	Ilin Island				X
14	Lubang Island		X		

Key Conservation Sites in Mindoro and MBCFI Priority Sites

A total of 11 priority conservation areas were identified based on the studies by Mallari et al. (2001), Ong et al. (2002), and CI-Philippines-DENR-Haribon (2006), as indicated in Table 9. The matrix shows a high agreement among the studies on IBA, PBCPP, and KBA in terms of identified conservation priority areas for Mindoro (particularly areas #1-10, except for Apo Reef which is not included under PBCPP; and with the exception of Lubang Island which was identified as a priority only under the PBCCP). (Under the PBCPP, Lubang Island was distinguished as a separate terrestrial biogeographic region; it was determined

as a priority conservation area for taxonomic groups such as mammals, amphibians and reptiles, and arthropods.)

Priority conservation sites initially determined by MBCFI have been juxtaposed with identified conservation priorities from other studies (Table 9). A map overlay of the different conservation priorities is also presented (Figure 9). Of the ten (10) identified sites of MBCFI, seven (7) sites correspond to IBAs, KBAs, and PBCPP areas. Three (3) sites, namely: Iglit-Baco mountains, Mt. Hitding, and Malpalon, are not included as MBCFI conservation priority areas. It should be noted that the priority level of the latter two sites has not been determined due to insufficient data; conservation efforts are also either low or unknown.

Other priority sites determined by MBCFI that do not correspond to the identified priorities of other studies include Abra de Ilog, Bulalacao, and Ilin Island. It is noteworthy to mention here that the two sites, Abra de Ilog and Bulalacao, still form part of the greater Mindoro corridor (as delineated in Ong et al.(2002).

Administrative Coverage and Habitat Composition of MBCFI Priority Sites

The administrative coverage of identified priority sites were determined by estimating the general and possible extent of each site in relation to variables such as topography, habitat, and existing tenurial instrument if present, and juxtaposing this with approximate barangay boundary from NSO DATOS. Hence, the identified number of barangays covered by each site is only indicative. Table 10 shows the general extent of each site in terms of approximate land area, and of administrative jurisdiction such as the number of provinces, municipalities, and barangays. The identified priority sites, all in all, fall in 16 out of 26 municipalities (10 and 6 each for Mindoro Oriental and Occidental, respectively) found in both provinces of Mindoro.

Table 10. Summary of administrative coverage of MBCFI priority sites.

No.	Priority Site	Land Area (ha.)	Provinces	Municipalities	Barangays
1	Mt. Calavite Wildlife	18,000	1	1	1
2	Mt. Malasimbo	38,100	2	2	9
3	Mt. Halcon	25,200	2	5	20
4	Lake Naujan National Park	21,700	1	4	21
5	Mt. Siburan	9,800	1	1	3
6	Mt. Hinunduang	20,100	2	3	10
7	Apo Reef Marine Natural Park	15,800	1	1	1
8	Abra de Ilog	44,900	1	1	6
9	Bulalacao	10,200	1	2	7
10	Ilin Island	7,300	1	1	10

The habitat/ecosystem composition of identified priority sites were determined by overlaying the estimated extents of the sites with the 2003 land cover data (Figure 10). Similar to the groupings implemented for Table 4 in the "Land Cover and Habitat Types" section of this report, broad land cover categories were adopted again. Major habitat groupings or categories include forest, grassland, agricultural (for cultivated areas and plantations), and brushland; minor categories include mangrove, freshwater (representing wetlands such as lakes, inland water bodies, and marshes), and coastal/marine (for areas involving seas or marine areas). Under the "Others" category, other minor land cover types (in terms of land area) such as barren land and built-up areas were grouped.

Table 11 shows the major habitat/ecosystem present in each priority site. Complementing this information, Chart 1 shows the percentage composition of habitats/ecosystems within each priority site

following the estimated land area of each site
as tabulated in Table 10. It can be seen from Table 11 that none of the identified sites consists of all seven habitats/ecosystems.

For major land cover/habitat categories: seven (7) sites are composed of forest habitats albeit in varying percentages in relation to the land area of each site. Grasslands are found in all but two (2) sites, namely Apo Reef and Lake Naujan. Brushlands, which may be considered as agroforests, are present in all sites except Apo Reef. Agricultural habitats or ecosystems can be found in five (5) sites.

For minor land cover/habitat categories, it is interesting to note that one site "specializes" in freshwater and coastal/marine habitats. Lake Naujan, for example, specializes in freshwater habitats while Apo Reef represents coastal/marine habitats. Mangroves are present only in Ilin Island and Apo Reef.

Table 11. Major habitat/ecosystem composition of MBCFI priority sites.

Habitat	Site									
	1	2	3	4	5	6	7	8	9	10
Forest	X	X	X	X	X			X		X
Grassland	X	X	X		X	X		X	X	X
Freshwater				X						
Mangrove							X			X
Brushland	X	X	X	X	X	X		X	X	X
Agricultural	X	X		X				X		X
Coastal/Marine							X			
Others					X					X

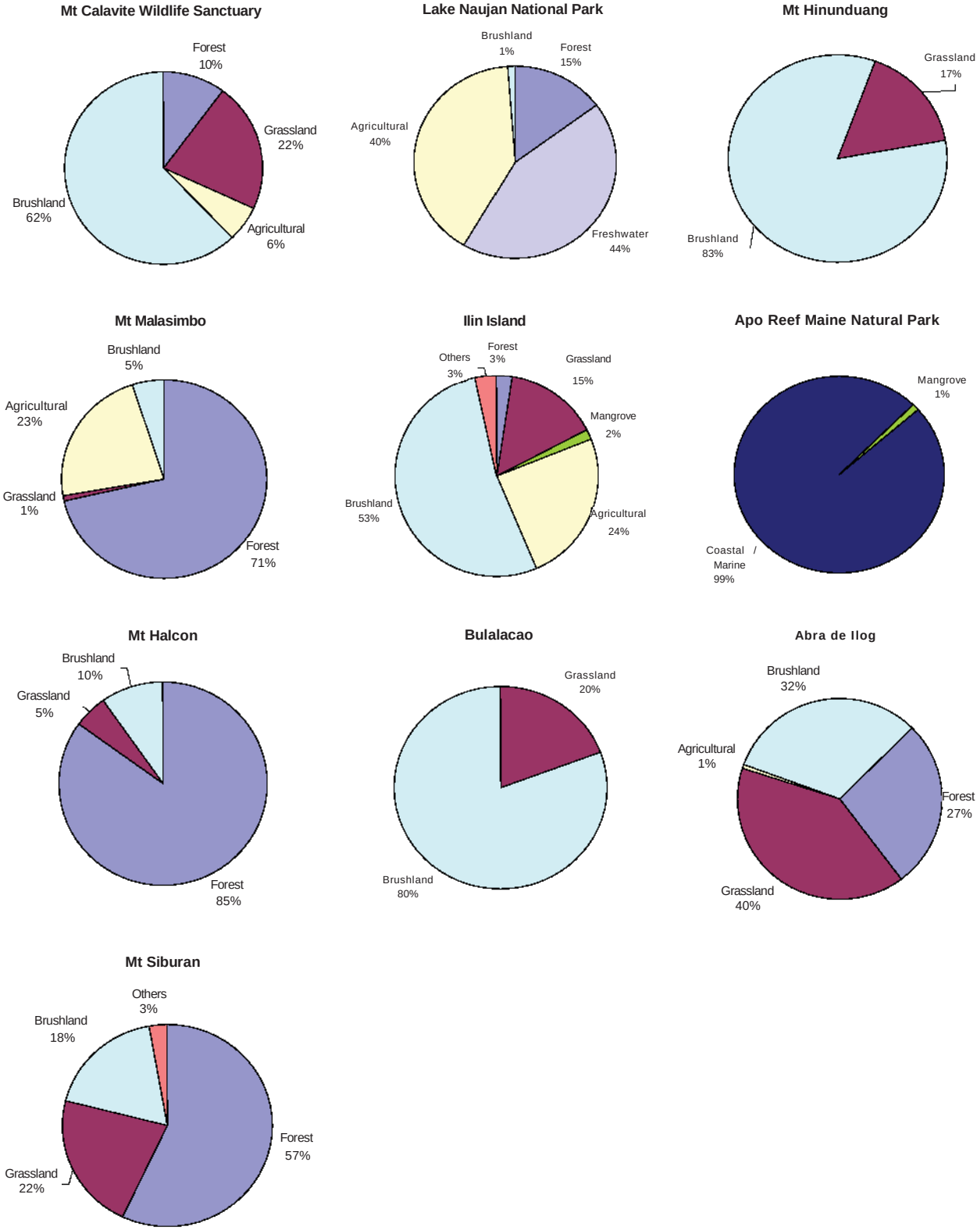
Key for MBCFI Priority Sites (following Table 10): 1 – Mt Calavite; 2 – Mt Malasimbo; 3 – Mt Halcon; 4 – Lake Naujan; 5 – Mt Siburan; 6 – Mt Hinunduang; 7 – Apo Reef; 8 – Abra de Ilog; 9 – Bulalacao; 10 – Ilin Island. Cells highlighted in gray color indicate the dominant habitats found in each site.

The presence of habitats/ecosystems in each site, however, does not mean these are at all extensive and/or evenly distributed as shown in Chart 1. The dominant habitats or ecosystems in each site were then determined by an arbitrary threshold of 20% or greater relative to the approximate extent of the site. This also in a way establishes some measure of "representation" of habitats or ecosystems for each site. Cells highlighted in gray color in Table 11 indicate the dominant habitat types found in each site.

Assessing both Table 11 and Chart 1 reveals that forest habitats are dominant in three (3) sites, namely: Mt Malasimbo, Mt Halcon, and Mt Siburan. Forests within identified priority sites constitute about 37% of the total forest cover of Mindoro Island. It should be noted, however, that forest habitats here are referred to in a broad sense without distinguishing between different forest habitat types such as lowland dipterocarps, montane and mossy forests, or forests over limestone and ultramafics. Priorities for forest conservation interventions may perhaps select any of these sites in general, if, and assuming that, other significant criteria for selection (e.g., enabling mechanisms such as social acceptability, institutional and policy support; probability of success; project viability; biodiversity benchmarks) remain equal for all sites, although in reality these are not.

Grassland habitats are significantly present in four (4) areas, namely: Mt Calavite, Mt Siburan, Bulalacao, and Ilin Island. Within identified priority sites, grasslands constitute roughly 13% of the total grassland habitats of Mindoro Island. Possibly, since both forests and grasslands are present in Mt Siburan, site interventions may perhaps focus on forest conservation rather than on grasslands, as interventions for grassland can be directed to Mt Calavite or in the two other sites, depending on viable conditions in other considerations.

Chart 1. Percentage of major habitat types found within each priority site.



Freshwater habitats, particularly lakes and marshes, are dominant in Lake Naujan National Park, being the only priority site identified with extensive freshwater ecosystems. Freshwater areas within priority sites represent 66.21% of the total freshwater habitats in Mindoro. Lake Naujan, being a specialist site in terms of freshwater systems among other identified MBCFI priorities, should be a top conservation priority as it represents one of the major ecosystems in Mindoro.

Agricultural habitats are significantly present in three (3) areas, namely: Mt Malasimbo, Lake Naujan, and Ilin Island. Within priority sites, this habitat type represents 10.49% of the total agricultural areas in Mindoro. Agricultural land support far less biodiversity compared to natural forests. But agricultural landscapes benefits from the presence of natural habitats such as forests in terms of enhancing overall diversity and ecosystem services (e.g., pollination, control of agricultural pests, recycling of nutrients critical to plant growth, breakdown of agricultural residues and wastes (Wood et al 2000). Looking at the three sites mentioned above, each site exhibits one other dominant habitat type—almost uniquely from each other—apart from agricultural habitats: Mt Malasimbo involves forests, freshwater systems in Lake Naujan, and brushlands in Ilin Island. Conservation interventions need not be solely focused on agro-biodiversity and agricultural ecosystems as it may not yield high conservation results per unit effort, say, as compared to conservation of forests; the conservation of all key biodiversity habitats including agricultural habitats within these three sites will still likely benefit agro-biodiversity. The overall diversity of these sites is also enhanced with the inclusion of agricultural habitats.

Brushlands are dominant in five sites, namely: Mt Calavite, Mt Hinunduang, Abra de Ilog, Bulalacao, and Ilin Island. Brushlands within priority sites comprise 19.10% of Mindoro's brushlands. Similar to agroecosystems, conservation interventions need not be focused on brushlands or agroforests. The conservation of key biodiversity habitats within these three sites, in addition to and above brushland systems, will still enhance the overall diversity of these sites.

Similar to Lake Naujan, Apo Reef Marine Natural Park is another specialist site in terms of coastal/marine ecosystems among other identified MBCFI priorities. Apo Reef should, therefore, be a top conservation priority as it represents one of the major ecosystems in Mindoro.

Mangroves in the Philippines have been greatly decimated by overexploitation and conversion for aquaculture purposes in recent decades. Needless to mention, mangrove forests are among the critical habitats in the country, and the conservation and protection of mangroves are of great importance. Mangroves are found in Apo Reef and Ilin Island, although they are not particularly a dominant habitat type in identified MBCFI priority sites. Mangroves within priority sites represent 13.55% of the total area of mangroves found in Mindoro. Mangrove conservation need not focus only within identified priority sites. Possibly, an island-wide effort towards conserving the remaining mangroves of Mindoro is more appropriate; thus, strengthening the enforcement of Proclamation 2152, establishing the Mindoro Mangrove Swamp Forest Reserve, virtually putting all mangrove forests in the island under protection and conservation.

Initial Recommendations

Based on the results and analyses discussed in this preliminary geomatics work, the following are initial recommendations to address data gaps, and conservation issues and needs:

Data Gaps

1. Since existing and available land cover data of Mindoro is either obsolete or limited, updated land cover information is necessary to assess the present extent of key habitats for conservation, and to provide a more recent baseline for site conservation planning and program development. This

may be derived from the processing, interpretation, and ground-truthing of recent satellite imageries.

2. This report referred to the barangay boundary data from the Datakit of Official Philippine Statistics (DATOS) of the National Statistics Office, which showed only approximate boundaries. Official barangay boundary data including barangay boundary monuments from the cadastral surveys of the Land Management Bureau of the DENR is needed. The data will be used to determine specific communities to be included in site conservation interventions, planning, and management.

3. Given the range and diversity of ecosystems and habitats on Mindoro Island, analyses and assessment of the degree of habitat fragmentation should be studied. Satellite images of varying spatial and temporal resolutions are sources to derive land cover baseline information.

4. Other geographic information such as land classification, soils, geo-hazards; socio-economic and poverty maps; and maps of development interventions and stakeholders, among others, should be gathered in the future and included in the standard baselines. The information will aid in situational analyses, conservation planning of important sites, and in identifying resource-based livelihood options, considering the geographic conditions of Mindoro. Secondary data gathering and analyses, particularly for the sections covering climatic conditions, and data on other tenurial instruments such as CBFM areas and other government reservations should be similarly completed in the future.

Conservation Issues and Needs

1. The bases for the selection and priority-setting of conservation priority sites of MBCFI need to be reviewed and laid out. Bases for prioritization should include their alignment with national conservation priorities. Using recent land cover and habitat information, selected priority sites by MBCFI should also look into habitat "representation", such that MBCFI site priorities encompass the entire suite of major habitat types found on Mindoro (such as forest, grassland, freshwater, mangrove, coastal/marine, etc.), together with other significant considerations. In the delineation of more specific site boundaries, each of the priority sites should also be considerable in extent and coverage. Ideally, at least one site should be identified and selected in each major habitat/ecosystem such that conservation efforts are holistic and representative of key biodiversity centers on Mindoro.

2. Overlapping tenurial instruments and boundary conflicts, particularly between ancestral domains and mining tenements, are a major issue that needs to be addressed in order to implement successful conservation programs in Mindoro. An effective advocacy strategy backed by sound research findings should be developed to address the proliferation of mining tenement applications in Mindoro in view of the global conservation importance of the island's key habitats and wildlife.

3. Degraded watershed areas are mostly situated at the southern portion of Mindoro Island. Future conservation efforts, particularly in Bulalacao, should keep in mind watershed rehabilitation and management, and forest habitat restoration activities.

4. Based on the data from NCIP on the status of application of CADTs, several CADCs are still waiting to be processed and converted into CADTs. This can be an opportunity for MBCFI to provide technical assistance and support to IP communities within its target priority conservation

sites in securing their ancestral domains. This could be a foot at the door to gain the support of IP communities to support biodiversity conservation programs.

5. Given the extent of grasslands and other idle/open lands of Mindoro, possible suitable areas could be identified and applied as afforestation/reforestation (A/R) projects under the Clean Development Mechanism, or in voluntary markets using other standards (such as the Community, Climate, and Biodiversity Standards; the Voluntary Carbon Standard, among others). A/R projects may be worth exploring, as these mechanisms not only aim to develop carbon sinks and generate additional fund sources for communities from carbon payments, but also seek to restore forests and conserve biodiversity.

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Annexes

Annex 1. Watershed management typologies in the Philippines (Source: PCARRD-DOST et al. 1999).

Type	Areal Extent	Administrative Coverage	Institutional Coordinating Agency	Type and Scope of Watershed Management Plans
	Nation	Whole Country	National Inter-agency Watershed Resources Management Forum,' National Watershed Management Body	Coordination and prioritisation of the different levels of watershed management within a national strategy framework
River Basin	Over 1000 km^2	Typically the topographic boundaries would include land occurring within 3 or more provinces and 2 or more regions	River Basin authority that is inter regional in extent	Plans aimed at broad sector development planning, and land use zoning. Identification of degraded and,'or economically important medium to large watersheds within the river basin. Identification of medium-large areas in need of protected area status.
Large Watershed	500-1000 km^2	Typically the topographic boundaries would include land occurring within 3 or more provinces and at least 1 but no more than 2 regions	Regional Level Watershed Management Council that is inter provincial in extent	Plans aimed at identifying broad land use zones and areas (small to medium watersheds) where there is a need for improved watershed management. Identification of small-medium areas in need of protected area status.
Medium Watershed	100-500 km^2	Typically the topographic boundaries would include land occurring within at least 1 but no more than 2 provinces	Provincial Level Watershed Management Council	Plans aimed at identifying areas within the watershed where there is a need for field level activities. Implementation plan targets activities on only the critical parts of the watershed.

Small Watershed	10-100 km^2	Typically the topographic boundaries would fall within 1 province and include land occurring within 1 or more municipalities	Provincial,'Municipal Level Watershed Management Council,'Committee	Plans aimed at field level implementation of improved watershed,'land management interventions. Plan covers the whole (or most of the) watershed and adjacent land of the participating communities.
Micro Watershed	Under 10 km^2	Typically the topographic boundaries would fall within 1 municipality and include land occurring within 1 or at most 2 barangays	Municipal,'Barangay Community Level Watershed Management Council	Plans aimed at field level implementation of improved watershed,'land management interventions. Plan covers the whole watershed and adjacent land of the participating community.

Annex 2. List of protected areas in Mindoro under the NIPAS Act (Source: PAWB-DENR. 2008).

No.	Protected Area Name	Location	Legislation	Date Legislated	Land Area (ha.)
Initial Components					
1	Lake Naujan National Park	Naujan, Pola, Socorro, Victoria, Mindoro Oriental	Proc. 282 Proc. 335	27-Apr-1956 25-Jan-1968	21,665.00
2	Mts. Iglit-Baco National Park	Sablayan, Mindoro Occidental Bongabong, Mindoro Oriental	RA 6148	09-Nov-1970	75,445.00
3	F.B. Harrison Game Refuge and Bird Sanctuary	Sablayan, Mamburao, and Paluan, Mindoro Occidental	EO 9	28-Jan-1920	140,000.00
4	Mindoro Mangrove Swamp Forest Reserve	Mamburao River, Buluagan River to Lagarum River, Naujan; Batel Creek, Sta. Cruz; Sablayan Point to Bagong Sabang River; Bo. Labangan to Calalayuan Point; Ilin Island; Western side of Sukol River, Bongabong; Western side of Casiliga River, Soguicay Island	Proc. 2152		
Proclaimed under NIPAS Act					
5	Mt. Calavite Wildlife Sanctuary	Paluan, Mindoro Occidental	Proc. 292	23-Apr-2000	18,016.19
6	Apo Reef Natural Park	Sablayan, Mindoro Occidental	Proc. 868	06-Sep-1996	15,792.00

Annex 3. List of certificate of ancestral domain titles and claims in Mindoro (Source: NCIP. 2008).

No.	Tribe	Location	No. of Beneficiaries	Date Issued/ Approved	Land Area (ha.)
Approved CADT (July 2002 to December 2004)					
	Iraya Mangyan	Sta. Cruz, Mindoro Occidental	689	30-Jan-2004	5,365.11
	Iraya Mangyan	Puerto Galera, Mindoro Oriental	2,888	28-Apr-2004	5,700.83
Claims					
9	Iraya Mangyan	Puerto Galera, Mindoro Oriental		14-Jul-1995	4,748.00
24	Alangan Mangyan	Sta. Cruz and Sablayan, Mindoro Occidental		26-Feb-1996	74,200.00
26	Iraya Mangyan	Sta. Cruz, Mindoro Occidental		26-Feb-1996	2,851.00
85	Sulodnon	Socorro and Victoria, Mindoro Oriental		23-Jun-1997	12,000.00
86	Alangan Mangyan	Naujan, Mindoro Oriental		23-Jun-1997	7,537.00
123	Tadyawan Mangyan	Gloria and Pinamalayan, Mindoro Oriental		05-Jun-1998	3,750.00

124	Alangan Mangyan	Naujan and Baco, Mindoro Oriental		05-Jun-1998	32,000.00
125	Tau-Buid Mangyan	Gloria, Socorro, and Pinamalayan, Mindoro Oriental		05-Jun-1998	21,000.00
126	Iraya Mangyan	Baco, San Teodoro, Puerto Galera, Mindoro Oriental		05-Jun-1998	33,334.00
130	Buhid Mangyan	San Jose, Rizal, Calintaan, and Sablayan, Mindoro Occidental; Bansud, Roxas, Bongabong, and Mansalay, Mindoro Oriental		05-Jun-1998	94,077.00
	Alangan Mangyan (MINSCAT)	Mindoro Oriental			101.00

Annex 4. List of mining tenements on Mindoro Island (Source: MGB-DENR. 2008).

Tenement No.	Holder / Corporation	Municipality	Area (ha.)	Date Filed	Commodity
EPA-IVB-006	Mindex Resources Development	Puerto Galera	3,159.00	06-Oct-95	gold
EPA-IVB-034	Gem Aggregates	Abra de Ilog	3,202.00	29-Sep-97	copper, gold, limestone
EPA-IVB-038	Essensa Mining	Bongabong	6,560.00	26-Oct-98	nickel, chromite
EPA-IVB-076	Shibao Mining	Mamburao	4,370.16	10-Oct-05	iron, manganese
EPA-IVB-081	Alad Mining & Development	Paluan	2,849.54	01-Jun-06	nickel, chromite
EPA-IVB-082	Highland Realty Philippines	Sta. Cruz	3,896.00	19-Jul-06	nickel, chromite, iron
EPA-IVB-084	Highland Realty Philippines	Mamburao	1,916.80	02-Aug-06	nickel, chromite, iron
EPA-IVB-085	Astrolabe Mining and Devt	Mamburao; Puerto Galera	4,078.30	04-Aug-06	iron, gold, copper
EPA-IVB-088	Agbiag Mining and Devt	Puerto Galera	1,326.02	10-Aug-05	iron, ore, manganese
EPA-IVB-095	Agbiag Mining and Devt	Looc	810.00	01-Sep-06	iron, chromite
EPA-IVB-096	East Coast Mineral Resources	Paluan	3,828.62	20-Sep-06	nickel, cobalt, chromite
EPA-IVB-101	Highland Realty Phils	Mamburao	4,161.62	26-Sep-06	ore
EPA-IVB-106	Astrolabe Mining and Devt	Abra de Ilog	459.60	20-Oct-06	iron
EPA-IVB-111	Rizal Silica	San Teodoro	2,163.78	30-Oct-06	iron, gold, copper
EPA-IVB-129	Epochina Mining	Naujan	2,996.00	29-Dec-06	iron, gold, copper
EPA-IVB-130	Epochina Mining	San Jose	2,035.00	29-Dec-06	iron, gold, copper
EPA-IVB-142	SKS Construction and Development	Sta. Cruz	4,502.83	21-Feb-07	nickel
EPA-IVB-150	Goldenpine Development	Looc	1,633.88	06-Mar-07	nickel, chromite
EPA-IVB-155	Philorient Mining	Mamburao	8,000.00	19-Mar-07	iron, manganese
EPA-IVB-159	Diamond Group of Investors	Abra de Ilog	2,746.61	27-Mar-07	nickel, chromite
EPA-IVB-160	Alad Mining and Devt	San Jose	811.06	28-Mar-07	nickel, chromite

EPA-IVB-162	Diamond Group of Investors	San Jose	3,963.13	02-Apr-07	nickel, chromite
EPA-IVB-163	JCET Resources Mining		15,328.63	03-Apr-07	nickel, chromite
EPA-IVB-166	Luckystar Integrated Mining	Sta. Cruz	2,249.61	13-Apr-07	nickel, chromite
EPA-IVB-183	APC Mining	Sablayan	2,833.97	22-May-07	gold, copper
EPA-IVB-190	Metallica Mineral Resources	Abra de Ilog; Paluan	5,913.00	04-Jun-07	gold, copper, nickel
EPA-IVB-193	Metallica Mineral Resources	San Teodoro	1,877.87	13-Jun-07	gold, copper, nickel
EPA-IVB-197	Philminer	Paluan	3,329.24	15-Jun-07	gold, copper, iron, silver
EPA-IVB-202	Goldenpine Development	Sablayan	3,312.09	20-Jun-07	gold, nickel, iron, chromite
EPA-IVB-207	T&D Kim Philippines	Paluan	2,247.24	28-Jun-07	iron, gold, copper
EPA-IVB-217	Gaas Bay Mining	Paluan	2,620.56	19-Jul-07	nickel
EPA-IVB-229	Alad Mining Development	Sablayan	1,370.00		laterite, nickel chromite
EPA-IVB-231	Ludgoron Mining	Sablayan	-	21-Aug-07	Chromite
EPA-IVB-232	Ludgoron Mining	Sablayan	5,184.00	21-Aug-07	Chromite
EPA-IVB-233	Khepa Mining Exploration	Sablayan	6,075.00	21-Aug-07	Chromite
EPA-IVB-241	Mount Baua Mining	Lubang	9,312.00	17-Aug-07	silica, quartz, copper

Tenement No.	Holder / Corporation	Municipality	Area (ha.)	Date Filed	Commodity
EPA-IVB-246	Gaas Bay Mining	Mamburao	3,163.06	03-Oct-07	iron
EPA-IVB-260	Czarstone Mining	Sablayan	1,302.86	09-Nov-07	nickel, chromite
EPA-IVB-264	Imelda Cruz	Bongabong; Pinamalayan	2,291.74	28-Nov-07	nickel, iron, etc
PMPSA-IVB-035	Philippine Marble	Abra de Ilog	112.00	26-Jun-92	aggregates, marble
PMPSA-IVB-057	Orophil Stonecraft	San Teodoro	748.95	04-Nov-92	gold, silver, nickel
PMPSA-IVB-069	Kantoh International Marble	San Teodoro	1,165.81	22-Feb-93	marble
PMPSA-IVB-070	Philippine Sunrise Marble	San Teodoro	332.88	17-Jun-95	marble
PMPSA-IVB-082	San Teodoro Marble	San Teodoro	712.03	28-May-93	marble
PMPSA-IVB-105	Zipporah Mining & Devt	Abra de Ilog	480.68	09-Jan-93	feldspar
PMPSA-IVB-139	General Cement	Magsaysay	1,962.94	20-Sep-94	limestone
PMPSA-IVB-216	General Cement	Mansalay	770.16	03-Jul-95	limestone
PMPSA-IVB-234	Blue Ridge Mining	Bongabong	2,112.00	01-Sep-95	nickel
FTAA-IVB-004	Kanlaon Mining	Sablayan	293,624.10	26-Feb-94	gold, silver
FTAA-IVB-005	Agusan Petroleum and Mining	Abra de Ilog	53,952.00	26-Feb-94	gold, silver
FTAA-IVB-006	Royal Cement and Mining	Roxas	53,136.00	26-Feb-94	gold, silver
IPA-(SG)-016	Wilson Kho	San Jose	20.00	29-Mar-99	sand, gravel
IPA-(SG)-033	Bridgestone Mining and Development	Calintaan	19.16	05-Mar-02	sand, gravel
IPA-(SG)-038	Lazaruz Mining	Calintaan	19.15	05-Mar-02	sand, gravel
IPA-(SG)-039	Cypress Mining and Development	Sta. Cruz	19.26	05-Mar-02	sand, gravel
IPA-(SG)-040	Liverpool Mining and Devt	Sta. Cruz	19.68	05-Mar-02	sand, gravel
IPA-(SG)-041	Daytona Mining and Devt	Sablayan	19.21	07-Apr-02	sand, gravel
AMA-IVB-007	Everest Cement & Mining	San Jose	4,319.00	28-Dec-95	limestone
AMA-IVB-014	Kalamanzoo Mining	San Jose	8,074.00	22-Jan-96	limestone
AMA-IVB-032	Jesus Manlulu	Puerto Galera	16.80	19-Jun-96	marble
AMA-IVB-051	Mansalay Mining	Mansalay	3,291.00	04-Sep-96	silica
AMA-IVB-059	First Omega Mining and Development	San Teodoro	243.00	31-Oct-96	gold, copper

AMA-IVB-067	Glendale Mining and Devt	Victoria	648.00	16-Apr-97	bullquartz
AMA-IVB-071	Rebecca Mendoza	Lubang	128.31	08-Sep-97	marblelized limestone
AMA-IVB-080	Leonila Salas	Mansalay	243.00	15-Sep-97	silica sand
AMA-IVB-088	Daytona Mining and Devt	Puerto Galera	1,414.00	01-Oct-97	marble
AMA-IVB-093	Silverbell Mining and Devt	Naujan	1,748.55	18-Sep-96	sulphur
AMA-IVB-094	Lazaruz Mining	Bongabong	1,252.29	06-Nov-98	silica
AMA-IVB-095	St. Patrick Mining & Devt	Mansalay	4,374.00	06-Nov-98	silica
AMA-IVB-097	Aglubang Mining	Victoria; Naujan	863.91	13-Nov-98	nickel
AMA-IVB-099	Romulo R. Reyes	Abra de Ilog	810.00	10-Dec-98	marble
AMA-IVB-100	Rockworks Inc.	Pinamalayan	3,338.00	22-Jan-99	basalt, andesite
AMA-IVB-101	Alagag Mining	Sablayan	3,376.00	09-Feb-99	nickel
AMA-IVB-103	Aglubang Mining	Sablayan	4,596.00	05-Mar-99	nickel
AMA-IVB-105	Silverbell Mining and Devt	Bongabong	5,832.00	04-Oct-99	bentonite
AMA-IVB-119	Chemdyes Mining & Alloys	Looc	128.00	01-Dec-01	bullquartz
AMA-IVB-120	Chemdyes Mining & Alloys	Looc	240.00	01-Dec-01	bullquartz
AMA-IVB-121	Aglubang Mining	Victoria	2,290.67	07-Dec-00	nickel
AMA-IVB-132	Starrex Mining and Devt	Mamburao	1,040.00	22-Aug-01	sand, gravel
AMA-IVB-133	Eagle Crest Mining & Devt	Sablayan	99.63	22-Aug-01	sand, gravel
AMA-IVB-135	Hopewell Mining	San Jose	100.00	22-Aug-01	sand, gravel

Tenement No.	**Holder / Corporation**	**Municipality**	**Area (ha.)**	**Date Filed**	**Commodity**
AMA-IVB-136	Liverpool Mining and Devt	Sablayan	99.99	22-Aug-01	sand, gravel
AMA-IVB-137	Oregon Mining and Devt	Rizal	100.00	24-Aug-01	sand, gravel
AMA-IVB-138	Eagle Crest Mining & Devt	Mamburao	99.99	24-Aug-01	sand, gravel

AMA-IVB-139	Starrex Mining and Devt	Sta. Cruz	648.00	18-Dec-01	clay
AMA-IVB-140	Bridgestone Mining & Devt	Sta. Cruz	405.00	18-Dec-01	clay
AMA-IVB-141	Lazaruz Mining	Sta. Cruz	648.00	18-Dec-01	clay
AMA-IVB-142	Sardonyx Resources Intl	Looc	928.32	10-Oct-02	silica rock & sand
AMA-IVB-148	Baegil Resources	Abra de Ilog	2,038.78	01-Oct-04	iron ore, marble
AMA-IVB-150	Baegil Resources	Abra de Ilog	749.00	01-Dec-04	iron, marble
AMA-IVB-152	Vic-Soc Mining	Socorro	3,969.00	03-Mar-05	gold
AMA-IVB-159	Dayap Mining	Mamburao	2,500.00	17-May-05	iron, etc

Annex 5. Partial list of community-based forest management areas in Mindoro.

CBFM Holder	Location	Land Area (ha.)
Balatbat Rural Workers CBFM Association Inc.	Bulalacao, Mindoro Oriental	2,936
Cambunang CBFM Association Inc.	Bulalacao, Mindoro Oriental	172
Mangyan Pagpapaunlad CBFM Association Inc.	Bulalacao, Mindoro Oriental	1,519
Pundasyon Hanunuo Mangyan Inc.	Bulalacao, Mindoro Oriental	3,356
Samahan ng mga Mangyan Iraya sa Barangay Baras	San Teodoro, Mindoro Oriental	1,113
--	San Teodoro, Mindoro Oriental	594
Palbong CBFM Association Inc.	Sablayan, Mindoro Occidental	545

Annex 6. Details of administrative coverage of MBCFI priority sites.

No.	Priority Site	Municipality	Barangay
1	Mt. Calavite Wildlife Sanctuary	Paluan	Harrison
2	Mt. Malasimbo	Abra de Ilog	Balao, Cabacao, Lumangbayan, San Vicente, Udalo
		Puerto Galera	Aninuan, Balatero, Dulangan, San Isidro
3	Mt. Halcon	Baco	Baras, Lantuyang, Mangangan I & II, Mayabig, San Ignacio
		Naujan	Arangin, Balite, Evangelista, Magtibay, Mendoza, Paitan

		Sablayan	Pag-asa
		San Teodoro	Bigaan, Caagutayan, Calangatan, Lumangbayan
		Santa Cruz	Alacaak, Casague, Kurtinganan
4	Lake Naujan National Park	Naujan	Bayani, Laguna, Montelago
		Pola	Matulatula, Tabakin
		Socorro	Batong Dalig, Mabuhay I, Pasil I & II, Santo Domingo
		Victoria	Bambanin, Bethel, Canaan, Duongan, Jose Leido Jr, Merit, Malabo, Pakyas, San Galacio, San Narciso, Urdaneta
5	Mt. Siburan *	Sablayan	Batongbuhay, Santa Lucia, San Nicolas
6	Mt. Hinunduang	Calintaan	Malpalon, Poypoy, Tanyag
		Mansalay	Bonbon, Don Pedro, Maliwanag, Panaytayan, Santa Maria, Waygan
		San Jose	Batasan
7	Apo Reef Marine Natural Park	Sablayan	Poblacion
8	Abra de Ilog	Abra De Ilog	Armado, Balao, Cabacao, Lumangbayan, Poblacion, San Vicente
9	Bulalacao	Bulalacao	Benli, Cambunang, Nasukob, San Juan, San Roque
		Mansalay	Budburan, Don Pedro
10	Ilin Island	Magsay say	Ansiray, Bangkal, Buri, Catayungan, Iling Proper, Inasakan, Ipil, Labangan Iling, Natandol, Pawican

***** In Haribon Foundation (2004), Mt Siburan is generally situated within three barangays: Batongbuhay, Ligaya, and Malisbong. **Note:** The identified barangays covered by each site is only indicative since the data used to determine the administrative coverage involve the general extent of priority sites and the approximate barangay boundary data from NSO DATOS

Figure 1. Topographic map of Mindoro Island.

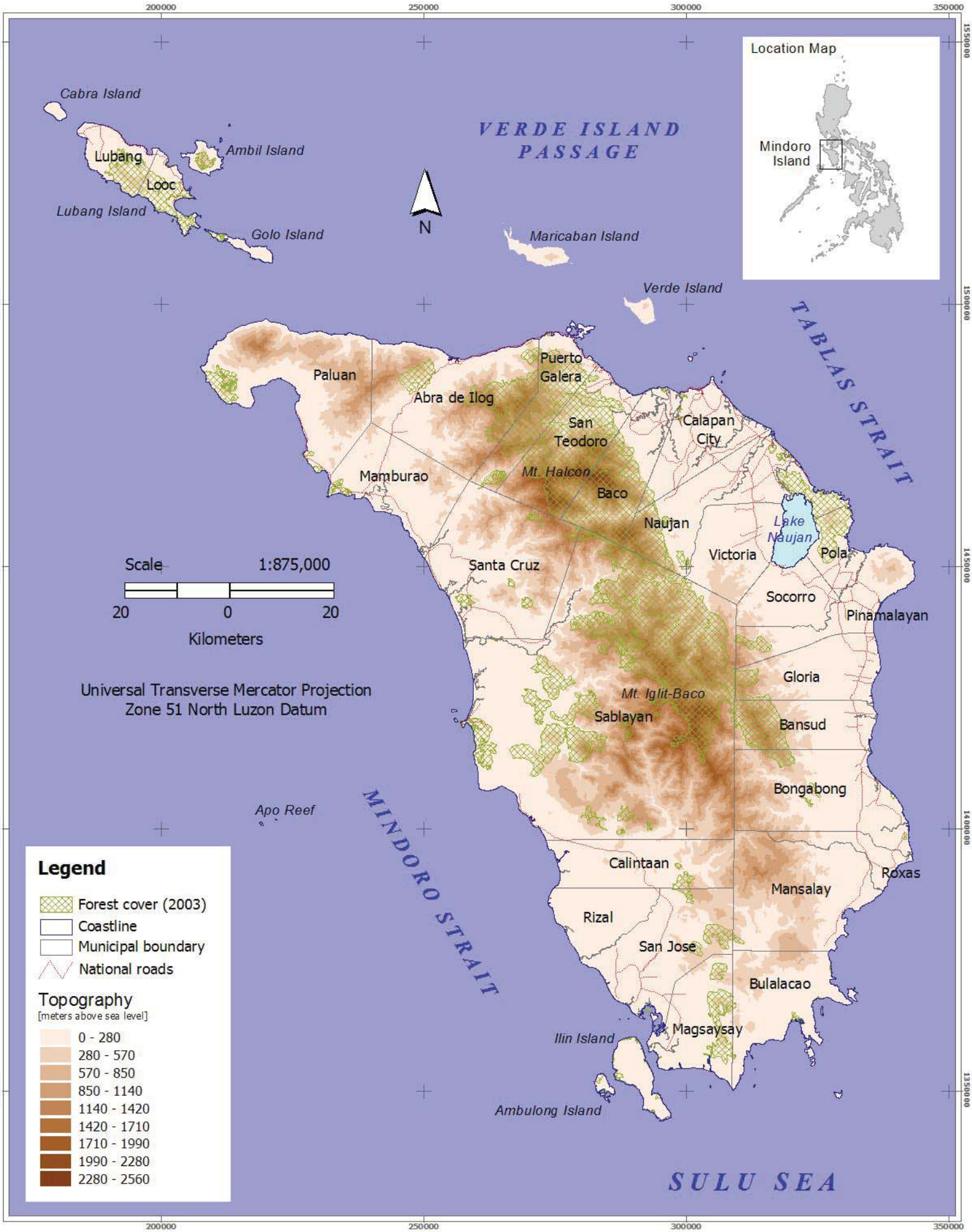


Figure 2. Climate map of Mindoro Island.

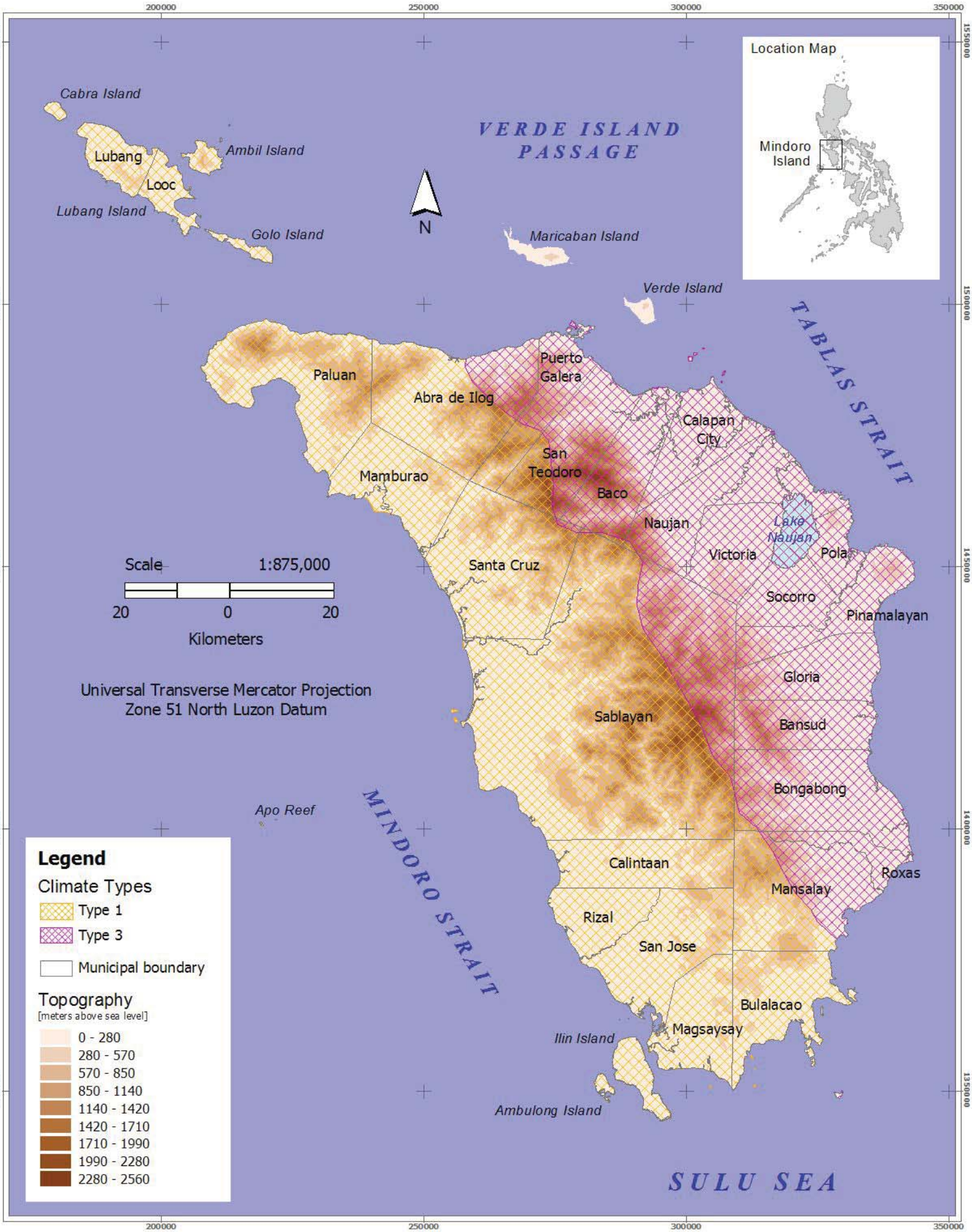


Figure 3. Land cover map c.2003 of Mindoro Island.

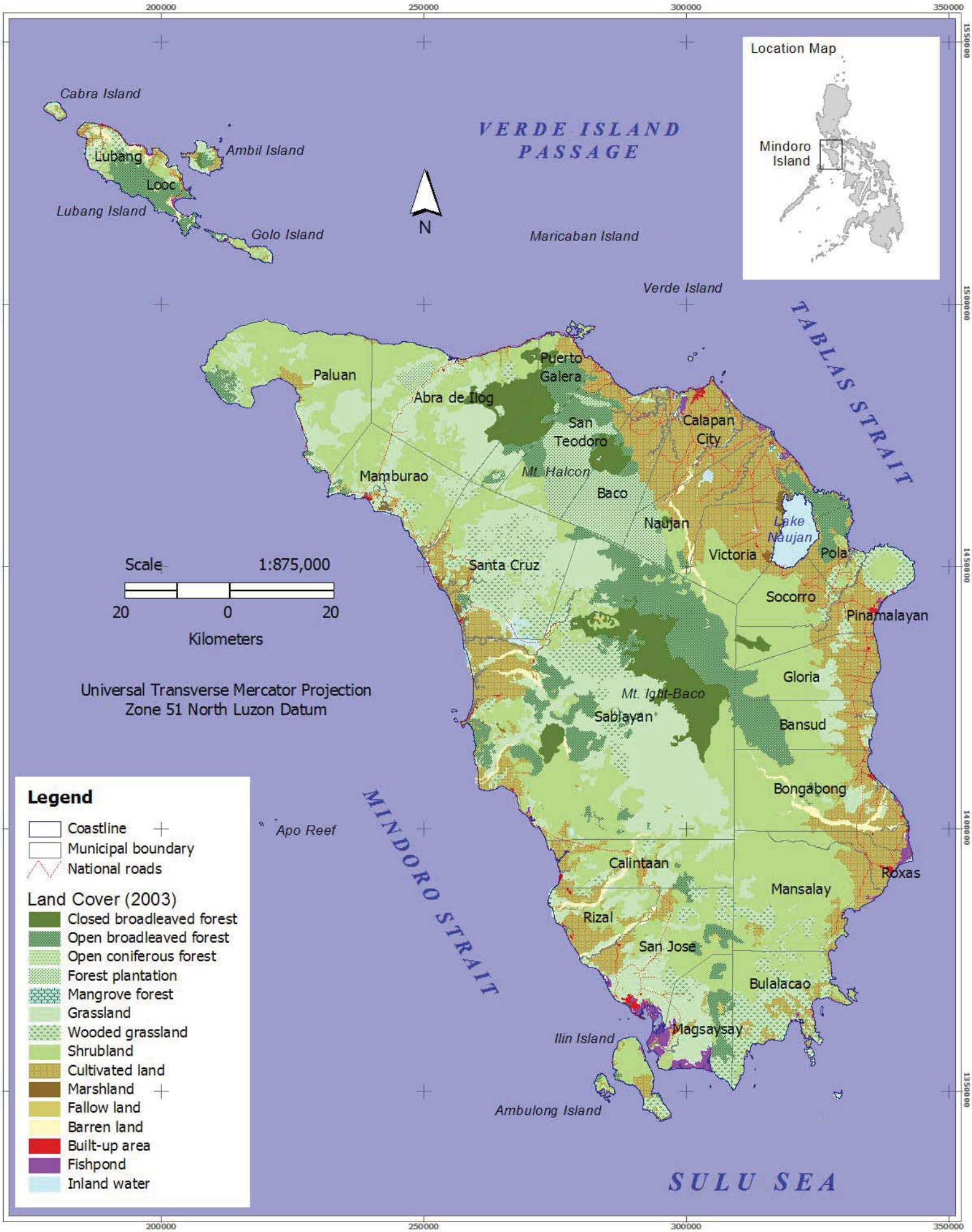


Figure 4. Land cover map c.1987 of Mindoro Island.

Figure 5. Prospective mineral resources found in Mindoro Island (adopted from BMG 1986).

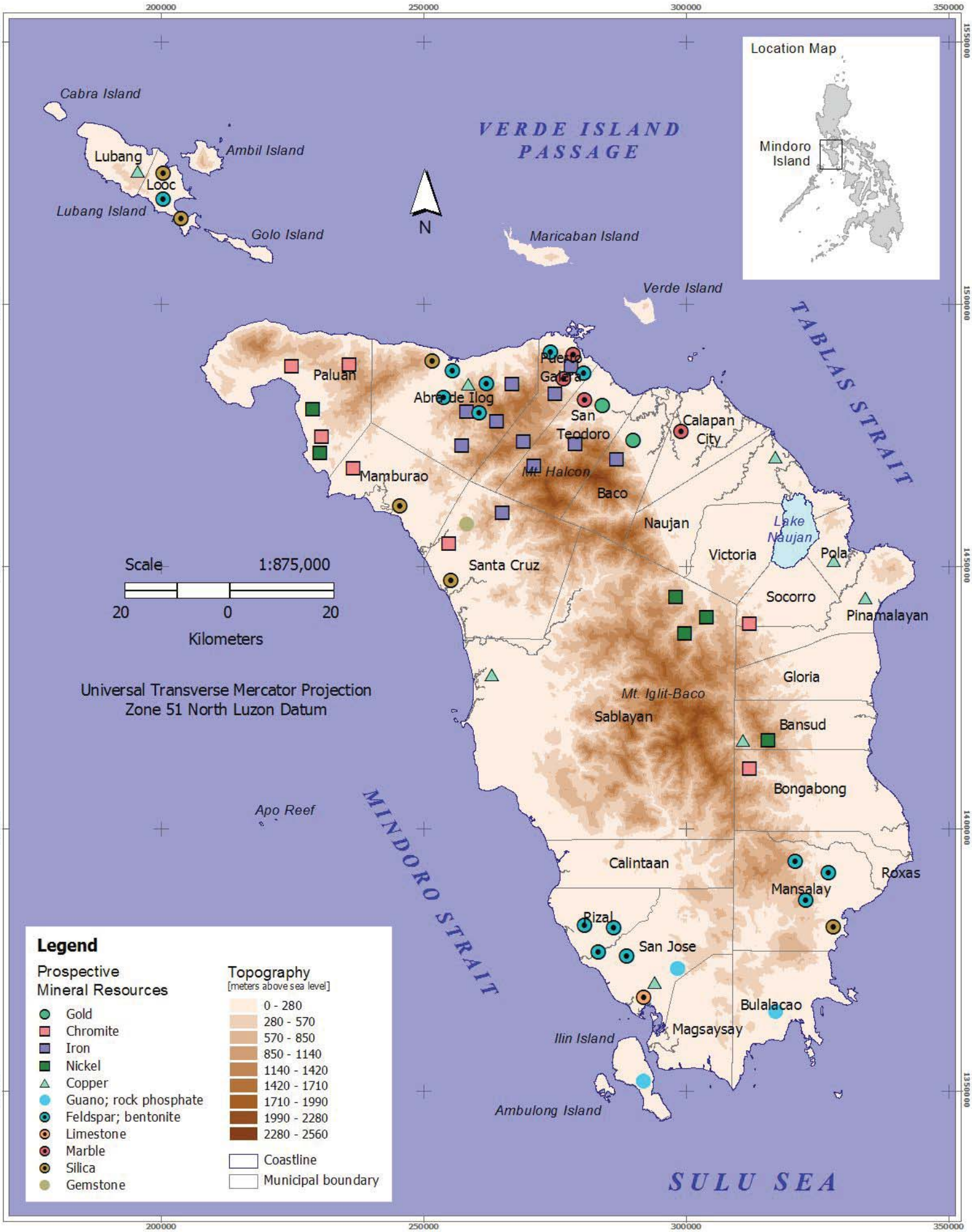


Figure 6. Major watersheds of Mindoro Island vis-a-vis administrative boundaries.

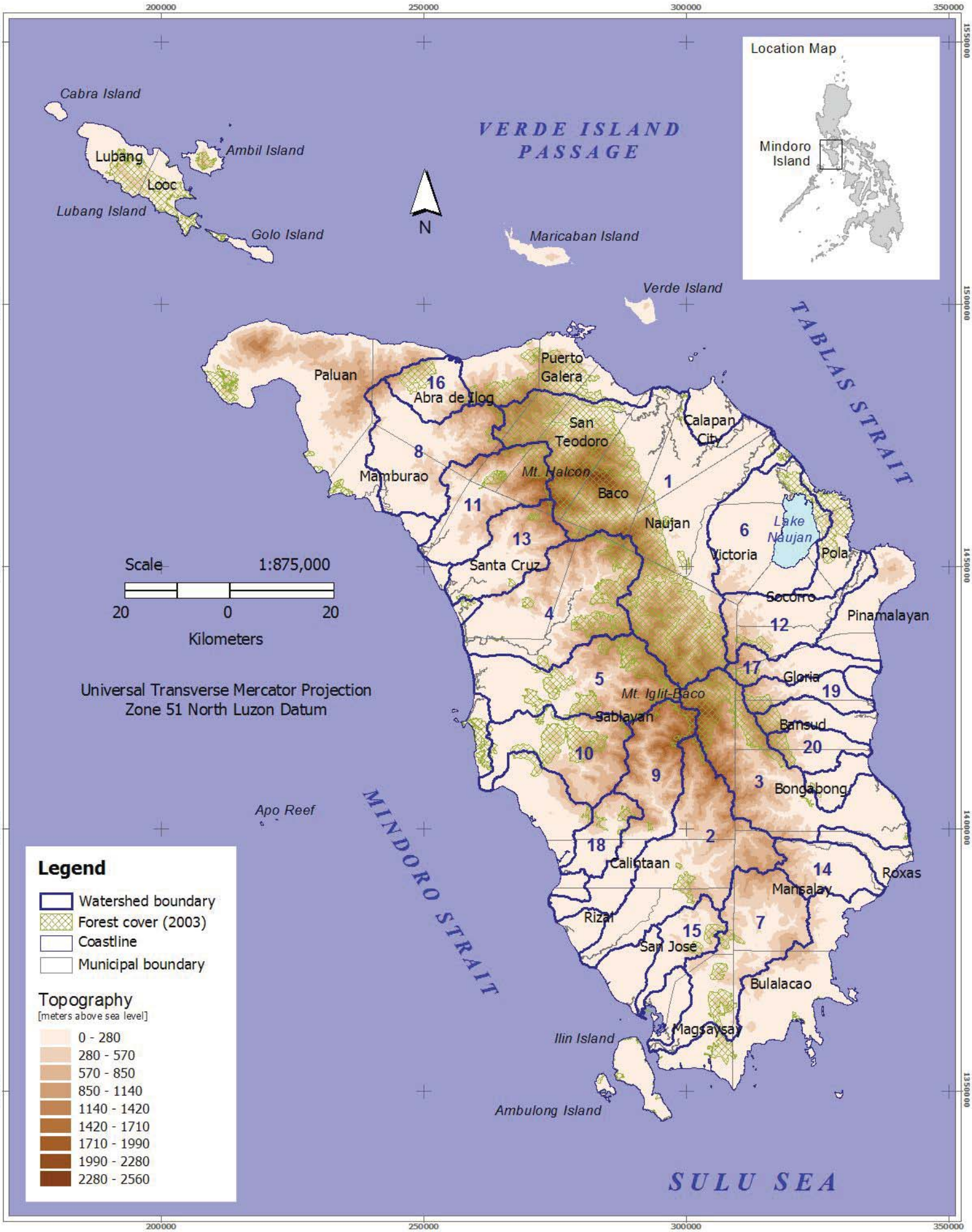


Figure 7. Percentage of forest cover within each major watershed of Mindoro Island.

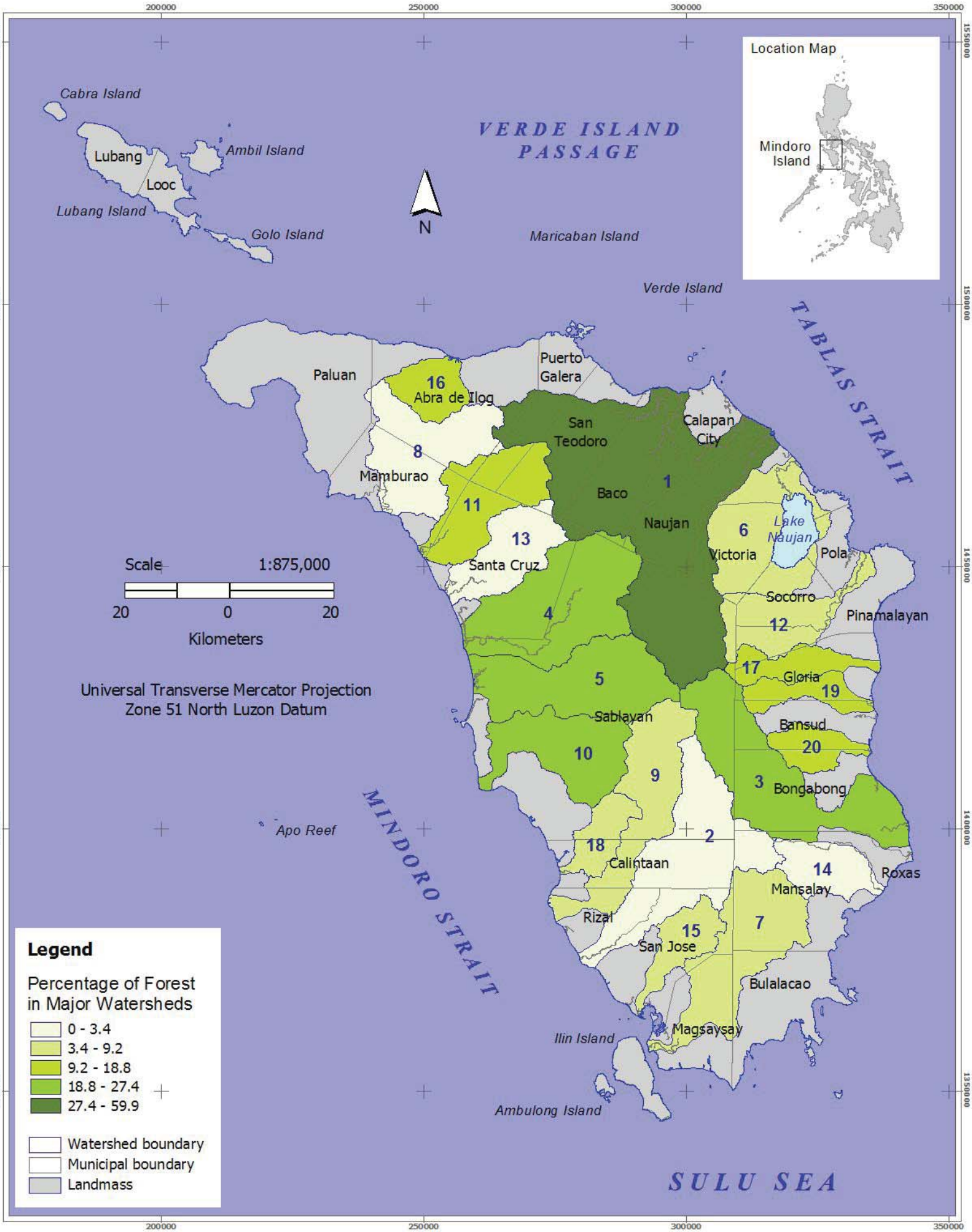


Figure 8. Tenurial instruments found on Mindoro Island.

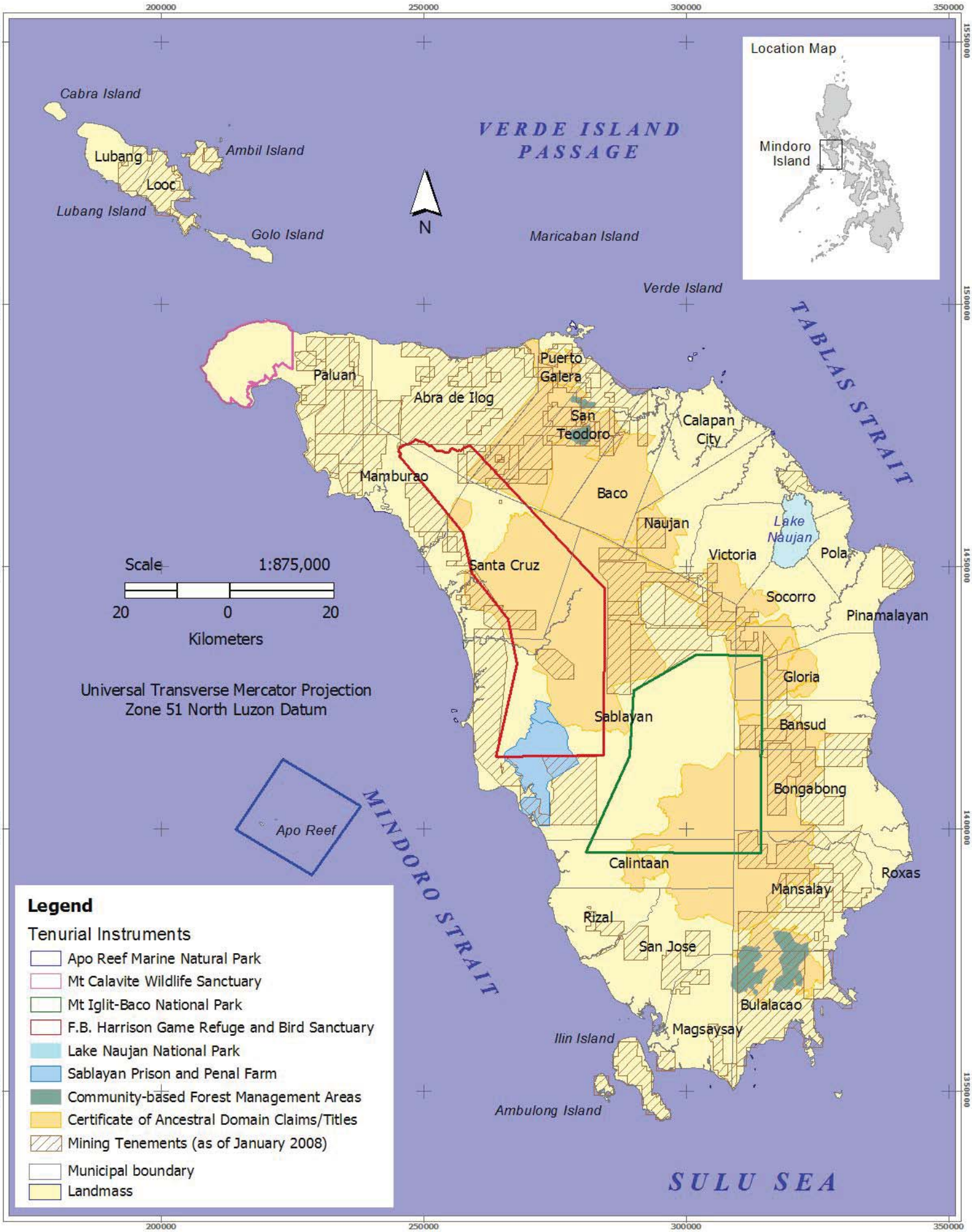


Figure 9. National conservation priorities in Mindoro vis-a-vis MBCFI priority sites.

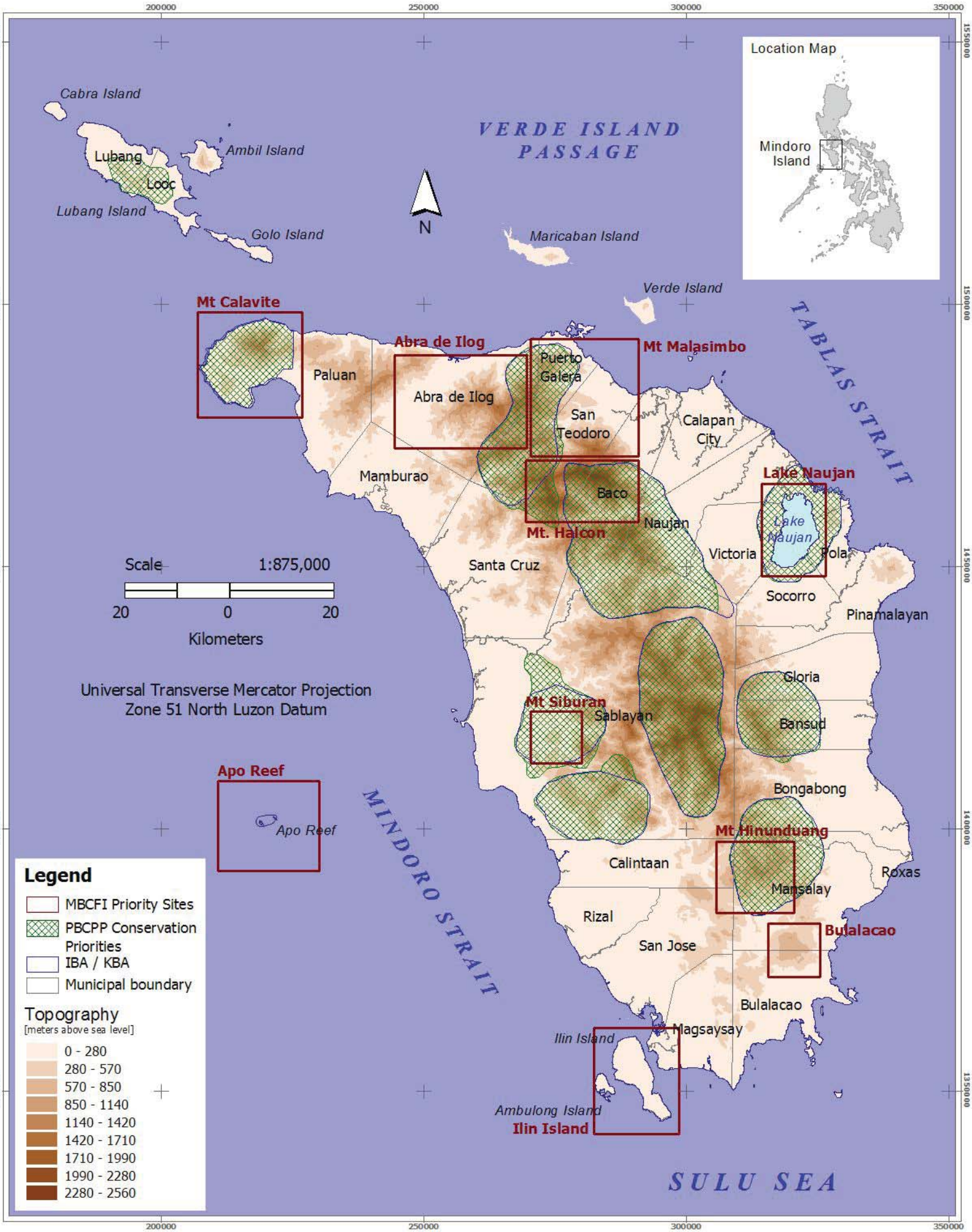
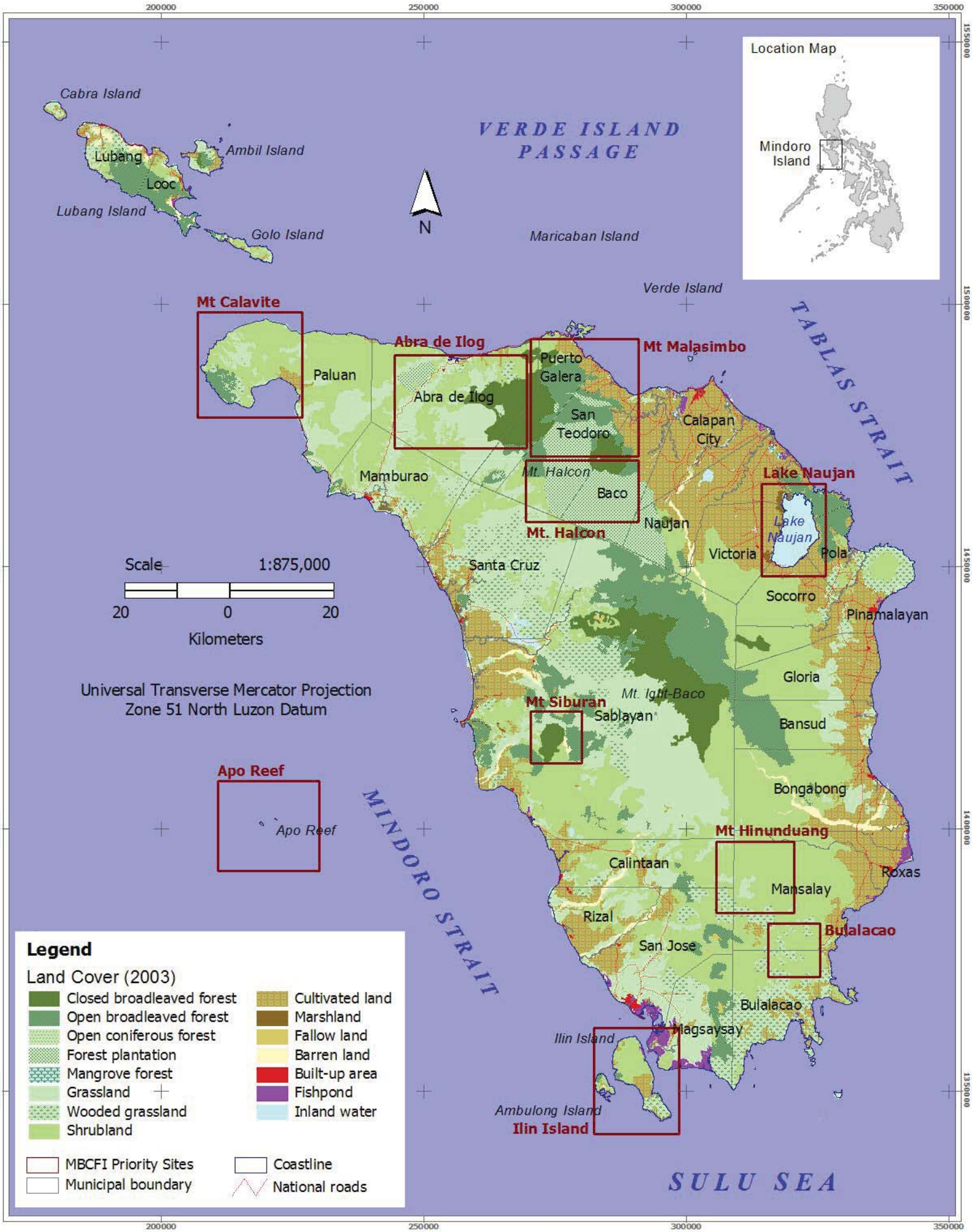
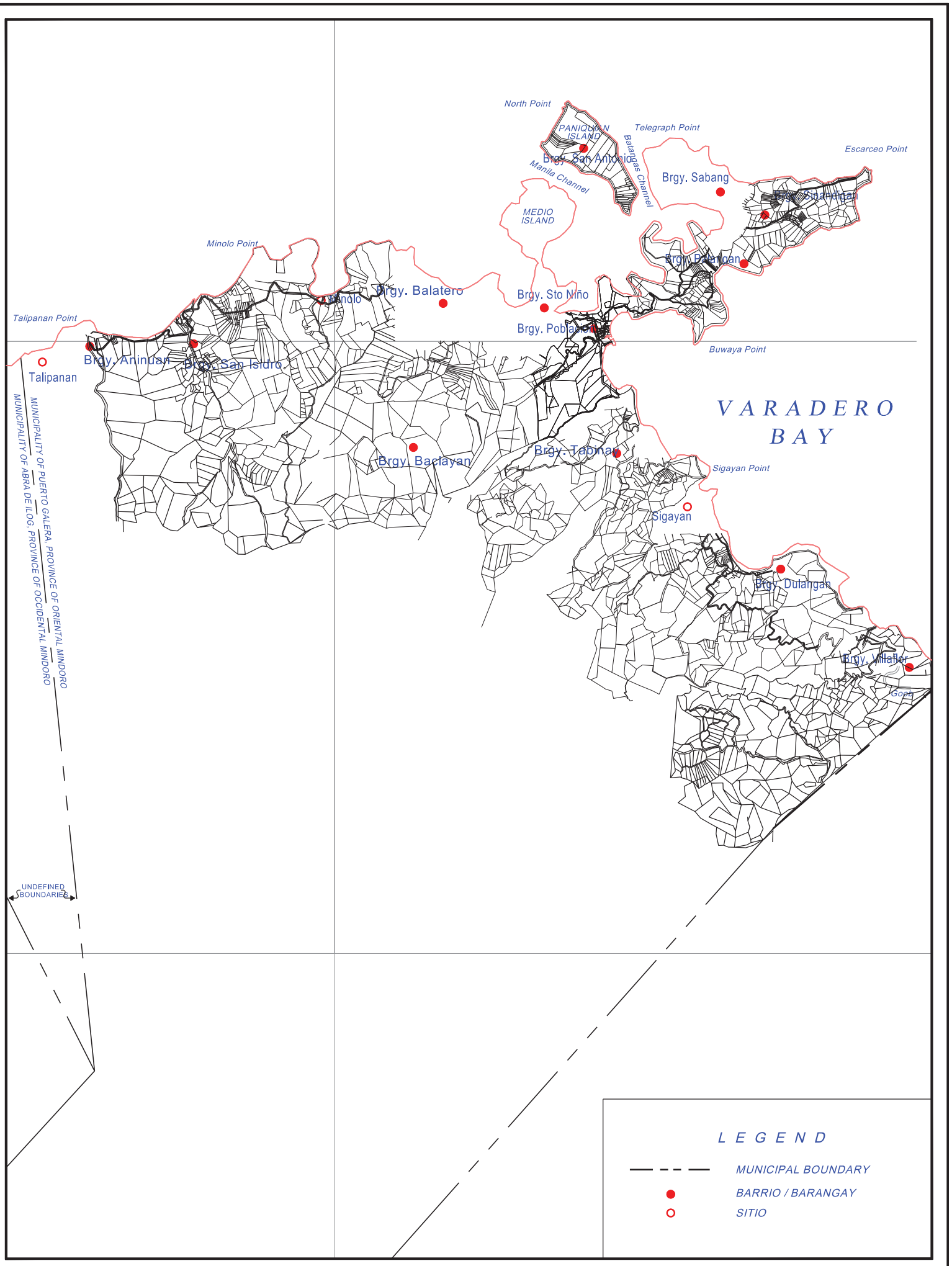


Figure 10. MBCFI priority sites vis-a-vis land cover data c.2003 of Mindoro Island.





CADASTRAL MAP
MUNICIPALITY of PUERTO GALERA, MINDORO ORIENTAL, 2001

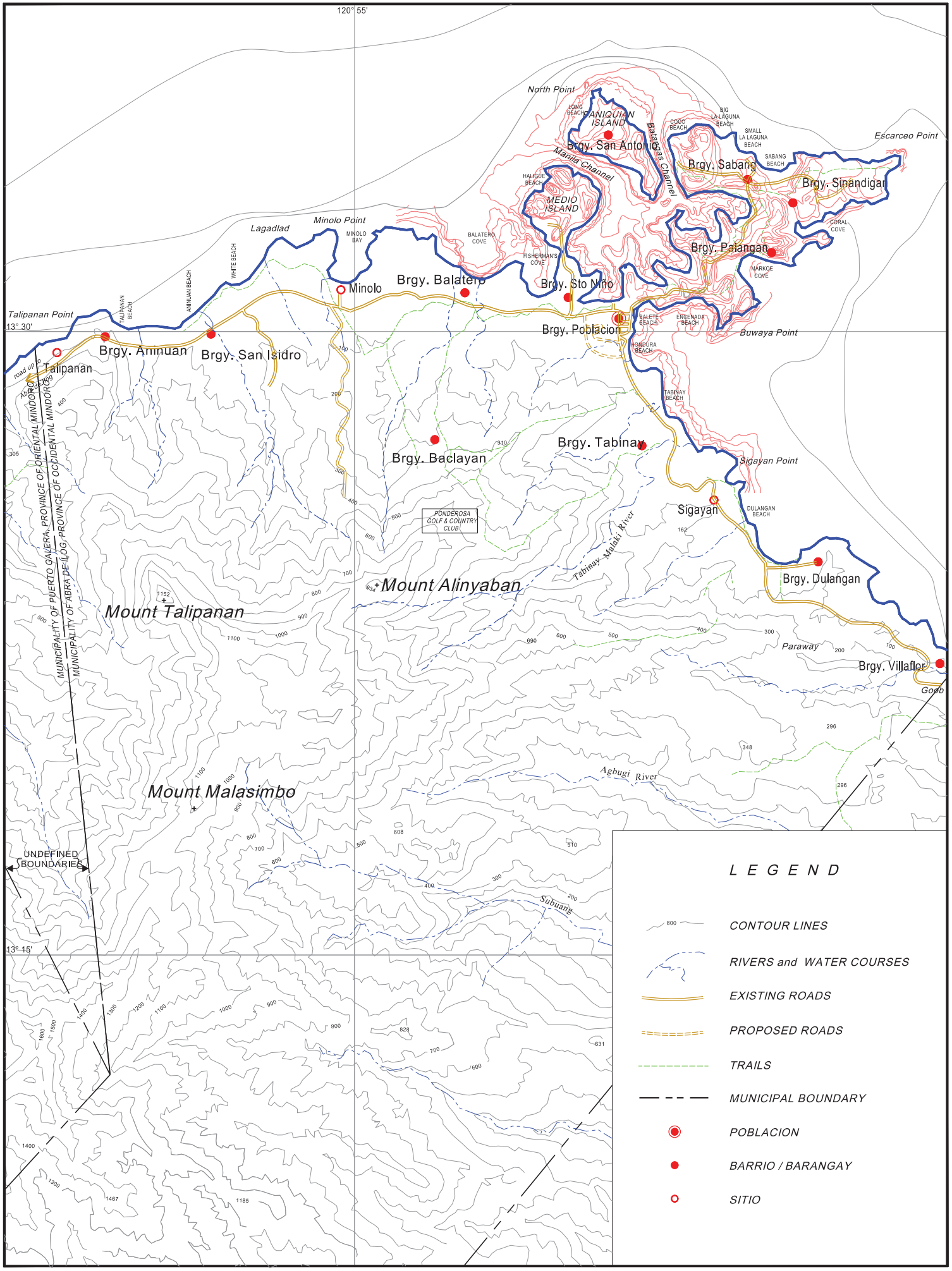
NOTE: POLITICAL / ADMINISTRATIVE BOUNDARIES ON THIS MAP ARE APPROXIMATE. DIGIMAP BY PROS

LOCATION MAP of PUERTO GALERA PROVINCE of MINDORO, 2001

GRAPHICAL SCALE 0 5 10 15 20 km

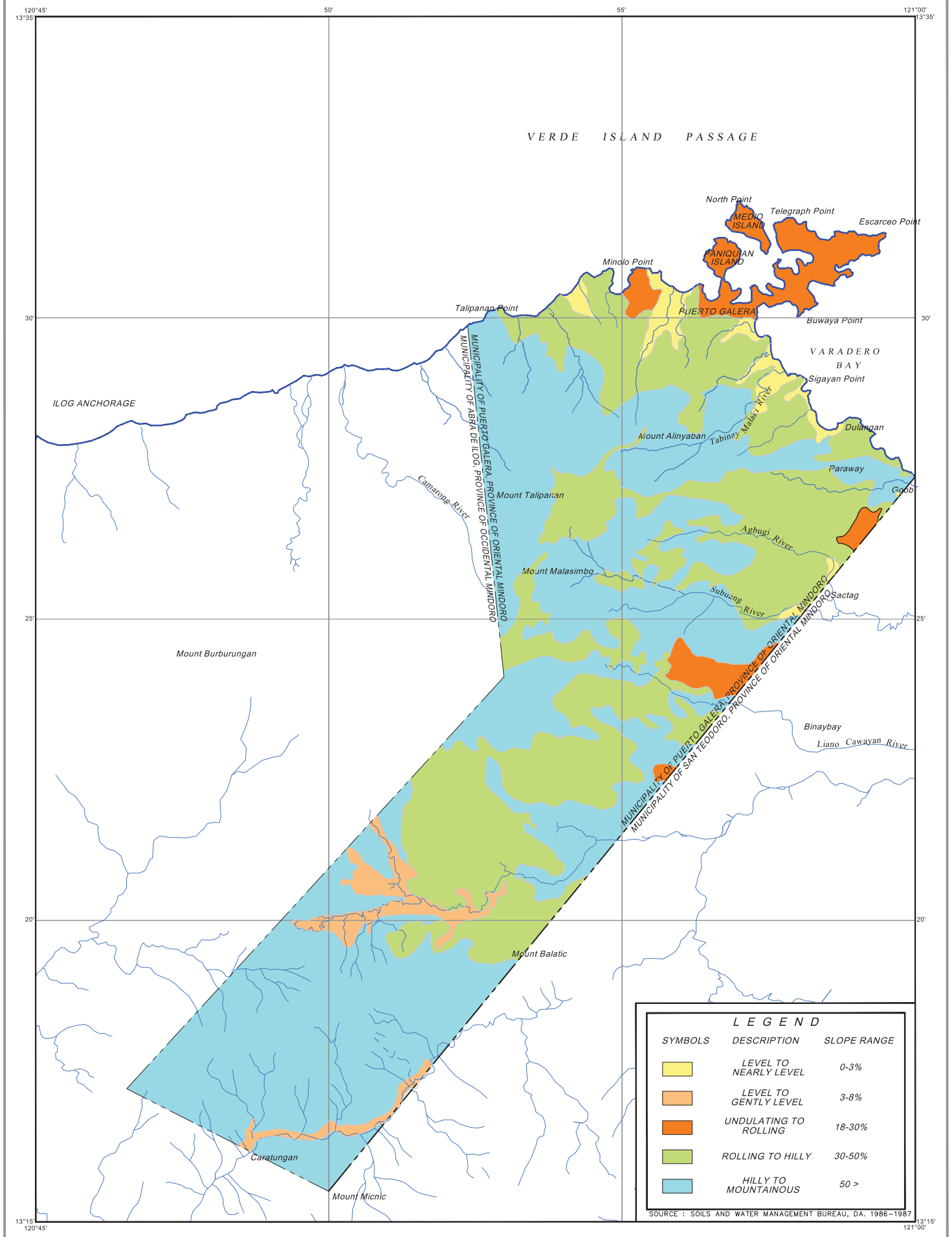
NORTH

SOURCE: NAMRIA DIGIMAP BY PROS



ROAD NETWORK PLAN
MUNICIPALITY of PUERTO GALERA, MINDORO ORIENTAL, 2001-2010

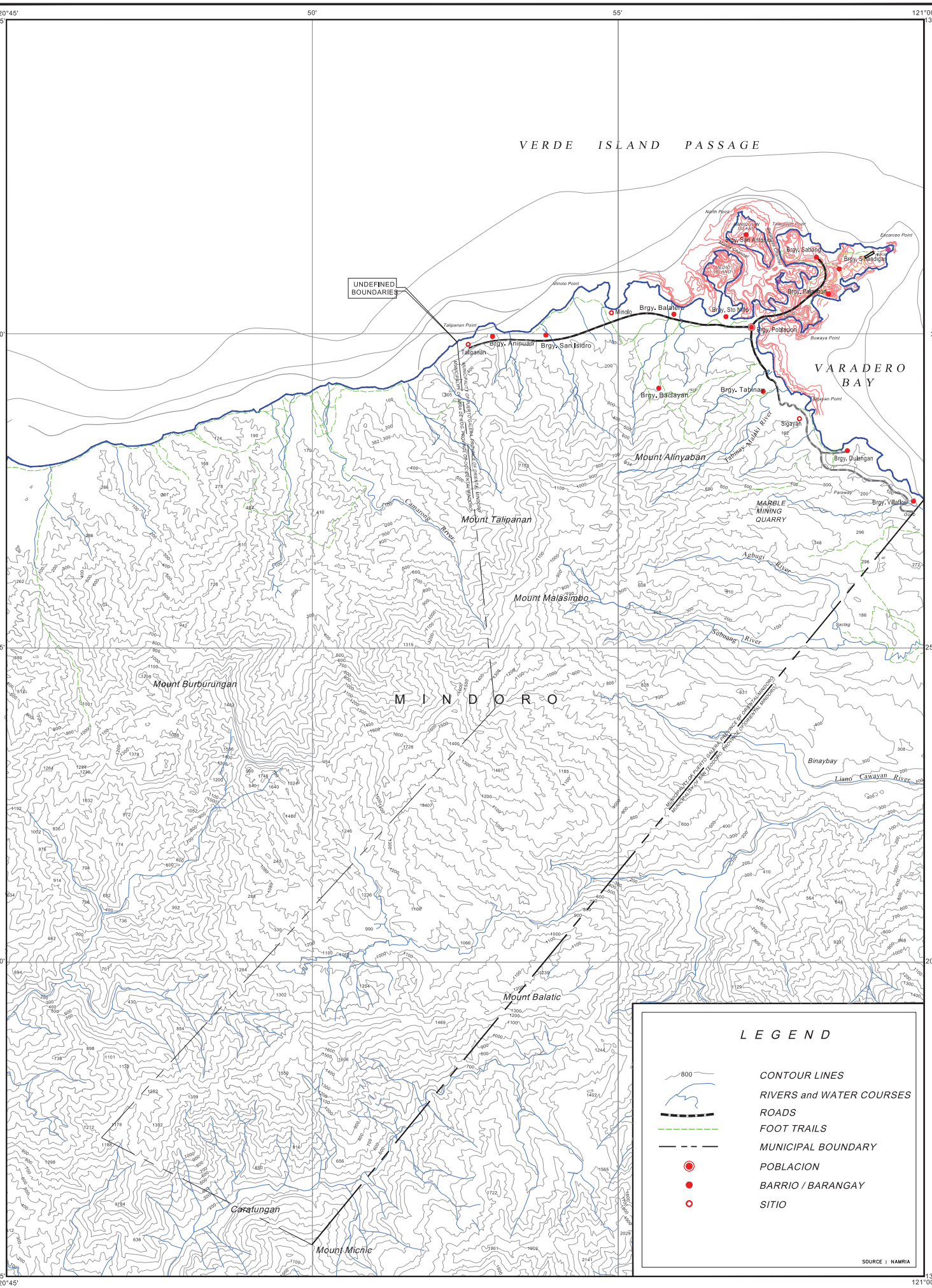
NOTE: POLITICAL / ADMINISTRATIVE BOUNDARIES ON THIS MAP ARE APPROXIMATE. DIGIMAP BY PROS



SLOPE MAP
MUNICIPALITY of PUERTO GALERA, MINDORO ORIENTAL, 2001

NOTE: POLITICAL / ADMINISTRATIVE BOUNDARIES ON THIS MAP ARE APPROXIMATE.

DIGIMAP BY PROS



TOPOGRAPHIC MAP
MUNICIPALITY of PUERTO GALERA, MINDORO ORIENTAL, 2001

SCALE 1 : 200,000

NORTH

NOTE: POLITICAL / ADMINISTRATIVE BOUNDARIES ON THIS MAP ARE APPROXIMATE. DIGIMAP BY PROS


MINDORO
MINDORO ISLAND
MINDORO ISLAND
VERDE ISLAND
MOUNT HALCON
MANGARIN
APO
LIST
PASS
STRAIT
SULU SEA
SEMIRARA ISLAND

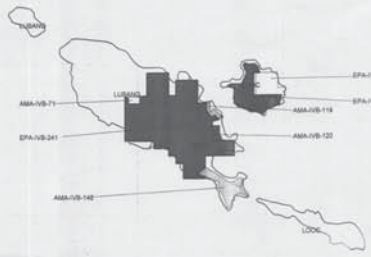

MINDORO
MINDORO ISLAND
MINDORO ISLAND

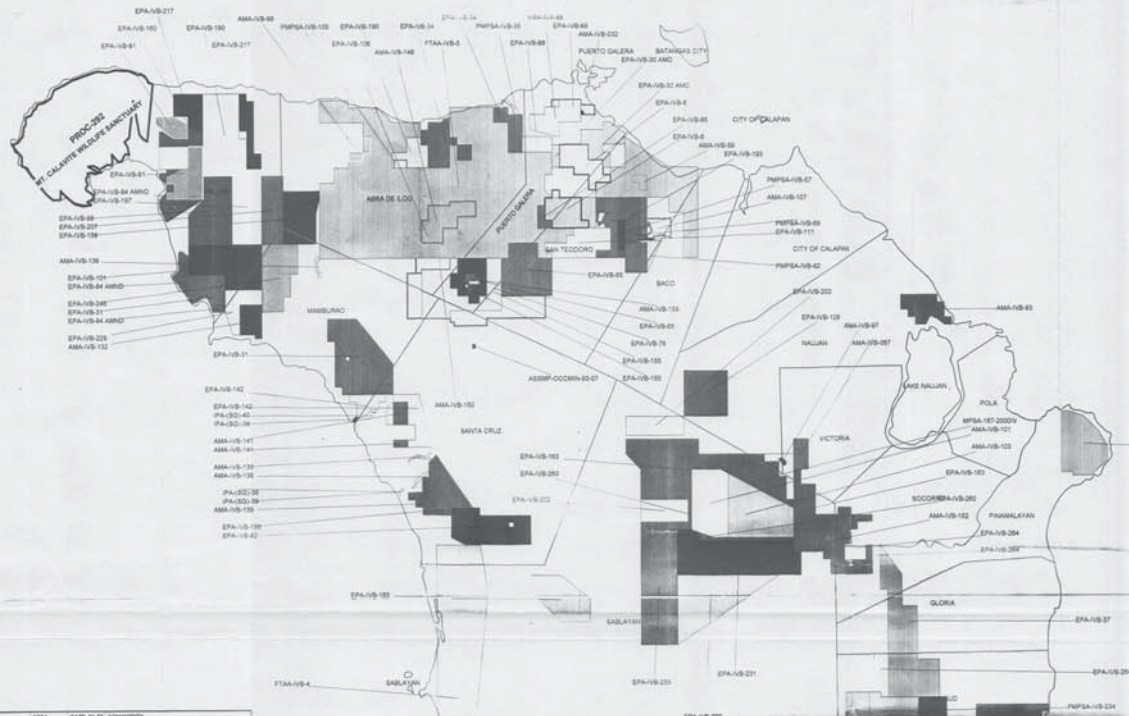
TENEMENT MAP

ORIENTAL AND OCCIDENTAL MINDORO

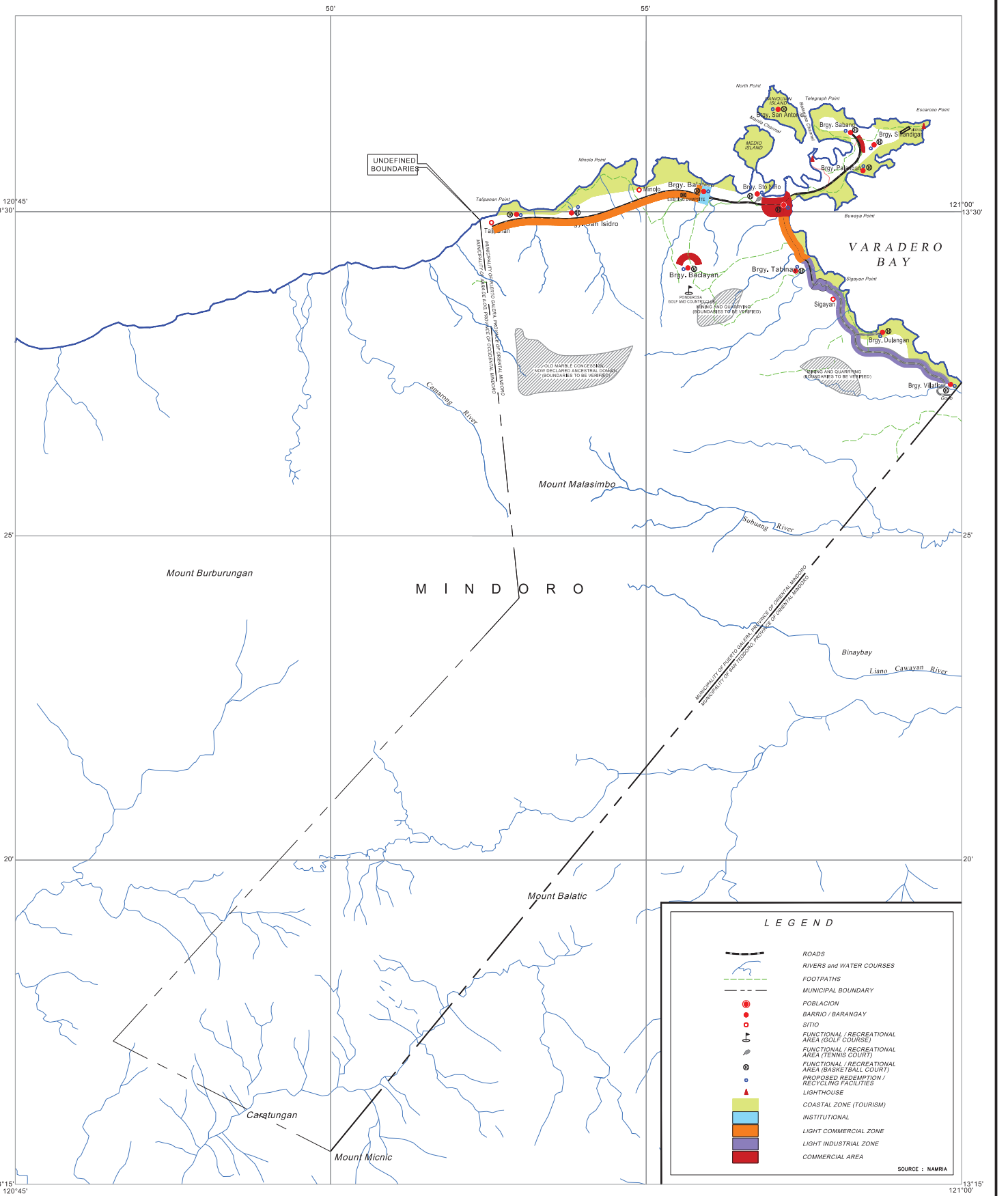
SCALE 1 : 250,000

JANUARY 2008





TENEMENT_ID	TENEMENT_NO	HOLDER	LOCATION	AREA	DATE_FILED	COMMODITY
EXPA000015IV	EPA-IVB-6	MINDORO RES. DEV. CORP	PTO. GALERA,OR. MINDORO	3,159.00	10/06/1995	GOLD
EXPA000084IV	EPA-IVB-84	GEM AGGREGATES CORP.	ABRA DE ILOG	3,202.99	09/28/1997	COPPER,GOLD,LIMESTONE
EXPA000107IV	EPA-IVB-58	ESSEHIMA MINING CORP.	BONGABONG,OR. MINDORO	9,580.00	10/26/1998	NICKEL,CHROMITE
EXPA000175IV	EPA-IVB-78	SHIBAO MINING CORP.	MAMBURAO,OCC. MINDORO	4,370.16	10/13/2000	IRON,MANGANESE
EXPA000194IV	EPA-IVB-61	ALAO MINING & DEV. CORP	PALUAN, OCC. MINDORO	3,949.54	08/01/2005	NICKEL,CHROMITE
EXPA000185IV	EPA-IVB-62	HIGHLAND REALTY PHILS. CORP	STA. CRUZ, OCC. MINDORO	5,995.00	07/19/2005	CHROMITE,IRON,NICKEL
EXPA000192IV	EPA-IVB-84 AMND	HIGHLAND REALTY PHILS. CORP.	MAMBURAO,OCC. MINDORO	1,918.80	08/02/2006	NICKEL,IRON,CHROMITE
EXPA000196IV	EPA-IVB-66	ASTROLABE MNG. & DEV. CORP	MAMBURAO,PTO. GALERA,OR. & OCC.	4,076.30	08/04/2006	IRON,GOLD,COPPER
EXPA000182IV	EPA-IVB-86	AGBAS MINING & DEV. CORP	PTO. GALERA, OR. MINDORO	1,326.02	06/12/2006	IRON, MANGANESE,ORE
EXPA000183IV	EPA-IVB-85	AGBAS MINING & DEV. CORP	LOOC, OCC. MINDORO	810.00	09/01/2006	IRON, CHROMITITE
EXPA000188IV	EPA-IVB-65	AGBAS MINING & DEV. CORP	PALUAN, OCC. MINDORO	3,628.62	09/20/2006	NICKEL,COBALT CHROMITE
EXPA000202IV	EPA-IVB-98	EAST COAST MINERAL RES. CO. INC	MAMBURAO, OCC. MINDORO	4,181.62	09/26/2006	ORE
EXPA000208IV	EPA-IVB-101	HIGHLAND REALTY PHILS. INC.	MAMBURAO, OCC. MINDOR	499.90	10/30/2006	IRON
EXPA000214IV	EPA-IVB-109	ASTROLABE MNG. CORP	ABRA DE ILOG, OCC. MINDOR	4,000.00	03/14/2007	IRON,MANGANESE
EXPA000218IV	EPA-IVB-111	RIZAL SILICA CORP	SAN TEODORO, OR. MINDORO	2,180.78	10/30/2006	GOLD,COPPER,IRON
EXPA000238IV	EPA-IVB-139	EPOCHINA MINING CORP	NAUJAN,OR. MINDORO	2,988.39	12/28/2006	COPPER,IRON,GOLD
EXPA000239IV	EPA-IVB-138	EPOCHINA MINING CORP	SAN JOSE,OCC. MINDORO	2,598.89	12/28/2006	COPPER,IRON,GOLD
EXPA000251IV	EPA-IVB-142	SKS CONSTRUCTION & DEVT. CORP	STA. CRUZ, OCC. minDORO	4,902.83	02/01/2007	NICKEL
EXPA000256IV	EPA-IVB-150	GOLDENPINE DEV. CORP	LOOC, OCC. MINDORO	1,633.88	03/08/2007	NICKEL,CHROMITE
EXPA000264IV	EPA-IVB-156	PHILCREST MINING INCORPORATED	MAMBURAO, OCC. MINDORO	6,000.00	03/14/2007	IRON,MANGANESE
EXPA000267IV	EPA-IVB-159	DIAMOND GROUP OF INVESTORS & DE	ABRA DE ILOG, OCC. MINDORO	2,746.81	03/27/2007	NICKEL,CHROMITE
EXPA000268IV	EPA-IVB-160	ALAO MINING & DEV. CORP	PALUAN, OCC. MINDORO	611.36	03/28/2007	NICKEL,CHROMITE
EXPA000271IV	EPA-IVB-162	DIAMOND GROUP OF INVESTORS & DE	SAN JOSE,OCC. MINDORO	3,883.13	04/02/2007	NICKEL,CHROMITE
EXPA000272IV	EPA-IVB-163	JCET RESOURCES MNG. CORP.	OR. & OCC. MINDORO	15,526.63	04/03/2007	NICKEL,CHROMITE
EXPA000275IV	EPA-IVB-166	LUCKYSTAR INTEGRATED MNG. CORP	STA. CRUZ, OCC. MINDORO	2,249.81	04/13/2007	NICKEL,CHROMITE
EXPA000281IV	EPA-IVB-170	APC MINING CORP.	SABLAYAN,OCC.MINDORO	2,833.87	05/22/2007	GOLD,COPPER
EXPA000300IV	EPA-IVB-190	METALLICA MINERAL RESOURCES INC	ABRA DE ILOG,PALUAN, OCC. MINDOR	5,913.00	08/04/2007	NICKEL,GOLD COPPER
EXPA000302IV	EPA-IVB-193	METALLICA MINERAL RES. INC.	SAN TEODORO, ORIENTAL MINDORO	1,877.67	08/13/2007	NICKEL,GOLD COPPER
EXPA000308IV	EPA-IVB-197	PHILSINER, INC.	PALUAN,OCC. MINDORO	3,328.24	08/15/2007	GOLD,IRON,COPPER SILVER
EXPA000313IV	EPA-IVB-202	GOLDENPINE DEVELOPMENT CORP.	SABLAYAN,OCC. MINDORO	3,313.99	08/30/2007	NICKEL,CHROMITE,IRON,GOLD
EXPA000317IV	EPA-IVB-207	T&D KIM PHIL. INC.	PALUAN, OCC. MINDORO	2,247.24	09/28/2007	IRON,GOLD,COPPER
EXPA000277IV	EPA-IVB-217	GAAS BAY MINING CORP.	PALUAN, OCC. MINDORO	2,820.56	07/19/2007	NICKEL
EXPA000339IV	EPA-IVB-229	ALAO MINING DEV. CORP	MAMBURAO, OCC. MINDORO	1,970.00		LATERITE CHROMITE,NICKEL
EXPA000341IV	EPA-IVB-231	LUDOORON MINING CORPORATION	SABLAYAN, OCC. MINDORO	0.00	09/21/2007	CHROMITE
EXPA000342IV	EPA-IVB-232	LUDOORON MINING CORP.	SABLAYAN,OCC.MINDORO	5,194.00	09/21/2007	CHROMITE
EXPA000343IV	EPA-IVB-233	KINSTA MINING EXPL. CORP.	SABLAYAN, OCC. MININDORO	8,075.06	09/21/2007	CHROMITE
EXPA000351IV	EPA-IVB-240	MOUNT BAUA MNG. CORP.	LUBANG,OCC. MINDORO	9,513.56	09/17/2007	SILICA QUARTZ,COPPER
EXPA000356IV	EPA-IVB-246	GAAS BAY MINING CORP.	MAMBURAO, OCC. MINDORO	3,183.36	10/29/2007	IRON
EXPA000270IV	EPA-IVB-260	CDAGSTONE MINING CORP.	SABLAYAN, OCC. MINDORO	1,302.98	11/08/2007	NICKEL,CHROMITE
EXPA000364IV	EPA-IVB-264	IMELDA CRUZ	PINAMALAYAN/BONGABONG,OR. MIN	2,291.74	11/28/2007	NICKEL,IRON,ETC
APSA000008IV	PMPSA-IVB-06	PHILIPPINE MARBLE CORP	ABRA DE ILOG, OCC. MINDORO	112.00	06/28/1982	AGGREGATES,MARBLE
APSA000007IV	PMPSA-IVB-07	GROPAL STONECRAFT INC	SAN TEODORO,OR. MINDORO	748.98	11/04/1982	GOLD,SILVER,NICKEL
APSA000009IV	PMPSA-IVB-09	KANTOH INTL MARBLE CORP	SAN TEODORO, OCC. MINDORO	1,189.91	02/22/1983	MARBLE
MPSA-130-95IV	PMPSA-IVB-80	PHIL. SUNRISE MARBLE INC	SAN TEODORO, OR. MINDORO	332.98	09/17/1986	MARBLE
APSA000082IV	PMPSA-IVB-82	SAN TEODORO MARBLE CORP	SAN TEODORO, OR. MINDORO	712.00	09/26/1983	MARBLE
APSA000135IV	PMPSA-IVB-135	ZIPPORAH MNG & DEV. CORP	ABRA DE ILOG, OCC. MINDORO	460.88	01/09/1993	FELDSTAR
APSA000138IV	PMPSA-IVB-138	GENERAL CEMENT CORP.	MAGSAYSAY,OCC. MINDORO	1,860.94	09/30/1994	LIMESTONE
APSA000218IV	PMPSA-IVB-218	GENERAL CEMENT CORP.	MANSALAY,OCC. MINDORO	770.18	07/03/1995	LIMESTONE
APSA000234IV	PMPSA-IVB-234	BLUE RIDGE MINING CORP.	BONGABONG, OR. MINDORO	2,112.00	09/01/1995	NICKEL
APTA000013IV	FTAA-IVB-4	KAVILAON MIN. CORP	SABLAYAN, OCC. MINDORO	280,824.10	02/09/1994	GOLD,SILVER
APTA000015IV	FTAA-IVB-5	AQUILAN PETROLEUM & MIN. CORP	ABRA DE ILOG, OCC. MINDORO	53,950.00	02/25/1995	GOLD,SILVER
APTA000018IV	FTAA-IVB-8	ROYAL CEMENT & MNG. CORP	ROXAS, OR. MINDORO	53,136.00	02/26/1996	GOLD,SILVER
GAA000117IV	IPA-(SC)-016	WILSON KHO	SAN JOSE, OCC. MINDORO	20.00	03/08/1996	SAND & GRAVEL
GAA000171IV	IPA-(SC)-23	BRIDGESTONE MNG. & DEV. CORP	CALANTAAN,OCC. MINDORO	19.18	03/05/2002	SAND & GRAVEL
GAA000178IV	IPA-(SC)-39	LAZARUS MNG. CORP	CALANTAAN,OCC. MINDORO	19.15	03/05/2002	SAND & GRAVEL
GAA000177IV	IPA-(SC)-38	CYPRESS MNG. & DEV. CORP	STA. CRUZ, OCC. MINDORO	19.28	03/05/2002	SAND & GRAVEL
GAA000179IV	IPA-(SC)-40	LIVERPOOL MNG. & DEV. CORP	STA. CRUZ,OCC. MINDORO	19.85	03/05/2002	SAND & GRAVEL
GAA000178IV	IPA-(SC)-41	DAYTONA MNG. & DEV. CORP	SABLAYAN,OCC. MINDORO	19.27	04/07/2002	SAND & GRAVEL
APSA000285IV	AMA-IVB-7	EVEREST CEMENT & MNG. CORP	SAN JOSE, OCC. MINDORO	4,318.00	12/05/1995	LIMESTONE
APSA000302IV	AMA-IVB-14	KALAMANZOO MNG. CORP	SAN JOSE, OCC. MINDORO	8,074.00	01/22/1996	LIMESTONE
APSA000055IV	AMA-IVB-032	JESUS MANULULU	PTO. GALERA,OR. MINDORO	15.82	05/16/1996	MARBLE
APSA000068IV	AMA-IVB-051	MANSALAY MNG CORP.	MANSALAY, OR. MINDORO	3,291.00	09/04/1996	SILICA
APSA000407IV	AMA-IVB-58	FIRST OMEGA MIN. DEV. CORP	SAN TEODORO, OR. MINDORO	240.00	10/31/1996	GOLD & COPPER
APSA000434IV	AMA-IVB-067	GLENDALE MNG. & DEV. CORP	VICTORIA,OR. MINDORO	646.00	04/16/1997	BULLGUARTZ
APSA000458IV	AMA-IVB-71	REBECCA MENDOZA	LUBANG,OCC. MINDORO	129.31	09/08/1997	MARBLE,DZIDO LIMESTONE
APSA000478IV	AMA-IVB-80	LEONILA SALAO	MANSALAY,OR. MINDORO	240.00	09/15/1997	SILICA SAND
APSA000531IV	AMA-IVB-98	DAYTONA MNG. & DEV. CORP	PTO. GALERA, OR. MINDORO	1,414.00	10/01/1997	MARBLE
APSA000528IV	AMA-IVB-93	SILVERBELL MINING & DEV. CORP	NAUJAN,OR. MINDORO	1,740.55	09/16/1998	SULPHUR
APSA000555IV	AMA-IVB-94	LAZARUS MNG.CORP	BONGABONG,OR. MINDORO	1,252.39	11/06/1998	SILICA
APSA000556IV	AMA-IVB-95	ST. PATRICH MNG. & DEV. CORP	MANSALAY,OR. MINDORO	4,074.00	11/06/1998	SILICA
APSA000559IV	AMA-IVB-97	AGILUBANG MINING CORP.	VICTORIA/NAUJAN, OR. MINDORO	693.91	11/13/1998	NICKEL
APSA000560IV	AMA-IVB-99	RONALD B. REYES	ABRA DE ILOG,OCC. MINDORO	810.00	12/10/1998	MARBLE
APSA000599IV	AMA-IVB-106	ROCKWORKS INC.	PINAMALAYAN,OR. MIN	3,338.00	01/22/1999	BASALT,ANDESITE
APSA000600IV	AMA-IVB-101	ALAGAO MNG. INC.	SABLAYAN,OCC. MINDORO	3,376.00	02/09/1999	NICKEL
APSA000602IV	AMA-IVB-100	AGILUBANG MINING INC.	SABLAYAN,OCC. MINDORO	4,596.00	03/01/1999	NICKEL
APSA000701IV	AMA-IVB-136	SILVER BELL MNG. & DEV. CORP	BONGABONG,OR. MINDORO	5,892.00	10/04/1999	BENTONITE
APSA000801	AMA-IVB-116	DHENDYES MIN. & ALLOYS CORP	LOOC, OCC. MINDORO	128.00	12/01/2001	BULLGUARTZ
APSA000802IV	AMA-IVB-120	DHENDYES MIN. & ALLOYS CORP	LOOC,OCC. MINDORO	240.00	12/01/2001	BULLGUARTZ
APSA000803IV	AMA-IVB-121	AGILUBANG MNG. CORP	VICTORIA,OR. MINDORO	2,280.87	12/07/2000	NICKEL
APSA000818IV	AMA-IVB-132	EAGLE CREST MNG. & DEV. CORP	SABLAYAN, OCC. MINDORO	99.83	08/22/2001	SAND & GRAVEL
APSA000817IV	AMA-IVB-132	STARREX MNG. & DEV. CORP	MAMBURAO, OCC. MINDORO	1,040.70	08/22/2001	SAND & GRAVEL
APSA000819IV	AMA-IVB-135	HOPEWELL MNG. CORP	SAN JOSE,OCC. MINDORO	100.00	08/22/2001	SAND & GRAVEL
APSA000821IV	AMA-IVB-136	LIVERPOOL MNG. & DEV. CORP	SABLAYAN, OCC. MINDORO	99.88	08/22/2001	SAND & GRAVEL
APSA000822IV	AMA-IVB-137	DRIGGON MNG. & DEV. CORP	RIZAL,OCC. MINDORO	100.00	08/24/2001	SAND & GRAVEL
APSA000823IV	AMA-IVB-138	EAGLE CREST MNG. DEV. CORP	MAMBURAO, OCC. MINDORO	99.98	08/24/2001	SAND & GRAVEL
APSA000824IV	AMA-IVB-139	STARREX MINING & DEV. CORP	STA.CRUZ, OCC. MINDORO	646.00	12/18/2001	CLAY
APSA000825IV	AMA-IVB-140	BRIDGESTONE MNG. DEV. CORP	STA.CRUZ, OCC. MINDORO	405.00	12/18/2001	CLAY
APSA000826IV	AMA-IVB-141	LAZARUZ MNG. CORP	STA. CRUZ, OCC. MINDORO	646.00	12/18/2001	CLAY
APSA000836IV	AMA-IVB-142	BARDONYS RES. INT'L. INC.	LOOC, OCC. MINDORO	329.33	10/18/2002	SILICA ROCK & SILICA SAND
APSA000854IV	AMA-IVB-149	BASGIL RESOURCES CORP	ABRA DE ILOG, OCC. MINDORO	2,038.78	10/01/2004	IRON ORE, MARBLE
APSA000855IV	AMA-IVB-150	BASGIL RES. CORP	ABRA DE ILOG, OCC. MINDORO	749.00	12/01/2004	IRON,MARBLE
APSA000860IV	AMA-IVB-152	VIC-BOC MINING CORP	SOCORRO OCC. MINDORO	3,966.00	03/03/2005	GOLD
APSA000867IV	AMA-IVB-159	DAYAP MINES, INC.	MAMBURAO, OCC. MINDORO	2,500.00	05/17/2005	IRON ,ETC



ADAPTED BY:SANGGUNIAN BAYAN THROUGH SB RESOLUTION NO.
SIGNED BY:

VICE MAYOR | MAYOR | SB SECRETARY

RATIFIED BY: SANGGUNIAN PANLALAWIGAN THROUGH SP RESOLUTION N0.
SIGNED BY:

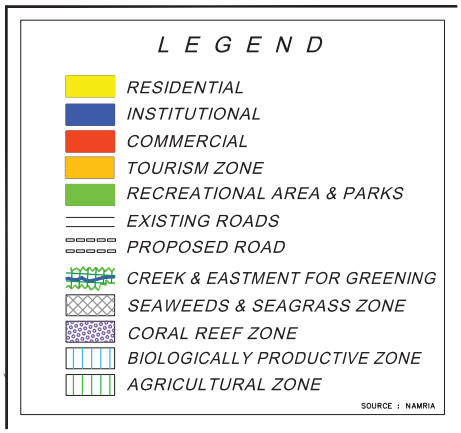
VICE GOVERNOR | GOVERNOR | S.B. SECRETARY

LAND USE PLAN
MUNICIPALITY of PUERTO GALERA, MINDORO ORIENTAL, 2001-2010

SCALE 1 : 50,000

NORTH

NOTE: POLITICAL / ADMINISTRATIVE BOUNDARIES ON THIS MAP ARE APPROXIMATE. DIGIMAP BY PROS



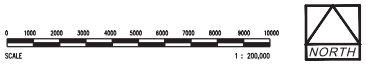
ADAPTED BY:SANGGUNIAN BAYAN THROUGH SB RESOLUTION NO.
SIGNED BY:

VICE MAYOR | MAYOR | S.B. SECRETARY

RATIFIED BY: SANGGUNIAN PANLALAWIGAN THROUGH SP RESOLUTION N0.
SIGNED BY:

VICE GOVERNOR | S.B. SECRETARY | GOVERNOR

PROPOSED LAND USE PLAN MUNICIPALITY of PUERTO GALERA, MINDORO ORIENTAL, 2001-2010



NOTE: POLITICAL / ADMINISTRATIVE BOUNDARIES ON THIS MAP ARE APPROXIMATE. DIGIMAP BY PROS


LOCATION MAP
MAP
Showing the Area
Covered by
Certificate of Ancestral Domain Title
N
SCALE 1 : 50,000
0 2 5 KILOMETERS 10
AREA: 98,1973.46 HECTARES
LOCATION:
SITIOS: Bidaw, Kawayan, Malitu, Rigbe, Cudasia, Karaoayan, Pueluhuan, Tagbi, Katongkig, Kiaran, Pagsuten
BARANGAY: BATONG - BUHAY
SITIOS: Alibet, Kiwa, Hatw, Tatagtagan, Calungat, Kawal, Mancinlay, Taluan, Gangaan, Kalaega, Monding, Tabog (Pandakgad, Kahukan, Kawayanan, Maasan, Tawagan, Kawal, Lunggan, Sakkangdang, Sari Agbulang, Gramon, Libagan
BARANGAY: SAN AGUSTIN
SITIOS: Banlin, Kayutuan, Masangloy, Tuttura, Balugan, Kapang, Makayan, Cabaet, Langaisi, Maslai, Kalangan, Mastatabon, Pandurukan, Kasarang, Makakuluy, Tamlak
BARANGAY: P&G - ASA
SITIOS: Kaotak, Kalkitong, Agluyang, Maybalite, Talisi, Antiring, Tagaring Silintip
BARANGAY: YAPANG (Mangyan Batangan)
MUNICIPALITY: SABLAYAN
SITIOS: Alabungan, Balaan, Balugo, Borutan, Buyahoan, Buwas, Kabangan, Kawarasan, Pasipit, Poblete, Sibalan, Sugpo, Manalugan
BARANGAY: PINAGTUBLAN
SITIOS: Bagkayan, Paruga, Sili, Tagbungan
BARANGAY: BARAHAN
SITIOS: Calamatan, Batong -Apa, Dapdap, Remanda Calingayan
BARANGAY: LUMANGBAYAN
MUNICIPALITY: SANTA CRUZ
PROVINCE: OCCIDENTAL MINDORO
LEGEND
ANCESTRAL DOMAIN TITLE CLAIM
SITIOS/ BARANGAYS
RIVERS / CREEKS
PROVINCIAL BOUNDARY
MUNICIPAL BOUNDARY
ROADS
MAP REFERENCES:

MAPA NA NAGPAPAKITA NG LUPAING NINUNO NG TRIBUNG HANUNUO

MATATAGPUAN SA MGA LUGAR NG:

PAMAYANAN: Abakahan, Abintang, Agok-ok, Agong, Alawhawan, Amindang, Anahaw, Anasaas, Awit, Bacokod, Badyang, Bagong Silang, Ballan, Baleading, Baliltan, Balugo, Baluao, Banabe, Banhawon, Banilad, Banti, Bayog, Gatol, Hamloy, Kabalwa, Kampinaw, Kipanglaw, Kugon Lumboy, Kuranga, Lagit, Lagnas, Mabanban, Marinaw, Mataragak, Nanamay, Panakasoy, Pawikan, Pinya, Puao, Silad, Sinarayan, Sua, Suryawon, Tabtabong, Tambangan, Toong, Tuong, Udal, Ulango, Umabang, Waring, Yunot

BAYAN: BULALACAO AT MANSALAY

LALAWIGAN: SILANGANG MINDORO

SCALE: 1 : 20,000

LAWAK: 16,733.82 EKTARYA

MANSALAY
BULALACAO

SAN JOSE
MAGSAYSAY

KANLURANG MINDORO
SILANGANG MINDORO

PALATANDAAN
HANGGANAN NG LUPAING NINUNO
PAMAYANAN
ILOG/SAPA
HANGGANAN NG LALAWIGAN
HANGGANAN NG BAYAN

Projection ng Mapa
Philippine Transverse Mercator
Clarke Spheroid 1866
Luzon Datum

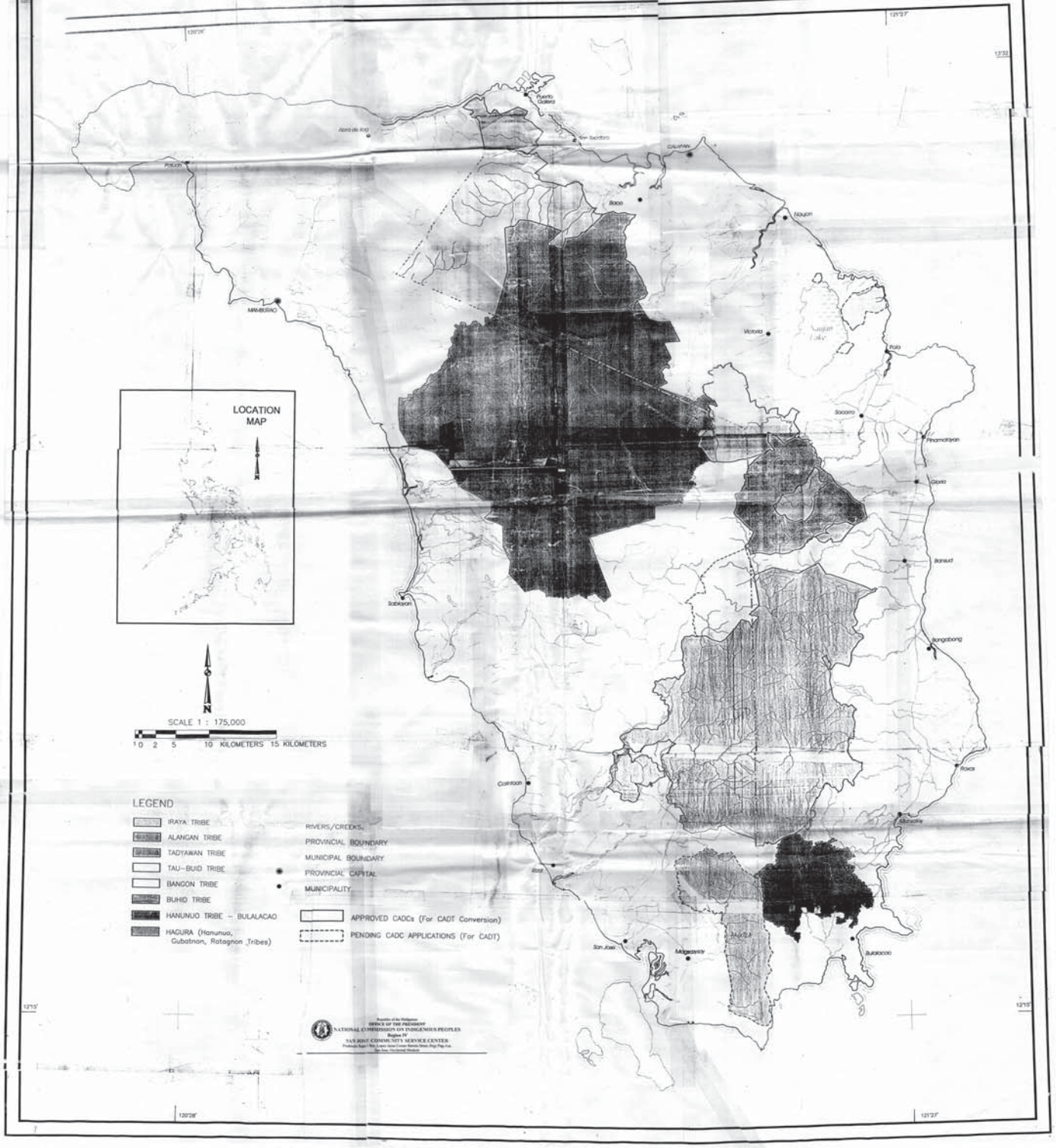
MANGYAN MISSION
Apostolic Vicariate of Calapan
Oriental Mindoro
December 1998

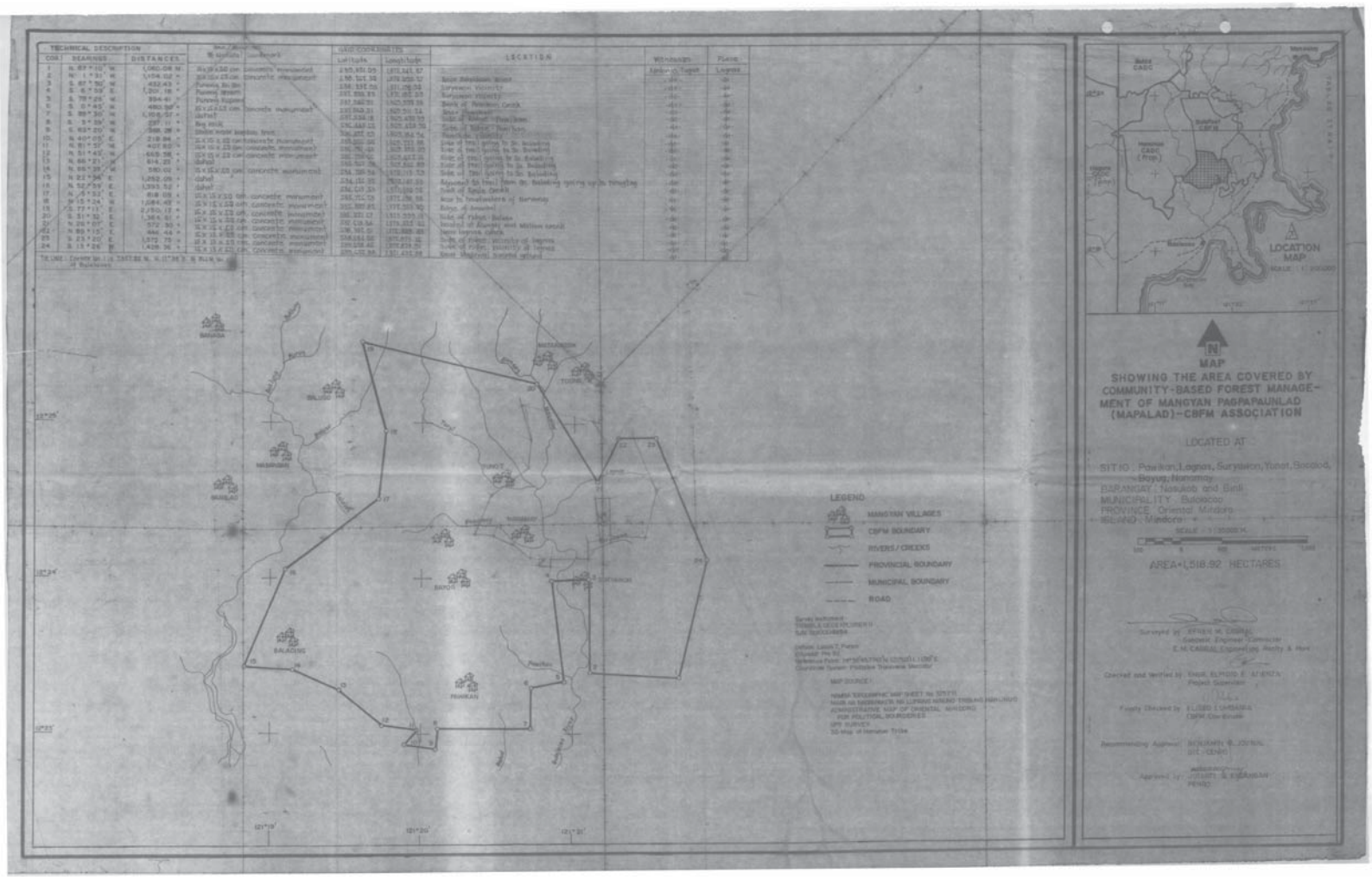
Inihanda ni: DANNY BUENCY GONYONG DE LUNA DANNY LAWAN
Mga Kinatawan ng Pamayan

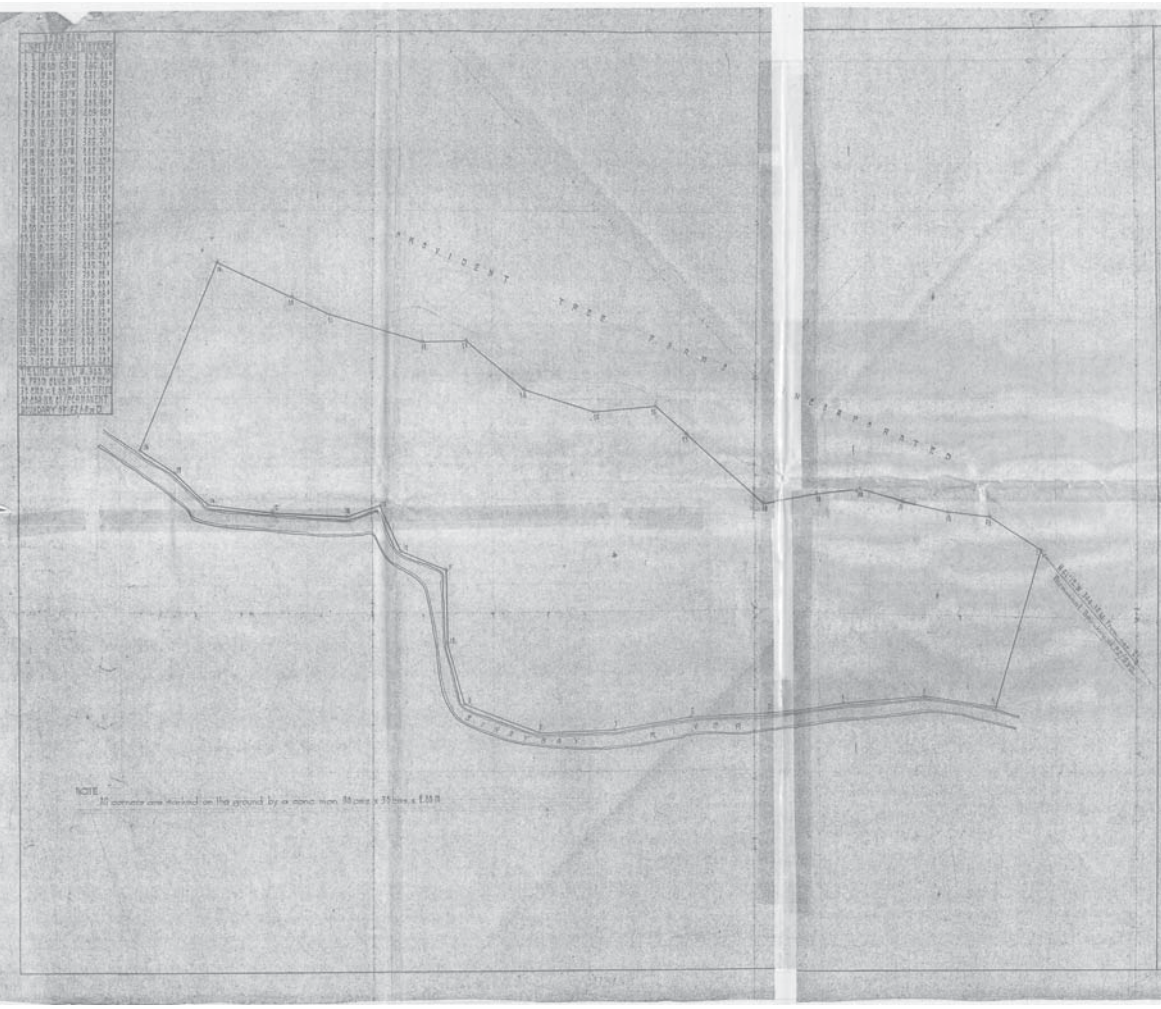
Sa pamamagitan ng: APOLONIO TUGAS
Tagapag-ugnay ng MPLA

PINAGMULANG MGA MAPA:
MARIA TOPO MAP SHEET NOs. 3205 I - IV (1:50,000)
MARIA LAND CLASSIFICATION PROJECT NO. 39
SHEET NOs. 3205 I - IV (1:20,000)
PANGTONG NG RANCON PARA SA BIGA PILATANDAN
BUHO CADC
SKETCH MAPPING

MAP SHOWING THE ANCESTRAL DOMAINS OF THE MANGYANS




TECHNICAL DESCRIPTION
COR.
BEARINGS
DISTANCES
REMARKS
COORDINATES
Latitude
Longitude
SECTION
Witnesses
Plans
Approved Tagus
Legaspi
LEGEND
MANGYAN VILLAGES
CBFM BOUNDARY
RIVERS / CREEKS
PROVINCIAL BOUNDARY
MUNICIPAL BOUNDARY
ROAD
LOCATION MAP
SCALE : 1:100,000
MAP
SHOWING THE AREA COVERED BY COMMUNITY-BASED FOREST MANAGEMENT OF MANGYAN PAGPAPAUNLAD (MAPALAD)-CBFM ASSOCIATION
LOCATED AT
SITIO : Pawikan, Lagnas, Suryakon, Yunot, Sacobod, Bayug, Nonomay
BARANGAY : Nasukob and Binli
MUNICIPALITY : Bulalacao
PROVINCE : Oriental Mindoro
ISLAND : Mindoro
SCALE : 1:10,000
AREA=1,518.92 HECTARES
Surveyed by : ENGR. ELPIDIO E. ATIENZA
Project Supervisor
Checked and Verified by : ENGR. ELPIDIO E. ATIENZA
Project Supervisor
Supply Checked by : ELISEO I. CABARLES
CBFM Site Leader
Recommending Approval : BENJAMIN B. JOVENAL
DEC - CENRO
Approved by : ZENAIDA S. FERNANDEZ
PENRO



PLAN

OF THE AREA UNDER COMMUNITY BASED FOREST MANAGEMENT

SITUATED IN THE

SITIO OF CABARANBAY
BARANGAY OF CALANGCATAN
MUNICIPALITY OF SAN TEODORO
PROVINCE OF ORIENTAL MINDORO
ISLAND OF M I N D O R O

CONTAINING AN APPROXIMATE AREA OF 556.1328 HAS

SCALE 1:10,000

DATE OF SURVEY AUGUST 17-31, 1998

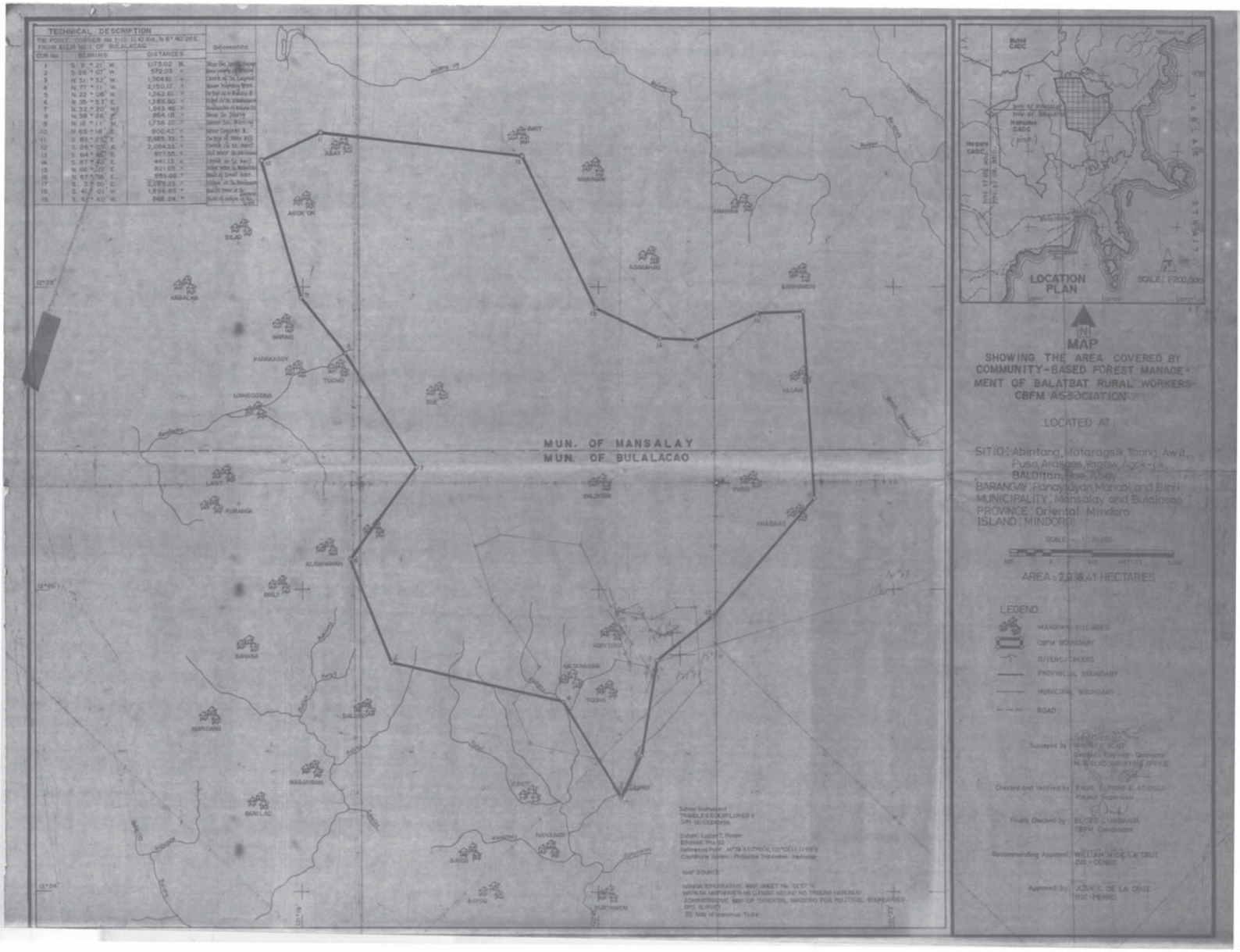
SURVEYED BY: CENRO-CALAPAN SURVEY PARTY

CERTIFICATION

This is to certify that the boundary details of the area subject to Community Based Forest Management, as shown and described are correctly shown and described in accordance with the plan of the land as surveyed by the surveyor named and that Project No. 8 is officially listed in the Order dated December 27, 1995 (LA Map No. 1864)

RECOMMENDING APPROVAL:

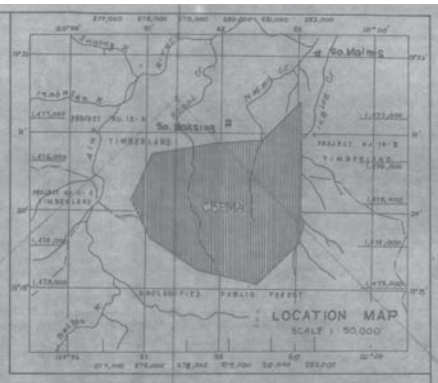
APPROVED:


TECHNICAL DESCRIPTION
TIE POINT: CORNER no 1-10, 11.10 Km. N 8° 40' 00" E.
FROM BLLM NO. 1 OF BULALACAO
COR no. | BEARING | DISTANCES | Remarks
1 | S. 9 ° 21' W. | 1173.02 M.
2 | S. 24 ° 07' W. | 572.03 "
3 | N. 31 ° 32' W. | 1,304.61 "
4 | N. 77 ° 11' W. | 2,150.17 "
5 | N. 22 ° 08' W. | 1,362.61 "
6 | N. 35 ° 57' E. | 1,285.00 "
7 | N. 32 ° 20' W. | 1,643.46 "
8 | N. 38 ° 24' E. | 864.18 "
9 | N. 16 ° 11' W. | 1,735.22 "
10 | N. 65 ° 18' E. | 900.42 "
11 | S. 83 ° 23' E. | 2,485.33 "
12 | S. 26 ° 48' E. | 2,054.33 "
13 | S. 64 ° 56' E. | 917.55 "
14 | S. 87 ° 20' E. | 441.13 "
15 | N. 66 ° 29' E. | 821.65 "
16 | N. 87 ° 58' E. | 859.66 "
17 | S. 3 ° 00' E. | 2,278.23 "
18 | S. 41 ° 01' W. | 1,936.80 "
19 | S. 52 ° 40' W. | 868.24 "
MUN. OF MANSALAY
MUN. OF BULALACAO
LOCATION PLAN
SCALE: F800,000
N
MAP
SHOWING THE AREA COVERED BY
COMMUNITY-BASED FOREST MANAGEMENT OF BALATBAT RURAL WORKERS-CBFM ASSOCIATION
LOCATED AT
SITIO: Abintang, Mataragsik, Toong, Awit, Pusa, Anasipas, Wagiw, Agok-ok, BALDitan, Kase, Aney
BARANGAY: Panaytayan, Manalad and Binli
MUNICIPALITY: Mansalay and Bulalacao
PROVINCE: Oriental Mindoro
ISLAND: MINDORO
SCALE - 1: 20,000
AREA = 2,936.41 HECTARES
LEGEND
MANGYAN SETTLEMENTS
CBFM BOUNDARY
RIVERS/CREEKS
PROVINCIAL BOUNDARY
MUNICIPAL BOUNDARY
ROAD
Surveyed by
Checked and Verified by
Finally Checked by
Recommending Approval
Approved by
Survey Instrument
Datum
Ellipsoid
Reference Point
Coordinate System
MAP SOURCE
MUN. OF MANSALAY
MUN. OF BULALACAO

TECHNICAL DESCRIPTION

LINE	BEARINGS & DISTANCES	GEOGRAPHIC COORDINATES LATITUDE	GEOGRAPHIC COORDINATES LONGITUDE	UTM COORDINATES NORTHING	UTM COORDINATES EASTING	REMARKS
1 - 2	S 1°55' E 1373.85 M	13° 19' 22.663"	120° 53' 2.988"	1,477,895.250	281,098.301	Conc. Mon. 45 x 15 x 60 Cm
2 - 3	S 2°00' W 6028.87 "	13°20' 59.751"	120° 53' 9.945"	1,479,985.705	281,285.672	" "
3 - 4	S 44°41' W 1423.66 "	13° 19' 37.9237"	120° 53' 2.905"	1,477,066.674	281,069.860	" "
4 - 5	N 76°38' W 1687.38 "	13° 19' 9.2854"	120° 52' 29.923"	1,476,207.869	280,067.365	" "
5 - 6	N 69°21' W 1319.87 "	13° 19' 15.0314"	120° 52' 9.246"	1,476,431.159	279,180.598	" "
6 - 7	N 20°33' W 858.62 "	13° 19' 40.2137"	120° 51' 3.687"	1,477,201.773	278,984.606	" "
7 - 8	N 29°49' E 1229.50 "	13° 19' 7.1869"	120° 50' 18.805"	1,476,143.388	277,621.893	" "
8 - 9	N 80°32' E 1487.19 "	13° 19' 44.0181"	120° 51' 3.785"	1,476,139.750	278,158.451	" "
9 - 10	N 86°06' E 1182.87 "	13° 19' 52.3655"	120° 51' 34.834"	1,476,719.388	279,005.365	" "
10 - 1	N 46°23' E 1280 10 "	13° 19' 35.2198"	120° 54' 32.418"	1,476,907.374	280,745.664	" "

TIE POINT: MRE T Lat 13°19'22.663"; Long 120°53'18.985" PRS, Calapan pier, Oriental Mindoro



LOCATION MAP
SCALE 1 : 50,000

ORIENTAL MINDORO PROJECT No. 18-B

TIMBERLAND

LC - 2244

UNCLASSIFIED

PUBLIC

FOREST

LEGEND

CBFMA AREA (SDK) ..... 1,113.088 HAS

N

MAP
SHOWING THE AREA FOR
CBFMA
APPLIED FOR
SAMAHAN NG MGA MANGYAN IRAYA SA BARANGAY BARAS
(SMIBB)
LOCATED AT:
SITIO OF : BAKSING and MALMIS
BARANGAY OF : BARAS
MUNICIPALITY OF : BACO
PROVINCE OF : ORIENTAL MINDORO
AREA - 1,113.088 HAS
SCALE 1 : 10,000

SURVEYED BY: LEP No. 21 & 25

PREPARED AND DRAWN BY:
MELANIE L. DIZEON
CARTOGRAPHER

RECOMMENDING APPROVAL:
LEONITO B. CALLEJAHAN
CENRO

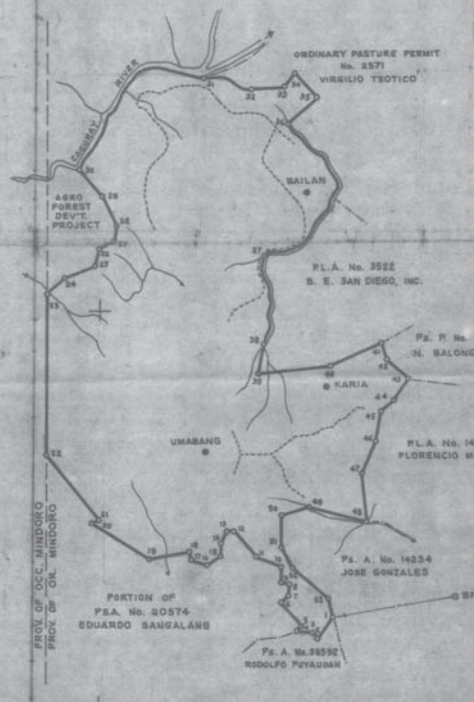
APPROVED BY:
MANUEL Z. HERNANDEZ
PENRO

TECHNICAL DESCRIPTION

TIE POINT: Corner "1" is S 79° W, approx. 2,175 m. from FZ No. 24, BFFR A-902, Timber Land, Proj. No. 8-C, Or. Mindoro

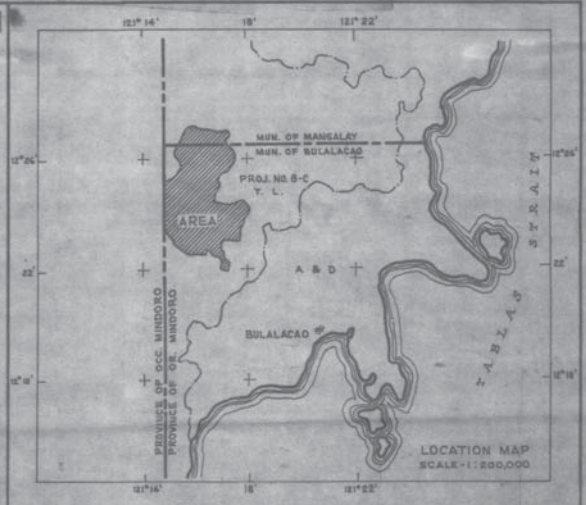
COR.	BEARINGS	DISTANCES	REFERENCE / LOCATION
1	S 36° W	450 M.	A point at midst of cogon.
2	N 37° W	100 "	Stake " " " openland.
3	N 86° W	280 "	" " " " "
4	N 44° E	120 "	Anapla " " " "
5	N 43° W	530 "	Pahotan " " " "
6	N 41° E	180 "	Kupang " " " "
7	N 03° E	185 "	Barayong " " " "
8	N 88° W	125 "	Duhat " " " "
9	N 02° E	265 "	Bigaec " " " "
10	N 70° W	480 "	Salagan " " " "
11	N 41° W	580 "	Banbanay " " " "
12	DUE WEST	110 "	Bulaboq, an openland.
13	S 21° W	240 "	Ibad " "
14	DUE SOUTH	200 "	Biribiri " "
15	S 57° W	300 "	Pahotan " "
16	N 79° W	230 "	Dita " "
17	N 15° W	170 "	Pahotan " "
18	S 80° W	700 "	Barabo " "
19	N 58° W	1,150 "	Stake " "
20	N 70° E	130 "	Dao " "
21	N 39° W	1,410 "	Ipil " "
22	DUE NORTH	2,740 "	Stake at dry creek
23	N 82° E	400 "	A point at S-bank of creek.
24	N 71° E	580 "	" " " side slope.
25	N 12° E	320 "	" " " bank of creek.
26	N 65° E	270 "	" " " " "
27	N 13° E	300 "	" " " side slope.

COR.	BEARINGS	DISTANCES	REFERENCE / LOCATION
28	N 21° W	580 M.	A point at bank of creek.
29	N 46° W	700 "	" " side slope.
30	Foll. Cagusay R. upstream in gen. N-E-S-E & dir. abt. 3,240 m.		Boulder stone at junction of Cagusay R. and Kambalawa Cr.
31	Foll. Barangonan R. upstrm. in gen. S-E & dir. about 860 m.		Stake at junction of Cagusay R. and Karanting Cr.
32	N 85° E	580 M.	Malugai, at E-bank of River.
33	N 48° E	275 "	Stake on openland.
34	S 42° E	550 "	" " "
35	S 52° W	675 "	" " "
36	Foll. Barangonan R. upstrm. in SE & SW & dir. abt. 3,320 m.		Stake, S-bank of Barangonan River.
37	Foll. Bara-bara Cr. upstrm. in gen. S-W & dir. abt. 1,600 m.		Balete at junction of Barangonan R. and Bara-bara Cr.
38	S 11° W	470 M.	Misc. Sp. at E-bank of Bara-bara Cr.
39	N 84° E	1,200 "	Post, iden. to cor. 23 Pt LA No. 3522
40	N 72° E	1,040 "	" " " 21 " " "
41	S 14° E	275 "	" " " 20 " " "
42	S 46° E	520 "	Stake on openland.
43	S 39° W	500 "	Kupang, E-bank of Kandiwasan Cr.
44	S 63° W	280 "	Misc. Sp., S-bank of Mataney Cr.
45	S 11° W	500 "	" " on side of slope.
46	S 25° W	620 "	Stake on openland.
47	S 08° E	750 "	Binagaya, at junction of trail.
48	N 76° W	1,010 "	Boulder stone at junction of Cr.
49	S 77° W	480 "	" " " " "
50	S 02° W	520 "	A point on openland.
51	S 21° E	400 "	" " "
52	S 49° E	800 "	" " "
53	S 16° E	315 "	" " "



N

S



SKETCH MAP

SHOWING THE CFSA AREA OF PUNDASYON HANUNUO MANGYAN, INC. TO BE CONVERTED TO COMMUNITY-BASED FOREST MANAGEMENT AGREEMENT (C. B. F. M. A.)

LOCATED IN THE:
SITIOS: BAILAN, UMABANG & KARIA
BARANGAY: BENLI
MUNICIPALITY: BULALACAO
PROVINCE: ORIENTAL MINDORO

APPROX. AREA OF **3,356.0** HECTARES

SCALE - 1 : 50,000

0 1 2 3 4 5 KM.

LEGEND:

- CBFM BOUNDARY
- P.L.A. BOUNDARY
- FOREST ZONE LINE
- SITIO
- TRAIL
- RIVERS / CREEKS

SUBMITTED BY:

PAULINO A. ALFANTE
C D A II

ELISEO I. UMBANIA
CHIEF, CBFM UNIT

ATTESTED BY:

ELEUTERIO V. RECILE
CENR OFFICER

with my conformity
ANNING MALIGDAY
President, PHM, Inc.

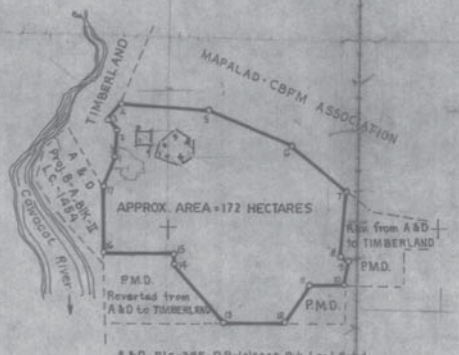
APPROVED BY:

ARNULFO Z. HERNANDEZ
OIC- PENRO

TECHNICAL DESCRIPTION

TIE POINT : Corner "1" is on BLLM # 11, Pls-385-D, Bulalacao Public Land Subdivision.

CORNER	BEARINGS	DISTANCES	REFERENCE
1	N. 04° E.	185.00 M.	BLLM # 11
2	N. 45° W.	90.00 "	BLLM # 12
3	N. 37° E.	140.00 "	Stake
4	S. 80° 37' E.	580.02 "	Cor. 15 of CBFM-Mapalad Assn.
5	S. 66° 21' E.	614.23 "	Cor. 14 of CBFM-Mapalad Assn.
6	S. 31° 45' E.	470.00 "	Cor. 13 of CBFM-Mapalad Assn.
7	S. 07° W.	430.00 "	Fence post
8	S. 61° E.	60.00 "	" "
9	S. 12° W.	140.00 "	" "
10	Due West	230.00 "	" "
11	S. 34° W.	280.00 "	" "
12	Due West	410.00 "	Stake
13	N. 41° W.	310.00 "	Fence post
14	Due North	60.00 "	" "
15	Due West	470.00 "	" "
16	Due North	430.00 "	" "
17	N. 20° E.	200.00 "	Cyl. conc. mon.



A&D, Pls-385-D, Bulalacao Pub. Land Subd.

121° 20'

12° 24'

12° 23'

121° 19'

SKETCH/MAP

SHOWING THE PROPOSED CBFM AREA OF CAMBUNANG CBFM ASSOCIATION INC.

LOCATED AT :

SOS. : TINOGTOG, KIBANG & MARINDUNG
BRGY. : CAMBUNANG
MUN. OF : BULALACAO
PROV. OF : OR. MINDORO

APPROXIMATE AREA OF 172 HECTARES

SCALE - 1 : 20,000

LEGEND :

—o— AREA BOUNDARY

RIVER / CREEK

Surveyed by :

CENRO SURVEY TEAM

Plotted by :

PRUDENCIO H. FABILA
Cartographer

Verified by :

ELISEO T. UMBANIA
Forester - II

Attested by :

ALBERTO G. CARDINO
Chief - FMS

Recommending Approval :

WILLIAM H. DE LA CRUZ
OIC - CENRO

Approved by :

JUAN C. DE LA CRUZ
OIC - PENRO

AUTHORITY
L. C. MAP - 2125

Price P1.00

TECHNICAL DESCRIPTION

ALIENABLE & DISPOSABLE

COR.	BEARING & DISTANCE TO NEXT CORNER	TREE MONUMENT OR NATURAL LAND MARK	MARKS SYMBOL	MARKS DIST. AND BEAR. STATION	MARKS DIST. AND BEAR. AZIMUTH	REFERENCE OR LOCATION	WITNESS NAME	WITNESS ADDRESS
1	S. 0° 41' E. 234.79 m.	M.B.M. No. 4						
2	S. 80° 14' E. 32.35	R.L.S. Cor. Mon. (Triangulation)						
3	S. 68° 51' E. 177.41	" " " "						
4	N. 79° 26' E. 93.41	" " " "						
5	N. 15° 15' E. 85.31	" " " "						
6	S. 89° 21' E. 84.59	" " " "						
7	S. 0° 23' E. 85.65	Stake						
8	S. 0° 23' E. 13.84	"						
9	S. 58° 25' E. 85.36	"						
10	S. 0° 44' E. 85.84	"						
11	N. 76° 19' E. 91.68	"						
12	S. 40° 29' E. 293.57	R.L.S. Cor. Mon. (Triangulation)						
13	N. 73° 47' E. 154.69	" " " "						
14	N. 17° 25' E. 359.36	" " " "						
15	S. 61° 09' W. 37.16	" " " "						
16	S. 46° 15' E. 524.36	" " " "						
17	N. 36° 06' E. 92.65	Stake						
18	N. 72° 41' E. 66.78	R.L.S. Cor. Mon. (Triangulation)						
19	N. 80° 54' E. 135.69	Point						
20	S. 36° 15' E. 265.69	R.L.S. Cor. Mon. (Triangulation)						
21	S. 58° 40' E. 70.65	"						
22	N. 17° 27' E. 224.11	"						
23	S. 82° 56' E. 119.31	"						
24	S. 0° 47' W. 101.36	"						
25	N. 0° 10' E. 176.58	"						
26	S. 71° 51' E. 245.79	"						
27	N. 84° 05' E. 160.70	"						
28	N. 81° 15' E. 241.72	"						
29	N. 46° 55' E. 96.38	"						
30	S. 9° 51' E. 95.40	"						
31	S. 88° 26' E. 195.62	Stake						
32	S. 36° 46' W. 165.29	R.L.S. Cor. Mon. (Triangulation)						
33	S. 21° 59' W. 97.50	" " " "						
34	S. 8° 38' W. 166.74	" " " "						
35	S. 86° 04' E. 97.50	" " " "						
36	S. 15° 17' W. 151.89	" " " "						
37	S. 3° 38' W. 157.98	" " " "						
38	S. 44° 35' W. 367.32	" " " "						
39	S. 45° 04' E. 64.15	" " " "						

40	S. 44° 0' E. 161.21	M.B.M. No. 5						
41	S. 44° 46' E. 201.87	" " " "						
42	S. 53° 34' E. 266.79	" " " "						
43	S. 38° 42' E. 127.39	" " " "						
44	N. 62° 19' E. 294.49	" " " "						
45	N. 36° 14' E. 286.78	" " " "						
46	S. 8° 44' E. 99.80	" " " "						
47	S. 19° 33' E. 125.75	" " " "						
48	S. 0° 49' E. 194.52	" " " "						
49	N. 16° 15' E. 169.12	" " " "						
50	N. 8° 48' E. 187.36	" " " "						
51	N. 78° 15' E. 132.52	" " " "						
52	S. 25° 26' E. 69.18	" " " "						
53	S. 68° 48' E. 141.51	" " " "						
54	S. 44° 52' E. 94.22	" " " "						
55	S. 68° 57' E. 93.05	Stake						
56	S. 38° 21' E. 81.60	R.L.S. Cor. Mon. (Triangulation)						
57	S. 19° 49' E. 113.30	" " " "						
58	S. 5° 31' E. 169.52	" " " "						
59	S. 28° 43' E. 196.34	" " " "						
60	N. 36° 52' E. 162.84	" " " "						
61	S. 54° 11' E. 462.36	" " " "						
62	N. 68° 19' E. 141.63	" " " "						
63	N. 2° 22' W. 664.31	" " " "						

	Identical to Cor. 324 of Alien & Disp. Block, Mindoro Proj. S-C							
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	Identical to Cor. 288 of Alien & Disp. Block, Mindoro Project S-C							
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149	S. 89° 27' E.	111.43	M.B.M. No. 6					
150	S. 28° 46' E.	497.34	" " " "					
151	N. 78° 13' E.	61.77	" " " "					
152	N. 42° 16' E.	77.56	" " " "					
153	S. 84° 17' E.	159.29	" " " "					
154	S. 6° 14' W.	105.45	" " " "					
155	N. 72° 39' W.	190.45	" " " "					
156	S. 38° 25' W.	142.70	" " " "					
157	S. 70° 12' E.	155.34	R.L.S. Cor. Mon.					
158	S. 79° 43' E.	167.94	" " " "					
159	S. 13° 57' E.	286.34	" " " "					
160	S. 57° 17' W.	214.34	" " " "					
161	N. 67° 24' W.	164.65	" " " "					
162	S. 53° 47' W.	192.69	" " " "					
163	S. 37° 21' E.	196.41	" " " "					
164	S. 34° 18' W.	34.38	" " " "					
165	S. 25° 39' E.	184.80	" " " "					
166	N. 79° 46' E.	165.56	" " " "					
167	S. 46° 02' E.	204.91	" " " "					
168	S. 54° 21' E.	196.56	" " " "					
169	N. 85° 12' E.	195.58	" " " "					
170	S. 26° 23' W.	340.48	Stake					
171	N. 64° 37' W.	617.23	R.L.S. Cor. Mon.					
172	S. 53° 56' E.	297.12	" " " "					
173	S. 44° 01' W.	65.53	" " " "					
174	S. 46° 52' E.	69.80	" " " "					
175	S. 79° 43' E.	285.71	Stake					
176	S. 43° 53' E.	345.93	" " " "					
177	N. 24° 28' E.	194.44	R.L.S. Cor. Mon.					
178	S. 26° 12' E.	69.98	" " " "					
179	S. 33° 25' E.	213.00	Stake					
180	N. 85° 12' E.	89.51	Point					
181	S. 19° 49' E.	340.88	R.L.S. Cor. Mon.					
182	S. 24° 2' E.	332.00	Magnolia 20 cm.	P.T.L.	449 / 1st	B.F.-305	W. bank of Pampanitu Cr.	Property No. Owner No.
183	N. 51° E.	260.00	Malabaloa 35 cm.	"	"	76	W. edge of Cabuan of Aguada Dues	
184	N. 24° E.	220.00	"	"	"	75	Junction of Bakiro Creeks	
185	N. 37° E.	330.00	Magnolia 30 cm.	"	"	74	Edge of Cabuan of Pedro Mangayo	
186	N. 58° W.	310.00	Dungon 30 cm.	"	"	73	W. Bk. on South slope of a ridge.	
187	S. 33° W.	330.00	Anang 35 cm.	"	"	72	On top of ridge of Cabuan of Mr. Mesangay	
188	N. 82° W.	310.00	Lago 45 cm.	"	"	71	W. side of trail. Edge of Cabuan of Mangayo	
189	N. 76° W.	330.00	Malapasian 40 cm.	"	"	70	No. of ridge. South side of trail.	
190	S. 58° W.	330.00	Bulala 30 cm.	"	"	69	W. side of a trail. Edge of Cabuan	
191	N. 76° W.	365.00	White Lauan 60 cm.	"	"	68	S. " " on top of a ridge.	
192	S. 74° W.	190.00	Malasaalat 30 cm.	"	"	67	Junction of trails " "	
193	S. 25° W.	330.00	Tarumpaka 70 cm.	"	"	66	W. side of a ridge. Northerly slope thru one	
194	S. 58° W.	230.00	Mangasinoro 30 cm.	"	"	65	Top of a ridge. " "	
195	N. 78° W.	260.00	Dungon 30 cm.	"	"	64	" " Near ridge. Edge of Cabuan	
196	S. 73° W.	310.00	Tarumpaka 70 cm.	"	"	63	W. bank of small Cr.	
197	S. 42° W.	195.00	Mayapa 50 cm.	"	449 / 2	"	Edge of Cabuan.	Copper Wire
198	N. 61° W.	210.00	Mangasinoro 40 cm.	"	"	62	" " "	" "

199	S. 29° 27' E.	210.00	M. White Lauan 30 cm.	P.T.L.	449 / 2	B.F.-305	Edge of Abaca Plantation	Identical to Cor. 62 of Alien & Disp. Block, Mindoro Project S-C
200	S. 61° W.	60.00	Dungon 30 cm.	"	"	61	" " "	" " " " " "
201	N. 74° W.	125	"	"	"	60	" " "	" " " " " "
202	N. 8° E.	180.00	M. Lauan 30 cm.	"	"	59	W. bank of Small Cr.	
203	N. 5° W.	210.00	Anilang 40 cm.	"	449 / 3	"	East side of a trail.	Identical to Cor. 59 of Alien & Disp. Block, Mindoro Project S-C
204	N. 42° W.	245.00	M. Palosa 30 cm.	"	"	44	West " "	" " " " " "
205	N. 6° W.	245.00	Apungao 30 cm.	"	"	45	South bank of Bres Cr.	
206	N. 43° W.	310.00	Malasannang 40 cm.	"	"	46	Top of a ridge.	
207	S. 76° W.	145.00	Malalibang 40 cm.	"	"	47	Junction of Kalandayan Creeks	
208	S. 74° W.	345.00	Kamaka 30 cm.	"	"	48	Top of ridge for 449 & 10 lines	
209	N. 47° W.	115.00	Palisa 30 cm.	"	"	49	East bank of Batolan Cr.	
210	N. 47° W.	230.00	Anilang 45 cm.	"	"	50	Top of a low ridge.	
211	S. 45° W.	230.00	Malasaalat 30 cm.	"	"	51	N.E. bank of Bisag Cr.	
212	S. 52° W.	355.00	Anang 45 cm.	"	"	52	On a ridge	
213	S. 68° W.	260.00	Mayapa 35 cm.	"	"	53	East bank of Pandayan Cr.	
214	N. 83° W.	125.00	M. Kalamansanai 50 cm.	"	"	54	S.E. " " " "	
215	N. 83° W.	625.00	M. Lauan 30 cm.	"	"	55	N.E. slope on a moderate ridge.	
216	S. 87° W.	855.00	Anilang 30 cm.	"	"	56	Top of a low ridge.	
217	N. 55° W.	250.00	Lauan 30 cm.	"	"	57	W. bank of Kalandayan Cr.	
218	S. 81° W.	240.00	Mangasinoro 35 cm.	"	"	58	On top of a ridge	
219	S. 24° E.	260.00	Sago 35 cm.	"	"	34	" " " "	
220	N. 84° W.	185.00	Barong 35 cm.	"	"	75	W. bank of Baga Cr.	
221	N. 41° E.	260.00	Magasinoro 30 cm.	"	"	76	Top of a ridge	
222	N. 8° E.	180.00	Dungon 35 cm.	"	"	77	South bank of Rabaran Cr.	
223	N. 23° W.	75.00	Malagay 30 cm.	"	"	60	S.W. bank of Bakiro Cr.	
224	N. 73° W.	230.00	Oley 30 cm.	"	"	59	S.E. slope of a ridge.	
225	N. 53° W.	215.00	Malasaalat 40 cm.	"	"	58	Top of a ridge.	
226	N. 53° W.	195.00	Bacboc 35 cm.	"	"	59	S. slope of a ridge.	
227	N. 7° W.	235.00	Pakuton 40 cm.	"	"	23	N. bank of Agbeas Cr.	
228	N. 11° E.	345.00	Kanaka 35 cm.	"	"	17	W. slope of a ridge.	

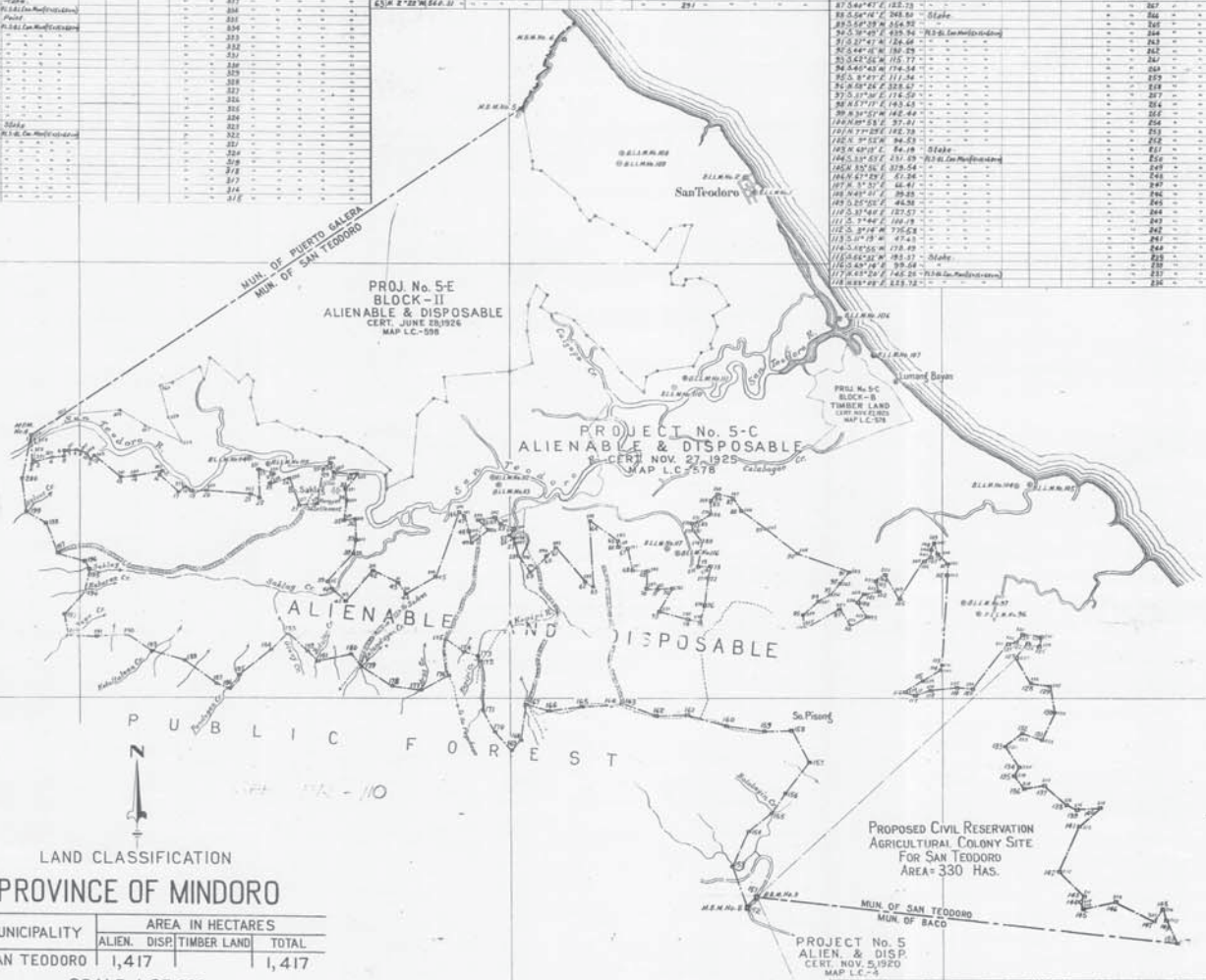
Note:-

No communal forest has been established and no special permits are in force up-to-date within this project.

AUTHORITIES

B.F.-Map LC-578 & 598

B.F.-P.M.D. Mindoro File Nos. 883-887



LAND CLASSIFICATION

PROVINCE OF MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES ALIEN. DISP.	TIMBER LAND	TOTAL
18	SAN TEODORO	1,417		1,417

SCALE 1:25,000

METERS 1000 800 600 400 200 0 1 KILOMETER

LEGEND

Boundary of Alienable and Disposable land ..... Old line / New line

A strip 15M. in width, on each side of the center line of trail is reserved for right-of-way and timber outlet indicated thus.....

A strip 20M. in width, along each bank of any stream is reserved for bank protection.

DEPARTMENT OF AGRICULTURE AND COMMERCE
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the area set aside as agricultural land under Section 1827 of the Revised Administrative Code by Forestry Administrative Order No 4-255, dated Aug. 30, 1934, and surveyed and platted in accordance with the procedure and existing instructions of the Bureau of Forestry. The original field notes, reports and computations are all on file in this Office.

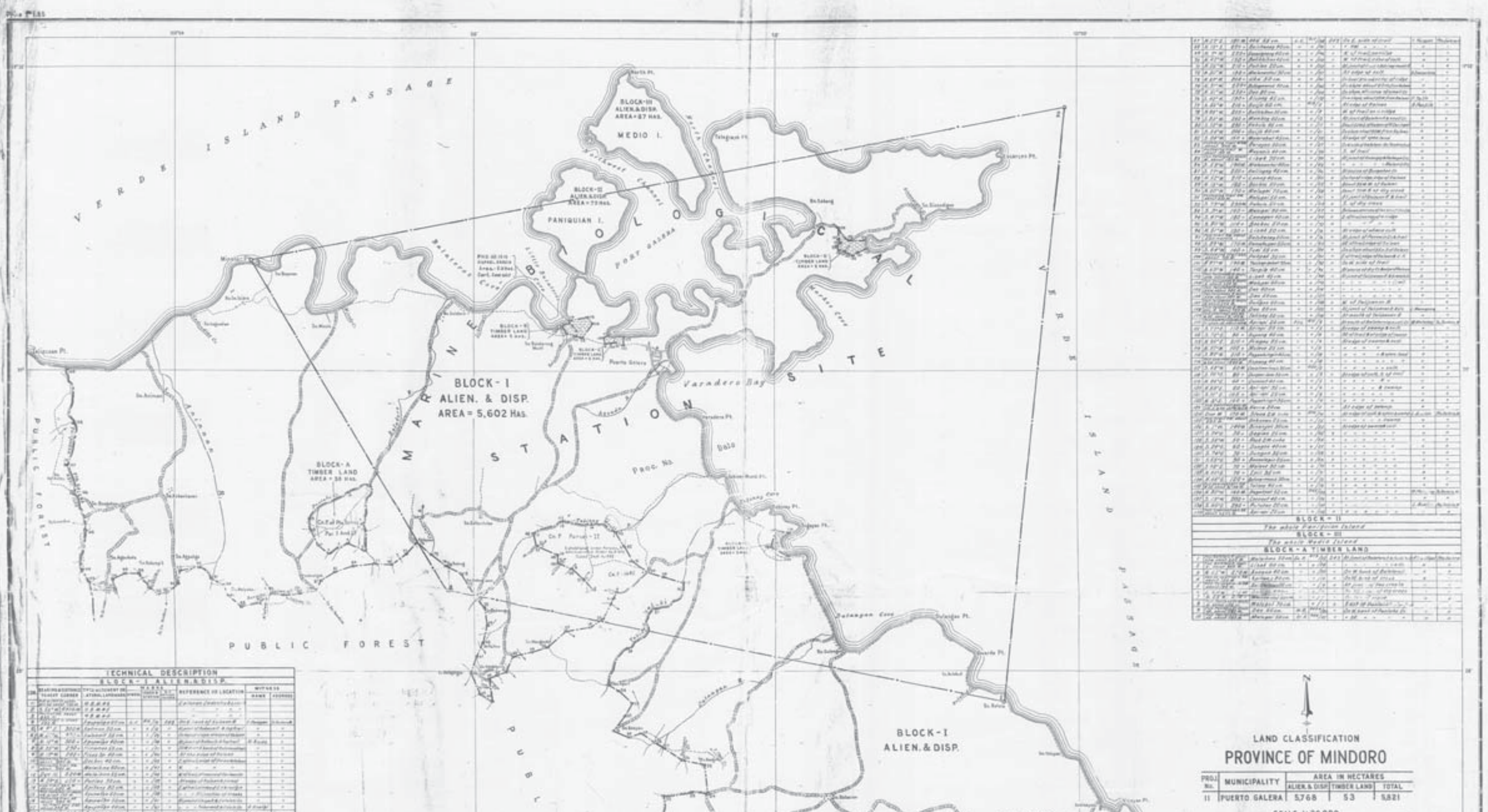
Approved: Manila, P.I., August 30, 1934

FOR AND IN THE ABSENCE OF THE DIRECTOR OF FORESTRY:

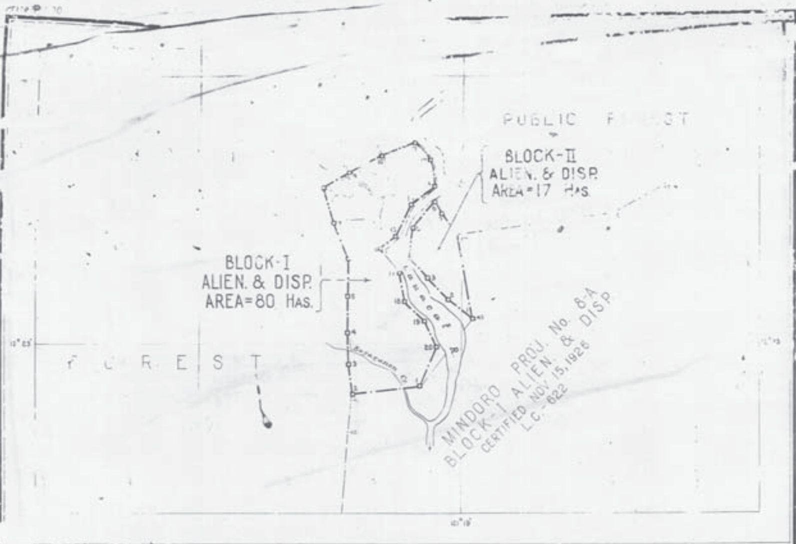
Simeón Ibáñez
ASSISTANT DIRECTOR

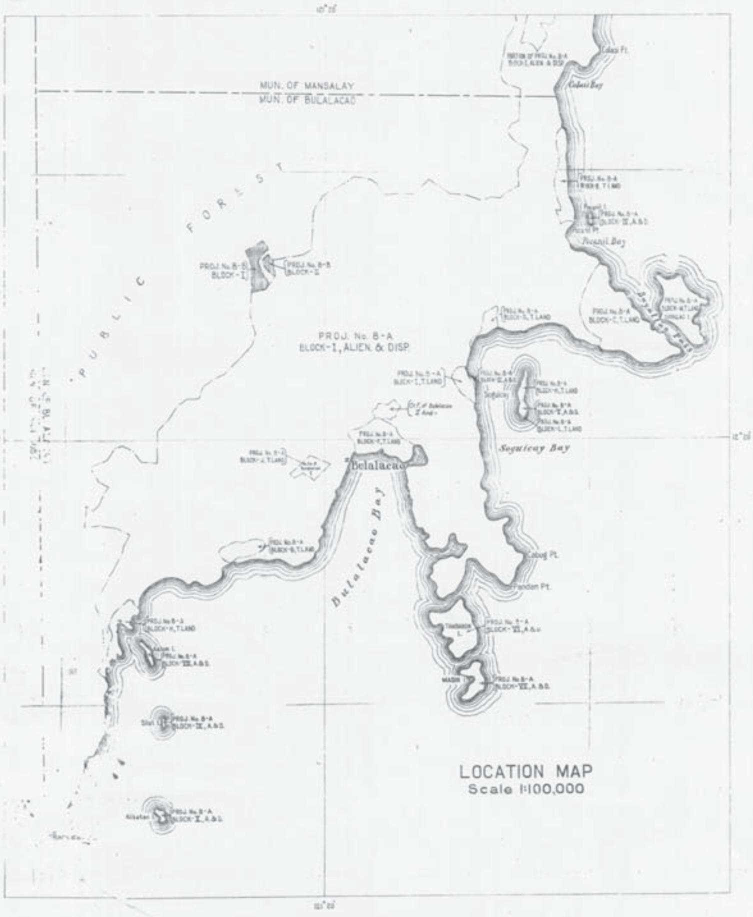
L.C.- 1115

Compiled by V. Ocampo, Apr 14 & 15-19, 1934
Plotted by R.S.B.G., May 14 (121-279) and 15 & 16-19, 1934
Checked by [illegible] 6-28-34



VERDE ISLAND PASSAGE
BLOCK-III ALIEN. & DISP. AREA = 27 HAS.
MEDIO I.
BLOCK-II ALIEN. & DISP. AREA = 7 HAS.
PANIQUIAN I.
MARINE BIOLOGICAL STATION SITE
BLOCK-I ALIEN. & DISP. AREA = 5,602 HAS.
BLOCK-A TIMBER LAND AREA = 58 HAS.
Varadero Bay
Puerto Galera
PUBLIC FOREST
BLOCK-I ALIEN. & DISP.
CALAPAN CADASTRE
TECHNICAL DESCRIPTION
BLOCK-I ALIEN. & DISP.
AUTHORITIES
BLOCK-II
The whole Paniquian Island
BLOCK-III
The whole Medio Island
BLOCK-A TIMBER LAND
LAND CLASSIFICATION
PROVINCE OF MINDORO
PROJ. No.
MUNICIPALITY
AREA IN HECTARES
ALIEN. & DISP.
TIMBER LAND
TOTAL
11
PUERTO GALERA
5,768
53
5,821
SCALE 1:20,000
LEGEND
A strip 20 M. in width, along each bank of any stream is reserved for bank protection.
DEPARTMENT OF AGRICULTURE AND COMMERCE
BUREAU OF FORESTRY
DIRECTOR OF FORESTRY
L.C.-1184





[illegible] DESCRIPTION

BLOCK-I

1	[illegible]	[illegible]	[illegible]	L.C.	295/43		[illegible] Alien. and Disp. Project No. 8-A		
2	N 3° W	[illegible]	[illegible] 40 "	"	" /34				
3	[illegible]	210 "	[illegible]	"	[illegible]/19	851	On W. side of [illegible]	J.C. [illegible]	[illegible]
4	Due North	210 "	Talulo [illegible] "	"	" /4	"	" E. bank " dry creek	"	"
5	Due North	250 "	[illegible]	"	" /[illegible]	"	At the edge of old clearing	"	"
6	N 21° W	260 "	Guijo 43cm	"	[illegible]/4	"	[illegible] of dry creek	A. Osorio	"
7	N [illegible] W	250 "	[illegible] 38cm	"	[illegible]	840	At [illegible] edge of [illegible]	G. Castrence	"
[illegible]	[illegible]	200 "	[illegible] 40 "	"	" /3	"	[illegible]	"	"
[illegible]	[illegible] E	250 "	[illegible]	"	" /[illegible]	"	[illegible] bank of creek	"	"
[illegible]	[illegible] E	[illegible]	[illegible]	"	" /[illegible]	"	" [illegible] trail	"	"
[illegible]	[illegible]	[illegible]	[illegible]	"	[illegible]	"	" bank " Cauacat [illegible]	"	"
[illegible]	[illegible]	[illegible]	[illegible] 27cm	"	[illegible]		" "	"	"
[illegible]	[illegible]	[illegible]	[illegible]	"	[illegible]	[illegible]	" [illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]	"	[illegible]		[illegible] of Cauacat River	"	"
[illegible]	[illegible]	[illegible]	[illegible]		[illegible]		" " "		
[illegible]	[illegible]	[illegible]	[illegible]	"	" /15		[illegible] W		
[illegible]	[illegible]	[illegible]	[illegible]	"	" /[illegible]		[illegible]		
11	[illegible] E	[illegible]	[illegible]	"			[illegible]		
9	S 26° E	[illegible]	[illegible]	"	[illegible]		[illegible]		
20	S 25° W	[illegible]	[illegible]	"	" /19	"	3[illegible]		

BLOCK=II

1	N 57° W	220 M.	Banaba 60cm	L.C.	295/44	50	Iden. to Cor. 43 block - I Alien. and Disp. Project No. 8-A		
2	N 43° W	210 "	Molave 40 "	F.Z.	351/11	807	40 M. E. from bank of Cauacat River	J. Dalusan	[illegible]
3	N 41° W	190 "	Lanete 30 "	"	" /12	"	60 " " " " " " "	"	"
4	N 8° E	200 "	Aklang Parang 45cm	"	" /13	"	20 " " " " " " "	"	"
5	N 41° E	230 "	Kupang 30 cm	"	" /14	"	" " " " " " " "	"	"
6	S 31° E	90 "	Aklang Parang 38cm	"	" /15	840	On E. bank of Cauacat River	G. Castrence	[illegible]
7	S 36° E	170 "	Molave 25cm	"	290/14	"	At the edge of cogonal	"	"
8	S 10° E	600 "	Banaba 40cm	L.C.	295/48	50	Iden. to Cor. 44 block-I Alien. and Disp. Project No. 8-A		

LAND CLASSIFICATION

PROVINCE OF MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN. & DISP.	TIMBER LAND	TOTAL
8-B	BULALACAO	97		97

Scale 1:20,000

LEGEND

Boundary of Alienable and Disposable Land --- Old line / New line

A strip 15 M. in width, on each side of the center line of trail is reserved for right-of-way and timber outlet indicated thus

A strip 20 M. in width, along each of the high banks of any stream is reserved for bank protection.

COMMONWEALTH OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND COMMERCE
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1827 of the Administrative Code, as agricultural lands under Forestry Administrative Order No. 4-600, dated July 17, 1941. Said areas have been surveyed and platted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this Office.

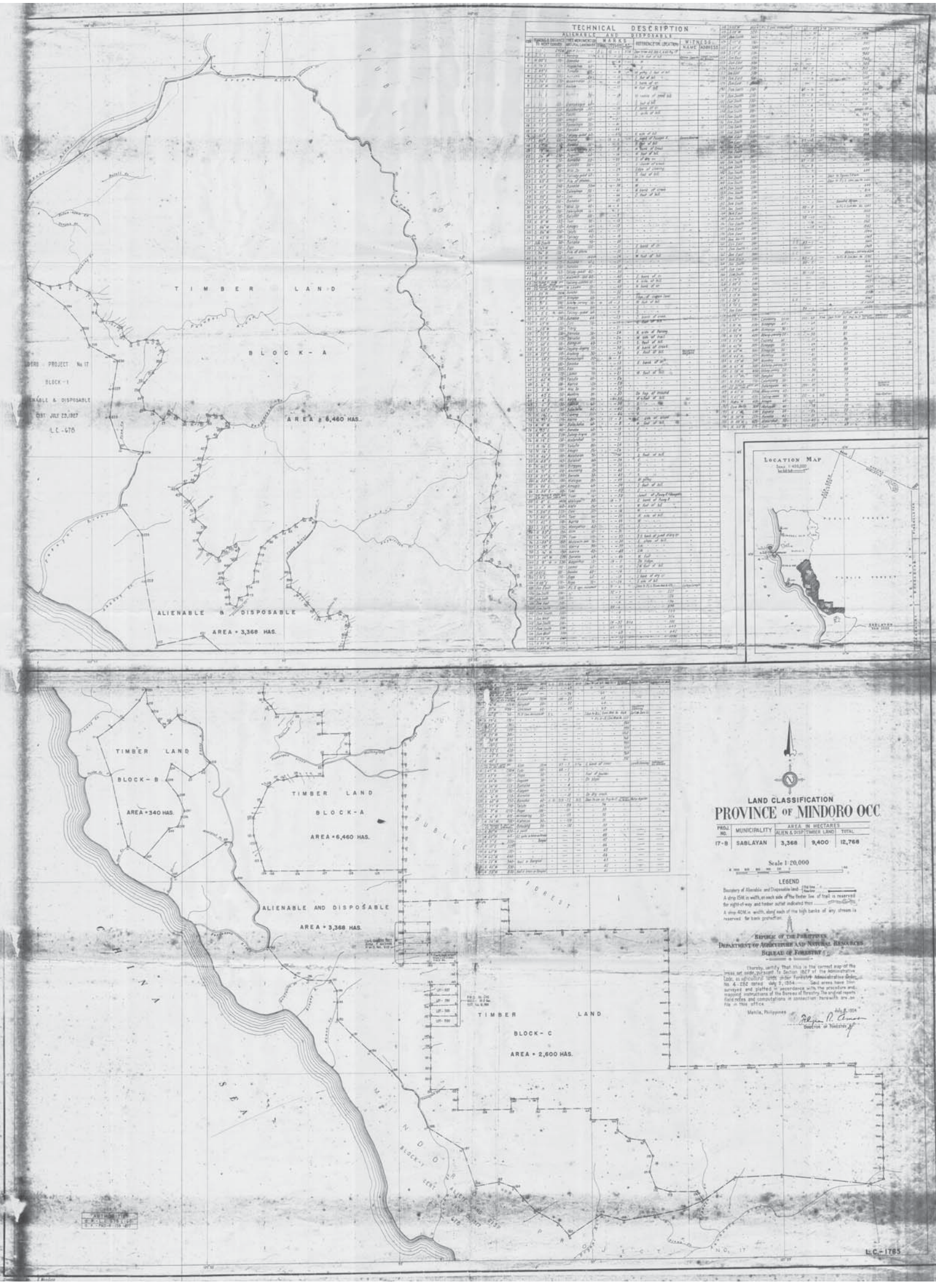
Manila, Philippines July 17, 1941.

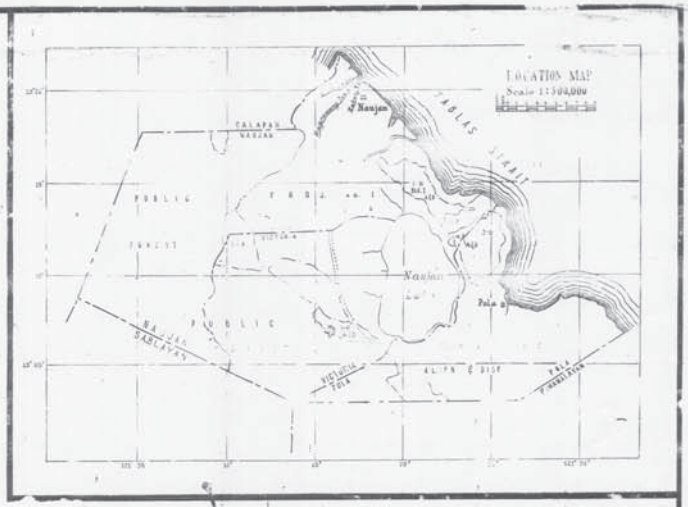
[signature]
DIRECTOR OF FORESTRY

AUTHORITIES
B.F. - L.C. No. 622
" - Mindoro P.M.D. File Nos. 1552 & 1562

L.C.-1454

Compiled by J.A. [illegible]
Traced by A.S. Ortiz
Checked by [illegible] 6-30-41


TECHNICAL DESCRIPTION
ALIENABLE AND DISPOSABLE
TIMBER LAND
BLOCK - A
AREA = 6,460 HAS.
ALIENABLE & DISPOSABLE
AREA = 3,368 HAS.
LOCATION MAP
TIMBER LAND
BLOCK - B
AREA = 340 HAS.
TIMBER LAND
BLOCK - A
AREA = 6,460 HAS.
ALIENABLE AND DISPOSABLE
AREA = 3,368 HAS.
TIMBER LAND
BLOCK - C
AREA = 2,600 HAS.
LAND CLASSIFICATION
PROVINCE OF MINDORO OCC
PROJ. NO. 17-B
MUNICIPALITY SABLAYAN
AREA IN HECTARES
ALIEN & DISP. 3,368
TIMBER LAND 9,400
TOTAL 12,768
Scale 1:20,000
LEGEND
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY
Manila, Philippines
Director of Forestry
PROJECT NO. 17
L.C.-1785



LAND CLASSIFICATION

PROVINCE OF OR. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES A. & DISP.	TIMBERLAND	TOTAL
9	VICTORIA	138 Has.		138 Has.

Scale 1:20,000

LEGEND

Boundary of Alienable and Disposable land..... Old line ..... New line .....

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way for timber outlet indicated thus.....

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the area described, pursuant to Section 1827 of the Administrative Code, as agricultural land under Forestry Administrative Order No. 4-345 dated February 15, 1955. Said area has been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

Manila, Philippines, Feb 15, 1955

DIRECTOR OF FORESTRY

TECHNICAL DESCRIPTION

ALIEN. & DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE, MONUMENT OR NATURAL LAND MARK	MARKS SYMBOL	MARKS LC	INDEX AND STATION	B.F. MAP SHEET NO.	REFERENCE OR LOCATION	WITNESSES NAMES	WITNESSES ADDRESSES
1	Full Mangyan R. Approach per Plan (in detail) S 85° W	Tangile	Cm	LC	376 - 18	78	Abandoned Spur trail at end of logging road	E. Timoteo & Ireneo Magno	Balayan, Batangas
2	Full Mangyan R. Approach per Plan (in detail) 200 M. W.	W. Lauan	3 "	—	196 - offset	"	E. bank of Malayan Cr.	" "	" "
3	Full Mangyan R. Approach per Plan (in detail) 200 M. W.	Stump of tree	60 "	—	196 - "	"	" " "	" "	" "
4	S 75° E 70 M.	Pagsan	30 "	—	214 - 3	189	Abandoned Spur trail at end of logging road	J. Dalmas	Lauis Batangas Prov.
5	Due East 200 M.	Malugay	40 "	—	24 - 18	69	" " "	" "	" "
6	" " 200 "	Bancuro	40 "	—	" - 11	"	" " "	" "	" "
7	" " 200 "	Bulsuquat	20 "	—	" - 3	"	" " "	" "	" "
8	" " 200 "	Tangile	30 "	—	" - 8	"	" " "	" "	" "
9	" " 260 "	Pagsanhingan	30 "	—	" - 6	"	" " "	" "	" "
10	" " 160 "	Malaki	31 "	—	" - 5	"	" " "	" "	" "
	S 36° E 880 "	Kubitan	50 "	—	" - 8	"	" " "	" "	" "
	20° W 150 "	Mahaasim	40 "	—	196 - 1	273	" " "	J. Ventura	Batangas, Naujan
	10° W 280 "	Magasin	70 "	—	" - 4	"	" " "	" "	" "
11	10° W 150 "	Mahaasim	70 "	—	" - 3	"	" " "	" "	" "
13	5° W 280 "	Bagantiao	6 "	—	" - 6	"	" " "	" "	" "
14	S 10° E 240 "	Miss Sp	" "	—	" - 7	"	" " "	" "	" "
17	S 75° 240 "	Aranay	40 "	—	" - 8	"	" " "	" "	" "
18	S 5° 250 "	Tangile	30 "	—	196 - 29	78	At the edge of Logging road	Valentin Lumbao	Batangas, Batangas
19	" 480 "	Bancuro	40 "	—	" - 23	"	" " "	" "	" "
20	Due East 200 "	Tangile stump	30 "	—	" - 14	"	" " "	" "	" "

AUTHORITIES

B.F. L.C. 1595
B.F. PMD-2 218

L.C. - 1828

Compiled By: J.T. Encinas
Traced by: [illegible] Jan. 1955
Checked By: O. Mesa Jr. Jan. 19, 1955

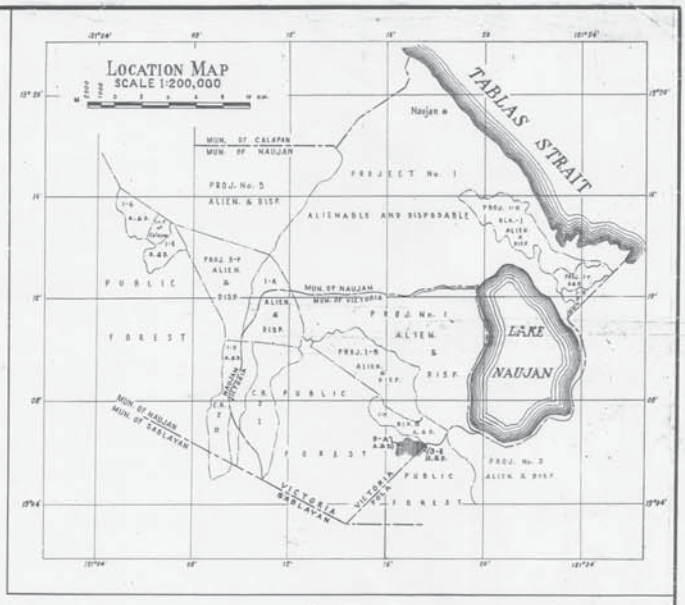
TECHNICAL DESCRIPTION

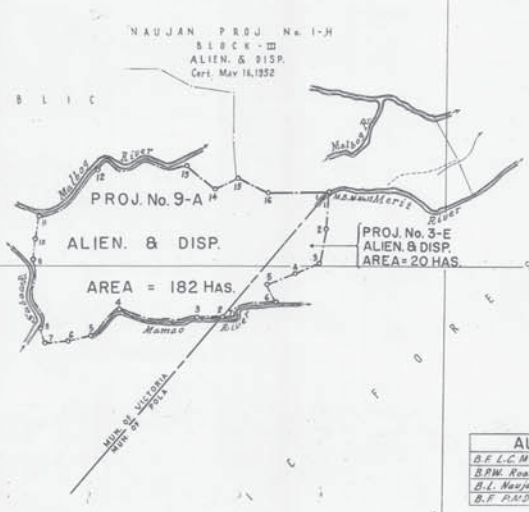
POLA PROJECT No. 3-E, ALIEN. & DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE MONUMENT OR NATURAL LAND MARK	MARKS			REFERENCE OR LOCATION	WITNESSES	
			SYMBOL	TRIG. AND STATION	B.L.M. OR PROV.		NAMES	ADDRESSES
1	S. 4° W. 280 M.	M.B.M. No. 13	L.C.	1040 - 1	118	Near source of Merit R.	V. Samala	Calapan, Or. Min.
2	S. 10° W. 250 "	P.L.S. Conc. Mon.	"	" - 2	"	West side of ridge	" "	" "
3	S. 67° W. 190 "	" " "	"	" - 3	"	Top of ridge	V. Samala	Calapan, Or. Min.
4	S. 68° W. 220 "	" " "	"	" - 4	"	On level land	" "	" "
5	S. 28° E. 160 "	" " "	"	" - 5	"	Edge of Kaingin	" "	" "
6	Fair Mamao R. upstream, abt. 400 M.	" " "	L.C.	1040 - 6	118	N. bank of Mamao Cr.	V. Samala	Calapan, Or. Min.
7	Fair Pola-Victoria Mpl. Boundary abt. 600 M. East	Point				Near Mamao R.		

VICTORIA PROJECT No. 9-A ALIEN. & DISP.

1	Fair Pola-Victoria Mpl. Boundary, 2 km. abt. upstream	M.B.M. No. 13	L.C.	1040 - 1	118	Near source of Merit R.	V. Samala	Calapan, Or. Min.
2	Fair Mamao R. upstream, abt. 700 M.	Point				On Pola-Victoria Mpl. Bdry.		
3	" " " 600 M.	P.L.S. Conc. Mon.	L.C.	1040 - 11	118	W. bank of Mamao R.	V. Samala	Calapan, Or. Min.
4	" " " 320 "	" " "	"	" - 15	"	N. " " " "	" "	" "
5	S. 75° W. 170 "	Talisto 35 Cm.	"	" - 16	"	Source of Mamao Cr.	" "	" "
6	S. 85° W. 170 "	P.L.S. Conc. Mon.	"	" - 17	"	Top of ridge	Juan Gasser	" "
7	N. 14° W. 160 "	" " "	"	" - 18	"	W. side of ridge	" "	" "
8	Fair Sabangan R. upstream, abt. 400 M.	W. Lauan 45 Cm.	"	" - 19	"	S.E. bank of Subaan R.	" "	" "
9	N. 5° E. 150 M.	P.L.S. Conc. Mon.	"	" - 20	"	N.E. " " "	" "	" "
10	N. 5° E. 170 "	" " "	"	" - 24	"	Top of ridge	" "	" "
11	Fair Mpl. Bdry. & upstream, abt. 600 M.	" " "	"	" - 25	"	S. bank of Malbog Cr.	" "	" "
12	" " " 660 M.	Lauan 50 Cm.	"	" - 27	"	S. " " "	" "	" "
13	S. 55° E. 270 "	P.L.S. Conc. Mon.	"	" - 33	"	S. " " "	" "	" "
14	N. 64° E. 190 "	" " "	"	" - 34	"	Edge of cultivation	" "	" "
15	S. 63° E. 230 "	Conc. Mon.				Near Mamao R.		
16	N. 87° E. 400 "	" "				" " "		





AUTHORITIES
B.F. L.C. M^pa 1595 & 1691
B.P.W. Road Map of Or. Mindoro
B.L. Naujan Cad. No. 200 Fol. Case No. 7
B.F. P.N.D.R.-202

Note

Mun. or Prov. Boundary are not surveyed or established in the ground, but indicated from available references.

LAND CLASSIFICATION
PROVINCE OF OR. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN & DISP.	TIMBER LAND	TOTAL
3-E	POLA	20		20
9-A	VICTORIA	182		182

Scale 1:20,000

LEGEND

Boundary of Alienable and Disposable land — Old line ..... New line ——

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way and timber outlet indicated thus

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

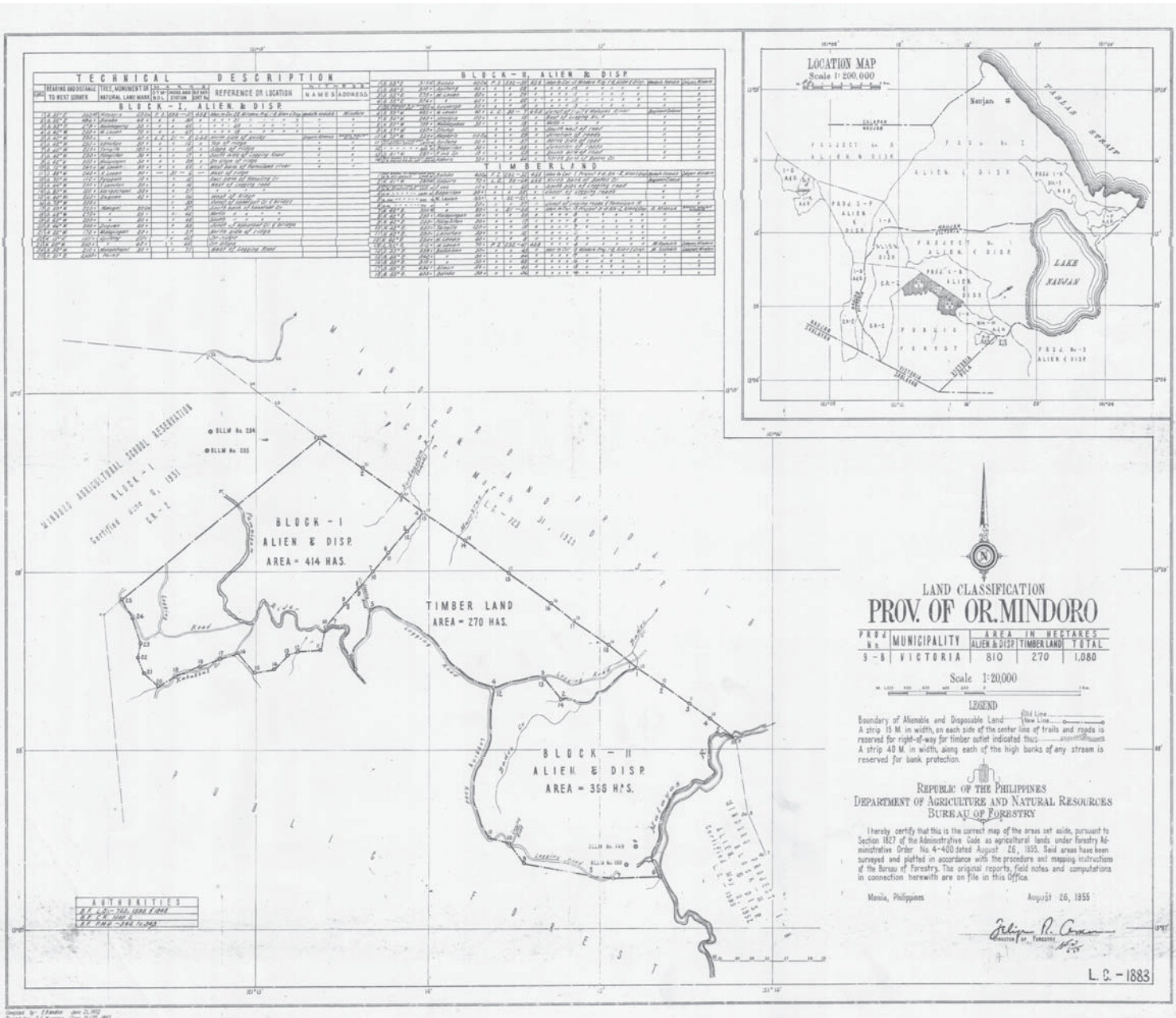
I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under Forestry Administrative Order No. 4-365 dated May 4, 1955. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

Manila, Philippines, May 4, 1955

Director of forestry

L.C. - 1848

Compiled by I. de Borja 5-8-1955
Traced by J.L. Caladiao 4-12-1955
Checked by EC-4-19-55



LAND CLASSIFICATION

PROV. OF OR. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN & DISP.	TIMBER LAND	TOTAL
9 – B	VICTORIA	810	270	1,080

Scale 1: 20,000

LEGEND

Boundary of Alienable and Disposable Land — Old Line ——— New Line ——o——o——

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way for timber outlet indicated thus: ——o——o——

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under Forestry Administrative Order No. 4-400 dated August 26, 1955. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this Office.

Manila, Philippines August 26, 1955

Director of Forestry

L. C. – 1883

Compiled by: T. Fandino June 21, 1955
Traced by: G.L. Buenaga June 21-25, 1955
Checked by: [illegible] 9-6-27-55

TECHNICAL DESCRIPTION

PROJ. No. 3-F, ALIEN. & DISP.

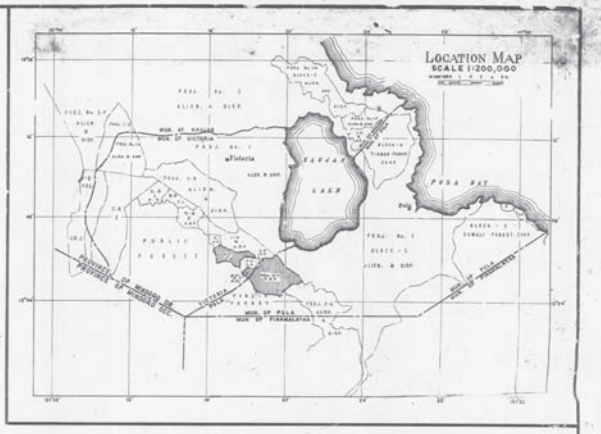
COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE, MONUMENT OR NATURAL LAND MARK	MARKS: SYMBOL	MARKS: DEPT. AND STATION	MARKS: DIST. AND BEAR.	REFERENCE OR LOCATION	WITNESSES: NAMES	WITNESSES: ADDRESSES
1	NORTHWEST CORNER OF PROJECT, A point							
2	S. 27° W. 160 M.	R.L.S. Cont. Mon.	I.C.	1565 + 8	118	+ + 0. + +	K. Samuels	Calapan, Mindoro
3	S. 68° E. 200 M.	- - -	+	+ 2	+	+ + 2. + +	"	"
4	S. 67° E. 780 M.	- - -	+	+ 9	+	+ + 9. + +	"	"
5	S. 69° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
6	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
7	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
8	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
9	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
10	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
11	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
12	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
13	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
14	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
15	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
16	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
17	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
18	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
19	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
20	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
21	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
22	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
23	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
24	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
25	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
26	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
27	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
28	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
29	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
30	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
31	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
32	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"
33	S. 74° E. 200 M.	- - -	+	+ 3	+	+ + 3. + +	"	"

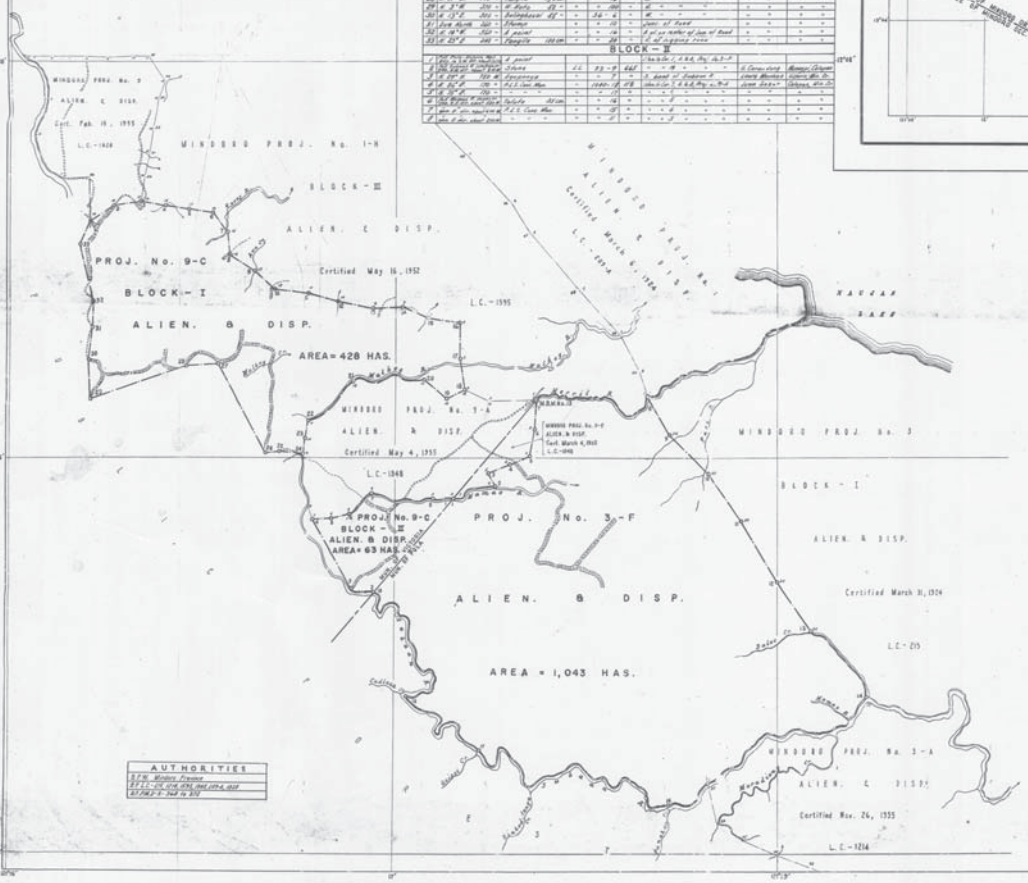
PROJ. No. 9-C, BLOCK - I, ALIEN. & DISP.

1	N. 69° 30' E.	160 M.	Bruno	62 cm.	I.C.	594 + 23	73	Identical to No. 1, B.L. Proj. No. 9		Victoria Mindoro	
2	N. 23° E.	190 "	Tangale	62 "	+	+ 19	+	- - -		"	
3	S. 38° E.	200 "	Kayabang	62 "	+	14 + 1	613	+ + 13	- - -	E. Ignacio	Victoria Mindoro
4	S. 30° E.	200 "	Mayapis	62 "	+	1217 + 1	+	+ + 2.00 SE 2 to 5 - Bn. 1-2		-	"
5	S. 23° E.	200 "	Mahasnasin	62 "	+	+ 2	+	+ + 19	- - -	"	"
6	S. 22° E.	200 "	Mahasnasin	62 "	+	+ 20	+	+ + 18	- - -	"	"
7	S. 3° E.	200 "	Tangale	62 "	+	1227 + 0.5	118	+ + 18	- - -	"	"
8	S. 0.5° E.	200 "	Tangale	62 "	+	+ 0.5	+	+ + 18	- - -	"	"
9	S. 20° E.	200 "	Bantolinay	62 "	+	+ 60	+	+ + 18	- - -	"	"
10	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
11	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
12	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
13	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
14	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
15	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
16	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
17	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
18	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
19	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
20	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
21	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
22	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
23	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
24	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
25	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
26	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
27	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
28	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
29	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
30	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
31	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
32	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
33	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"

BLOCK - II

1	S. 30° E.	200 M.	Ulitayan	62 cm.	I.C.	1560 + 24	28	+ + 19 + B.L. Proj. No. 9-A		Victoria Mindoro	
2	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
3	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
4	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
5	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
6	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
7	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
8	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
9	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
10	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
11	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
12	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
13	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
14	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
15	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
16	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
17	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
18	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
19	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
20	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
21	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
22	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
23	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
24	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
25	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
26	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
27	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
28	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
29	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
30	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
31	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
32	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"
33	S. 30° E.	200 "	Ulitayan	62 "	+	+ 20	+	+ + 18	- - -	"	"





AUTHORITIES

D.F.W. Minutes Preview
22 I.C.-1/2, 1216, 1296, 1348 and 1395-A, 1428
R.F. File 3-F, 9-C & 9-A

LAND CLASSIFICATION
PROVINCE OF MINDORO OR.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIEN. & DISP.	AREA IN HECTARES: TIMBER LAND	AREA IN HECTARES: TOTAL
3-F	POLA	1,043		1,043
9-C	VICTORIA	491		491

Scale 1:20,000

W. 800 600 400 200 0 1K.

LEGEND

Boundary of Alienable and Disposable land — Old line ——— New line ———o———

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way and timber outlet indicated thus ———

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

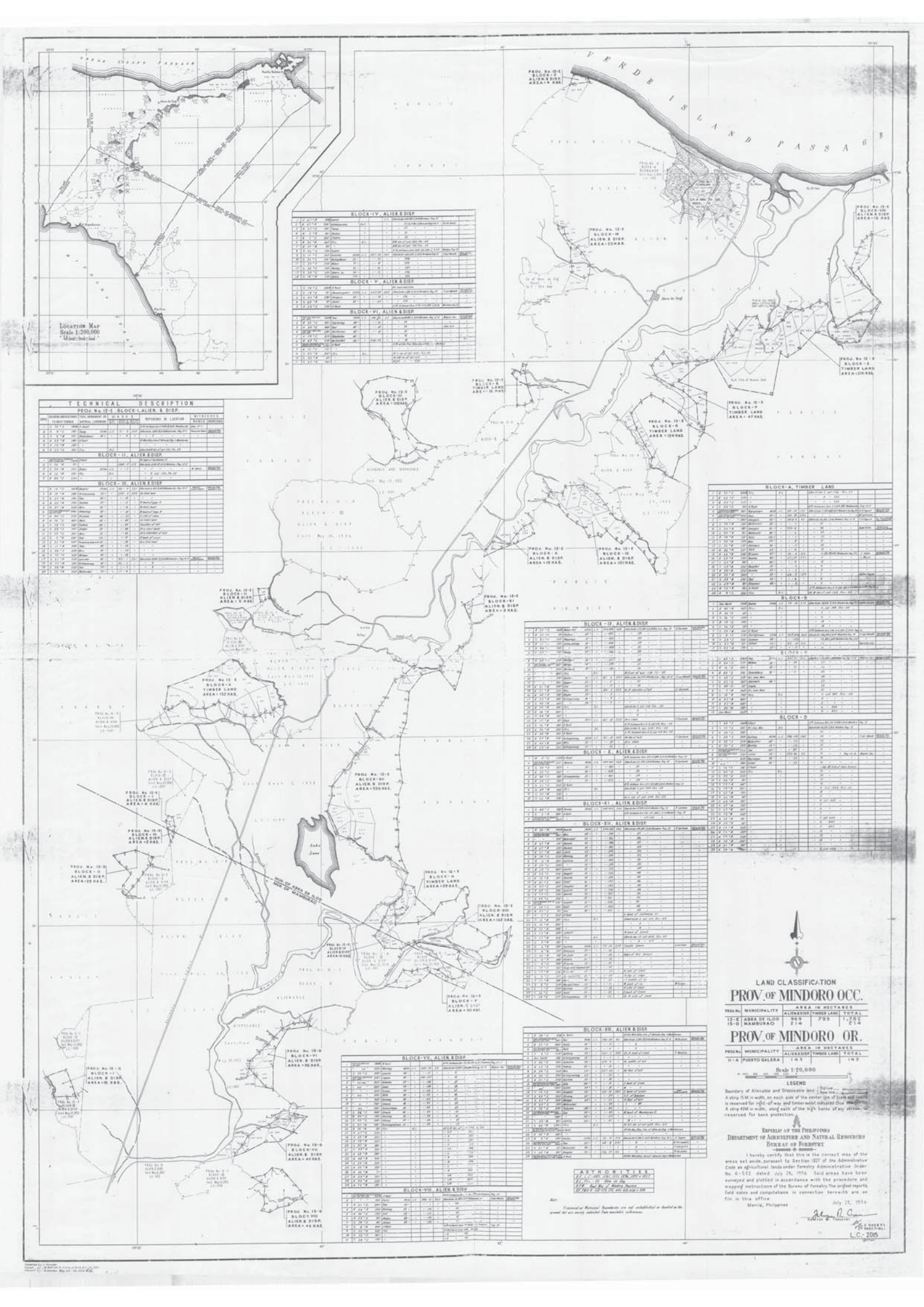
I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under forestry Administrative Order No. 4-433 dated March 2, 1956. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports field notes and computations in connection herewith are on file in this office.

Manila, Philippines, March 2, 1956.

Jesus P. Amos
Director of Forestry

L.C.-1976

Compiled by: E.C. Tamino 7-7-56
Traced by: Teodoro Quiogue 10-25-56
Checked by: D.M.A. Tolentino Jr.
Verified by: -



TECHNICAL DESCRIPTION

PROJ. No. 12-E, BLOCK-I, ALIEN & DISP.

BLOCK-II, ALIEN & DISP.

BLOCK-III, ALIEN & DISP.

AUTHORITIES

E.O. No. 391, 1951, CPN. 2091 & 2873	
Proc. No. 35, 1954, CPN. 2091 & 2873	
R.P.D. Bur. Of Mines Reports	
Sec. 1829 & 1830 CPN. 2091, 2873, 4030, & 5088	

Note:
Provincial or Municipal Boundaries are not established or located on the ground but are merely inferred from available references.

LAND CLASSIFICATION

PROV. OF MINDORO OCC.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN & DISP.	TIMBER LAND	TOTAL
12-E	ABRA DE ILOG	969	793	1,762
15-D	MAMBURAO	214		214

PROV. OF MINDORO OR.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN & DISP.	TIMBER LAND	TOTAL
11-A	PUERTO GALERA	143		143

Scale 1:20,000

LEGEND

Boundary of Alienable and Disposable land | Old Line ——— New Line ———

A strip 15 M in width, on each side of the center line of trails and roads is reserved for right-of-way and timber relief indicated thus ———

A strip 40M in width, along each of the high banks of any stream is reserved for bank protection

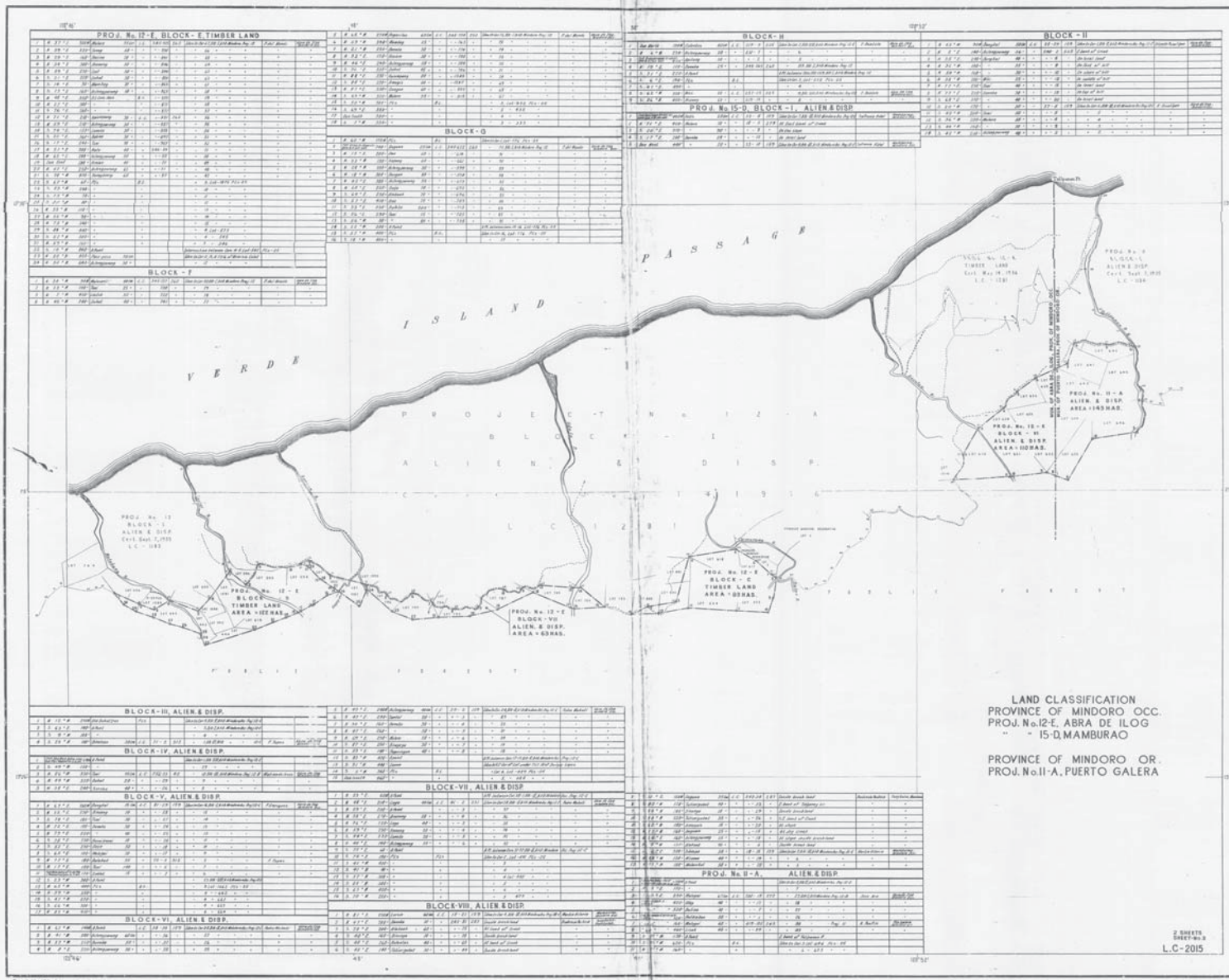
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under Forestry Administrative Order No. 4-532 dated July 25, 1956 - Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

July 25, 1956
Manila, Philippines

SHEETS

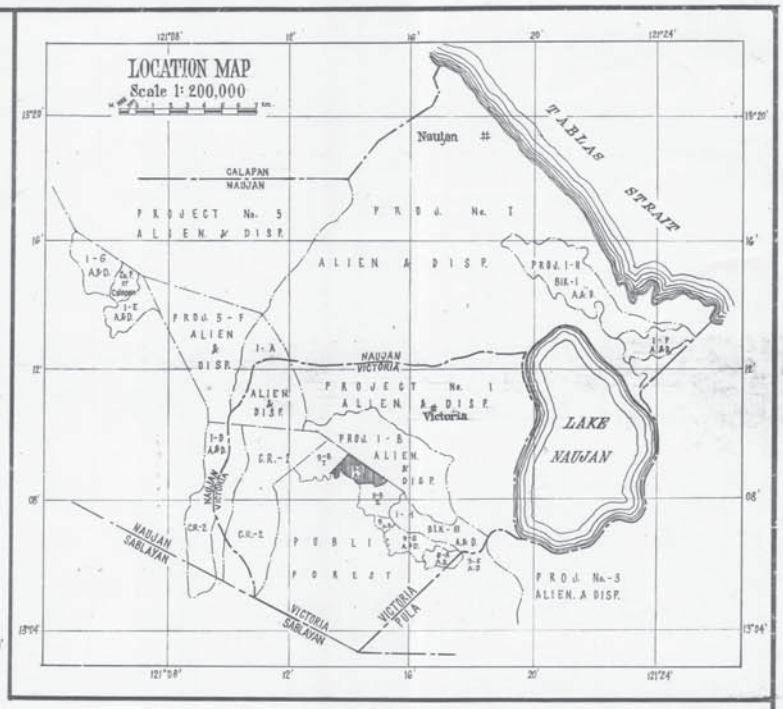
L.C.- 2015

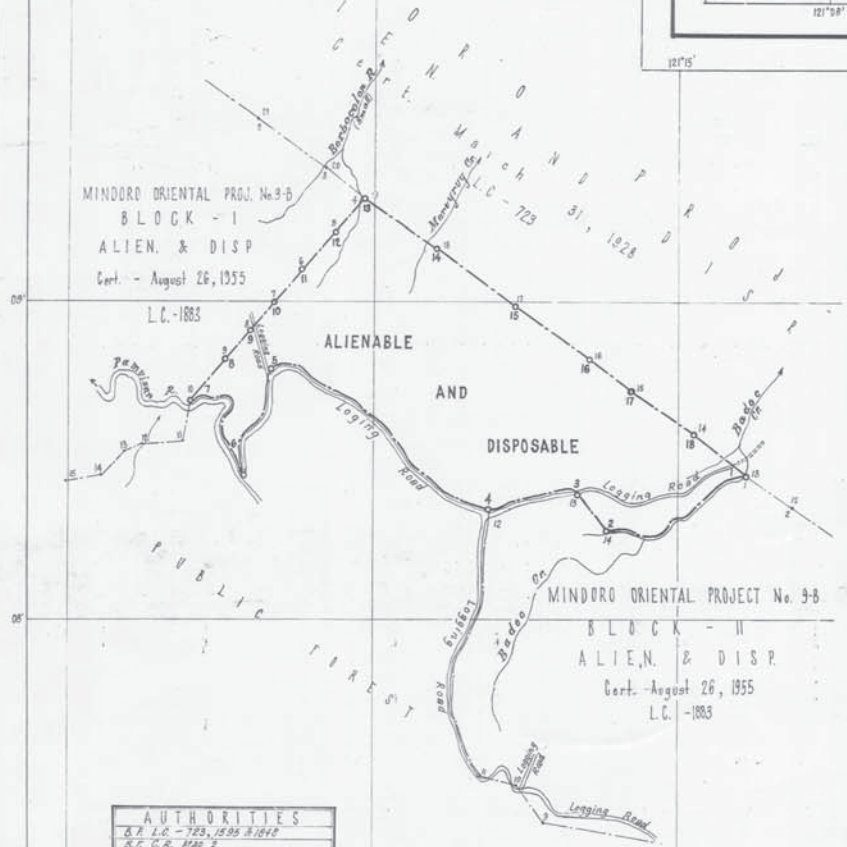

PROJ. No. 12-E, BLOCK-E, TIMBER LAND
BLOCK-F
BLOCK-G
BLOCK-H
BLOCK-I
PROJ. No. 15-D, BLOCK-I, ALIEN & DISP.
PROJ. No. 12-E BLOCK-I TIMBER LAND AREA = 102 HAS.
PROJ. No. 12-E BLOCK-VII ALIEN & DISP. AREA = 63 HAS.
PROJ. No. 12-E BLOCK-E TIMBER LAND AREA = 89 HAS.
PROJ. No. 12-E BLOCK-VI ALIEN & DISP. AREA = 110 HAS.
PROJ. No. 11-A ALIEN & DISP. AREA = 149 HAS.
PROJ. No. 12-E BLOCK-VI ALIEN & DISP. AREA = 110 HAS.
PROJ. No. 12-E BLOCK-I TIMBER LAND Cert. Nov. 14, 1956 L.C. - 1281
PROJ. No. 9 BLOCK-I ALIEN & DISP. Cert. Sept. 7, 1955 L.C. - 1254
PROJ. No. 12 BLOCK-I ALIEN & DISP. Cert. Sept. 7, 1955 L.C. - 1283
BLOCK-III, ALIEN & DISP.
BLOCK-IV, ALIEN & DISP.
BLOCK-V, ALIEN & DISP.
BLOCK-VI, ALIEN & DISP.
BLOCK-VII, ALIEN & DISP.
BLOCK-VIII, ALIEN & DISP.
PROJ. No. 11-A, ALIEN & DISP.
PASSAGE
ISLAND
VERDE
PUBLIC FOREST
PROJECT No. 12 - I
BLOCK - I
ALIEN & DISP.
LAND CLASSIFICATION
PROVINCE OF MINDORO OCC.
PROJ. No. 12-E, ABRA DE ILOG
" " 15-D, MAMBURAO
PROVINCE OF MINDORO OR.
PROJ. No. 11-A, PUERTO GALERA
2 SHEETS
SHEET-No. 2
L.C-2015

TECHNICAL DESCRIPTION

PROJECT 9-D ALIEN. & DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE MONUMENT OR NATURAL LAND MARK	MARKS SYMBOL	MARKS INDEX AND STATION	MARKS B.F. MON. CONST. NO.	REFERENCE OR LOCATION	WITNESSES NAMES	WITNESSES ADDRESSES
1	Mag Bndry Cor coincides with Cor. 1 Proj. 9-B, Block-I, Alien. & Disp.	Balete	40cm	FB 252-92	458	Idem to Cor. 1 Proj. 9-B, Blk.-I, Alien. & Disp.	Modesto Andoo	Calapan, Mindoro
2	N 41° W 280 m	Kabore	70 cm	L.C. 50-64	665	North bank of Babac Cr.	Benjamin Cleto	"
3	Tan'g along Road survey, Mag. Declination, 1955 0° E	Ficus	10 cm	" " 62	"	S. side of Logging Road	"	"
4	N.W. " " 1,600 m	Bagarilan	50 cm	" " 53	"	Junct. of Logging Roads	"	"
5	N.E.W. " " 600 m	W. Lauraa	30 cm	" 32-21	"	" " " "	"	"
6	N.W. " " 700 m	"	20 cm	" " 27	"	Junct. of Logging Roads & Pamalayan R.	"	"
7	N 45° E 300 m	"	80 cm	" 21-20	"	Idem to Cor. 10 Proj. 9-B, Blk.-I, Alien. & Disp.	G. Alimon	Balete, Pamalayan, Mindoro
8	N 45° E 230 m	Malapinggan	50 cm	" " 20	"	" " " 9 " " "	"	"
9	N 45° E 260 m	Aling Iitan	50 cm	" " 17	"	" " " 8 " " "	"	"
10	N 45° E 350 m	Tangile	120 cm	" " 15	"	" " " 7 " " "	"	"
11	N 45° E 290 m	Lauraa	50 cm	" " 12	"	" " " 6 " " "	"	"
12	N 45° E 250 m	W. Lauraa	60 cm	" " 8	"	" " " 5 " " "	"	"
13	S 85° E 515 m	"	70 cm	FB 252-91	459	" " " 4 " " "	M. Andoo	Calapan, Mindoro
14	S 44° E 353 m	Baldibian	80 cm	" " 45	"	Idem to Cor. 15, Mindoro Proj. 1-B, Alien. & Disp.	"	"
15	S 55° E 342 m	"	30 cm	" " 44	"	" " " 11 " " "	"	"
16	S 85° E 310 m	"	30 cm	" " 43	"	" " " 12 " " "	"	"
17	S 55° E 434 m	Alinan	50 cm	" " 40	"	" " " 13 " " "	"	"
18	S 53° E 403 m	Balete	30 cm	" " 36	"	" " " 14 " " "	"	"





AUTHORITIES
B.F. L.C. - 723, 1895 & 1848
B.F. C.R. Map 2
B.F. MDR-342 to 348

LAND CLASSIFICATION
PROV. OF OR. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES ALIEN & DISP.	TIMBER LAND	TOTAL
9 - D	VICTORIA	270		270

Scale 1:20,000

LEGEND

Boundary of Alienable and Disposable Land ---- (Old Line ---- / New Line ----)

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way for timber outlet indicated thus ----

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the area set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under Forestry Administrative Order No. 4-573, dated December 3, 1956. Said area has been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this Office.

Manila, Philippines — December 3, 1956

DIRECTOR OF FORESTRY

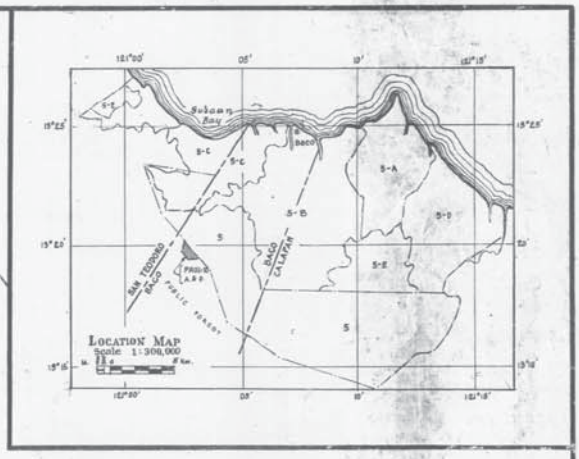
L.C.-2056

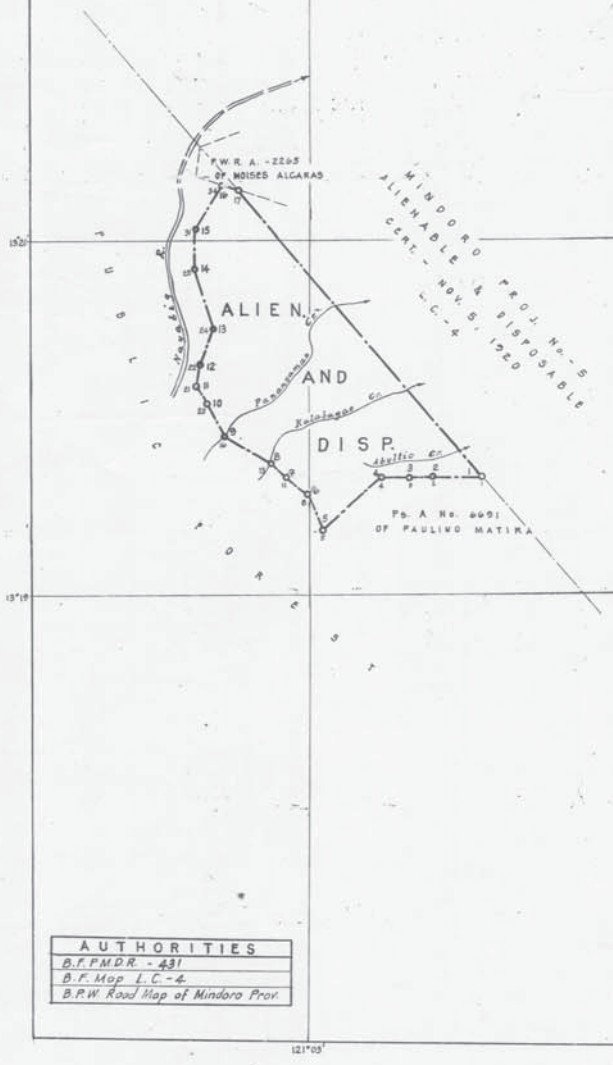
Compiled by: Federico Andoo June 21, 1955
Traced by: Socorro L. Anilla November 20 - November 24, 1956
Checked by: [illegible]

TECHNICAL DESCRIPTION

ALIEN. & DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE MONUMENT OR NATURAL LAND MARK	MARKS: SYMBOL	MARKS: INDEX AND STATION	MARKS: B.F. MAT-CHET No.	REFERENCE OR LOCATION	WITNESSES: NAMES	WITNESSES: ADDRESSES
1	Due West 250M.	B.L. Conc. Mon.	B.L.	57 - 1	12	Side of ridge	Tomas Arroyo	Baco Or. Mindo
2	" " 120 "	Hagimit 20cms.	L.C.	" 2	"	On ridge	" "	" "
3	" " 140 "	Tuluto 60 "	"	" 3	"	Side of ridge	" "	" "
4	S 45° W. 400 "	Binyang 40 "	"	" 4	"	On ridge	" "	" "
5	N. 25° W. 200 "	Gubas 70 "	"	" 5	"	Slope of ridge	" "	" "
6	N. 50° W. 140 "	Malawen-Ano 30 "	"	" 6	"	Side of big rock	" "	" "
7	N. 50° W. 100 "	T. Bayawak 20 "	"	" 11	"	On ridge	" "	" "
8	N. 58° W. 220 "	Duguan 30 "	"	" 13	"	North bank of Kalabagan Cr.	" "	" "
9	N. 29° W. 180 "	Big rock	"	" 16	"	" " " Panonogawan Cr.	" "	" "
10	N. 29° W. 100 "	Santol 70cms.	"	" 20	"	Right side of trail	" "	" "
11	N. 10° E. 110 "	Procumbumalum Sp. 12cm.	"	" 21	"	End of Kaingan	" "	" "
12	N. 18° E. 200 "	Balagatan 30 cms.	"	" 22	"	" " "	" "	" "
13	N. 16° W. 320 "	Uloy 15 "	"	" 24	"	Right side of trail	" "	" "
14	N. 1° E. 200 "	T. Pantai 60 "	"	" 28	"	" " "	" "	" "
15	N. 30° E. 260 "	Uloy 80 "	"	" 31	"	Left side of trail	" "	" "
16	S. 72° E. 90 "	A point		" 34		A Point between Cor. 4-7 (Trail-a Right of Malawen Ano)		
17	S. 40° E. 1920 "	A point				A Point between P.L. E-3,448 & Mindoro Prj. No. 2		





LAND CLASSIFICATION

PROVINCE OF MINDORO OR.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIEN.&DISP.	TIMBER LAND	TOTAL
10	BACO	118		118

Scale 1:20,000

M 1000 500 600 400 200 0 1 Km.

LEGEND

Boundary of Alienable and Disposable land--- { Old line... / New line...

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way and timber outlet indicated thus--

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the area set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under forestry Administrative Order No. 4-596 dated March 9, 1957. Said area has been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports field notes and computations in connection herewith are on file in this office.

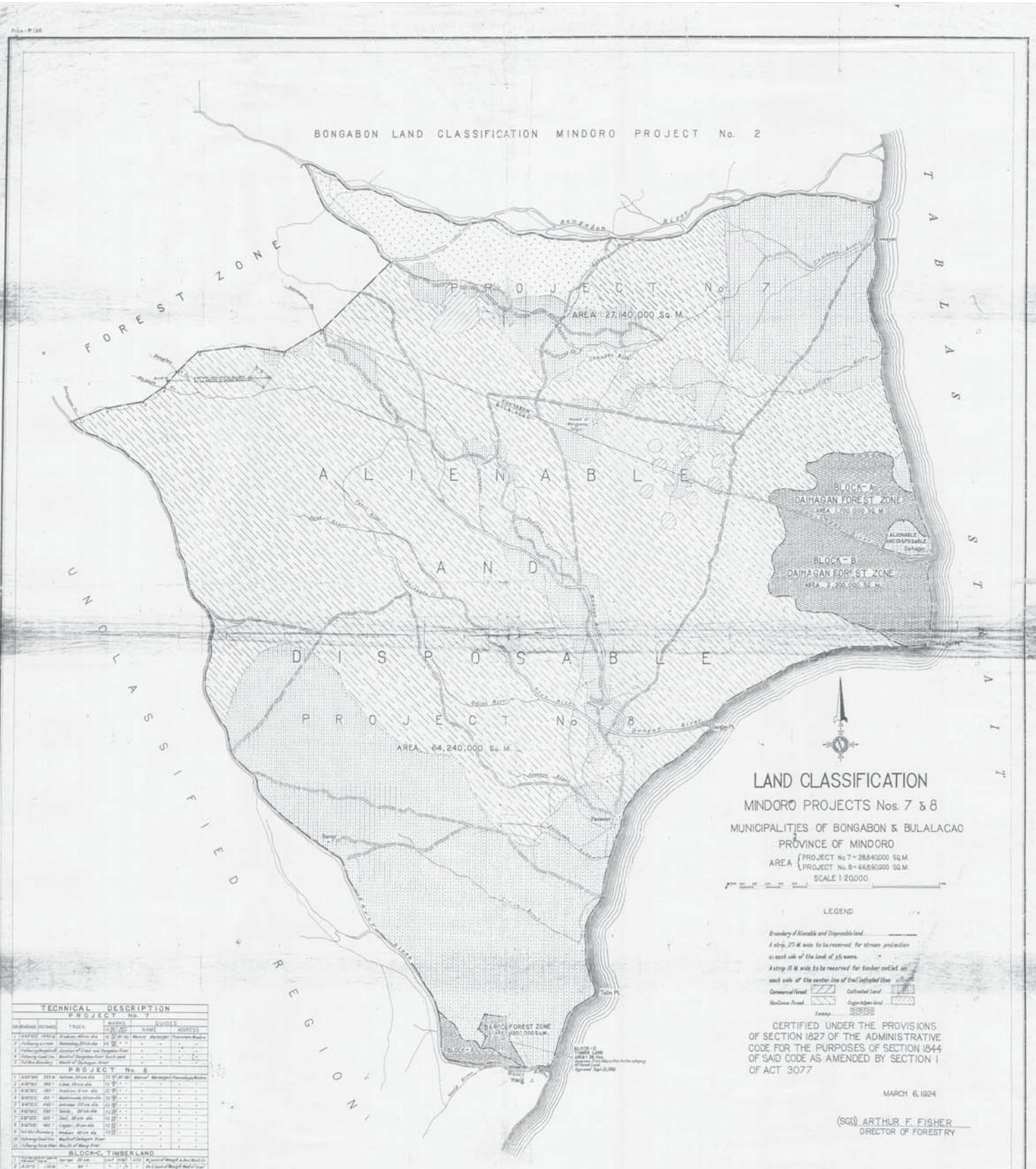
Manila, Philippines March 9, 1957

Director of Forestry

AUTHORITIES
B.F.P.M.D.R. - 431
B.F. Map L.C. - 4
B.P.W. Road Map of Mindoro Prov.

L.C.-2078

Compiled by : C. Randilla 11-23 to 12-3-56
Traced by : B.G. TARAMPI 1-22 to 1-26-57
Checked by : C.C.L. 2-25-57
Verified by :



LAND CLASSIFICATION

MINDORO PROJECTS Nos. 7 & 8

MUNICIPALITIES OF BONGABON & BULALACAO
PROVINCE OF MINDORO

AREA { PROJECT No. 7 = 28,840,000 SQ.M.
PROJECT No. 8 = 66,890,000 SQ.M.

SCALE 1:20,000

LEGEND

Boundary of Alienable and Disposable land
A strip, 25 M wide to be reserved for stream protection on each side of the bank of its mouth.
A strip 15 M. wide to be reserved for timber outlet on each side of the center line of trail indicated thus
Commercial Forest — Cultivated Land
Non-Comm. Forest — Open to Open land
Swamp

CERTIFIED UNDER THE PROVISIONS OF SECTION 1827 OF THE ADMINISTRATIVE CODE FOR THE PURPOSES OF SECTION 1844 OF SAID CODE AS AMENDED BY SECTION 1 OF ACT 3077

MARCH 6, 1924

(SGD) ARTHUR F. FISHER
DIRECTOR OF FORESTRY

LC-209

TECHNICAL DESCRIPTION

PROJECT No. 7

COR.	BEARING	DISTANCE	TREES	MARKS	GUIDES NAME	GUIDES ADDRESS
1	64°45'45"	1990.61	Bradeion, 40 cm. dia.	12 [illegible]	Manuel Mamangun	Pinamayan, Bongabon
2	Following a creek		Unidentified, 30 cm. dia.	23 [illegible]	" "	" "
3	Following Bongabon R.		Junction of Creek and Bongabon River	" "	" "	" "
4	Following Creek Line		Mouth of Bongabon River South bank	" "	" "	" "
5	Tri-Am Boundary		Mouth of Daihagan River	" "	" "	" "

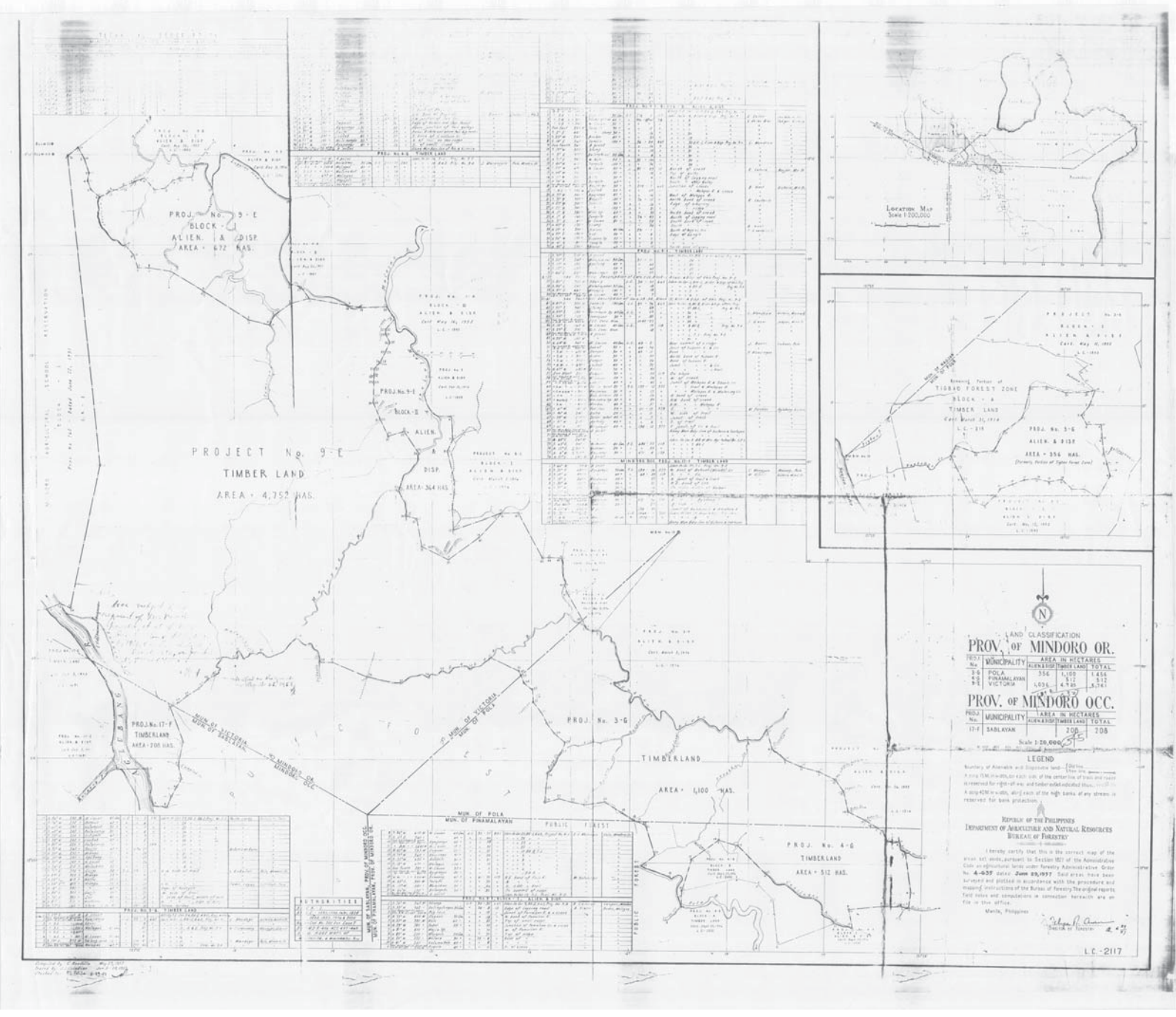
PROJECT No. 8

1	64°30'00"	335 M.	Kalimas, 30 cm. dia.	12 [illegible]	Manuel Mamangun	Pinamayan, Bongabon
2	64°30'00"	580 "	Libas, 30 cm. dia.	12 [illegible]	" "	" "
3	64°30'00"	1350 "	Bradeion, 45 cm. dia.	12 [illegible]	" "	" "
4	64°30'00"	1500 "	Malakmakan, 50 cm. dia.	12 [illegible]	" "	" "
5	64°30'00"	1440 "	Unknown, 30 cm. dia.	12 [illegible]	" "	" "
6	64°30'00"	1260 "	Salay, 30 cm. dia.	12 [illegible]	" "	" "
7	338°00'00"	600 "	Dao, 30 cm. dia.	12 [illegible]	" "	" "
8	64°30'00"	360 "	Lagan, 30 cm. dia.	12 [illegible]	" "	" "
9	Tri-Am Boundary		Bradeion, 40 cm. dia.	12 [illegible]	" "	" "
10	Following Creek Line		Mouth of Daihagan River		" "	" "
11	Following Bongabon R.		Mouth of Wawig River		" "	" "

BLOCK-C, TIMBER LAND

1	70°30'00"	1100 M.	Kamagon, 30 cm.	Cut	Wood	Tree	At point of Mongol & Bout Wood Co.
2	8°30'E.	1100 M.	" 30 "	"	"	Tree	On E bank of Mongol Wood at Road
3	8°30'E.	1800 "	Kamagon, 30 "	"	"	Tree	At the edge of swamp
4	8°30'E.	1200 "	Dakan 40 "	"	"	Tree	" " "
5	8°30'E.	2300 "	Apo-apo 40 "	"	"	Tree	" " "
6	5°30'E.	2000 "	" 30 "	"	"	Tree	" " "
7	Mid-West Mouth of Bongabon R.		" 30 "	"	"	Tree	At the source of East Br. of S.D.

Reviewed by D.F.S. Survey 8-17-29
Checked by [illegible]



PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN & DISP.	TIMBER LAND	TOTAL
3-G	POLA	356	1,100	1,456
4-G	PINAMALAYAN		512	512
9-E	VICTORIA	1,036	4,195	5,231

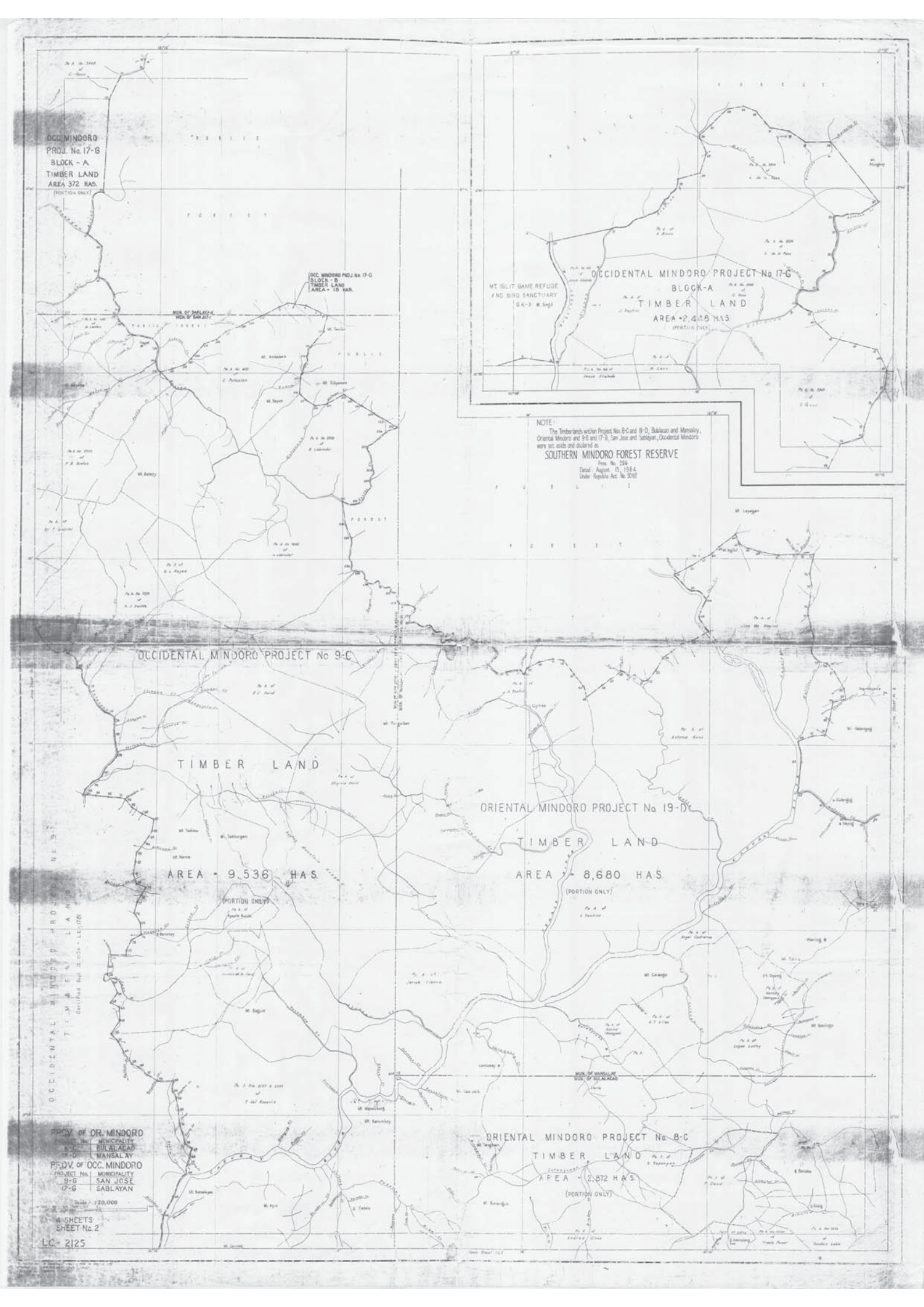
PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN & DISP.	TIMBER LAND	TOTAL
17-F	SABLAYAN		208	208

I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1821 of the Administrative Code, as agricultural lands under Forestry Administrative Order No. 4-635 dated June 28, 1977. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

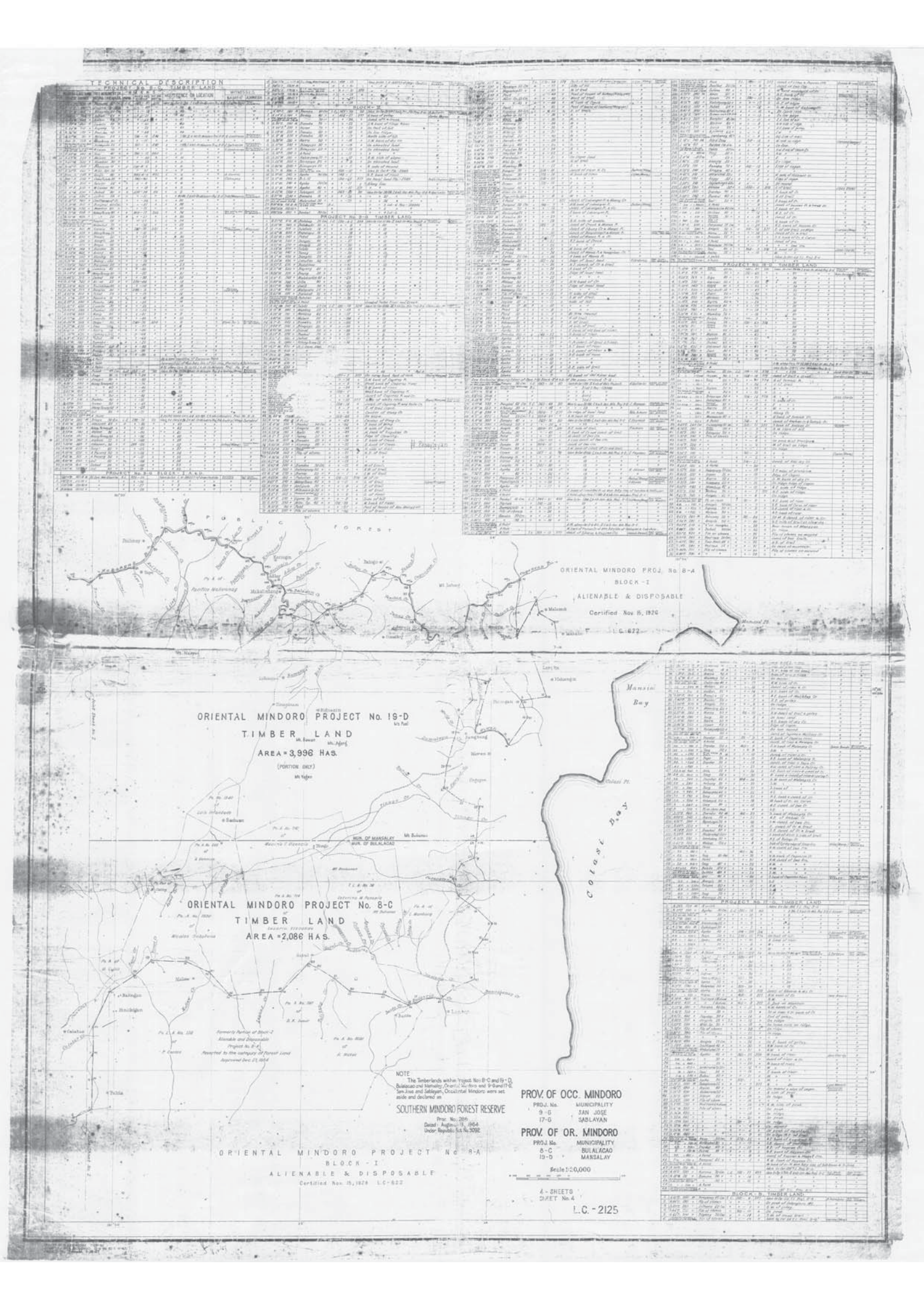
Manila, Philippines

Director of Forestry


PORTION OF
ORIENTAL MINDORO PROJECT No. 8-C
PORTION OF
TIMBER LAND
OCCIDENTAL MINDORO PROJECT No. 9-G
AREA = 8, 140 HAS.
TIMBER LAND
AREA = 8, 736 HAS.
LOCATION & INDEX MAP
SCALE 1:200,000
N
LAND CLASSIFICATION
PROV. OF OR. MINDORO
PROJ No. | MUNICIPALITY | AREA IN HECTARES: ALIEN & DISP. | TIMBERLAND | TOTAL
8-C | BULALACAO | | 13, 098 | 13, 098
19-D | MANSALAY | | 12, 676 | 12, 676
PROV. OF OCC. MINDORO
PROJ No. | MUNICIPALITY | AREA IN HECTARES: ALIEN & DISP. | TIMBERLAND | TOTAL
9-G | SAN JOSE | 251.0729 | 24, 732 | 24, 983.0729
17-G | SABLAYAN | | 10, 610 | 10, 610
Scale 1:20,000
LEGEND
Boundary of Alienable and Disposable land
A strip 5M in width, on each side of the centerline of trails and roads is reserved for right-of-way and timber cutting as indicated thus.
A strip 40M in width, along each of the high banks of any stream is reserved for bank protection.
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY
I hereby certify that this is the correct map of the areas set aside, pursuant to Section 1827 of the Administrative Code as agricultural lands under Forestry Administrative Order No. 4-643 dated July 31, 1957. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.
July 31, 1957
Manila, Philippines
AUTHORITIES
NOTE:
The Timberlands within Project Nos. 8-C and 19-D, Bulalacao and Mansalay, Oriental Mindoro and 9-G and 17-G, San Jose and Sablayan, Occidental Mindoro were set aside and declared as
SOUTHERN MINDORO FOREST RESERVE
Proc. No. 286
Dated: August 13, 1964
(Under Republic Act No. 3092)
4 SHEETS
SHEET No. 1


OCC. MINDORO
PROJ. No. 17-G
BLOCK - A
TIMBER LAND
AREA 372 HAS.
(PORTION ONLY)
OCC. MINDORO PROJ. No. 17-G
BLOCK - B
TIMBER LAND
AREA = 18 HAS.
OCCIDENTAL MINDORO PROJECT No 17-G
BLOCK-A
TIMBER LAND
AREA = 2,418 HAS
(PORTION ONLY)
MT. IGLIT GAME REFUGE
AND BIRD SANCTUARY
G.R.-3 Mt. Iglit
NOTE :
The Timberlands within Project No. 8-D and 19-D, Bulalacao and Mansalay, Oriental Mindoro and 9-B and 17-B, San Jose and Sablayan, Occidental Mindoro were set aside and declared as
SOUTHERN MINDORO FOREST RESERVE
Proc. No. 1394
Dated August 15, 1964
Under Republic Act. No. 3092
OCCIDENTAL MINDORO PROJECT No 9-C
TIMBER LAND
AREA - 9,536 HAS
(PORTION ONLY)
ORIENTAL MINDORO PROJECT No 19-D
TIMBER LAND
AREA - 8,680 HAS
(PORTION ONLY)
ORIENTAL MINDORO PROJECT No. 8-C
TIMBER LAND
AREA - 2,872 HAS
(PORTION ONLY)
OCCIDENTAL MINDORO PROJECT No 9-C
TIMBER LAND
Certified Sept. 12, 1974 - LC-1781
PROV. OF OR. MINDORO
PROJECT No. | MUNICIPALITY
8-D | BULALACAO
19-D | MANSALAY
PROV. OF OCC. MINDORO
PROJECT No. | MUNICIPALITY
9-D | SAN JOSE
17-G | SABLAYAN
Scale - 1:20,000
4 SHEETS
SHEET No. 2
LC - 2125

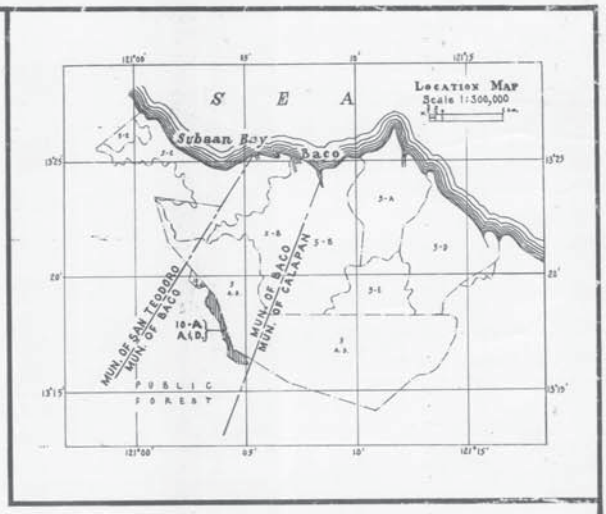

OCCIDENTAL MINDORO PROJECT No. 17-G
BLOCK-A
TIMBER LAND
AREA = 7,772 HAS.
(PORTION ONLY)
OCCIDENTAL MINDORO PROJECT No. 9-G
TIMBER LAND
AREA = 6,480 HAS.
(PORTION ONLY)
LUMINTAO R.
BUGSUANGA R.
BUGSUANGA RIVER
PUBLIC FOREST
OCCIDENTAL MINDORO PROJECT No. 8-C
BLOCK-I
ALIENABLE & DISPOSEABLE
Certified Aug. 30, 1955 - LC-1559
OCCIDENTAL MINDORO PROJECT No. 9-D
TIMBER LAND
Certified Sept. 15, 1954 - LC-1781
NOTE
The Timberlands within Project Nos. 8-C and 9-D Buklisan and Mamaday, Oriental Mindoro and 9-G and 17-G, San Jose and Sablayan, Occidental Mindoro were set aside and declared as
SOUTHERN MINDORO FOREST RESERVE
Proc. No. 286
Dated August 13, 1964
(Under Republic Act No. 5092)
PROV. OF OCC. MINDORO
PROJ. No. | MUNICIPALITY
9-G | SAN JOSE
17-G | SABLAYAN
PROV. OF OR. MINDORO
PROJ. No. | MUNICIPALITY
8-C | BULALACAO
18-D | MANSALAY
4 - SHEETS
SHEET No. 4
LC-2125

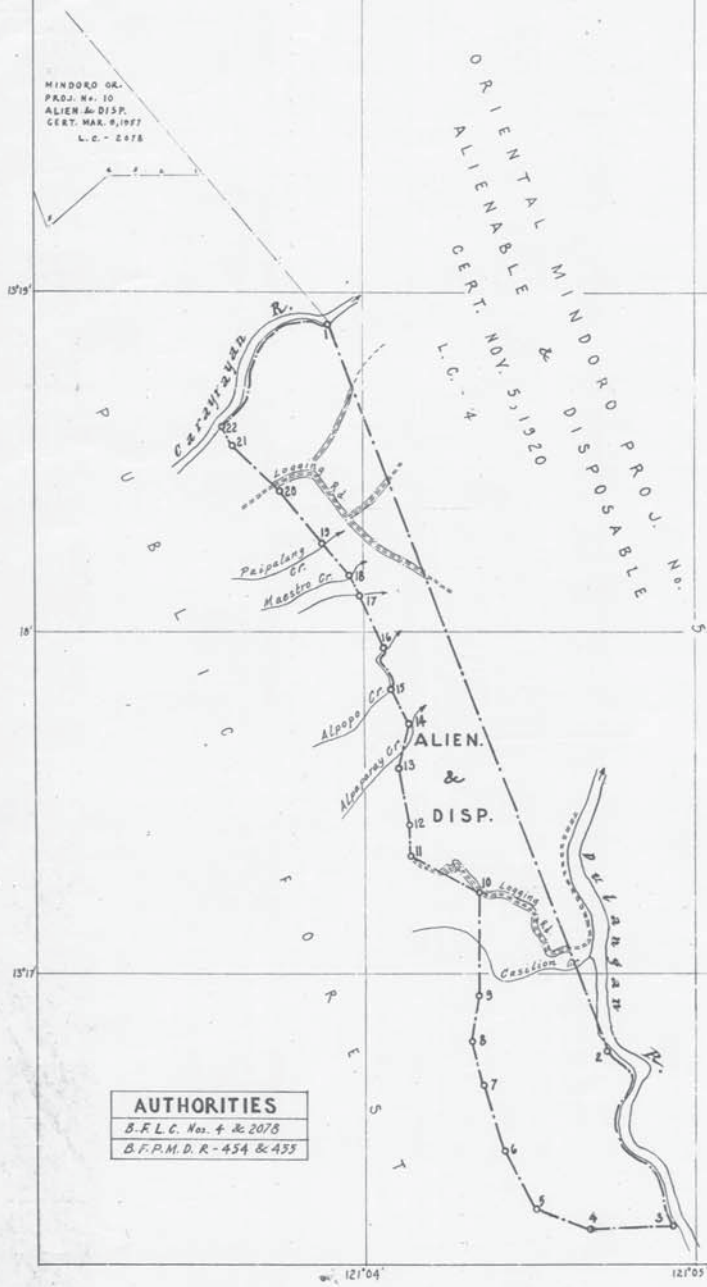

TECHNICAL DESCRIPTION
PROJECT No. 8-D, TIMBER LAND
PROJECT No. 8-B TIMBER LAND
PROJECT No. 8-C TIMBER LAND
PROJECT No. 19-D TIMBER LAND
PROJECT No. 8-A BLOCK-I LAND
PUBLIC FOREST
ORIENTAL MINDORO PROJ. No. 8-A
BLOCK - I
ALIENABLE & DISPOSABLE
Certified Nov. 15, 1926
L.C. 622
ORIENTAL MINDORO PROJECT No. 19-D
TIMBER LAND
AREA = 3,996 HAS.
(PORTION ONLY)
ORIENTAL MINDORO PROJECT No. 8-C
TIMBER LAND
AREA = 2,086 HAS.
Mansini Bay
Colasi Bay
NOTE
The Timberlands within Project Nos 8-C and 19-D, Bulalacao and Mansalay, Oriental Mindoro and 9-G and 17-G, San Jose and Sablayan, Occidental Mindoro were set aside and declared as
SOUTHERN MINDORO FOREST RESERVE
Proc. No. 266
Dated August 15, 1964
Under Republic Act No. 3092
ORIENTAL MINDORO PROJECT No. 8-A
BLOCK - I
ALIENABLE & DISPOSABLE
Certified Nov. 15, 1926 L.C. 622
PROV. OF OCC. MINDORO
PROJ. No. MUNICIPALITY
9-G SAN JOSE
17-G SABLAYAN
PROV. OF OR. MINDORO
PROJ. No. MUNICIPALITY
8-C BULALACAO
19-D MANSALAY
Scale 1:20,000
4 - SHEETS
SHEET No. 4
L.C. - 2125

TECHNICAL DESCRIPTION

ALIEN. & DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE MONUMENT OR NATURAL LAND MARK	MARKS: SYMBOL	MARKS: INDEX AND STATION	MARKS: B.F. PLAT-SHEET No.	REFERENCE OR LOCATION	WITNESSES: NAMES	WITNESSES: ADDRESSES
1	S21°E 4160 M	A Point	L.C.			Identical with B.F.L.A.D. Or. Mindoro proj. 5		
2	Pod Bulangan E. Mouth bon. S.E. dir. dist. 1122 M	"	"			" " " " " "		
3	S88°W 460 M	Aya	"	228-11	12	W. of Dulangan R.	B. Calderon	Agapanga, Baco, Or. Mindoro
4	N70°W 310 "	Paitan	40 M	" 14	"	On ridge	" "	" "
5	N29°W 350 "	Agupanga	40 "	" 19	"	" "	" "	" "
6	N16°W 370 "	Mayapis	40 "	" 25	"	End of Kalaan	" "	" "
7	N15°W 240 "	W. Lauan	30 "	" 29	"	" " "	" "	" "
8	N10°E 240 "	Carayo	30 "	" 32	"	On ridge	" "	" "
9	Due North 540 "	Mayapis	100 "	" 35	"	Edge of Kalaan	" "	" "
10	N43°W 420 "	Basal	30 "	" 39	482	S. of logging Rd.	" "	" "
11	N1°W 170 "	Bokbok	50 "	219-31	"	On ridge	" "	" "
12	N11°W 300 "	"	40 "	" 35	"	Edge of Clearing	" "	" "
13	N13°E 240 "	W. Lauan	35 "	" 42	"	" " "	" "	" "
14	N27°W 200 "	Agupanga	60 "	" 47	"	W. of Alpaparay Cr.	" "	" "
15	Pod Bongo on Kamaya bon. N.W. dir. dist. 280 M	"	40 "	" 52	"	E. of Alpopo Cr.	M. Damaso	" "
16	N24°W 310 "	W. Lauan	35 "	" 57	"	N. " " "	" "	" "
17	N29°W 120 "	Agupanga	40 "	" 65	"	On bank of Cr.	" "	" "
18	N40°W 238 "	Pulahan	40 "	" 68	"	N. of Maestro Cr.	" "	" "
19	N40°W 360 "	W. Lauan	30 "	" 74	"	N. of Paipalang Cr.	" "	" "
20	N47°W 360 "	Malasaging	40 "	" 82	"	S.E. of logging Rd.	" "	" "
21	N26°W 110 "	Paitan	30 "	" 83	"	On Kalaan	" "	" "
22	Pod Carayayan E. mouth bon. S.E. dir. dist. 300 M	Agupanga	70 "	" 86	"	E. of Carayayan R.	" "	" "





N

LAND CLASSIFICATION

PROVINCE OF MINDORO OR.

PROJ No.	MUNICIPALITY	AREA IN HECTARES: ALIEN. DISP.	TIMBER LAND	TOTAL
10-A	BACO	272		272

Scale 1:20,000

M. 1000 800 600 400 200 0 1 Km.

LEGEND

Boundary of Alienable and Disposable land---{Old line / New line

A strip 15 M. in width, on each side of the center line of trails and roads is reserved for right-of-way and timber outlet indicated thus

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the area set aside, pursuant to Section 1827 of the Administrative Code as agricultural land under Forestry Administrative Order No. 4-646 dated August 6, 1957. Said area has been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports field notes and computations in connection herewith are on file in this office.

August 6, 1957

Manila, Philippines

Director of Forestry 8-5-57

L.C. - 2128

AUTHORITIES

B.F.L.C. Nos. 4 & 2078

B.F.P.M.D.R - 454 & 455

Compiled by: G. Montes 7-25 & 26-57
Traced by: M.C. de Leon 7-27-57 to 8-5-57
Checked by: [illegible] 8-5-57
Verified by [illegible]

M.C. 8-5-57

LAND CLASSIFICATION

PROV. OF ORIENTAL MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES ALIEN OR DISP.	TIMBERLAND	TOTAL
1-M	NAUJAN	192	564	756
5-K	CALAPAN	43	212	255
10-B	BACO	26	10,360	10,456
18-A	SN. TEODORO	–	2,192	2,192
	TOTAL	331	13,328	13,659

Scale 1:20,000

LEGEND

Boundary of Alienable or Disposable land ——— Diline ———

A strip 15 M in width on each side of the center line of trails and roads is reserved for right-of-way and timber outlet indicated thus ———

A strip 40 M in width along each of the high banks of any stream is reserved for bank protection.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas set aside pursuant to Section 1827 of the Administrative Code as agricultural lands under Forestry Administrative Order No. 155 dated Oct. 30, 1958. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

Manila, Philippines, October 30, 1958

Chief of Forestry

Note: The timber lands within project Nos. 1-M, 5-K, 10-B & 18-A, Naujan, Calapan, Baco and San Teodoro, Oriental Mindoro were set aside and declared as

MT. KADANGYASAN FOREST RESERVE
PROC. No. 86
DATED AUGUST 6, 1964
(Under Republic Act No. 3092)

L.C.-2237

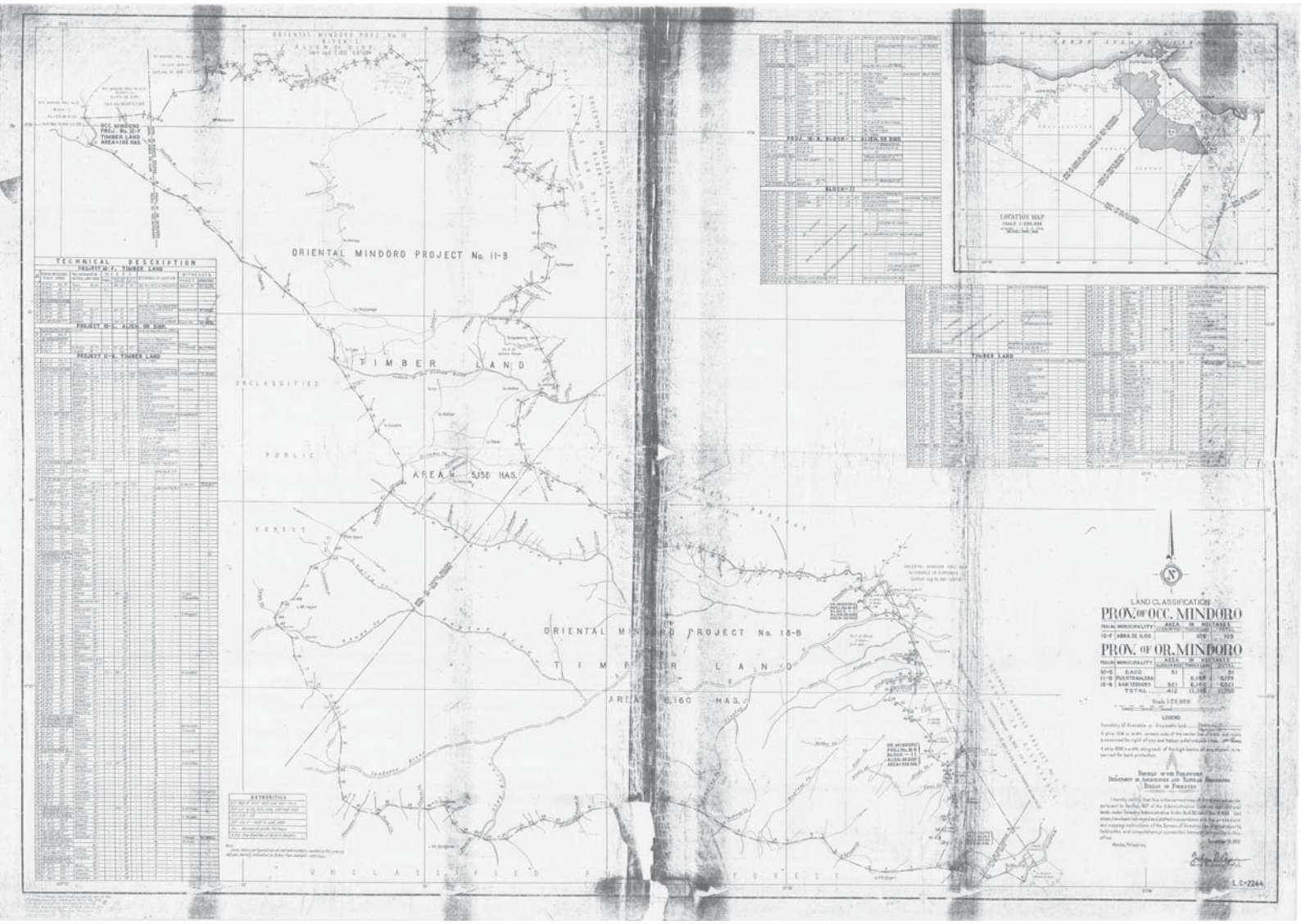
AUTHORITIES

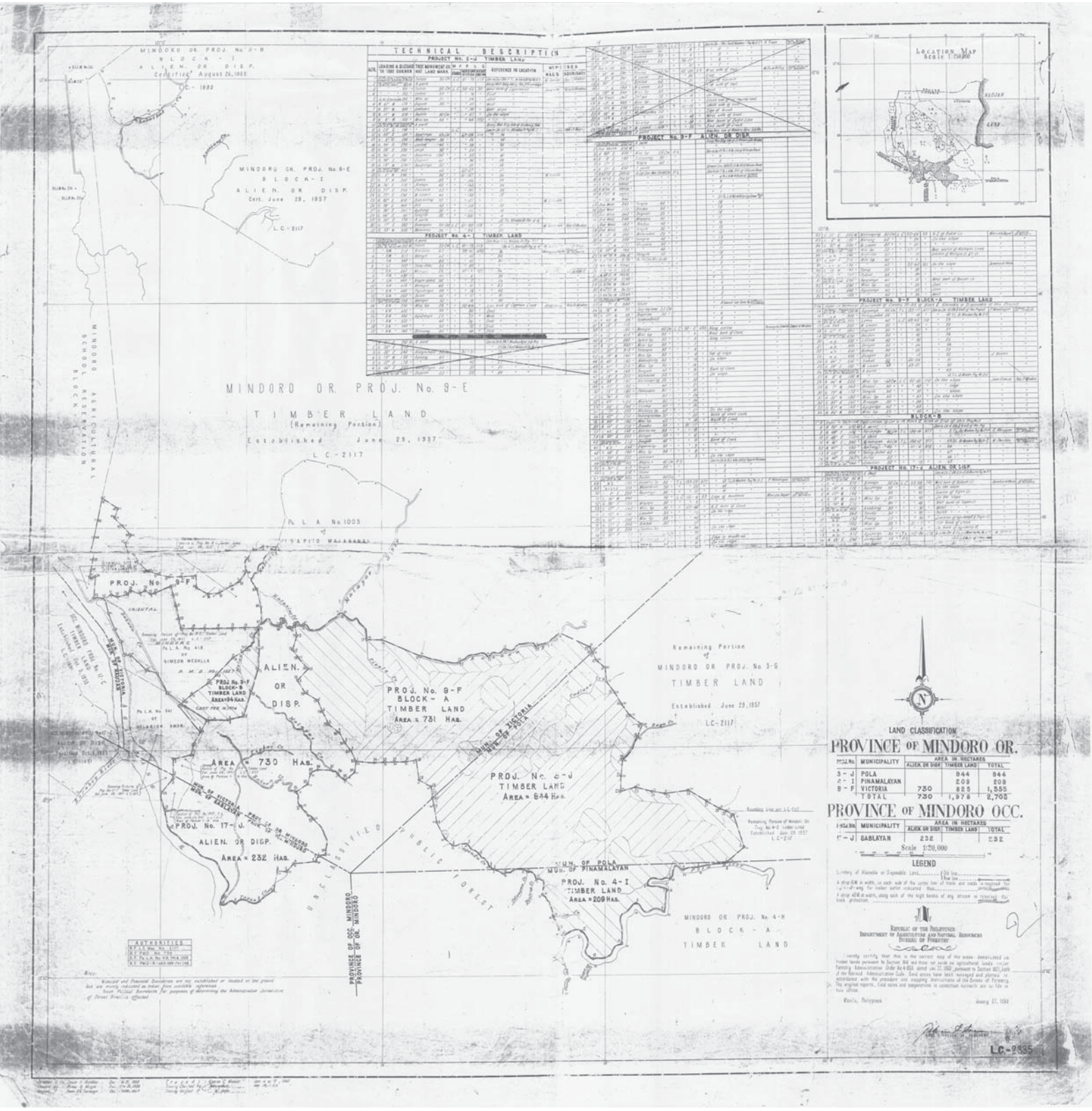
Note: Municipal Boundaries are not established or located on the ground but are merely indicated as taken from available references.

TECHNICAL DESCRIPTION

PROJECT No. 1-M, ALIENABLE OR DISPOSABLE

PROJECT No. 1-M, TIMBERLAND


ORIENTAL MINDORO PROJECT No. 11-B
TIMBER LAND
UNCLASSIFIED PUBLIC FOREST
AREA = 5150 HAS.
ORIENTAL MINDORO PROJECT No. 18-B
TIMBER LAND
AREA = 6,160 HAS.
UNCLASSIFIED PUBLIC FOREST
LOCATION MAP
TECHNICAL DESCRIPTION
PROJECT NO. F, TIMBER LAND
PROJECT NO. ALIEN OR SOIL
PROJECT NO. TIMBER LAND
LAND CLASSIFICATION
PROV. OF OCC. MINDORO
PROV. OF OR. MINDORO
LEGEND
LC-2244



LAND CLASSIFICATION

PROVINCE OF MINDORO OR.

PROJECT No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN OR DISP.	TIMBER LAND	TOTAL
3 - J	POLA		944	944
4 - I	PINAMALAYAN		209	209
9 - F	VICTORIA	730	825	1,555
	TOTAL	730	1,978	2,708

PROVINCE OF MINDORO OCC.

PROJECT No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN OR DISP.	TIMBER LAND	TOTAL
17 - J	SABLAYAN	232		232

Scale 1:20,000

LEGEND

History of Alienable or Disposable Land.....(Old line)..... (New line).....

A strip 60 M in width, on each side of the center line of trails and roads as required for protection.....

A strip 40 M in width, along each of the high banks of any stream as required for bank protection.....

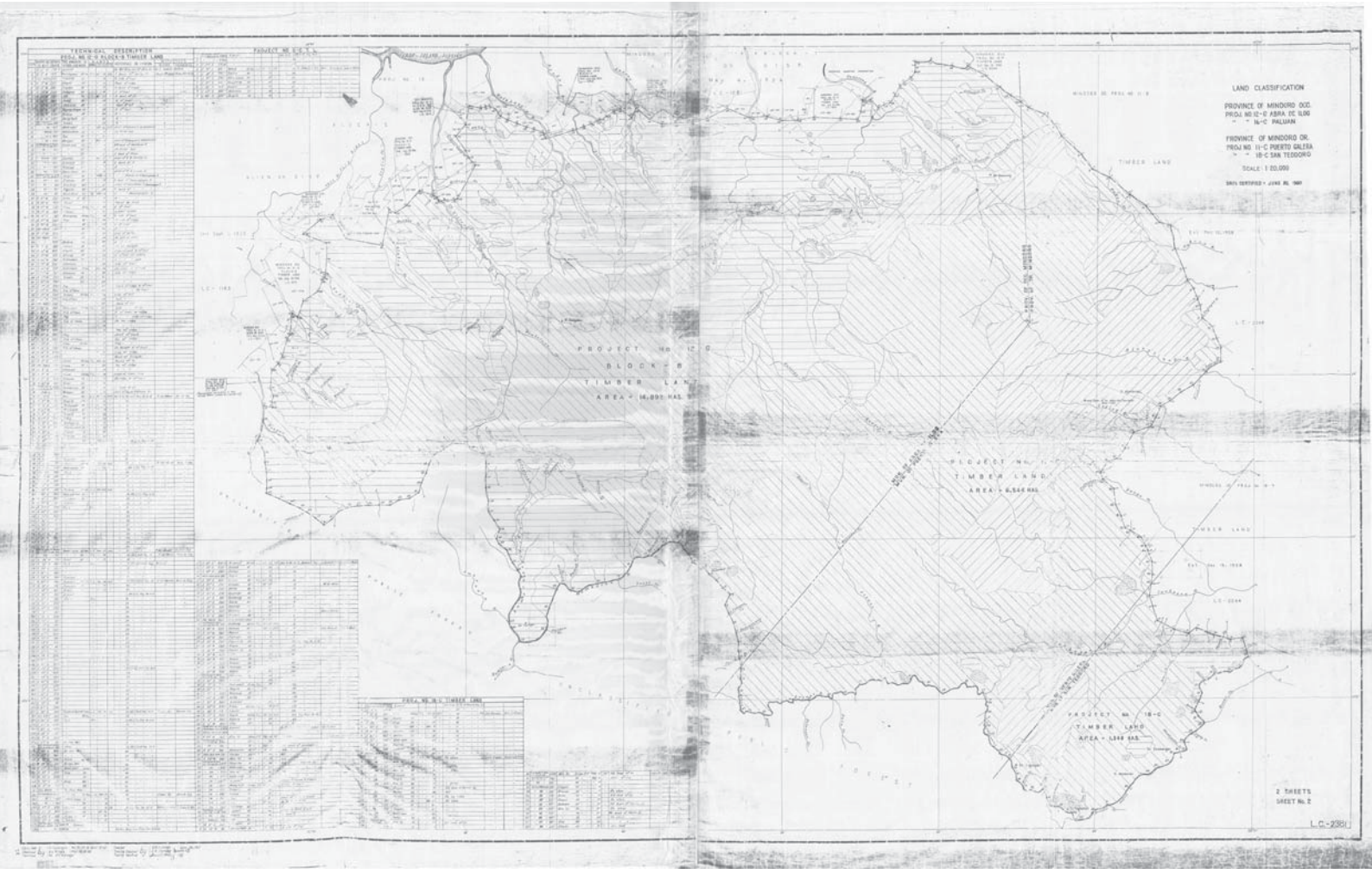
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas demarcated as timber lands pursuant to Section 8(a) and those set aside as agricultural lands under Forestry Administrative Order No. 4-656 dated Jan. 27, 1960 pursuant to Section 4(c) Book of the Revised Administrative Code. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

Manila, Philippines January 27, 1960

LC-2335


TECHNICAL DESCRIPTION
MINDORO OCC. PROJ. No. 16-C, BLOCK-A, TIMBER LAND
BLOCK-A TIMBER LAND
MINDORO OCC.
PROJ. No. 16-C
TIMBER LAND
AREA - 738 HAS.
MINDORO OCC.
PROJECT No. 12-G
BLOCK-A
TIMBER LAND
AREA - 40 HAS.
LOCATION MAP
Scale 1:250000
NOTE
The Timberlands within this Project No. 12-G and M.S. Mon. of Area de Cog and Sitios, Province of Mindoro Occ. and Project No. 11-C and 12-C, Mon. of Puerto Galera and San Teodoro, Prov. of Mindoro Or. were set aside and declared as
NORTHERN MINDORO FOREST RESERVE
Proclamation No. 369
Date - February 18, 1987
(Under Republic Act No. 3092.)
N
LAND CLASSIFICATION
PROV. OF MINDORO OCC.
PROV. OF MINDORO OR.
Scale 1:50,000
LEGEND
Boundary of Timberlands as Proposed to be set ——— (Dec 04)
Existing OLM or earthy monument identified as the starting point of the land applied for, or marked for right of way, of timberland for industrial use ———
Area of 40 Hectares along each of the four borders of any area to be surveyed for forest protection ———
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY
Manila, Philippines


LAND CLASSIFICATION
PROVINCE OF MINDORO OCC.
PROJ NO 12-C ABRA DE ILOG
" " 14-C PALUAN
PROVINCE OF MINDORO OR.
PROJ NO. 11-C PUERTO GALERA
" " 18-C SAN TEODORO
SCALE: 1 20,000
PROJECT NO. 12-C
BLOCK - B
TIMBER LAND
AREA = 14,892 HAS.
PROJECT NO. 11-C
TIMBER LAND
AREA = 6,544 HAS.
PROJECT NO. 18-C
TIMBER LAND
AREA = 1,348 HAS.
TIMBER LAND
2 SHEETS
SHEET No. 2
LC-238

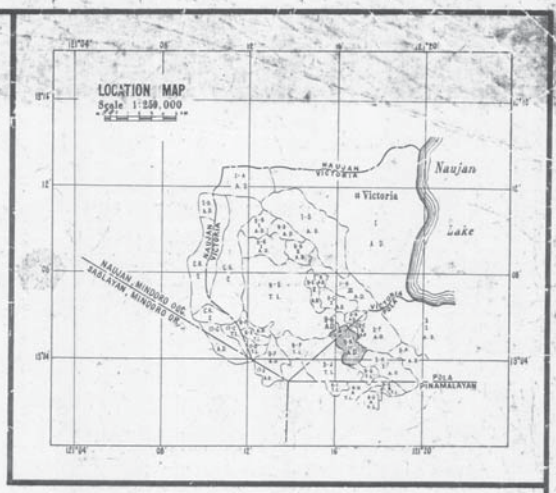
TECHNICAL DESCRIPTION

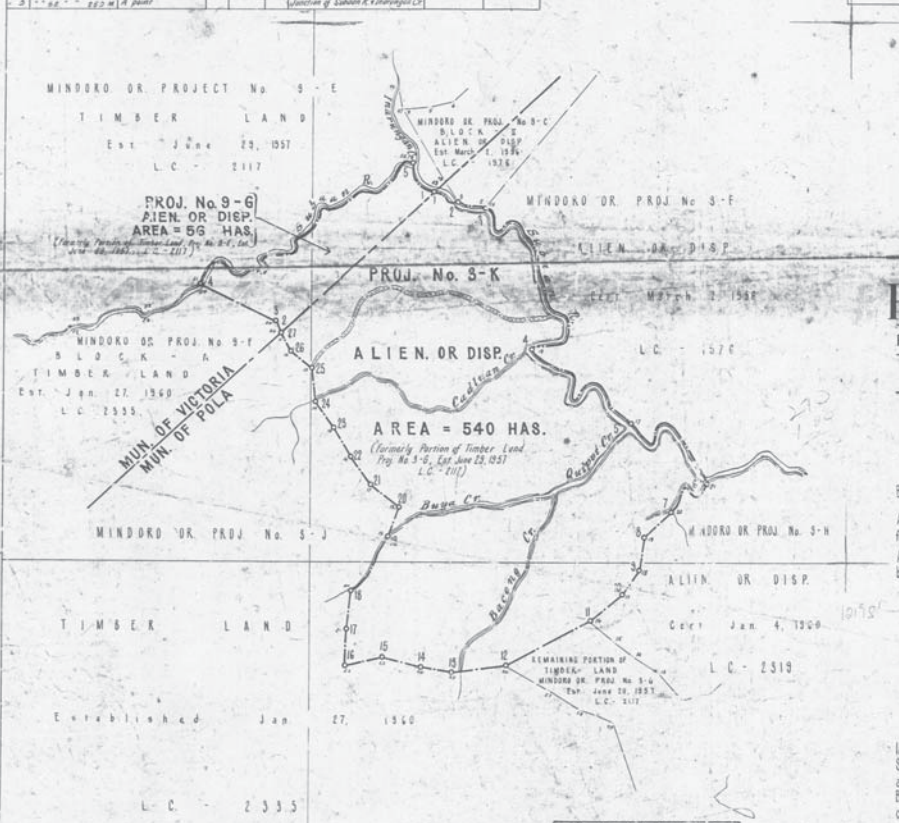
PROJ. No. 3-K ALIEN. OR DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE MONUMENT OR NATURAL LAND MARK	MARKS: STAMPED	MARKS: INDEX AND STATIONS	MARKS: SLF SKY LINE NO.	REFERENCE OR LOCATION	WITNESSES: NAMES	WITNESSES: ADDRESSES
1	[illegible] 170 M	A point				On Mpt. Bdry. line of Port Victoria		
2	" S. " 210 "	Aguyanga		L.C. 55-T	665	Sta. to Cor. 3 BA & Aux. Proj. No. 3-C	I. Mendoza	Victoria, Mindoro Occ.
3	" N 45° W " 1,100 "	Stone	"	" 9	"	" R " "	O. Corondong	Manoc-Manoc, Calapan
4	" S. " 1200 "	Malagos	45 Cm.	" 37	"	" 18, B.A. & T. Proj. No. 3-F	"	"
5	" S. " 960		"	" 56	"	" 17 " "	"	"
6	Pod Mpt. Victoria 650 M.	Aguyanga	50 Cm.	106-1	113	" B.L. B.A. & T. Proj. No. 3-A	Silvino Hebron	Labong, Pola
7	S. 86° W. 270 "	Mala-gak	60 "	" 6	"	" 20 " " "	"	"
8	S. 7° W. 210 "	Misc. Sp.	60 "	" 42	"	" 19 " " "	"	"
9	S. 38° W. 210 "	Amagos	30 "	" 72	"	" 18 " " "	"	"
10	S. 51° W. 230 "	Lingwan	50 "	" 4	"	" 17 " " "	"	"
11	S. 62° W. 660 "	Pagsahingin	30 "	" 13	"	" 16 " " "	"	"
12	S. 83° W. 330 "	Pili	45 "	61-113	119	" 14 " " Proj. No. 3-J	M. Soriesco	Pob. Mindoro Or.
13	N. 77° W. 250 "	Bonkuking	30 "	" 121	"	" 24 " " "	"	"
14	N. 77° W. 355 "	W. Lanot	45 "	" 119	"	" 25 " " "	M. Angara	"
15	N. 74° W. 270 "	Pulatan	50 "	" 141	"	" 26 " " "	"	"
16	N. 3° E. 260 "	Aromao	45 "	" 145	"	" 22 " " "	"	"
17	N. 6° E. 250 "	Gubas	55 "	" 146	"	" 21 " " "	"	"
18	Pod Mpt. Victoria 610 "	Aguyanga	30 "	" 147	"	" 20 " " "	"	"
19	S. 19° E. 210 "	"	46 "	66-27	"	" 13 " " "	Jose Bueno	"
20	N. 69° W. 250 "	"	50 "	63-39	"	" 19 " " "	"	"
21	N. 54° W. 240 "	Lingwan	60 "	" 34	"	" 17 " " "	"	"
22	N. 28° W. 220 "	Aguyanga	60 "	" 33	"	" 16 " " "	"	"
23	N. 39° W. 235 "	Buya	50 "	" 23	"	" 15 " " "	"	"
24	N. 3° W. 235 "	Lasso	60 "	" 22	"	" 14 " " "	"	"
25	N. 23° W. 190 "	Mala-angka	35 "	" 24	"	" 13 " " "	"	"
26	N. 23° W. 150 "	Aguyanga	45 "	" 24	"	" 12 " " "	"	"
27	Pod Mpt. Bdry. line of Port Victoria & B.L. 400 M.	A point				" 11 " " "		

PROJ. No. 9-G ALIEN. OR DISP.

1	Pod Mpt. Bdry. line of Port Victoria & B.L. 1,400 M.	A point				East to Cor. 1 Aux. B, Proj. No. 3-K		
2	N. 23° W. 180 "	"				" " 27 " " "	Jose Bueno	Pob. Mindoro Or.
3	N. 64° W. 540 "	W. Lanot	45 Cm.	63-21		" " 25, B.A. & T., Proj. No. 9-E	"	"
4	Pod Station N. Intersect on B.L. & Cor. 400 M.	Subot	35 "	64-34		" " 24 " " "	"	"
5	" " 88 " 260 M.	A point				Junction of Subaan R. & Tawangan Cr.		





AUTHORITIES
BF LC - 1976, 2117, 2311 and 2556
BF PMO No. 929

Note: Municipal Boundaries are not monumented or located on the ground but are merely indicated as such from available information. Both Political Boundaries are for purposes of determining the Administrative Jurisdiction of Forest Utilities affected.

LAND CLASSIFICATION

PROVINCE OF MINDORO OR.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIEN OR DISP.	TIMBER LAND	TOTAL
3-K	POLA	540		540
9-G	VICTORIA	56		56
	TOTAL	596		596

Scale 1:20,000

LEGEND

Boundary of Alien or Disp. Land..... Old line / New line.....

A strip 15M. in width, on each side of the center line of trails and roads is reserved for right-of-way for timber outlet indicated thus.....

A strip 40M. in width, along each of the high banks of any stream is reserved for bank protection.....

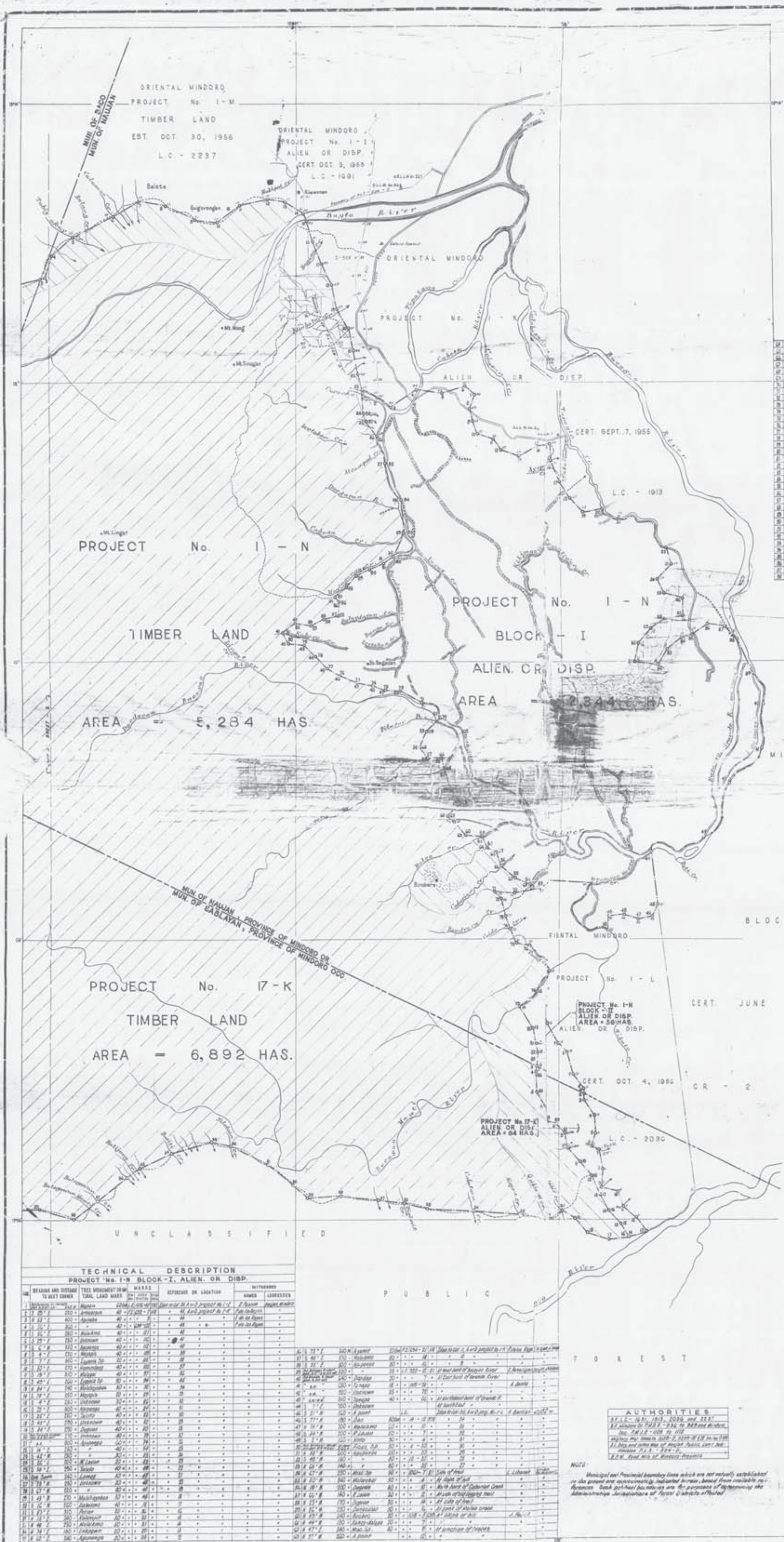
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas set aside as agricultural lands under Forestry Administrative Order No. 4-940, dated Feb. 16, 1961 pursuant to Section 1827 of the Revised Administrative Code. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this Office.

Manila, Philippines February 16, 1961

DIRECTOR OF FORESTRY

L.C.-2423



Note: The Timber Land within Proj. Nos. I-N, 10-D, & 17-K of Naujan and Baco of Mindoro Or. were set aside and declared as

MT. LINGAT FOREST RESERVE
PROC. No. 119, Nov. 25, 1966
(Under Republic Act No. 3092)

LAND CLASSIFICATION

PROV. OF MINDORO OR.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES ALIEN. OR DISP.	TIMBER LAND	TOTAL
I-N	NAUJAN	2,400	5,284	7,684
10-D	BACO		3,040	3,040
	TOTAL	2,400	8,324	10,724

PROV. OF MINDORO OCC.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES ALIEN. OR DISP.	TIMBER LAND	TOTAL
17-K	SABLAYAN	84	6,892	6,976

Scale 1:20,000

LEGEND

Boundary of Alienable or Disposable land ... Old line ... New line ...

A strip 15 M. in width, on each side of the center line of trails and road is reserved for right-of-way and timber outlet indicated thus ...

A strip 40 M. in width, along each of the high banks of any stream is reserved for bank protection ...

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY

I hereby certify that this is the correct map of the areas demarcated as timber lands, pursuant to Section 1816, and those set aside as agricultural lands under Forestry Administrative Order No. 4-1040 dated May 31, 1962 pursuant to Section 1827, both of the Revised Administrative Code. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this office.

Manila, Philippines.

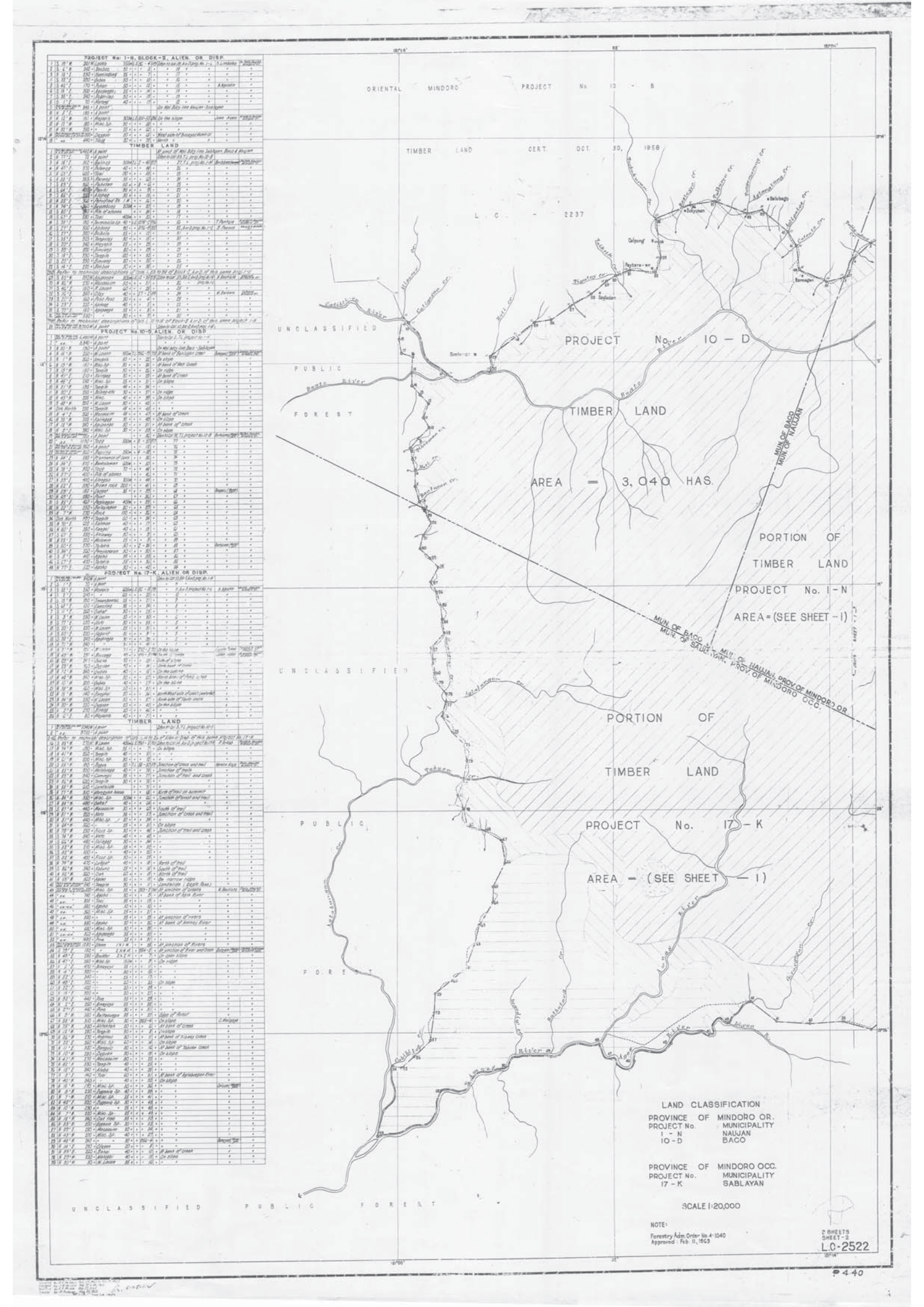
NOTE:
Forestry Adm. Order No. 4-1040
Approved: February 11, 1963

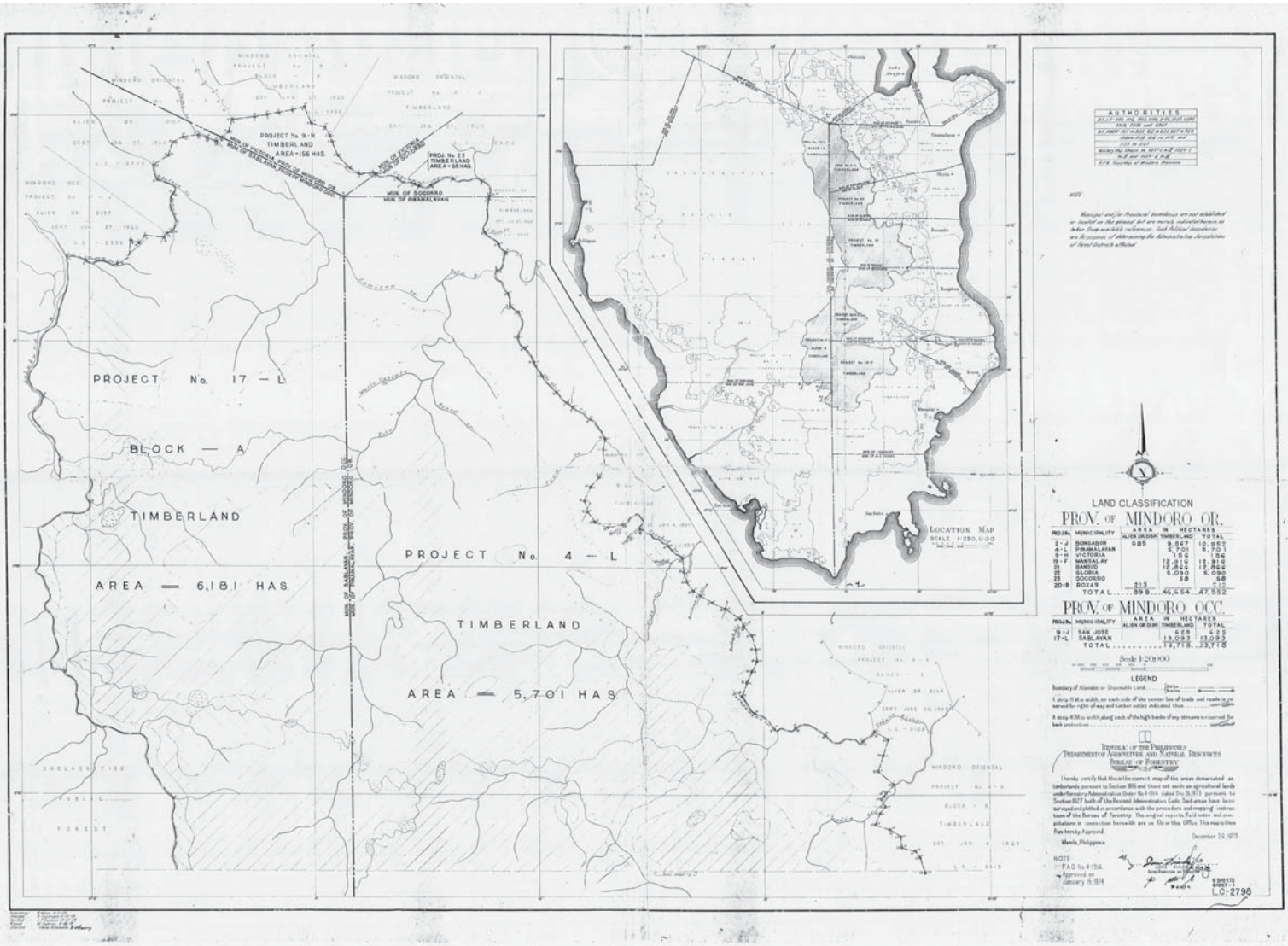
Director of Forestry

SHEET - 1
L.C.-2522

MT. LINGAT FOREST RESERVE PROC. 119 DATE NOV. 25 1966

P 4.40

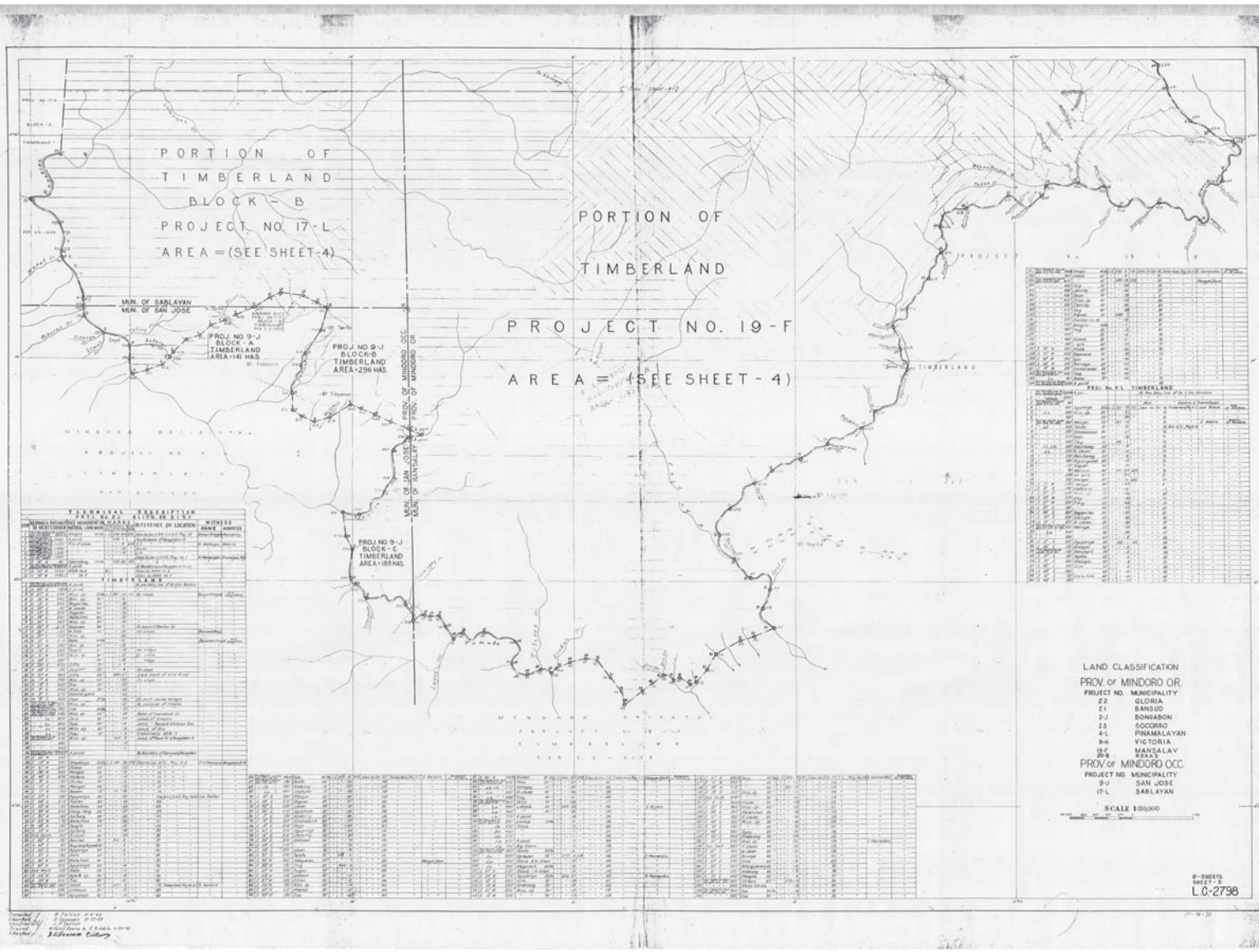

ORIENTAL MINDORO PROJECT No 10 - B
TIMBER LAND CERT. DOT. 30, 1958
L C - 2237
UNCLASSIFIED
PROJECT No. 10 - D
PUBLIC
FOREST
TIMBER LAND
AREA = 3,040 HAS.
MUN OF BACO
MUN OF NAUJAN
PORTION OF
TIMBER LAND
PROJECT No. 1 - N
AREA = (SEE SHEET - 1)
MUN. OF BACO
MUN. OF SAUL (VIAN. PROV OF MINDORO OCC.
MUN. OF NAUJAN, PROV OF MINDORO OR.
UNCLASSIFIED
PORTION OF
TIMBER LAND
PROJECT No. 17 - K
AREA - (SEE SHEET - 1)
PUBLIC
FOREST
UNCLASSIFIED PUBLIC FOREST
LAND CLASSIFICATION
PROVINCE OF MINDORO OR.
PROJECT No. MUNICIPALITY
1 - N NAUJAN
10 - D BACO
PROVINCE OF MINDORO OCC.
PROJECT No. MUNICIPALITY
17 - K SABLAYAN
SCALE 1:20,000
NOTE:
Forestry Adm. Order No. 4-1040
Approved: Feb. 11, 1963
2 SHEETS
SHEET - 2
L.C-2522
P 440

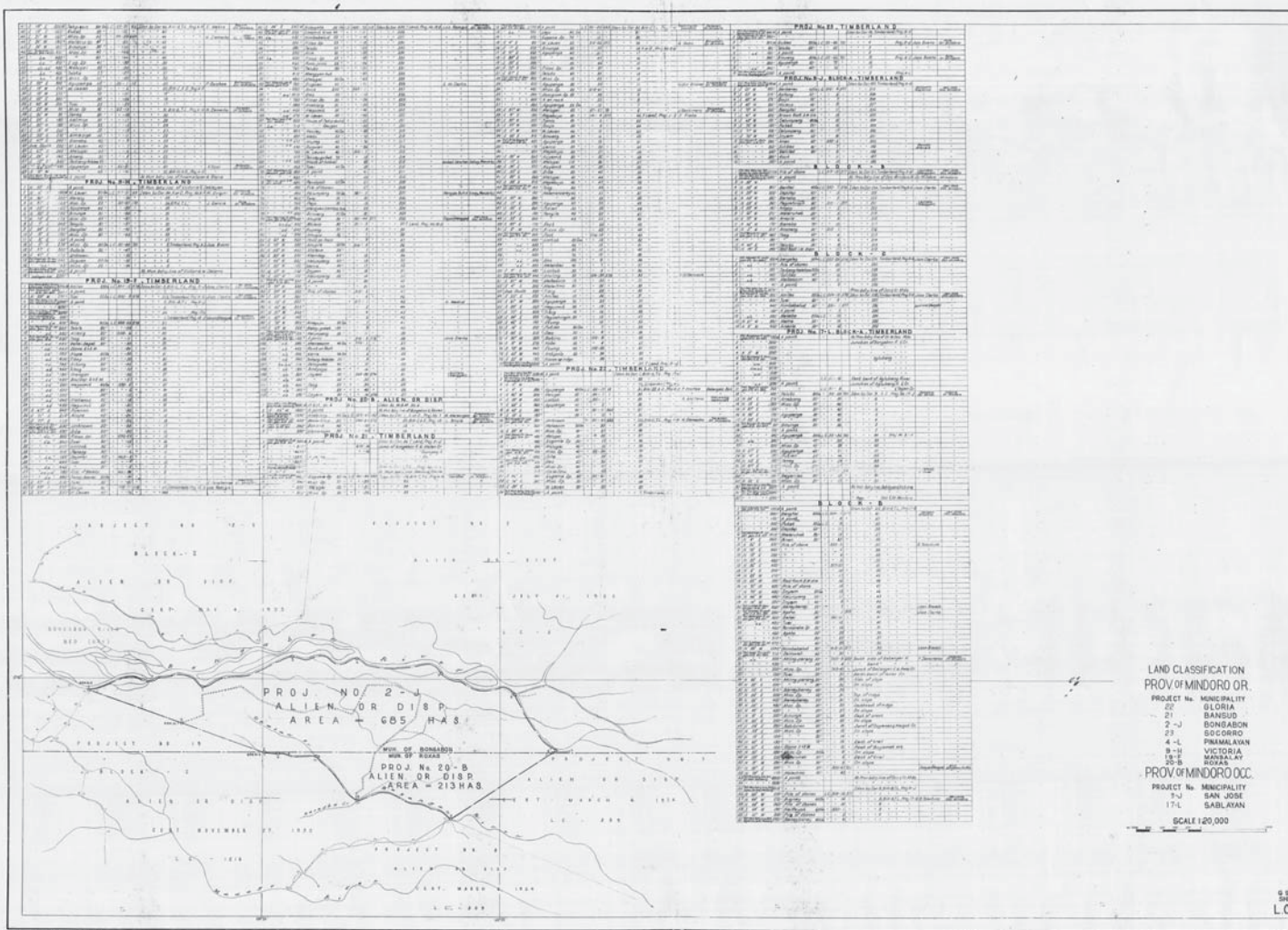

PROJECT No. 9-H
TIMBERLAND
AREA = 156 HAS.
PROJ. No. 23
TIMBERLAND
AREA = 58 HAS.
MUN. OF SOCORRO
MUN. OF PINAMALAYAN
PROJECT No. 17 - L
BLOCK - A
TIMBERLAND
AREA — 6,181 HAS.
PROJECT No. 4 - L
TIMBERLAND
AREA — 5,701 HAS.
LOCATION MAP
SCALE 1:250,000
AUTHORITIES
NOTE
Municipal and/or Provincial boundaries are not established or located on the ground but are merely indicated hereon as taken from available references. Such political boundaries are for purpose of determining the Administrative Jurisdiction of Forest District Officials.
LAND CLASSIFICATION
PROV. OF MINDORO OR.
PROJ.No. | MUNICIPALITY | AREA IN HECTARES: ALIEN OR DISP. | TIMBERLAND | TOTAL
2-J | BONGABON | 985 | 9,067 | 10,052
4-L | PINAMALAYAN | | 5,701 | 5,701
9-H | VICTORIA | | 156 | 156
19-F | MANSALAY | | 18,316 | 18,316
21 | BANSUD | | 12,866 | 12,866
22 | GLORIA | | 5,090 | 5,090
23 | SOCORRO | | 58 | 58
20-B | ROXAS | 213 | | 213
TOTAL | | 598 | 46,464 | 47,552
PROV. OF MINDORO OCC.
PROJ.No. | MUNICIPALITY | AREA IN HECTARES: ALIEN OR DISP. | TIMBERLAND | TOTAL
9-J | SAN JOSE | | 625 | 625
17-L | SABLAYAN | | 13,093 | 13,093
TOTAL | | | 19,718 | 33,718
Scale 1:250,000
LEGEND
Boundary of Alienable or Disposable Land
A strip 15 M in width, on each side of the center line of trails and roads is reserved for right-of-way and lumber cutting indicated thus
A strip 40 M in width along each of the high banks of any streams is reserved for bank protection
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE AND NATURAL RESOURCES
BUREAU OF FORESTRY
I hereby certify that this is the correct map of the areas demarcated as timberlands, pursuant to Section 1826 and those set aside as agricultural lands under Forestry Administrative Order No. 4-1154 dated Dec. 15, 1971 pursuant to Section 1827 both of the Revised Administrative Code. Said areas have been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forestry. The original reports, field notes and computations in connection herewith are on file in this Office. This map is then hereby Approved.
December 24, 1973
Manila, Philippines
NOTE
F.A.O. No. 4-1154
Approved on
January 15, 1974
LC-2796

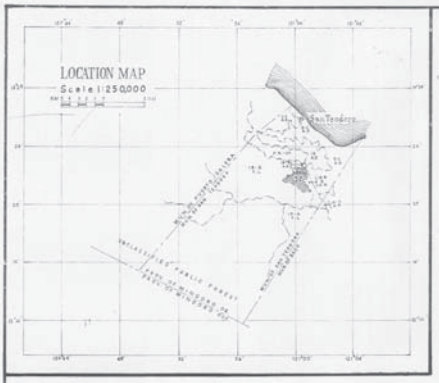

PORTION OF TIMBERLAND BLOCK – A PROJ. No. 17 – L
AREA (See Sheet No. 1)
PORTION OF TIMBERLAND PROJECT No. 4 – L
AREA = (See Sheet No. 1)
MUN. OF PINAMALAYAN
MUN. OF GLORIA
PROJ. No. 22
TIMBERLAND
AREA = 5,090 HAS.
MUN. OF GLORIA
MUN. OF BANSUD
PROJECT No. 21
TIMBERLAND
AREA = 12,866 HAS.
MUN. OF PINAMALAYAN
PROV. OF MINDORO OCC.
MUN. OF GLORIA
PROV. OF MINDORO OCC.
MUN. OF BANSUD
JOINS SHEET – 1
JOINS SHEET – 2
LAND CLASSIFICATION
PROV. OF MINDORO OR.
PROJECT No. MUNICIPALITY
22 GLORIA
21 BANSUD
2 – J BONGABON
25 SOCORRO
4 – L PINAMALAYAN
9 – H VICTORIA
19 – F MANSALAY
20 – B ROXAS
PROV. OF MINDORO OCC.
PROJECT No. MUNICIPALITY
9 – J SAN JOSE
17 – L SABLAYAN
SCALE 1:20,000
6 – SHEETS
SHEET – 2
LC-2798

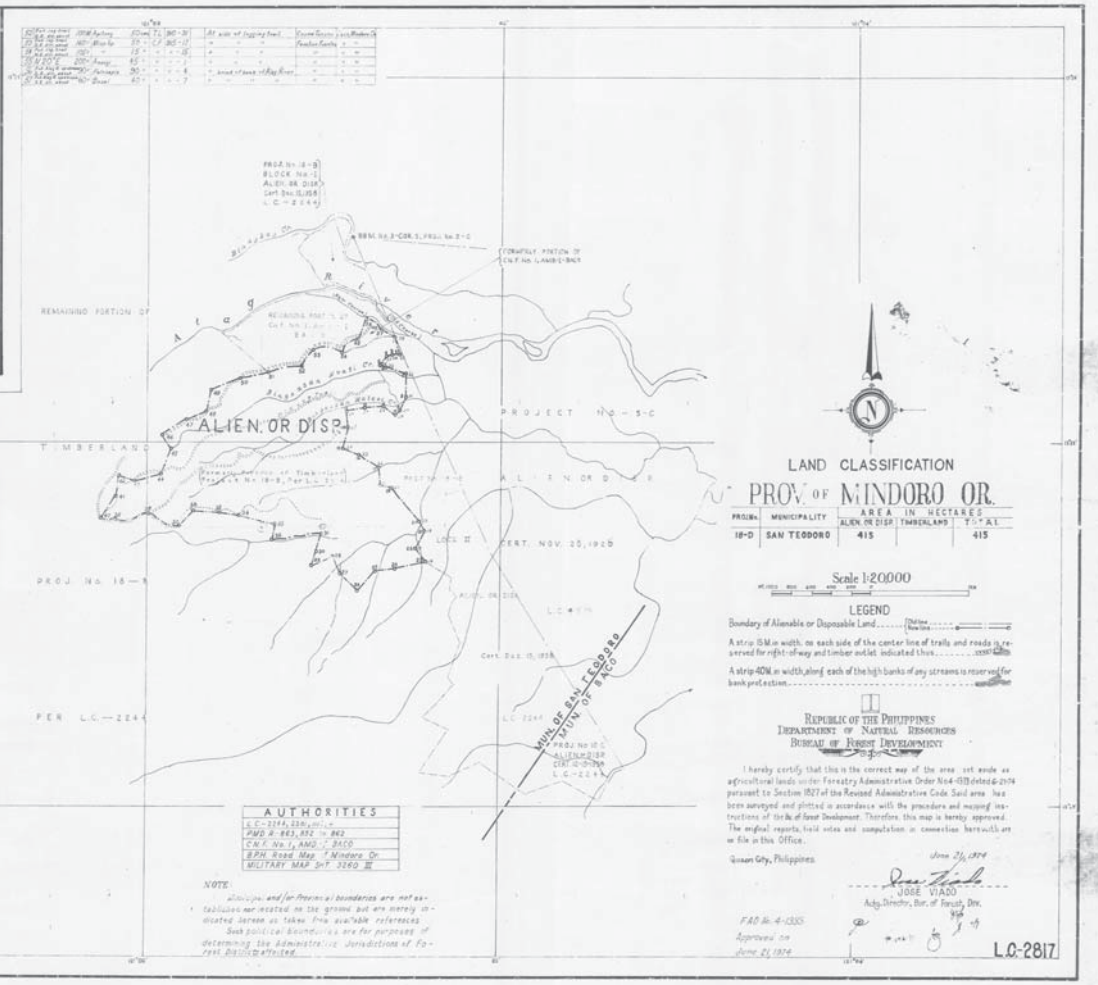

PORTION OF
TIMBERLAND
PROJECT NO. 21
AREA = (SEE SHEET-2)
PROJECT No. 2-J
TIMBERLAND
AREA = 9,067 HAS.
MINDORO ORIENTAL
PROJECT No. 2-I
TIMBERLAND
E & L April 29, 1960
L C - 2367
MUN. OF BANUD
MUN. OF BONGABON
MUN. OF DAPLAYAN, PROV. OF MINDORO OCC.
MUN. OF BANUD, PROV. OF MINDORO OR.
MUN. OF BONGABON
FOREST
UNCLASSIFIED
PROCLAMATION No. 2078
DATED MARCH 31, 1981
(PORTION)
Released as Alienable or Disposable under the Public Land Act refer to L/C - 2347 for the Bongon portion)
LAND CLASSIFICATION
PROV OF MINDORO OR
PROJECT No. MUNICIPALITY
22 GLORIA
21 BANUD
2 - J BONGABON
23 SOCORRO
4 - L PINAMALAYAN
9 - H VICTORIA
19 - P MANDALAY
20 - R ROXAS
PROV OF MINDORO OCC.
PROJECT No. MUNICIPALITY
9 - J SAN JOSE
17 - L DAPLAYAN
SCALE 1:20,000
6 SHEETS
SHEET - 1
L.C.-2798


UNCLASSIFIED
PUBLIC
FOREST
PORTION OF
TIMBERLAND
PROJECT NO 2-J
AREA = (SEE SHEET-3)
PROJECT NO 17-L
BLOCK - B
TIMBERLAND
AREA = 6,912 Has.
PROJECT NO 19 - F
TIMBERLAND
AREA = 12,916 HAS
MUN. OF BONGABON, PROVINCE OF MINDORO OR.
MUN. OF SABLAYAN, PROVINCE OF MINDORO OCC.
MUN. OF BONGABON
MUN. OF MANSALAY
MINDORO ORIENTAL
PROJECT No 19 - E
TIMBERLAND
E S T April 29, 1940
L C - 2397
PROJECT No 2 - I
TIMBERLAND
E S T April 29, 1940
L C - 2397
MINDORO OCC
PROJ NO 17-B
BLOCK-A
TIMBERLAND
PER L C 2125
MINDORO OR
PROJ NO 19 - B
TIMBERLAND
PER L C - 2227
LAND CLASSIFICATION
PROV OF MINDORO OR.
PROJECT No. MUNICIPALITY
2-I GLORIA
2-I BANSUD
2-J BONGABON
2-S SOCORRO
4-L PINAMALAYAN
19-H VICTORIA
19-F MANSALAY
20-S ROXAS
PROV OF MINDORO OCC.
PROJECT No. MUNICIPALITY
19-J SAN JOSE
17-L SABLAYAN
SCALE 1:20,000
6 SHEETS
SHEET-4
L.C-2798


PORTION OF
TIMBERLAND
BLOCK - B
PROJECT NO. 17-L
AREA = (SEE SHEET-4)
PORTION OF
TIMBERLAND
PROJECT NO. 19-F
AREA = (SEE SHEET-4)
MUN. OF SABLAYAN
MUN. OF SAN JOSE
PROJ. NO. 9-J
BLOCK-A
TIMBERLAND
AREA=140 HAS.
PROJ. NO. 9-J
BLOCK-B
TIMBERLAND
AREA=296 HAS.
PROJ. NO. 9-J
BLOCK-C
TIMBERLAND
AREA=185 HAS.
MUN. OF SAN JOSE
PROV. OF MINDORO OCC.
MUN. OF SABLAYAN
PROV. OF MINDORO OR.
TIMBERLAND
LAND CLASSIFICATION
PROV. or MINDORO OR.
PROJECT NO. MUNICIPALITY
22 GLORIA
21 BANSUD
2-J BONGABON
23 SOCORRO
4-L PINAMALAYAN
9-R VICTORIA
19-F MANSALAY
20-R ROXAS
PROV. or MINDORO OCC.
PROJECT NO. MUNICIPALITY
9-J SAN JOSE
17-L SABLAYAN
SCALE 1:20,000
6-SHEETS
SHEET-5
L.C.-2798


PROJ. No. 2-J
ALIEN OR DISP.
AREA = 685 HAS.
MUN. OF BONGABON
MUN. OF ROXAS
PROJ. No. 20-B
ALIEN OR DISP.
AREA = 213 HAS.
LAND CLASSIFICATION
PROV. OF MINDORO OR.
PROJECT No. MUNICIPALITY
22 GLORIA
21 BANSUD
2-J BONGABON
23 SOCORRO
4-L PINAMALAYAN
9-H VICTORIA
10-B MANSALAY
ROXAS
PROV. OF MINDORO OCC.
PROJECT No. MUNICIPALITY
1-J SAN JOSE
17-L SABLAYAN
SCALE 1:20,000
6 SHEETS
SHEET 6
L.C-2798





TECHNICAL DISCRIPTION
ALIEN OR DISP.

COR.	BEARING AND DISTANCE TO NEXT CORNER	TREE MONUMENTED, BLAZED, MARKED, ETC.	DIAM.	SPECIES	WITNESS REFERENCE OR LOCATION — NATURAL LANDMARKS, ETC.	DIST.	BEARING	NAMES	ADDRESS
1	S 73° E 2250	A Point			Also in Cor. No. 88 B.C.D. Proj. No. 18				
2	S 85° W 90								
3	S 70° W 60								
4	S 22° W 200								
5	N 90° E 40								
6	S 21° E 220								
7	S 6° W 310								
8	S 50° W 400								
9	S 20° E 1230	X on Apitong 20 cms.							
10	N 20° E 1410	Conc. Mon. 15"x60"	BL						
11	S 61° E 1938	X on stone 50x80							
12	S 30° E 2220	" " " 20x60							
13	S 8° W 1853	" " witness 20							
14	S 82° E 2142	Conc. Mon. 15"x60"	BL						
15	S 12° E 1954	" " "							
16	S 50° E 2182								
17	S 3° E 1700	Old G.L.S. mon. no. Apoyong 20							
18	S 8° E 1250								
19	N 43° E 800								
20	S 23° W 300								
21	S 36° E 700								
22	S 19° W 320								
23	S 81° W 200	Kubla	15cm.	LC 908-39	BL	At slope of hill		Cecilio Ace	Buen Rodeo Cr.
24	S 46° W 180	Apitong	60	T2	03	"		"	"
25	N 58° W 190	Palosapis	30	LC	08	"		"	"
26	S 43° W 220	Apamanga	60	"	08	"	At base of Creek Cr.	"	"
27	N 20° E 120	Gisy	60	"	03	"	At top of hill	"	"
28	S 11° E 180	Tanguile	30	"	14	"	"	"	"
29	N 24° W 200	Mayapis	60	"	08	"	At base of Bingabon Cr.	"	"
30	N 10° E 160	Bulatanay	50	"	17	"	"	"	"
31	S 67° W 380	Supple	45	"	15	"	At slope of hill	"	"
32	S 88° W 200	Gisy	20	"	8	"	"	"	"
33	S 49° W 230	Bolbon	25	"	6	"	At ridge	"	"
34	S 44° W 200	Dagangang	30	"	3	"	Top of ridge	"	"
35	S 88° W 180	Apitong	35	T2	163-55	"	"	"	"
36	S 81° E 170	Mayapis	45	T2	163-48	"	"	"	"
37	S 85° E 180	Tuno-tuno	35	LC	909-40	BL	Axis of Brook	"	"
38	N 83° E 280	Mayapis	30	"	"	48	"	"	"
39	N 6° E 200	Bulatan	20	"	"	43	"	"	"
40	S 70° E 260	Dagangang	20	"	"	48	"	"	"
41	S 87° E 280	Blue Ilo	45	T2	169-30	"	"	"	"
42	N 82° E 280	Anago	30	LC	909-9	BL	"	"	"
43	N 36° W 160	Bulatanay	50	"	910-40	"	Axis of Bingabon mun. Cr.	"	"
44	S 09° E 290	Mangatasan	36	"	"	44	"	"	"
45	S 66° E 220	Apitong	25	"	"	41	"	"	"
46	S 12° E 220		30	T2	164-22	"	"	"	"
47	S 60° E 220		25	LC	910-30	BL	"	"	"
48	Point on the left bank of Bingabon mun. Creek	Blue Ilo	45	T2	162		Axis of Bingabon mun. Creek, 10.5m to the left of Cor. No. 1, Proj. No. 18-B	"	"

AUTHORITIES
L.C. — 2244, 22th, 1958
PWD R-843, 852 & 862
C.N.T. No. 1, AMD. 1 BACO
BPH. Road Map 1 Mindoro Or.
MILITARY MAP SHT. 3260 III

NOTE:
All civil and/or Provincial boundaries are not established nor located on the ground but are merely indicated hereon as taken from available references. Such political boundaries are for purposes of determining the Administrative Jurisdictions of Forest Districts affected.

LAND CLASSIFICATION
PROV. OF MINDORO OR.

PROJ. No.	MUNICIPALITY	AREA IN HECTARES		
		ALIEN OR DISP.	TIMBERLAND	TOTAL
18-D	SAN TEODORO	415		415

Scale 1:20,000

LEGEND

Boundary of Alienable or Disposable Land

A strip 15M in width, on each side of the center line of trails and roads is reserved for right-of-way and timber outlet indicated thus

A strip 40M in width along each of the high banks of any streams is reserved for bank protection

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF NATURAL RESOURCES
BUREAU OF FOREST DEVELOPMENT

I hereby certify that this is the correct map of the area set aside as agricultural lands under Forestry Administrative Order No. 4-913 dated 6-21-74 pursuant to Section 1827 of the Revised Administrative Code. Said area has been surveyed and plotted in accordance with the procedure and mapping instructions of the Bureau of Forest Development. Therefore, this map is hereby approved. The original reports, field notes and computation in connection herewith are on file in this Office.

Quezon City, Philippines. June 21, 1974

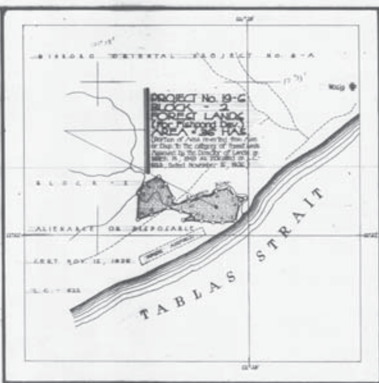
JOSE VIADO
Actg. Director, Bur. of Forest Dev.

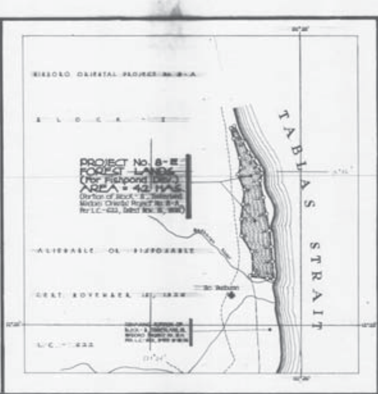
FAD No. 4-1335
Approved on
June 21, 1974

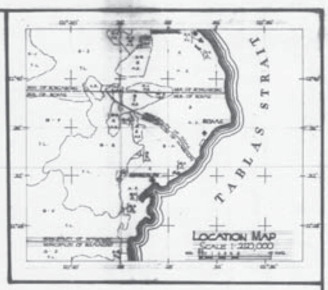
L.C. — 2817

TECHNICAL DESCRIPTION

Sta.	Bearing / Distance	Monument	Description or Location
PROJECT No. 19-G, BLOCK - 1, (For Fishpond Dev.)			
1	[illegible]	Api-Api	At the mouth of [illegible]
2	[illegible]	"	" " [illegible]
3	[illegible]	[illegible]	Point of [illegible]
4	[illegible]	Api-Api	" " "
5	[illegible]	"	" " "
6	[illegible]	"	" " "
7	[illegible]	Fishpond Monument	" " "
8	[illegible]	Api-Api	Following Fishpond Dike
9	[illegible]	Fishpond Monument	" " "
10	[illegible]	Api-Api	" " "
11	[illegible]	Dike	" " "
12	[illegible]	Fishpond Monument	" " "
13	[illegible]	A. Point	" " "
14	[illegible]	Api-Api	Edge of Dike
15	[illegible]	"	" " "
16	[illegible]	A. Point	" " "
17	[illegible]	Narra	Following Fishpond Dike
18	[illegible]	Api-Api	Edge of Dike
19	[illegible]	"	" " "
20	[illegible]	Fishpond Monument	" " "
21	[illegible]	Api-Api	Edge of Mangrove
22	[illegible]	Fishpond Monument	Edge of Dike
23	[illegible]	Coconut	" " "
24	[illegible]	Coconut	" " "
25	[illegible]	A. Point	" " "
26	[illegible]	Api-Api	" " "
27	[illegible]	"	" " "
28	[illegible]	Coconut	West bank of [illegible] River
29	[illegible]	Coconut	Along Mangrove
30	[illegible]	[illegible]	At the mouth of a Cr.
BLOCK - 2, (For Fishpond Dev.)			
1	[illegible]	Narra	South bank of [illegible] R.
2	[illegible]	Api-Api	Following [illegible] River
3	[illegible]	"	" " "
4	[illegible]	"	" " "
5	[illegible]	Bo. Monument	Edge of Mangrove
6	[illegible]	Dike	Following Fishpond Dike
7	[illegible]	"	" " "
8	[illegible]		
9	[illegible]	A. Point	
10	[illegible]	Api-Api	Edge of Dike
11	[illegible]	A. Point	
12	[illegible]	Culvert	Along National Highway
13	[illegible]	A. Point	
14	[illegible]	"	On the Ground
15	[illegible]	"	" " "
16	[illegible]	"	" " "
17	[illegible]	"	" " "
18	[illegible]	"	" " "
19	[illegible]	"	" " "
20	[illegible]	"	Along [illegible] River
21	[illegible]	"	" " "
22	[illegible]	"	" " "
PROJECT No. 8-E, FOREST LANDS (For Fishpond Dev.)			
1	[illegible]	A. Point	North Bank of [illegible] R.
2	[illegible]	[illegible]	
3	[illegible]	Api-Api	Edge of Mangrove
4	[illegible]	"	" " "
5	[illegible]	"	" " "
6	[illegible]	Fishpond Monument	" " "
7	[illegible]	Api-Api	Following Fishpond Dike
8	[illegible]	A. Point	
9	[illegible]	Fishpond Monument	Following Fishpond Dike
10	[illegible]	Bakawan	Edge of Mangrove
11	[illegible]	Api-Api	Edge of Dike
12	[illegible]	Fishpond Monument	" " "
13	[illegible]	Api-Api	" " "
14	[illegible]	[illegible]	" " "
15	[illegible]	Api-Api	" " "
16	[illegible]	"	Along Dike
17	[illegible]	Pagatpat	" " "
18	[illegible]	Bakawan	" " "
19	[illegible]	Api-Api	" " "
20	[illegible]	"	" " "
21	[illegible]	Bakawan	Following Fishpond Dike
22	[illegible]	Api-Api	" " "
23	[illegible]	"	" " "
24	[illegible]	"	" " "
25	[illegible]	"	" " "
26	[illegible]	Pagatpat	" " "
PROJECT No. 2-K, BLOCK - 1, (For Fishpond Dev.)			
1	[illegible]	Fishpond Monument	East Bank of [illegible] River
2	[illegible]	Api-Api	Along [illegible] River
3	[illegible]	Bakawan	" " "
4	[illegible]	[illegible]	East Bank of [illegible] River
5	[illegible]	Fishpond Monument	Edge of Dike
6	[illegible]		" " "
7	[illegible]	Api-Api	Edge of Mangrove
8	[illegible]	Fishpond Monument	Edge of Dike
9	[illegible]	Stake	Along Fishpond Dike
10	[illegible]	Fishpond Monument	" " "
11	[illegible]	A. Point	" " "
BLOCK - 2, (For Fishpond Dev.)			
1	[illegible]	Stake	Along Fishpond Dike
2	[illegible]	"	" " "
3	[illegible]	Fishpond Monument	Edge of Dike
4	[illegible]	Stake	" " "
5	[illegible]	Coconut	" " "
6	[illegible]	Stake	Along Fishpond Dike
7	[illegible]	Fishpond Monument	Edge of Dike
8	[illegible]	Stake	" " "
9	[illegible]	Fishpond Monument	" " "
10	[illegible]	Coconut	" " "
11	[illegible]	Fishpond Monument	East Bank of [illegible] River
12	[illegible]	"	West " " "
13	[illegible]	"	" " "
14	[illegible]	Api-Api	East " " "
15	[illegible]	A. Point	On the Ground
16	[illegible]	"	" " "







LAND CLASSIFICATION
PROV. OF OR. MINDORO

Project No.	Municipality	Alienable or Disposable	Area in Hectares			Total
2-K	BONGABONG	—	—	—	48	48
19-G	MANSALAY	—	—	—	129	129
8-E	BULALACAO	—	—	—	42	42
	TOTAL				219	219

SCALE 1:20,000

LEGEND

Boundary of Alienable or Disposable Land .... Old Line / New Line

A strip 15 M. in width on each side of the centerline of trails and roads is reserved for right-of-way and [illegible]

A strip 20 M. in width along the normal high waterline on each side of rivers and streams with channels of less than 5 M. wide is [illegible] permanent forest [illegible] for stream and bank protection

We hereby certify that this is the correct map of the areas [illegible] as permanent forest including those [illegible] and [illegible] for fishpond development pursuant to the provision of Presidential Decree No. 705 as amended, and those set aside as Alienable or Disposable under Forestry Administrative Order No. [illegible] dated [illegible]. These areas were surveyed and the fieldnotes plotted in accordance with the standard procedures and mapping instructions of the Bureau of Forest Development. Therefore, this map is hereby approved. The original reports, fieldnotes and compilations in connection herewith are on file in this office.

Quezon City, Philippines

FELIX R. GONZALES
Director
Bureau of Fisheries and Aquatic Resources
Member, Land Classification Committee

EDMUNDO V. CORTES
Director
Bureau of Forest Development
Chairman, Land Classification Committee

JUANITO C. FERNANDEZ
Director
Bureau of Mines and Geo-Sciences
Member, Land Classification Committee

RAMON N. CASANOVA
Director
Bureau of Lands
Member, Land Classification Committee

L.C - 3178

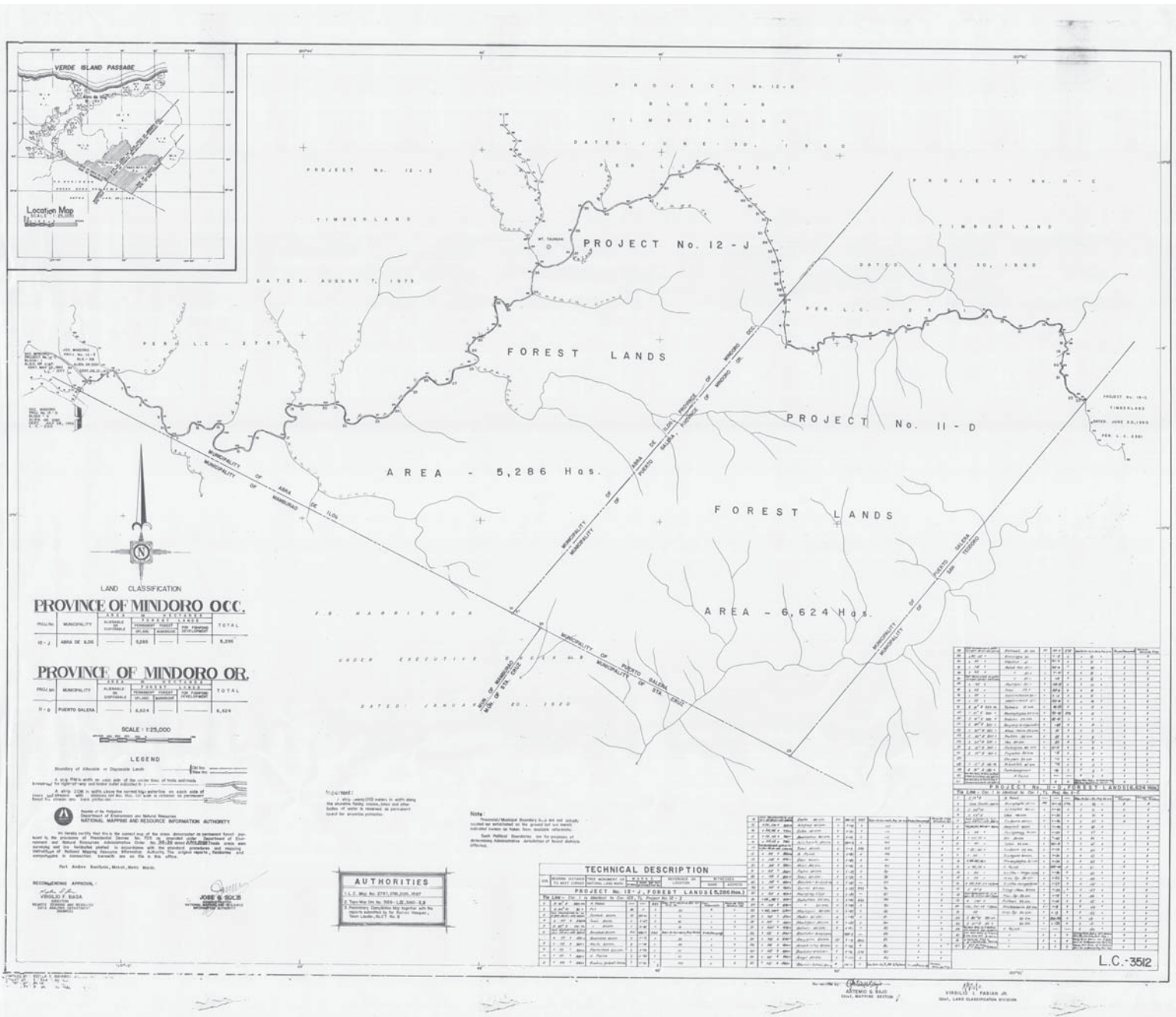
AUTHORITIES
[illegible] L.C. Map No. [illegible];
Topographic Map No. [illegible];
L.C. [illegible] Map No. [illegible];
Preliminary Compilation Map together with the reports submitted by Forestry [illegible]

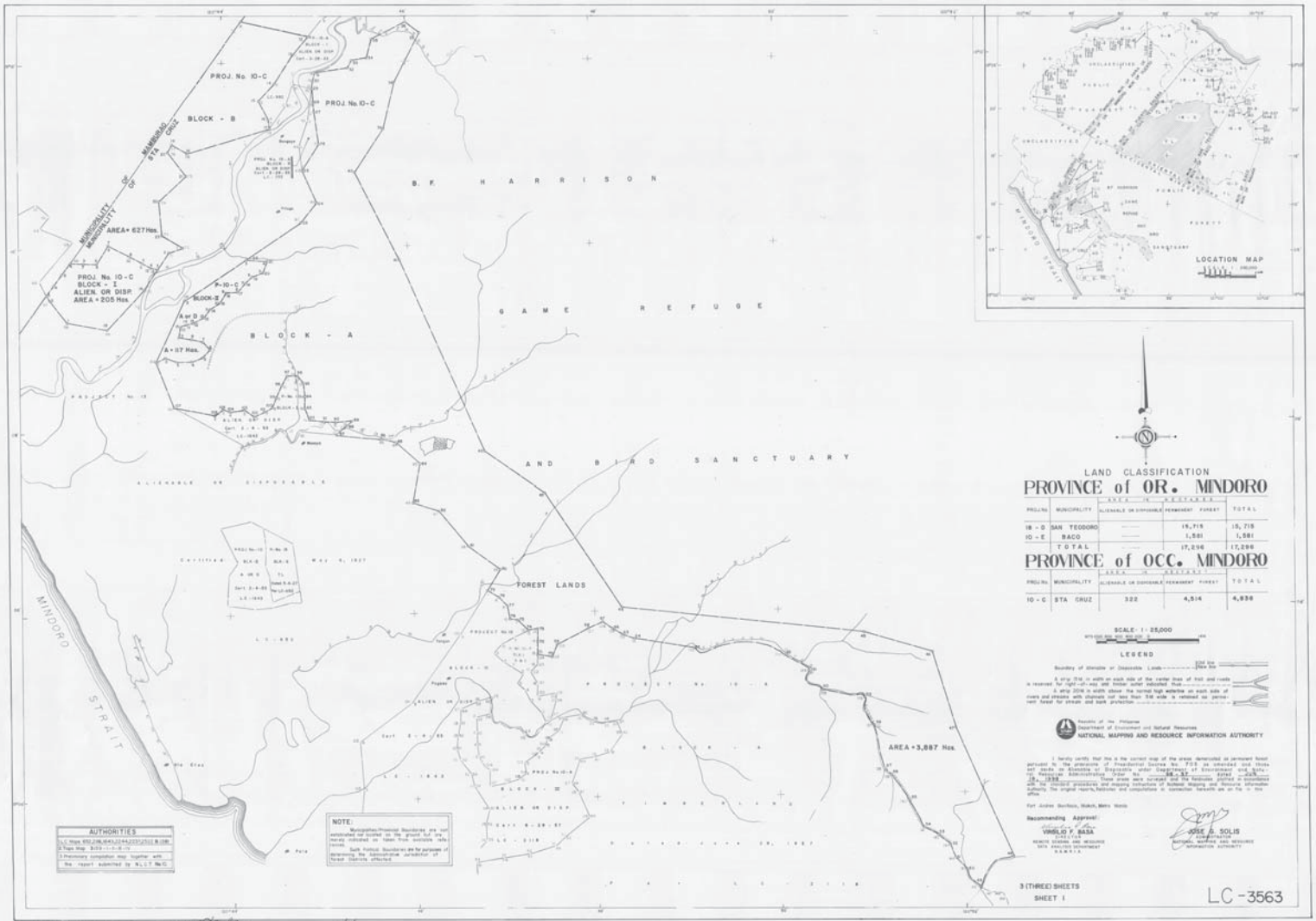
IMPORTANT:
A strip of twenty (20) meters in width along the shoreline facing oceans, lakes and other bodies of water is reserved as permanent forest for shoreline protection.

NOTE:
Provincial / Municipal Boundary lines are not established nor located on the ground but are merely indicated hereon as taken from available references.
Such Political Boundaries are for purposes of determining the Administrative Jurisdictions of Forest Districts affected.

Compiled and traced by: Rolando D. [illegible]
Checked and verified by: Roberto L. [illegible]

Supervised by:
VIRGILIO F. BASA
Chief, Land Classification Staff
JOSE P. [illegible]
In Charge, LCC Mapping Unit [illegible]


VERDE ISLAND PASSAGE
Location Map
PROJECT No. 12 - J
FOREST LANDS
AREA - 5,286 Has.
PROJECT No. 11 - D
FOREST LANDS
AREA - 6,624 Has.
PROJECT No. 12 - I
TIMBERLAND
PROJECT No. 12 - G
BLOCK - B
TIMBERLAND
PROJECT No. 11 - C
TIMBERLAND
DATED JUNE 30, 1960
PER L.C. - 2381
DATED AUGUST 7, 1975
PER L.C. - 2717
MUNICIPALITY OF ABRA
MUNICIPALITY OF MAMBURAO
MUNICIPALITY OF PUERTO GALERA
MUNICIPALITY OF STA. CRUZ
PROVINCE OF MINDORO OCC.
PROVINCE OF MINDORO OR.
SCALE : 125,000
LEGEND
TECHNICAL DESCRIPTION
PROJECT No. 12 - J, FOREST LANDS (5,286 Has.)
AUTHORITIES
L.C.-3512



LAND CLASSIFICATION

PROVINCE of OR. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIENABLE OR DISPOSABLE	PERMANENT FOREST	TOTAL
10 - D	SAN TEODORO	------	15,715	15,715
10 - E	BACO	------	1,581	1,581
	TOTAL	------	17,296	17,296

PROVINCE of OCC. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIENABLE OR DISPOSABLE	PERMANENT FOREST	TOTAL
10 - C	STA. CRUZ	322	4,514	4,836

SCALE - 1 : 25,000

LEGEND

Boundary of Alienable or Disposable Lands

A strip 20 M. in width on each side of the center lines of trail and roads is reserved for right-of-way and timber outlet indicated thus

A strip 20 M. in width above the normal high waterline on each side of rivers and streams with channels not less than 5 M. wide is retained as permanent forest for stream and bank protection

Republic of the Philippines
Department of Environment and Natural Resources
NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY

I hereby certify that this is the correct map of the areas demarcated as permanent forest pursuant to the provisions of Presidential Decree No. 705 as amended and those set aside as Alienable or Disposable under Department of Environment and Natural Resources Administrative Order No. 34 - 87 dated June 26, 1987 as amended by DAO 29 - 1998. These areas were surveyed and the features plotted in accordance with the standard procedures and mapping instructions of National Mapping and Resource Information Authority. The original reports, fieldnotes and computations in connection herewith are on file in this office.

Fort Andres Bonifacio, Makati, Metro Manila

Recommending Approval:

VIRGILIO F. BASA
Chief, FOREST AND MINERAL RESOURCES DATA ANALYSIS DEPARTMENT
NAMRIA

JOSE D. SOLIS
Administrator
NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY

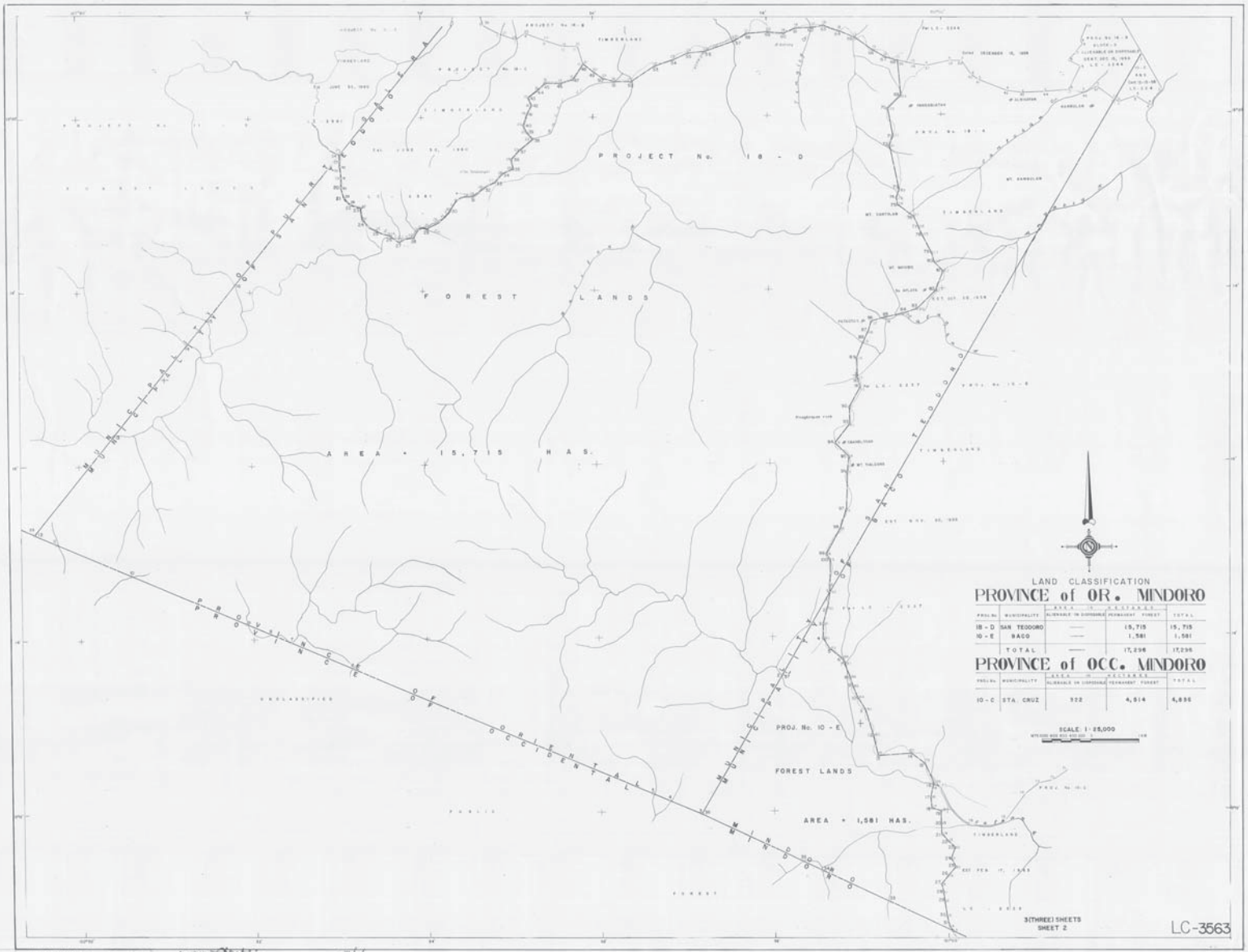
3 (THREE) SHEETS
SHEET 1

LC - 3563

Compiled and Drawn by: Marino F. Bernal
Checked by: Ricardo Ramirez
Verified by: Representative of Region

Recommended by: ARTEMIO G. BAJO, Chief, MAPPING SECTION

VIRGILIO T. FABIAN JR., Chief, LAND CLASSIFICATION DIVISION



LAND CLASSIFICATION

PROVINCE of OR. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIENABLE OR DISPOSABLE	PERMANENT FOREST	TOTAL
18 - D	SAN TEODORO	—	15,715	15,715
10 - E	BACO	—	1,581	1,581
	TOTAL	—	17,296	17,296

PROVINCE of OCC. MINDORO

PROJ. No.	MUNICIPALITY	AREA IN HECTARES: ALIENABLE OR DISPOSABLE	PERMANENT FOREST	TOTAL
10 - C	STA. CRUZ	922	4,914	4,836

SCALE 1 - 25,000

3(THREE) SHEETS
SHEET 2

LC-3563

Compiled and Traced by: Marino, V. Manuel
Checked by: Bravo, Jesus
Verified by: Buenaventura, T. Vicente

Re-verified by:
ARTEMIO S. BAUZ
Chief, Mapping Section

VIRGILIO FADIAN JR.
Chief, Land Classification Division

TECHNICAL DESCRIPTION

PROJECT No. 10-C, BLOCK-I, ALIEN. OR DISP. (A=205Ha)

TIE POINT- Cor 1 is identical to Cor 68, A.D. Proj. No. 15, LC-652

	COR	BEARING	DISTANCE TO NEXT CORNER	TREE NEAR CORNER	MARKS: NATURAL LANDMARKS	MARKS: BOUNDARY MONUMENTS	REFERENCE OR LOCATION	WITNESS: NAME	WITNESS: ADDRESS
1	N	37° W	350m	Aranog Parang	20cm	LC 64-68	BT Sta	Ricarte Bagula	Sta Cruz, Mindoro
2	N	29° W	110	Bisbisan	45	" " 81	" "	" "	" "
3		Not Found, Within Impassable Mangrove Area		A point		—	—	Side of slope	" "
4		" NE	230	Ipil	30cm	N.C	66-76	Sta Cruz	Mindoro
5		" NE	280	Bonoyoa	20	" " 89	" "	" "	" "
6	S	81° E	215	Malaruat	30	" " 58	" "	" "	" "
7	S	84° E	245	Coac. mon		" " 68	" "	" "	" "
8	N	35° E	615	"		" " 55	" "	" "	" "
9	S	46° E	419	"		" " 59	" "	" "	" "
10	S	62° E	296	"		" " 54	" "	" "	" "
11	S	60° E	350	Tao-ing	30cm	" " 68	" "	" "	" "
12	S	80° E	140	Ipil	40	" " 60	" "	" "	" "
13	S	34° W	420	Narra	30	" " 53	" "	" "	" "
14	S	43° W	1,685	Bakaling	45	LC 66-22	BT Sta	Ricarte Bagula	Sta Cruz, Mindoro
15	N	80° W	780	Malaruhat	50	" " 86	" "	" "	" "

PROJECT No. 10-C, BLOCK-II, ALIEN. OR DISP. (A= 117 Has.)

TIE POINT- Cor 1 is identical to Cor 84, A. D., Proj. No. 15, LC-652

1	N	26°	E	Lhuba	Banaspas	90cm	LC	64-84	BT Sta	Ricarte Bagula	Sta Cruz, Mindoro
2	N	58°	E	1440	Malaruat	40	"	64-33	" "	" "	" "
3	S	85°	E	610	Coac. mon		N.C	69-2	—	On ridge	
4	S	21°	W	230	"		"	"	"	W- side of slope	Rizal Mindoro Occidental
5	S	71°	W	225	"		"	"	"	Top of ridge	
6	S	48°	W	280	"		"	"	"	" "	" "
7	S	41°	W	225	"		"	"	"	" "	" "
8	S	89°	W	280	"		"	"	"	" "	" "
9	S	31°	W	220	"		"	"	90-28	" "	" "
10	S	58°	W	240	"		"	"	"	" "	" "
11	S	56°	W	190	"		"	"	"	" "	" "
12	S	45°	W	220	"		"	"	"	W- side of slope	" "
13	S	74°	W	185	"		"	"	"	Top of ridge	" "
14	S	70°	W	180	"		"	"	"	" "	" "
15	S	79°	W	200	"		"	"	90-27	" "	" "
16	S	36°	E	240	"		"	"	90-22	" "	" "
17	S	76°	E	220	"		"	"	"	E- side of slope	" "
18	S	42°	E	200	"		"	"	"	" "	" "
19	S	66°	N	205	"		"	"	"	Ridge of Gulf	" "
20	S	70°	W	280	"		"	"	"	W- side of trail	" "
21	S	89°	W	280	"		"	"	"	Top of ridge	" "
22	N	89°	E	230	"		"	"	"	W- side of slope	" "
23	S	45°	W	200	"		"	"	"	" "	" "

PROJECT No. 10-C, BLOCK-A, FOREST LANDS (3,887 Ha)

TIE POINT- Cor 1 is identical to Cor 84, A.D., Proj. No. 15, LC-652

1	N	45°	E	2,506	Banaspas	90cm	N.C	64-76	BT Sta	Same as Cor 1, Blk. II, A.D. Proj. No. 15, LC-652	Ricarte Bagula	Sta Cruz, Mindoro
2	S	64°	E	3,861	Coac. mon		"	90-10	—	" " 23	Formerly Unknown	Presently Occupied by Manong Bua
3	N	89°	E	2,190	"		"	"	"	" " 22	"	"
4	N	10°	E	2,220	"		"	"	"	" " 21	"	"
5	N	46°	E	2,215	"		"	"	"	" " 20	"	"
6	S	42°	W	320	"		"	"	"	" " 19	"	"
7	N	76°	W	320	"		"	"	"	" " 18	"	"
8	N	18°	W	240	"		"	"	90-224	" " 17	"	"
9	N	19°	E	200	"		"	"	"	" " 16	"	"
10	N	50°	E	150	"		"	"	"	" " 15	"	"
11	N	76°	E	125	"		"	"	90-225	" " 14	"	"
12	N	40°	E	280	"		"	"	"	" " 13	"	"
13	N	58°	E	190	"		"	"	"	" " 12	"	"
14	N	58°	E	240	"		"	"	"	" " 11	"	"
15	N	34°	E	220	"		"	"	"	" " 10	"	"
16	N	89°	E	230	"		"	"	"	" " 9	"	"
17	N	41°	E	225	"		"	"	90-4	" " 8	"	"
18	N	48°	E	190	"		"	"	"	" " 7	"	"
19	N	71°	E	220	"		"	"	"	" " 6	"	"
20	N	21°	E	230	"		"	"	"	" " 5	"	"
21	N	85°	W	410	"		"	"	"	" " 4	"	"
22	N	06°	E	1,300	"		"	"	"	" " 3	Formerly Unknown	Presently Occupied by Manong Bua
23	N	46°	E	940	Talis	30cm	"	98-16	"	same as Cor 81, A.D. Proj. No. 15	"	"
24	N	53°	W	690	Banaba	60	"	"	"	" " 82	"	"
25	N	84°	E	900	"		"	20	LC	" " 7	Manong Bua	Occidental Mindoro
26	N	06°	W	930	Nabua	30	"	98-1	Ref	" " 8	Formerly Unknown	Presently Occupied by Manong Bua
27	N	09°	W	200	Bakena	250	Mkr	" 15	"	" " 9	"	"
28	N	09°	W	250	Amoom	10	"	" 14	"	" " 10	"	"
29	N	09°	E	170	Banaspas	90	"	82-5	231	" " 11	"	"
30	N	81°	E	150	A Point		N.C	—	—	same as Cor. 84, A.D. Blk. I, Proj. No. 15	"	"
31	N	82°	E	945	"		"	"	"	" " 18	"	"
32	N	23°	E	145	"		"	"	"	Edge of cliff	—	—
33	N	81°	E	300	"		"	"	"	" "	"	"
34	N	15°	E	990	"		"	"	"	Top of ridge	"	"
35	N	64°	E	730	"		"	"	"	" "	"	"
36	S	52°	E	850	"		"	"	"	" "	"	"
37	S	28°	W	1,010	"		"	"	"	" "	"	"
38	S	74°	W	950	"		"	"	"	" "	"	"
39	S	85°	W	1,090	"		"	"	"	" "	"	"
40	S	25°	E	1,930	"		"	"	"	" "	"	"
41	S	23°	E	4,080	"		"	"	"	" "	"	"
42	S	55°	E	1,930	"		"	"	"	" "	"	"
43	S	33°	E	2,680	"		"	"	"	" "	"	"
44	S	84°	E	4,720	"		"	"	"	" "	"	"
45	S	71°	E	1,380	"		"	"	"	" "	"	"
46	S	11°	E	1,550	"		"	"	"	" "	"	"
47	S	54°	E	2,700	"		"	"	"	" "	"	"
48		Not Found, Within Impassable Mangrove Area								NW- bank of creek		
49	N	69°	W	1,420	Lawaan	25cm	TL	90-13	277	same as Cor 82, T.L. Blk. A, Proj. No. 15	Bernardo Mangubat	Bongabong, Or. Mindoro
50	N	69°	W	360	Pepelingan	30	"	90-9	"	" " 83	"	"
51	N	47°	W	230	"		"	25	"	" " 84	"	"
52	N	81°	W	330	"		"	"	"	" " 85	"	"
53		Not Found, Within Impassable Mangrove Area		560	Alvadia	10	"	"	"	" " 86	"	"
54		" NW		600	Pahat	35	"	"	"	" " 87	"	"
55		" NW		600	Ingan	65	"	"	"	" " 88	"	"
56		Not Found, Within Impassable Mangrove Area			Dao	10	"	"	"	" " 89	"	"
57		" NW		810	Bakugan	50	"	"	"	" " 90	"	"
58		Not Found, Within Impassable Mangrove Area			Tibog	45	"	"	"	" " 91	"	"
59		Not Found, Within Impassable Mangrove Area			"	30	"	"	"	" " 92	"	"
60		Alaska	240		Binsuang	30	"	"	99	" " 93	"	"
61		" NW		980	Talis	150	"	"	316	" " 94	"	"
62		Pinagsabangan		960	Banaba	90	"	"	"	" " 95	"	"
63	N	74°	W	180	A Point		"	—	—	" " 96	"	"
64	N	69°	30' W	260	P.L.S. Mon		"	—	—	" " 97	"	"
65	N	68°	30' W	210	"		"	"	"	" " 98	"	"
66	N	68°	30' W	230	"		"	"	"	" " 99	"	"
67	S	77°	W	300	"		"	"	"	" " 100	"	"
68	S	19°	30' E	690	"		"	"	"	" " 101	"	"
69	S	50°	W	370	"		"	"	"	" " 102	"	"
70	N	72°	W	280	"		"	"	"	" " 103	"	"
71	N	68°	30' E	230	"		"	"	"	" " 104	"	"
72	Det. Point				"		"	"	"	same as Cor 83, A.D. Blk. I, Proj. No. 15	"	"
73	S	85°	30' W	190	"		"	"	"	" " 105	"	"
74	N	18°	W	280	Malaknoos	30cm	LC	90-8	318	" " 106	Concepcion Sta. Cruz, Mindoro	"
75	N	82°	W	340	Malaruat	20	"	"	"	" " 107	"	"
76	N	11°	W	250	Bonoyoa	10	"	"	"	" " 108	"	"
77	N	16°	W	220	Ross. Banaba	60	"	"	"	" " 109	"	"
78	S	58°	W	260	Malaruat	30	"	"	"	" " 110	"	"
79	N	26°	E	300	A Point		"	—	—	" " 111	Manong Bua	"
80	N	84°	W	340	Banaspas	70	"	90-16	BT Sta	same as Cor 85, A.D. Proj. No. 15	"	"
81	N	42°	W	900	Kalilintad	50	"	"	"	" " 112	"	"
82	N	72°	W	830	Ipil	50	"	"	"	" " 113	"	"
83	N	11°	E	890	Bangkal	80	"	"	"	" " 114	"	"
84	N	42°	W	900	Unknown	30	"	"	"	" " 115	"	"
85	N	18°	W	280	Bindayoa	20	"	"	"	" " 116	"	"
86	N	86°	W	900	"		"	30	"	" " 117	"	"

87	N	42°	W	800	Tuki	60cm	LC	89-16	109	same as Cor 13, A. D., Blk-I Proj. No. 15, LC-1243	Ricarte Bagula	Sta Cruz, Mindoro
88	N	80°	W	220	Tibog	18	"	90-3	132	" " 12	"	"
89	S	30°	W	220	Bonoyoa	20	"	"	"	" " 11	"	"
90	S	21°	W	250	Alvadog	20	"	"	"	" " 10	"	"
91	S	28°	W	220	Ingan	120	"	"	"	" " 9	"	"
92	S	72°	W	220	Ipil	150	"	"	"	" " 8	"	"
93	N	15°	W	250	Amugan	40 cm	"	"	"	" " 6	"	"
94	S	72°	W	220	Bakaog	40	"	"	"	" " 5	"	"
95	S	82°	W	220	Bonoyoa	50	"	"	"	" " 4	"	"
96	S	68°	W	220	Bakaog	50	"	"	"	" " 3	"	"
97	S	30°	W	220	Banaba	20	"	"	"	" " 2	"	"
98	S	21°	W	250	Alvadog	20	"	"	"	" " 1	"	"
99	S	22°	W	200	W. Ubaca	150	"	"	"	" " 14	"	"
100	E	90°	W	180	Pantaog	30	"	"	"	" " 15	"	"
101	S	68°	W	230	Langub	120	"	"	"	" " 16	"	"
102	N	84°	W	220	Garmosa Sp.	30	"	"	"	" " 17	"	"
103	S	82°	W	280	Aranog Sarog	40	"	"	122	" " 18	"	"
104	S	72°	W	150	Amugan	40 cm	"	"	"	" " 19	"	"
105	S	72°	W	220	Pasingan	10	"	"	"	" " 20	"	"
106	N	79°	W	200	Bonoyoa	50	"	"	"	" " 21	"	"
107	N	21°	W	780	Alakaak	30	"	"	94-98	334	" " 22	"	"

PROJECT No. 10-C, BLOCK - B, FOREST LANDS (A=627 ha.)

TIE POINT- Cor 1 is identical to Cor 12, A.D. Project No. 15, LC-982

1	S	76°	W	280	Banaybanay 50cm	LC	98-16	BT Sta	Same as Cor 12, A.D. Proj. No. 15	—	—
2	S	36°	W	350	Alaksay 35	"	"	"	" " 11	"	"
3	N	80°	W	240	Narra 30	N.C	100-92	Pots	same as Cor 13, A. D. Blk-I, Proj. No. 15, LC-1243	Ricarte Bagula	Sta Cruz, Mindoro
4	N	60°	W	200	Ipil 40	"	"	"	" " 10	"	"
5	S	46°	W	260	Tan-ag 60	"	"	"	" " 9	"	"
6	S	82°	W	420	Coac. mon	"	"	"	" " 10	"	"
7	S	82°	W	280	"	"	"	"	" " 11	"	"
8	N	89°	W	240	"	"	"	"	" " 12	"	"
9	N	77°	W	1360	Malaruat 60cm	"	"	"	" " 13	"	"
10		Not Found, Within Impassable Mangrove Area			A point	"	—	—	Along Main Bldg. of Plantgrowers Inc. & The Coral	—	—
11	S	77°	W	1360	"	"	—	—	same as Cor 13, A. D. Blk-I, Proj. No. 15, LC-1243	Ricarte Bagula	Sta Cruz, Mindoro
12	S	60°	W	960	Ipil 70cm	Mkr	98-14	Pots	same as Cor 14, A. D. Blk-I, Proj. No. 15, LC-1243	"	"
13	S	32°	W	970	Pino 60	"	"	240	"	"	"
14	S	56°	W	960	Dao 30	"	"	178	"	"	"
15	S	21°	E	615	Alakaak 100	"	"	106	"	"	"
16	S	08°	E	860	Aakaakangin 80	"	"	74	"	"	"
17	S	79°	W	1,080	Talis 100	"	"	51	"	"	"
18	N	81°	W	1,080	Dalum 80	"	"	423-B	Brgy	same as Cor. 14, A.D. Proj. No. 15	Bridge Tender	Sta Cruz, Mindoro
19	S	30°	W	490	Alaksay 100	LC	"	10	"	" " 11	"	"
20	S	37°	W	780	Bangkal 60	"	"	8	"	" 79	"	"
21	S	68°	W	720	Talis 40	"	"	18	"	" 78	"	"
22	S	05°	E	970	Silvalai 40	"	"	26	"	" 77	"	"
23	S	58°	E	970	Floral Sp. 30	"	"	32	"	" 76	"	"

PROJECT No. 18-D, FOREST LANDS (15,715 Has.)

TIE POINT- Cor 1 is identical to Cor 1, Proj. No. 18-E

1		Not Found, Within Impassable Mangrove Area			A Point	—	—	—	Same as Cor 1, T.L. Proj. No. 18-C	—	—
2		" SW		2,940	"	"	"	"	" " 37	"	"
3		Not Found, Within Impassable Mangrove Area			"	"	"	"	" " 39	"	"
4		" NW		515	"	"	"	"	SE- bank of creek	"	"
5		" NW		4,100	"	"	"	"	SE- bank of creek	"	"
6		" NW		1,370	"	"	"	"	NW- " "	"	"
7		" NW		480	"	"	"	"	NW- " "	"	"
8		" NW		530	"	"	"	"	SW- " "	"	"
9		" NW		2,540	"	"	"	"	SE- " "	"	"
10		" NW		1,320	"	"	"	"	SE- " "	"	"
11		" NW		1,320	"	"	"	"	SE- " "	"	"
12		Not Found, Within Impassable Mangrove Area			"	"	"	"	Along Main Bldg. of Sam Tho-ains, Alvad, Puerto Galera	"	"
13		" NE		2,630	"	"	"	"	NE- bank of creek	"	"
14		" NW		460	"	"	"	"	NE- " "	"	"
15		" NE		980	"	"	"	"	NE- " "	"	"
16		" NE		3,680	"	"	"	"	NE- " "	"	"
17		Not Found, Within Impassable Mangrove Area			280	"	"	"	same as Cor 1, T.L. Proj. No. 18-C	Lucio Dagdan	Bongabong, Or. Mindoro
18		" SE		220	Ubayan	Whse	FP	110	351	" " 63	"	"
19		" SE		195	Oca	80	"	29	"	" " 61	"	"
20		" SE		230	Mac. Sp.	35	"	28	"	" " 60	"	"
21		" SE		600	"	30	"	27	"	" " 59	"	"
22		" SE		230	"	35	"	25	"	" " 58	"	"
23		" SE		230	Bolongya	30	"	22	"	" " 57	"	"
24		" SE		370	Ubayan	90	"	20	"	" " 56	"	"
25		" SE		250	Bancl	45	"	17	"	" " 55	"	"
26		" SE		260	Bolongya	30	"	15	"	" " 54	"	"
27		Not Found, Within Impassable Mangrove Area			Ubayan	30	"	13	"	" " 53	"	"
28		" NE		980	Mac. Sp.	45	"	10	"	" " 52	"	"
29		Not Found, Within Impassable Mangrove Area			"	30	"	8	"	" " 51	"	"
30		" NE		5,850	"	35	"	5	"	" " 50	"	"
31		" NE		270	"	35	"	98-34	"	" " 49	"	"
32		Not Found, Within Impassable Mangrove Area			"	35	"	33	"	" " 38	"	"
33		" NE		2,100	Pakian	25	PP	5	301	" " 48	"	"
34		" NE		2,100	Bakiokan	90	"	29	"	" " 39	"	"
35		" NW		1,800	Tauglaos	85	"	27	"	" " 40	"	"
36		" NE		2,600	Dagupan	80	"	24	"	" " 41	"	"
37		" NE		3,640	Mac. Sp.	50	"	24	"	" " 43	"	"
38		" NW		1,150	Pinaka	90	"	22	"	" " 44	"	"
39		" NW		1,150	Pakian	80	"	20	"	" " 45	"	"
40		" NW		1,800	Lubigan	50	"	19	"	" " 46	"	"
41		" NE		1,150	Mac. Sp.	85	"	17	"	" " 47	"	"
42		" NW		1,140	Tanguin	150	"	15	"	" " 48	"	"
43		" NE		2,100	Bawanga	30	"	13	"	" " 49	"	"
44		" NE		2,100	Mac. Sp.	30	"	11	"	" " 50	"	"
45		" NE		3,220	Bangalo	30	"	9	"	" " 51	"	"
46		" NE		2,780	Mac. Sp.	35	"	6	"	" " 52	"	"
47		" NE		3,100	Oday	30	"	4	"	" " 53	"	"
48		S. 80° E		3,050	Troog	120	"	98	"	" " 54	"	"
49		S. 15° E		2,810	Gaujo	55	TL	140-38	373	same as Cor. 50, T.L. Proj. No. 18-A, C, D, Blk-I	Lucio Dagdan	Bongabong, Or. Mindoro
50	S	89°	E	2,010	Aquatinga	180	"	61	"	" " 49	"	"
51	N	88°	E	600	Troog	70	"	49	"	" " 48	"	"
52	N	52°	E	350	Inagbot	28	"	47	"	" " 47	"	"
53	N	12°	E	230	Amugis Ampagbot	25	"	94	"	" " 46	"	"
54	N	45°	E	280	Malapalapa	55	"	44	"	" " 45	"	"
55	N	15°	E	230	Oday	65	"	98-11	"	" " 44	"	"
56		Not Found, Within Impassable Mangrove Area			Lagoan	55	"	15	"	" " 43	"	"
57	N	36°	E	240	Kaonteeng	40	"	18	"	" " 42	"	"
58	N	81°	E	440	Alapa	30	"	22	"	" " 41	"	"
59	S	84°	E	300	Bayatinong	35	"	30	"	" " 40	"	"
60	N	46°	E	280	Nalau Sharp	30	"	30	"	" " 39	"	"
61	Det. Point			300	Tanguin	35	"	35	"	" " 38	"	"
62		" NE		300	Alugney	40	"	37	"	" " 37	"	"
63	S	79°	E	280	Oday	90	"	40	"	" " 36	"	"
64	S	71°	E	240	Magalaag	80	"	48	"	" " 35	"	"
65	S	40°	E	400	Bonnaka Sp.	30	"	52	"	" " 34	"	"
66	S	24°	E	280	Alaska	40	"	39	"	" " 33	"	"
67	S	72°	E	430	Tentagod	60	"	46	"	" " 32	"	"
68	S	05°	E	160	Bana		"	48	"	" " 31	"	"
69	S	49°	W	960	Bakaog 50cm	"	"	71-17	199	same as Cor. 84, T.L. Proj. No. 18-A, C, D, Blk-I	Dionisio Mangubat	S. Teodoro, Or. Mindoro
70	S	70°	W	800	Maadlaan 30	"	"	29	"	" " 30	"	"
71	S	22°	W	220	Pile of stones	"	"	20	"	" " 29	"	"
72	S	08°	E	1,020	Oak 50cm	"	"	20	"	" " 28	"	"
73	S	20°	W	190	Pagbon 120	"	"	44	"	" " 27	"	"
74	S	19°	E	150	Sagusaga 28	"	"	60	"	" " 26	"	"
75	S	89°	E	420	Pahak 28	"	"	60	"	" " 25	"	"
76	S	29°	E	360	Old Banggalan Nut	"	"	60	"	" " 24	"	"
77	S	29°	E	180	Pine 30cm	"	"	69	"	" " 23	"	"
78	S	21°	E	480	Amugaga 80	"	"	98-7	"	" " 22	"	"
79	S	08°	E	220	Pahak 40	"	"	10	"	" " 21	"	"
80	S	68°	E	280	Pine 50	"	"	15	"	" " 20	"	"
81	S	21°	W	440	Pine 150	"	"	35	"	" " 19	"	"
82	S	40°	E	340	Pahak	"	"	84	"	" " 18	"	"
83	S	74°	W	300	Maambal	"	"	69	"	" " 17	"	"
84	S	80°	E	360	Banuldangan 60cm	"	"	51	"	" " 16	"	"
85	S	74°	W	380	Bungalao 55	"	"	98-38	377	" " 15	Bernardo Mangubat	Bongabong, Or. Mindoro
86	S	17°	W	280	Almaciga 35	"	"	23	"	" " 14	"	"
87	S	40°	W	200	"	"	"	20	"	" " 13	"	"
88	S	24°	W	340	Pagbongan 30	"	"	15	"	" " 12	"	"
89	S	01°	E	480	Almaciga 90	"	"	15	"	" " 11	"	"
90	S	09°	E	190	Inea 28	"	"	8	"	" " 10	"	"
91	S	53°	W	480	Amugiya 30	"	"	4	"	" " 9	"	"
92	S	09°	W	310	Pahak 40	"	"	98-37	"	" " 8	"	"
93	S	44°	W	490	Almaciga 55	"	"	61	"	" " 7	"	"
94	S	49°	E	610	Pangopayan 30	"	"	47	"	" " 6	"	"
95	S	12°	W	320	Nook 18	"	"	43	"	" " 5	"	"
96	S	09°	W	780	Balinang 50	"	"	40	"	" " 4	"	"
97	S	18°	W	380	Almaciga 50	"	"	30	"	" " 3	"	"

98	S	32°	W	930	Amugiya 40cm	TL	98-28	377	same as Cor. 2, T.L. Proj. No. 18-A, C, D, Blk-I	Bernardo Mangubat	Bongabong, Or. Mindoro
99	S	30°	E	120	Bakaogan 30	"	"	22	" " 3	"	"
100	S	08°	E	680	" 40	"	"	21	" " 4	"	"

PROJECT No. 10-E, FOREST LANDS (A= 1,581 Has.)

TIE POINT- Cor 1 is identical to Cor 93, T.L. Proj. No. 18-A, LC-1239

1	S	14°	W	1,030	A Point	TL	98-15	377	same as Cor 93, T.L. Proj. No. 18-A, LC-1239	Bernardo Mangubat	Bongabong, Or. Mindoro
2	S	14°	W	800	Bakaogan 40cm	"	"	"	" " 92	"	"
3	S	14°	W	320	E. on grey rock	"	"	"	" " 91	"	"
4	S	23°	E	280	Pagbongan 30	"	"	"	" " 90	"	"
5	S	46°	E	340	" 30	"	"	"	" " 89	"	"
6	S	32°	E	180	Ana-nas	"	98-58	"	" " 88	"	"
7	S	26°	E	960	Point	"	"	"	" " 87	"	"
8	S	11°	E	780	Tibog 50cm	"	"	"	" " 86	"	"
9	S	28°	E	540	Alagnai 30	"	"	"	" " 85	"	"
10	S	85°	E	530	Anak 30	"	"	"	" " 84	"	"
11	S	16°	E	360	Brown rock 200	"	"	"	" " 83	"	"
12	S	15°	E	300	Aguna 40	"	"	"	" " 82	"	"
13	S	80°	E	700	Ipoak 30	"	"	"	" " 81	"	"
14	S	83°	E	630	" 50	"	"	"	" " 80	"	"
15	S	04°	E	440	Malago 80	"	"	"	" " 79	"	"
16	S	09°	W	380	Point	"	"	"	" " 78	"	"
17	S	16°	E	260	Mac. Sp. 30cm	TL	98-55	701	same as Cor. 94, T.L. Proj. No. 18-A, LC-1239	Bernardo Mangubat	Bongabong, Or. Mindoro
18	S	15°	E	200	Aguapanga 30	"	"	"	" " 81	"	"
19	S	04°	E	320	Nakabaka 30	"	"	"	" " 80	"	"
20	Det. Point			320	Nakabakan 40	"	"	"	" " 79	"	"
21	S	48°	E	200	Tanguin 30	"	"	"	" " 78	"	"
22	S	49°	E	220	W. Ubaca 30	"	"	"	" " 77	"	"
23	S	20°	W	250	Mac. Sp. 40	"	"	"	" " 76	"	"
24	S	31°	E	280	Bakaog-Mit 30	"	"	"	" " 75	"	"
25	S	10°	W	280	Tanguin 40	"	"	"	" " 74	"	"
26	S	31°	W	180	Mac. Sp. 30	"	"	"	" " 73	"	"
27	S	13°	E	280	Malinggal 30	"	"	"	" " 72	"	"
28	S	08°	E	280	Tanguin 50	"	"	"	" " 71	"	"
29	S	01°	W	320	Mac. Sp. 50	"	"	"	" " 70	"	"
30	S	16°	E	220	Anagpot 30	"	"	"	" " 69	"	"
31	S	36°	E	65	W. Ubaca 30	"	"	"	" " 68	"	"
32		Not Found, Within Impassable Mangrove Area			A point	—	—	—	" " 67	"	"
33		" NW		1,260	"	"	"	"	NW- bank of creek	—	—
34		" NW		1,140	"	"	"	"	" "	"	"
35		" NW		1,080	"	"	"	"	" "	"	"
36		Not Found, Within Impassable Mangrove Area			"	"	"	"	Sta-d	"	"
37		" W		1,080	"	"	"	"	SE-d	"	"

LAND CLASSIFICATION

PROVINCE of OR. MINDORO

PROJECT No.	MUNICIPALITY	AREA IN HECTARES: ALIENABLE OR DISPOSABLE	AREA IN HECTARES: PERMANENT FOREST	TOTAL
18 - D	SAN TEODORO	——	15,715	15,715
10 - E	BACO	——	1,581	1,581
	TOTAL	——	17,296	17,296

PROVINCE of OCC. MINDORO

PROJECT No.	MUNICIPALITY	AREA IN HECTARES: ALIENABLE OR DISPOSABLE	AREA IN HECTARES: PERMANENT FOREST	TOTAL
10 - C	STA CRUZ	322	4,514	4,836

SCALE 1:25,000

3 (THREE) SHEETS
SHEET 3

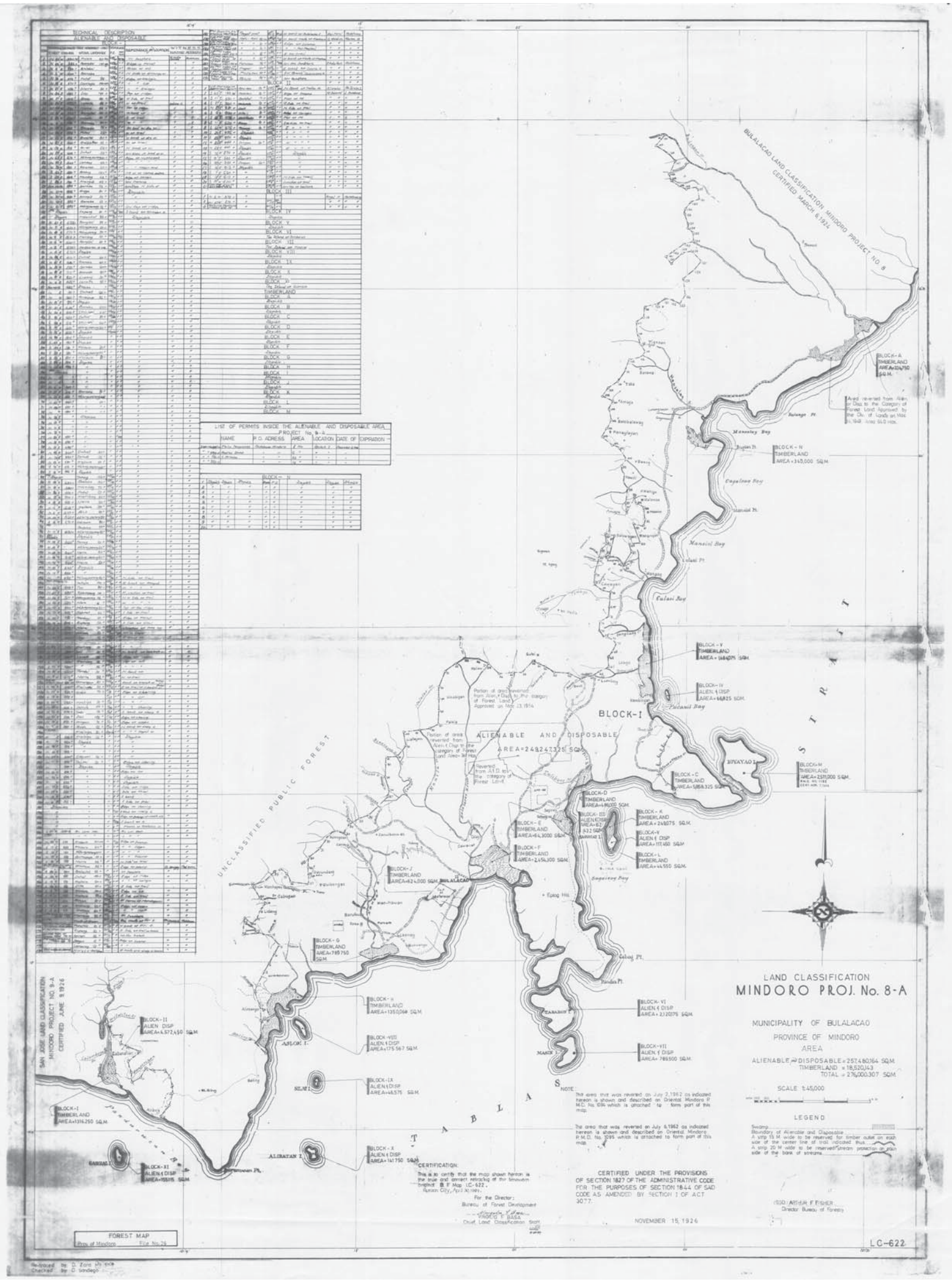
LC-3563

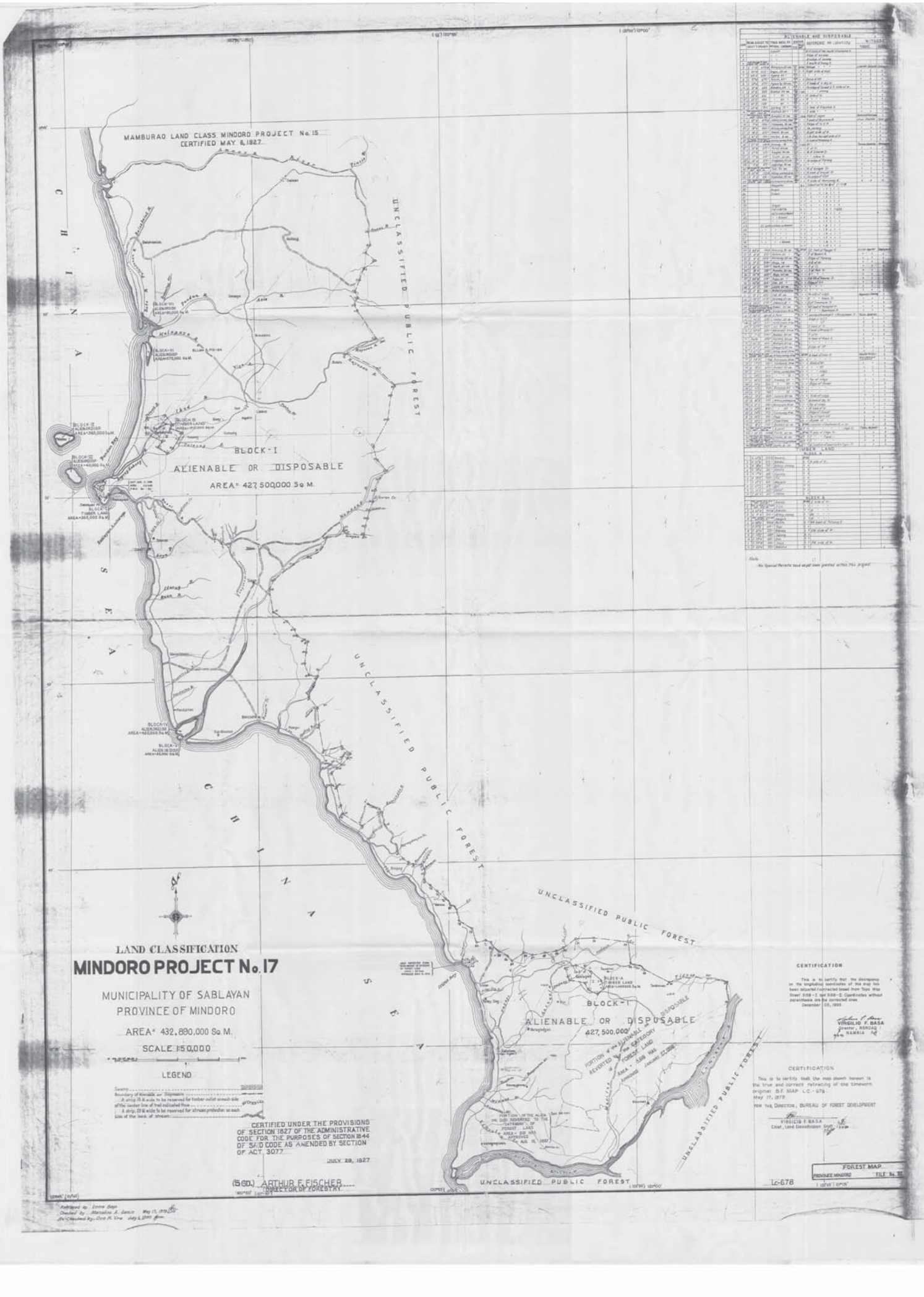
3563

Compiled and traced by: Wesley V. Manual
Checked by: Ricardo Avelino
Verified by: Buenaventura T. Viado

Re-verified by:
ARTEMIO Q. BAJO
Chief, MAPPING SECTION

VIRGILIO I. FABIAN JR.
Chief, LAND CLASSIFICATION DIVISION


TECHNICAL DESCRIPTION
ALIENABLE AND DISPOSABLE
BLOCK - I
BLOCK - II
BLOCK III
BLOCK IV
BLOCK V
BLOCK VI
BLOCK VII
BLOCK VIII
BLOCK IX
BLOCK X
BLOCK XI
TIMBERLAND
BLOCK A
BLOCK B
BLOCK C
BLOCK D
BLOCK E
BLOCK F
BLOCK G
BLOCK H
BLOCK I
BLOCK J
BLOCK K
BLOCK L
BLOCK M
LIST OF PERMITS INSIDE THE ALIENABLE AND DISPOSABLE AREA
PROJECT No. 8-A
NAME
P.O. ADRESS
AREA
LOCATION
DATE OF EXPIRATION
BLOCK - N
BULALACAO LAND CLASSIFICATION MINDORO PROJECT NO. 8
CERTIFIED MARCH 6, 1924
BLOCK-A
TIMBERLAND
AREA=234750
SQ.M.
BLOCK-N
TIMBERLAND
AREA=340,000 SQ.M.
Mansalay Bay
Bulalacao Bay
Mansol Bay
Sulasi Bay
Sulasi Pt.
Tucanil Bay
BLOCK-I
ALIENABLE AND DISPOSABLE
AREA=24824733.25 SQM.
BLOCK-V
TIMBERLAND
AREA=1840.75 SQM.
BLOCK-IV
ALIEN & DISP
AREA=66825 SQM.
BLOCK-M
TIMBERLAND
AREA=251,000 SQM.
BLOCK-C
TIMBERLAND
AREA=5858.325 SQM.
BLOCK-D
TIMBERLAND
AREA=4,960.00 SQM.
BLOCK-III
ALIEN & DISP
AREA=632 SQM.
BLOCK-K
TIMBERLAND
AREA=2480.75 SQM.
BLOCK-V
ALIEN & DISP
AREA=111.450 SQM.
BLOCK-L
TIMBERLAND
AREA=44.550 SQM.
BLOCK-E
TIMBERLAND
AREA=64,300.0 SQM.
BLOCK-F
TIMBERLAND
AREA=2459.300 SQM.
BLOCK-J
TIMBERLAND
AREA=624,000 SQM.
BULALACAO
BLOCK-G
TIMBERLAND
AREA=785750
SQ.M.
UNCLASSIFIED PUBLIC FOREST
Portion of area reverted from Alien & Disp. to the category of Forest Land Approved on Nov. 23, 1914
Portion of area reverted from Alien & Disp to the category of Forest Land Approved on May 31, 1949
Reverted from A & D. to the category of Forest Land
Eguog Pt.
Pandan Pt.
Sagurong Bay
Eguog Hill
TABLAS STRAIT
SAN JOSE LAND CLASSIFICATION MINDORO PROJECT NO. 9-A CERTIFIED JUNE 9, 1926
BLOCK-II
ALIEN DISP
AREA=4,572,450 SQ.M.
BLOCK-I
TIMBERLAND
AREA=1316.250 SQ.M.
BLOCK-H
TIMBERLAND
AREA=135,0.066 SQ.M.
BLOCK-VIII
ALIEN & DISP
AREA=175 567 SQ.M.
BLOCK-IX
ALIEN & DISP
AREA=46,575 SQ.M.
BLOCK-X
ALIEN & DISP
AREA=141 750 SQ.M.
BLOCK-XI
ALIEN & DISP
AREA=155,175 SQ.M.
BLOCK-VI
ALIEN & DISP
AREA=2,120,175 SQ.M.
BLOCK-VII
ALIEN & DISP
AREA=789,500 SQ.M.
TABAON I.
MARO I.
SILAD I.
ALIBATAN I.
BANGAT I.
Tabonan Pt.
NOTE
This area that was reverted on July 2, 1962 as indicated hereon is shown and described on Oriental Mindoro P.M.O. No. 1096 which is attached to form part of this map.
The area that was reverted on July 6, 1962 as indicated hereon is shown and described on Oriental Mindoro P.M.O. No. 1095 which is attached to form part of this map.
CERTIFICATION:
This is to certify that the map shown hereon is the true and correct retracing of the tracing bearing B.F. Map LC-622, Quezon City, April 30, 1991.
For the Director:
Bureau of Forest Development
ARNOLD T. BASA
Chief, Land Classification Sect.
CERTIFIED UNDER THE PROVISIONS OF SECTION 1827 OF THE ADMINISTRATIVE CODE FOR THE PURPOSES OF SECTION 1844 OF SAID CODE AS AMENDED BY SECTION 1 OF ACT 3077.
NOVEMBER 15, 1926
(SGD.) ARTHUR F. FISHER
Director, Bureau of Forestry
LAND CLASSIFICATION
MINDORO PROJ. No. 8-A
MUNICIPALITY OF BULALACAO
PROVINCE OF MINDORO
AREA
ALIENABLE & DISPOSABLE = 257,480,164 SQ.M.
TIMBERLAND = 18,520,143
TOTAL = 276,000,307 SQM.
SCALE 1:45,000
LEGEND
Swamp
Boundary of Alienable and Disposable
A strip 15 M. wide to be reserved for timber outlet on each side of the center line of trail indicated thus
A strip 20 M. wide to be reserved/stream protection on each side of the bank of streams
FOREST MAP
Prov. of Mindoro
File No. 25
LC-622
Re-traced by: D. Zarit
Checked by: D. Sandiego



LAND CLASSIFICATION

MINDORO PROJECT No. 17

MUNICIPALITY OF SABLAYAN
PROVINCE OF MINDORO

AREA= 432,880,000 Sq. M.

SCALE 1:50,000

LEGEND

Swamp

Boundary of Alienable or Disposable
A strip 15 M wide to be reserved for timber outlet on each side of the center line of trail indicated thus
A strip, 20 M wide to be reserved for stream protection on each side of the bank of stream

CERTIFIED UNDER THE PROVISIONS OF SECTION 1827 OF THE ADMINISTRATIVE CODE FOR THE PURPOSES OF SECTION 3544 OF SAID CODE AS AMENDED BY SECTION OF ACT 3077.

JULY 29, 1927

(SGD.) ARTHUR F. FISCHER
DIRECTOR OF FORESTRY

CERTIFICATION

This is to certify that the discrepancy on the longitudinal coordinates of this map has been adjusted / corrected based from Topo Map Sheet 5158-I and 5158-II. Coordinates without parentheses are the corrected ones.
December 05, 1993

VIRGILIO F. BASA
Director, BSWM/AD
NAMRIA

CERTIFICATION

This is to certify that the map shown hereon is the true and correct retracing of the timework original B.F. MAP L.C.-678.
May 17, 1978.

FOR THE DIRECTOR, BUREAU OF FOREST DEVELOPMENT

VIRGILIO F. BASA
Chief, Land Classification Staff

FOREST MAP
PROVINCE MINDORO
TILE No. 92

LC-678

Retraced by Emma Bago
Checked by Marcelino A. Garcia May 17, 1978
Re-Checked by Cirio H. Vina July 4, 1991

CENTRAL PHILIPPINES 1:50,000

ABRA DE ILOG

SHEET 3160 III

INDEX TO BOUNDARIES

BOUNDARIES APPROXIMATE

Municipality
Province of Occidental Mindoro
1. Mamburao
2. Abra de Ilog
3. Paluan

Users noting errors on this map are requested to notify the National Mapping and Resource Information Authority (NAMRIA), Fort Andres Bonifacio, Makati, Metro Manila.

LEGEND

ROAD DATA 1992

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide

All weather, loose or light surface, two or more lanes wide

All weather, hard surface, one lane wide

All weather, loose or light surface, one lane wide

Fair or dry weather, loose surface

Cart track or trail

Route markers: National, Provincial

RAILROADS

Normal gauge, single track, 1.07 M (3'6")

Normal gauge, double track, 1.07 M (3'6")

Broad gauge, single track

Broad gauge, double track

Narrow gauge, single track

Narrow gauge, double track

Horizontal control point on Church

Horizontal control point, Bench mark

Spot elevations in meters: Checked; Unchecked

Built-up area

Church; Chapel; Shrine or wayside cross

School; Windmill; Water well

Lighthouse; Anchorage

Levee; Wall

Earthen dam; Masonry dam

Power transmission line

Depth curves and soundings in fathoms

Sunken rocks; Foreshore flat

Rocks awash; Reef

Limit of danger; Submerged reef

Wreck: Sunken; Exposed

Wharf or pier; Sea wall

Salt evaporator

Woods-brushwood; Scrub

Tropical grass; Orchard

Rice paddy; Swamp

Nipa; Mangrove

Vineyard

Scale 1:50,000

1 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

Published by

Department of Environment and Natural Resources

NATIONAL MAPPING & RESOURCE INFORMATION AUTHORITY

Fort Bonifacio, Makati

Metro Manila

JOSE G. SOLIS

Administrator

INDEX TO ADJOINING SHEETS

ABRA DE ILOG, MINDORO

CENTRAL PHILIPPINES 1:50.000

ADELA

SHEET 3157 II

SOURCES OF INFORMATION:

Bureau of Coast and Geodetic Survey,US Army Map Series 711 Compiled in 1956 from 1943-1963 Photographs, Department of Public Highways and others.

Users noting errors or omissions on this map are requested to mark herein and refer directly to the NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, Fort Andres Bonifacio, Makati.

LEGEND

ROAD DATA ???

On this map a line is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide 211/0001

All weather, loose or light surface, two or more lanes wide 211/0002

All weather, hard surface, one lane wide .....

All weather, loose or light surface, one lane wide .....

Fair to dry weather, loose surface .....

Cart track or trail .....

Route numbers: National, Provincial .....

RAILROADS

Normal gauge, single track, 1.07 M (3'6") .....

Normal gauge, double track, 1.07 M (3'6") .....

Broad gauge, single track .....

Broad gauge, double track .....

Narrow gauge, single track .....

Narrow gauge, double track .....

Horizontal control point on Church .....

Horizontal control point, Bench mark .....

Spot elevations in meters: Checked, Unchecked .....

Built up area .....

Church, Chapel, Shrine or wayside cross .....

School, Windmill, Water well .....

Lighthouse, Anchorage .....

Loom, Well .....

Cyclone barn, Masonry dam .....

Power transmission line .....

Depth curves and soundings in fathoms .....

Sunken rocks, Foreshore flat .....

Rocks awash, Reef .....

Limit of danger, Submerged reef .....

Wreck, Sunken, Exposed .....

Wharf or pier, Sea wall .....

Salt evaporator .....

Woods (scattered), Scrub .....

Tropical grass, Orchard .....

Rice paddy, Swamp .....

Bays, Mangrove .....

Seaward .....

Scale 1: 50,000

1 0 1 2 3 Statute Miles

2500 0 2500 5000 7500 10000 Meters

2000 0 2000 4000 6000 8000 Yards

1 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM LUZON DATUM

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Department of Environment & Natural Resources
NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY
Fort Bonifacio, Makati

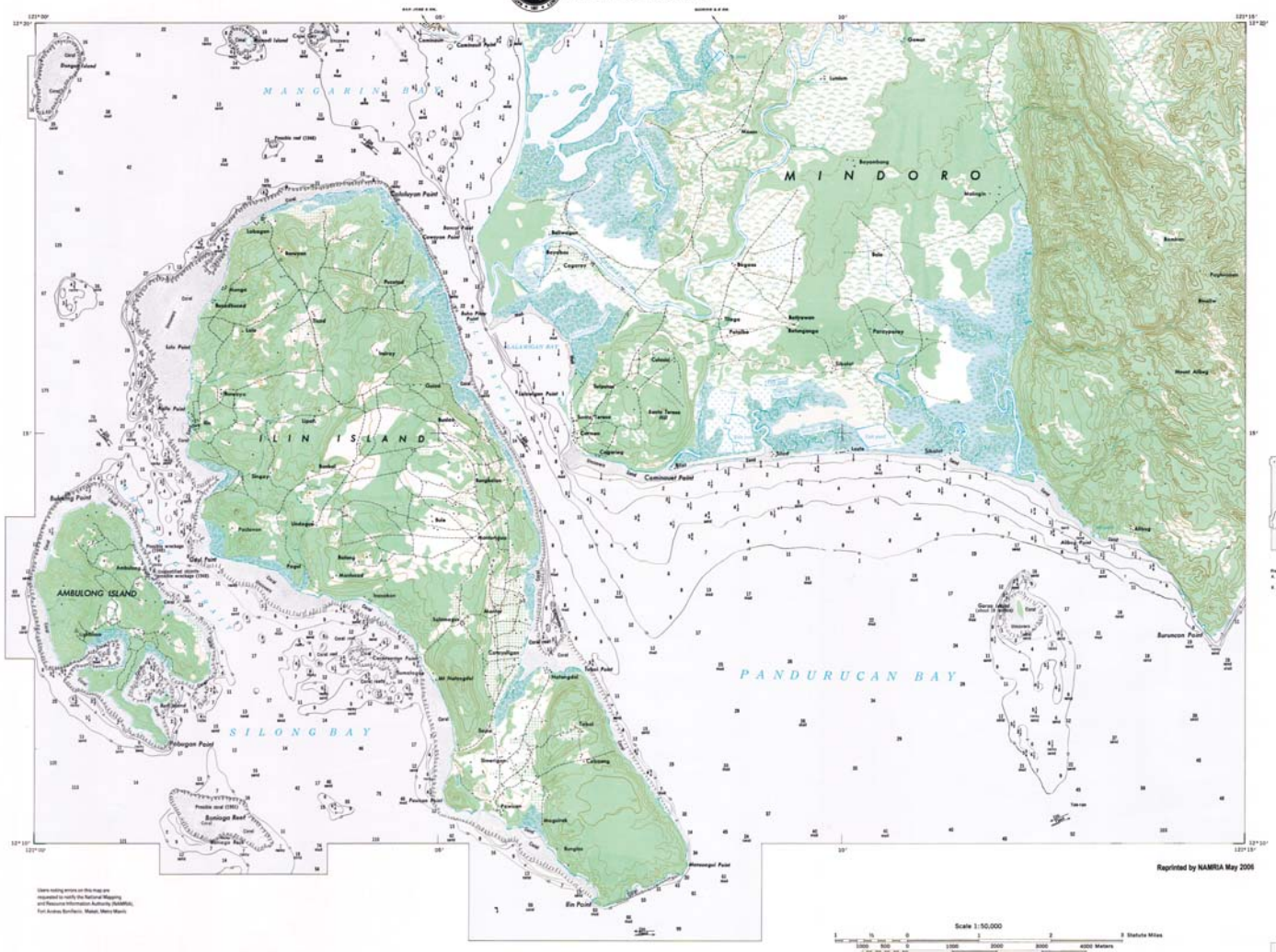
COVERAGE DIAGRAM

INDEX TO ADJOINING SHEETS

ADELA

AMBULONG

SHEET 3256 IV



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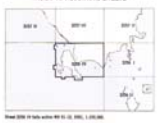

LEGEND

ROAD DATA (SI)

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Cart track or trail
Route markers: National; Provincial

RAILROADS

Normal gauge, single track, 1.07 M (3'6")
Normal gauge, double track, 1.07 M (3'6")
Broad gauge, single track
Broad gauge, double track
Narrow gauge, single track
Narrow gauge, double track
Horizontal control point on Church
Horizontal control point, Bench mark
Spot elevations in meters: Checked; Unchecked

Built up area
Church; Chapel; Shrine or wayside cross
School; Windmill; Water well
Lighthouse; Anchorage
Levee; Wall
Earthen dam; Masonry dam
Power transmission line
Depth curves and soundings in fathoms
Sunken rocks; Foreshore flat
Rocks awash; Reef
Coral; Submerged reef
Wreck; Sunken; Exposed
Wharf or pier; Sea wall
Salt evaporator
Reeds; Scrub; Brushwood
Tropical grass; Orchard
Rice paddy; Swamp
Rice; Mangrove
Vineyard

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

Scale 1:50,000

1 0 1 2 3 Statute Miles
1000 500 0 1000 2000 3000 4000 Meters
2000 1000 0 1000 2000 3000 4000 Yards
1 0 1 2 3 Nautical Miles

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NATIONAL MAPPING & RESOURCE INFORMATION AUTHORITY
Fort Andres Bonifacio, Makati City, Metro Manila

Police Director DIONY A VENTURA, MNSA, (Ret)
Administrator

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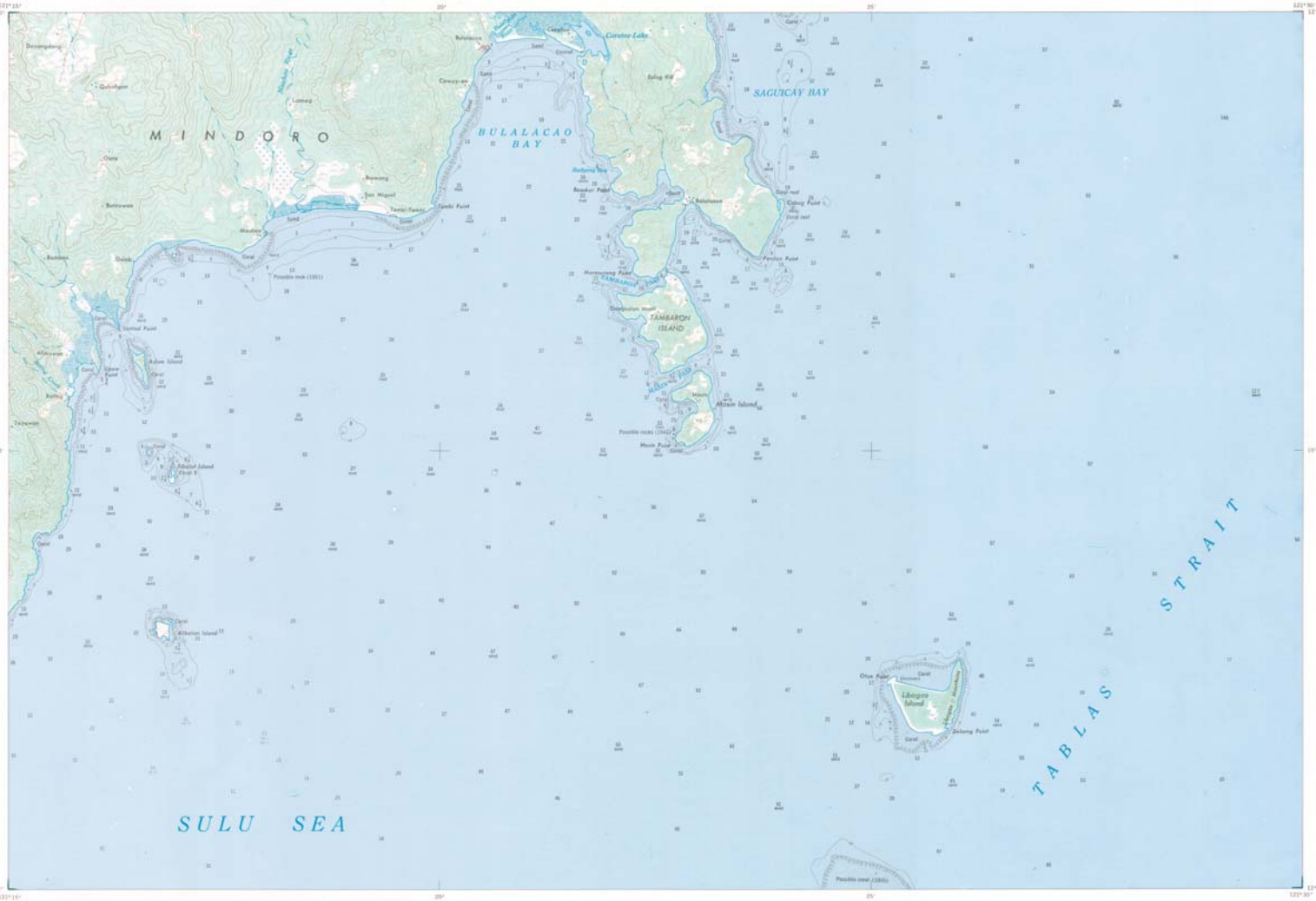
AMBULONG, MINDORO.

CENTRAL PHILIPPINES 1:50,000

BULALACAO

SHEET 3256 I



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Scale 1:50,000

1 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

Reprinted by NAMRIA

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INDEX TO ADJOINING SHEETS

BOUNDARY APPROXIMATE

Provinces

A. Province of Occidental Mindoro
1. Municipality of Abra de Ilog
B. Province of Antique
1. Municipality of Caluya

Sheet 3256 I falls within NO 51-10, 1000, 1:250,000

LEGEND

ROADS

All weather, hard surface, two or more lanes wide

All weather, loose or light surface, two or more lanes wide

All weather, hard surface, one lane wide

All weather, loose or light surface, one lane wide

Fair or dry weather, loose surface

Dirt track or trail

Road numbers: National, Provincial

RAILROADS

Marked gauge, single track, 1.07 M (3'6")

Marked gauge, double track, 1.07 M (3'6")

Broad gauge, single track

Broad gauge, double track

Narrow gauge, single track

Narrow gauge, double track

Monumented control point on (Church)

Monumented control point, Bench mark

Spot elevations in meters, Checked, Unchecked

Built-up area

Church; Chapel; Shrine in wayside cross

School; Windmill; Water well

Lighthouse; Anchorage

Levee; Mill

Earthen dam; Masonry dam

Power transmission line

Depth curves and soundings in fathoms

Submerged rocks; Foreshore flat

Rocks awash; Reef

Coral reef (singular); Submerged reef

Wreck; Sunken; Exposed

Wharf or pier; Dry dock

Salt evaporator

Mangrove; Scrub

Tropical grass; Orchard

Rice paddy; Swamp

Nipa; Mangrove

Vineyard

Republic of the Philippines

Department of Environment and Natural Resources

Published by

NATIONAL MAPPING & RESOURCE INFORMATION AUTHORITY

Fort Bonifacio, Makati

Metro Manila

BULALACAO

CENTRAL PHILIPPINES 1:50,000

CALAPAN

SHEET 3260 III

Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

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LEGEND

ROADS
All weather, hard surface
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Trail
Route markers: National; Provincial

RAILROADS
Narrow gauge, double track

Built-up area
Church; Chapel; Shrine or wayside cross
School; Windmill; Water well
Lighthouse; Anchorage
Levee; Wall
Earthen dam; Masonry dam
Power transmission line
Depth curves and soundings in fathoms
Sunken rocks; Foreshore flat
Rocks awash; Reef
Limit of danger; Submerged reef
Wreck: Sunken; Exposed
Wharf or pier; Sea wall
Salt evaporator
Woods; Scrub
Tropical grass; Orchard
Rice paddy; Swamp
Rice; Mangrove
Vineyard

INDEX TO BOUNDARIES

INDEX TO ADJOINING SHEETS

BOUNDARIES APPROXIMATE

Municipality
a. Province of Mindoro Oriental
Municipalities:
1. San Teodoro
2. Baco
3. Calapan

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Fort Bonifacio, Makati

CALAPAN

CENTRAL PHILIPPINES 1:50,000

DANGAY

SHEET 3357 IV

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Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

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LEGEND

ROAD DATA 1952

On this map a lane is generally considered as being 8 to 12 feet (2.5 to 3.6 meters) in width. Known exceptions are indicated on the face of the map.

ROADS

All weather, hard surface, two or more lanes wide

All weather, loose or light surface, two or more lanes wide

All weather, hard surface, one lane wide

All weather, loose or light surface, one lane wide

Fair or dry weather, loose surface

Cart track or trail

Route markers: National; Provincial

RAILROADS

Normal gauge, single track, 1.07 M (3'6")

Normal gauge, double track, 1.07 M (3'6")

Broad gauge, single track

Broad gauge, double track

Narrow gauge, single track

Narrow gauge, double track

Horizontal control point on Church

Horizontal control point: Bench mark

Spot elevations in meters: Checked; Unchecked

Built up area

Church; Chapel; Shrine or wayside cross

School; Windmill; Water mill

Lighthouse; Anchorage

Levee; Wall

Earthen dam; Masonry dam

Power transmission line

Depth curves and soundings in fathoms

Sunken rocks; Foreshore flat

Rocks awash; Reef

Limit of danger; Submerged reef

Wreck; Sunken; Exposed

Wharf or pier; Sea wall

Salt evaporator

Woods brushwood; Scrub

Tropical grass; Orchard

Rice paddy; Swamp

Nipa; Mangrove

Vineyard

MAXIMUM ELEVATION LESS THAN 20 METERS
SUPPLEMENTARY CONTOURS AT 10 METER INTERVALS
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: LUZON DATUM

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INDEX TO ADJOINING SHEETS

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Fort Bonifacio, Makati

DANGAY

CENTRAL PHILIPPINES 1:50,000

DULANGAN

SHEET 3160 II

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Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

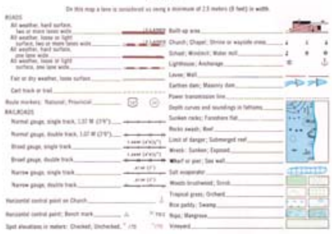
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

Reprinted by NAMRIA

LEGEND



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INDEX TO ADJOINING SHEETS

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Fort Bonifacio, Makati

PHILIPPINES 1:50,000

LUBANG

SHEET 7070 III

This corresponds to PNTMS SHEET 3028 - III

HYDROGRAPHIC DATUM — MEAN LOWER LOW WATER

LEGEND

CAUTION: THERE ARE NUMEROUS IDENTICALLY NAMED PLACES PORTRAYED ON THIS GRAPHIC.

POPULATED PLACES
Densely built-up areas
Densely to moderately built-up areas

ROADS
All weather, hard surface: two or more lanes wide; one lane wide
All weather, loose or light surface: two or more lanes wide; one lane wide
Fair or dry weather: loose surface; trails; footpath; road with widening mark; route number; National, Provincial

RAILROADS
Single track; Double track
Tunnel; gauge; 914m (3'0"); Narrow gauge; 914m (3'0"); Station; Turntable; Railroad in street; Cutting

BRIDGES
Wire suspension; Without superstructure; Foot bridge; Track bridge; Overhead clearance: Unlimited; Restricted; Tunnel; Ford; Overhead clearance: Unlimited; Restricted

BOUNDARIES
International; First order administrative: Bureau

Building; Church; School; Hospital
Radio mast; Observation tower; Substation; Chimney

INSTRUCTIONS
Elevation of obstruction top above sea level; Triple Cross
Elevation of obstruction top above ground level
High tension power line; telephone or telegraph line
Railyard
Mine; Active; Abandoned; W; oil
Levee; Dyke

STREAMS: Perennial; Intermittent
Less than 10m wide; 10m. to 25m. wide; over 25m. wide

Salt evaporators
Swamp; Rice
Land subject to inundation
Mangrove; Tropical grass
Orchard; Scrub
Woodland (deciduous; coniferous)
Masonry dam; Earthen dam
Bench mark; BM + 140
Horizontal control point
Spot elevations: Highest; Normal; 610; 189

SCALE 1:50,000

Meters 1000 500 0 1 2 3 4 5 Kilometers
1 ½ 0 1 2 3 2 Statute Miles
1 ½ 0 1 2 3 2 Nautical Miles

CONTOUR INTERVAL 20 METERS
SUPPLEMENTARY CONTOURS 10 METERS

V. D. FROM	CABRA 1946
PROJECTION	TRANSVERSE MERCATOR
VERTICAL DATUM	MEAN SEA LEVEL
HORIZONTAL DATUM	LUZON DATUM
CONTROL BY	U. S. COAST AND GEODETIC SURVEY, 29TH ENGINEER BATTALION AND PHILIPPINE COAST AND GEODETIC SURVEY

BOUNDARIES

ADJOINING SHEETS

Sheet 7070 is flanked by 8 (1:50,000) sheets

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LUBANG, PHILIPPINES 7070 III

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CENTRAL PHILIPPINES 1:50.000

MANSALAY

SHEET 3257 I

SOURCES OF INFORMATION:

Bureau of Coast and Geodetic Survey,US Army Map Series 711 Compiled in 1956 from 1947-1953 Photographs, Department of Public Highways and others.

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Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

INDEX TO BOUNDARIES

INDEX TO ADJOINING SHEETS

BOUNDARIES APPROXIMATE

Sheet 3257 I falls within NO 51-10, 3000, 1:250,000

Municipality

Municipalities:
1. Bongabong
2. Roxas
3. Victoria

LEGEND

ROAD DATA 1952

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide ..... 2.5 LANES

All weather, loose or light surface, two or more lanes wide ..... 2.5 LANES

All weather, hard surface, one lane wide .....

All weather, loose or light surface, one lane wide .....

Fair or dry weather, loose surface .....

Cart track or trail .....

Route markers: National, Provincial .....

RAILROADS

Normal gauge, single track, 1.07 M (3'6") .....

Normal gauge, double track, 1.07 M (3'6") .....

Broad gauge, single track .....

Broad gauge, double track .....

Narrow gauge, single track .....

Narrow gauge, double track .....

Horizontal control point on Church .....

Horizontal control point, Bench mark .....

Spot elevations in meters: Checked, Unchecked .....

Built-up area .....

Church; Chapel; Or cross or wayside cross .....

School; Windmill; Water well .....

Lighthouse; Anchorage .....

Levee; Wall .....

Earthen dam; Masonry dam .....

Power transmission line .....

Depth curves and soundings in fathoms .....

Sunken rocks; Foreshore flat .....

Rocks awash; Reef .....

Limit of danger; Submerged reef .....

Wrecks: Sunken; Exposed .....

Wharf or pier; Sea wall .....

Salt evaporator .....

Woods-brushwood; Scrub .....

Tropical grass; Orchard .....

Rice paddy; Swamp .....

Nipa; Mangrove .....

Vineyard .....

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Fort Bonifacio, Makati

CENTRAL PHILIPPINES 1:50,000

MASAGUISI

SHEET 3358 III

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Scale 1:50,000

1 0 1 2 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 0 1 2 Nautical Miles

MAXIMUM ELEVATION LESS THAN 20 METERS
SUPPLEMENTARY CONTOURS AT 10 METER INTERVALS
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: LUZON DATUM

INDEX TO BOUNDARIES

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BOUNDARY APPROXIMATE

Province

A. Province of Occidental Mindoro
I. Sangguniang Municipality
B. Province of Romblon

LEGEND
ROAD DATA 1992

ROADS
All weather, hard surface, two or more lanes wide
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Cart track or trail
Route numbers: National, Provincial

RAILROADS
Normal gauge, single track, 1.07 M (3'6")
Narrow gauge, double track, 1.07 M (3'6")
Broad gauge, single track
Broad gauge, double track
Narrow gauge, single track
Narrow gauge, double track
Horizontal control point on Church
Horizontal control point, Bench mark
Spot elevations in meters: Checked, Unchecked

Built-up area
Church, Chapel, Shrine or wayside cross
School, Windmill, Water mill
Lighthouse, Anchorage
Levee, Mill
Earthen dam, Masonry dam
Power transmission line
Depth curves and soundings in fathoms
Sunken rocks, Foreshore flat
Rocks awash, Reef
Limit of danger, Submerged reef
Wreck - Sunken, Exposed
Wharf or pier, Sea wall
Salt evaporator
Woods (cultivated), Scrub
Fruitful grove, Orchard
Rice paddy, Swamp
Nipa, Mangrove
Vineyard

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Fort Bonifacio, Makati

MASAGUISI

CENTRAL PHILIPPINES 1:50,000

MOUNT DUMALI

SHEET 3359 III

SOURCES OF INFORMATION:

Bureau of Coast and Geodetic Survey,US Army Map Series 711 Compiled in 1906 from 1947-1953 Photographs, Department of Public Highways and others.

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LEGEND

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 10 METER INTERVALS

VERTICAL DATUM, MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM, LUZON DATUM

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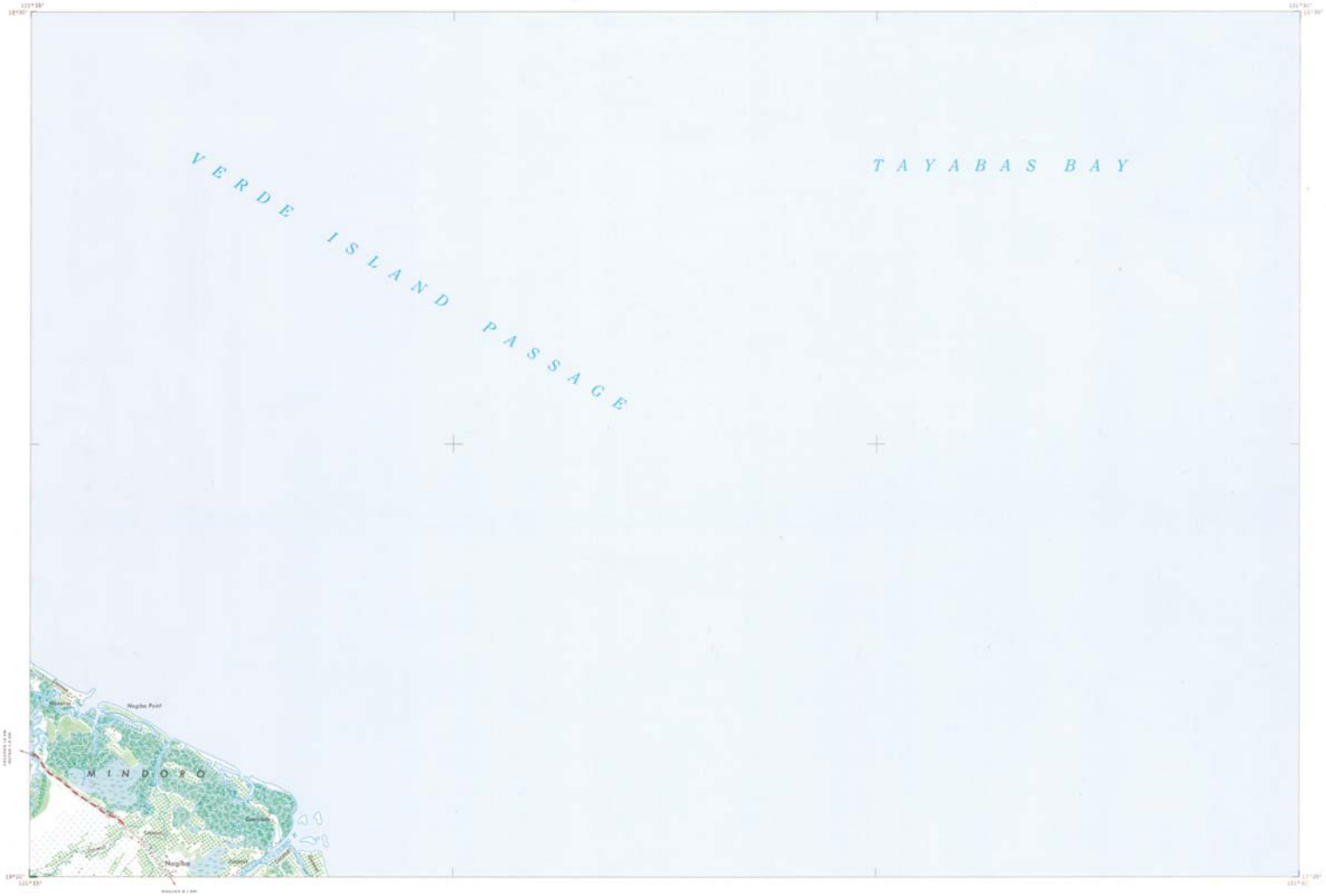
MOUNT DUMALI, MINDORO, PHILIPPINE ISLANDS

CENTRAL PHILIPPINES 1:50,000

NAGIBA

SHEET 3260 II



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Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

MAXIMUM ELEVATION LESS THAN 20 METERS
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: LUZON DATUM

INDEX TO BOUNDARIES

BOUNDARY APPROXIMATE

INDEX TO ADJOINING SHEETS

LEGEND
ROAD DATA 1992
On this map a line is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS
All weather, hard surface, two or more lanes wide
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Cart track or trail
Route markers: National; Provincial

RAILROADS
Normal gauge, single track, 1.07 M (3'6")
Normal gauge, double track, 1.07 M (3'6")
Broad gauge, single track
Broad gauge, double track
Narrow gauge, single track
Narrow gauge, double track
Horizontal control point on Church
Horizontal control point; Bench mark
Spot elevations in meters: Checked; Unchecked

Built-up area
Church; Chapel; Shrine or wayside cross
Cities; Windmill; Water well
Lighthouse; Anchorage
Levee; Wall
Civilian dam; Masonry dam
Power transmission line
Depth curves and soundings in fathoms
Sunken rocks; Foreshore flat
Rocks awash; Reef
Coral or danger; Submerged reef
Wreck; Sunken; Exposed
Wharf or pier; Sea wall
Salt evaporator
Woods-brushwood; Scrub
Tropical grass; Orchard
Rice paddy; Swamp
Nipa; Mangrove
Vineyard

APPROXIMATE MEAN DECLINATION 1995 FOR CENTER OF SHEET
ANNUAL MAGNETIC CHANGE 2' WESTERLY
The diagram aids to obtain numerical values. To determine magnetic north line, connect the point point "P" on the north edge of the map with the value of the angle between GRID NORTH and MAGNETIC NORTH, established on the degree scale of the north edge of the map.

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NATIONAL MAPPING & RESOURCE INFORMATION AUTHORITY
Fort Bonifacio, Makati
Metro Manila
JOSE G. SOLIS
Administrator

NAGIBA, MINDORO

NAUJAN

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Scale 1:50,000

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

LEGEND

ROAD DATA 1952

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS
- All weather, hard surface, two or more lanes wide
- All weather, loose or light surface, two or more lanes wide
- All weather, hard surface, one lane wide
- All weather, loose or light surface, one lane wide
- Fair or dry weather, loose surface
- Cart track or trail
- Route markers: National; Provincial

RAILROADS
- Normal gauge, single track, 1.07 M (3'6")
- Normal gauge, double track, 1.07 M (3'6")
- Broad gauge, single track
- Broad gauge, double track
- Narrow gauge, single track
- Narrow gauge, double track

Horizontal control point on Church

Horizontal control point; Bench mark

Spot elevations in meters: Checked; Unchecked

- Built-up area
- Church; Chapel; Shrine or wayside cross
- School; Windmill; Water mill
- Lighthouse; Anchorage
- Levee; Wall
- Earthen dam; Masonry dam
- Power transmission line
- Depth curves and soundings in fathoms
- Sunken rocks; Foreshore flat
- Rocks awash; Reef
- Limit of danger; Submerged reef
- Wrecks: Sunken; Exposed
- Wharf or pier; Sea wall
- Salt evaporator
- Woods brushwood; Scrub
- Tropical grass; Orchard
- Rice paddy; Swamp
- Nipa; Mangrove
- Vineyard

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Fort Bonifacio, Makati

INDEX TO BOUNDARIES

BOUNDARIES APPROXIMATE

INDEX TO ADJOINING SHEETS

CENTRAL PHILIPPINES 1:50,000

NEW MACATOC

SHEET 3259 IV

Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

1000 500 0 1000 2000 3000 4000 Meters

1000 500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

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INDEX TO BOUNDARIES

INDEX TO ADJOINING SHEETS

BOUNDARIES APPROXIMATE

Provinces

Municipalities

A. Province of Mindoro Oriental

Municipalities

1. San Teodoro
2. Baco
3. Calapan
4. Naujan

B. Province of Mindoro Occidental

1. Sablayan Municipality

LEGEND

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide

All weather, hard surface, two lanes wide

All weather, hard surface, one lane wide

All weather, loose or light surface, one lane wide

Fair or dry weather, loose surface

Cart track or trail

Route markers: National; Provincial

RAILROADS

Normal gauge, single track, 1.07 M (3'6")

Normal gauge, double track, 1.07 M (3'6")

Broad gauge, single track

Broad gauge, double track

Narrow gauge, single track

Narrow gauge, double track

Power transmission line

Built-up area

Church; Chapel; Shrine or wayside cross

School; Windmill; Water mill

Lighthouse; Anchorage

Levee; Wall

Earthen dam; Masonry dam

Horizontal control point on Church

Horizontal control point; Bench mark

Spot elevations in meters: Checked; Unchecked

Salt evaporator

Woods-brushwood; Scrub

Tropical grass; Orchard

Rice paddy; Swamp

Nipa; Mangrove

Vineyard

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Department of Environment and Natural Resources

NATIONAL MAPPING & RESOURCE INFORMATION AUTHORITY

Fort Bonifacio, Makati

NEW MACATOC

CENTRAL PHILIPPINES 1:50,000

EDITION 2-DMATC

PALUAN

REFER TO THIS MAP AS:
SHEET 3060 II
SERIES S733

S733
EDITION 2-DMATC

SOURCES OF INFORMATION:

Bureau of Coast and Geodetic Survey,US Army Map Series 711 Compiled in 1958 from 1947-1953 Photographs, Department of Public Highways and others.

Users noting errors or omissions on this map are requested to mark herein and refer directly to the NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, Fort Andres Bonifacio, Makati, Metro Manila

LEGEND

On this map a line is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS
All weather, hard surface, two or more lanes wide
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Cart track or trail
Route markers: National, Provincial

RAILROADS
Normal gauge, single track, 1.07 M (3'6")
Normal gauge, double track, 1.07 M (3'6")
Broad gauge, single track
Broad gauge, double track
Narrow gauge, single track
Narrow gauge, double track
Horizontal control point on Church
Horizontal control point, Bench mark
Spot elevations in meters: Checked, Unchecked

Built-up area
Church; Chapel; Shrine or wayside cross
School; Windmill; Water mill
Lighthouse; Anchorage
Levee; Wall
Earthen dam; Masonry dam
Power transmission line
Depth curves and soundings in meters
Sunken rocks; Foreshore flat
Rocks awash; Reef
Coral or Geiger; Submerged reef
Wreck: Sunken; Exposed
Wharf or pier; Sea wall
Salt evaporator
Woods-brushwood; Scrub
Tropical grass; Orchard
Rice paddy; Swamp
Nipa; Mangrove
Vineyard

Scale 1:50,000

1 ½ 0 1 2 Statute Miles
1000 500 0 1000 2000 3000 4000 Meters
1000 500 0 1000 2000 3000 4000 Yards
1 ½ 0 1 2 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 10 METER INTERVALS
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: LUZON DATUM
HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

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INDEX TO BOUNDARIES

INDEX TO ADJOINING SHEETS

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Fort Andres Bonifacio, Makati City, Metro Manila

Police Director IRONY A VENTURA, MNSA, (Ret)
Administrator

PALUAN, PHILIPPINES

CENTRAL PHILIPPINES 1:50,000

PINAMALAYAN

SHEET 3259 II

SOURCES OF INFORMATION:
Bureau of Coast and Geodetic Survey, US Army Map Series 771 Compiled in 1956 from 1947-1953 Photographs, Department of Public Highways and others.

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Reprinted by NAMRIA December 2006

Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles
1500 500 0 1000 2000 3000 4000 Meters
1000 500 0 1000 2000 3000 4000 Yards
1 ½ 0 1 2 Nautical Miles

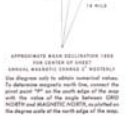
CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 10 METER INTERVALS
VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION
HORIZONTAL DATUM: LUZON DATUM

LEGEND
ROAD DATA 1952
On this map a lane is considered as being a maximum of 2.5 meters (8 feet) in width.

ROADS
All weather, hard surface, two or more lanes wide
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Cart track or trail
Route markers: National; Provincial
RAILROADS
Normal gauge, single track, 1.07 M (3'6")
Normal gauge, double track, 1.67 M (3'6")
Broad gauge, single track
Broad gauge, double track
Narrow gauge, single track
Narrow gauge, double track
Horizontal control point on Church
Horizontal control point; Bench mark
Spot elevations in meters: Checked; Unchecked

Built-up area
Church; Chapel; Shrine or wayside cross
School; Windmill; Water well
Lighthouse; Anchorage
Levee; Wall
Earthen dam; Masonry dam
Power transmission line
Depth curves and soundings in fathoms
Sunken rocks; Foreshore flat
Rocks awash; Reef
Coral of danger; Submerged reef
Wreck; Sunken; Exposed
Wharf or pier; Sea wall
Salt evaporator
Woods brushwood; Scrub
Tropical grass; Orchard
Rice paddy; Swamp
Nipa; Mangrove
Vineyard



One diagram only to obtain numerical values. To determine magnetic north line, connect the pivot point "P" on the south edge of the map with the value of the angle between GRID NORTH and MAGNETIC NORTH, as shown on the degree scale at the north edge of the map.

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Police Director DIONY A VENTURA, MNSA, (Ret)
Administrator

INDEX TO BOUNDARIES

BOUNDARIES APPROXIMATE

Municipality

Province of Oriental Mindoro
Municipalities:
1. Bacuan
2. Pola
3. Pinamalayan

INDEX TO ADJOINING SHEETS

Sheet 3259 II falls within NO 51 N, ZONE 11 250,000

PINAMALAYAN

CENTRAL PHILIPPINES 1:50,000

PUERTO GALERA

SHEET 3160 I

Users noting errors or omissions on this map are requested to mark herein and refer directly to the NATIONAL MAPPING AND RESOURCE INFORMATION AUTHORITY, Fort Andres Bonifacio, Makati, Metro Manila

Scale 1:50,000

1 ½ 0 1 2 3 Statute Miles

3000 1500 0 1000 2000 3000 4000 Meters

3000 1500 0 1000 2000 3000 4000 Yards

1 ½ 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

Reprinted by NAMRIA February 1993

LEGEND

ROAD DATA 102

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide

All weather, loose or light surface, two or more lanes wide

All weather, hard surface, one lane wide

All weather, loose or light surface, one lane wide

Fair or dry weather, loose surface

Cart track or trail

Route markers: National, Provincial

RAILROADS

Normal gauge, single track, 1.07 M (3'6")

Normal gauge, double track, 1.07 M (3'6")

Broad gauge, single track

Broad gauge, double track

Narrow gauge, single track

Narrow gauge, double track

Horizontal control point on Church

Horizontal control point, Bench mark

Spot elevations in meters: Checked, Unchecked

Built-up area

Church; Chapel; Shrine or wayside cross

School; Windmill; Water well

Lighthouse; Anchorage

Levee; Wall

Earthen dam; Masonry dam

Power transmission line

Depth curves and soundings in fathoms

Sunken rocks; Foreshore flat

Rocks awash; Reef

Limit of danger; Submerged reef

Wreck, Sunken; Exposed

Wharf or pier; Sea wall

Salt evaporator

Woods broadleaved; Scrub

Tropical grass; Orchard

Rice paddy; Swamp

Nipa; Mangrove

Vineyard

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Republic of the Philippines

Department of Environment and Natural Resources

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Fort Bonifacio, Makati

Metro Manila

JOSE G. SOLIS

Administrator

PUERTO GALERA, MINDORO, PHILIPPINE ISLANDS

CENTRAL PHILIPPINES 1:50,000

SAN JOSE

SHEET 3257 III

SOURCES OF INFORMATION:

Bureau of Coast and Geodetic Survey,US Army Map Series 711 Compiled in 1956 from 1947-1953 Photographs, Department of Public Highways and others.

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LEGEND

ROAD DATA (ft)

On this map a lane is considered as being a minimum of 2.5 meters (8 feet) in width.

ROADS

All weather, hard surface, two or more lanes wide
All weather, loose or light surface, two or more lanes wide
All weather, hard surface, one lane wide
All weather, loose or light surface, one lane wide
Fair or dry weather, loose surface
Cart track or trail
Radio markers: National, Provincial

RAILROADS

Normal gauge, single track, 1.07 M (3'6")
Normal gauge, double track, 1.07 M (3'6")
Broad gauge, single track
Broad gauge, double track
Narrow gauge, single track
Narrow gauge, double track

Horizontal control point on Church
Horizontal control point, Bench mark
Spot elevations in meters: Checked; Unchecked

Built-up area
Church; Chapel; Shrine or wayside cross
School; Windmill; Water well
Lighthouse; Anchorage
Levee; Wall
Earthen dam; Masonry dam
Power transmission line
Depth curves and soundings in fathoms
Sunken rocks; Foreshore flat
Rocks awash; Reef
Lined at danger; Submerged reef
Wreck - Sunken; Exposed
Wharf or pier; Sea wall
Sulfi wagayway
Woods-brushwood; Scrub
Tropical grass; Orchard
Rice paddy; Swamp
Nipa; Mangrove
Unsurveyed

Scale 1:50,000

1 0 1 2 3 Statute Miles
1000 500 0 1000 2000 3000 4000 Meters
1000 500 0 1000 2000 3000 4000 Yards
½ 0 1 2 3 Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

INDEX TO BOUNDARIES

BOUNDARIES APPROXIMATE

Province
Municipality
A. Province of Mindoro Occidental
1. San Jose Municipality
B. Province of Mindoro Oriental
Municipalities
1. Bulalacao
2. Roxas

INDEX TO ADJOINING SHEETS

Sheet 3257 III falls within NE 51-12, Tile: C (NLSA)

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SAN JOSE

CENTRAL PHILIPPINES 1:50,000

SOGUICA

SHEET 3257 II

SOURCES OF INFORMATION:

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Scale 1:50,000

3 Statute Miles

Nautical Miles

CONTOUR INTERVAL 20 METERS WITH SUPPLEMENTARY CONTOURS AT 5 AND 10 METER INTERVALS

VERTICAL DATUM: MEAN SEA LEVEL

TRANSVERSE MERCATOR PROJECTION

HORIZONTAL DATUM: LUZON DATUM

HYDROGRAPHIC DATUM: MEAN LOWER LOW WATER

LEGEND

INDEX TO BOUNDARIES

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SOGUICA

PHILIPPINES 1:50,000

TALAOTAO

SHEET 7070 II

This corresponds to PNTMS SHEET 3028 - II

LEGEND

SCALE 1:50,000

CONTOUR INTERVAL 20 METERS

BOUNDARIES

ADJOINING SHEETS

TALAOTAO, PHILIPPINES 7070 II

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