

LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF AGUSAN DEL SUR

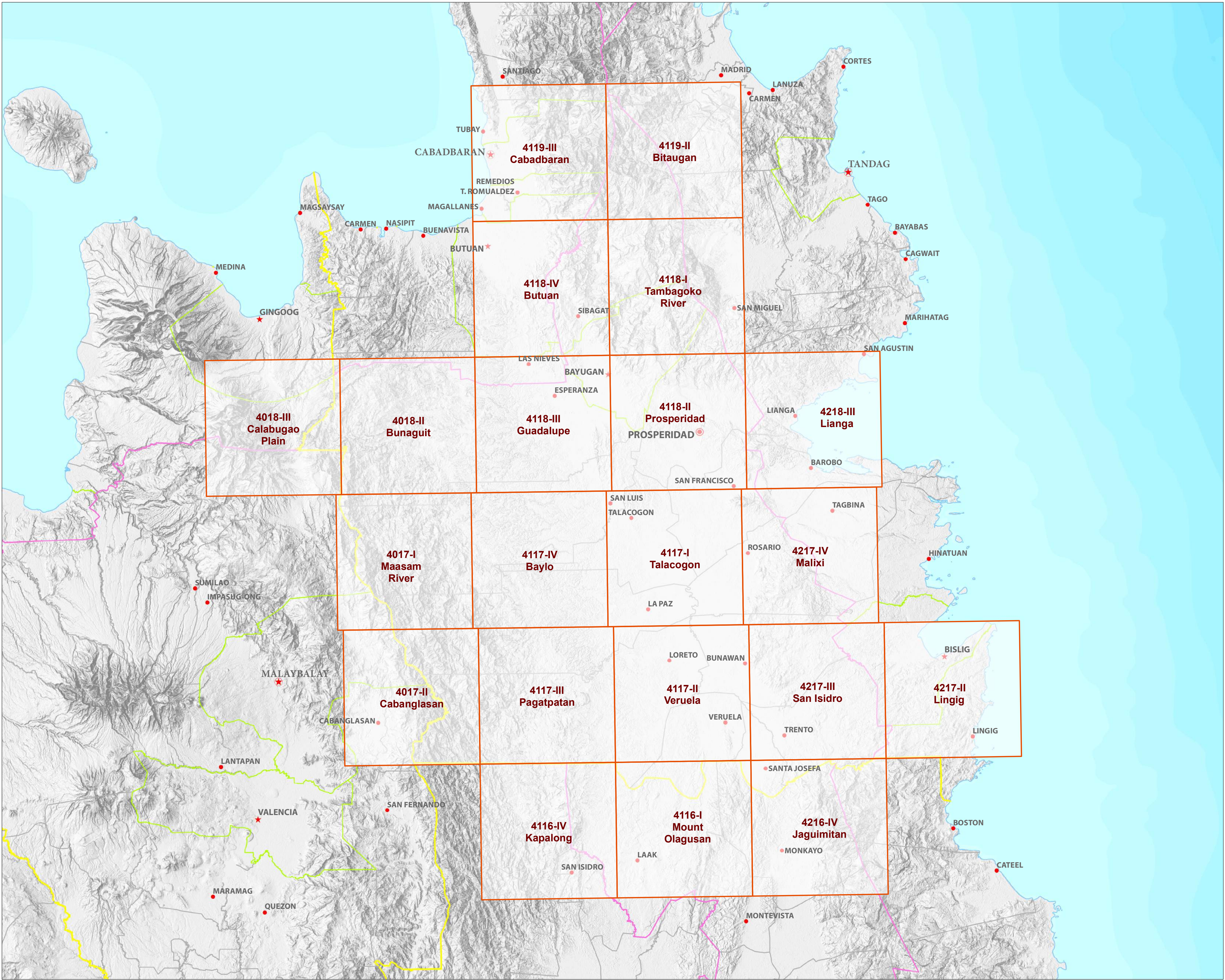


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MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF AGUSAN DEL SUR



LEGEND

Places

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

Administrative Boundary

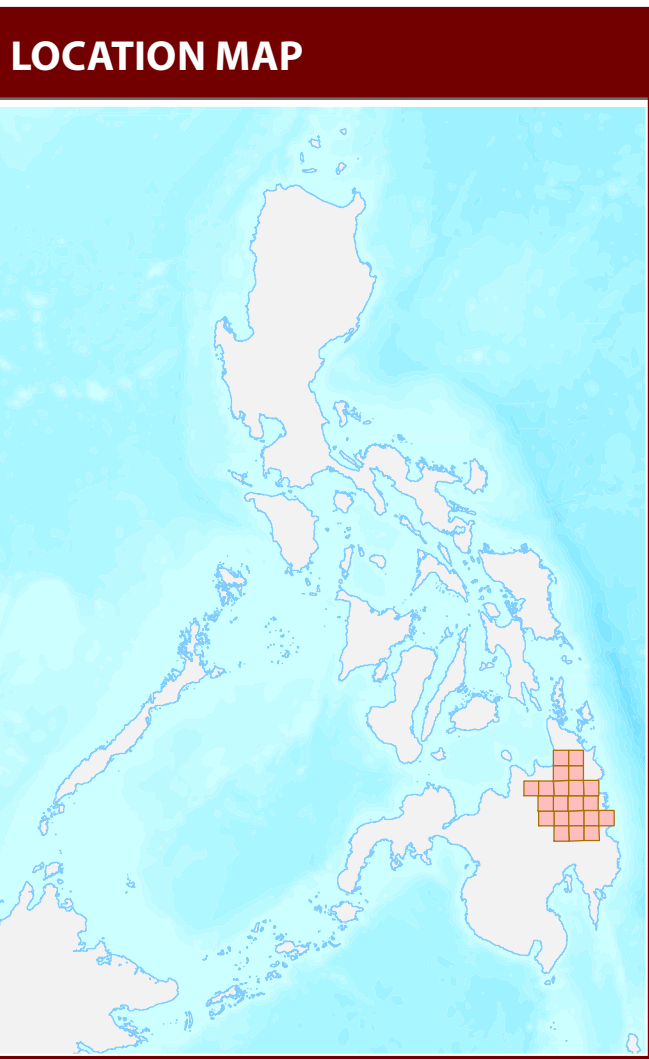
- Regional
- Provincial
- City
- Municipal

Map Index

- Index grid

Topographic Relief

Bathymetry



MISCELLANEOUS INFORMATION

Land suitability information 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).

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LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS AGUSAN DEL SUR, REGION XIII

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

MUNICIPALITY	EXISTING COFFEE			TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)						CONFLICT RESOLUTION AREA (Ha)						TOTAL POTENTIAL EXPANSION AREA (Ha)
					Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Oil palm		Other crops		
	S1	S2	S3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	
BUNAWAN	13	1	2	16	5,953	225	721	-	2,645	89	2,873	22	180	-	174	12	12,895
CITY OF BAYUGAN	33	40	171	244	2,664	12	1,484	2	5,606	867	3,009	183	-	-	-	-	13,828
ESPERANZA	205	229	69	504	1,573	428	3,942	112	10,084	63	3,435	59	-	-	-	-	19,696
LA PAZ	73	5	51	129	-	-	7,113	128	4,096	228	3,696	-	-	-	-	-	15,261
LORETO	18	-	6	24	484	-	9,478	108	7,747	15	2,246	-	-	-	179	-	20,257
PROSPERIDAD (Capital)	77	18	5	100	1,967	252	295	97	10,765	1,500	7,811	7	-	-	-	-	22,693
ROSARIO	-	-	-	-	3,900	75	1,637	21	2,200	4	2,680	-	1,598	-	8	-	12,123
SAN FRANCISCO	1	-	2	3	2,784	18	550	248	2,899	413	7,493	7	3,536	-	2	-	17,950
SAN LUIS	2	16	16	34	1,493	-	15,727	420	8,235	58	1,633	34	-	-	-	-	27,600
SANTA JOSEFA	-	-	-	-	1,172	7	1,644	12	51	-	38	-	2,687	-	-	-	5,612
SIBAGAT	57	17	339	413	321	-	3,689	419	3,152	1,268	208	66	-	-	-	-	9,123
TALACOGON	17	-	-	17	3,448	-	8,335	3	2,323	8	2,936	22	60	-	-	-	17,134
TRENTO	10	-	1	11	15,770	294	2,744	-	521	-	1,922	59	467	-	-	-	21,779
VERUELA	45	-	2	47	4,688	-	10,005	106	198	-	1,333	-	516	-	107	-	16,953
TOTAL	552	325	664	1,542	46,218	1,311	67,365	1,675	60,523	4,513	41,314	460	9,044	-	469	12	232,904

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:

<div></div> 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.	<div></div> 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.
<div></div> 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.	<div></div> 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.

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 EI2 - 1000m - 2000m EI3 - > 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	CODE	LIMITATION
1	E2-Sh2-Rc2	11	F2-D2	21	T2-E3-Sh2-Rc2	31	T3-E3	41	T3
2	E2-Sh2-Rc3	12	F3-D2	22	T2-E3-Sh2-Rc3	32	T3-E3-Rc2	42	T3-E3
3	E3-Rc3	13	Rc2	23	T2-EI2	33	T3-E3-Sh2-Rc3	43	T3-E3-Rc3
4	E3-Sh2-Rc3	14	Sh2	24	T2-EI2-E3	34	T3-E3-Sh3-Rc2	44	T3-E3-Sh3-Rc3
5	EI2	15	Sh2-Rc2	25	T2-EI2-E3-Rc2	35	T3-E3-Sh3-Rc3	45	T3-EI2
6	EI2-E3-Rc3	16	Sh2-Rc3	26	T2-EI2-E3-Rc3	36	T3-EI2	46	T3-EI2-E3-Rc3
7	EI2-E3-Sh2-Rc3	17	T2	27	T2-EI2-E3-Sh2-Rc2	37	T3-EI2-E3-Rc2	47	T3-EI2-E3-Sh3-Rc3
8	EI2-Rc2	18	T2-E3	28	T2-EI2-E3-Sh2-Rc3	38	T3-EI2-E3-Sh2-Rc3		
9	EI2-Sh2-Rc2	19	T2-E3-Rc2	29	T2-F2-D2	39	T3-EI2-E3-Sh3-Rc2		
10	EI2-Sh2-Rc3	20	T2-E3-Rc3	30	T3	40	T3-EI2-E3-Sh3-Rc3		

CODE	LIMITATION	CODE	LIMITATION
4	Corn	119	Oil palm
81	Coffee	126	Grassland
82	Cacao	131	Ipil-ipil
85	Mango	134	Shrubs, unmanaged
91	Banana	137	Rubber
98	Rambutan	139	Falcata
105	Fruit trees, mixed		
107	Abaca		
115	Mixed crops		
116	Coconut		

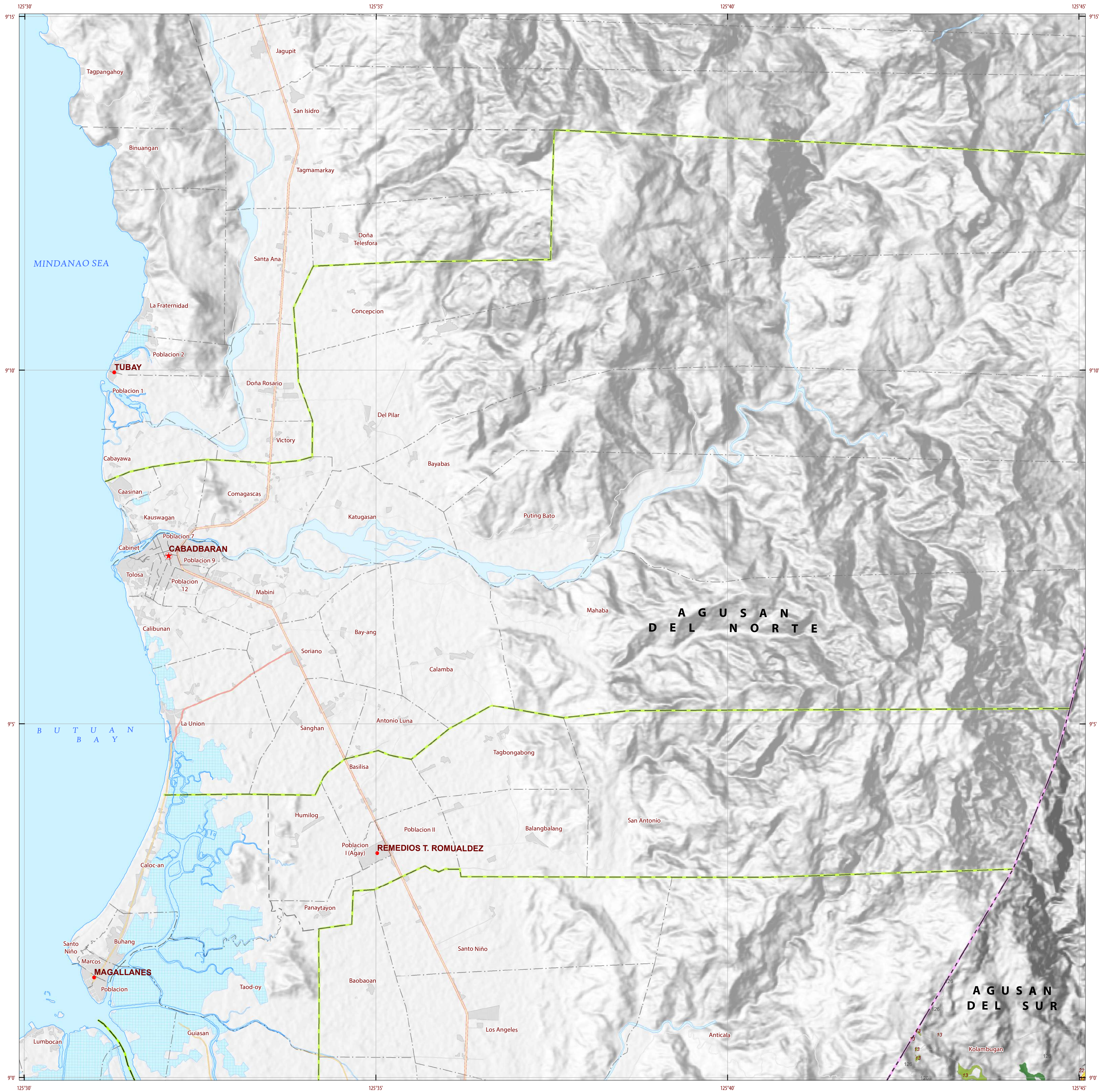
Source: PAGASA 2018, *Climatological Normals (Rainfall)*, Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), accessed 27 July 2018, <<https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals>>.

Northeastern part of Agusan Del Sur is classified as climatic Type II while the rest, specifically, the southwestern is climatic Type IV.

4119-III

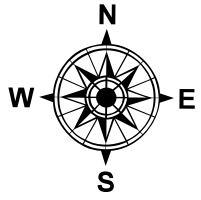
PROVINCE OF AGUSAN DEL SUR

Cabadbaran



LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE

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

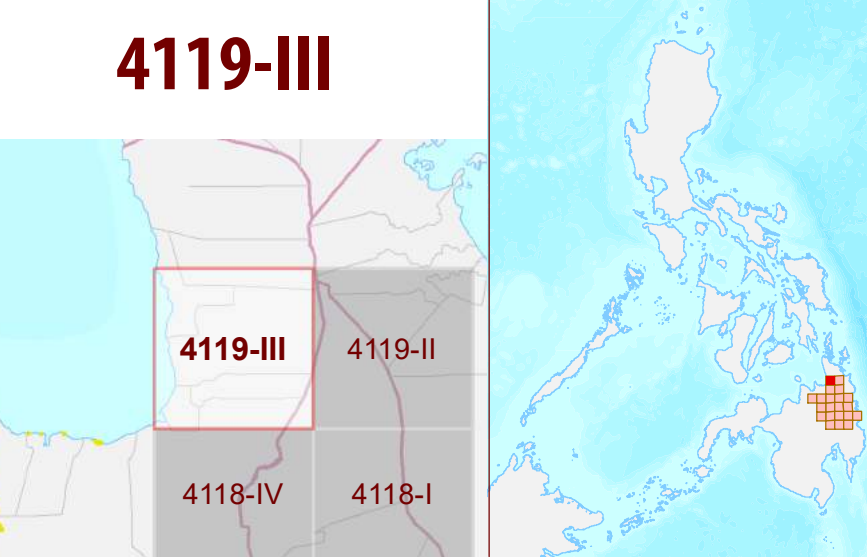
OTHER SIGNS

- 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



MISCELLANEOUS INFORMATION

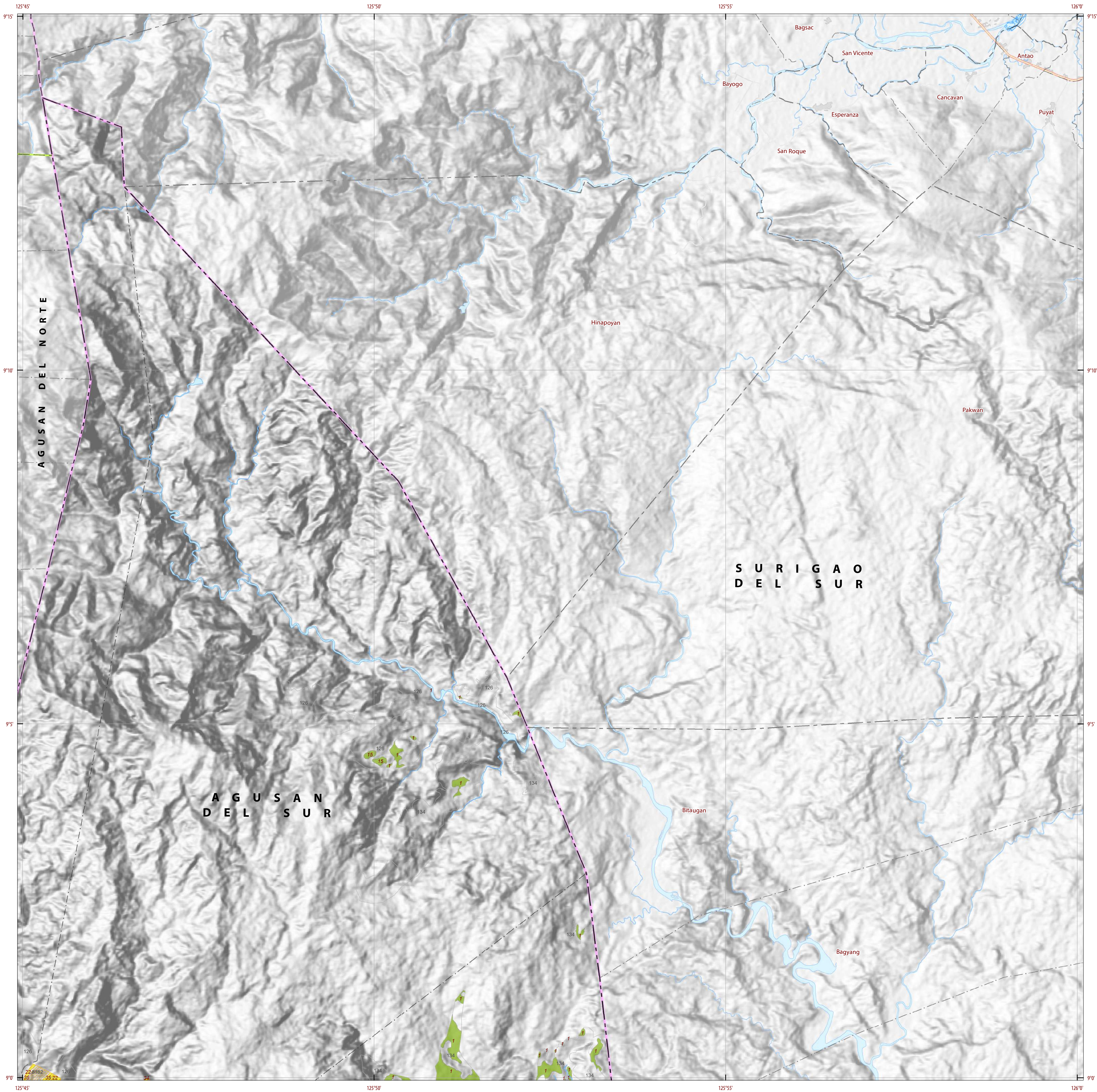
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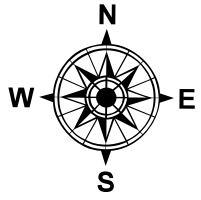
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LAND RESOURCES EVALUATION AND SUITABILITY
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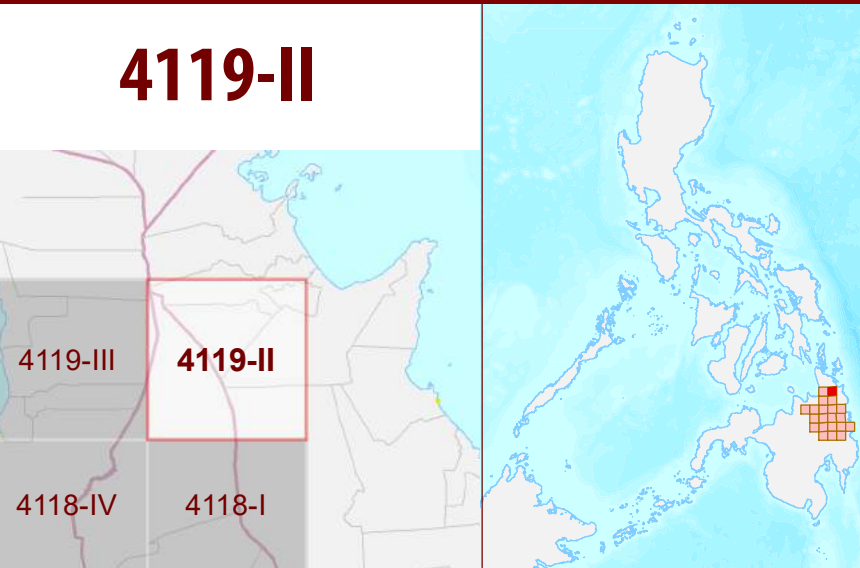
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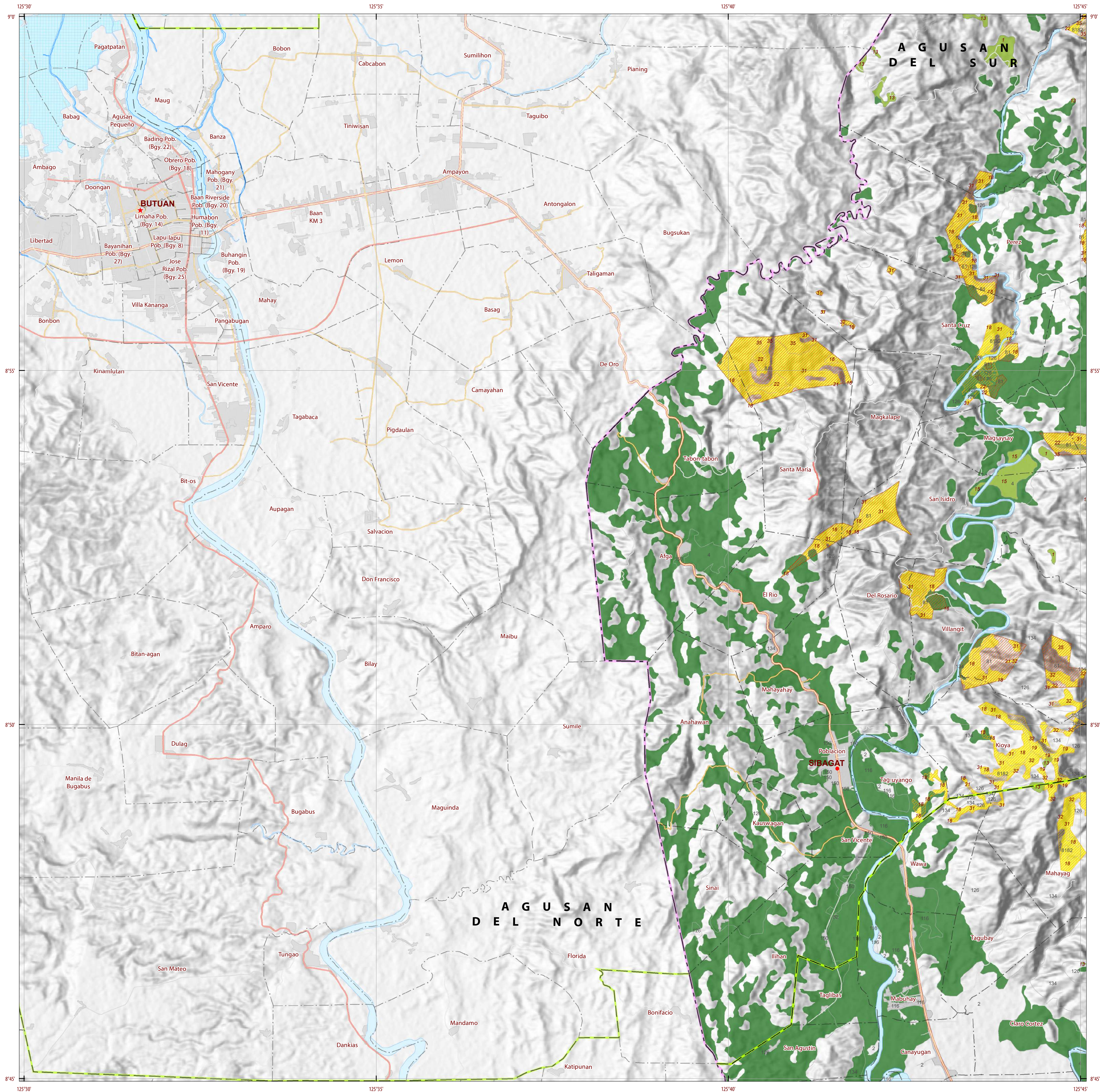
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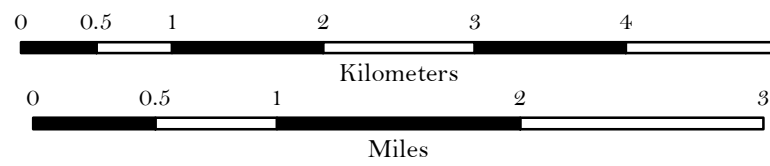


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ASSESSMENT OF STRATEGIC PRODUCTION AREAS



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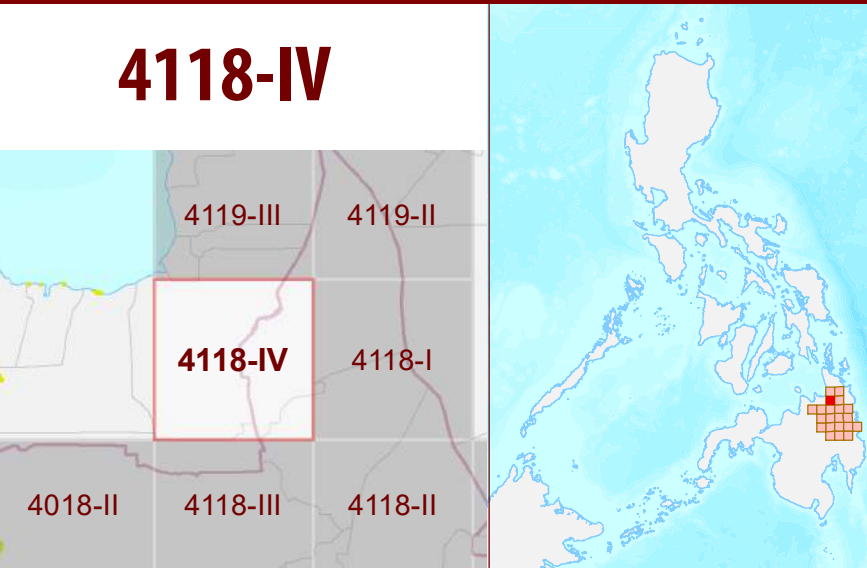
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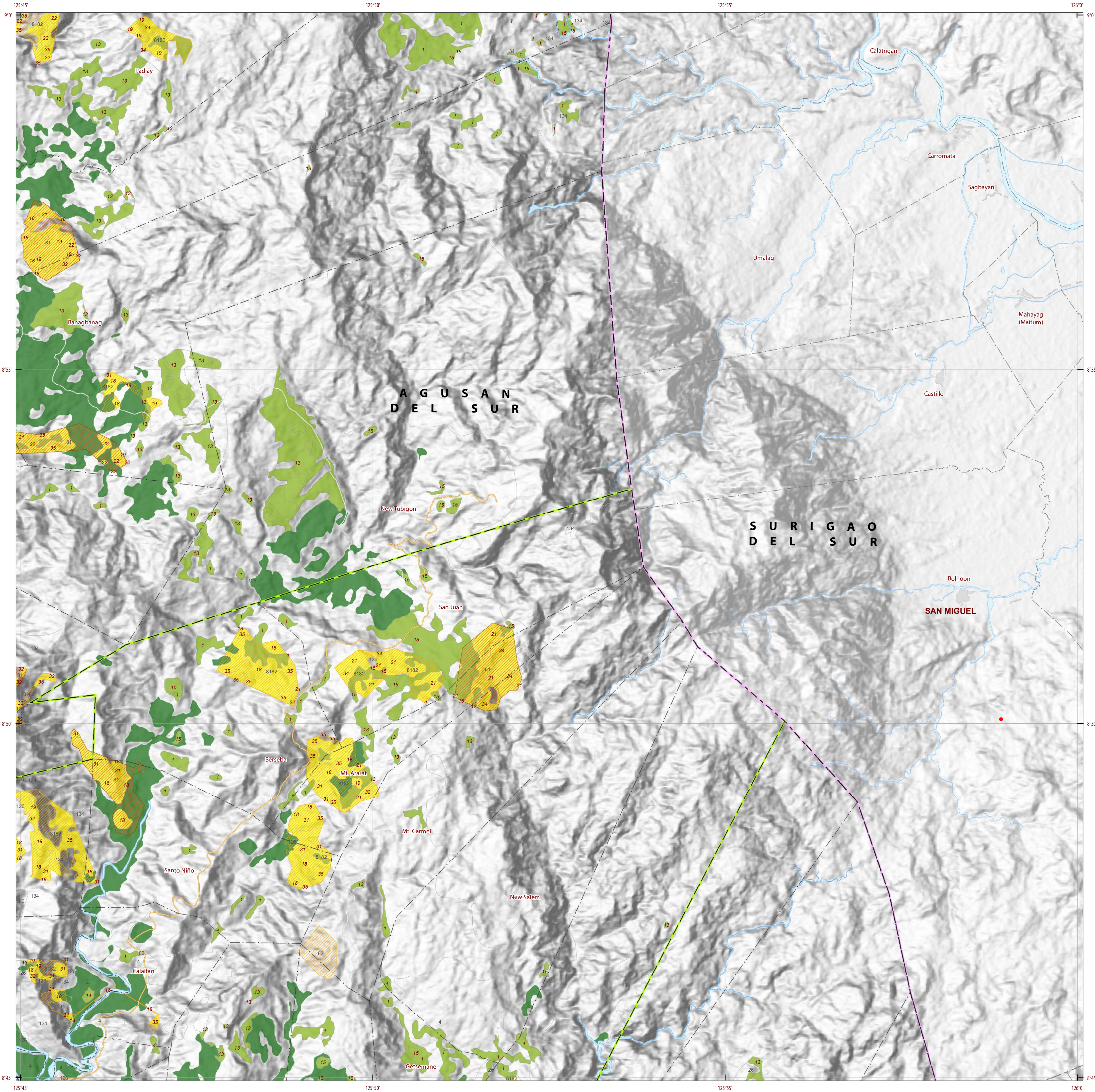
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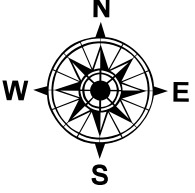
LAND SUITABILITY MAP

ROBUSTA, LIBERICA

AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY

ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000

00.512345

Kilometers

00.5123

Miles

Universal Transverse Mercator Zone 51 N, PRS 1992 Datum

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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

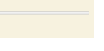
CONVENTIONAL SIGNS


ROADS

Expressway


Trunk line

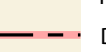
Primary

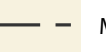
Secondary

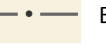
Tertiary


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

4118-I

4119-III

4119-II

4118-IV

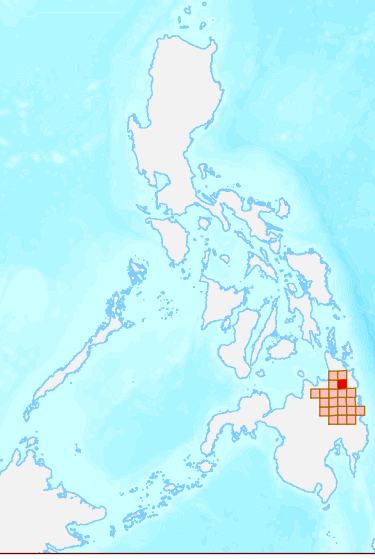
4118-I

4118-III

4118-II

4218-III

INDEX MAP



MISCELLANEOUS INFORMATION

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Project Leader : BERNARDO B. PASCUA

GIS and Cartography : IRVIN K. SAMALCA

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BUREAU OF SOILS AND WATER MANAGEMENT

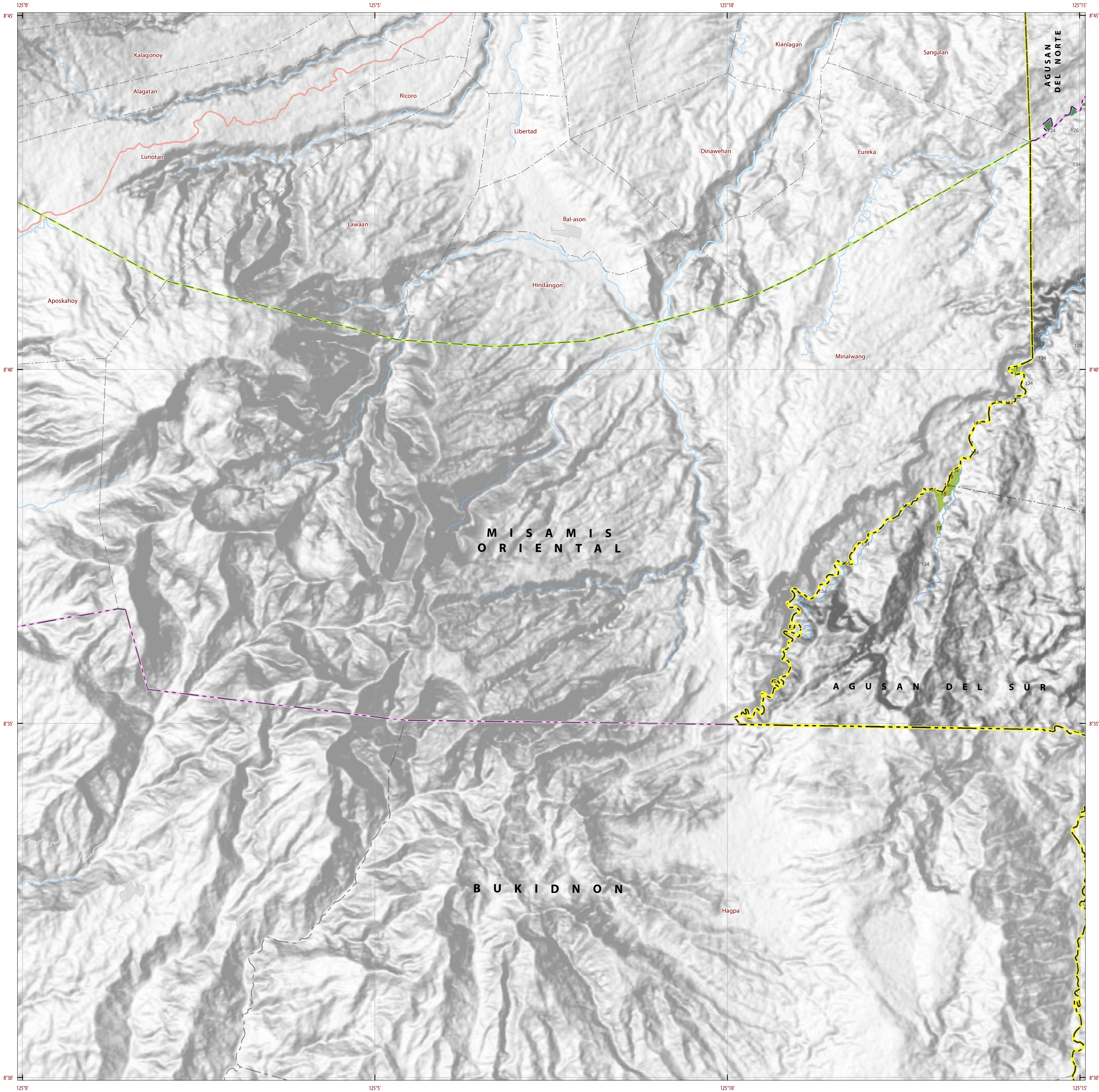
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PROVINCE OF AGUSAN DEL SUR

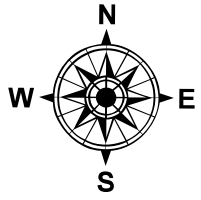
Sheet 4 of 21

Sheet No. 4118-I



**LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE**

**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

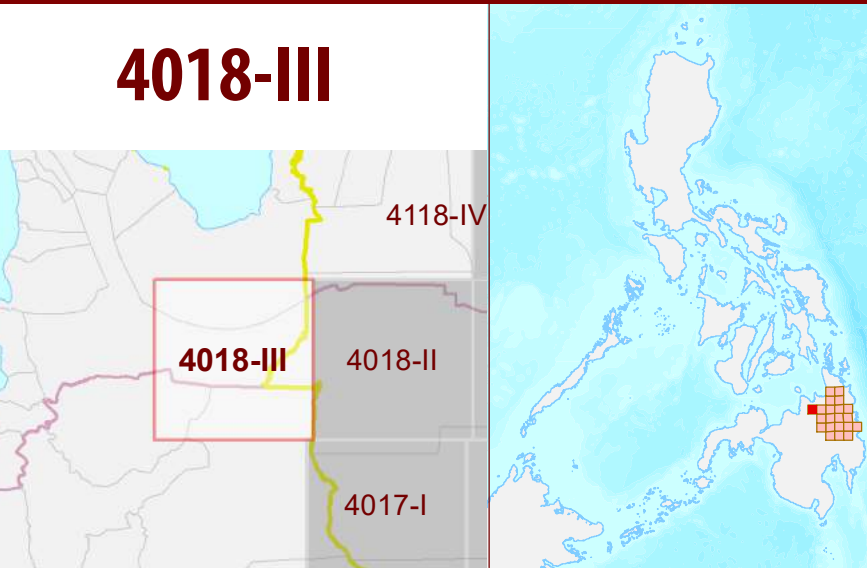
OTHER SIGNS

- 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



MISCELLANEOUS INFORMATION

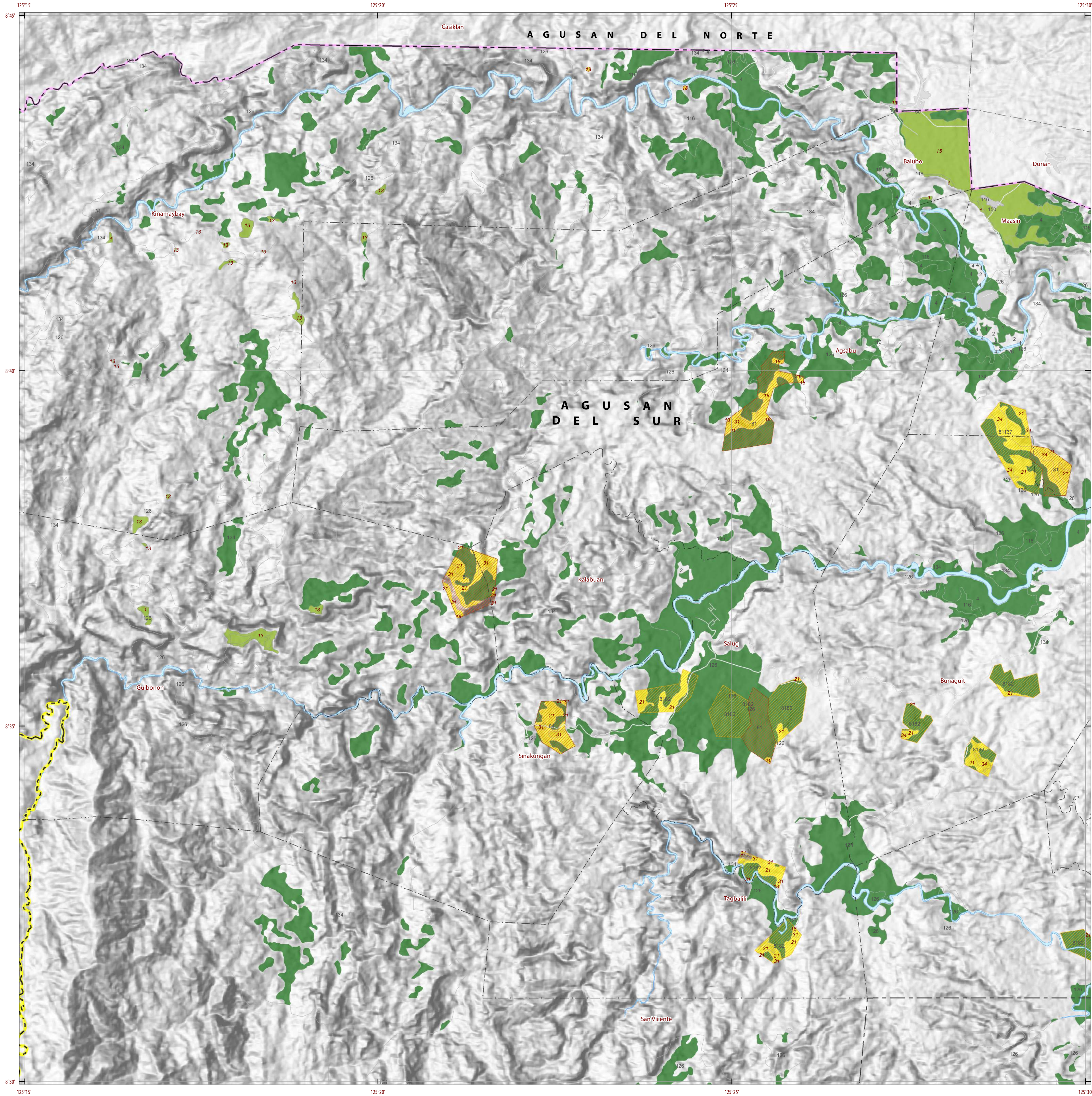
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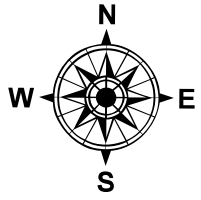
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LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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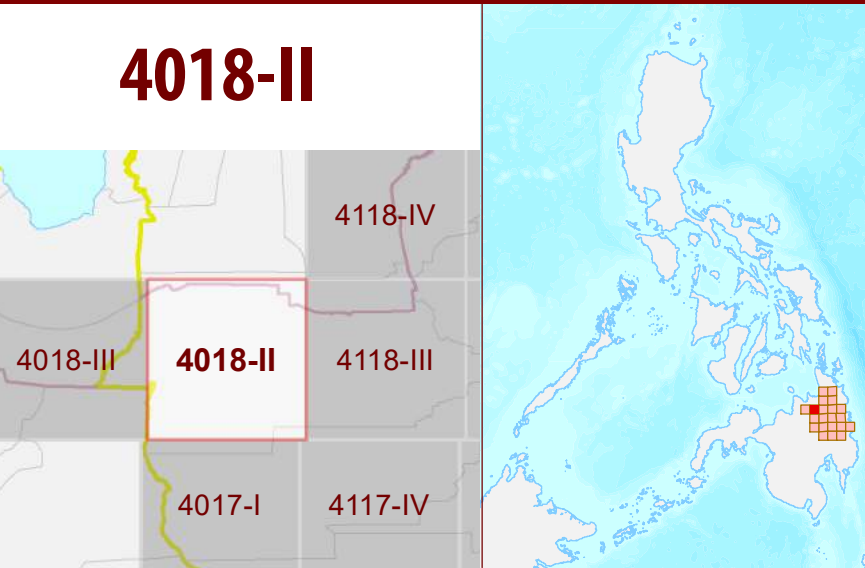
OTHER SIGNS

- 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

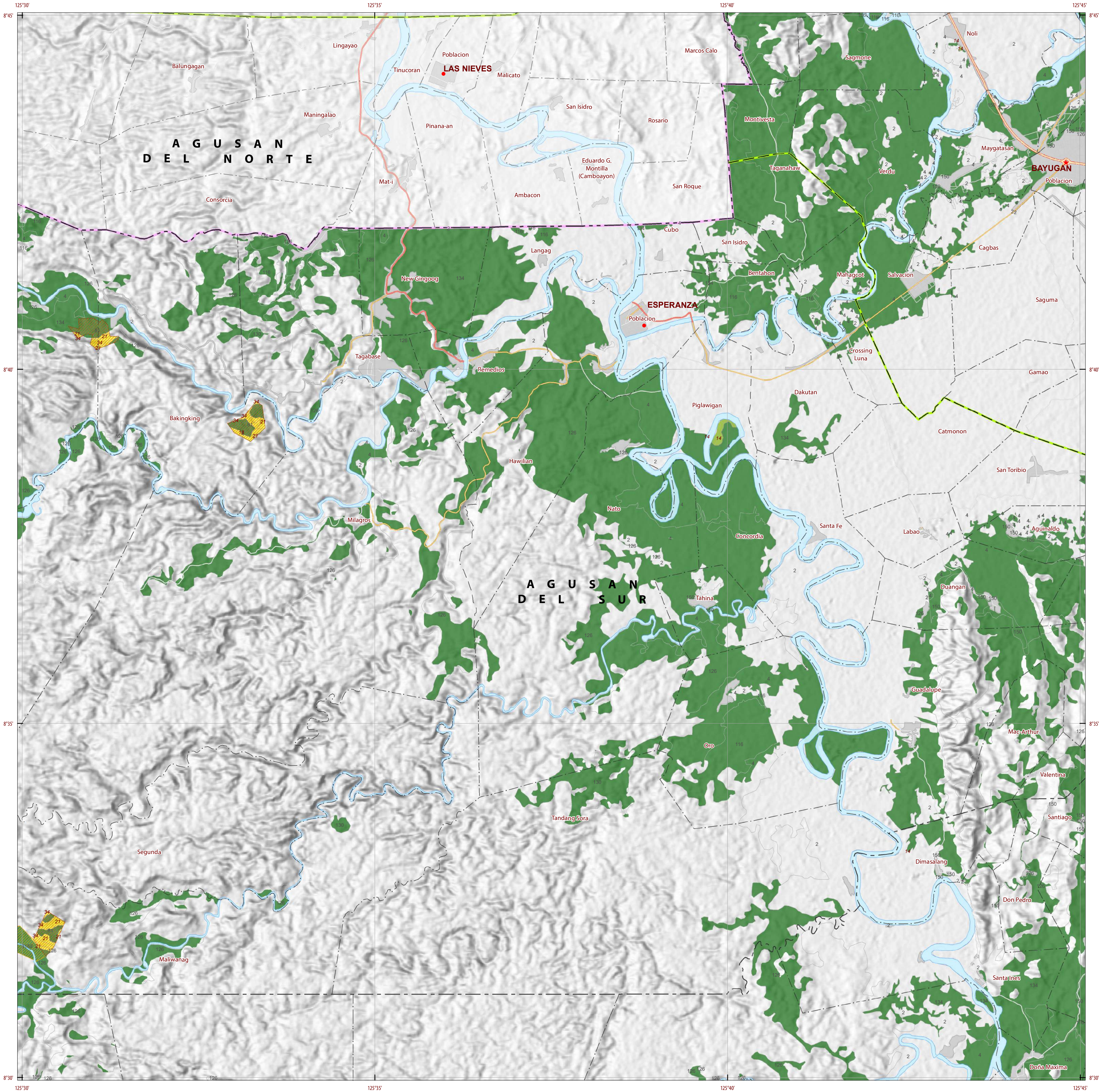
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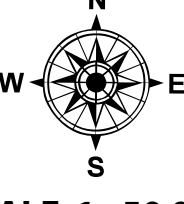
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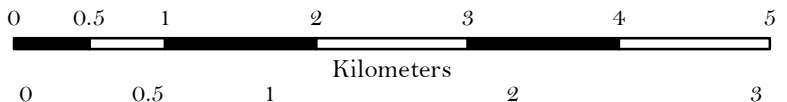


LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE

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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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

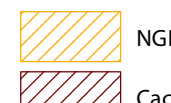
Moderately Suitable - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive,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

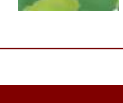
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OTHER SIGNS

 NGP Areas

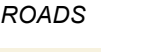
 Cacao


 Land limitation


 Land use


CONVENTIONAL SIGNS


ROADS

 Expressway


 Trunk line


 Primary


 Secondary

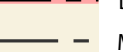
 Tertiary

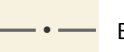
BOUNDARY

 Region

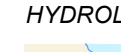
 Province


 District

 Municipality


 Barangay


HYDROLOGY

 Sea / Shoreline


 Lakes / Rivers


PLACES


 Capital City / City

 Capital Town / Town

LAND USE

 Built-up

 Fishpond

 Mangrove

ADJOINING SHEETS

4118-III

4118-IV 4118-I

4018-II 4118-II

4017-I 4117-IV 4117-I

INDEX MAP

MISCELLANEOUS INFORMATION

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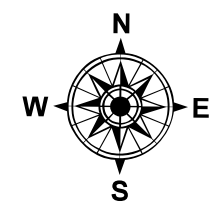
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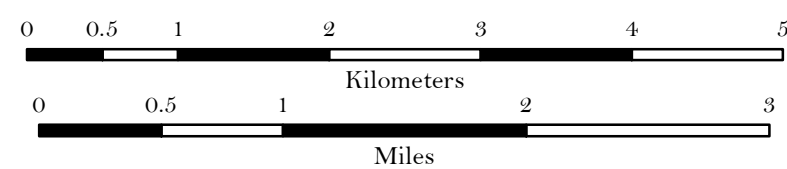
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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



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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| 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

-

CONVENTIONAL SIGNS

ROADS

- Express
Trunk line
Primary
Secondary
Tertiary

BOUNDARY

- Region
 Province
- Sea / Shoreline
 Lakes / Rivers

PLACES

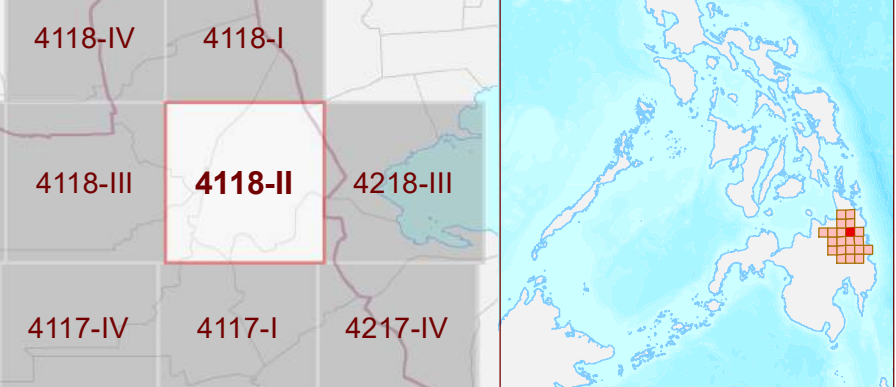
- ★ Capital City / City
- Capital Town / Town

LAND USE

- Built-up Fishpond Mangrove

ADJOINING SHEETS

4118-II




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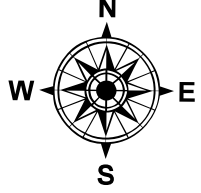





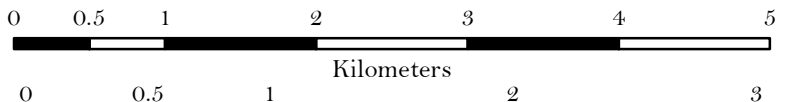
LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



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OTHER SIGNS

NGP Areas

Cacao

Land limitation

Land use

CONVENTIONAL SIGNS

ROADS

Expressway

Trunk line

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Secondary

Tertiary

BOUNDARY

Region

Province

District

Municipality

Barangay

HYDROLOGY

Sea / Shoreline

Lakes / Rivers

PLACES

Capital City / City

Capital Town / Town

LAND USE

Built-upFishpondMangrove

ADJOINING SHEETS

4118-I

4118-II

4117-I

4218-III

4217-IV

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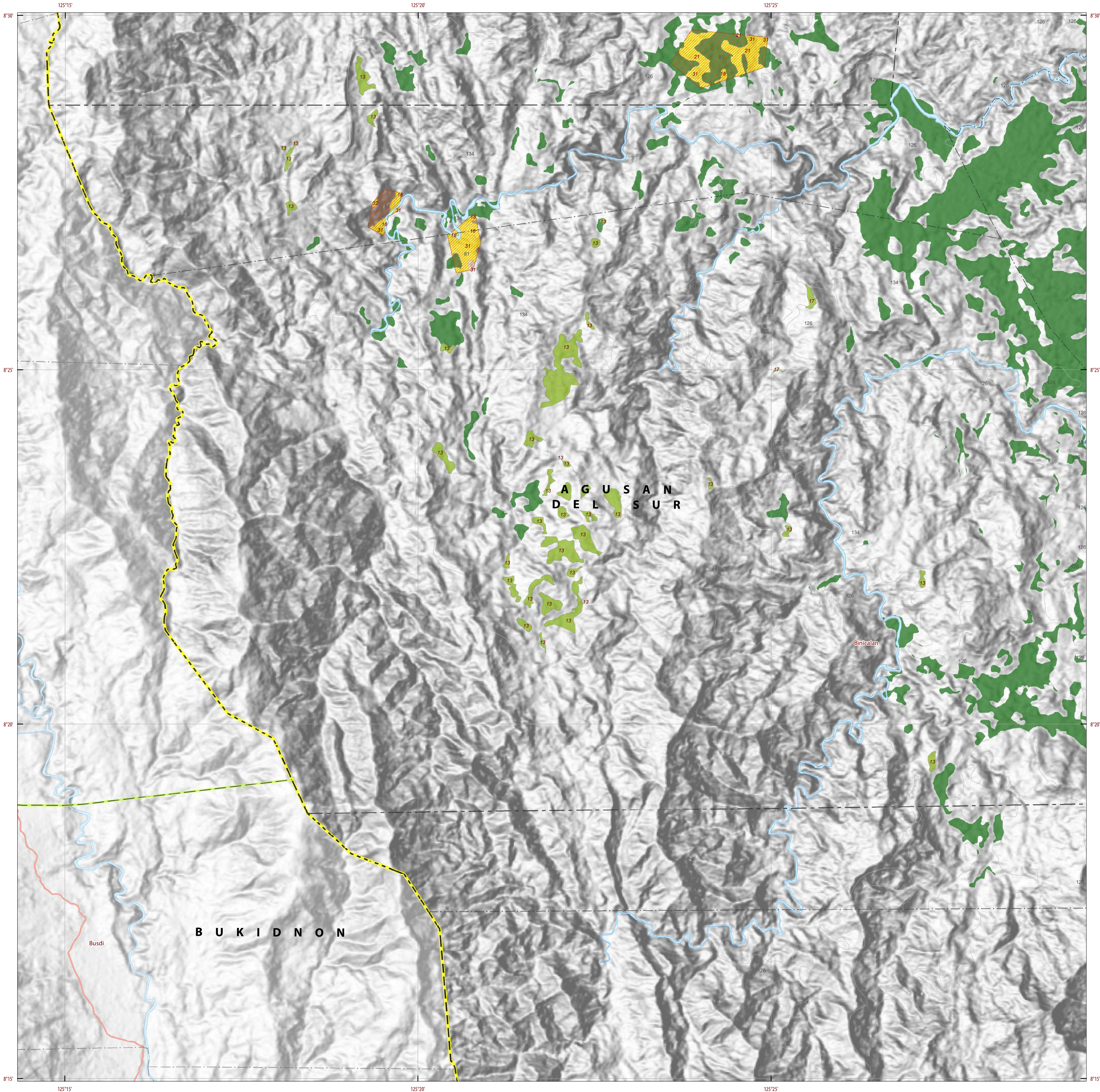





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PROVINCE OF AGUSAN DEL SUR

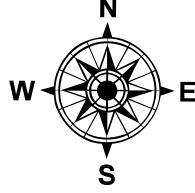
Sheet 9 of 21 Sheet No. 4218-III







LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



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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

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HYDROLOGY

 Sea / Shoreline

 Lakes / Rivers

PLACES

 Capital City / City

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LAND USE

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 Fishpond

 Mangrove

ADJOINING SHEETS

4017-I

4018-III

4018-II

4018-I

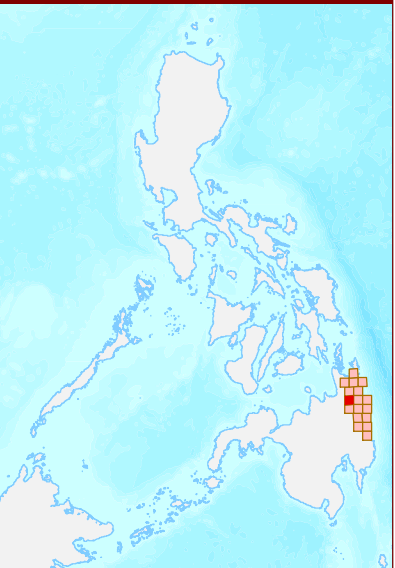
4017-I

4017-II

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BUREAU OF SOILS AND WATER MANAGEMENT

SRDC Bldg, Elliptical Road Cor. Visayas Avenue, Diliman, Quezon City 1101

Tel/Fax No. : (+632) 332-9534 E-mail: bswmcenter@da.gov.ph

PROVINCE OF AGUSAN DEL SUR

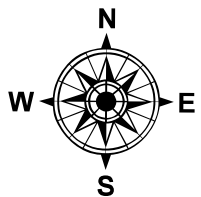
Sheet 10 of 21

Sheet No. 4017-I



LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

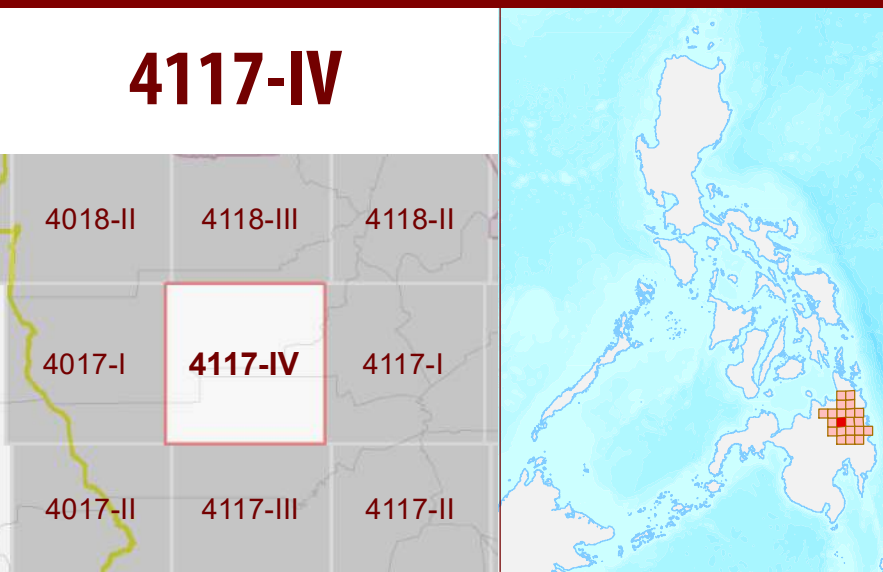
OTHER SIGNS

- 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



MISCELLANEOUS INFORMATION

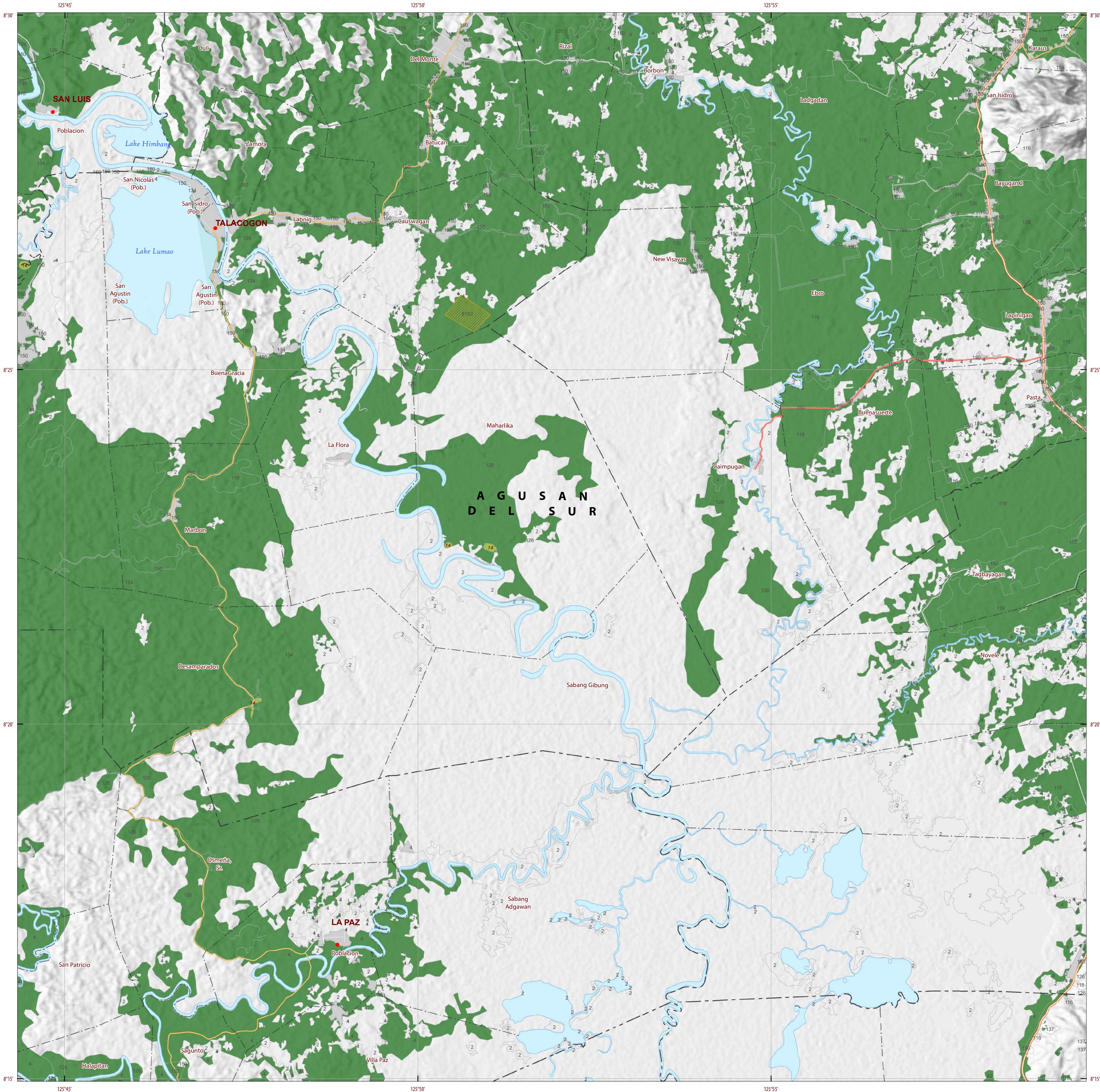
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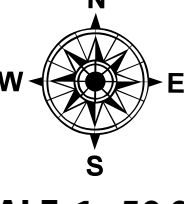
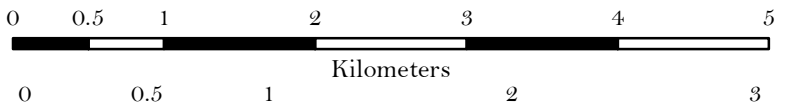
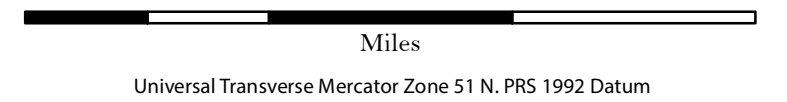
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LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE
LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS


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


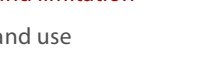


Moderately Suitable - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive,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

S3


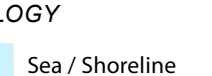
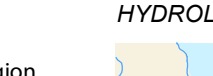
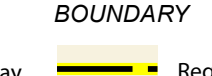


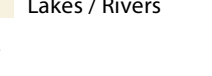
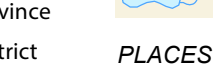

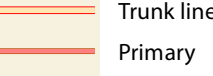

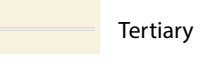





Marginally Suitable - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Not Suitable/ Not Relevant

OTHER SIGNS



CONVENTIONAL SIGNS

ROADS

BOUNDARY

HYDROLOGY

PLACES

LAND USE


ADJOINING SHEETS

4118-III

4118-II

4218-III

4117-IV

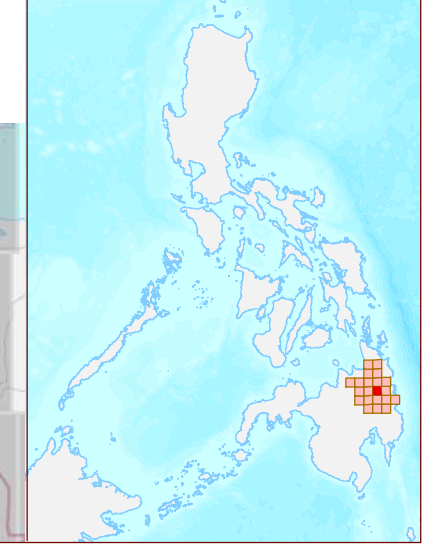
4117-I


4217-IV

4117-III

4117-II

4217-III



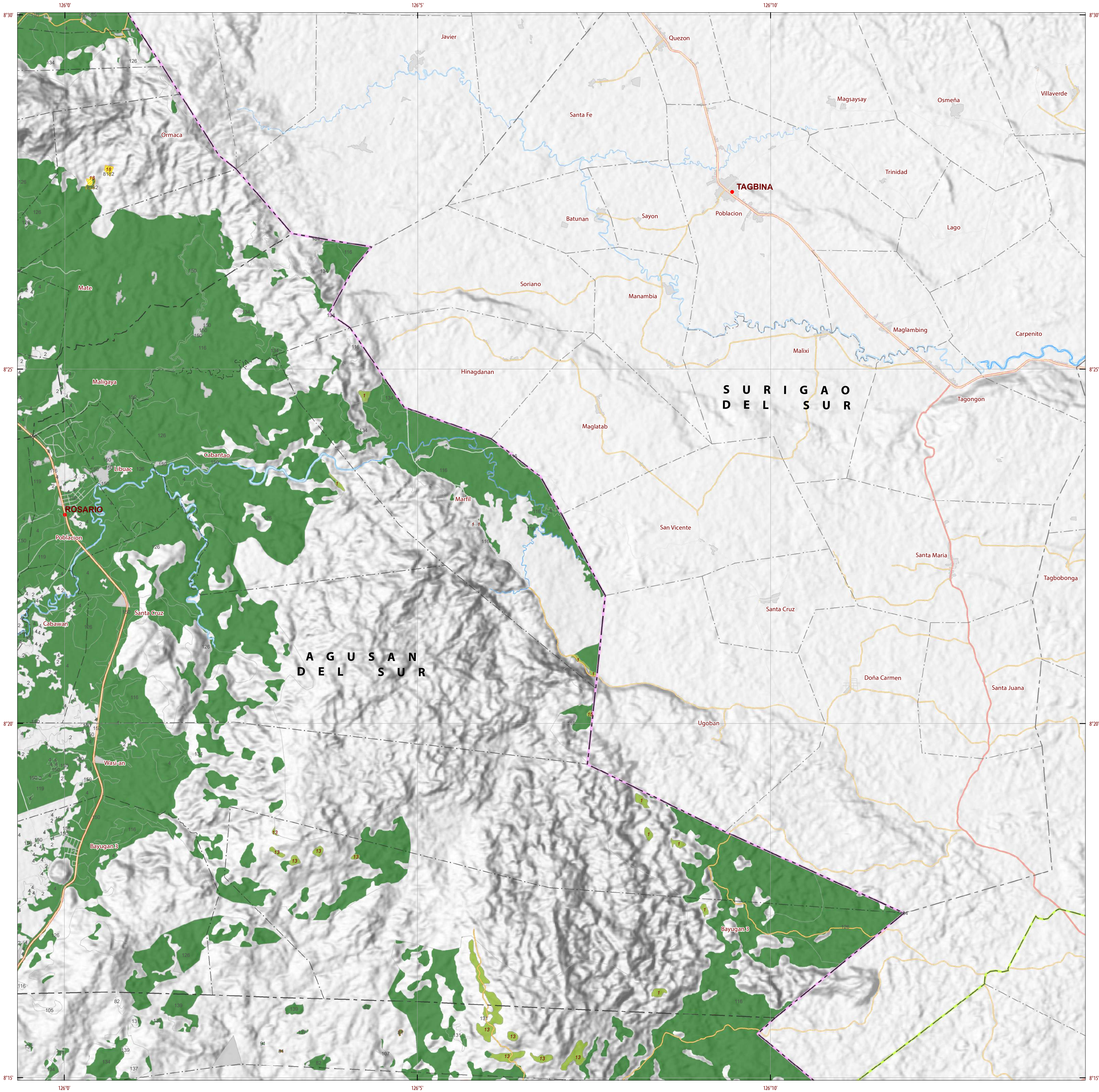
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PROVINCE OF AGUSAN DEL SUR

Sheet 12 of 21

Sheet No. 4117-I





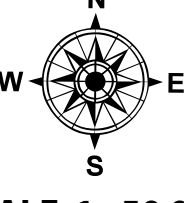
LAND SUITABILITY MAP

ROBUSTA, LIBERICA


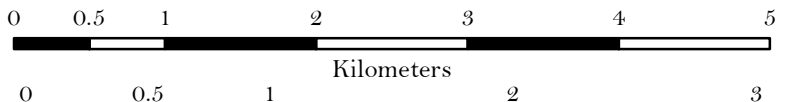
AND EXCELSA COFFEE

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

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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

Land limitation

Land use

CONVENTIONAL SIGNS

ROADS

Expressway

BOUNDARY

Region

HYDROLOGY

Sea / Shoreline

PLACES

Lakes / Rivers

ROADS

Trunk line

BOUNDARY

Province

HYDROLOGY

Lakes / Rivers

PLACES

Capital City / City

ROADS

Primary

BOUNDARY

District

HYDROLOGY

Capital Town / Town

PLACES

Capital Town / Town

ROADS

Secondary

BOUNDARY

Municipality

HYDROLOGY

Capital Town / Town

PLACES

Capital Town / Town

ROADS

Tertiary

BOUNDARY

Barangay

HYDROLOGY

Capital Town / Town

PLACES

Capital Town / Town

LAND USE

Built-up

LAND USE

Fishpond

LAND USE

Mangrove

ADJOINING SHEETS

4217-IV

4118-II 4218-III

4117-I 4217-IV

4117-II 4217-III 4217-II

INDEX MAP

MISCELLANEOUS INFORMATION

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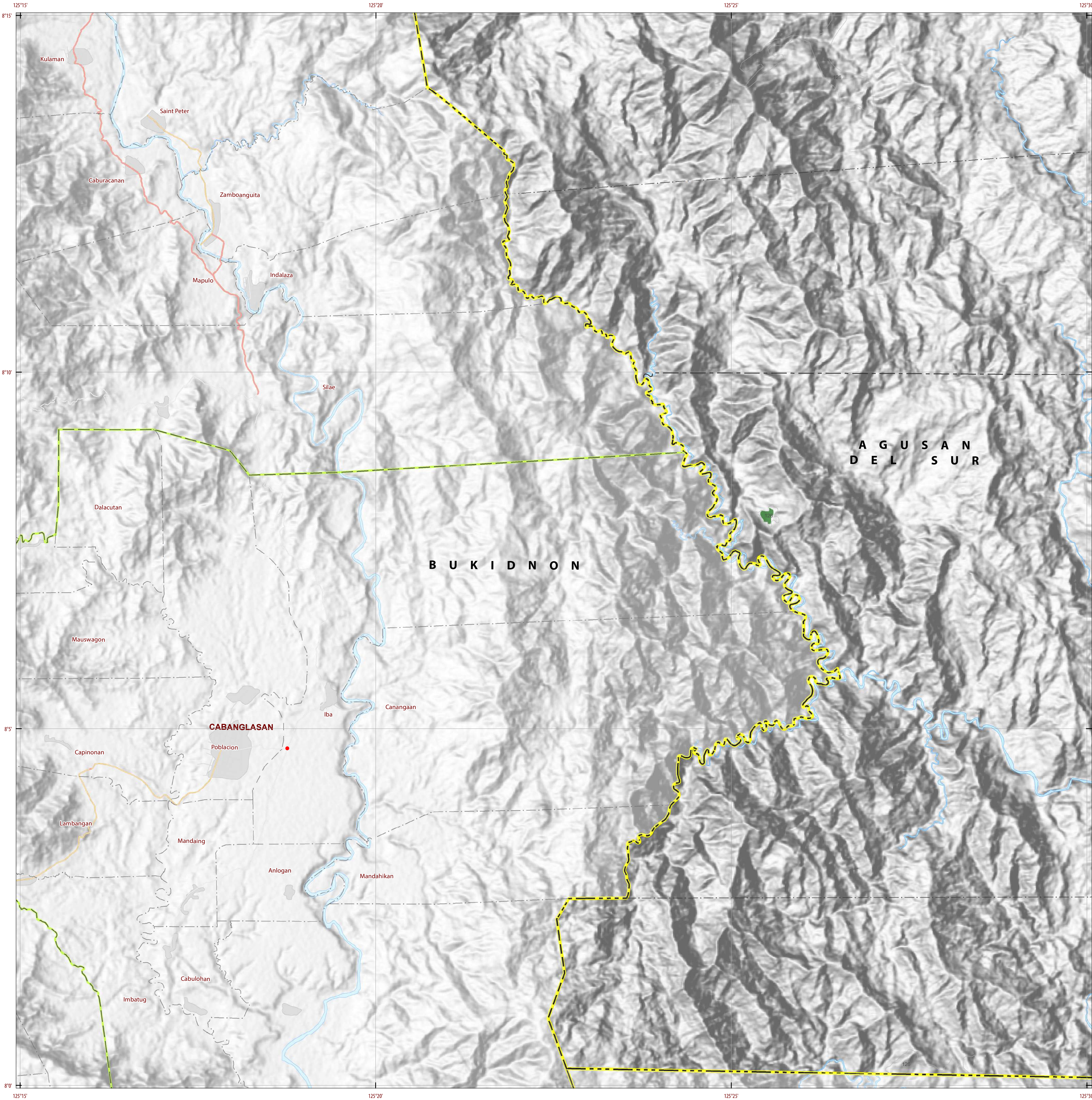


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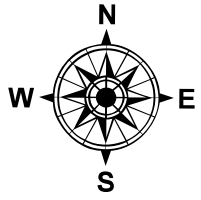
PROVINCE OF AGUSAN DEL SUR

Sheet 13 of 21 Sheet No. 4217-IV



**LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE**

**LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS**



SCALE 1 : 50 000



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LEGEND

SUITABILITY CLASSES

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Not Suitable/ Not Relevant

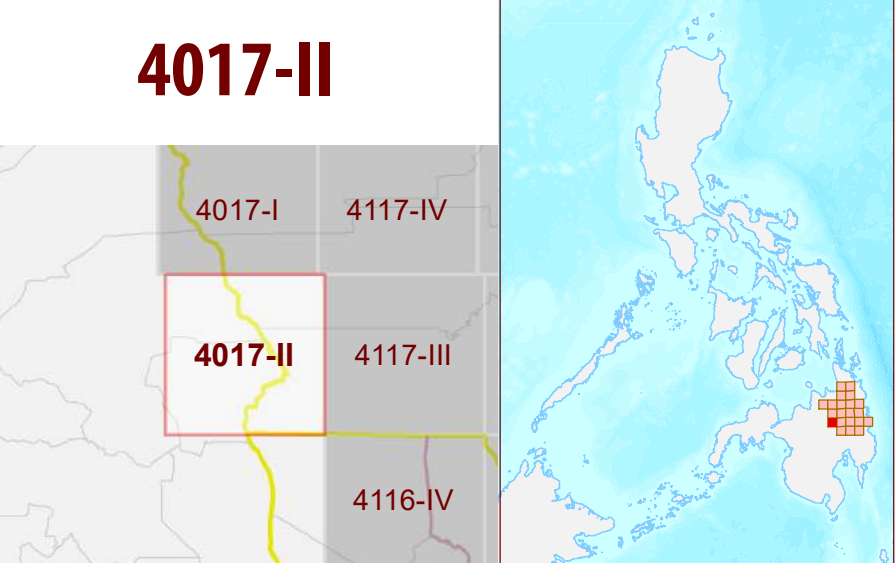
OTHER SIGNS

- 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

ADJOINING SHEETS



MISCELLANEOUS INFORMATION

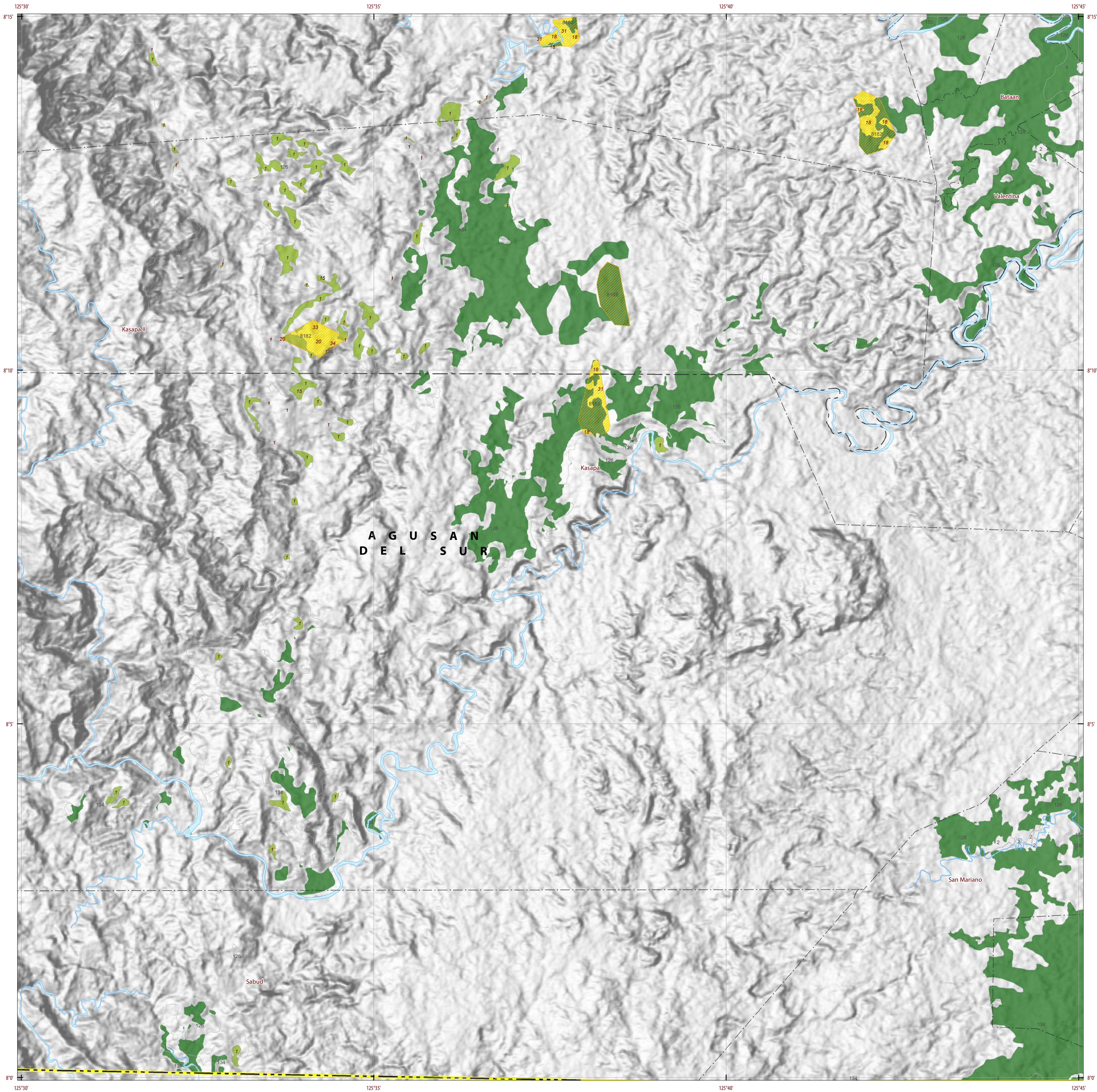
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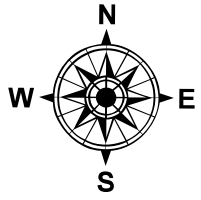
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LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



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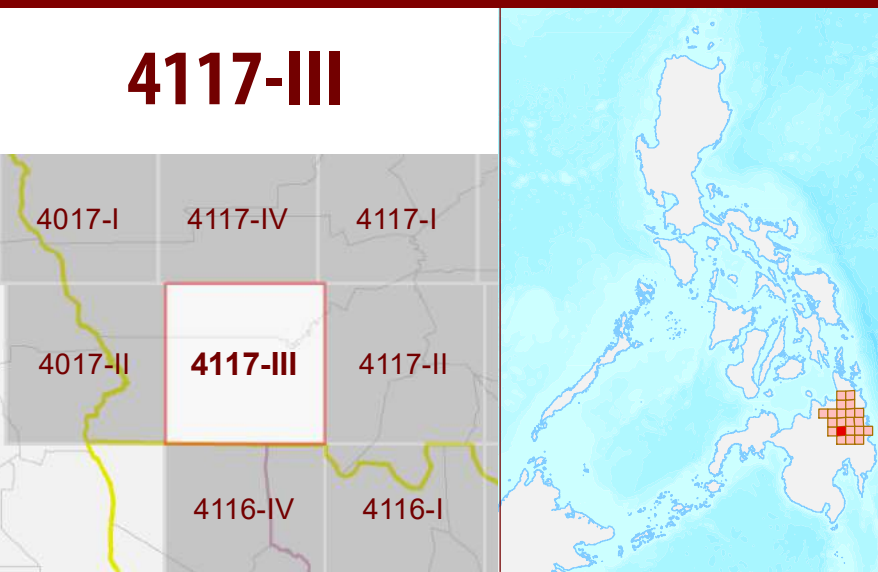
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ADJOINING SHEETS



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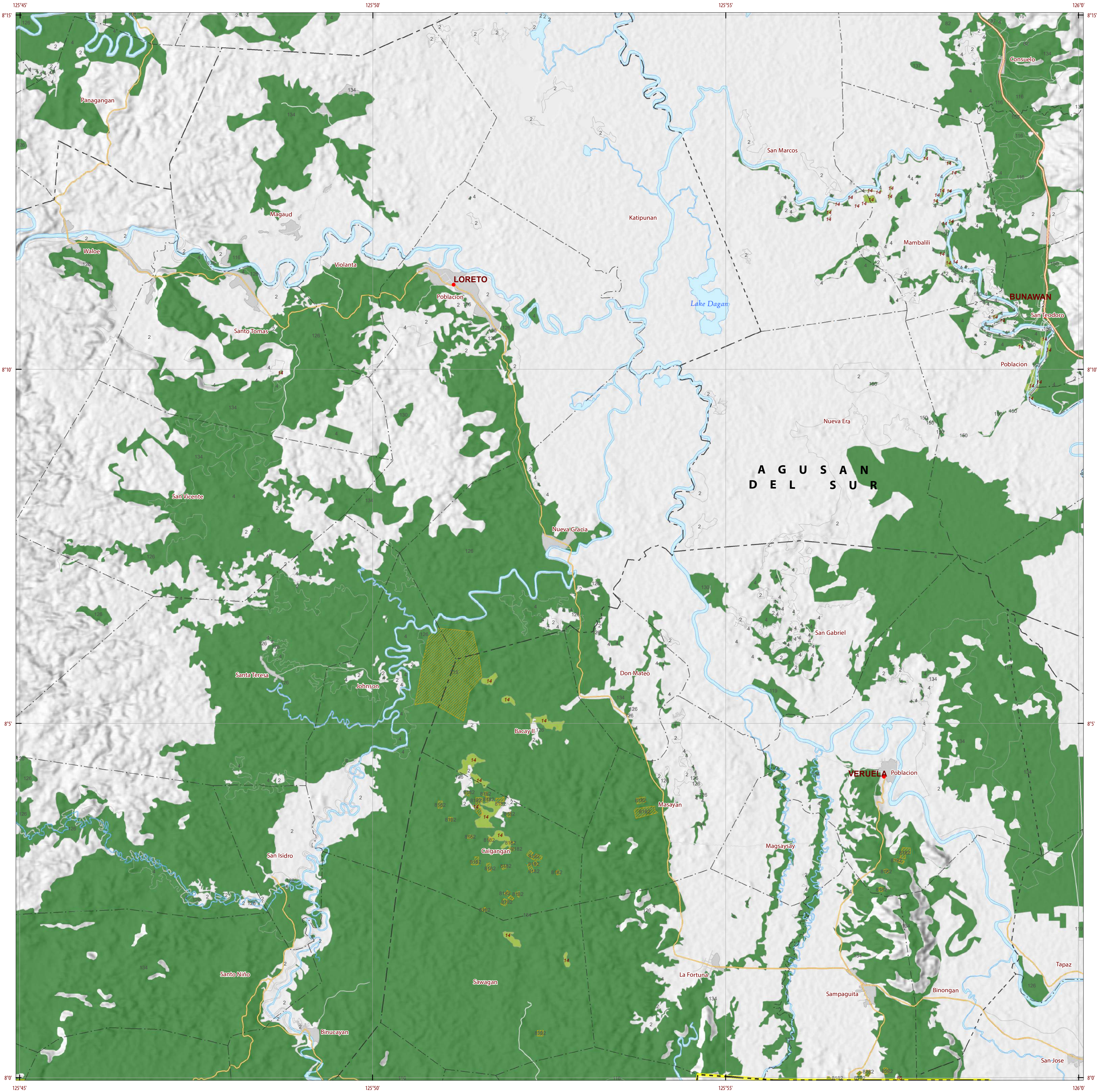
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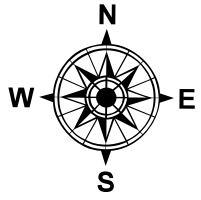
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ASSESSMENT OF STRATEGIC PRODUCTION AREAS**



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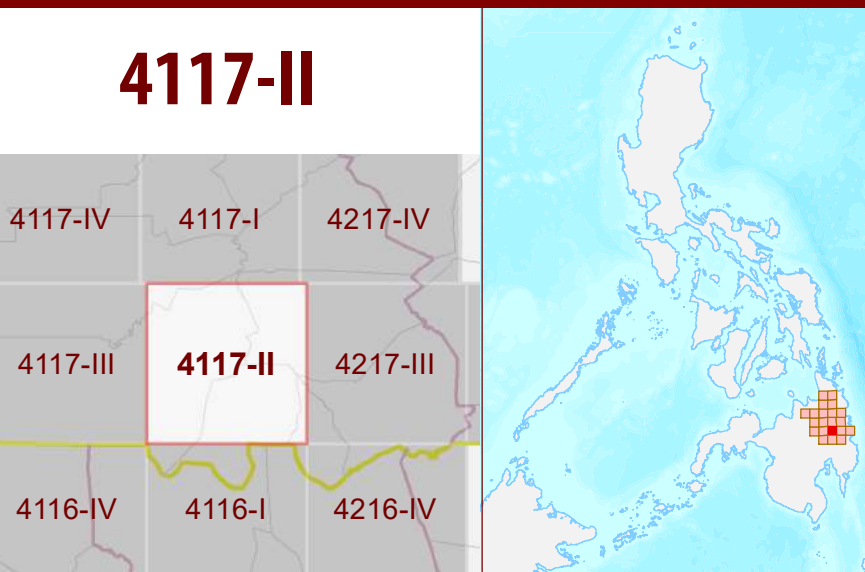
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 - Mangrove

ADJOINING SHEETS



MISCELLANEOUS INFORMATION

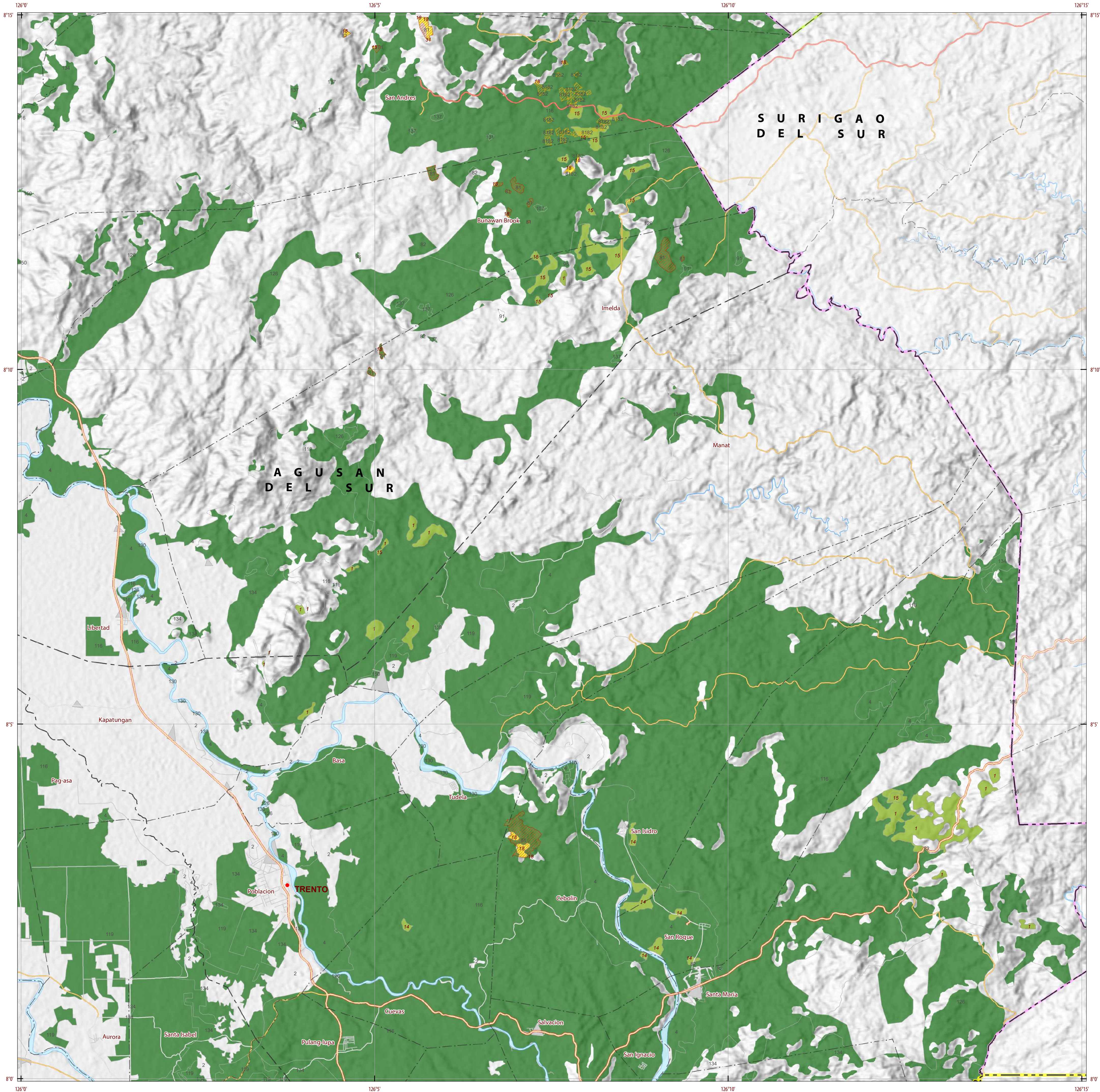
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LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

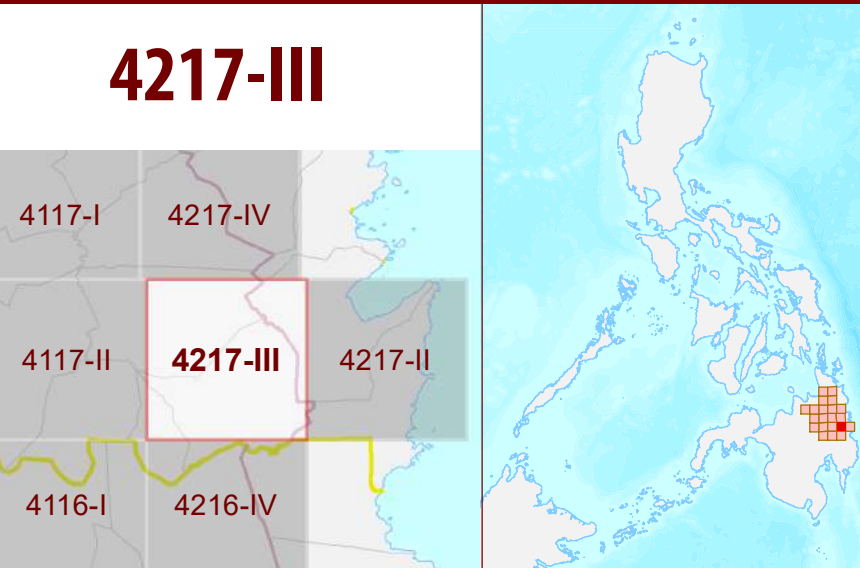
OTHER SIGNS

- 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



MISCELLANEOUS INFORMATION

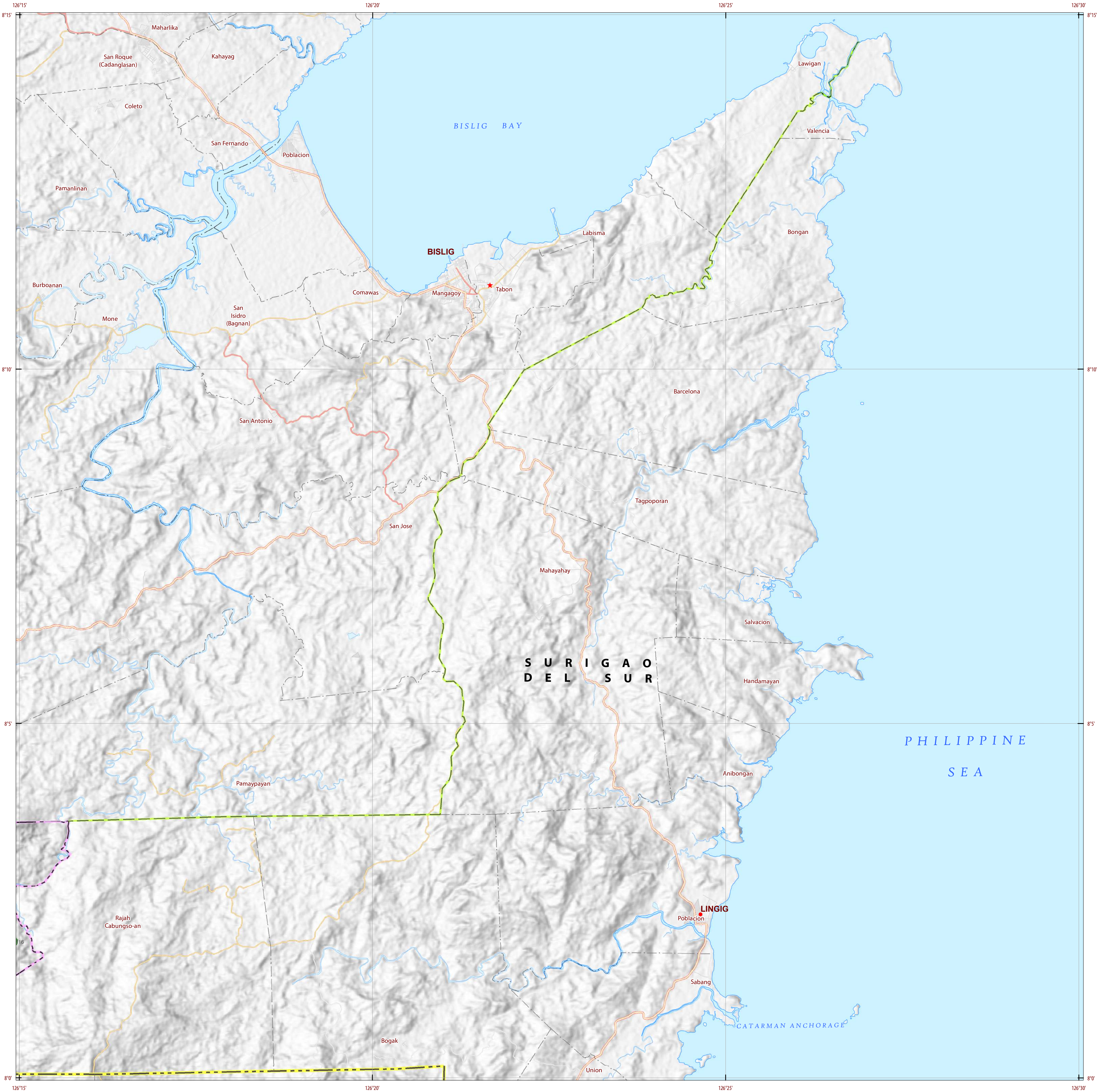
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Project Leader : BERNARDO B. PASCUA
GIS and Cartography : IRVIN K. SAMALCA
Funding Agency : Department of Agriculture - Bureau of Agricultural Research (DA-BAR)
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LAND SUITABILITY MAP

ROBUSTA, LIBERICA

AND EXCELSA COFFEE

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

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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

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

4217-II

4217-IV

4217-III

4216-IV

INDEX MAP

MISCELLANEOUS INFORMATION

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PROVINCE OF AGUSAN DEL SUR

Sheet 18 of 21 Sheet No. 4217-II



LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

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Not Suitable/ Not Relevant

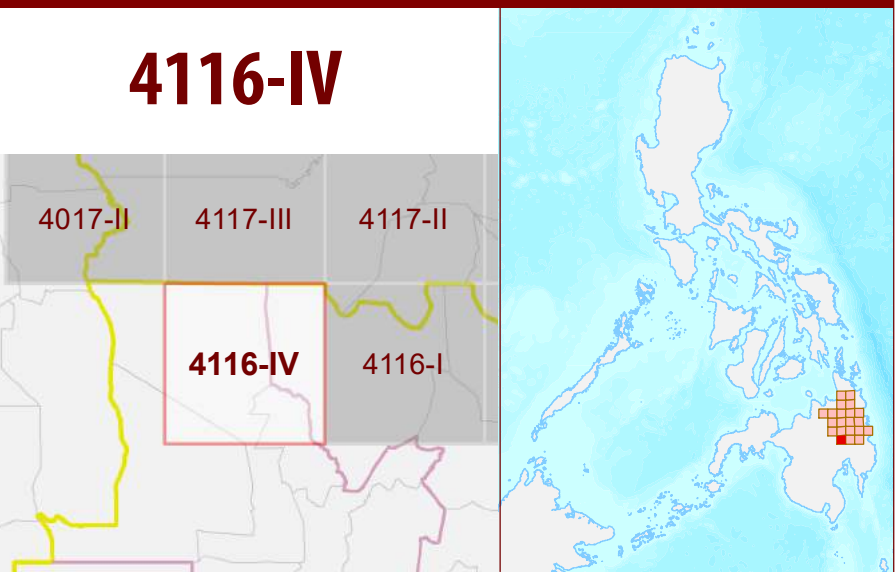
OTHER SIGNS

- 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

ADJOINING SHEETS



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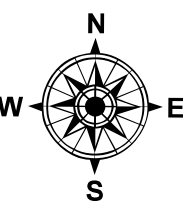
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LAND SUITABILITY MAP
ROBUSTA, LIBERICA
AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS


SCALE 1 : 50 000



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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

 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

4116-I

4117-III

4117-II

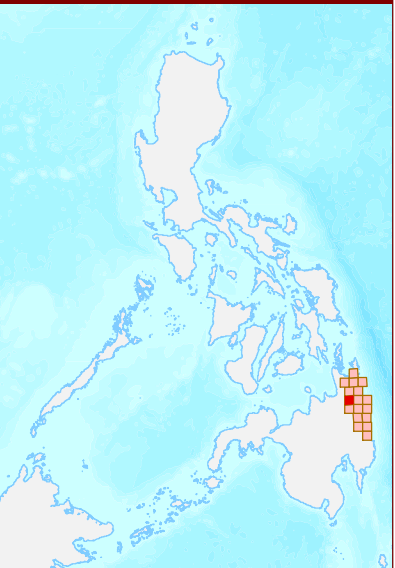
4217-III

4116-IV

4116-I

4216-IV

INDEX MAP



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PROVINCE OF AGUSAN DEL SUR

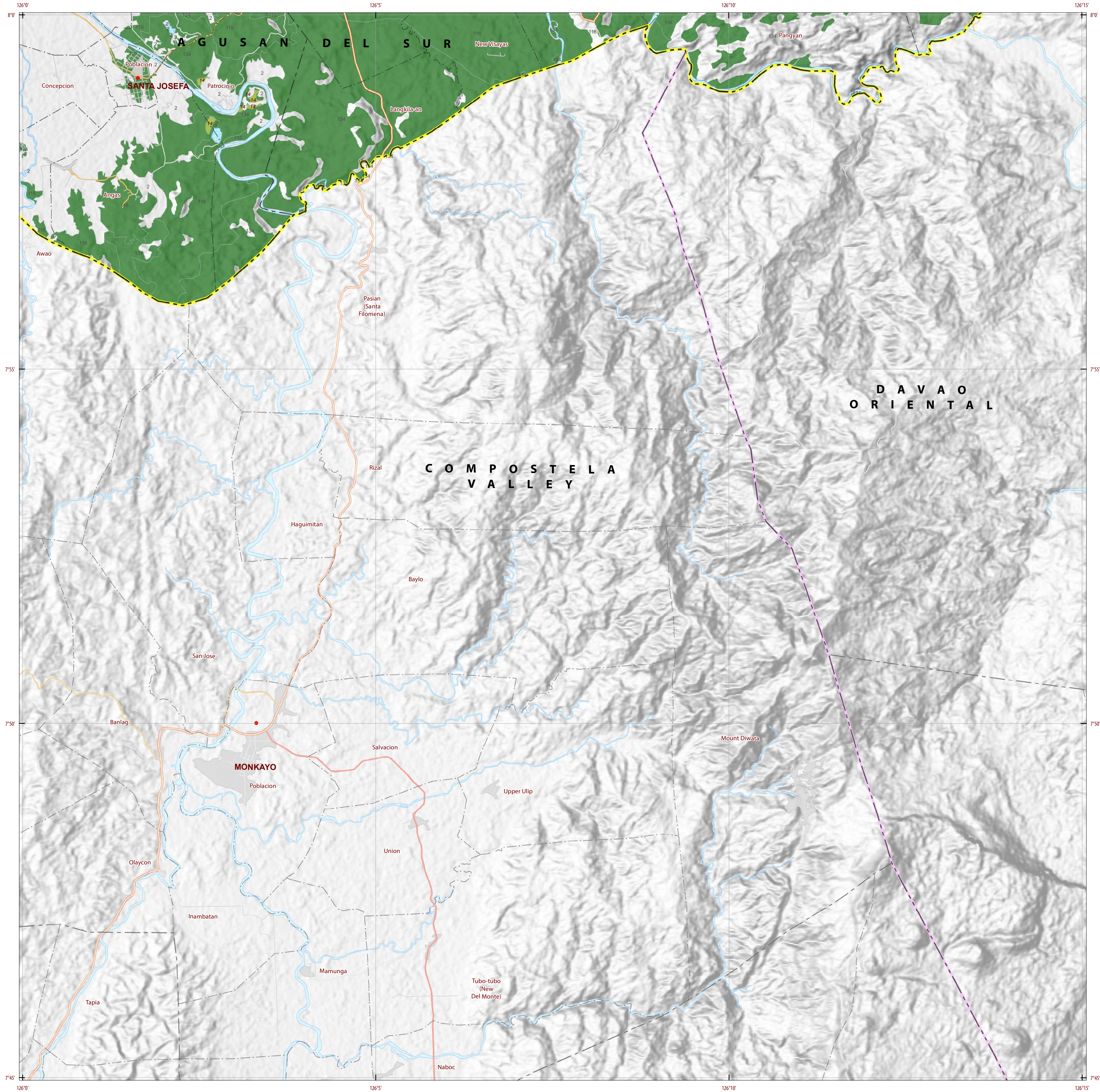
Sheet 20 of 21




Sheet No. 4116-I

4216-IV

PROVINCE OF AGUSAN DEL SUR

Jaguimitan

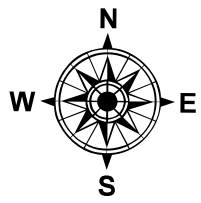





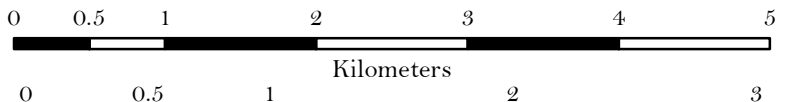
LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



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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

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-upFishpondMangrove

ADJOINING SHEETS

4117-II

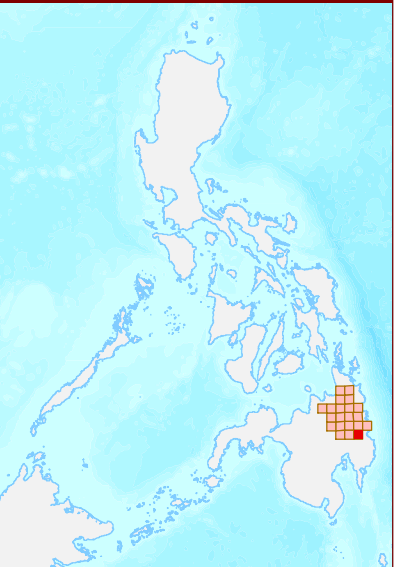
4217-III

4217-II

4116-I

4216-IV

INDEX MAP



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Sheet 21 of 21 Sheet No. 4216-IV