

# **LAND SUITABILITY MAP**

## **ROBUSTA, LIBERICA AND EXCELSA COFFEE**

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

**PROVINCE OF SULTAN KUDARAT**



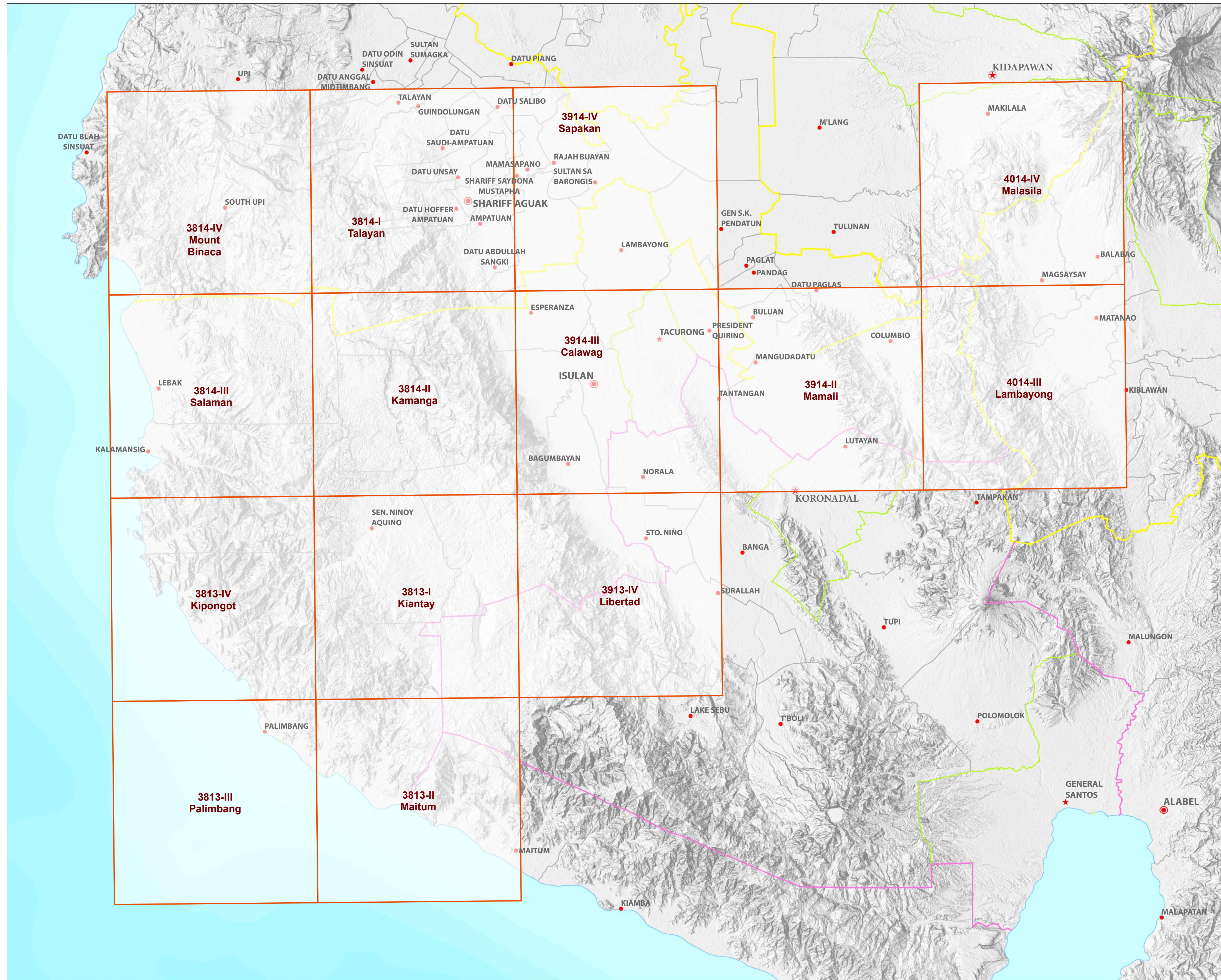
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## LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

### PROVINCE OF SULTAN KUDARAT



**LEGEND**

**Places**

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

**Administrative Boundary**

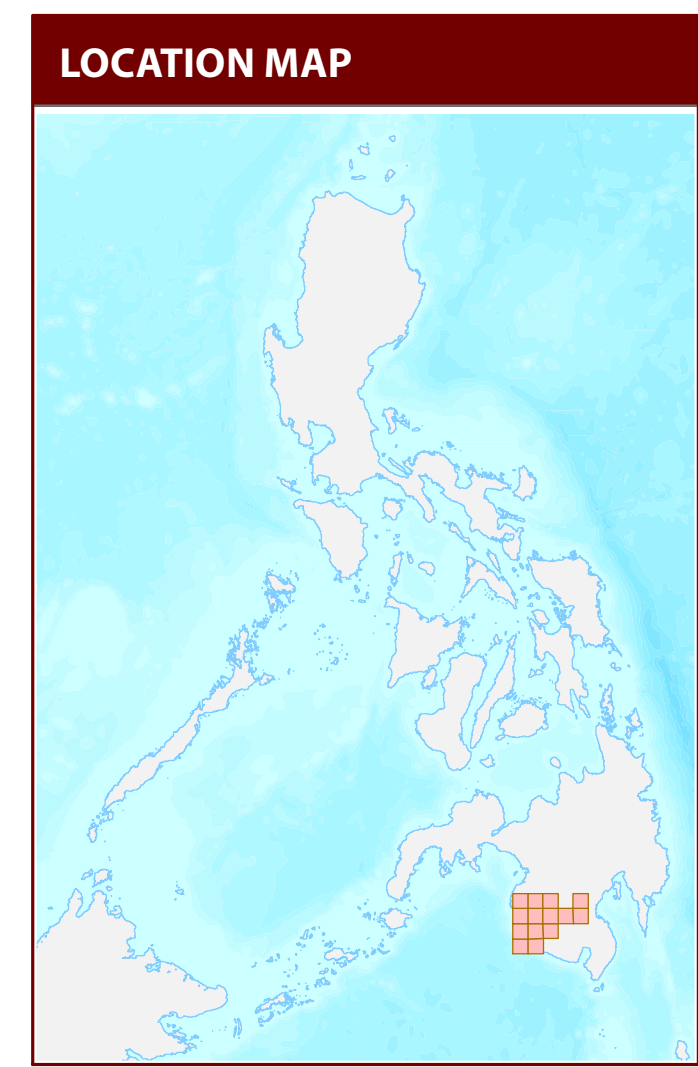
- Regional
- Provincial
- City
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**Map Index**

- 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 SULTAN KUDARAT, REGION XII

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

MUNICIPALITY	EXISTING COFFEE (Ha)			TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)								CONFLICT AREA (Ha)				TOTAL POTENTIAL EXPANSION AREA (Ha)
	S1	S2	S3		Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Oil palm		Other crops		
					S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	
BAGUMBAYAN	-	56	3	59	2,527	522	58	-	342	5,303	3,623	10,892	77	31	-	-	23,374
CITY OF TAGURONG	-	-	-	-	162	-	4	-	2,904	59	3,175	-	1,809	-	9	-	8,122
COLUMBIO	-	-	-	-	41	-	14	8	4,312	245	1,942	-	-	-	-	-	6,562
ESPERANZA	-	-	-	-	692	603	-	31	25	123	3,891	1,567	-	-	-	-	6,932
ISULAN	-	-	-	-	461	280	28	179	-	1,493	4,999	1,319	1,556	146	-	-	10,461
KALAMANSIG	9	-	5	14	2,516	-	371	10	173	10	77	-	-	-	-	-	3,158
LAMBAYONG	-	-	-	-	152	-	-	-	-	-	4,262	11	-	-	-	-	4,425
LEBAK	1	4	3	9	4,456	2,035	87	109	165	201	520	2,258	-	-	1	-	9,833
LUTAYAN	-	-	-	-	920	-	331	-	638	-	3,857	-	-	-	-	-	5,746
PALIMBANG	-	-	-	1	6,589	871	6	747	-	2,194	1,276	1,669	-	-	-	-	13,353
PRESIDENT QUIRINO	-	-	-	-	1,277	-	-	-	-	-	3,590	-	-	-	-	-	4,868
SEN. NINOY AQUINO	-	1	4	5	-	-	-	-	-	3,208	-	12,607	-	-	-	-	15,815
<b>TOTAL</b>	<b>10</b>	<b>61</b>	<b>17</b>	<b>88</b>	<b>19,795</b>	<b>4,310</b>	<b>899</b>	<b>1,084</b>	<b>8,558</b>	<b>12,837</b>	<b>31,212</b>	<b>30,324</b>	<b>3,442</b>	<b>177</b>	<b>10</b>	-	<b>112,649</b>

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.

**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.

**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.

**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	

<b>SLOPE (%)</b> 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	<b>SOIL DRAINAGE</b> ED - excessively drained WD - well drained MWD - moderately well drained SPD - somewhat poorly drained PD - poorly drained VPD - very poorly drained	<b>SOIL REACTION (pH)</b> < 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	<b>SOIL TEXTURE</b> <b>Coarse</b> S - sand LS - loamy sand CSL - coarse sandy loam SL - sandy loam <b>Medium</b> FSL - fine sandy loam L - loam SiL - silt loam CL - clay loam SiCL - silty clay loam SCL - sandy clay loam	<b>Fine</b> SC - sandy clay SiC - silty clay C - clay HC - heavy clay
<b>SOIL DEPTH (cm)</b> 0 - 30 - very shallow 30 - 50 - shallow 50 - 100 - moderately deep > 100 - deep to very deep	<b>SURFACE IMPEDIMENT</b> ROCK OUTCROPS < 10% - none - few 10 - 30% - common > 30% - many			

### LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

<b>ELEVATION</b> E12 - 1000m - 2000m E13 - > 2000m	<b>SOIL DRAINAGE</b> D2 - Somewhat poorly drained to poorly drained D3 - Very poorly drained or excessively drained	<b>SOIL DEPTH</b> Sh2 - Shallow to moderately deep (30 - 100cm) Sh3 - Very shallow (< 30cm)	<b>SOIL EROSION</b> E2 - Moderate erosion E3 - Severe erosion
<b>SLOPE/TOPOGRAPHY</b> T2 - Undulating to moderately steep T3 - Steep to very steep	<b>SOIL TEXTURE</b> Tc - Coarse texture	<b>ROCK OUTCROPS</b> Rc2 - Common Rc3 - Many	<b>FLOODING</b> F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LANDUSE
1	E2-Sh2-Rc3	11	Sh2-Rc2	21	T2-E12-E3-Sh2-Rc3	31	T2-E13-F2-D2	41	T3-E3-Sh3-Rc3	51	T3-E13-E3-Sh3-Rc3	61	T3-E13-E3	4	Corn
2	E12	12	T2	22	T2-E12-Rc2	32	T2-E13-F3-D2	42	T3-E12	52	T3-E13-F3-D2	62	T3-E13-E3-Rc3	81	Coffee
3	E12-E2-Sh2-Rc3	13	T2-E3	23	T2-E12-Sh2-Rc2	33	T2-E13-Sh2-Rc2	43	T3-E12-E3	53	T3	63	T3-E13-E3-Sh3-Rc3	82	Cacao
4	E12-Sh2-Rc2	14	T2-E3-Rc2	24	T2-E12-Sh2-Rc3	34	T2-Rc2	44	T3-E12-E3-Rc2	54	T3-E3	64	T3-E14	91	Banana
5	E13	15	T2-E3-Sh2-Rc2	25	T2-E13	35	T2-Sh2-Rc2	45	T3-E12-E3-Sh3-Rc2	55	T3-E3-Sh3-Rc3			116	Coconut
6	E13-F2-D2	16	T2-E3-Sh2-Rc3	26	T2-E13-E2-Sh2-Rc2	36	T2-Sh2-Rc3	46	T3-E12-E3-Sh3-Rc3	56	T3-E12			119	Oil palm
7	E13-F3-D2	17	T2-E12	27	T2-E13-E3	37	T3	47	T3-E13	57	T3-E12-E3			126	Grassland
8	E13-Sh2	18	T2-E12-E3	28	T2-E13-E3-Rc2	38	T3-E3	48	T3-E13-E3	58	T3-E12-E3-Rc3			134	Shrubs, unmanaged
9	E13-Sh2-Rc2	19	T2-E12-E3-Rc2	29	T2-E13-E3-Sh2-Rc2	39	T3-E3-Rc2	49	T3-E13-E3-Rc2	59	T3-E12-E3-Sh3-Rc3				
10	E13-Tc	20	T2-E12-E3-Sh2-Rc2	30	T2-E13-E3-Sh2-Rc3	40	T3-E3-Sh3-Rc2	50	T3-E13-E3-Sh3-Rc2	60	T3-E13				

### CLIMATE TYPE

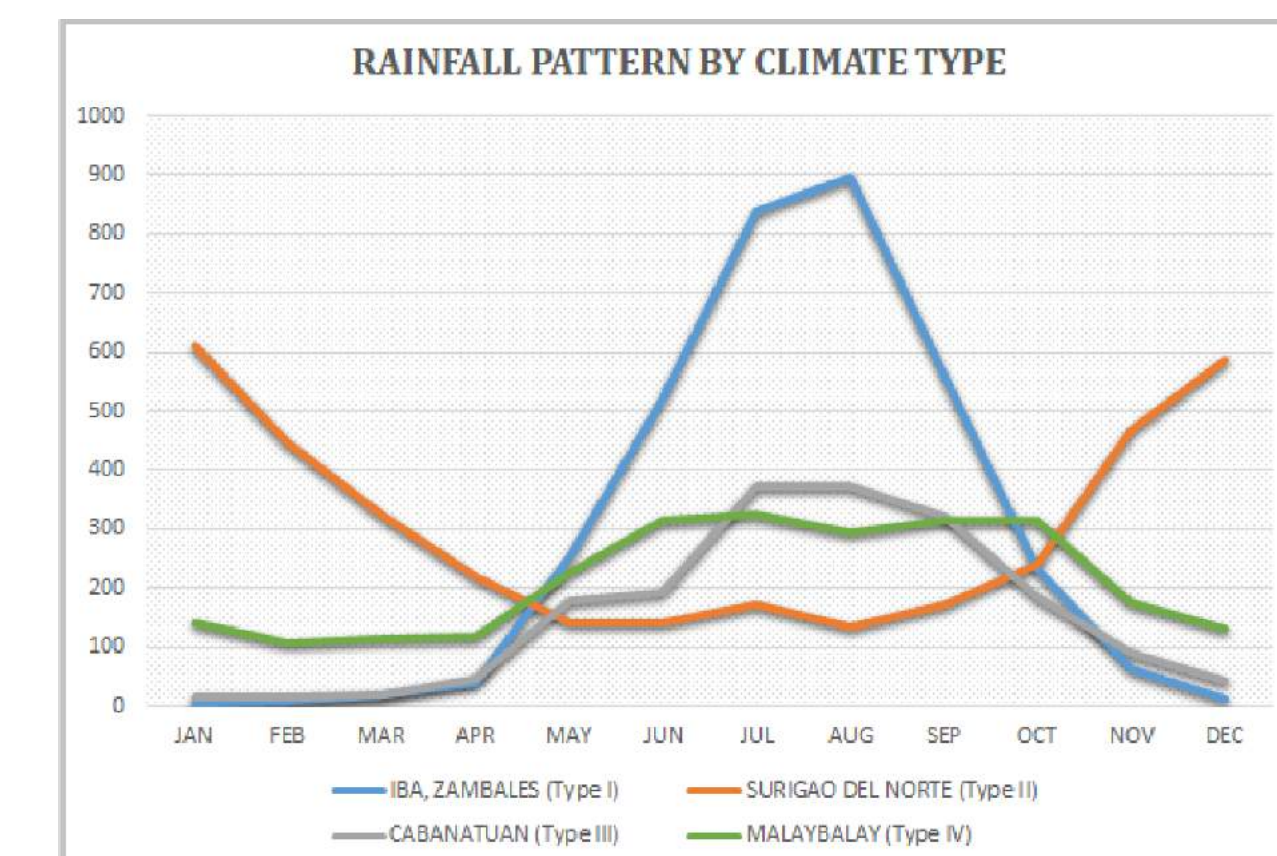
**TYPE I** : Two pronounced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

**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.

The Eastern part of Sultan Kudarat is classified as climatic Type III and the Southern part lies to climatic Type IV.



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>>.



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

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

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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	<b>PLACES</b>
Secondary	Municipality	★ Capital City / City
Tertiary	Barangay	● Capital Town / Town

##### LAND USE

- Built-up
- Fishpond
- Mangrove

#### ADJOINING SHEETS

3814-IV

3814-I, 3814-II, 3814-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).

Project Leader : BERNARDO B. PASCUA  
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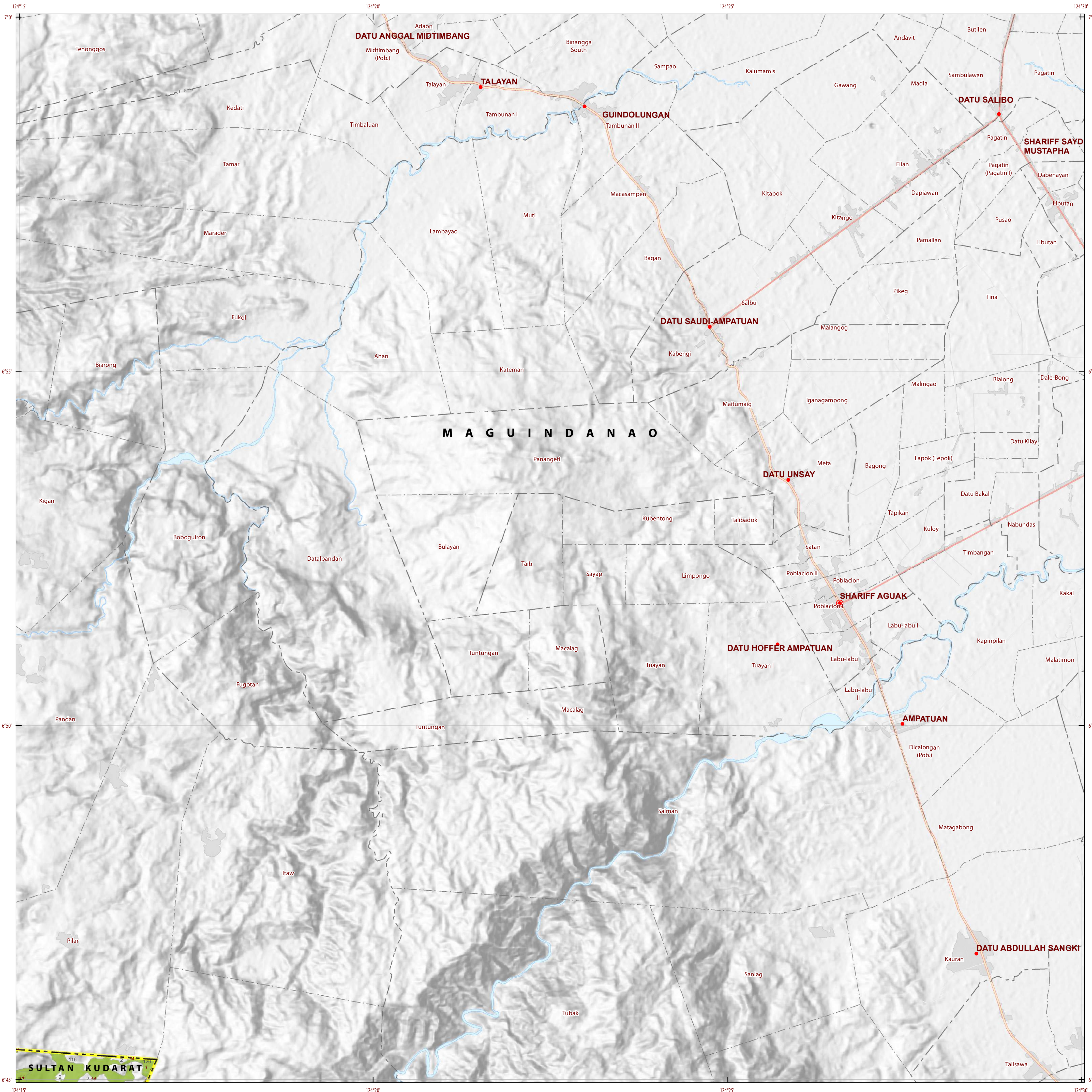
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Collaborating Agencies : Philippine Council on Agriculture and Fisheries (PCAF)  
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PROVINCE OF SULTAN KUDARAT Sheet 1 of 14 Sheet No. 3814-IV



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LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS

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#### LEGEND

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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

<b>ROADS</b>	<b>BOUNDARY</b>	<b>HYDROLOGY</b>
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Trunk line	Province	Lakes / Rivers
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Secondary	Municipality	★ Capital City / City
Tertiary	Barangay	● Capital Town / Town
<b>LAND USE</b>		
Built-up	Fishpond	Mangrove

#### ADJOINING SHEETS

3814-I

#### MISCELLANEOUS INFORMATION

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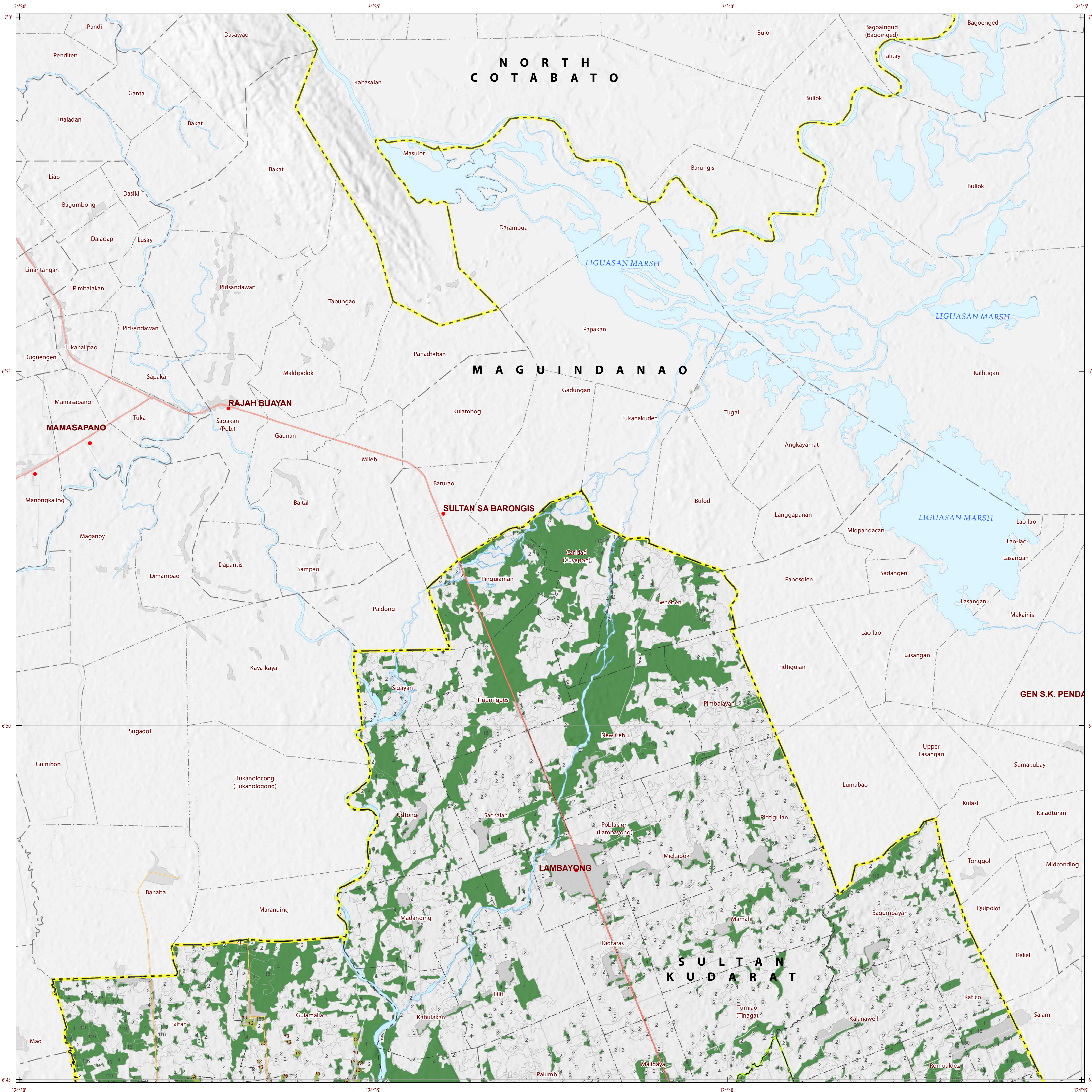
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LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS

SCALE 1 : 50 000

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#### LEGEND

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**Not Suitable/ Not Relevant**

**OTHER SIGNS**

- NGP Areas
- Cacao
- Land limitation
- Land use

#### CONVENTIONAL SIGNS

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**LAND USE**

- Built-up
- Fishpond
- Mangrove

#### ADJOINING SHEETS

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#### MISCELLANEOUS INFORMATION

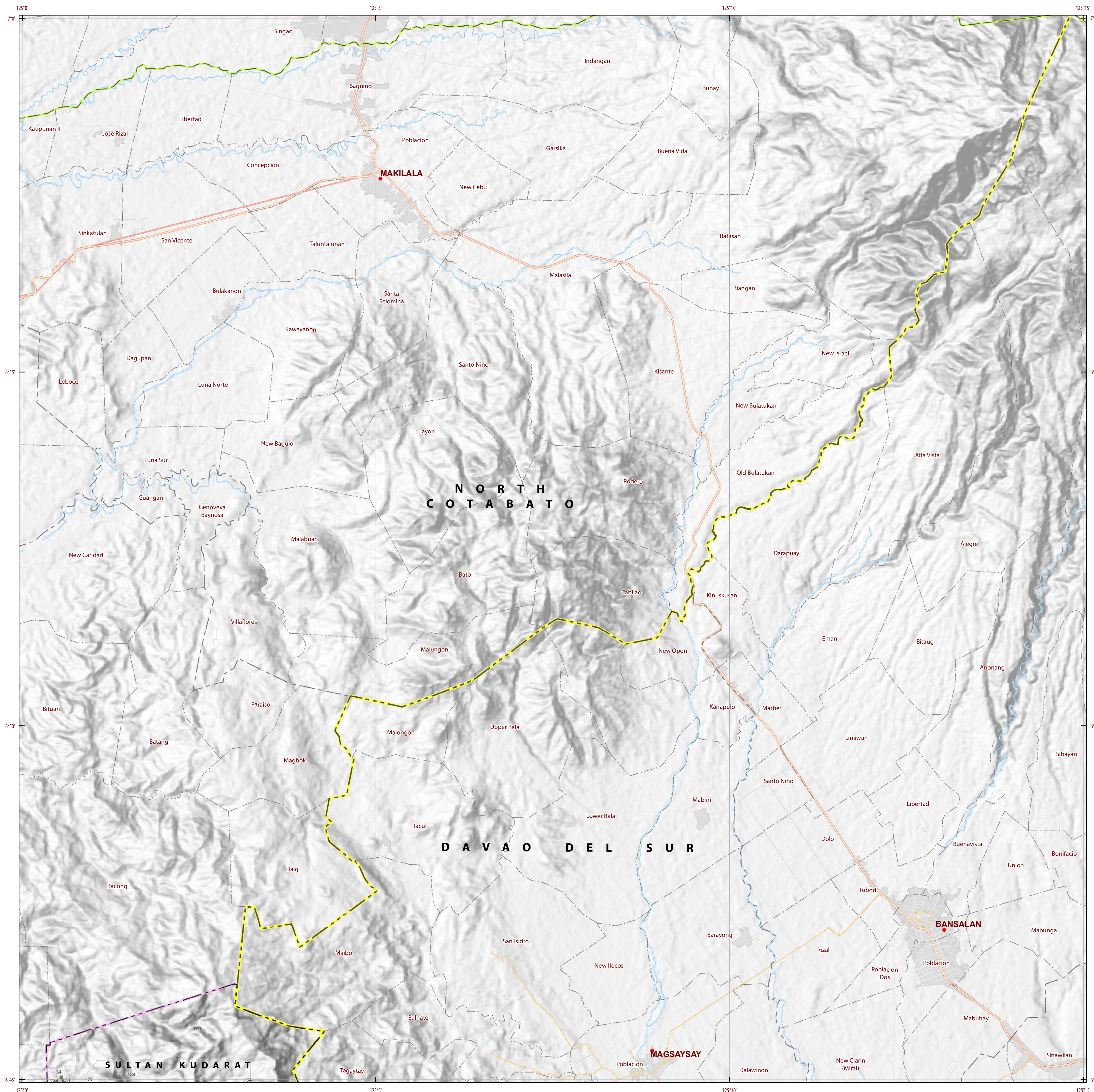
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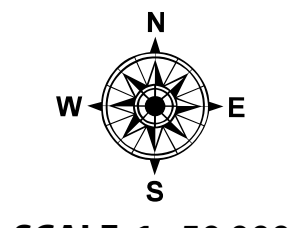
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LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000

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**OTHER SIGNS**

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- Cacao
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**CONVENTIONAL SIGNS**

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**LAND USE**

- Built-up
- Fishpond
- Mangrove

**ADJOINING SHEETS**

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**INDEX MAP**

**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

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.

**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	<b>PLACES</b>
Secondary	Municipality	★ Capital City / City
Tertiary	Barangay	● Capital Town / Town

**LAND USE**

- Built-up
- Fishpond
- Mangrove

#### ADJOINING SHEETS

3814-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).

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

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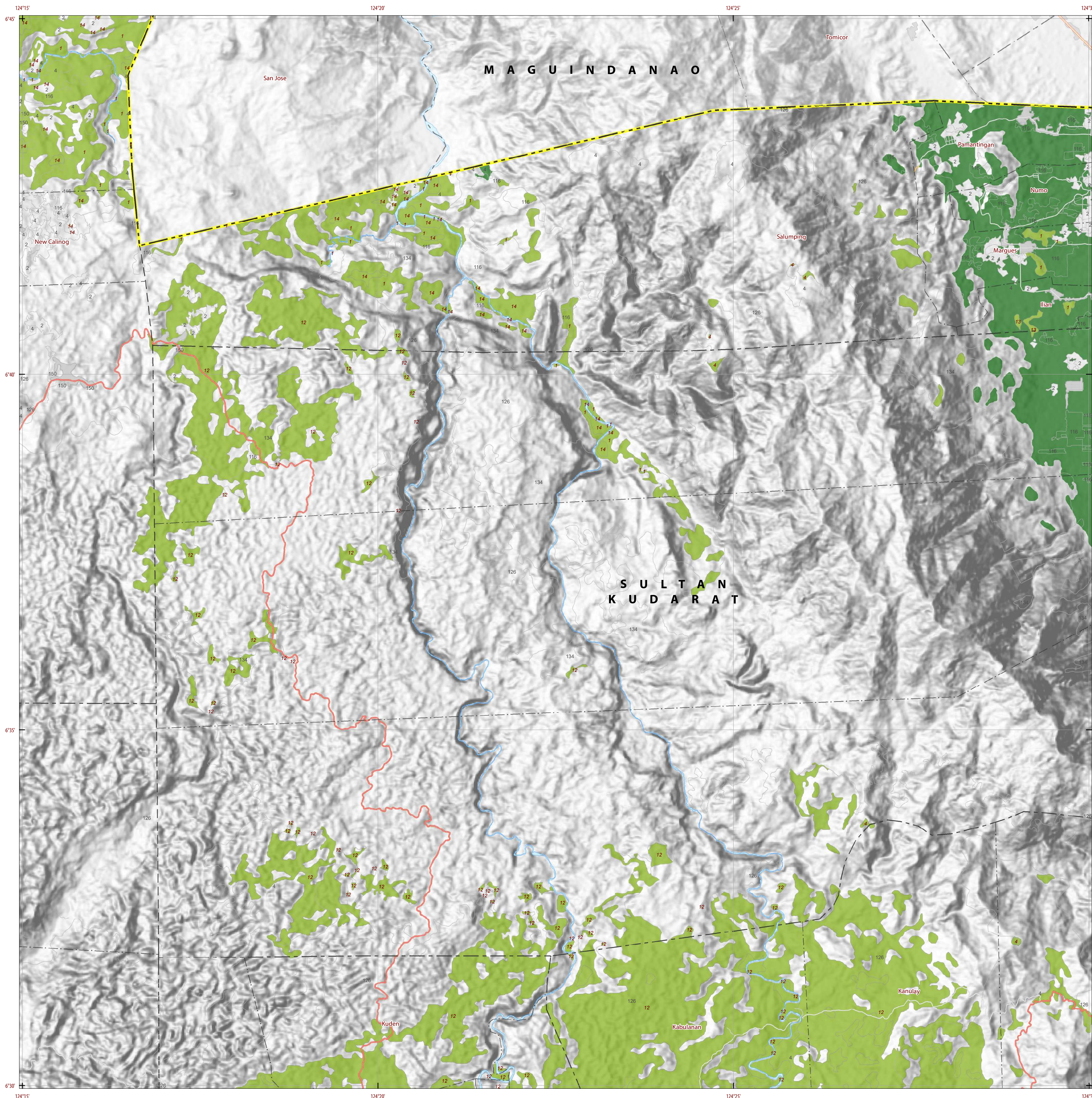
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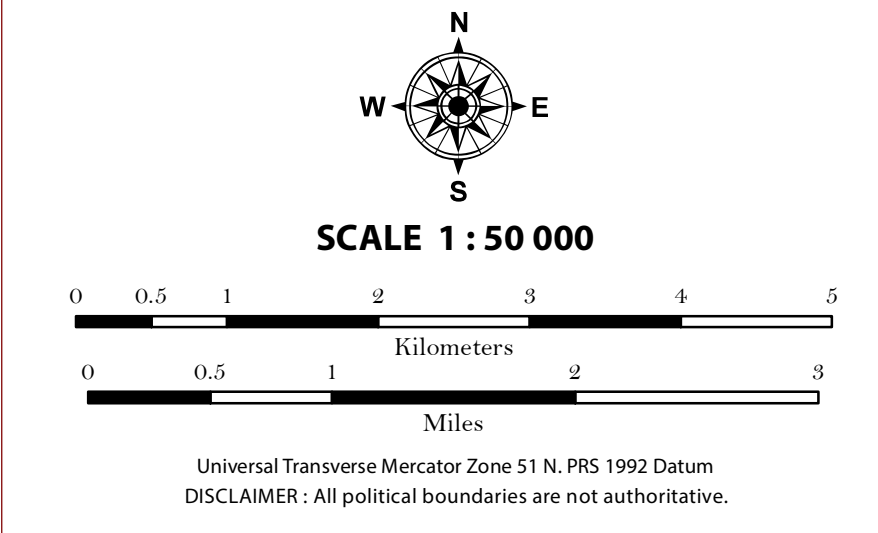
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### LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

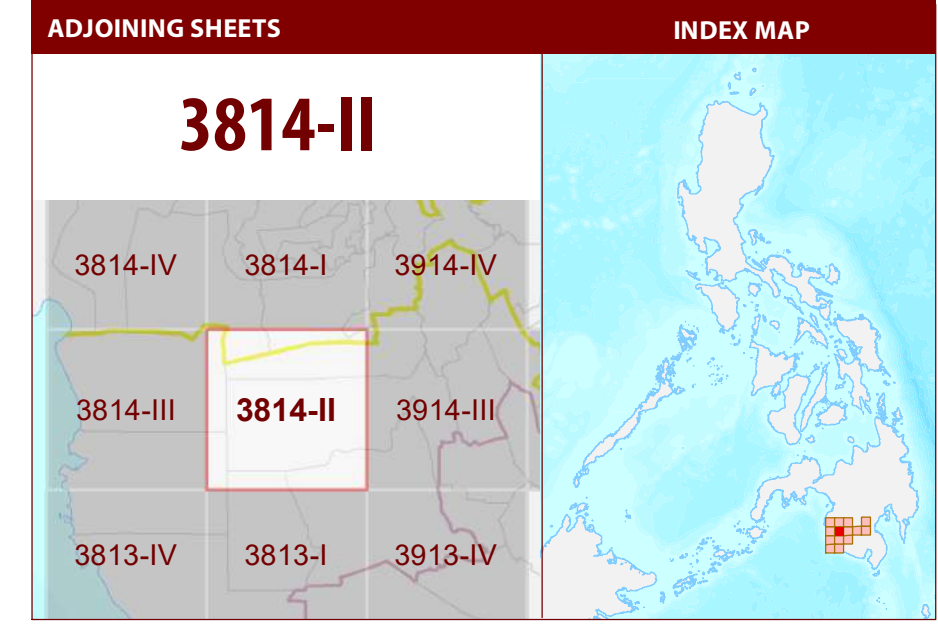
LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



#### 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.
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  - Not Suitable/ Not Relevant**
- OTHER SIGNS**
- NGP Areas
  - Cacao
  - Land limitation
  - Land use

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



#### MISCELLANEOUS INFORMATION

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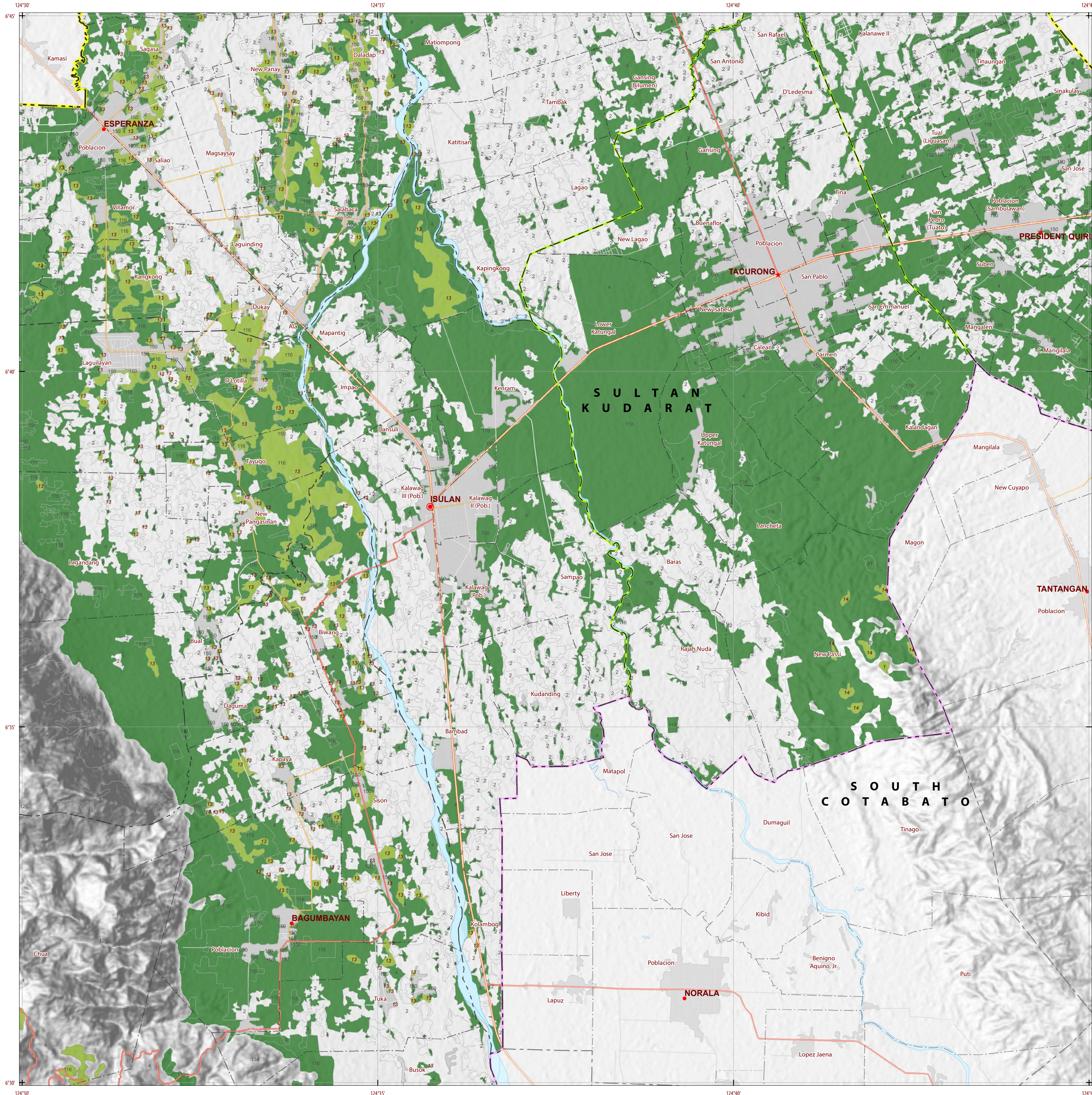
Project Leader : BERNARDO B. PASCUA  
GIS and Cartography : IRWIN K. SAMALCA

Funding Agency : Department of Agriculture - Bureau of Agricultural Research (DA-BAR)  
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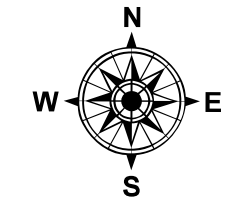
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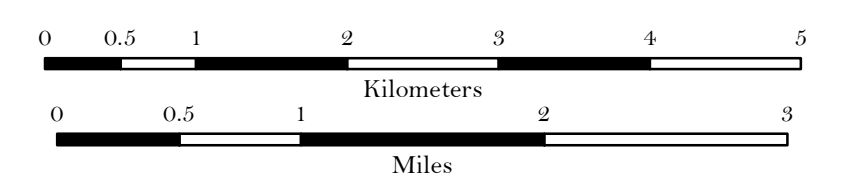


**LAND SUITABILITY MAP  
ROBUSTA, LIBERICA  
AND EXCELSA COFFEE**

**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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**LEGEND**

**SUITABILITY CLASSES**

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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	<b>PLACES</b>
Secondary	Municipality	★ Capital City / City
Tertiary	Barangay	● Capital Town / Town

**LAND USE**

- Built-up
- Fishpond
- Mangrove

**ADJOINING SHEETS**

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**MISCELLANEOUS INFORMATION**

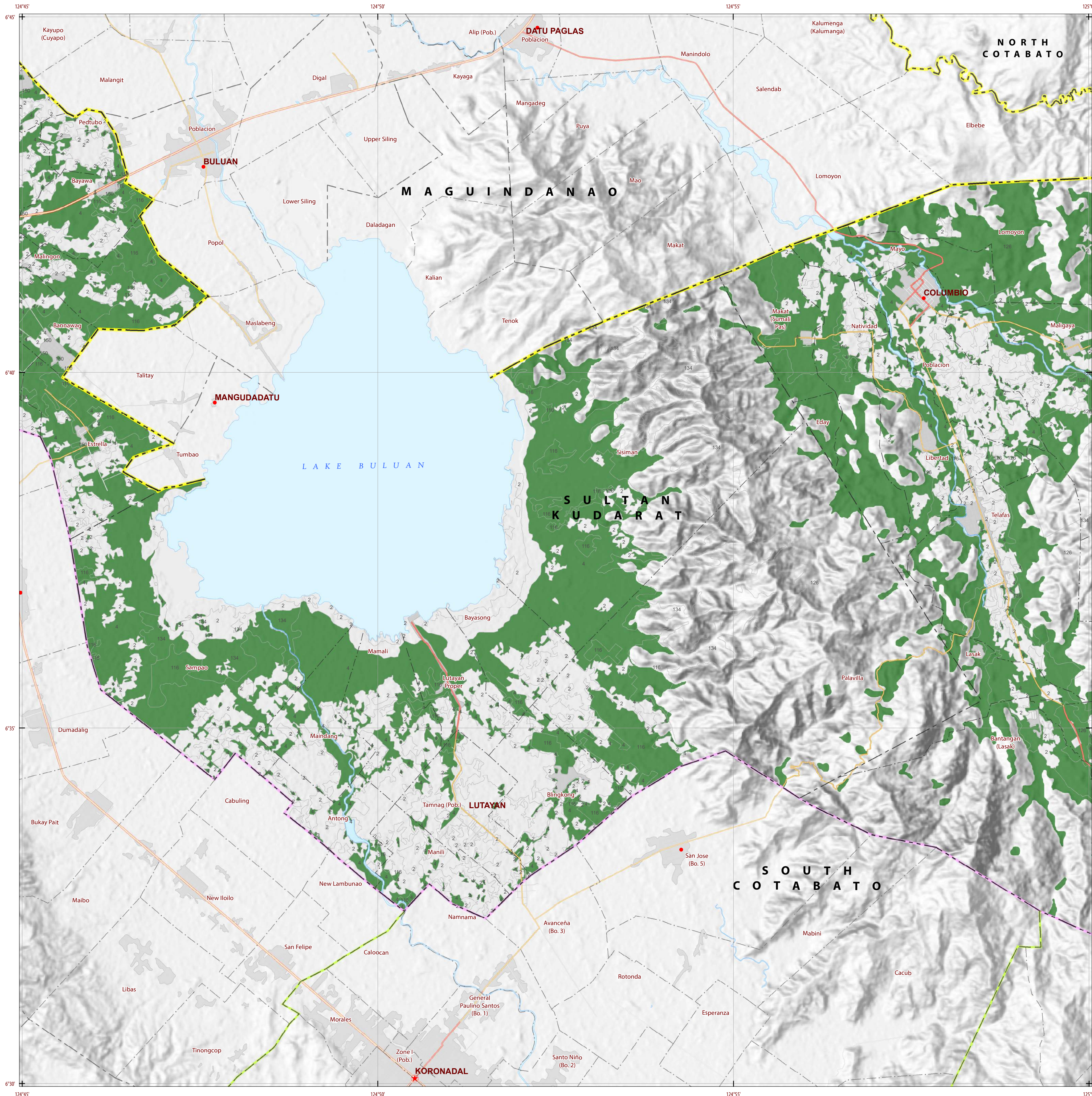
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DEPARTMENT OF AGRICULTURE 1898

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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

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
- 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**

**INDEX MAP**

3914-II

**MISCELLANEOUS INFORMATION**

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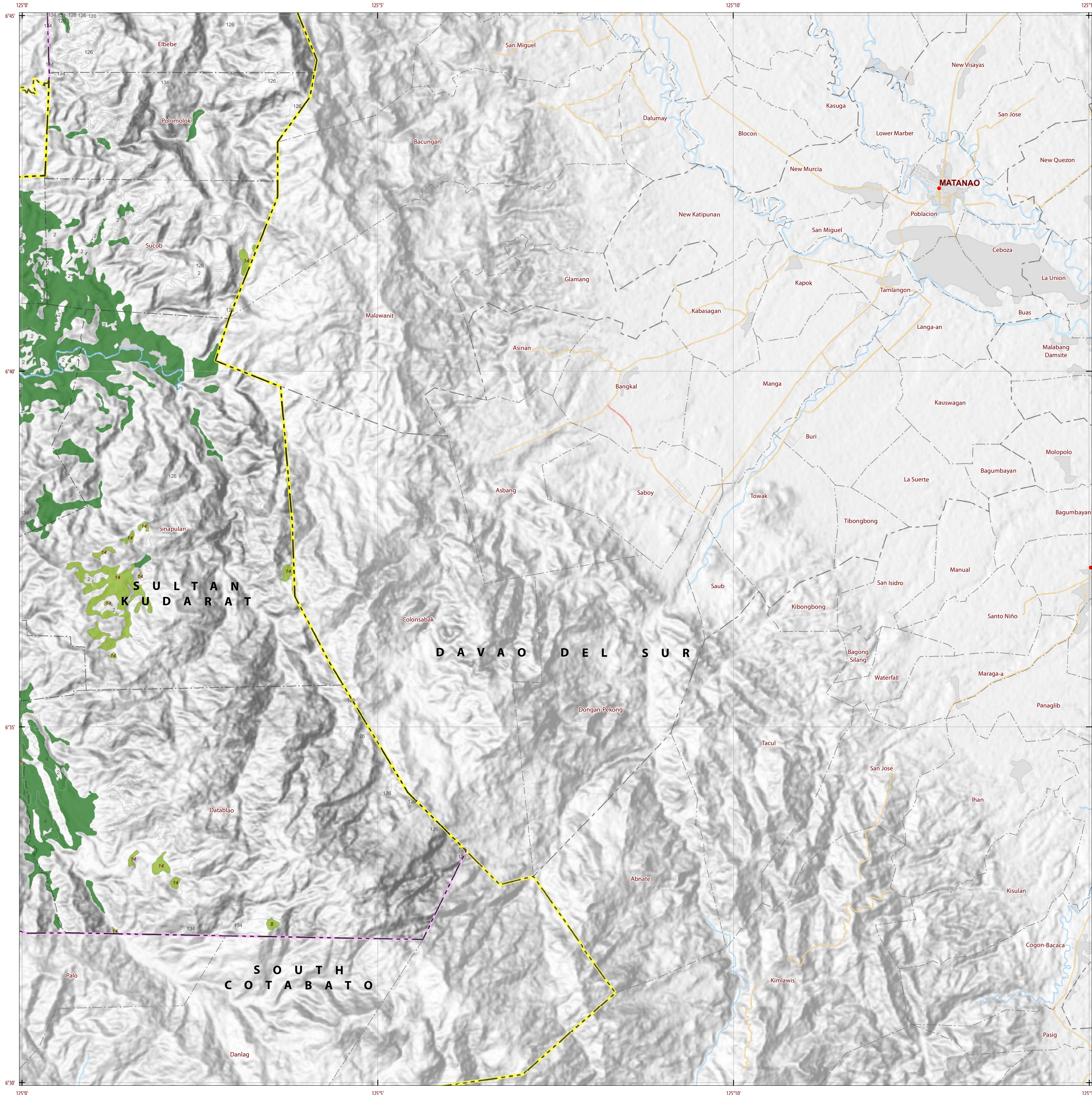
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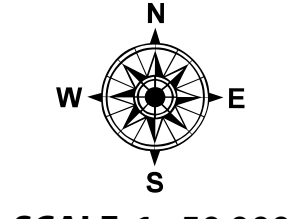
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PROVINCE OF SULTAN KUDARAT Sheet 8 of 14 Sheet No. 3914-II



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

**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**

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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	<b>PLACES</b>
Secondary	Municipality	★ Capital City / City
Tertiary	Barangay	● Capital Town / Town

**LAND USE**

- Built-up
- Fishpond
- Mangrove

**ADJOINING SHEETS**

**INDEX MAP**

**MISCELLANEOUS INFORMATION**

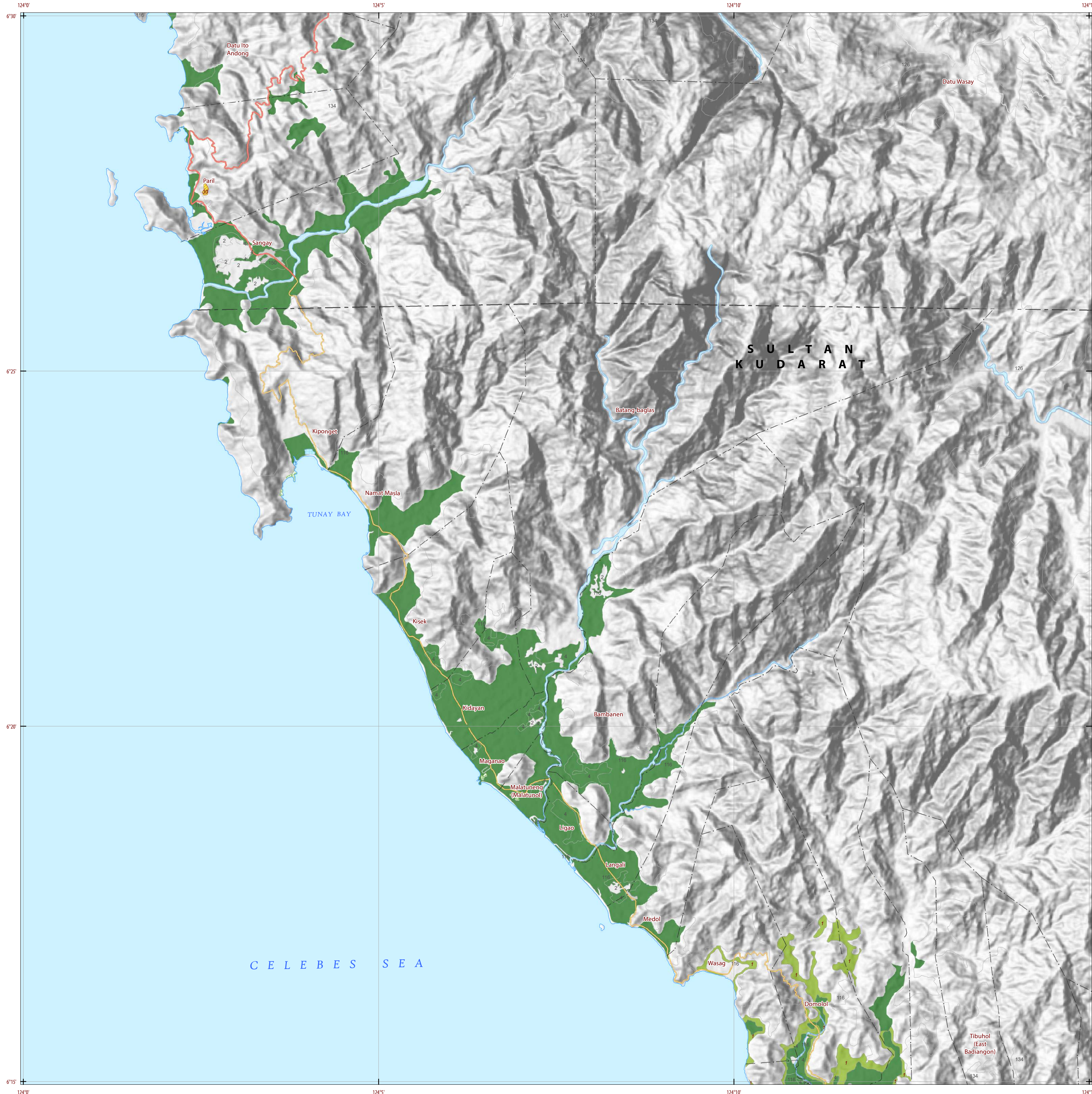
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### LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS

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
- Land limitation
- Land use

#### CONVENTIONAL SIGNS

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

**LAND USE**

- Built-up
- Fishpond
- Mangrove

#### ADJOINING SHEETS

**3813-IV**

#### MISCELLANEOUS INFORMATION

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PROVINCE OF SULTAN KUDARAT Sheet 10 of 14 Sheet No. 3813-IV



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

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

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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	BOUNDARY	HYDROLOGY
Expressway	Region	Sea / Shoreline
Trunk line	Province	Lakes / Rivers
Primary	District	<b>PLACES</b>
Secondary	Municipality	★ Capital City / City
Tertiary	Barangay	● Capital Town / Town

##### LAND USE

- Built-up
- Fishpond
- Mangrove

#### ADJOINING SHEETS

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3813-IV	<b>3813-I</b>	3913-IV
3813-III	3813-II	

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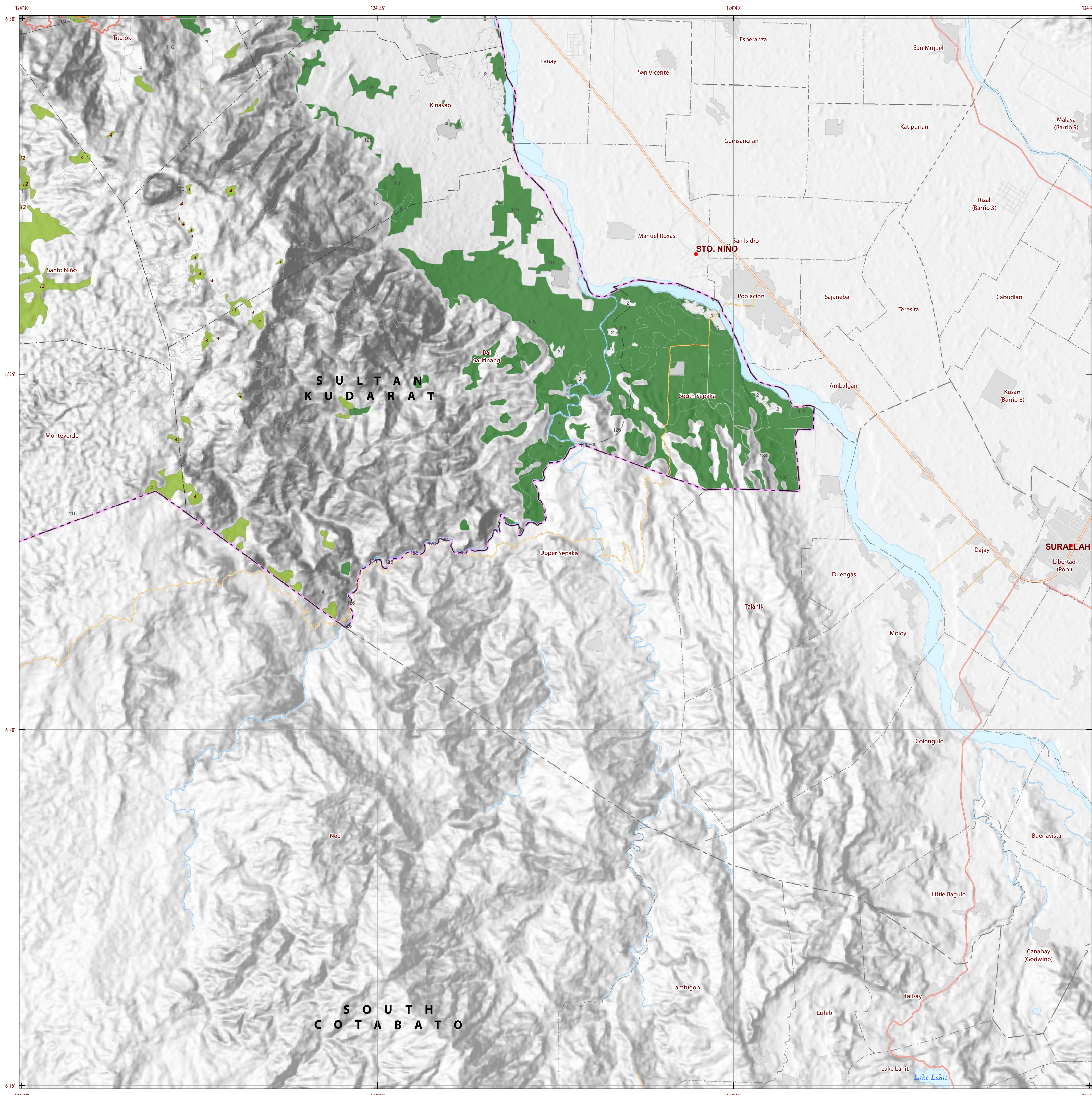
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GIS and Cartography : IRWIN K. SAMALCA

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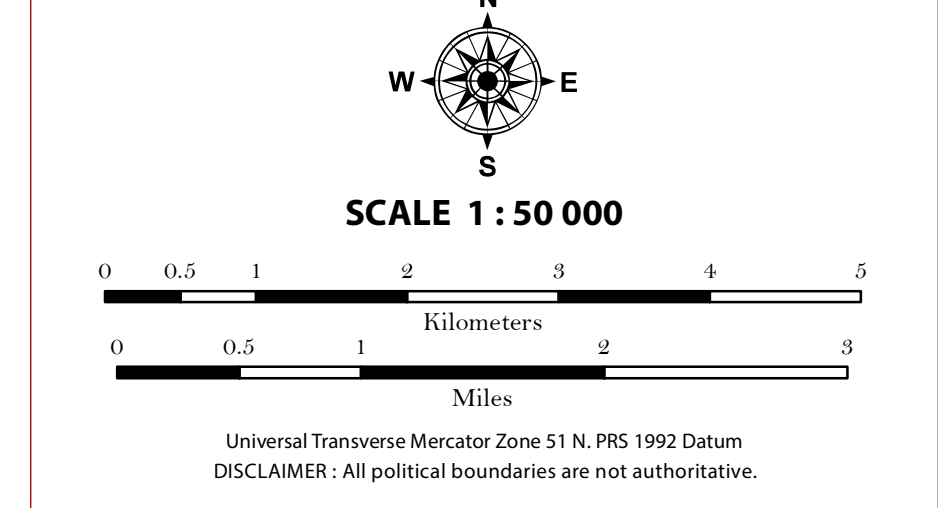
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

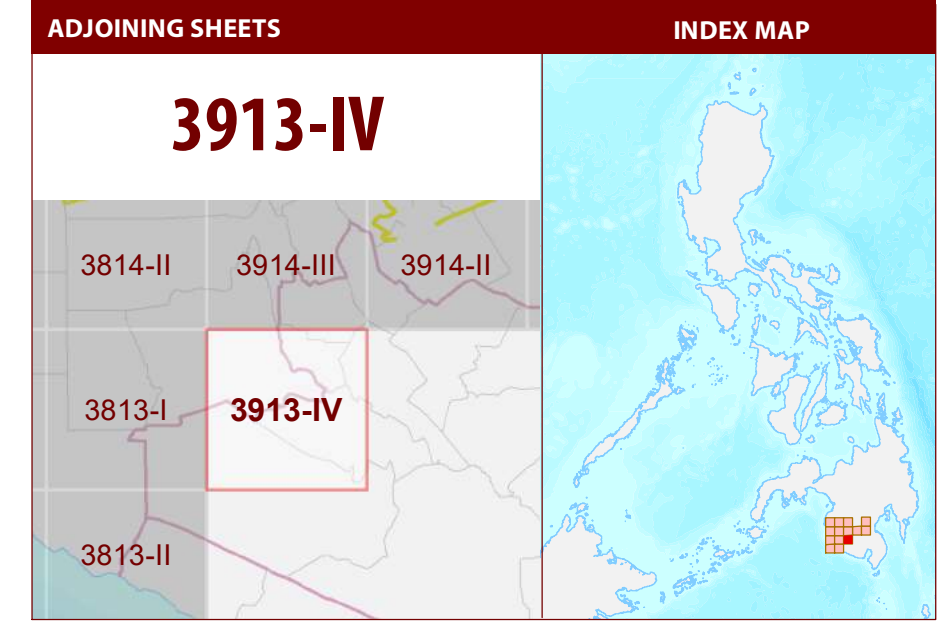
LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



### 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**
- |              |                 |                       |
|--------------|-----------------|-----------------------|
| <b>ROADS</b> | <b>BOUNDARY</b> | <b>HYDROLOGY</b>      |
| Expressway   | Region          | Sea / Shoreline       |
| Trunk line   | Province        | Lakes / Rivers        |
| Primary      | District        | <b>PLACES</b>         |
| Secondary    | Municipality    | ★ Capital City / City |
| Tertiary     | Barangay        | ● 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 Major Commodities Project implemented by BSWM (2017).

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

Funding Agency : Department of Agriculture - Bureau of Agricultural Research (DA-BAR)  
 Collaborating Agencies : Philippine Council on Agriculture and Fisheries (PCAF)  
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 : Local Government Unit (LGU) of covered provinces and municipalities

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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

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**OTHER SIGNS**

- NGP Areas
- Cacao
- Land limitation
- Land use

#### CONVENTIONAL SIGNS

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

#### ADJOINING SHEETS

3813-III

3813-IV 3813-I

3813-II

#### INDEX MAP

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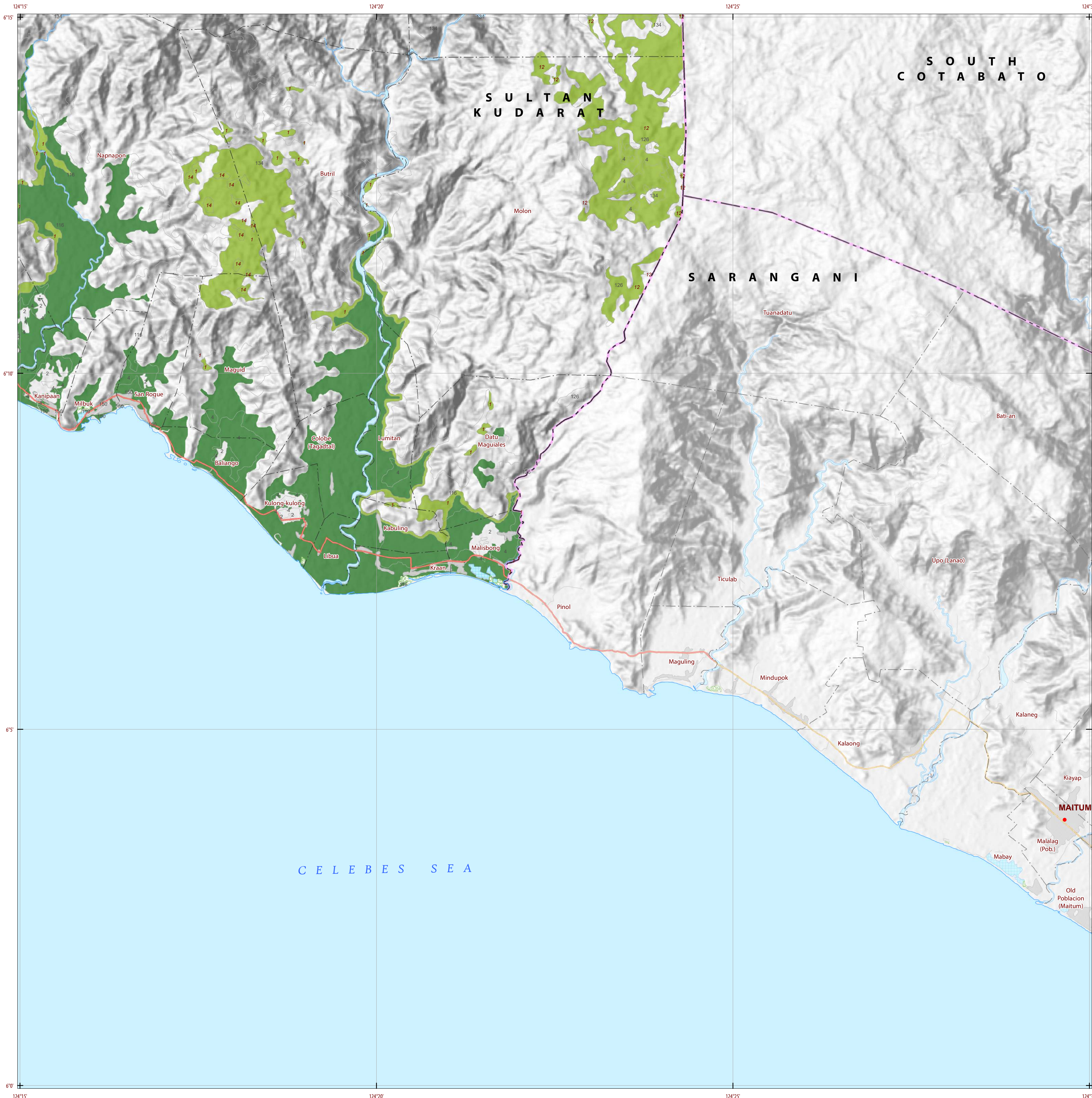
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### LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY  
ASSESSMENT OF STRATEGIC PRODUCTION AREAS

SCALE 1 : 50 000

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

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**LAND USE**

- Built-up
- Fishpond
- Mangrove

#### ADJOINING SHEETS

3813-II

3813-IV 3813-I 3913-IV

3813-III

#### INDEX MAP

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PROVINCE OF SULTAN KUDARAT Sheet 14 of 14 Sheet No. 3813-II