LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF MAGUINDANAO

REPUBLIC OF THE PHILIPPINES
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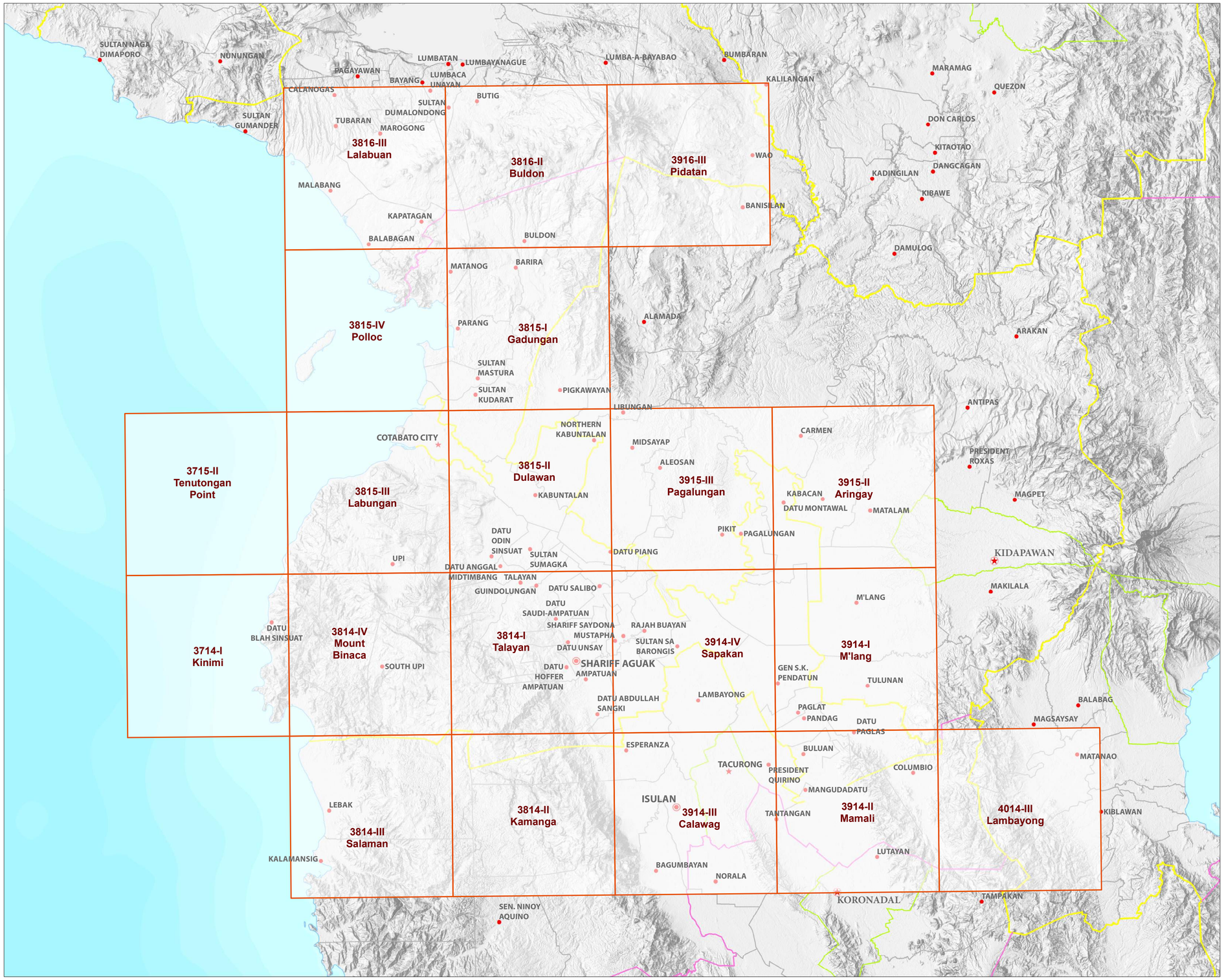
MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF MAGUINDANAO



LEGEND

Places

- Capital City
- City
- Capital Town
- Town

Administrative Boundary

- Regional
- Provincial
- City
- Municipal

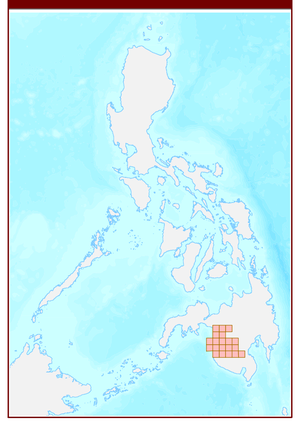
Map Index

- Index grid

Topographic Relief

Bathymetry

LOCATION MAP



MISCELLANEOUS INFORMATION

Land suitabilityinformation produced by the Bureau of Soils and Water Management (BSWM) through the **Land Resources Evaluation and Suitability Assessment of Strategic Production Areas for Major Commodities Project** duly supported by the Philippine Council on Agriculture and Fisheries (PCAF) and funded by the Bureau of Agricultural Research (BAR).

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).

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LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF MAGUINDANAO, ARMM

EXTENT OF SUITABILITY FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION BY MUNICIPALITY

MUNICIPALITY	EXISTING COFFEE (Ha)			TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)						CONFLICT RESOLUTION (Ha)						TOTAL POTENTIAL EXPANSION AREA (Ha)
					Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Paddy rice, non-irrigated		Other crops		
	S1	S2	S3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	
AMPATUAN	-	-	-	-	250	56	-	39	44	1,239	1,869	1,199	-	-	-	-	4,696
BARIRA	-	-	-	-	3,826	5,558	-	105	-	-	1,032	343	-	-	-	-	10,864
BULDON	-	-	-	-	2,753	3,183	92	19	1,003	192	934	421	-	-	-	-	8,597
BULUAN	-	-	-	-	1,000	-	0	-	1	-	2,583	-	-	-	-	-	3,584
DATU ABDULLAH SANGKI	-	-	-	-	582	66	-	-	-	-	3,124	159	-	-	-	-	3,931
DATU ANGGAL MIDTIMBANG	-	-	-	-	895	56	-	2	-	6	381	12	-	-	-	-	1,353
DATU BLAH T. SINSUAT	-	-	-	-	2,493	590	95	123	481	521	66	70	-	-	-	-	4,438
DATU HOFFER AMPATUAN	-	-	-	-	190	2	-	-	17	1,207	158	372	-	-	-	-	1,946
DATU ODIN SINSUAT	-	-	-	-	2,784	970	66	1,963	46	4,327	621	1,569	-	-	-	-	12,347
DATU PAGLAS	-	-	-	-	522	-	43	-	1,697	-	2,989	-	-	-	-	-	5,251
DATU PIANG	-	-	-	-	694	21	60	84	-	-	1,234	17	-	-	-	-	2,110
DATU SALIBO	-	-	-	-	120	-	-	-	-	-	591	5	-	-	-	-	716
DATU SAUDI-AMPATUAN	-	-	-	-	196	15	13	140	20	64	1,356	2	-	-	-	-	1,806
DATU UNSAY	-	-	-	-	315	31	1	113	0	1,814	364	371	-	-	-	-	3,009
GEN. S.K. PENDATUN	-	-	-	-	1,343	-	-	-	-	-	1,051	-	-	-	-	-	2,394
GUINDULUNGAN	-	-	-	-	794	160	98	845	338	2,157	1,356	162	-	-	-	-	5,910
KABUNTALAN (TUMBAO)	-	-	-	-	609	4	168	-	-	-	1,080	0	-	-	-	-	1,861
MAMASAPANO	-	-	-	-	667	17	-	-	-	-	1,037	43	-	-	-	-	1,764
MANGUDADATU	-	-	-	-	377	-	65	-	168	-	439	-	-	-	-	-	1,050
MATANOG	-	-	-	-	1,765	3,239	41	82	-	-	102	310	-	-	-	-	5,539
NORTHERN KABUNTALAN	-	-	-	-	58	-	-	-	-	-	3,720	-	-	-	-	-	3,778
PAGAGAWAN	-	-	-	-	2,035	-	-	-	-	-	4,465	-	-	-	-	-	6,500
PAGALUNGAN	-	-	-	-	2,642	-	-	-	-	-	978	-	-	-	-	-	3,620
PAGLAT	-	-	-	-	573	-	-	-	-	-	934	9	-	-	-	-	1,515
PANDAG	-	-	-	-	848	-	13	-	12	-	1,836	-	-	-	-	-	2,709
PARANG	-	-	-	-	3,231	2,637	-	-	2,575	334	418	24	-	-	-	-	9,218
RAJAH BUAYAN	-	-	-	-	515	11	381	379	-	-	3,315	44	-	-	-	-	4,644
SHARIFF AGUAK	-	-	-	-	205	-	-	-	23	65	674	10	-	-	-	-	978
SHARIFF SAYDONA MUSTAPHA	-	-	-	-	285	60	269	553	-	-	2,156	10	-	-	-	-	3,332
SOUTH UPI	-	-	-	-	1	2,317	22	307	22	1,058	362	6,347	-	-	-	-	10,437
SULTAN KUDARAT	-	-	-	-	8,771	27	30	-	1,419	161	2,370	-	-	-	-	-	12,777
SULTAN MASTURA	-	-	-	-	2,257	184	-	-	884	38	898	2	-	-	-	-	4,263
SULTAN SA BARONGIS	-	-	-	-	962	-	-	-	-	-	2,632	13	-	-	-	-	3,606
TALAYAN	-	-	-	-	987	95	11	394	338	704	1,353	872	-	-	-	-	4,753
TALITAY	-	-	-	-	925	-	-	-	-	-	257	-	-	-	-	-	1,182
UPI	-	-	-	-	3,389	1,621	97	263	1,014	2,291	1,614	4,636	-	-	-	-	14,925
Total Area (Ha)	-	-	-	-	49,860	20,919	1,563	5,413	10,102	16,180	50,350	17,019	-	-	-	-	**171,405**

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

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

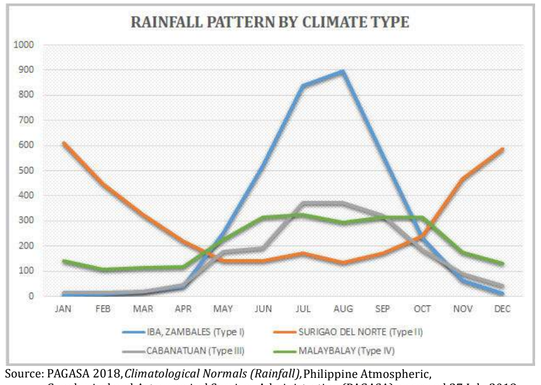
TYPE I : Two pronouced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

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 Maguindanao is classified as climate Type IV and Eastern part is 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	LANDUSE
2	Paddy rice, non-irrigated
4	Corn
116	Coconut
126	Grassland, unmanaged
134	Shrubs, unmanaged
144	Falcata

AGRONOMIC REQUIREMENT OF ROBUSTA, LIBERICA AND EXCELSA COFFEE 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
Coffee (Robusta, Excelsa, Liberica)	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	30 - 100	FSL, L, SiL	SPD,PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	1000-2000	1000-2000	I, II
	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 -> 7.9	low	severe	severe	many	>2000	<1000 >4500	

SLOPE (%)
0 - 3 - level to gently sloping
3 - 8 - gently sloping to undulating
8 - 18 - undulating to rolling
18 - 30 - rolling to moderately steep
30 - 50 - steep
> 50 - very steep

SOIL DRAINAGE
ED - excessively drained
WD - well drained
MWD - moderately well drained
SPD - somewhat poorly drained
PD - poorly drained
VPD - very poorly drained

SOIL REACTION (pH)
< 4.5 - extremely acid
4.5 - 5.0 - very strongly acid
5.1 - 5.5 - strongly acid
5.6 - 6.0 - medium acid
6.1 - 6.5 - slightly acid
6.6 - 7.2 - neutral
7.3 - 7.8 - mildly alkaline
7.9 - 8.4 - moderately alkaline
> 8.5 - strongly alkaline

SOIL TEXTURE
Coarse
S - sand
LS - loamy sand
CSL - coarse sandy loam
SL - sandy loam
Medium
FSL - fine sandy loam
L - loam
SiL - silt loam
CL - clay loam
SiCL - silty clay loam
SCL - sandy clay loam
Fine
SC - sandy clay
SiC - silty clay
C - clay
HC - heavy clay

SOIL DEPTH (cm)
0 - 30 - very shallow
30 - 50 - shallow
50 - 100 - moderately deep
> 100 - deep to very deep

SURFACE IMPEDIMENT
ROCK OUTCROPS
< 10% - none - few
10 - 30% - common
> 30% - many

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ELEVATION
El2 - 1000m - 2000m
El3 - > 2000m

SOIL DRAINAGE
D2 - Somewhat poorly drained to poorly drained
D3 - Very poorly drained or excessively drained

SOIL DEPTH
Sh2 - Shallow to moderately deep (30 - 100cm)
Sh3 - Very shallow (< 30cm)

SOIL EROSION
E2 - Moderate erosion
E3 - Severe erosion

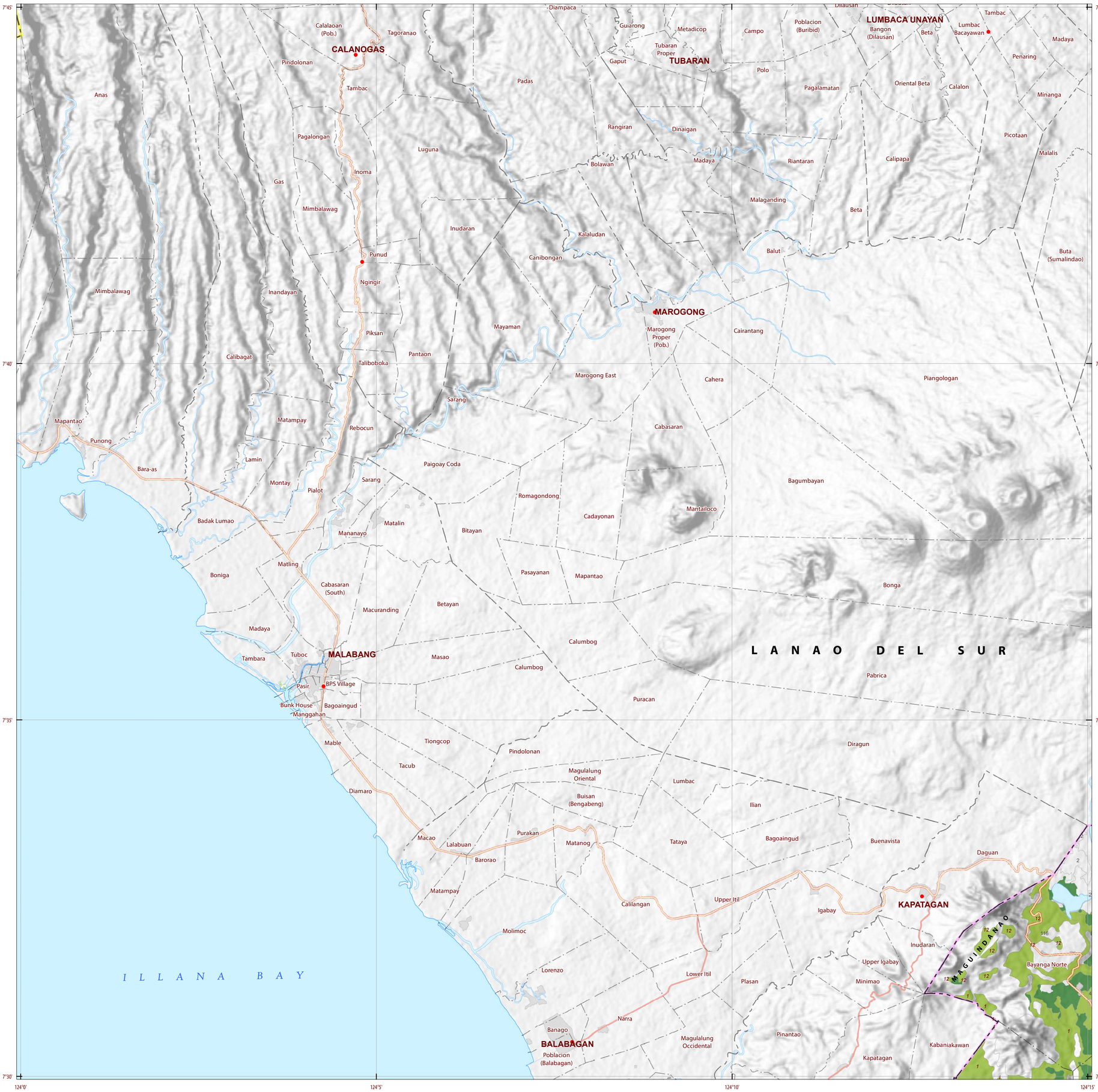
SLOPE/TOPOGRAPHY
T2 - Undulating to moderately steep
T3 - Steep to very steep

SOIL TEXTURE
Tc - Coarse texture

ROCK OUTCROPS
Rc2 - Common
Rc3 - Many

FLOODING
F2 - Moderate seasonal flooding
F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	E2-Sh2-Rc2	*11*	Sh2	*21*	T2-El2-E3-Sh2-Rc2	*31*	T3-El2-E3-Sh3-Rc2
2	E2-Sh2-Rc3	*12*	Sh2-Rc2	*22*	T2-El2-E3-Sh2-Rc3	*32*	T3-El2-E3-Sh3-Rc3
3	E3-Sh2-Rc3	*13*	Sh2-Rc3	*23*	T2-F2-D2	*33*	T3-F3-D2
4	El2	*14*	T2	*24*	T2-F3-D2	*34*	T3
5	El2-E3-Sh2-Rc3	*15*	T2-E3	*25*	T3	*35*	T3-E3
6	El2-Sh2-Rc2	*16*	T2-E3-Rc2	*26*	T3-E3	*36*	T3-E3-Rc3
7	El2-Sh2-Rc3	*17*	T2-E3-Rc3	*27*	T3-E3-Rc2	*37*	T3-E3-Sh3-Rc3
8	F2-D2	*18*	T2-E3-Sh2-Rc2	*28*	T3-E3-Sh2-Rc3	*38*	T3-El2-E3-Sh3-Rc3
9	F2-Tc	*19*	T2-E3-Sh2-Rc3	*29*	T3-E3-Sh3-Rc2	*39*	T3-El4
10	F3-D2	*20*	T2-El2-E3	*30*	T3-E3-Sh3-Rc3		



LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

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
DISCLAIMER : All political boundaries are not authoritative.

LEGEND

SUITABILITY CLASSES

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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
- 116 — 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

3816-III

3816-III | 3816-II | 3815-IV | 3815-I

INDEX MAP

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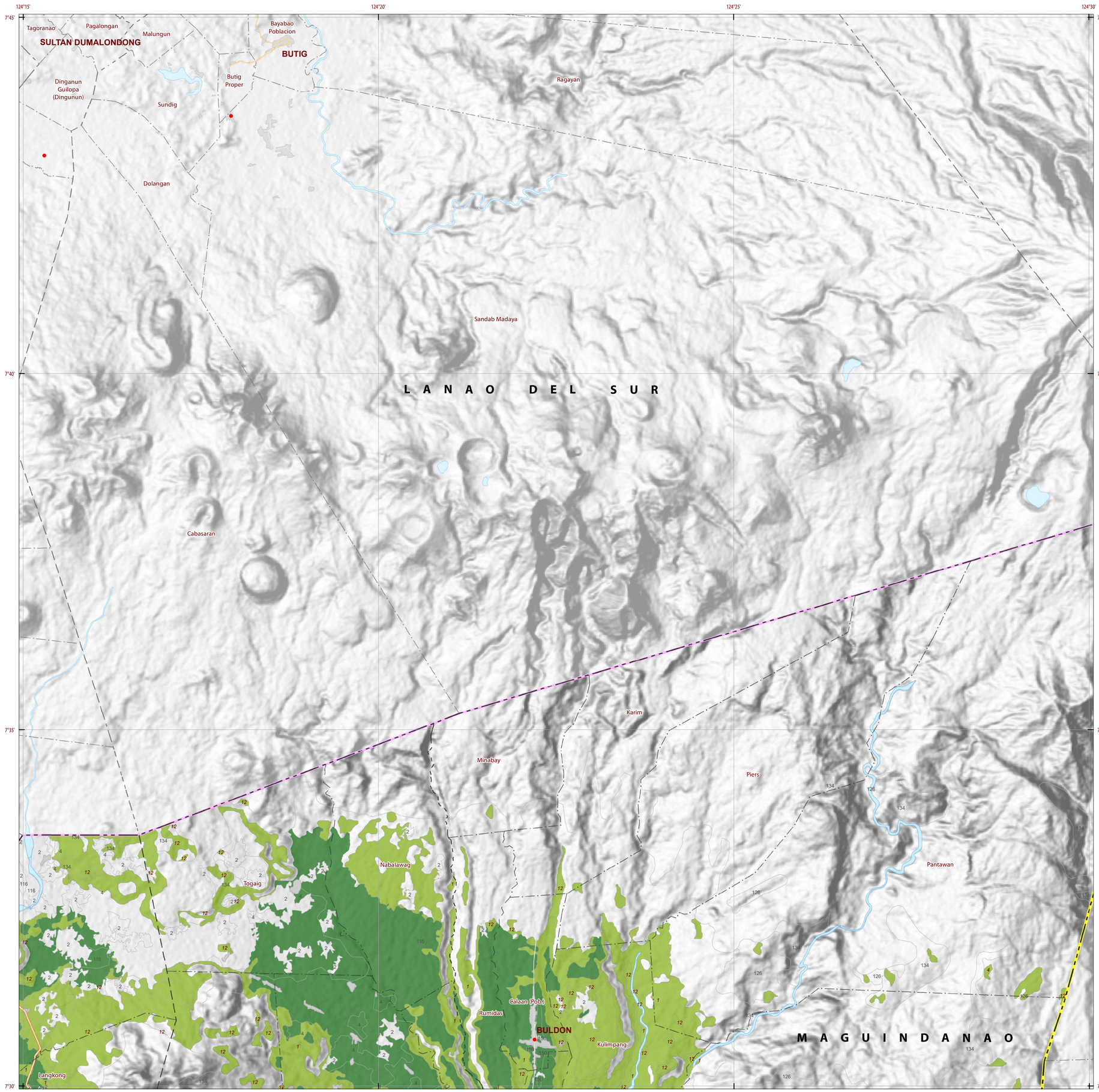

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0 0.5 1 2 3 4 5
Kilometers

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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
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Province
District
Municipality
Barangay

HYDROLOGY
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Lakes / Rivers

PLACES
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Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

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3816-II

3816-III | 3816-II | 3916-III
3815-IV | 3815-I

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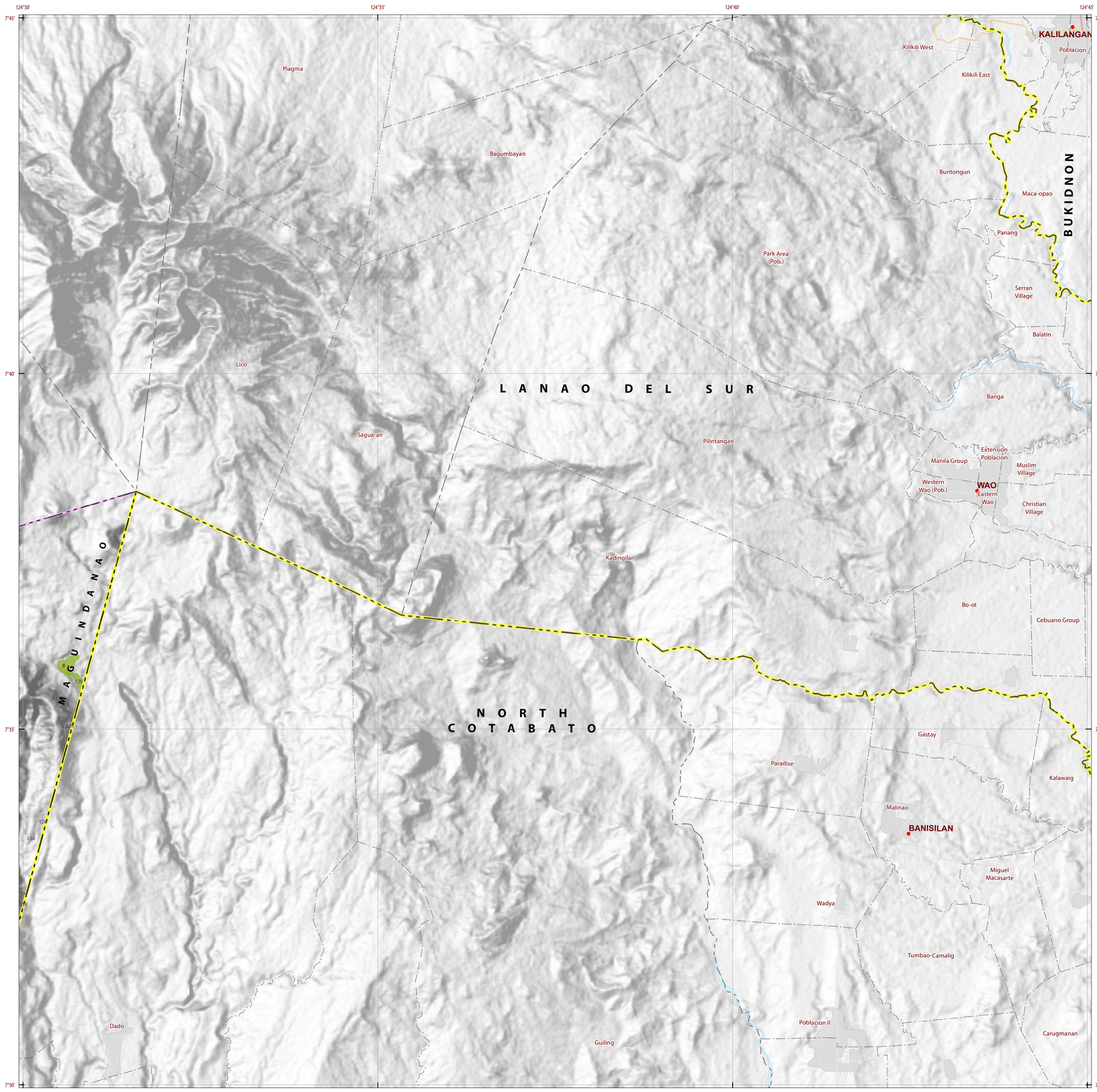

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0 0.5 1 2 3
Miles

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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- 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
- 116 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

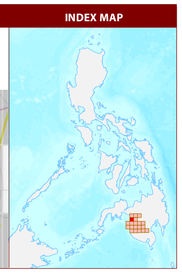
LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3815-IV

3816-III | 3816-II
3815-IV | 3815-I
3715-II | 3815-III | 3815-II

INDEX MAP



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LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

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
DISCLAIMER : All political boundaries are not authoritative.

LEGEND

SUITABILITY CLASSES

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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 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

3815-I

3816-III 3816-II 3916-III
3815-IV 3815-I
3815-III 3815-II 3915-III

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123°45' 123°50' 123°55' 124°0'

7°15' 7°10' 7°5' 7°0'

M O R O G U L F

M A G U I N D A N A O

LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N W E S

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0 0.5 1 2 3 4 5
Kilometers

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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 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

3715-II
3815-IV
3715-II
3815-III
3714-I
3814-IV

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116 Land use

CONVENTIONAL SIGNS

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Province
District
Municipality
Barangay

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Lakes / Rivers

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Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3815-III

3815-IV | 3815-I
3715-II | 3815-III | 3815-II
3714-I | 3814-IV | 3814-I

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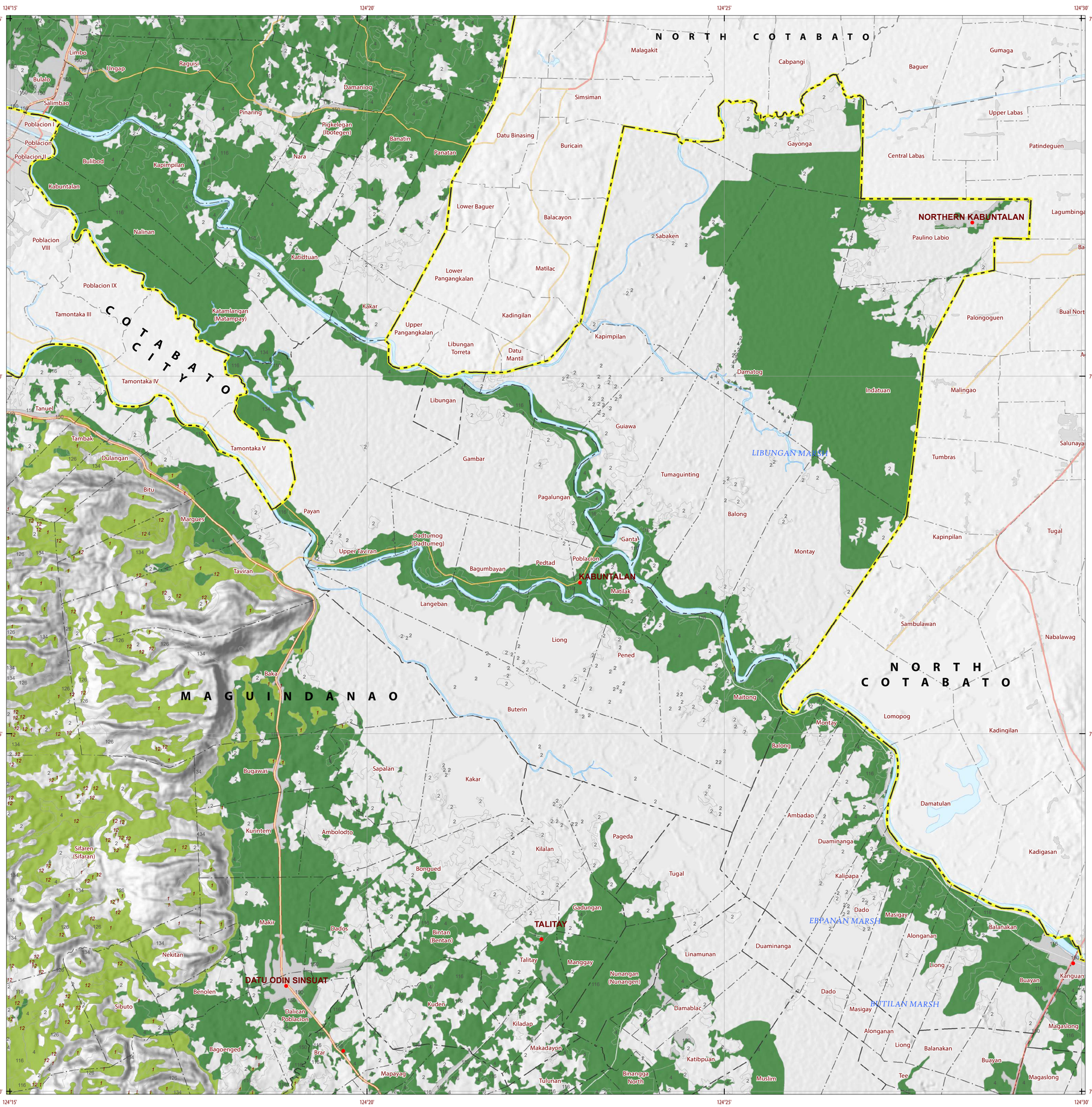
3815-II

PROVINCE OF MAGUINDANAO

Dulawan



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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 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

3815-II

3815-IV | 3815-I
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3814-IV | 3814-I | 3914-IV

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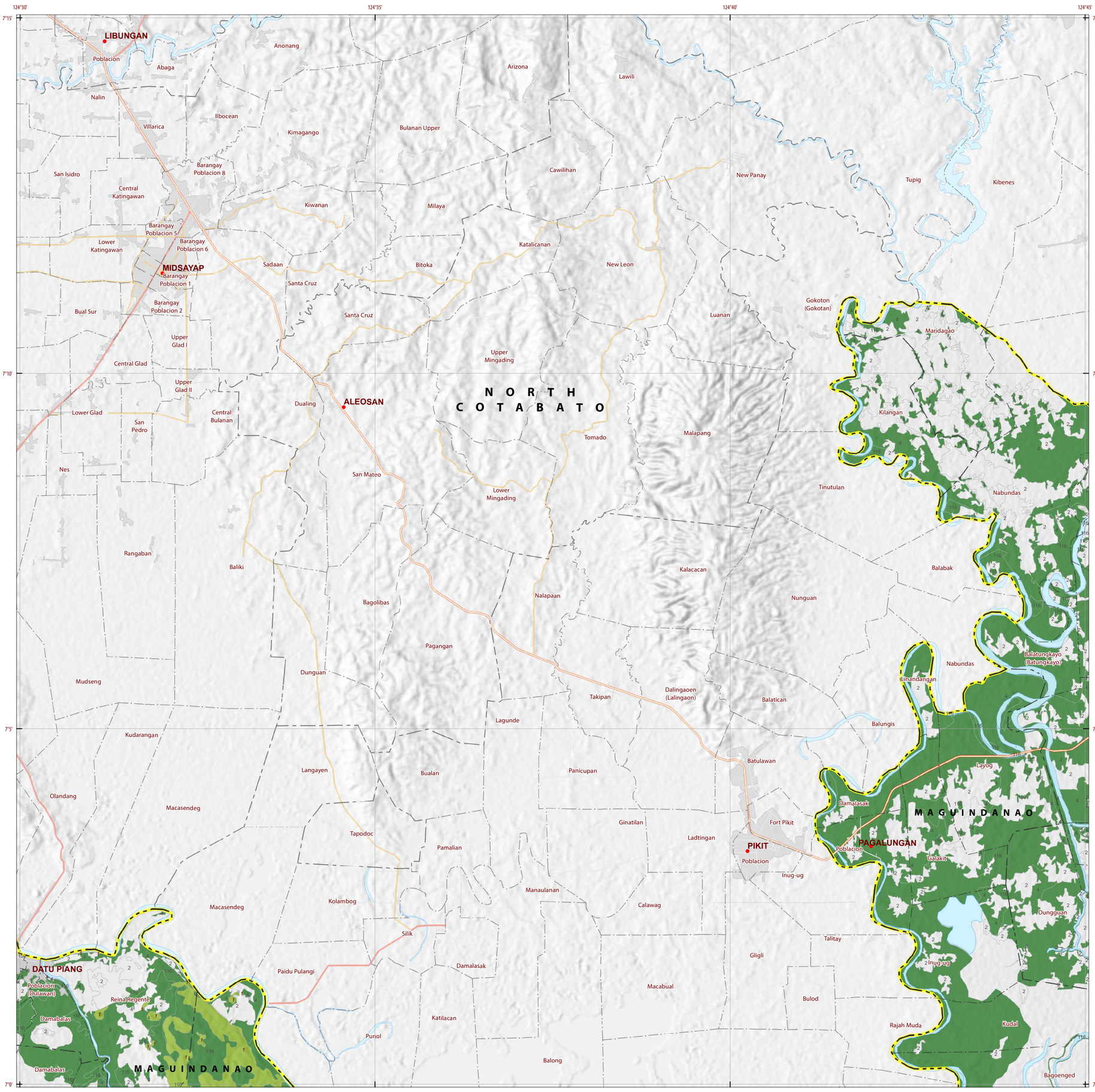

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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
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LAND USE
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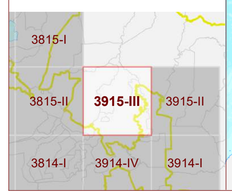
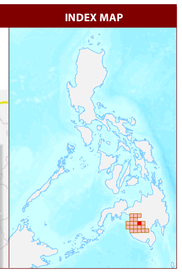
Fishpond
Mangrove

ADJOINING SHEETS

3915-III



INDEX MAP



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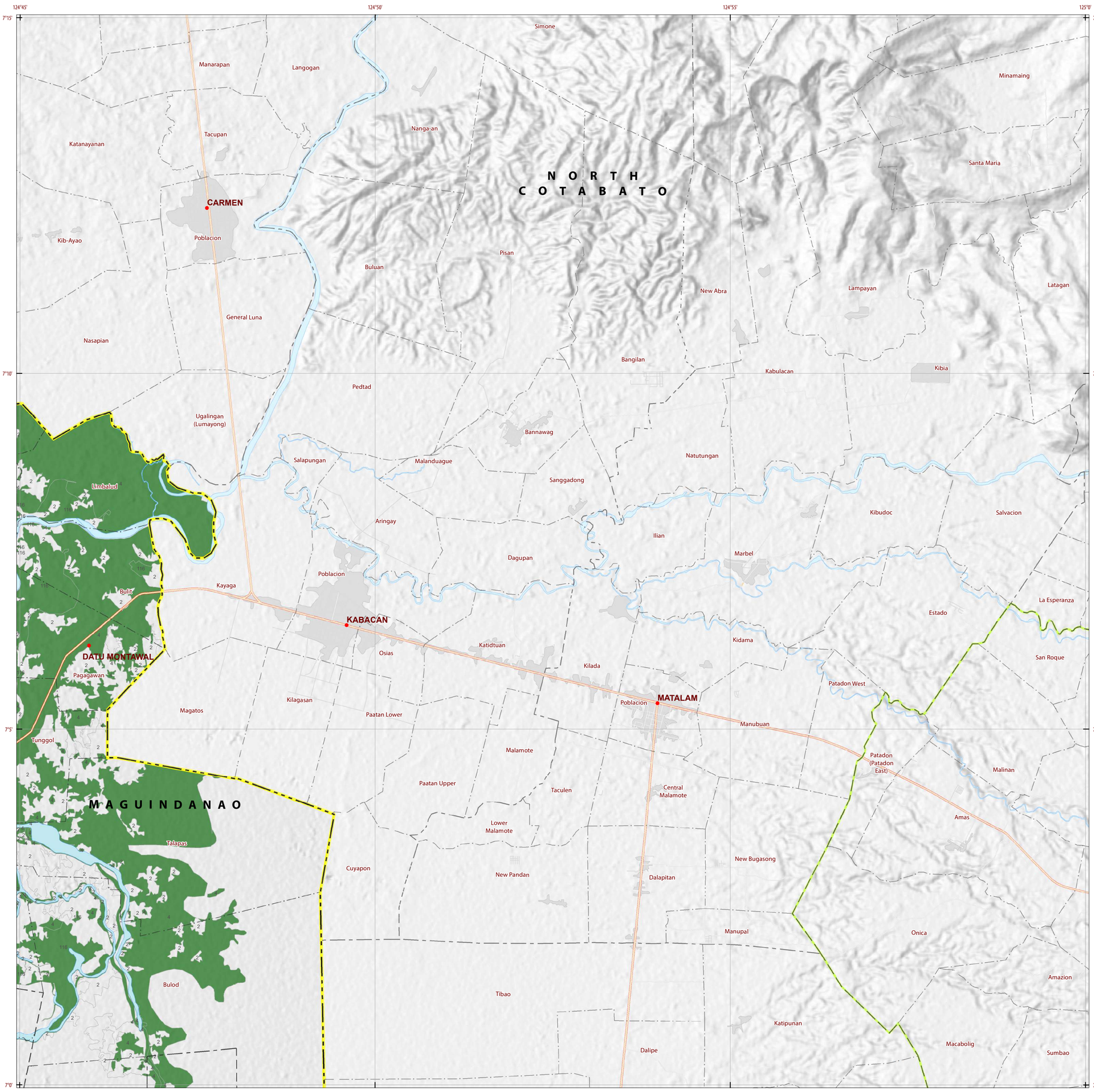

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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

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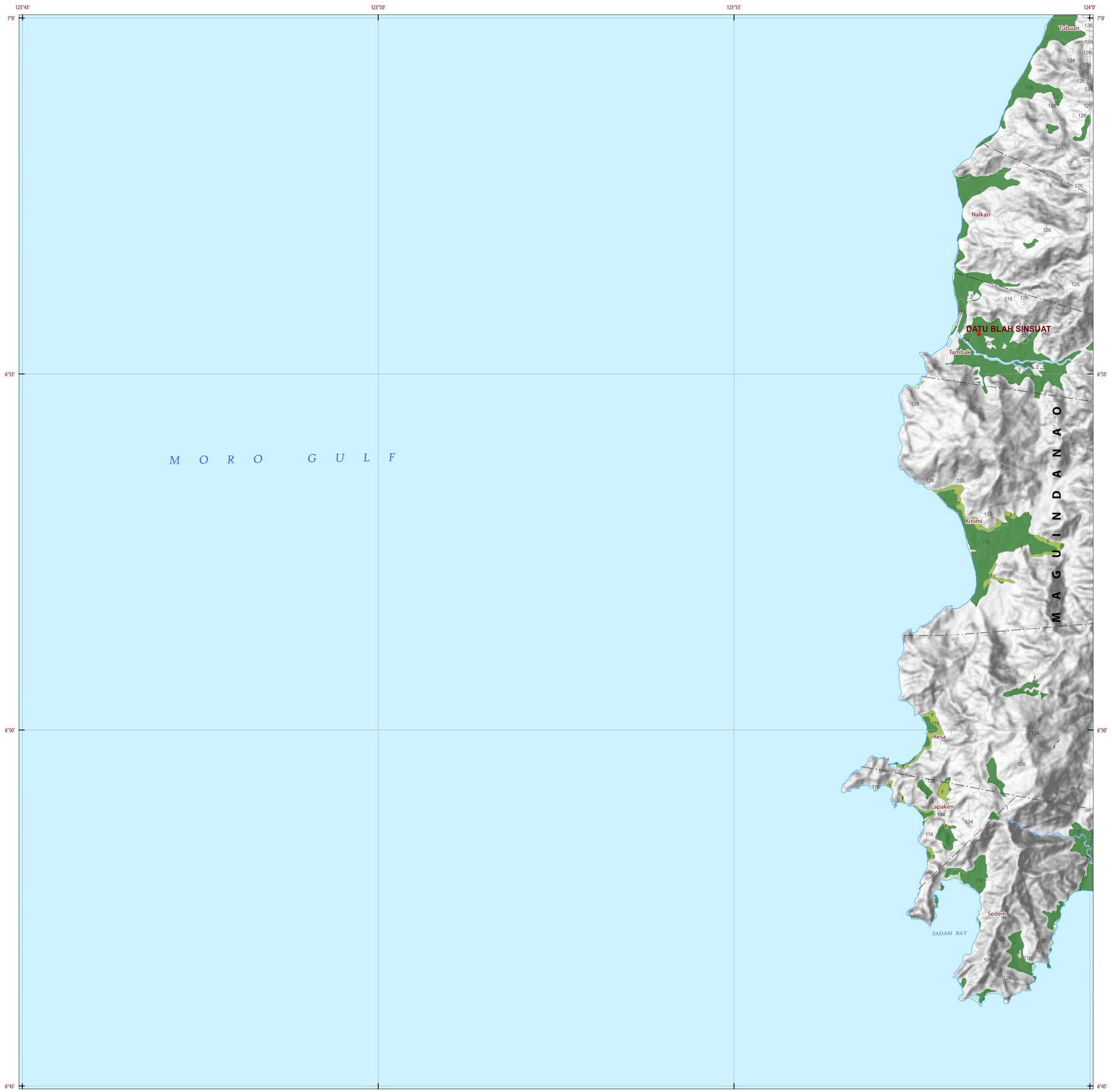

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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

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3714-I

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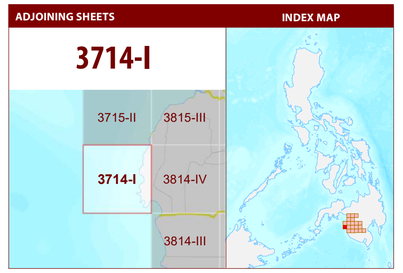

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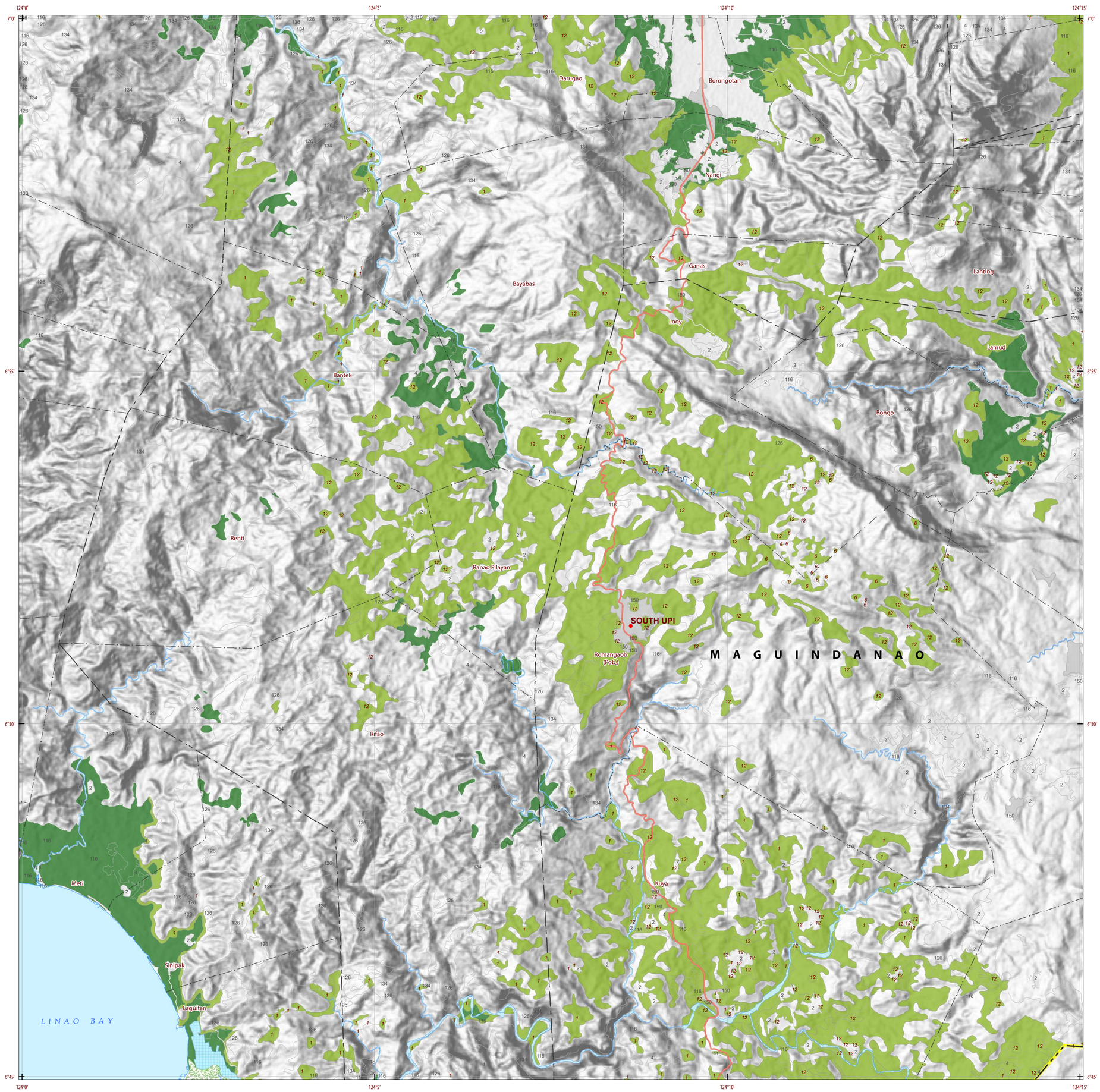

LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

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
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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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 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

3814-IV

3715-II | 3815-III | 3815-II
3714-I | 3814-IV | 3814-I
3814-III | 3814-II

INDEX MAP

MISCELLANEOUS INFORMATION

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Project Leader : BERNARDO B. PASCUA
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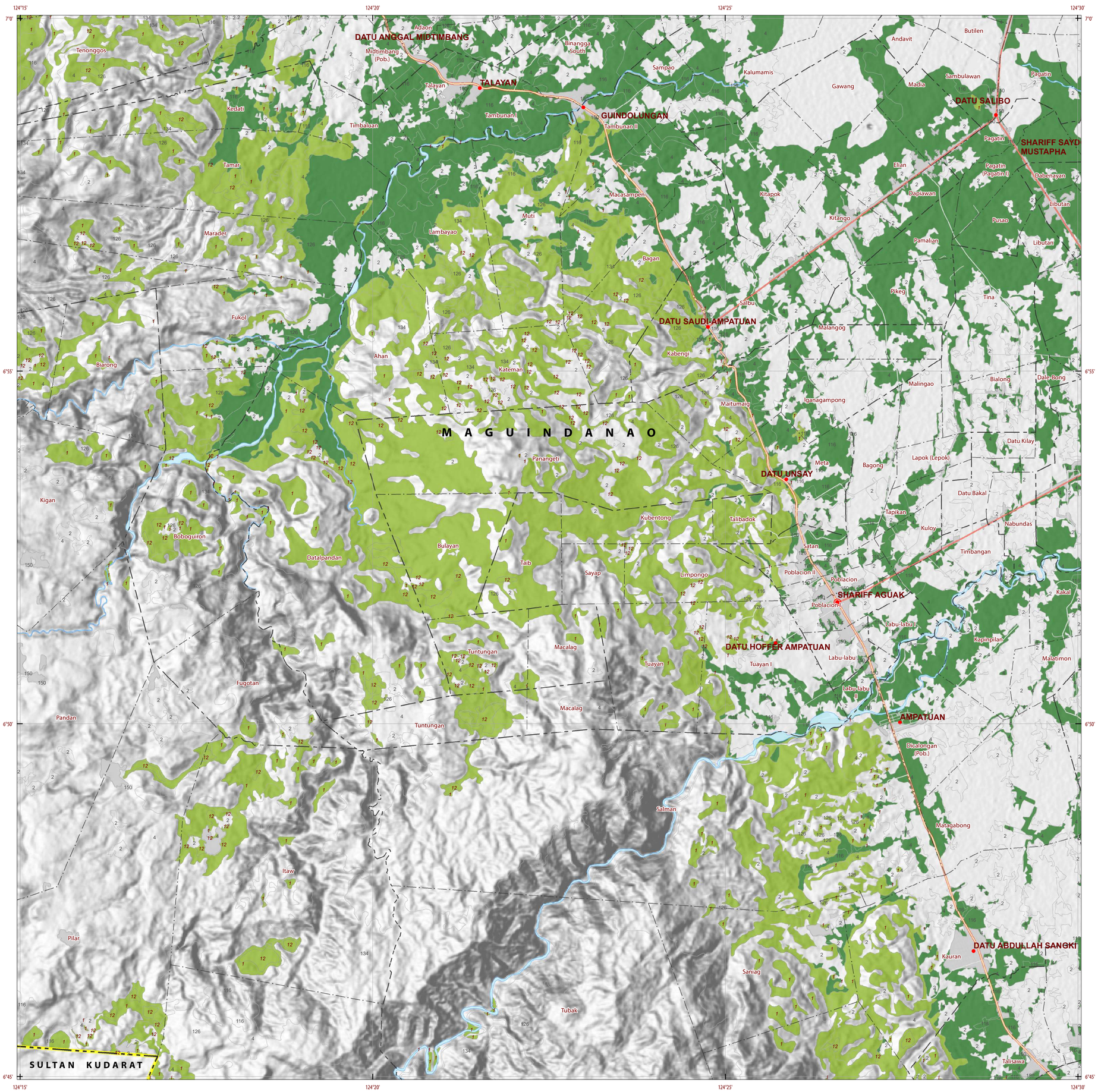

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DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL RESEARCH

DEPARTMENT OF AGRICULTURE 1898

LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N W E S

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
DISCLAIMER : All political boundaries are not authoritative.

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OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 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

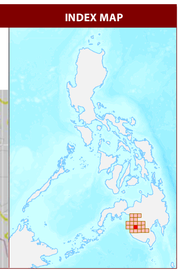
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3814-I

3815-III | 3815-II | 3915-III
3814-IV | 3814-I | 3914-IV
3814-III | 3814-II | 3914-III

INDEX MAP



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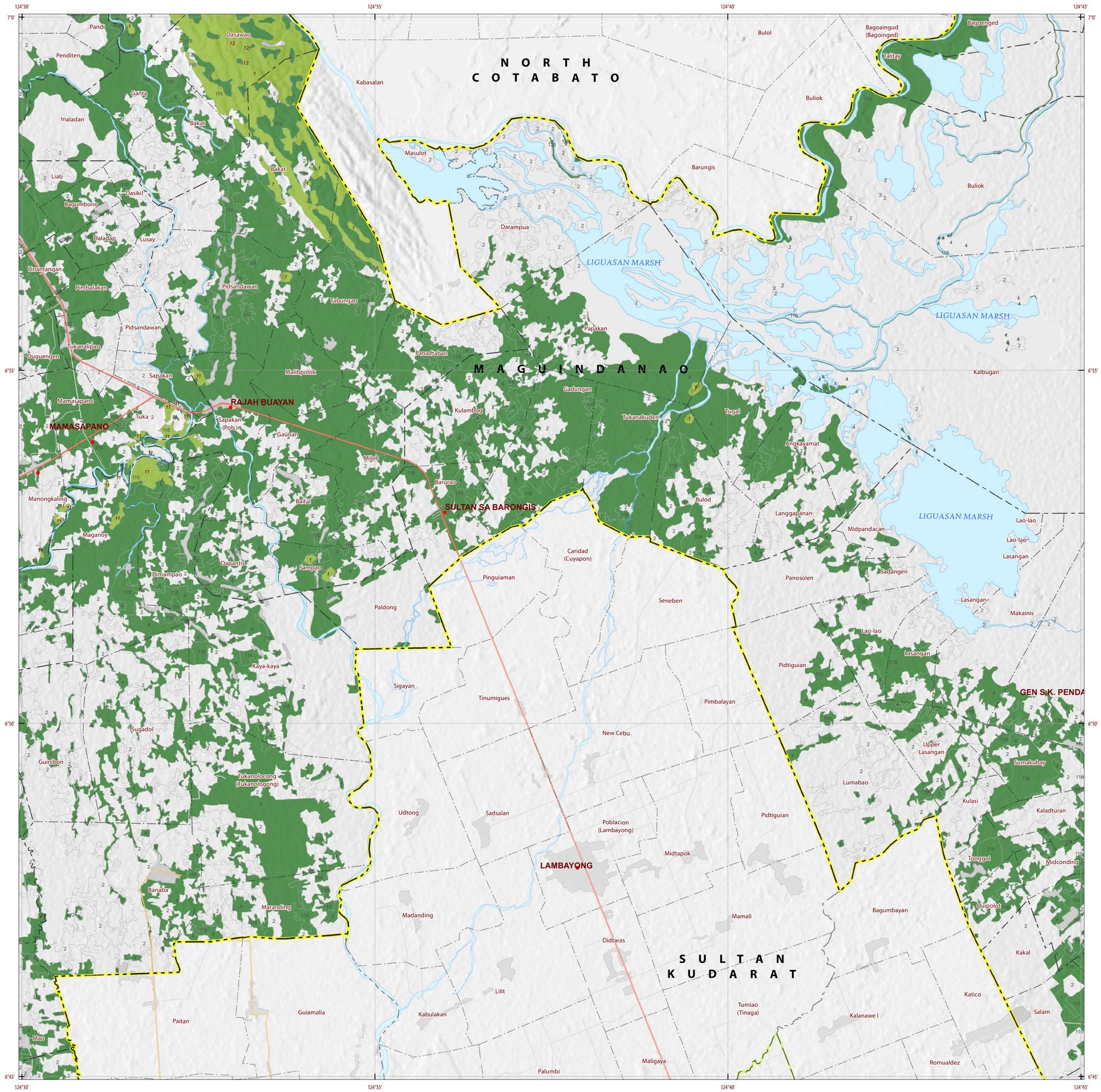

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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
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S

SCALE 1 : 50 000

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Kilometers
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OTHER SIGNS

- NGP Areas
- Cacao
- 1 / 116 — 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

3914-IV

3815-II | 3915-III | 3915-II
3814-I | 3914-IV | 3914-I
3814-II | 3914-III | 3914-II

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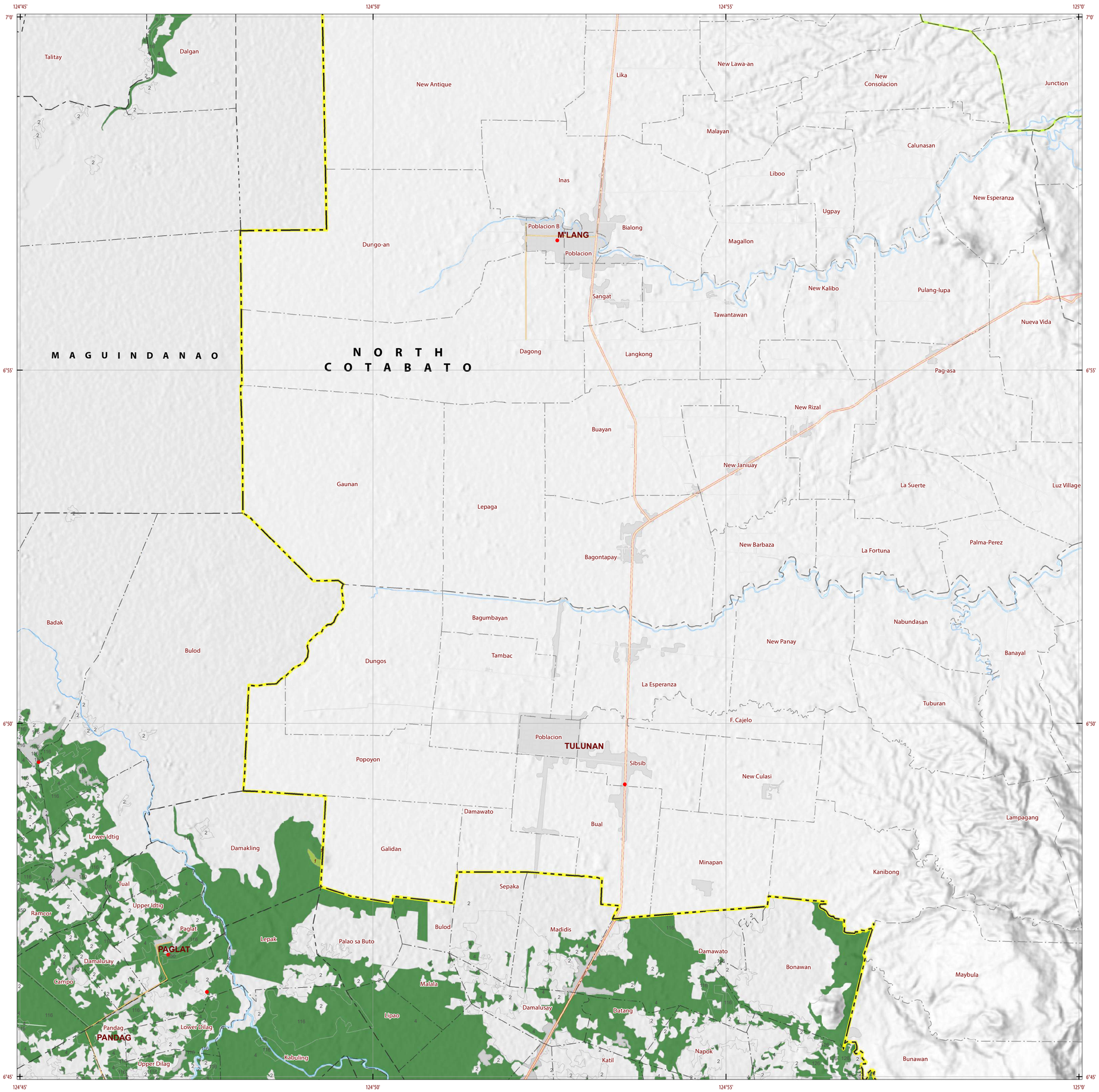

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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
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Miles

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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

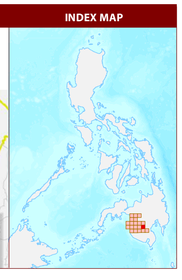
PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3914-I
3915-III 3915-II
3914-IV 3914-I
3914-III 3914-II 4014-III

INDEX MAP



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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 / 116 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

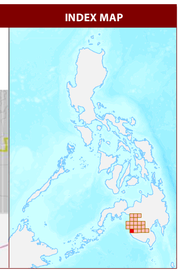
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3814-III

3714-I | 3814-IV | 3814-I
3814-III | 3814-II

INDEX MAP



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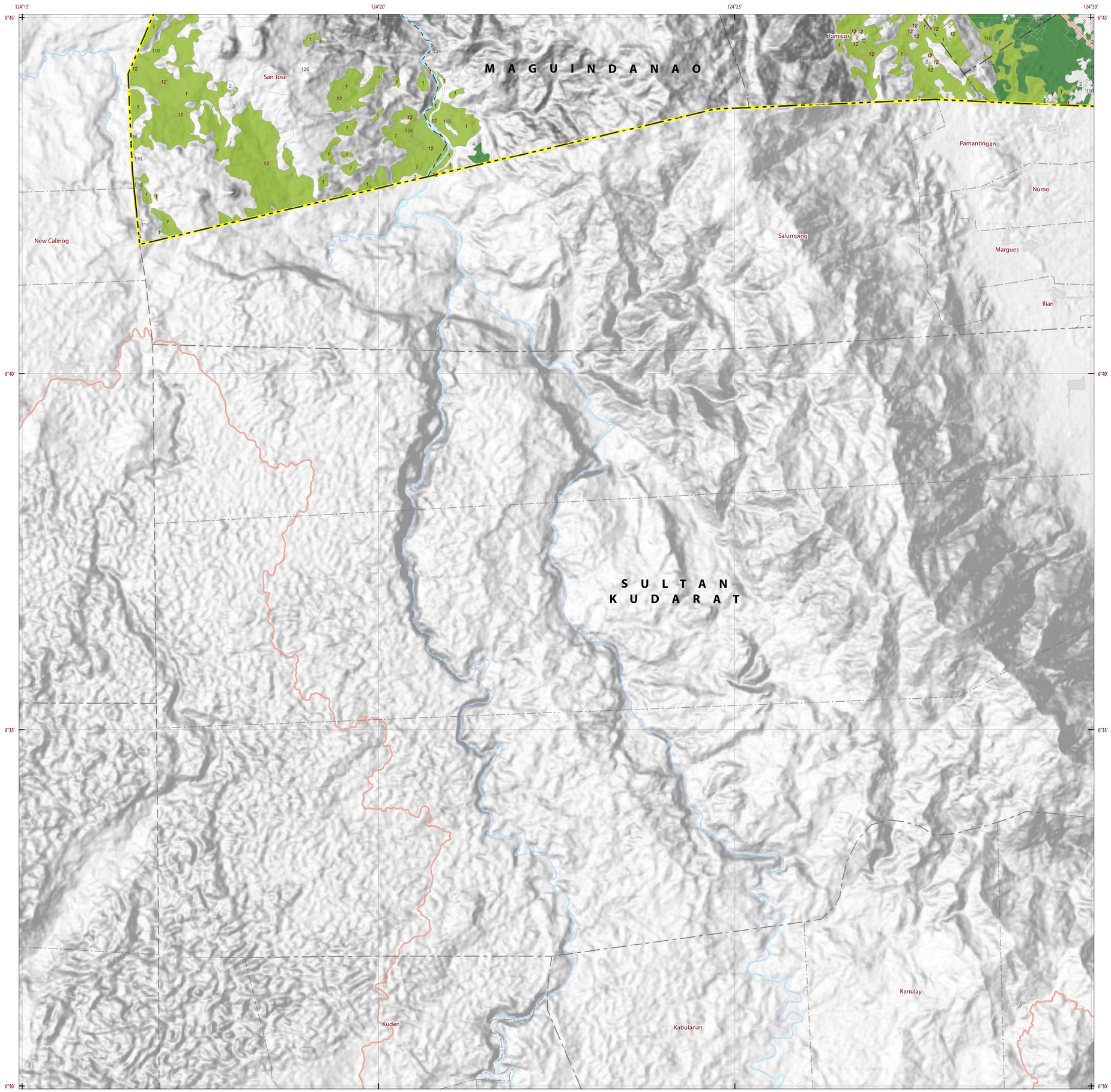

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N
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ADJOINING SHEETS

3814-IV | 3814-I | 3914-IV
3814-III | 3814-II | 3914-III

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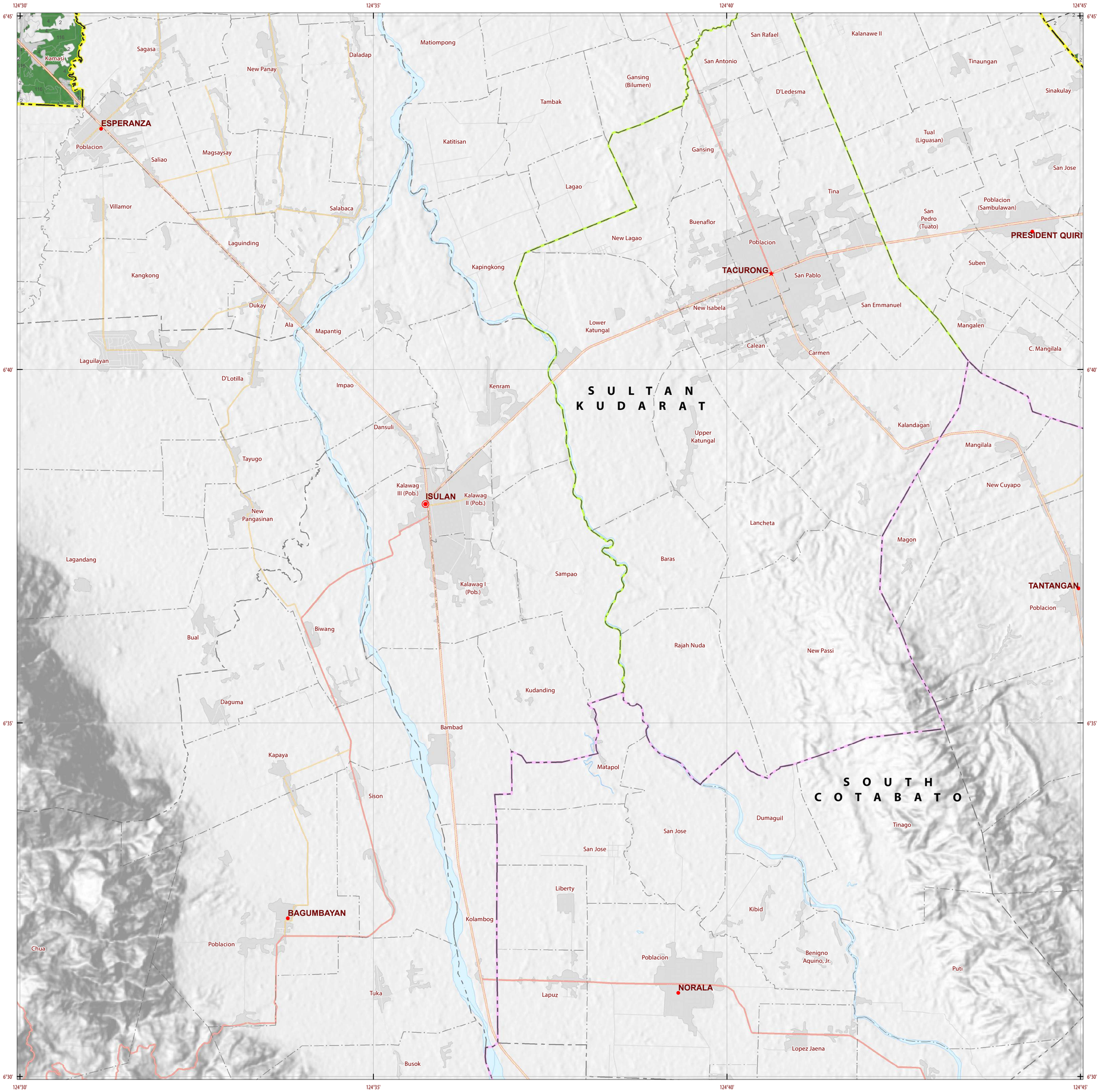
3914-III

PROVINCE OF MAGUINDANAO

Calawag



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N
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CONVENTIONAL SIGNS

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Capital Town / Town

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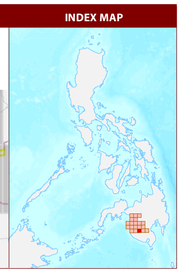
Mangrove

ADJOINING SHEETS

3914-III

3814-I | 3914-IV | 3914-I
3814-II | 3914-III | 3914-II

INDEX MAP



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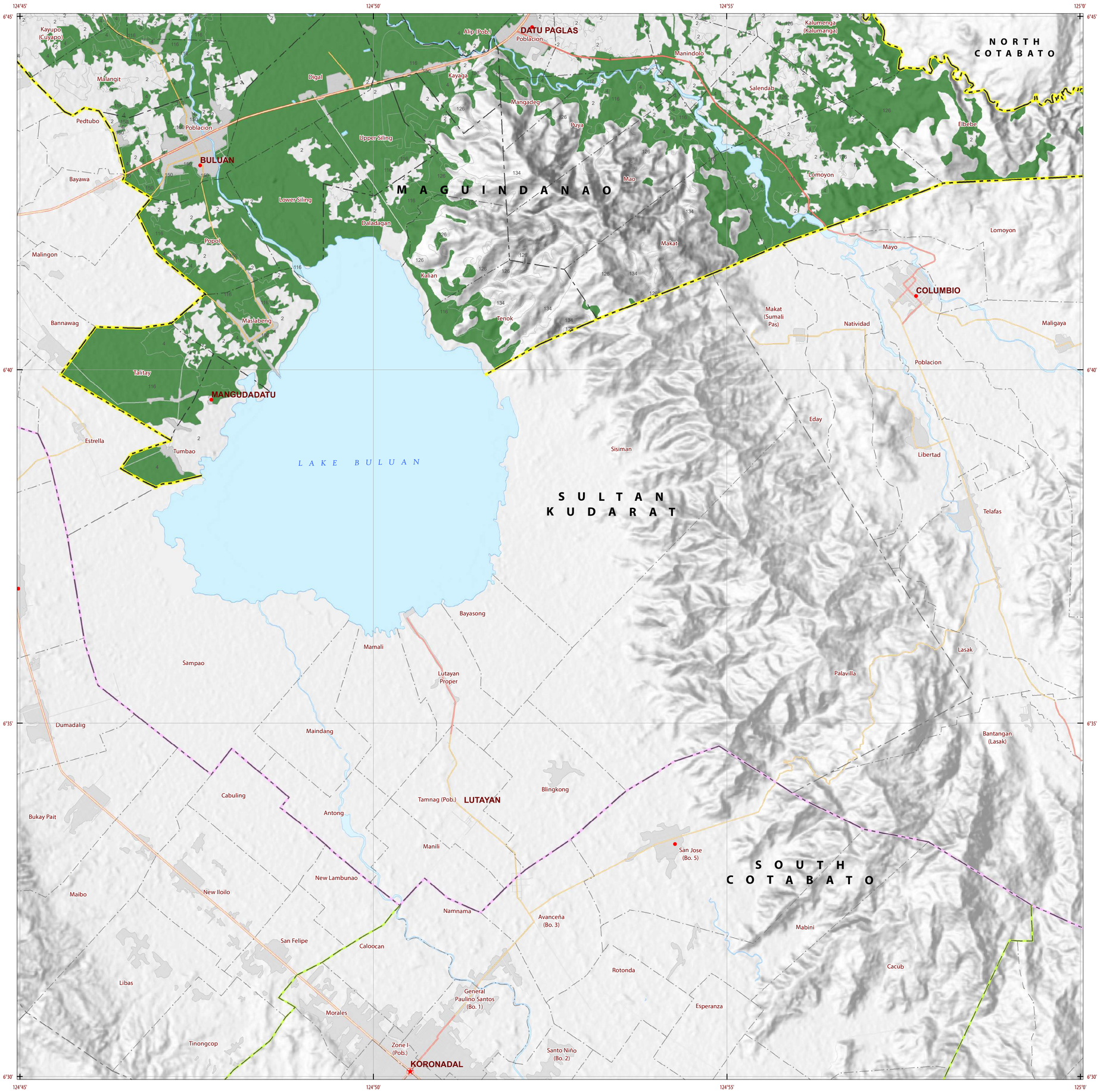

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Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 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

3914-II

3914-IV | 3914-I
3914-III | 3914-II | 4014-III

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 Major Commodities Project** implemented by BSWM (2017).

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GIS and Cartography : IRVIN K. SAMALCA

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Collaborating Agencies : Philippine Council on Agriculture and Fisheries (PCAF)
: Department of Agriculture and Fisheries - ARMM, Department of Agriculture Regional Field Office of Region IX, X, XI, XII and XIII (Caraga)
: Local Government Unit (LGU) of covered provinces and municipalities

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
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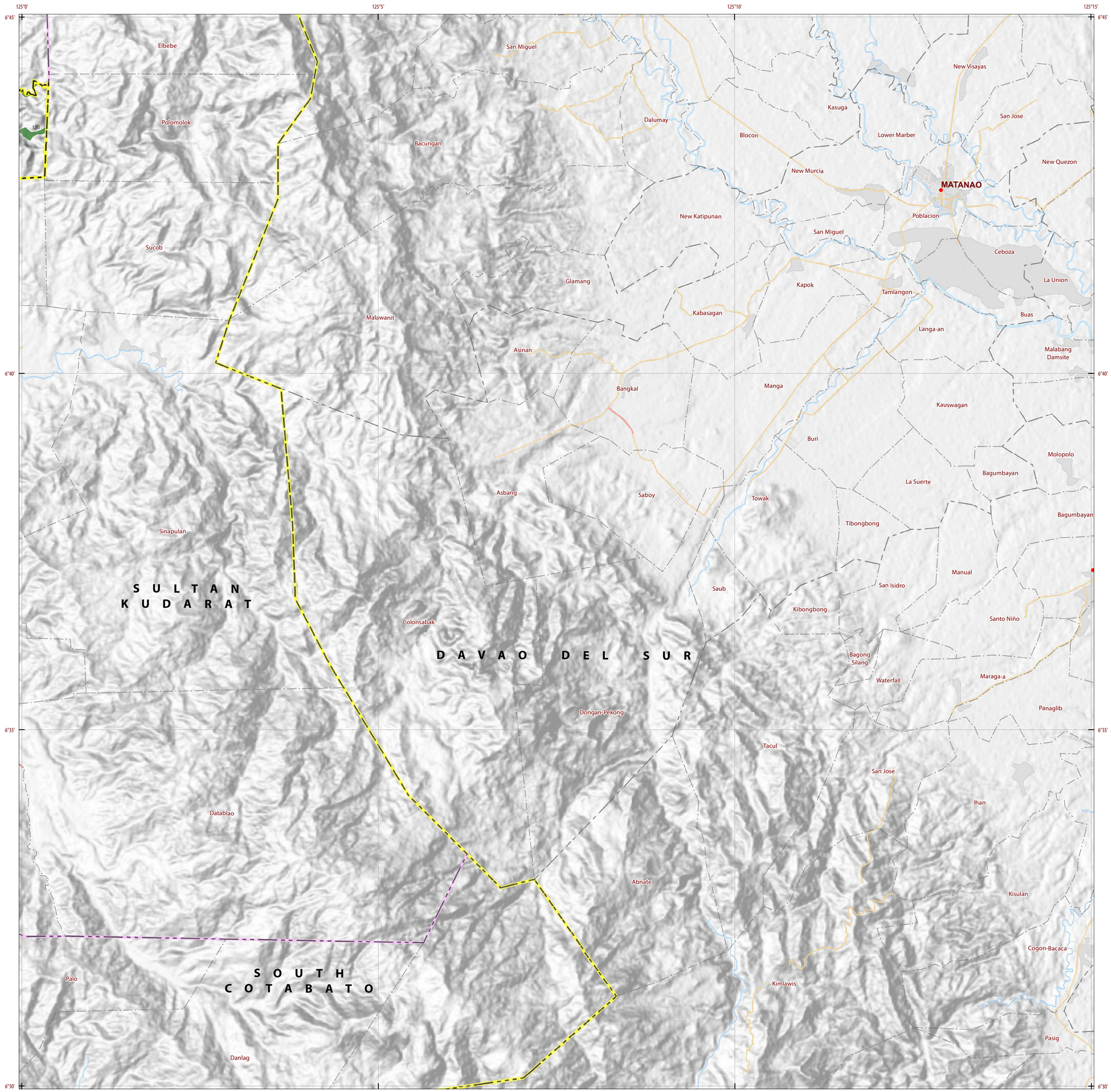

LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

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
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.

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4014-III

3914-I
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