

LAND SUITABILITY MAP

CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF BATANGAS



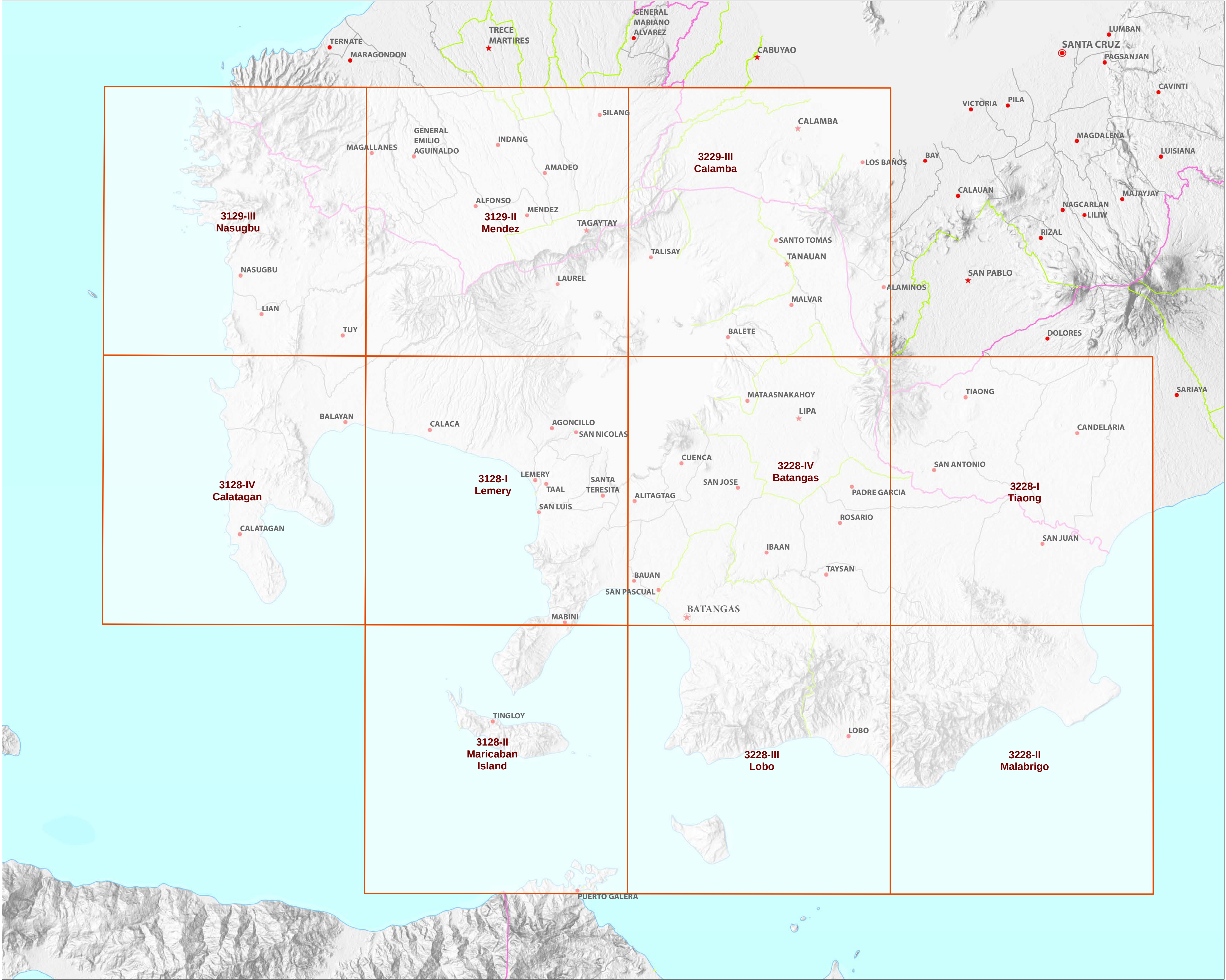
REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
BUREAU OF SOILS AND WATER MANAGEMENT

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MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF BATANGAS



LEGEND

Places

- ★ Capital City
- ★ City
- Capital Town
- Town

Administrative Boundary

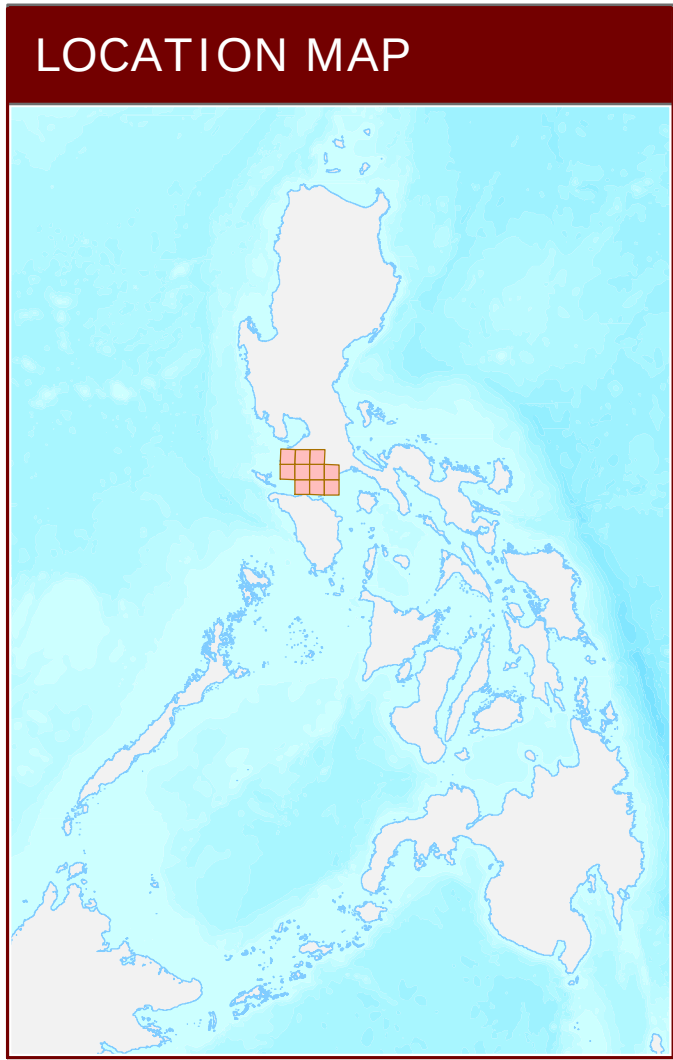
- Regional
- Provincial
- City
- Municipal

Map Index

- Index grid

Topographic Relief

Bathymetry



LAND SUITABILITY MAP FOR CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS BATANGAS, REGION IV-A

EXTENT OF SUITABILITY FOR CACAO PRODUCTION BY MUNICIPALITY

MUNICIPALITY	EXISTING CACAO (Ha)			TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)						CONFLICT RESOLUTION (Ha)								TOTAL POTENTIAL EXPANSION AREA (Ha)
					Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Rice paddy, non-irrigated		Sugarcane		Other Crops		
	S1	S2	S1		S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2		
AGONCILLO	-	-	-	-	-	-	-	-	-	-	21	-	46	-	259	-	2,151	-	2,477
ALITACTAG	-	-	-	-	536	186	-	9	-	-	261	10	330	-	-	-	-	-	1,332
BALAYAN	-	-	-	-	292	20	31	-	-	-	1,854	659	3,579	71	501	-	-	1	7,008
BALETE	-	-	-	-	301	1,035	-	1	61	7	52	19	64	1	-	-	52	7	1,598
BATANGAS CITY	-	-	-	-	9,548	562	105	144	54	25	879	196	425	10	-	-	33	-	11,983
BAUAN	-	-	-	-	2,207	77	151	-	31	-	99	-	224	-	-	-	22	-	2,811
CALACA	-	-	-	-	43	120	-	-	-	-	2,025	570	1,197	202	353	1,580	783	2,271	9,143
CALATAGAN	-	-	-	-	2,376	491	107	72	96	249	1,194	86	2,297	118	37	-	11	17	7,152
CITY OF TANAUAN	-	-	-	-	1,239	1,063	-	-	-	-	796	5	2,721	13	1,668	15	809	145	8,473
CUENCA	-	-	-	-	732	311	1	22	-	-	126	-	7	-	-	-	-	-	1,198
IBAAN	-	-	-	-	2,370	58	-	-	-	-	3,085	40	349	1	-	-	-	-	5,904
LAUREL	-	-	-	-	370	6	3	-	-	2	188	-	51	-	33	-	1,766	-	2,419
LEMERY	-	-	-	-	-	-	-	-	-	-	524	-	266	92	102	412	1,522	1,677	4,595
LIAN	-	-	-	-	876	-	167	6	159	-	2,266	43	1,807	8	99	-	117	-	5,549
LIPA CITY	-	-	-	-	7,750	462	20	-	82	-	3,125	3	678	-	-	-	-	-	12,118
LOBO	-	-	-	-	1,410	646	655	315	480	-	194	64	77	8	-	-	-	-	3,849
MABINI	-	-	-	-	824	-	26	-	18	-	-	-	-	-	-	-	-	-	868
MALVAR	-	-	-	-	529	385	-	-	-	-	1,557	61	293	-	-	-	-	-	2,826
MATAASNAKAOY	-	-	-	-	184	709	-	-	-	-	26	-	22	-	-	-	-	36	978
NASUGBU	-	-	-	-	2,549	1,244	390	69	170	-	2,472	713	3,706	520	63	-	-	-	11,895
PADRE GARCIA	-	-	-	-	1,321	-	-	-	-	-	1,812	-	373	-	-	-	-	-	3,506
ROSARIO	-	-	-	-	6,671	66	506	-	80	-	7,433	136	2,089	2	-	-	-	-	16,983
SAN JOSE	-	-	-	-	3,558	145	-	-	-	-	291	-	86	-	-	-	-	-	4,079
SAN JUAN	-	-	-	-	4,920	1,911	381	173	3	2	5,634	351	2,347	40	-	-	-	-	15,760
SAN LUIS	-	-	-	-	343	120	-	-	-	-	1,762	407	114	-	-	-	-	-	2,746
SAN NICOLAS	-	-	-	-	-	-	7	-	635	-	14	-	237	-	491	-	169	-	1,553
SAN PASCUAL	-	-	-	-	1,721	20	-	-	-	-	63	-	269	9	-	-	-	-	2,082
SANTA TERESITA	-	-	-	-	77	123	-	-	-	-	783	50	55	-	179	-	30	-	1,297
SANTO TOMAS	-	-	-	-	3,514	46	7	-	175	-	1,508	7	589	8	-	-	-	-	5,854
TAAL	-	-	-	-	2	2	-	-	-	-	1,090	78	245	4	801	1	77	-	2,301
TALISAY	-	-	-	-	305	-	168	1	438	4	38	-	57	-	29	-	904	-	1,944
TAYSAN	-	-	-	-	4,080	-	-	-	62	-	2,281	51	309	-	-	-	-	-	6,782
TINGLOY	-	-	-	-	276	-	5	-	32	-	104	-	-	-	-	-	-	-	417
TUY	-	-	-	-	8	57	39	21	-	14	2,995	2,368	1,802	495	77	-	-	-	7,876
TOTAL	-	-	-	-	60,932	9,863	2,768	833	2,574	303	46,551	5,918	26,711	1,602	4,693	2,008	8,444	4,153	177,355

Note: Delivery of cacao planting materials must be started on the onset of rainy season.
*establishment of shade trees prior to planting of cacao.

AGRONOMIC REQUIREMENT OF CACAO PRODUCTION

LAND UTILIZATION TYPE	SUITABILITY RATING	SLOPE (%)	SOIL DEPTH (cm)	SOIL TEXTURE	SOIL DRAINAGE	SOIL REACTION (pH)	INHERENT FERTILITY	FLOODING CLASS	EROSION CLASS	ROCK OUTCROPS	ELEVATION (masl)	ANNUAL RAINFALL (mm)	CLIMATIC TYPE
Cacao	S1	<8	>100	CL, SiCL, SCL, SC, SiC, C, HC	WD,MWD	5.6 -7.2	high	none-slight	none-slight	none-few	<1000	2001-4500	I, III, IV
	S2	8 - 30	50 - 100	FSL, L, SiL	SPD,PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	1000-1500	1000-2000	I, II
	S3	>30	<50	S, LS, CSL, SL	VPD,ED	<5.0 - > 7.9	low	severe	severe	many	>1500	<1000 >4500	

SLOPE (%)		SOIL DRAINAGE		SOIL REACTION (pH)		SOIL TEXTURE		
0 - 3	- level to gently sloping	ED	- excessively drained	< 4.5	- extremely acid	Coarse	Fine	
3 - 8	- gently sloping to undulating	WD	- well drained	4.5 - 5.0	- very strongly acid	S	SC	- sandy clay
8 - 18	- undulating to rolling	MWD	- moderately well drained	5.1 - 5.5	- strongly acid	LS	SiC	- silty clay
18 - 30	- rolling to moderately steep	SPD	- somewhat poorly drained	5.6 - 6.0	- medium acid	CSL	C	- clay
30 - 50	- steep	PD	- poorly drained	6.1 - 6.5	- slightly acid	SL	HC	- heavy clay
> 50	- very steep	VPD	- very poorly drained	6.6 - 7.2	- neutral	Medium		
				7.3 - 7.8	- mildly alkaline	FSL		- fine sandy loam
				7.9 - 8.4	- moderately alkaline	L		- loam
				> 8.5	- strongly alkaline	SiL		- silt loam
						CL		- clay loam
						SiCL		- silty clay loam
						SCL		- sandy clay loam

SOIL DEPTH (cm)		SURFACE IMPEDIMENT	
0 - 30	- very shallow	ROCK OUTCROPS	
30 - 50	- shallow	< 10%	- none - few
50 - 100	- moderately deep	10 - 30%	- common
> 100	- deep to very deep	> 30%	- many

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ELEVATION	SOIL DRAINAGE	SOIL DEPTH
EI2 - 1000m - 1500m	D2 - Somewhat poorly drained to poorly drained	Sh2 - Moderately deep (50 - 100cm)
EI3 - > 1500m	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow to shallow (< 50cm)

SLOPE/TOPOGRAPHY	SOIL TEXTURE	ROCK OUTCROPS	FLOODING
T2 - Undulating to moderately steep	Tc - Coarse texture	Rc2 - Common	F2 - Moderate seasonal flooding
T3 - Steep to very steep		Rc3 - Many	F3 - Severe seasonal flooding

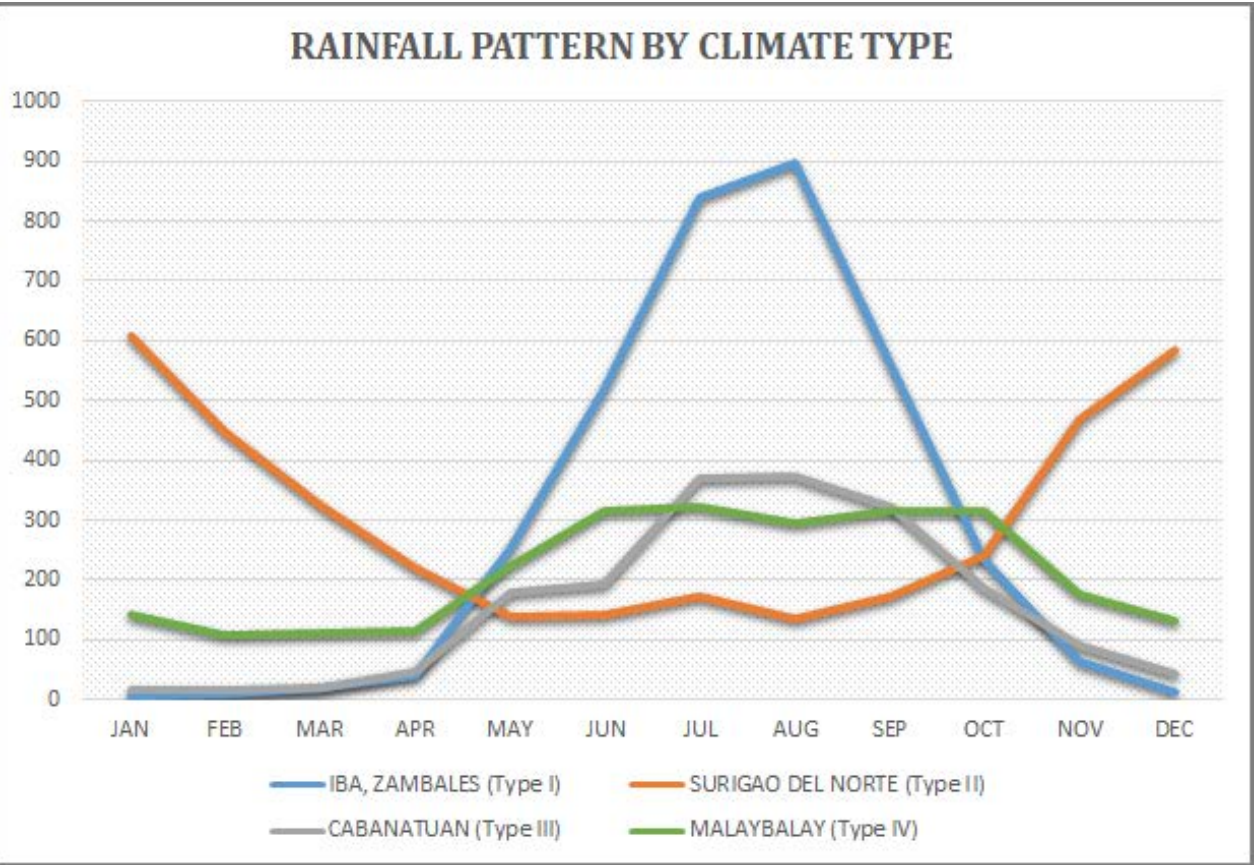
SUITABILITY CLASSES:

Highly Suitable (S1) Land having no significant limitation to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.	Marginally Suitable (S3) Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
Moderately Suitable (S2) Land having limitation which in aggregate are moderately severe for sustained application of a given use; the limitation will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.	Not Suitable / Not Relevant Land having limitations which may be surmountable in time but which cannot be corrected with existing knowledge at currently acceptable cost; the limitations are so severe as to preclude successful sustained use of the land in the given manner. Existing forest, shrubland greater than 18% slope, irrigated paddy rice and miscellaneous land types such as built up areas, roads, etc are considered as not relevant.

CLIMATE TYPE

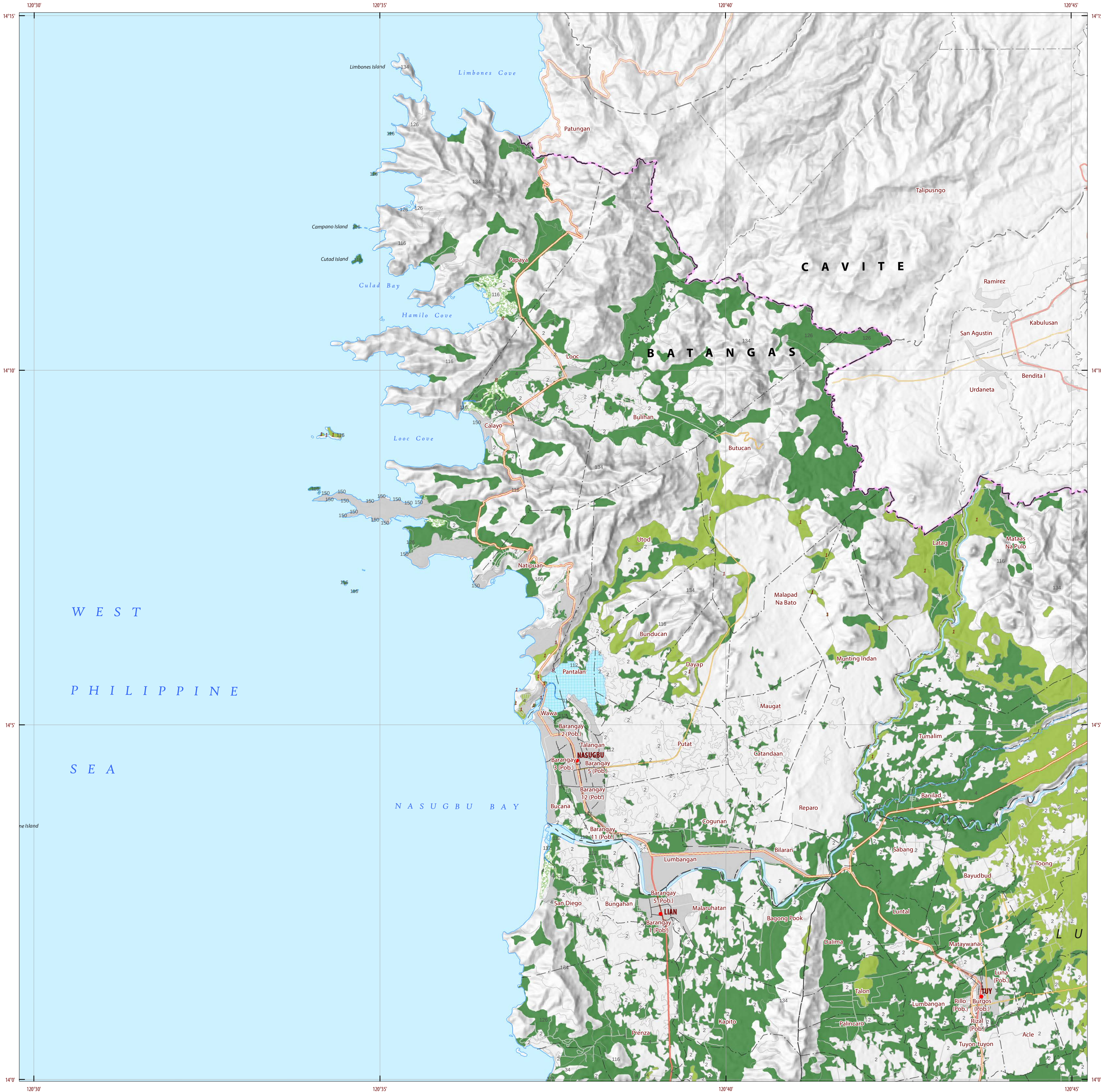
TYPE I : Two pronounced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September	TYPE II : No dry season with a very pronounced maximum rain period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.
TYPE III : No very pronounced maximum rain period, with a dry season lasting only from one to three months, either during the period from December to February or from March to May. This type resembles Type I since it has a short dry season.	TYPE IV : Rainfall is more or less evenly distributed throughout the year. This type resembles Type II since it has no dry season.

Western part of Batangas belongs to Type I climate classification and the rest on Eastern part belongs to Type III.



Source: PAGASA 2018, *Climatological Normals (Rainfall)*, Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), accessed 27 July 2018, <<https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals>>.

CODE	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND USE
1	E2-Sh2-Rc2	11	T2-E3-Rc3	21	T3-E3-Sh2-Rc3	2	Rice paddy, non-irrigated
2	EI2	12	T2-E3-Sh2-Rc2	22	T3-E3-Sh3-Rc2	4	Corn
3	EI2-Sh2-Rc2	13	T2-E3-Sh2-Rc3	23	T3-E3-Sh3-Rc3	34	Diversified crops
4	EI2-Sh2-Rc3	14	T2-EI2	24	T3-EI2	81	Coffee
5	F2-D2	15	T2-EI2-E3-Sh2-Rc2	25	T3-EI2-E3-Sh3-Rc2	112	Sugarcane
6	F3-D2	16	T2-EI2-E3-Sh2-Rc3	26	T3-EI2-E3-Sh3-Rc3	116	Coconut
7	Sh2-Rc2	17	T2-F2-D2	27	Tc	126	Grassland
8	T2	18	T2-F3-D2			134	Shrubs, unmanaged
9	T2-E3	19	T3				
10	T2-E3-Rc2	20	T3-E3				



LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

SCALE 1 : 50 000

Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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LEGEND

SUITABILITY CLASSES

- S1 Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Not Suitable/ Not Relevant

OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

ROADS

- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY

- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY

- Sea / Shoreline
- Lakes / Rivers

PLACES

- Capital City / City
- Capital Town / Town

LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3129-III

INDEX MAP

MISCELLANEOUS INFORMATION

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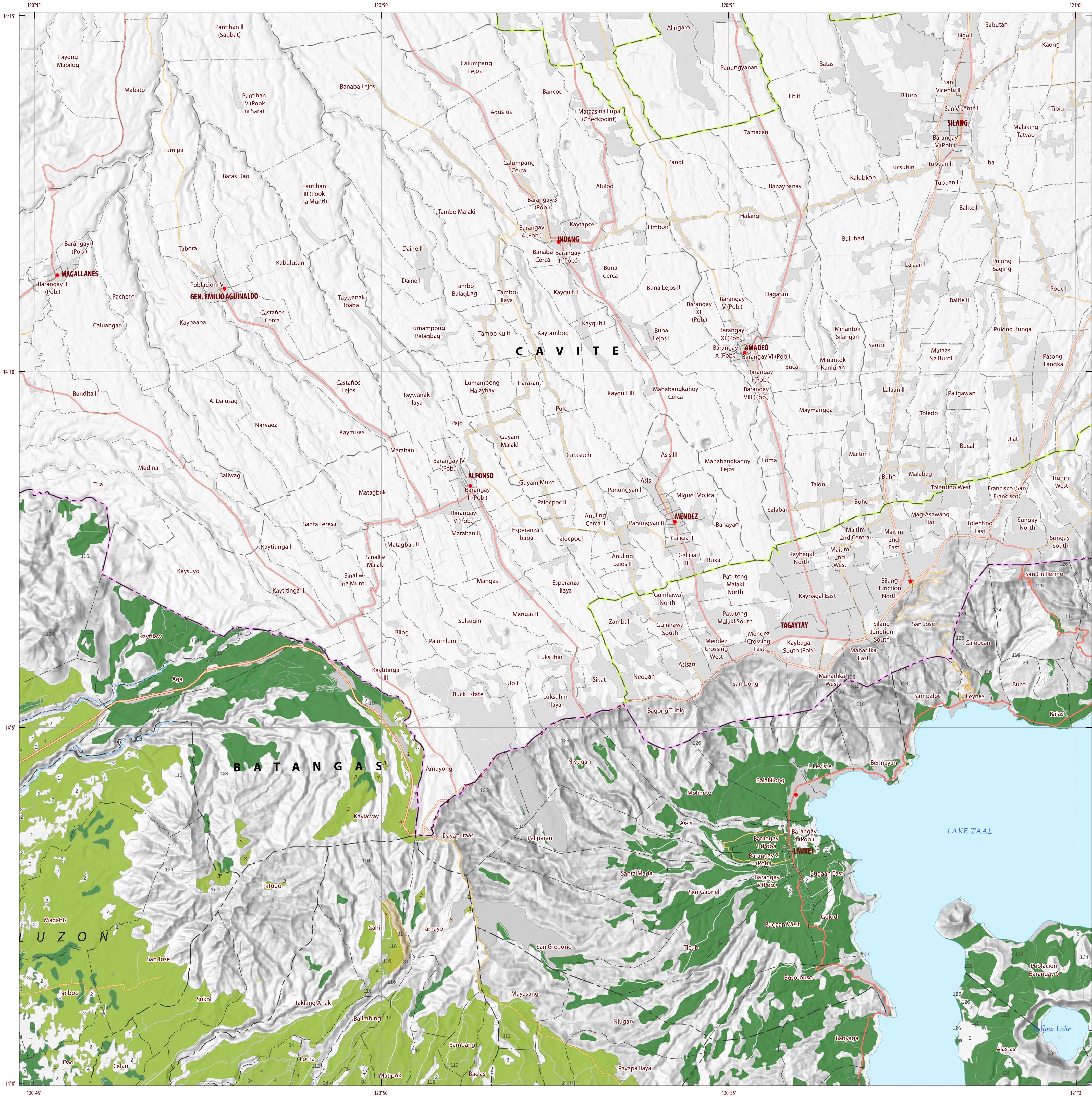
Project Leader : BERNARDO B. PASCUA
GIS and Cartography : IRVIN K. SAMALCA

Funding Agency : Department of Agriculture - Bureau of Agricultural Research (DA-BAR)
Collaborating Agencies : Philippine Council on Agriculture and Fisheries (PCAF)
: Department of Agriculture Regional Field Office of CAR, Region II, IV-A, IV-B, VI, VII, VIII, IX, X, XI, XII and CARAGA(XIII)
: Local Government Unit (LGU) of covered provinces and municipalities

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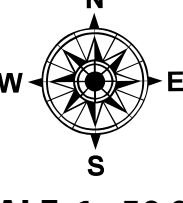
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LAND SUITABILITY MAP
CACAO

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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LEGEND

SUITABILITY CLASSES

S1

Highly Suitable

Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.

S2

Moderately Suitable

Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.

S3

Marginally Suitable

Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas

Cacao

Land limitation

Land use

CONVENTIONAL SIGNS

ROADS

Expressway

Trunk line

Primary

Secondary

Tertiary

BOUNDARY

Region

Province

District

Municipality

Barangay

HYDROLOGY

Sea / Shoreline

Lakes / Rivers

PLACES

Capital City / City

Capital Town / Town

LAND USE

Built-up

Fishpond

Mangrove

ADJOINING SHEETS

3129-II

3129-III

3128-III

3128-IV

3128-I

3128-II

INDEX MAP

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PROVINCE OF BATANGAS

Sheet 2 of 10

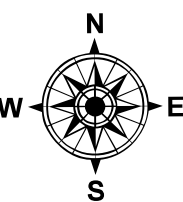
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LAND SUITABILITY MAP
CACAO

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ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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LEGEND

SUITABILITY CLASSES

S1

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S2

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S3

Marginally Suitable - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas

Cacao

1

Land limitation

Land use

CONVENTIONAL SIGNS

ROADS

Expressway

Trunk line

Primary

Secondary

Tertiary

BOUNDARY

Region

Province

District

Municipality

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HYDROLOGY

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LAND USE

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Mangrove

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3229-III

3129-II

3128-I

3228-IV

3228-I

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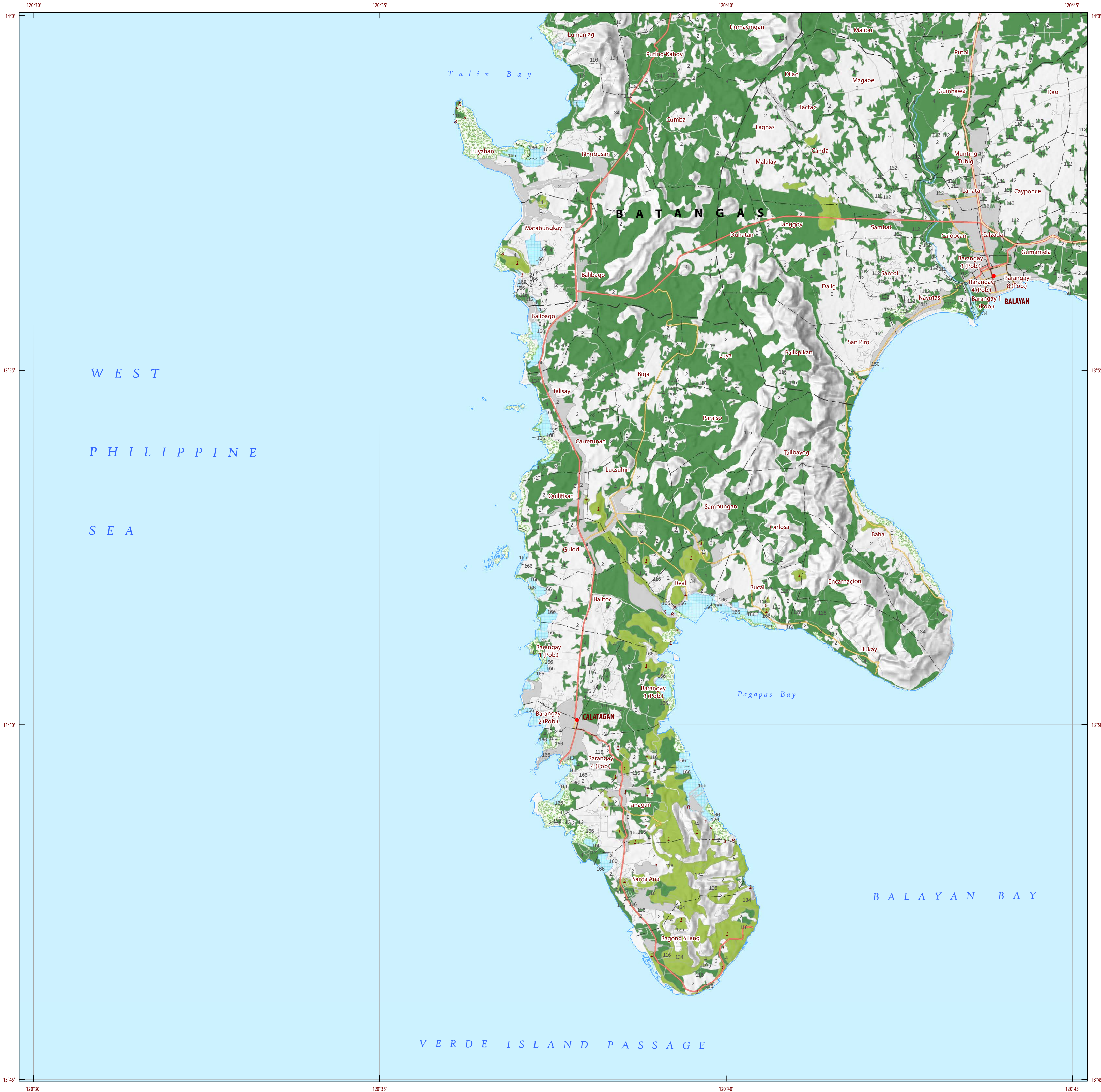
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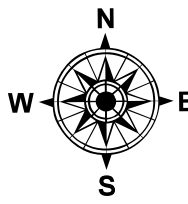
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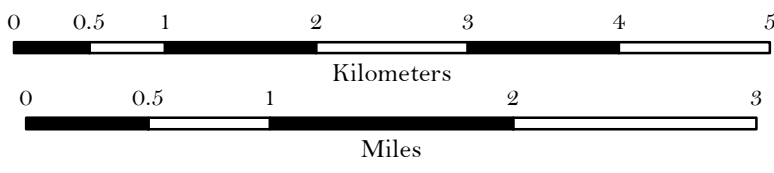


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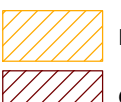
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Marginally Suitable

Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

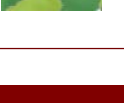
Not Suitable/ Not Relevant

OTHER SIGNS

 NGP Areas

 Cacao

 Land limitation

 Land use

CONVENTIONAL SIGNS

ROADS

 Expressway

 Trunk line

 Primary

 Secondary

 Tertiary

BOUNDARY

 Region

 Province

 District

 Municipality

 Barangay

HYDROLOGY

 Sea / Shoreline

 Lakes / Rivers

PLACES

 Capital City / City

 Capital Town / Town

LAND USE

 Built-up

 Fishpond

 Mangrove

ADJOINING SHEETS

3128-IV

3129-III

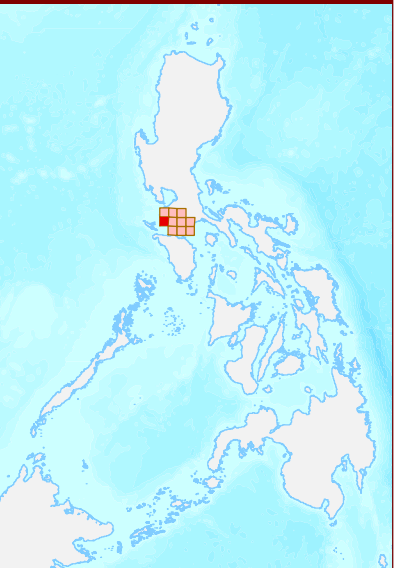
3129-II

3128-IV

3128-I

3128-II

INDEX MAP



MISCELLANEOUS INFORMATION

SOURCES OF INFORMATION

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Project Leader

: BERNARDO B. PASCUA

GIS and Cartography

: IRVIN K. SAMALCA

Funding Agency

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Collaborating Agencies

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DEPARTMENT OF AGRICULTURE

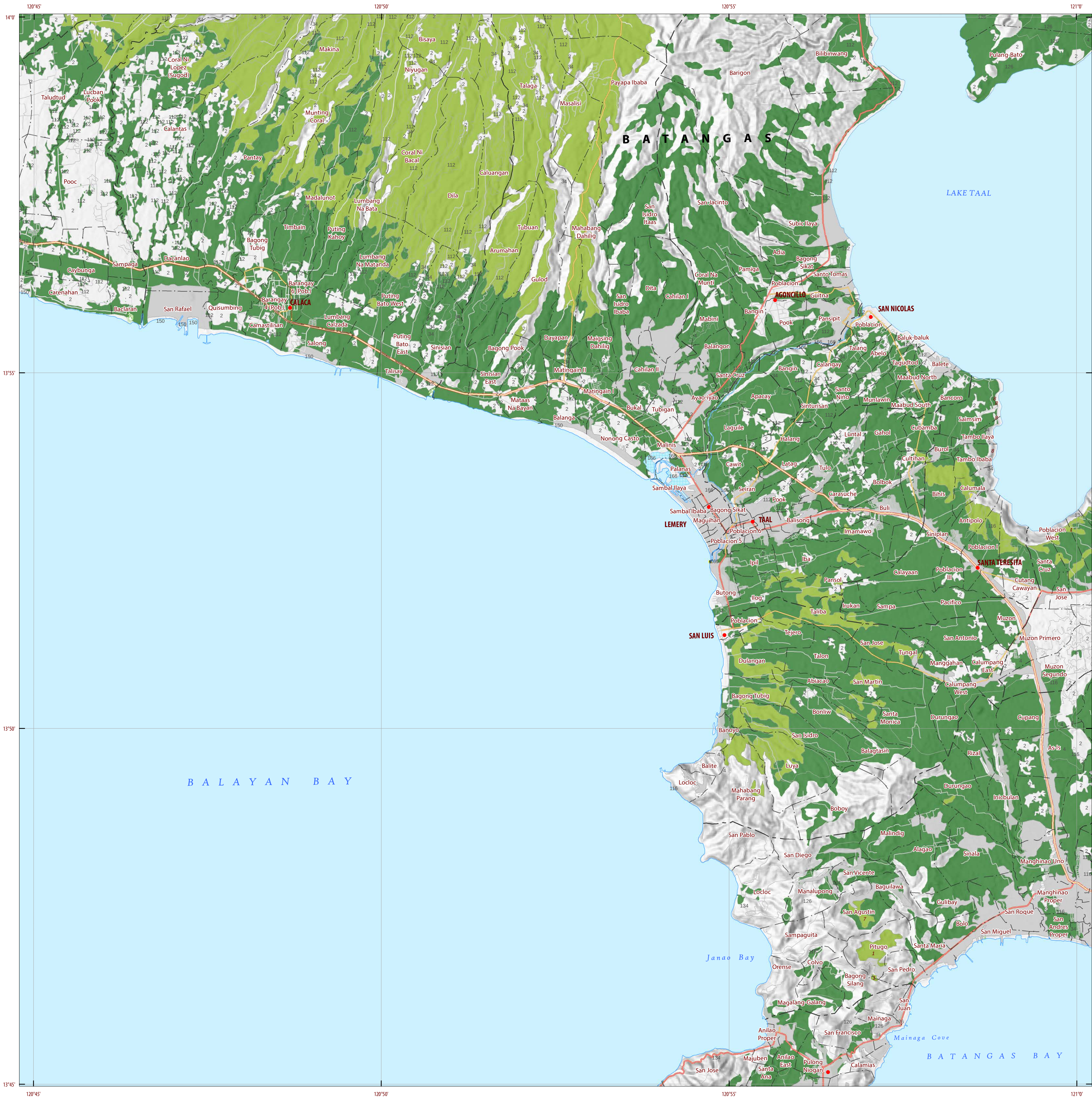
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PROVINCE OF BATANGAS

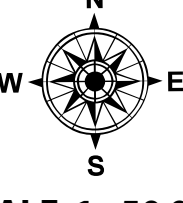
Sheet 4 of 10 Sheet No. 3128-IV



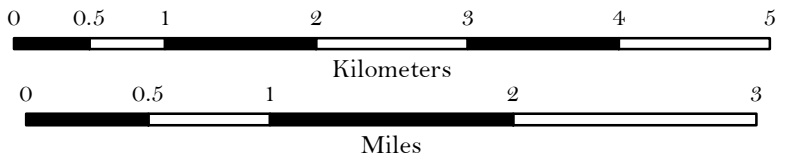


LAND SUITABILITY MAP
CACAO

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
DISCLAIMER : All political boundaries are not authoritative.

LEGEND

SUITABILITY CLASSES

- S1 Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Not Suitable/ Not Relevant

OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

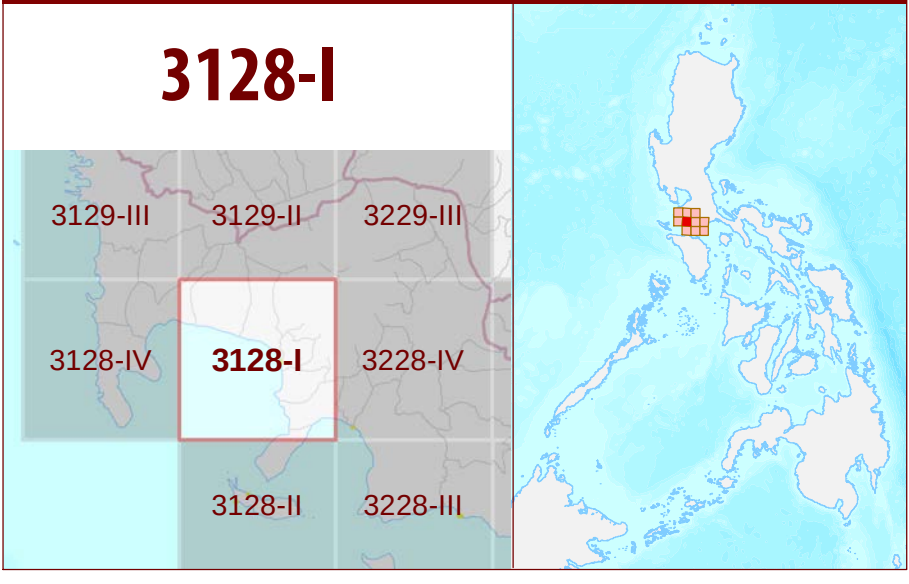
ROADS	BOUNDARY	HYDROLOGY
Expressway	Region	Sea / Shoreline
Trunk line	Province	Lakes / Rivers
Primary	District	
Secondary	Municipality	PLACES
Tertiary	Barangay	Capital City / City
		Capital Town / Town

LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3128-I



MISCELLANEOUS INFORMATION

SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from the Land Use System (FAO, 2015) and Philippine Rice Information System (PRISM) (IRRI, 2015). Data analysis and compilation through the **Land Resources Evaluation and Suitability Assessment of Strategic Production Areas for Coffee and Cacao Project** implemented by BSWM (2017).

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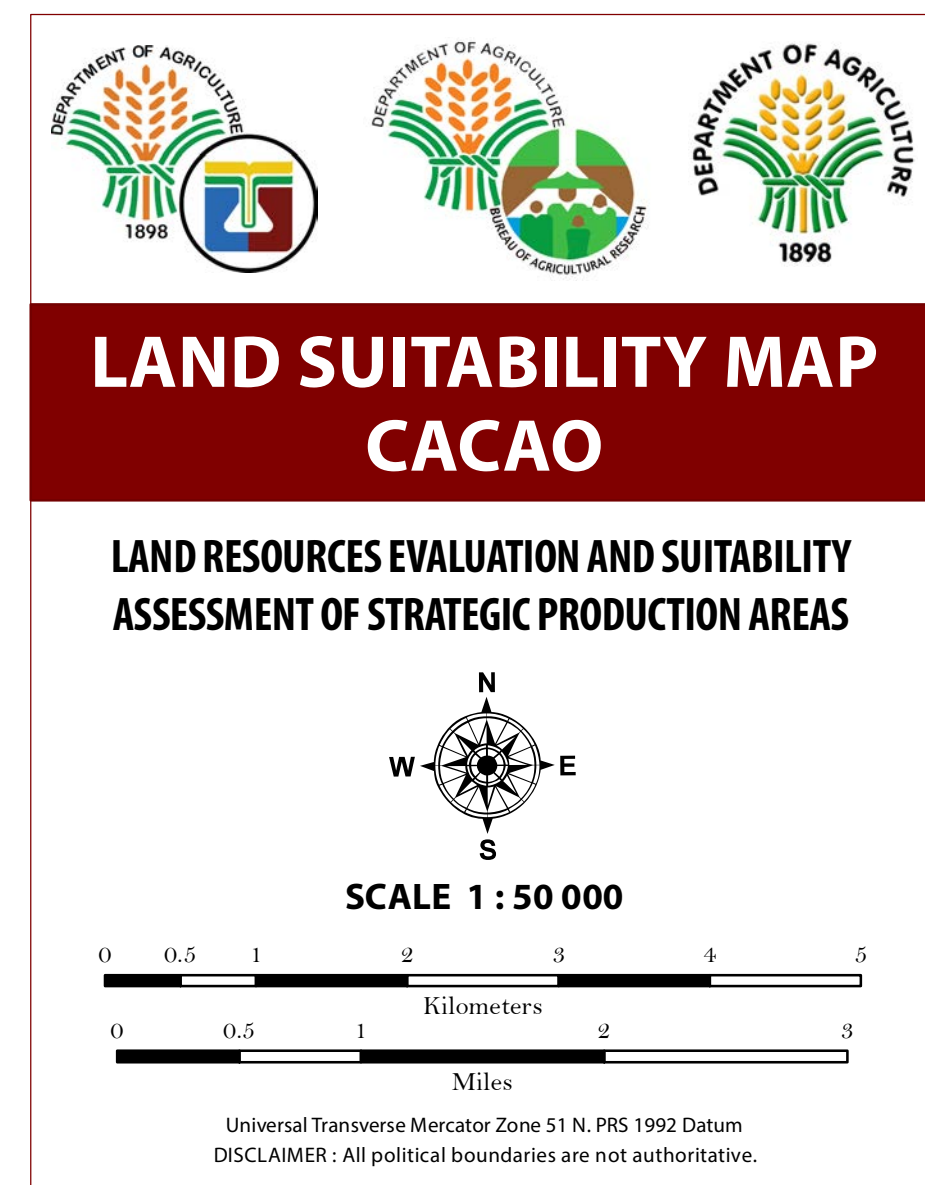
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PROVINCE OF BATANGAS

Sheet 5 of 10

Sheet No. 3128-I



SUITABILITY CLASSES

☐ Not Suitable/ Not Relevant

The map shows the spatial distribution of land use and land limitation. A legend indicates that orange hatched areas represent 'NGP Areas' and red hatched areas represent 'Cacao'. The map itself shows a green area labeled '116' representing 'Land use' and a red area labeled '1' representing 'Land limitation'.

ROADS	BOUNDARY	HYDROLOGY
Expressway	Region	Sea / Shoreline
Trunk line	Province	Lakes / Rivers
Primary	District	PLACES
Secondary	Municipality	Capital City / City
Tertiary	Barangay	Capital Town / Town

 Built-up Fishpond Mangrove

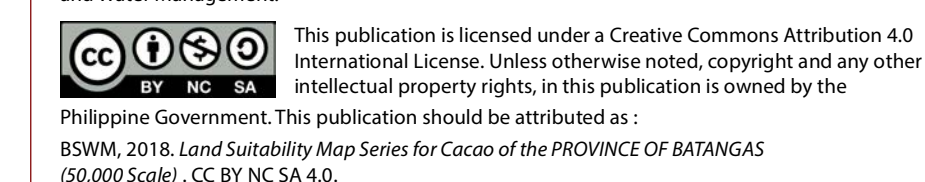
INDEX MAP

SOURCES OF INFORMATION: Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soil Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from the Land Use System (FAGS, 2015) and Philippine Rice Information System (PRIS). Data analysis and compilation through the **Rice Resources Evaluation and Suitability Assessment of Strategic Production Areas for Coffee and Cacao** Project implemented by BSWM (2017).

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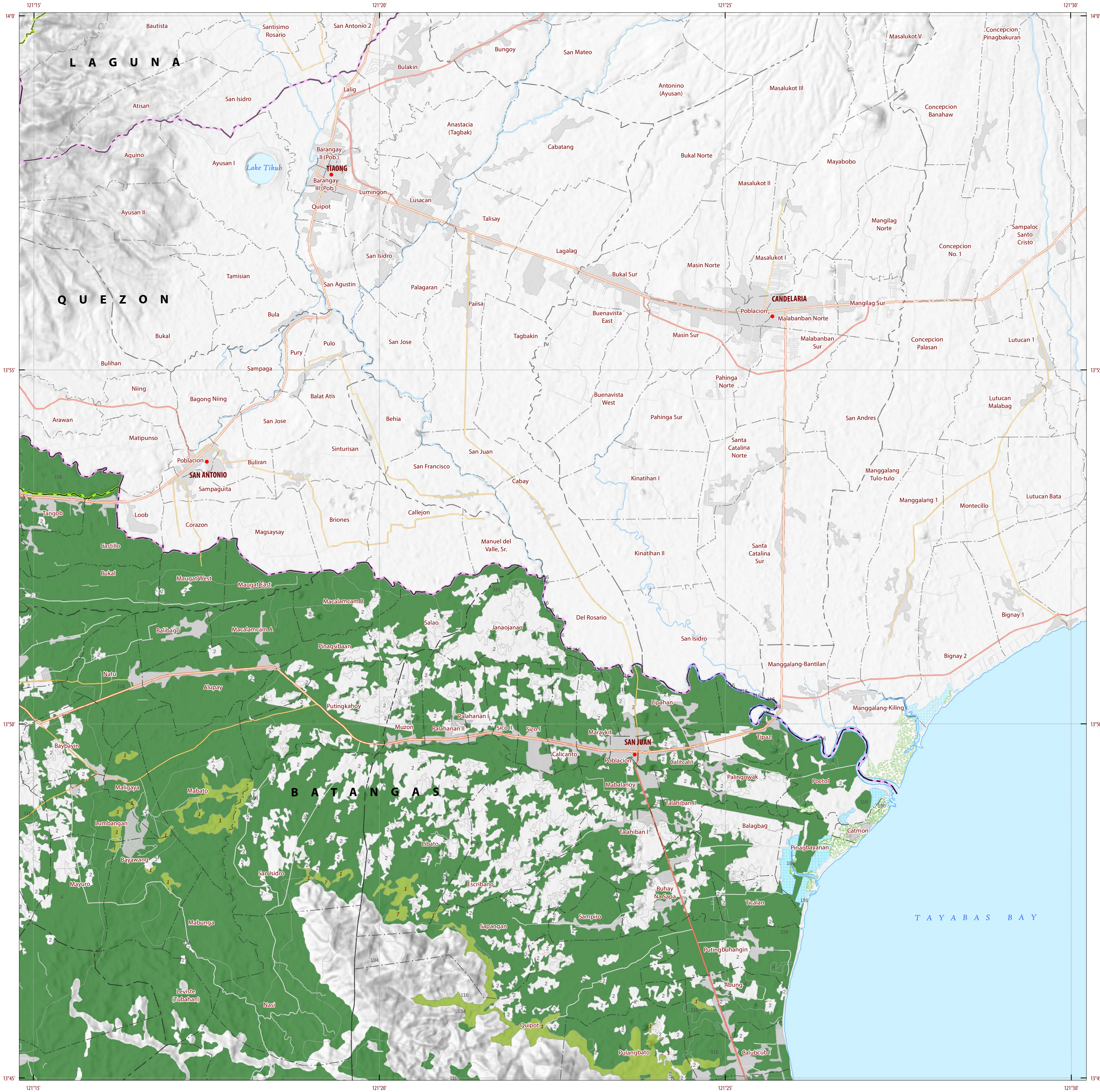
Funding Agency : Department of Agriculture - Bureau of Agricultural Research (DA-BAR)
Collaborating Agencies : Philippine Council on Agriculture and Fisheries (PCAF)
 Department of Agriculture Regional Field Office of CAR Region II, IWA-
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XXXVI, XXXVII, XXXVIII, XXXIX, XL, XLI, XLII, XLIII, XLIV, XLV, XLVI, XLVII, XLVIII,

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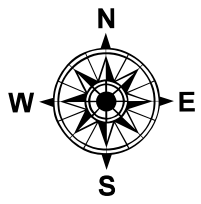
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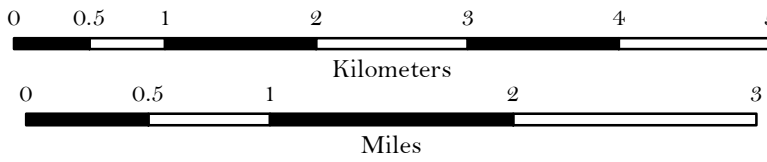


LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
DISCLAIMER : All political boundaries are not authoritative.

LEGEND

SUITABILITY CLASSES

- S1 Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
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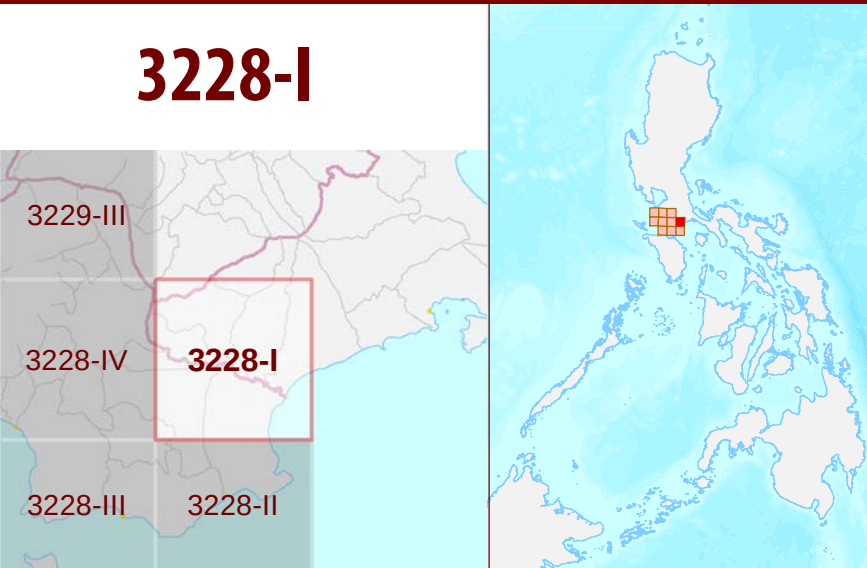
OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

- ROADS**
 - Expressway
 - Trunk line
 - Primary
 - Secondary
 - Tertiary
- BOUNDARY**
 - Region
 - Province
 - District
 - Municipality
 - Barangay
- HYDROLOGY**
 - Sea / Shoreline
 - Lakes / Rivers
- PLACES**
 - Capital City / City
 - Capital Town / Town
- LAND USE**
 - Built-up
 - Fishpond
 - Mangrove

ADJOINING SHEETS



MISCELLANEOUS INFORMATION

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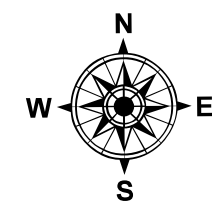




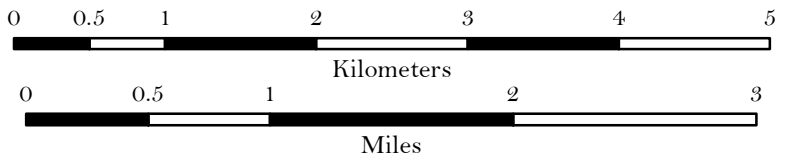
LAND SUITABILITY MAP

CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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LEGEND

SUITABILITY CLASSES

- S1 Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
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- Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

ROADS	BOUNDARY	HYDROLOGY
Expressway	Region	Sea / Shoreline
Trunk line	Province	Lakes / Rivers
Primary	District	PLACES
Secondary	Municipality	Capital City / City
Tertiary	Barangay	Capital Town / Town

LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3128-II

INDEX MAP

MISCELLANEOUS INFORMATION

SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from the Land Use System (FAO, 2015) and Philippine Rice Information System (PRISM) (IRRI, 2015). Data analysis and compilation through the **Land Resources Evaluation and Suitability Assessment of Strategic Production Areas for Coffee and Cacao Project** implemented by BSWM (2017).

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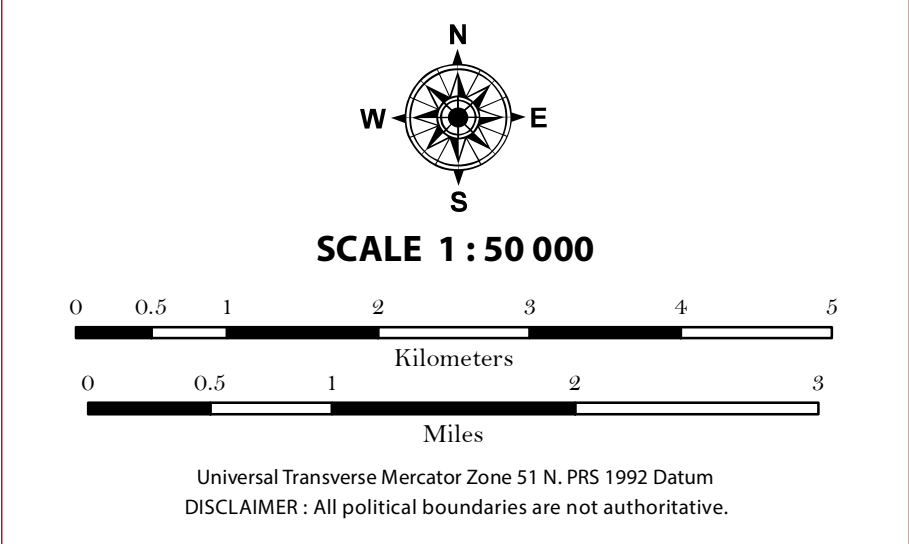
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PROVINCE OF BATANGAS Sheet 8 of 10 Sheet No. 3128-II



LAND SUITABILITY MAP
CACAO

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



LEGEND

SUITABILITY CLASSES

- S1 Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
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- Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

ROADS

- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY

- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY

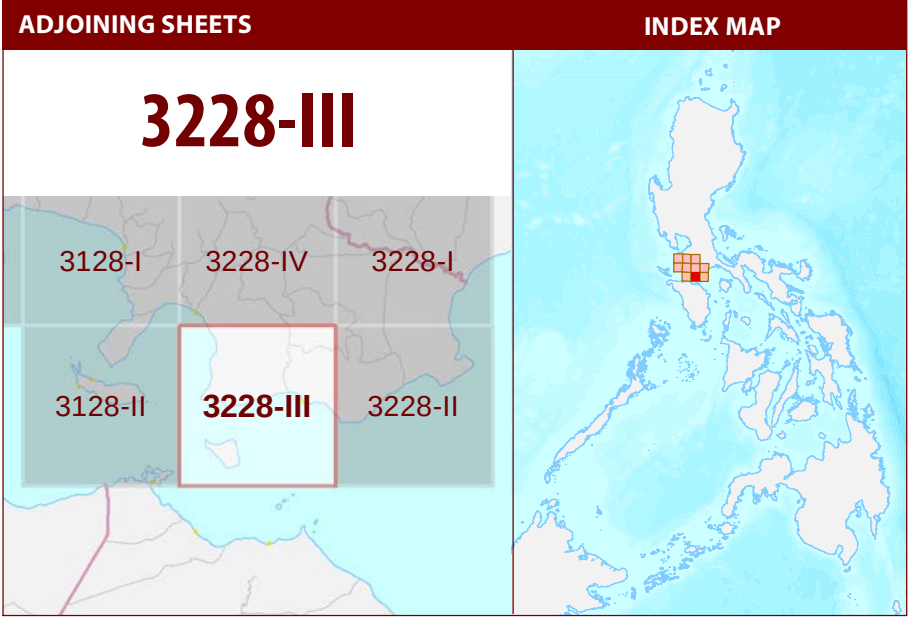
- Sea / Shoreline
- Lakes / Rivers

PLACES

- Capital City / City
- Capital Town / Town

LAND USE

- Built-up
- Fishpond
- Mangrove



MISCELLANEOUS INFORMATION

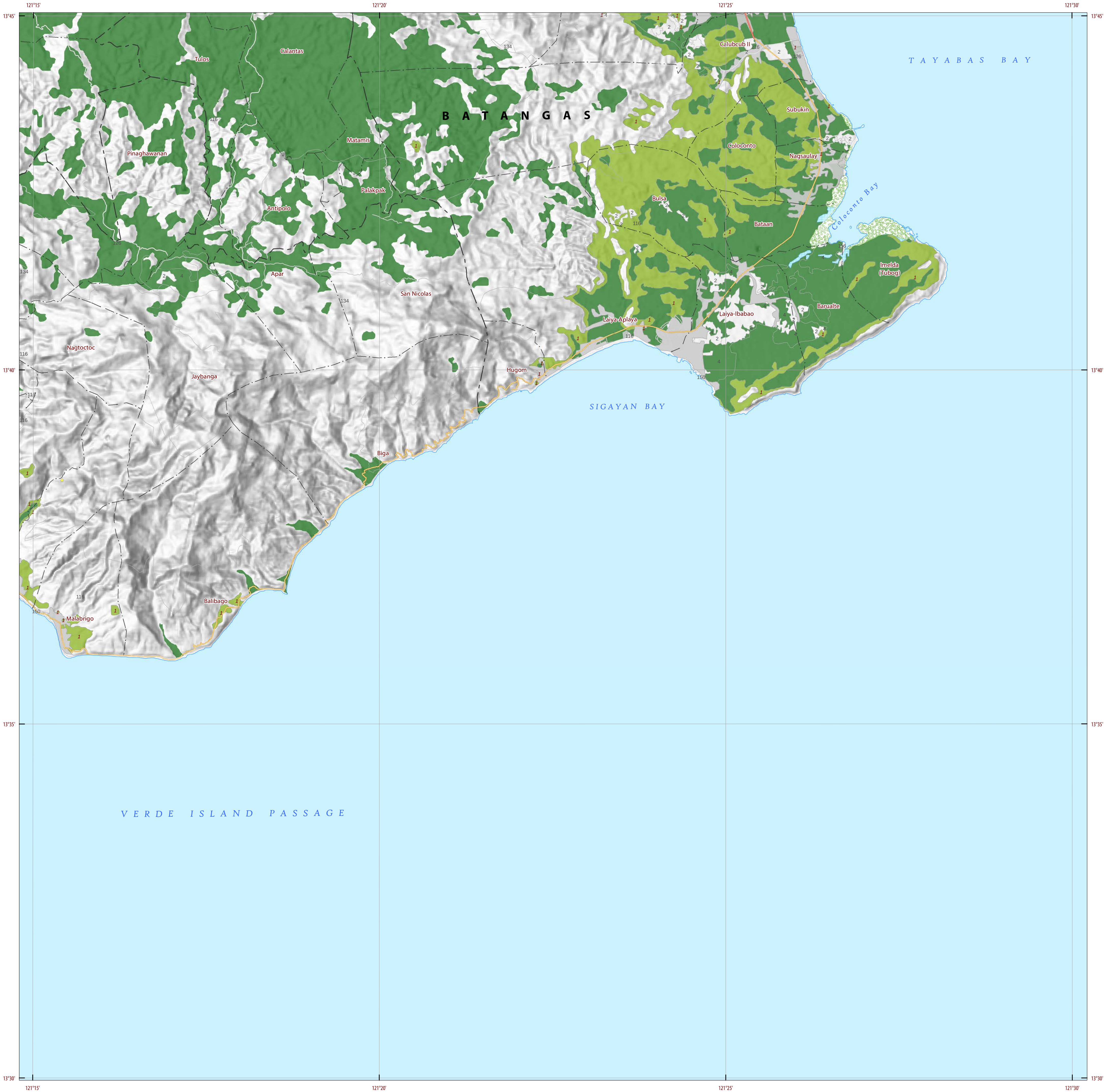
SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from the Land Use System (FAO, 2015) and Philippine Rice Information System (PRISM) (IRRI, 2015). Data analysis and compilation through the **Land Resources Evaluation and Suitability Assessment of Strategic Production Areas for Coffee and Cacao Project** implemented by BSWM (2017).

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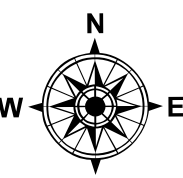
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LAND SUITABILITY MAP
CACAO

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS


SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
DISCLAIMER : All political boundaries are not authoritative.

LEGEND

SUITABILITY CLASSES

S1

Highly Suitable - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.

S2

Moderately Suitable - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.

S3

Marginally Suitable - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas

Cacao

Land limitation

Land use

CONVENTIONAL SIGNS

ROADS

Expressway

Trunk line

Primary

Secondary

Tertiary

BOUNDARY

Region

Province

District

Municipality

Barangay

HYDROLOGY

Sea / Shoreline

Lakes / Rivers

PLACES

Capital City / City

Capital Town / Town

LAND USE

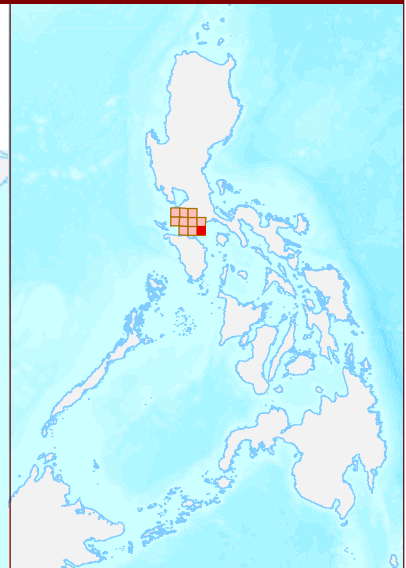
Built-up

Fishpond

Mangrove

ADJOINING SHEETS

3228-II



MISCELLANEOUS INFORMATION

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PROVINCE OF BATANGAS

Sheet 10 of 10 Sheet No. 3228-II