

# LAND SUITABILITY MAP

## ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

### PROVINCE OF QUIRINO



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

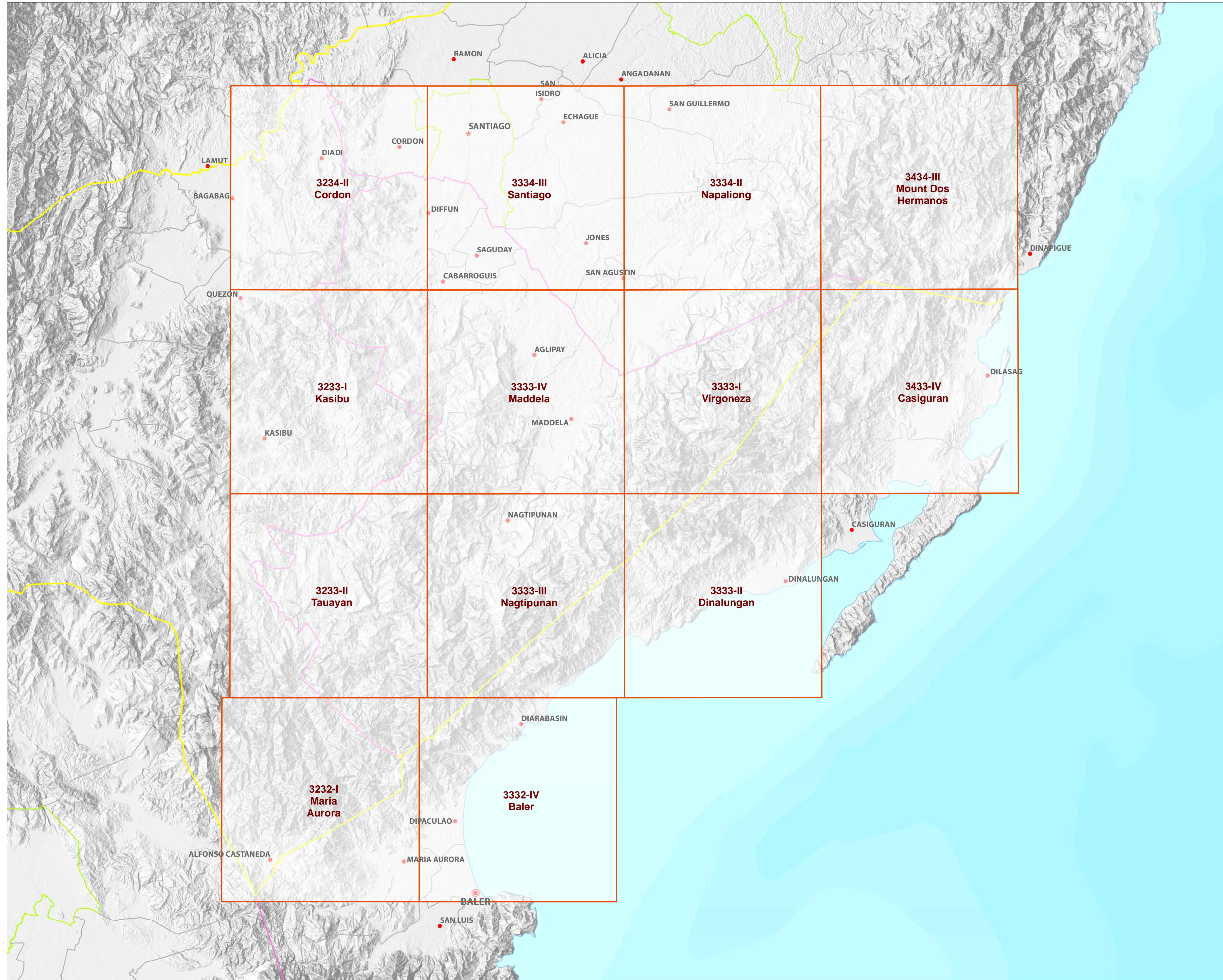
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# MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

## PROVINCE OF QUIRINO



**LEGEND**

**Places**

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

**Administrative Boundary**

- Regional
- Provincial
- City
- Municipal

**Map Index**

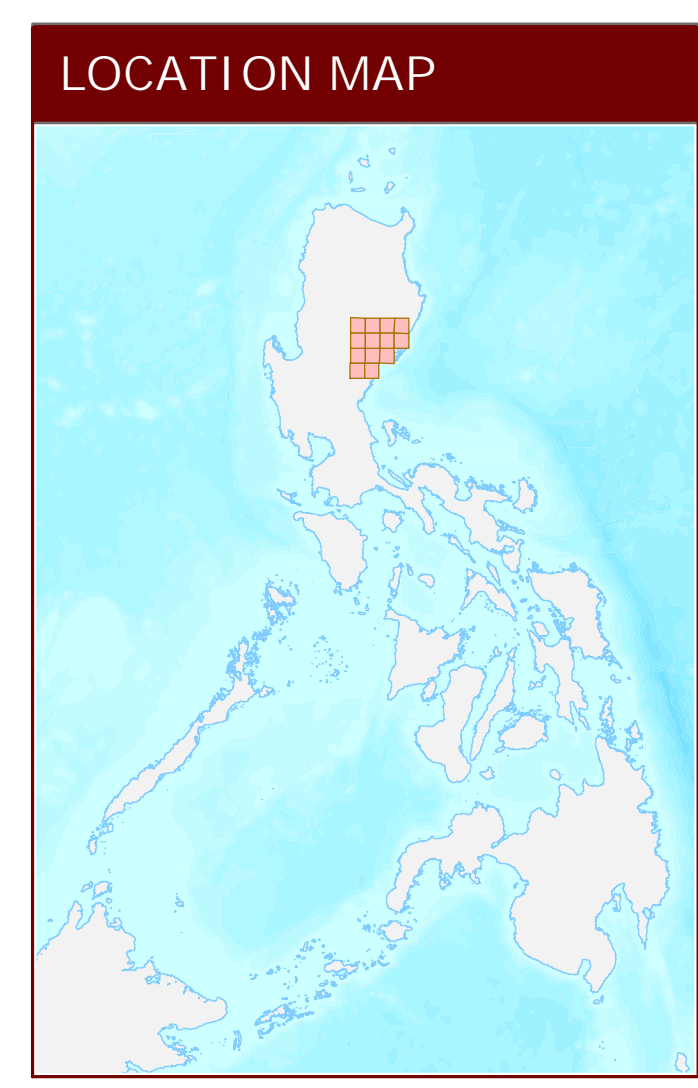
- Index grid

**Topographic Relief**

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**Bathymetry**

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# LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

### QUIRINO, REGION II

#### 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)
	S1	S2	S3		Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Rice paddy, non-irrigated		Other crops		
					S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	
AGLIPAY	3	-	-	3	626	-	1,276	8	1,410	59	6,911	203	1,919	36	-	-	12,448
CABARROGUIS	21	-	65	86	369	-	765	-	148	7	3,128	14	573	-	-	-	5,002
DIFFUN	20	2	75	97	44	-	110	8	635	24	5,964	649	2,128	90	-	-	9,651
MADDELA	10	-	117	127	2,218	211	561	50	883	83	5,673	169	1,907	3	-	-	11,757
NACTIPUNAN	-	-	1	1	85	6	171	74	675	548	1,531	176	276	4	-	-	3,546
SAGUDAY	-	-	-	-	9	3	32	-	-	-	1,711	313	1,131	248	-	-	3,447
<b>TOTAL</b>	<b>54</b>	<b>2</b>	<b>258</b>	<b>314</b>	<b>3,351</b>	<b>220</b>	<b>2,915</b>	<b>140</b>	<b>3,750</b>	<b>721</b>	<b>24,917</b>	<b>1,524</b>	<b>7,933</b>	<b>380</b>	<b>-</b>	<b>-</b>	<b>45,851</b>

\*establishment of shade trees prior to planting of 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	

**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**  
E12 - 1000m - 2000m  
E13 - > 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	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION
1	E2-Sh2-Rc2	11	Sh2-Rc2	21	T2-E12	31	T3-E3-Rc3
2	E2-Sh2-Rc3	12	Sh2-Rc3	22	T2-E12-E3	32	T3-E3-Sh3-Rc3
3	E3-Sh2-Rc3	13	T2	23	T2-E12-E3-Rc2	33	T3-E12
4	E12	14	T2-E3	24	T2-E12-E3-Rc3	34	T3-E12-E3
5	E12-E2-Sh2-Rc3	15	T2-E3-Rc2	25	T2-E12-E3-Sh2-Rc2	35	T3-E12-E3-Sh3-Rc3
6	E12-E3-Sh2-Rc3	16	T2-E3-Rc3	26	T2-E12-E3-Sh2-Rc3		
7	E12-Rc2	17	T2-E3-Sh2-Rc2	27	T2-E12-E3-Sh3-Rc2		
8	E12-Sh2-Rc2	18	T2-E3-Sh2-Rc3	28	T2-E12-E3-Sh3-Rc3		
9	Rc2	19	T2-E3-Sh3-Rc2	29	T3		
10	Sh2	20	T2-E3-Sh3-Rc3	30	T3-E3		

CODE	LAND USE
2	Rice paddy, non-irrigated
4	Corn
81	Coffee
82	Cacao
116	Coconut
126	Grassland
134	Coconut

#### CLIMATE TYPE

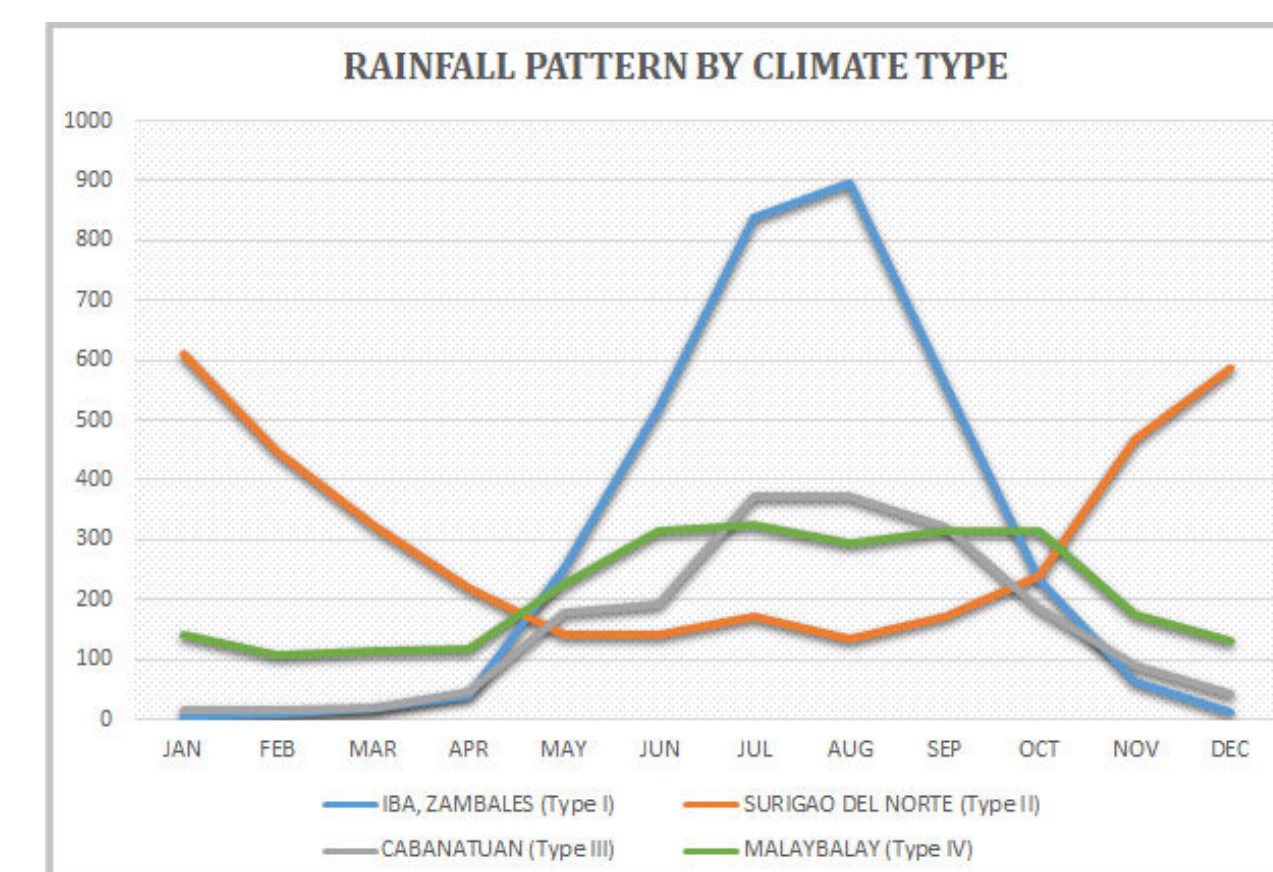
**TYPE I** : Two pronounced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

**TYPE 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.

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.

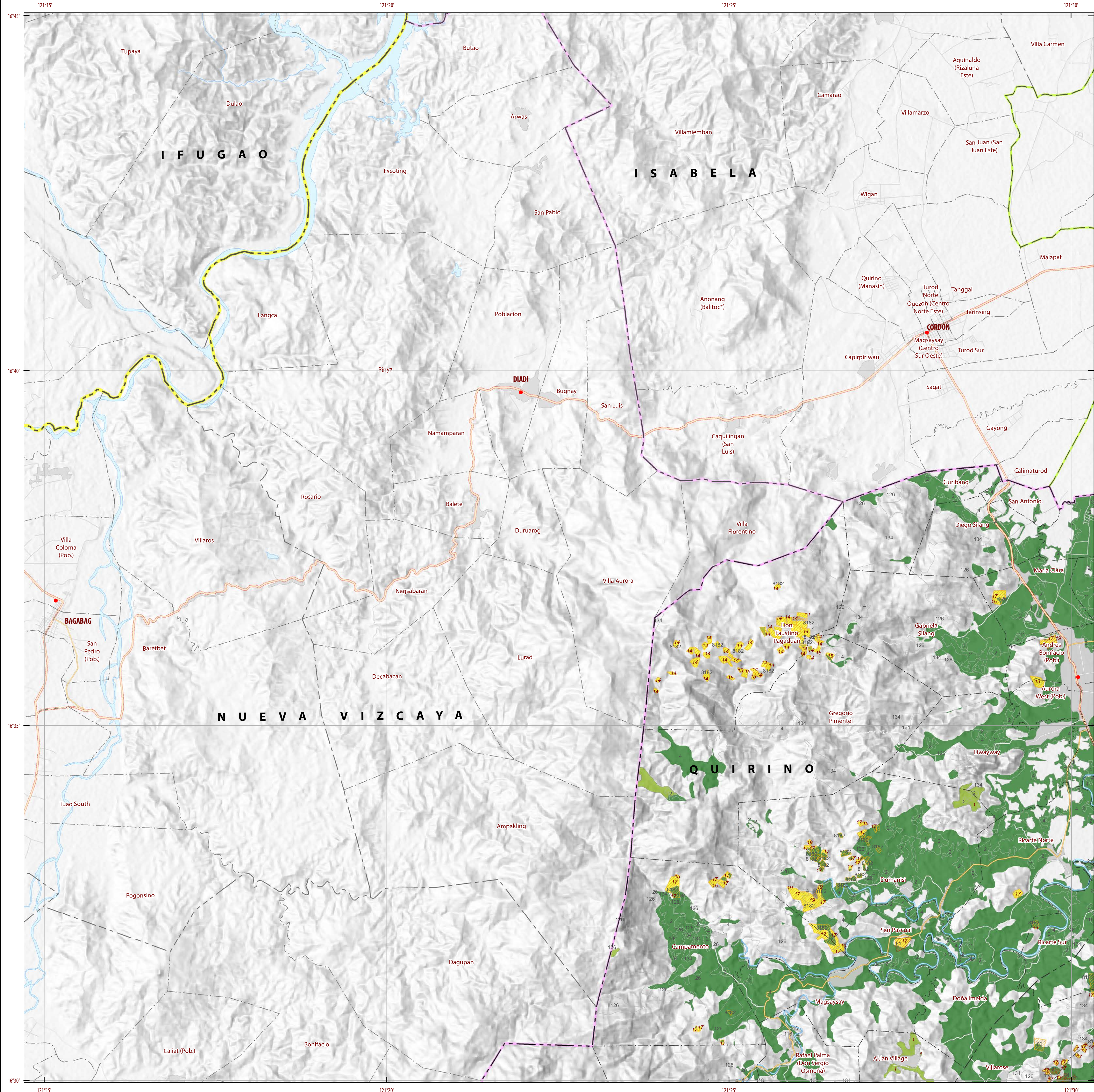
Rainfall is more or less evenly distributed throughout the year. This type resembles Type II since it has no dry season.

The whole part of Quirino classified as climatic Type III.



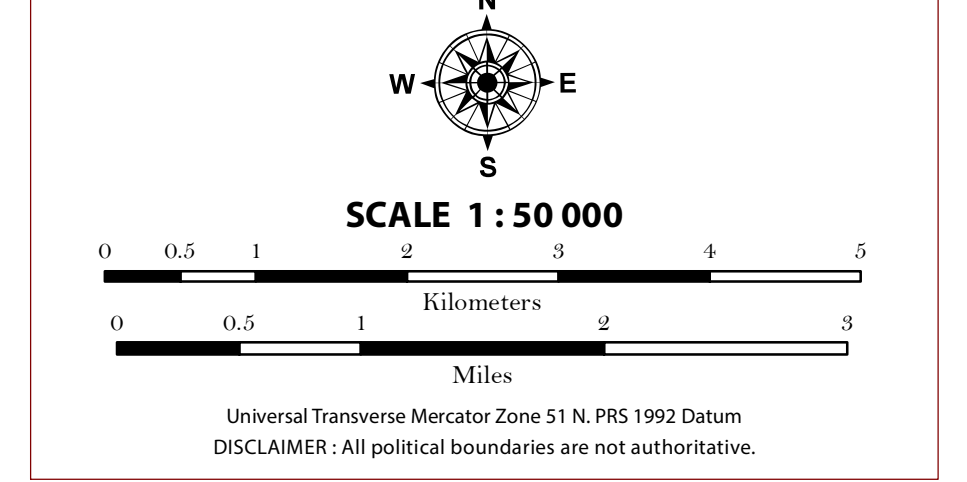
Source: PAGASA 2018, *Climatological Normals (Rainfall)*, Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), accessed 27 July 2018, <<https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals>>.





## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

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



**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
- Coffee
- Land limitation
- Land use

**CONVENTIONAL SIGNS**

**ROADS**

- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

**BOUNDARY**

- Region
- Province
- District
- Municipality
- Barangay

**HYDROLOGY**

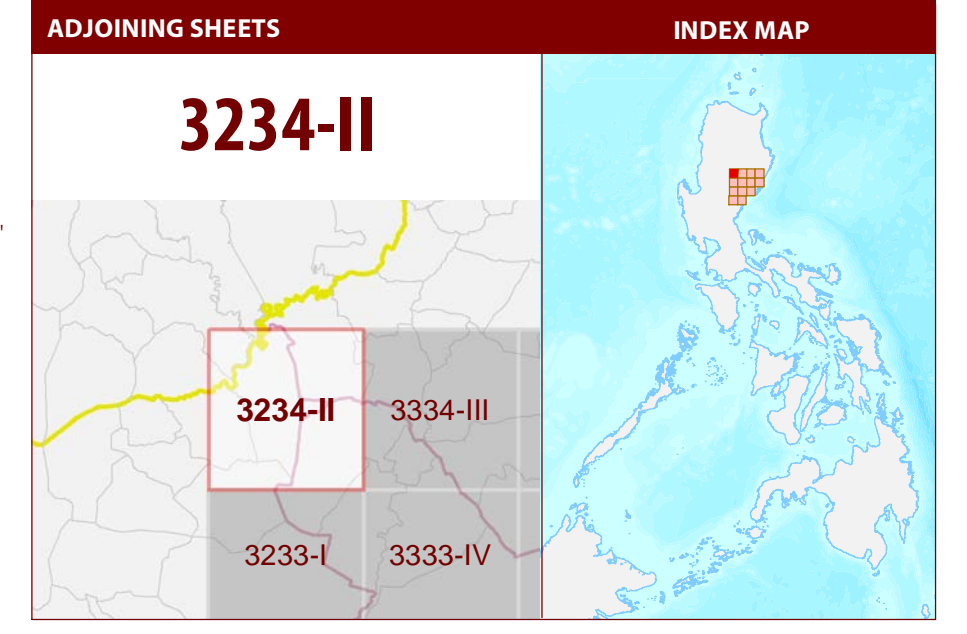
- Sea / Shoreline
- Lakes / Rivers

**PLACES**

- Capital City / City
- Capital Town / Town

**LAND USE**

- Built-up
- Fishpond
- Mangrove



**MISCELLANEOUS INFORMATION**

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

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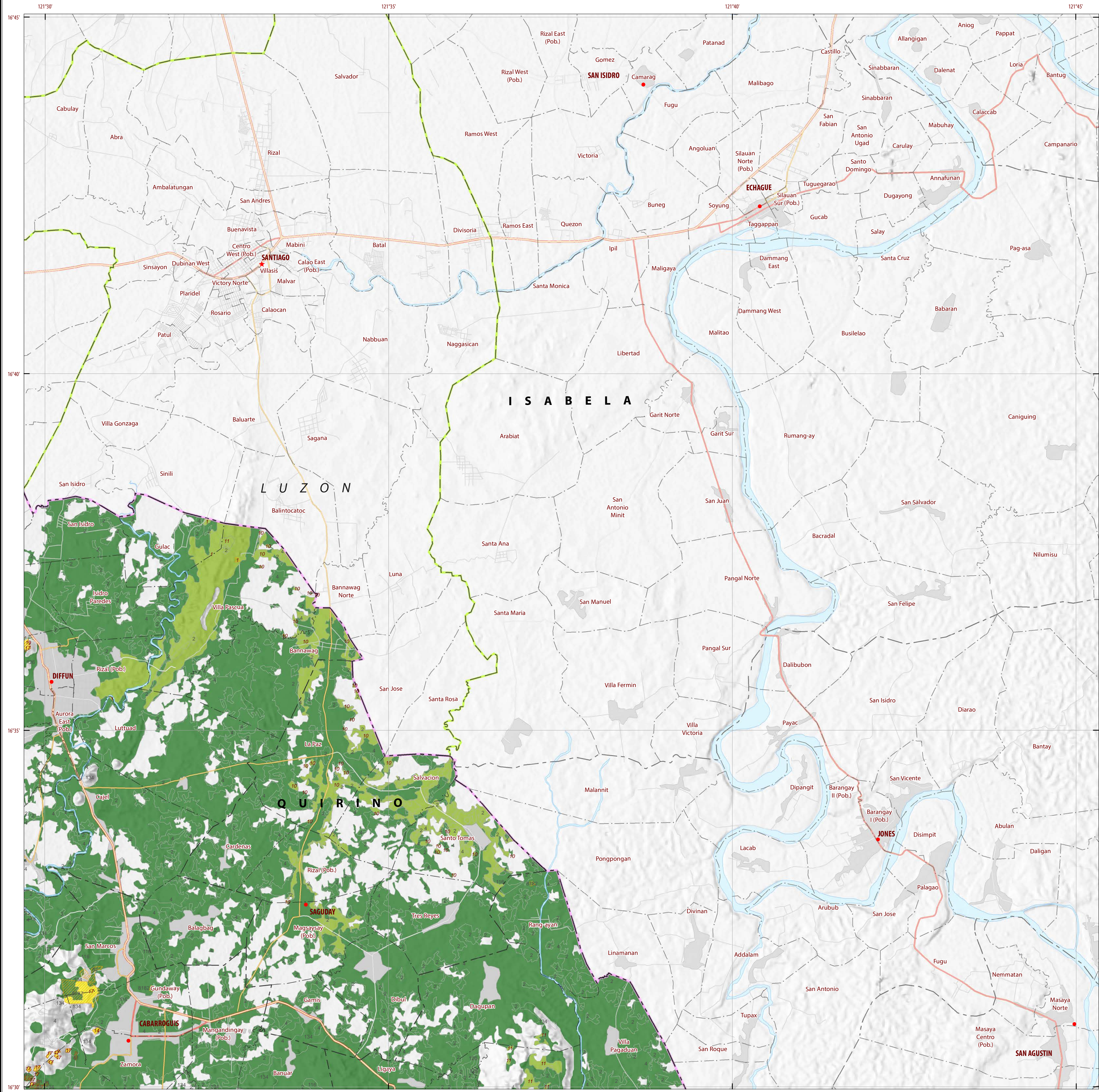
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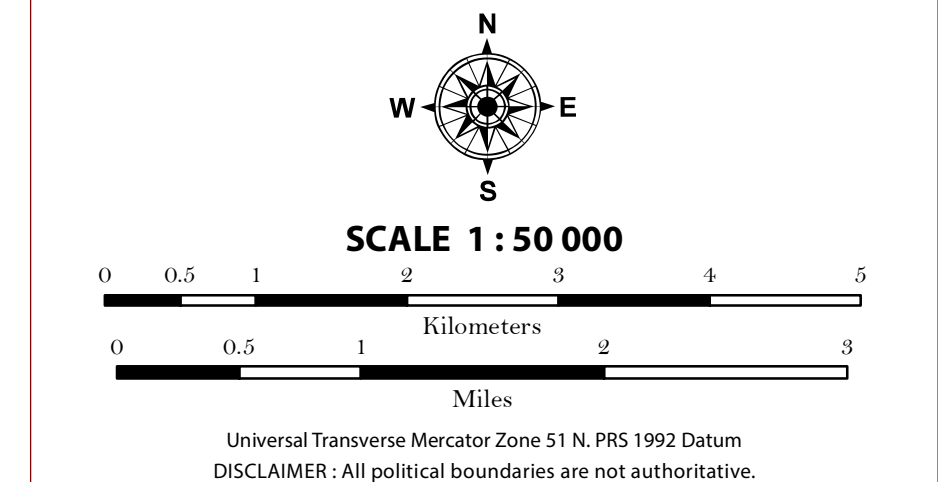
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**Not Suitable/ Not Relevant**

**OTHER SIGNS**

- NGP Areas
- Coffee
- 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**

**3334-III**

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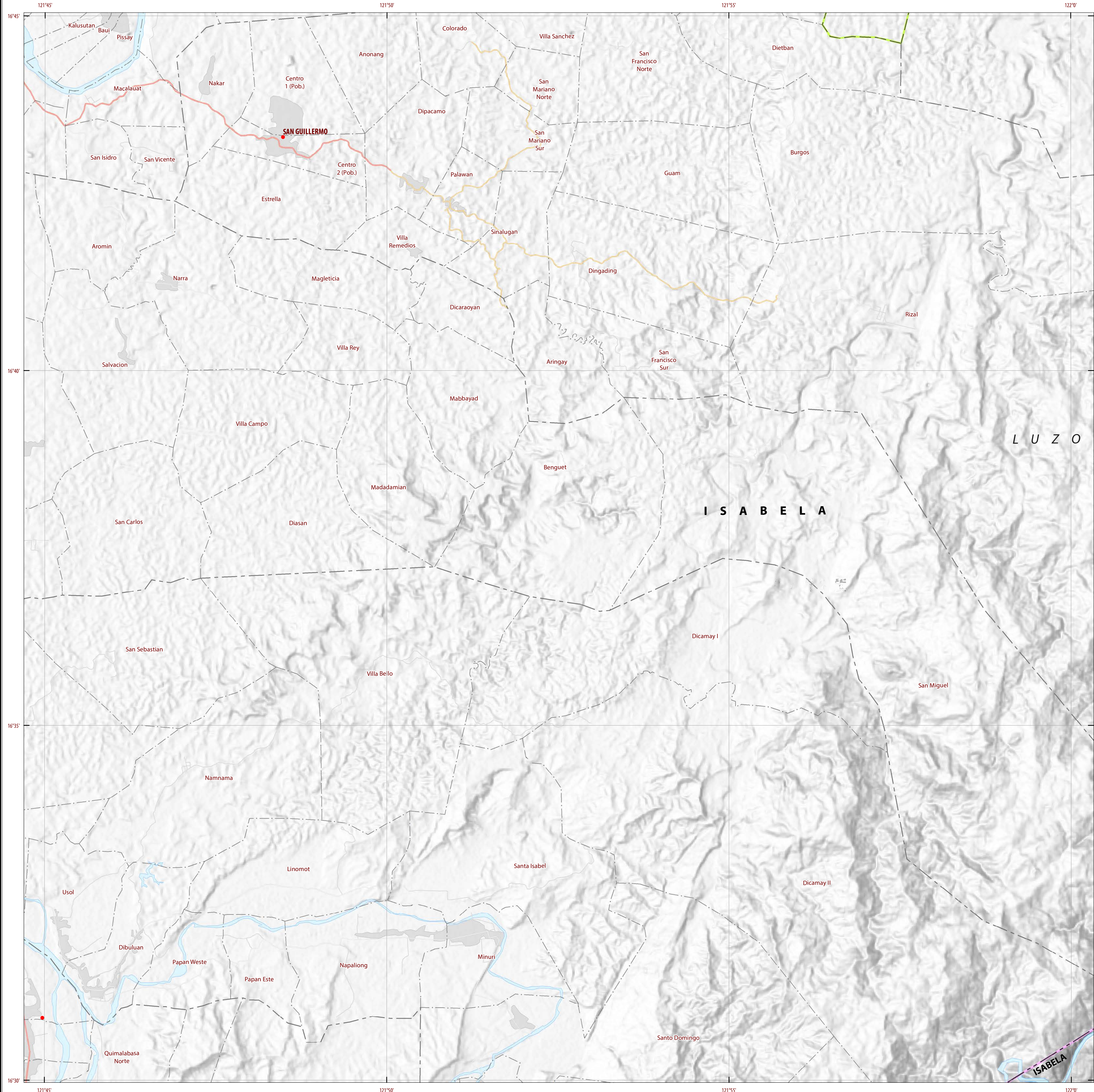
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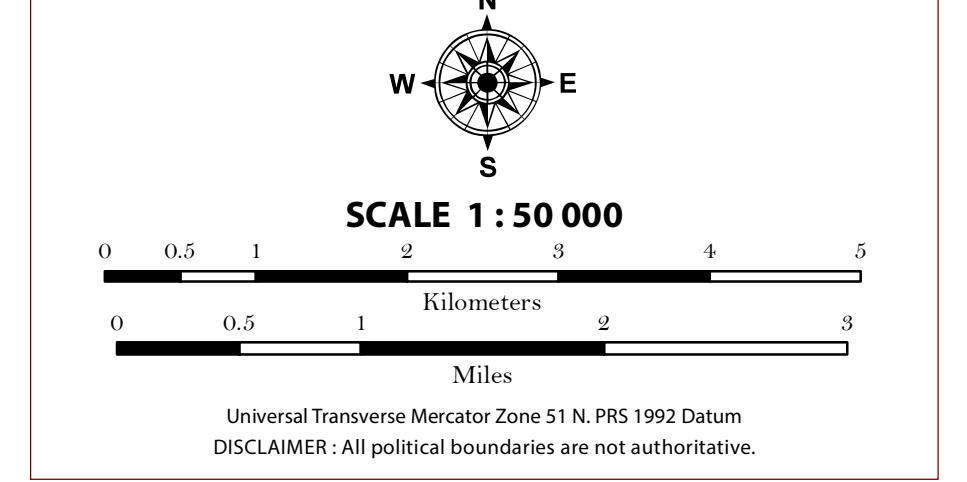
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### LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



**LEGEND**

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**Not Suitable/ Not Relevant**

**OTHER SIGNS**

- NGP Areas
- Coffee
- 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**

3334-III, 3334-II, 3434-III, 3333-IV, 3333-I, 3433-IV

**INDEX MAP**

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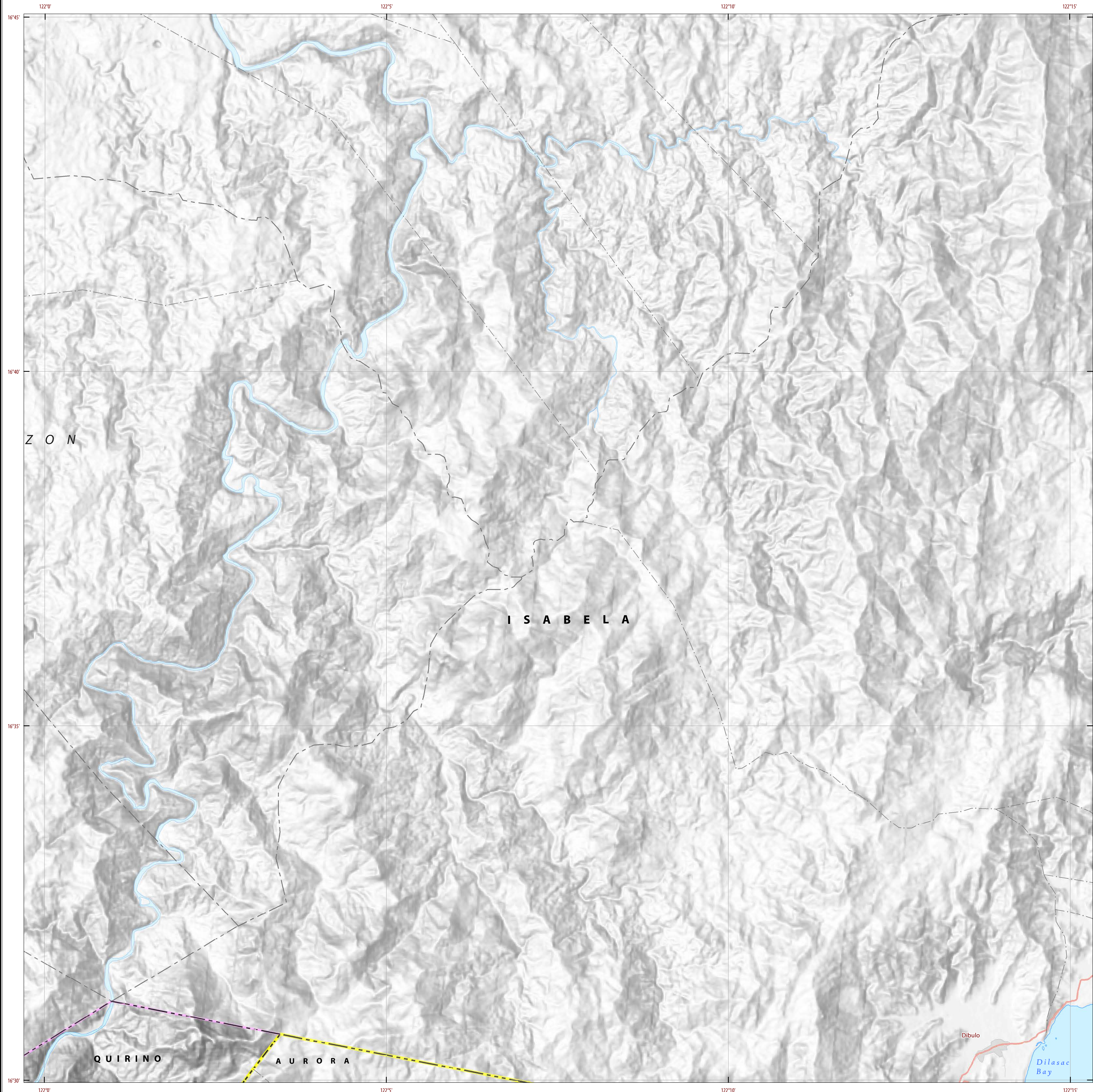
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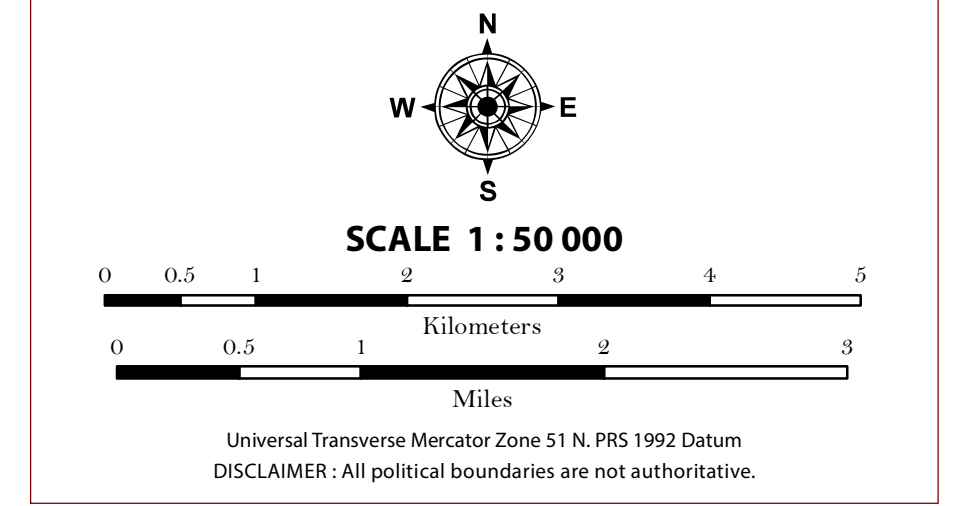
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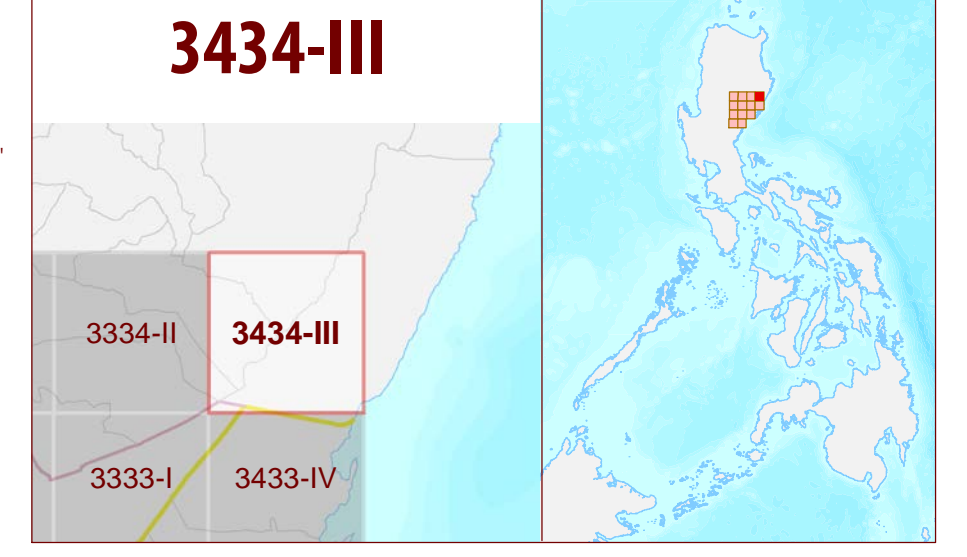
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- OTHER SIGNS**
- NGP Areas
  - Coffee
  - Land limitation
  - Land use

#### 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



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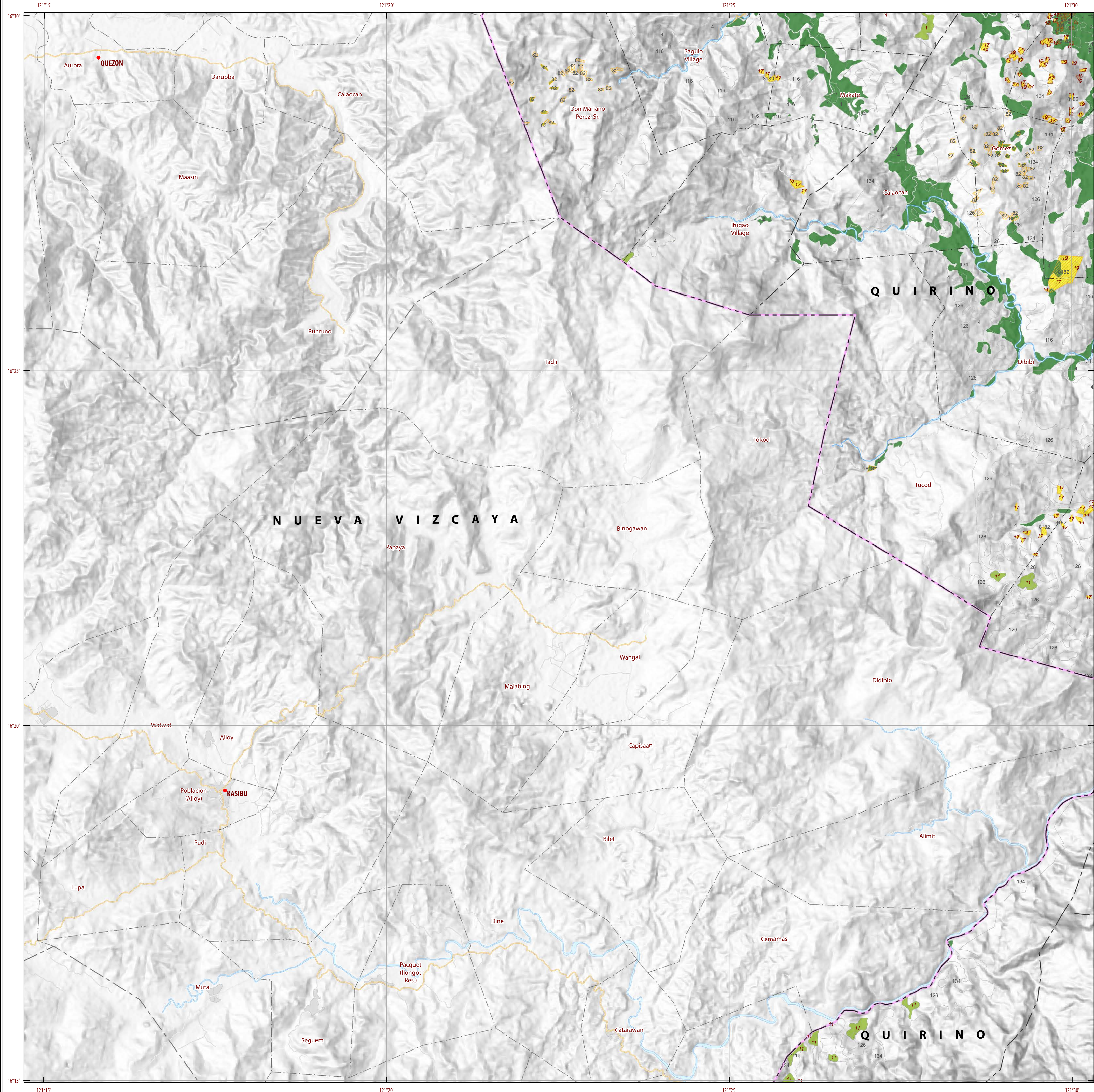
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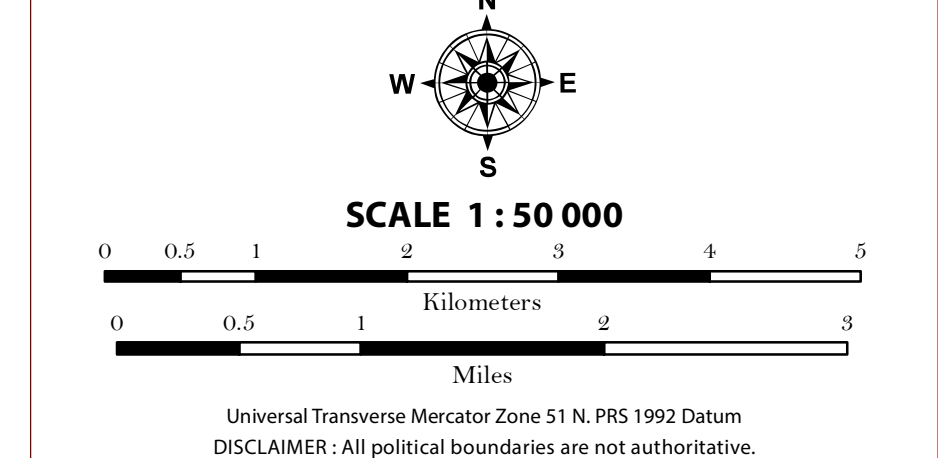
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- S3 Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- Not Suitable/ Not Relevant**

**OTHER SIGNS**

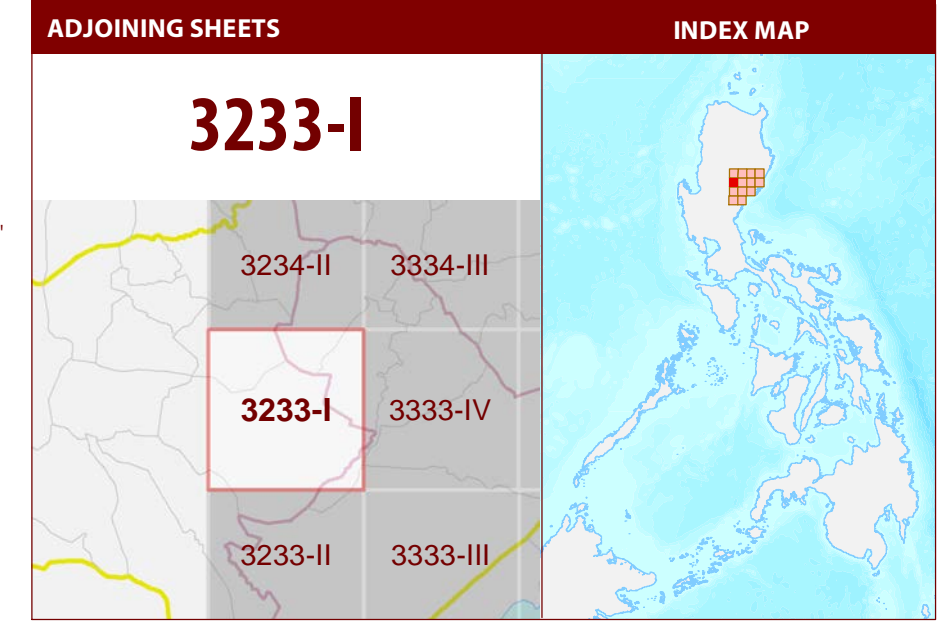
- NGP Areas
- Coffee
- Land limitation
- Land use

**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**

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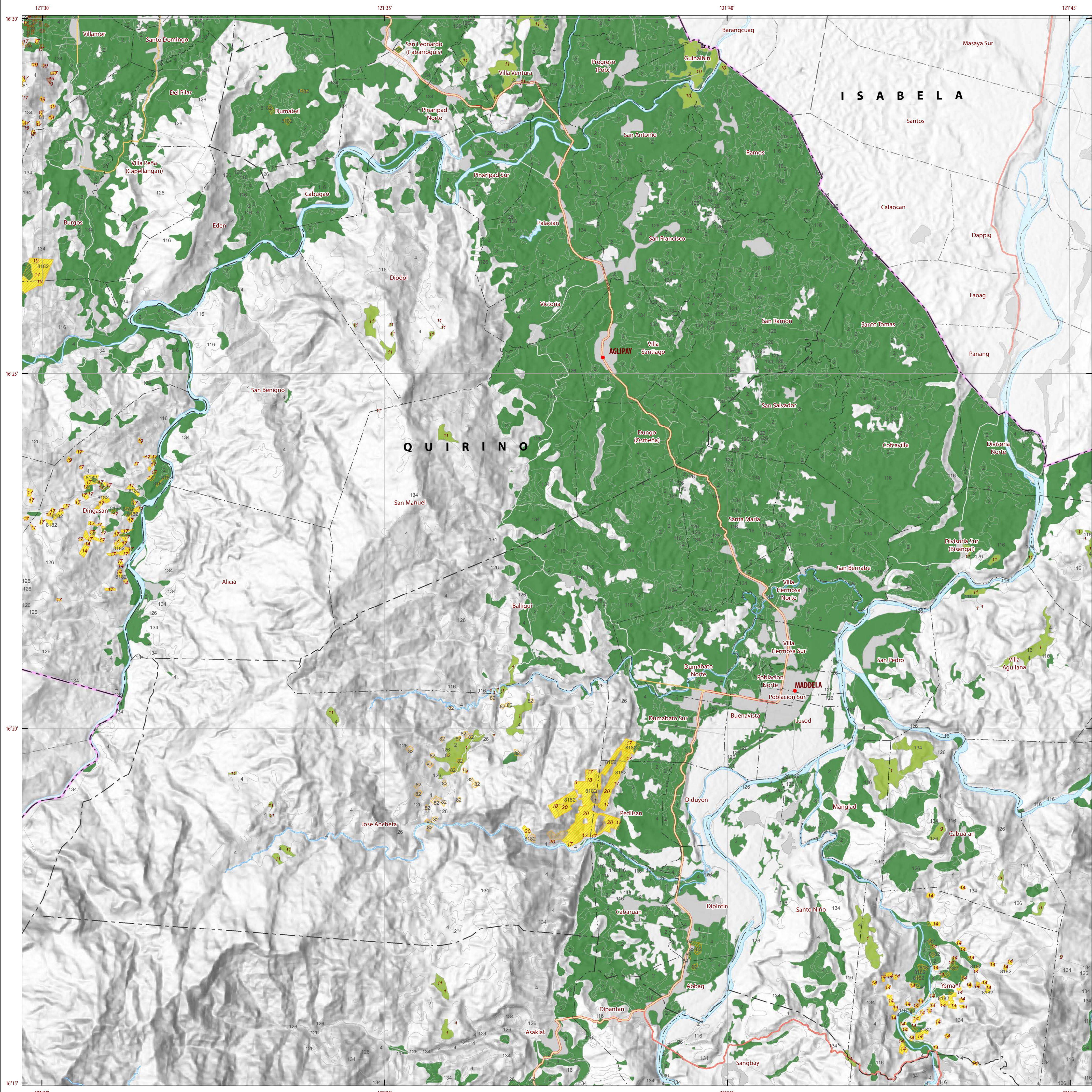
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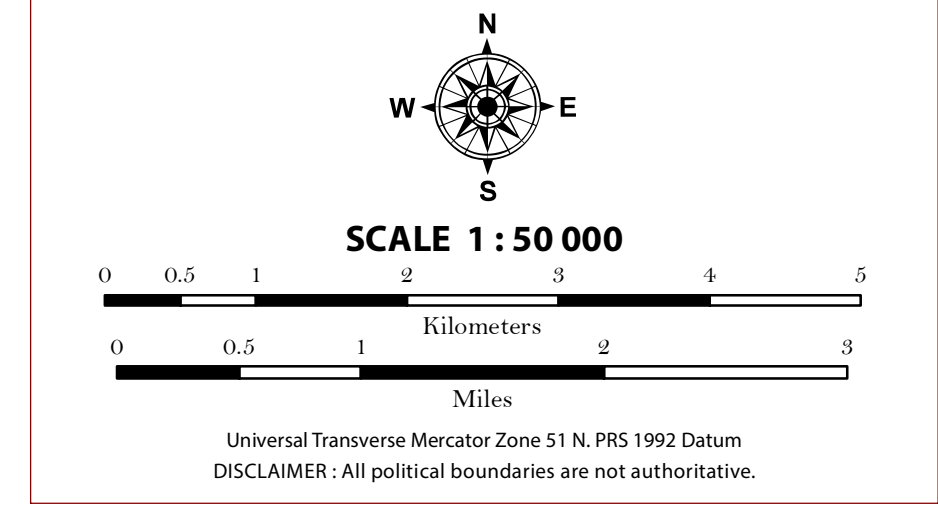
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

### 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.
- 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
- Coffee
- Land limitation
- Land use

**CONVENTIONAL SIGNS**

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

**LAND USE**

- Built-up
- Fishpond
- Mangrove

**ADJOINING SHEETS**

3234-II	3334-III	3334-II
3233-I	<b>3333-IV</b>	3333-I
3233-II	3333-III	3333-II

**INDEX MAP**

**MISCELLANEOUS INFORMATION**

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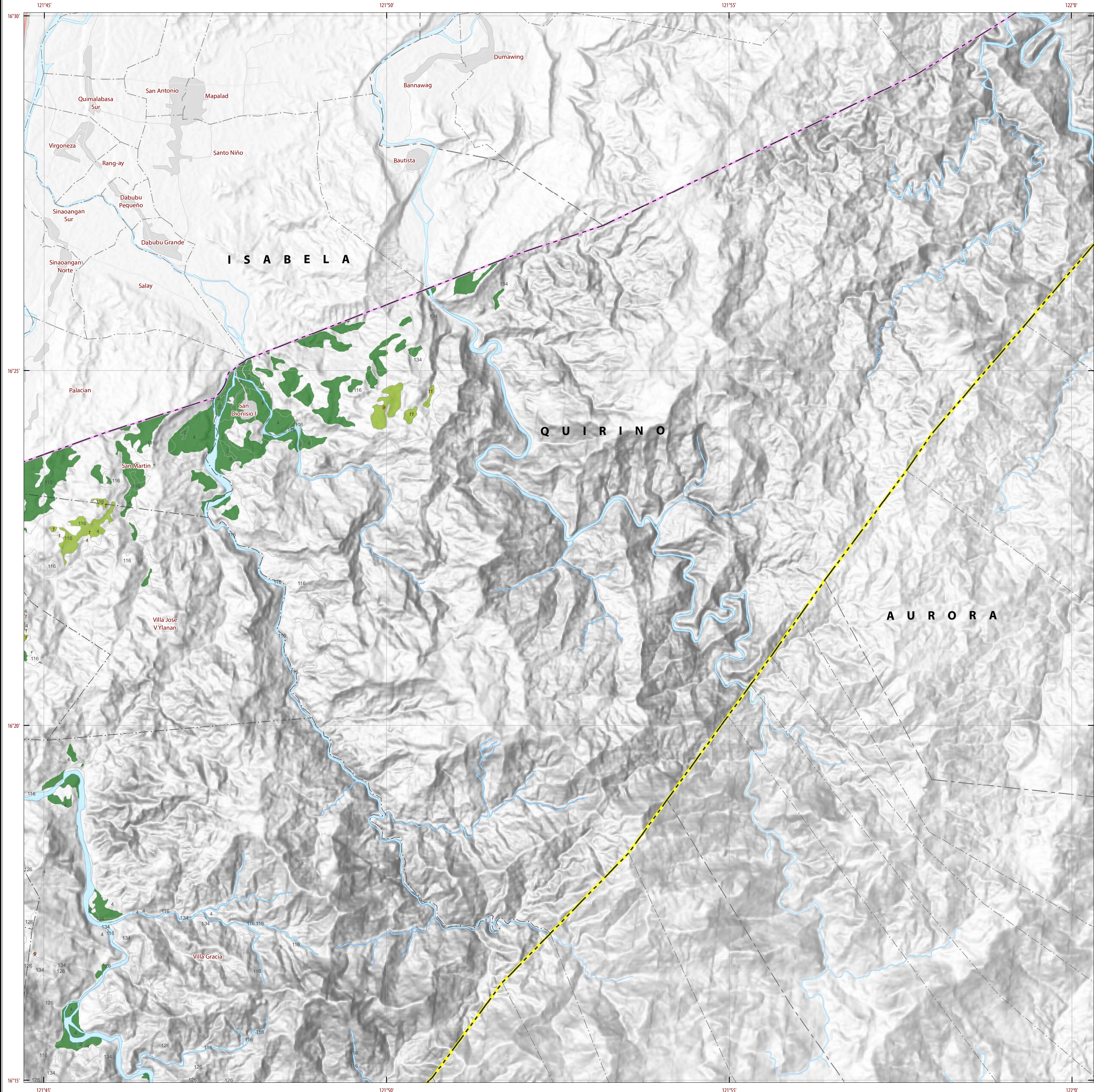
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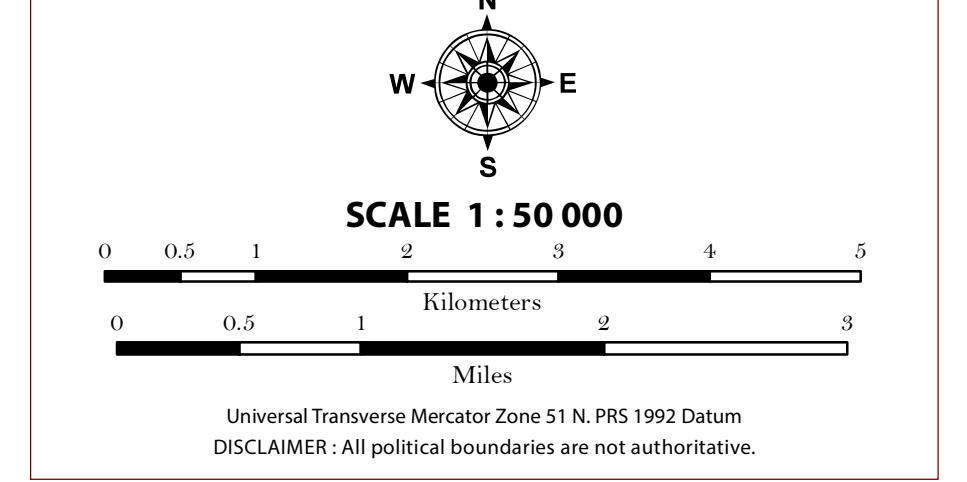
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

### 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.
- 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**

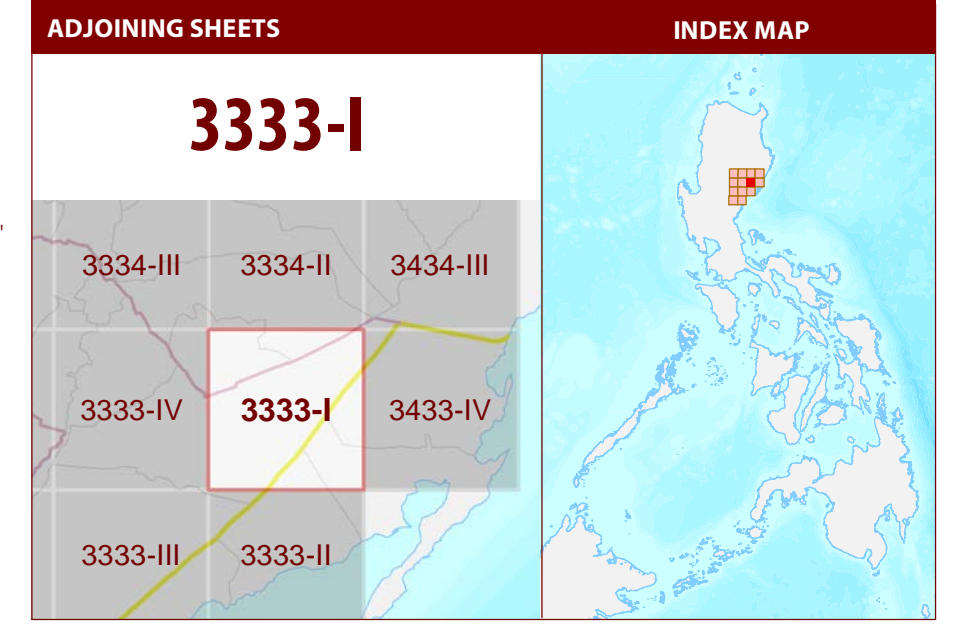
- NGP Areas
- Coffee
- Land limitation
- Land use

**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**

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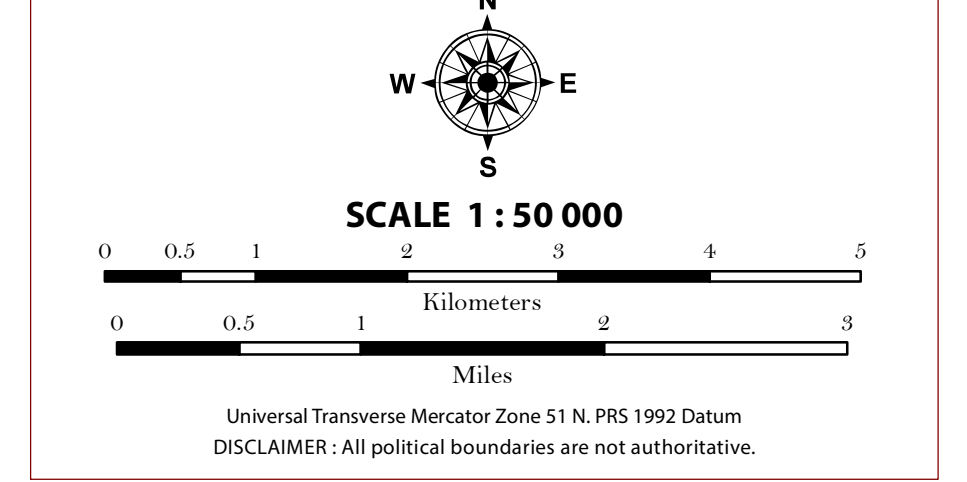
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

### 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**

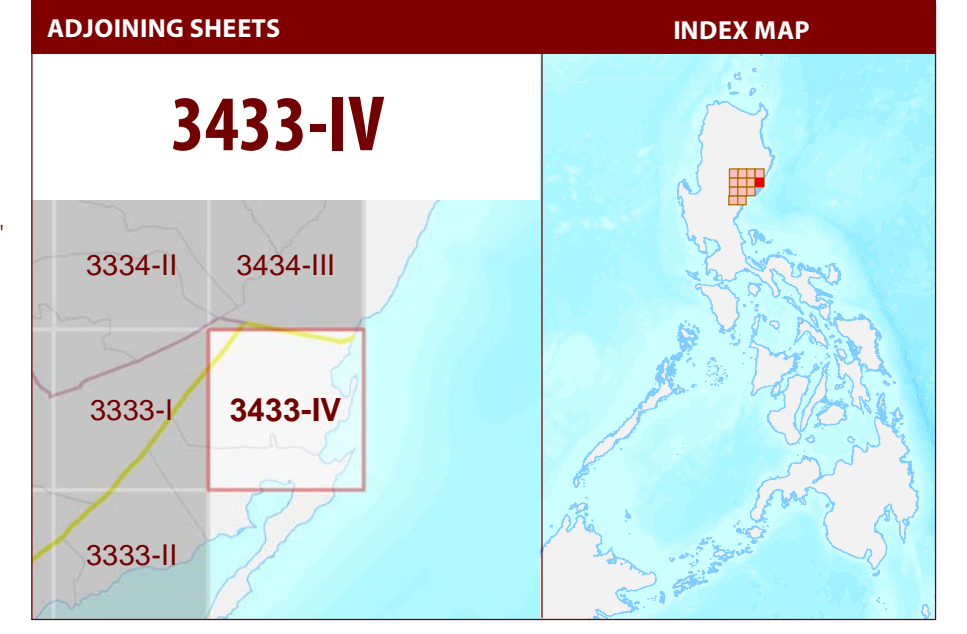
- NGP Areas
- Coffee
- Land limitation
- Land use

**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



**MISCELLANEOUS INFORMATION**

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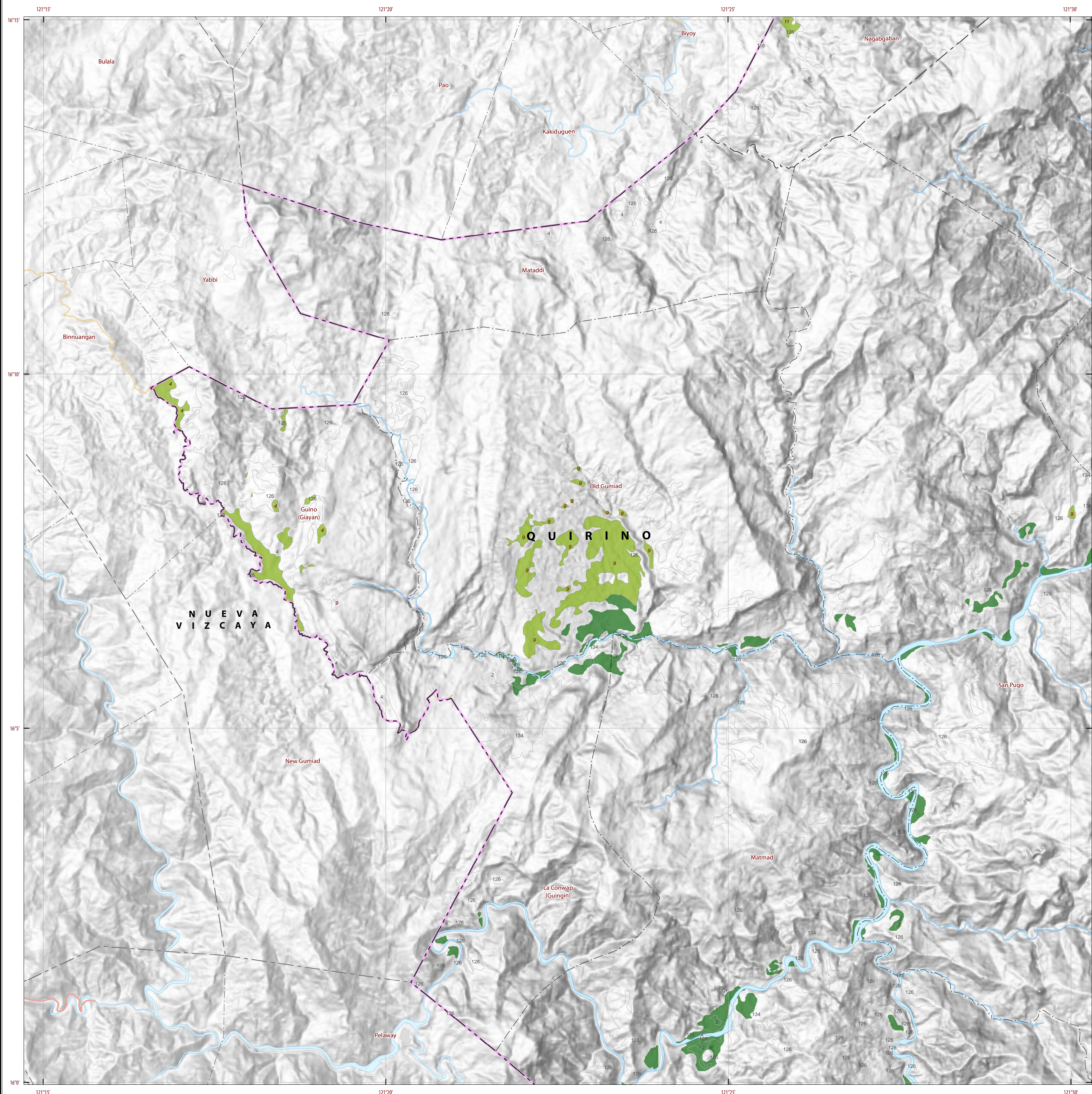
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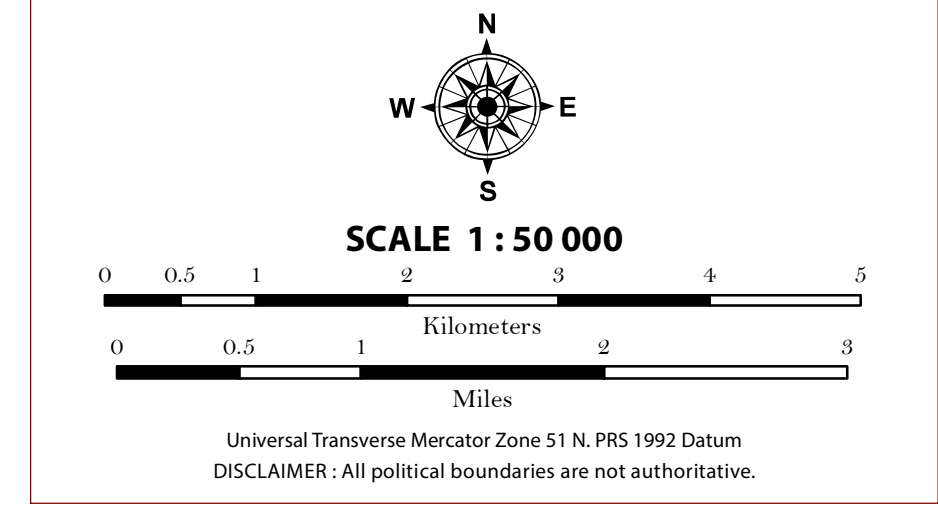
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

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



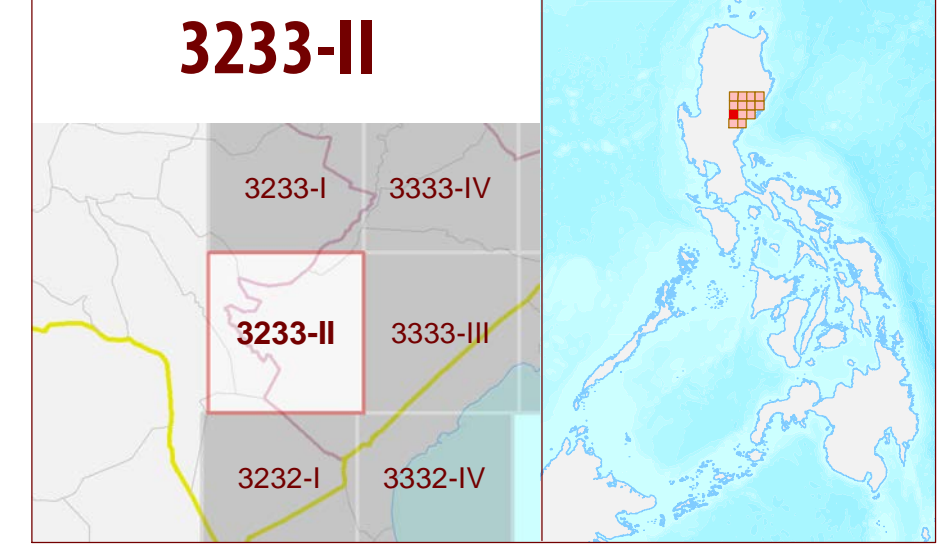
#### LEGEND

- 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
  - Coffee
  - 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 INDEX MAP



#### MISCELLANEOUS INFORMATION

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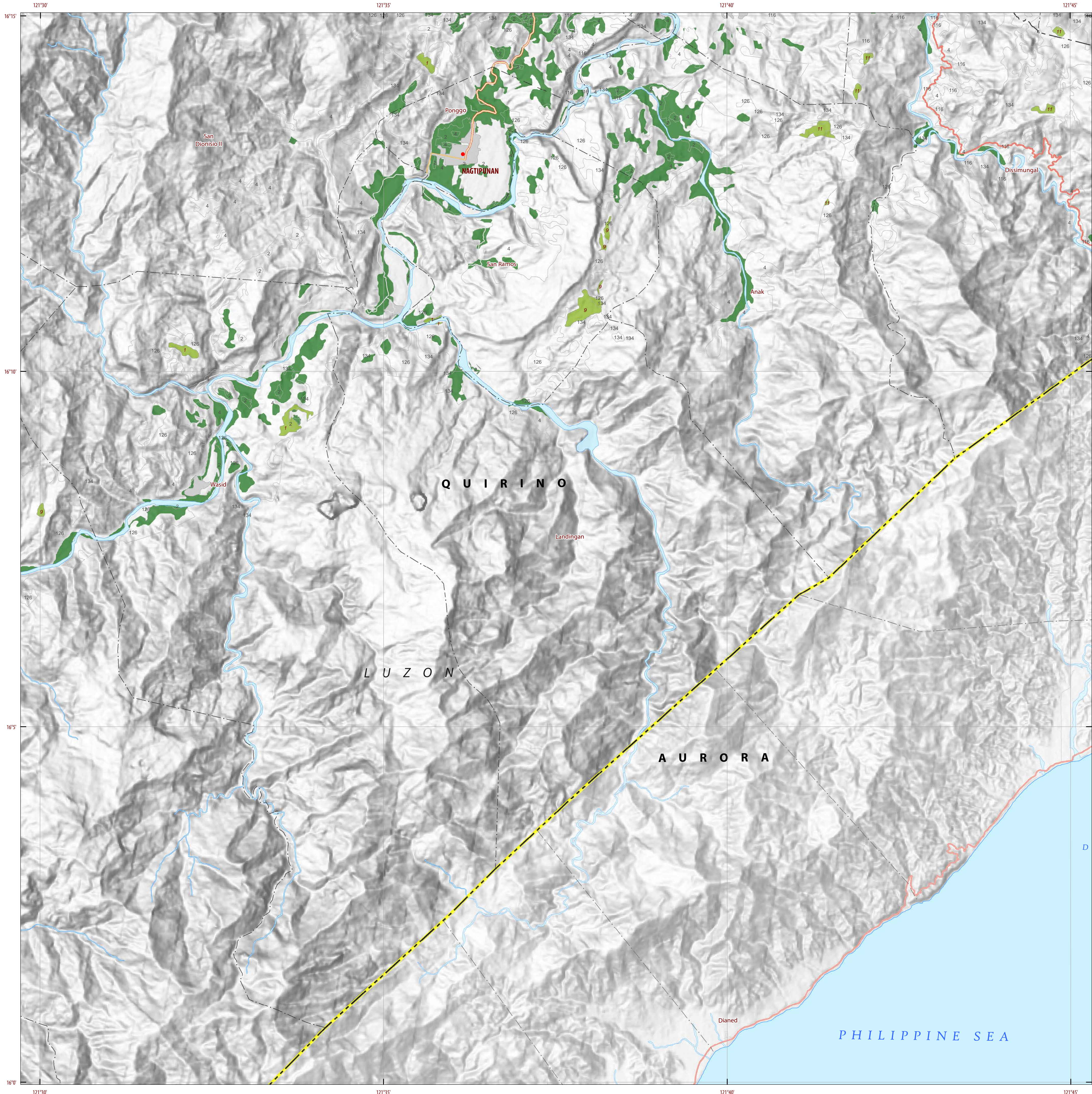
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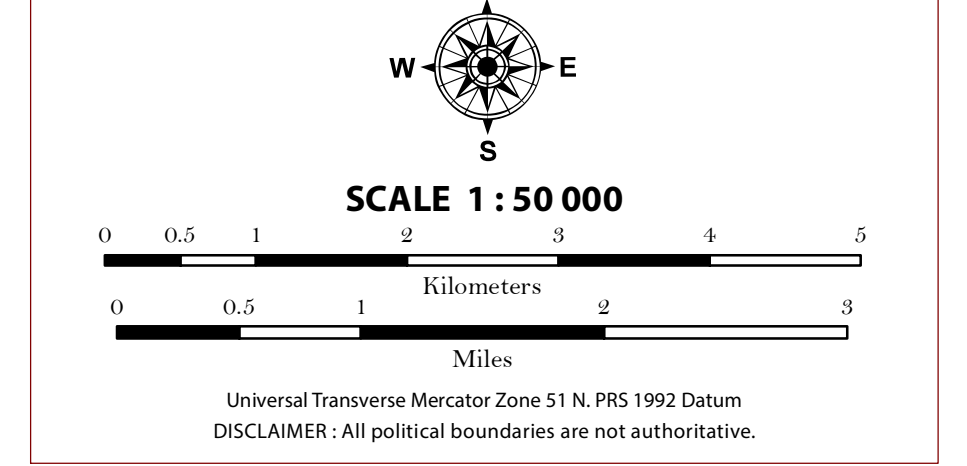
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

### 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.
- **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
- Land limitation
- Coffee
- Land use

**CONVENTIONAL SIGNS**

<b>ROADS</b>	<b>BOUNDARY</b>	<b>HYDROLOGY</b>
<span style="border-bottom: 2px solid orange; width: 20px; display: inline-block;"></span> Expressway	<span style="border-bottom: 2px solid black; width: 20px; display: inline-block;"></span> Region	<span style="border-bottom: 1px solid blue; width: 20px; display: inline-block;"></span> Sea / Shoreline
<span style="border-bottom: 2px solid orange; width: 20px; display: inline-block;"></span> Trunk line	<span style="border-bottom: 2px dashed black; width: 20px; display: inline-block;"></span> Province	<span style="border-bottom: 1px solid blue; width: 20px; display: inline-block;"></span> Lakes / Rivers
<span style="border-bottom: 2px solid orange; width: 20px; display: inline-block;"></span> Primary	<span style="border-bottom: 2px dashed black; width: 20px; display: inline-block;"></span> District	<b>PLACES</b>
<span style="border-bottom: 2px solid orange; width: 20px; display: inline-block;"></span> Secondary	<span style="border-bottom: 2px dashed black; width: 20px; display: inline-block;"></span> Municipality	<span style="color: red;">★</span> Capital City / City
<span style="border-bottom: 2px solid orange; width: 20px; display: inline-block;"></span> Tertiary	<span style="border-bottom: 2px dashed black; width: 20px; display: inline-block;"></span> Barangay	<span style="color: red;">●</span> Capital Town / Town
<b>LAND USE</b>	<span style="background-color: blue; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Built-up	<span style="background-color: lightblue; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Fishpond
		<span style="background-color: green; border: 1px solid black; display: inline-block; width: 10px; height: 10px;"></span> Mangrove

**ADJOINING SHEETS**

3233-I	3333-IV	3333-I
3233-II	<b>3333-III</b>	3333-II
3232-I	3332-IV	

**INDEX MAP**

**MISCELLANEOUS INFORMATION**

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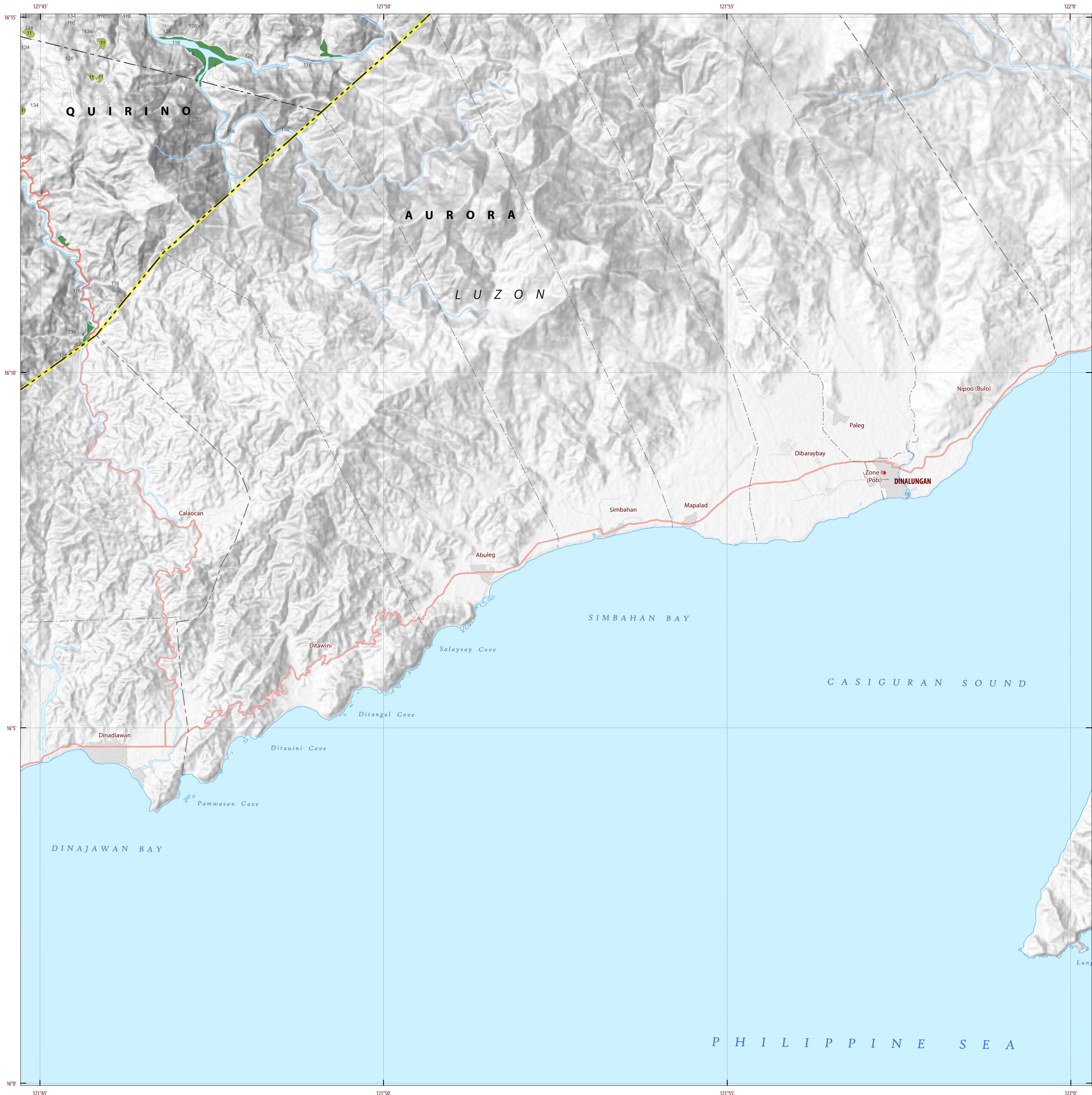
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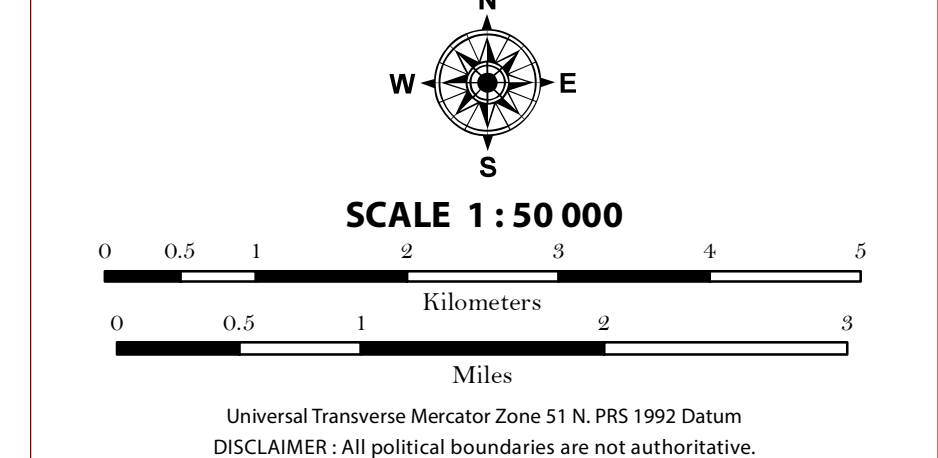
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

### 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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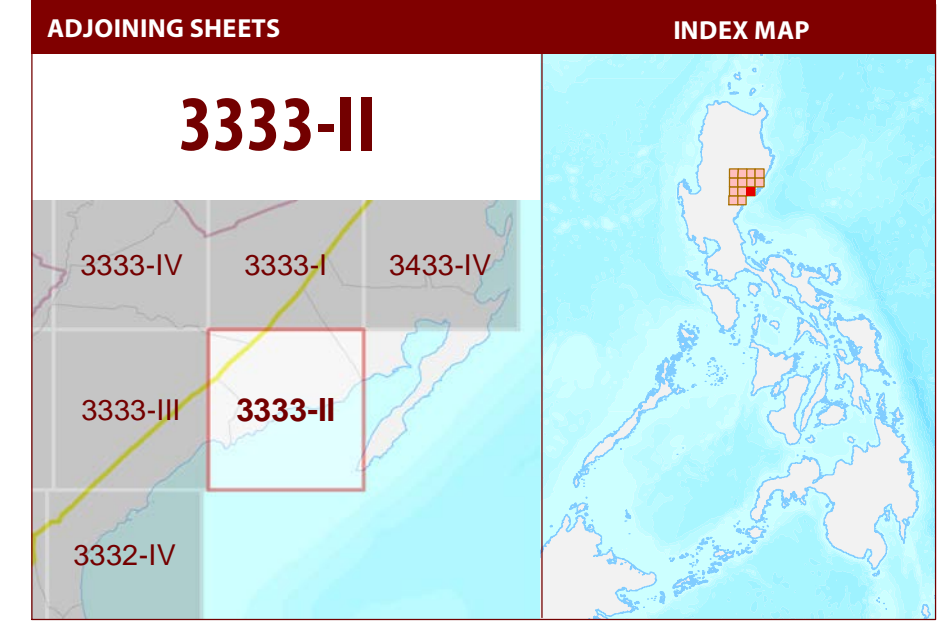
**Not Suitable/ Not Relevant**

**OTHER SIGNS**

- NGP Areas
- Land limitation
- Land use

**CONVENTIONAL SIGNS**

<b>ROADS</b>	<b>BOUNDARY</b>	<b>HYDROLOGY</b>
<span style="border-bottom: 2px solid orange; width: 20px;"></span> Expressway	<span style="border-bottom: 2px solid yellow; width: 20px;"></span> Region	<span style="border-bottom: 1px solid blue; width: 20px;"></span> Sea / Shoreline
<span style="border-bottom: 2px solid orange; width: 20px;"></span> Trunk line	<span style="border-bottom: 2px solid purple; width: 20px;"></span> Province	<span style="border-bottom: 1px solid blue; width: 20px;"></span> Lakes / Rivers
<span style="border-bottom: 2px solid orange; width: 20px;"></span> Primary	<span style="border-bottom: 2px solid purple; width: 20px;"></span> District	<b>PLACES</b>
<span style="border-bottom: 2px solid orange; width: 20px;"></span> Secondary	<span style="border-bottom: 2px solid purple; width: 20px;"></span> Municipality	<span style="color: red;">★</span> Capital City / City
<span style="border-bottom: 2px solid orange; width: 20px;"></span> Tertiary	<span style="border-bottom: 2px solid purple; width: 20px;"></span> Barangay	<span style="color: red;">●</span> Capital Town / Town
<b>LAND USE</b>	<span style="display: inline-block; width: 10px; height: 10px; background-color: gray;"></span> Built-up	<span style="display: inline-block; width: 10px; height: 10px; background-color: lightblue;"></span> Fishpond
		<span style="display: inline-block; width: 10px; height: 10px; background-color: lightgreen;"></span> Mangrove



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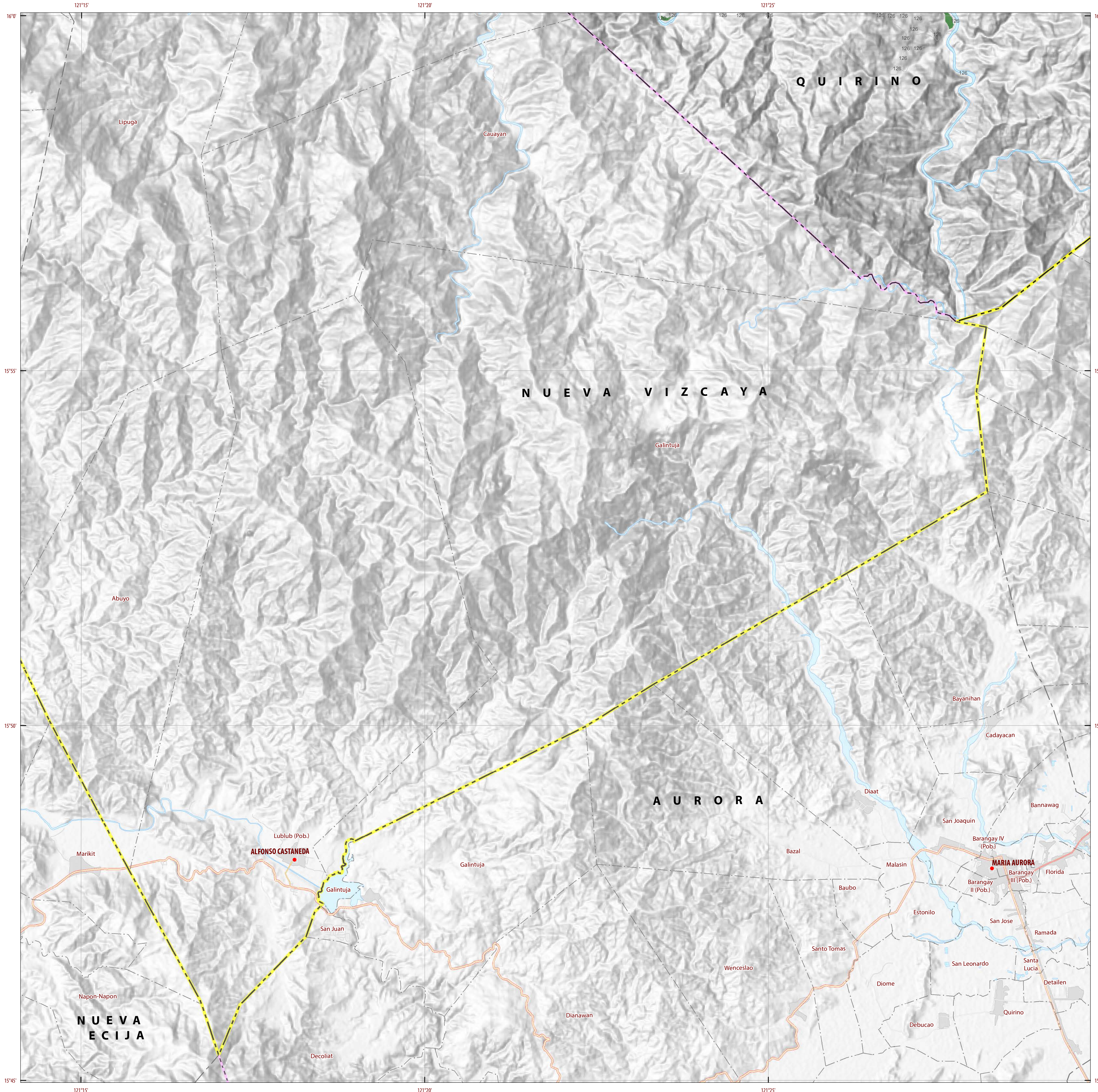
Funding Agency : Department of Agriculture - Bureau of Agricultural Research (DA-BAR)  
 Collaborating Agencies : Philippine Council on Agriculture and Fisheries (PCAF)  
 : Department of Agriculture and Fisheries - ARMM, Department of Agriculture Regional Field Office of Region IX, X, XI, XII and XIII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

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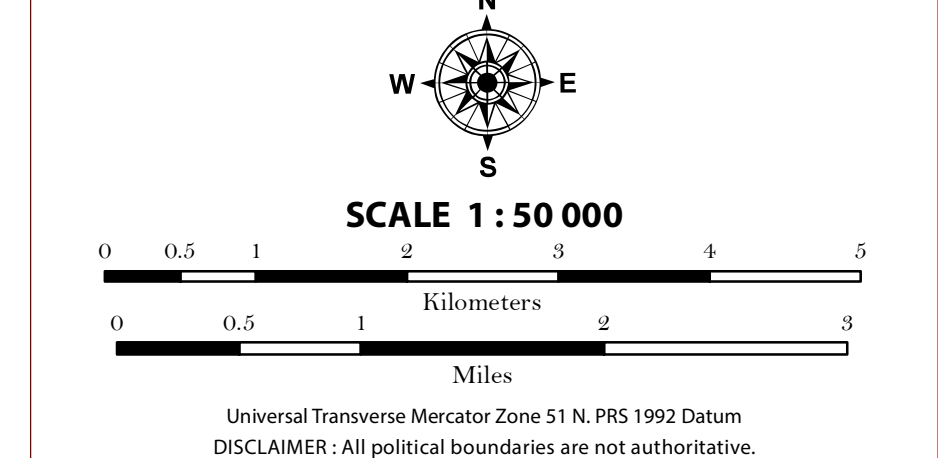
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## LAND SUITABILITY MAP ROBUSTA, LIBERICA AND EXCELSA COFFEE

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



**LEGEND**

**SUITABILITY CLASSES**

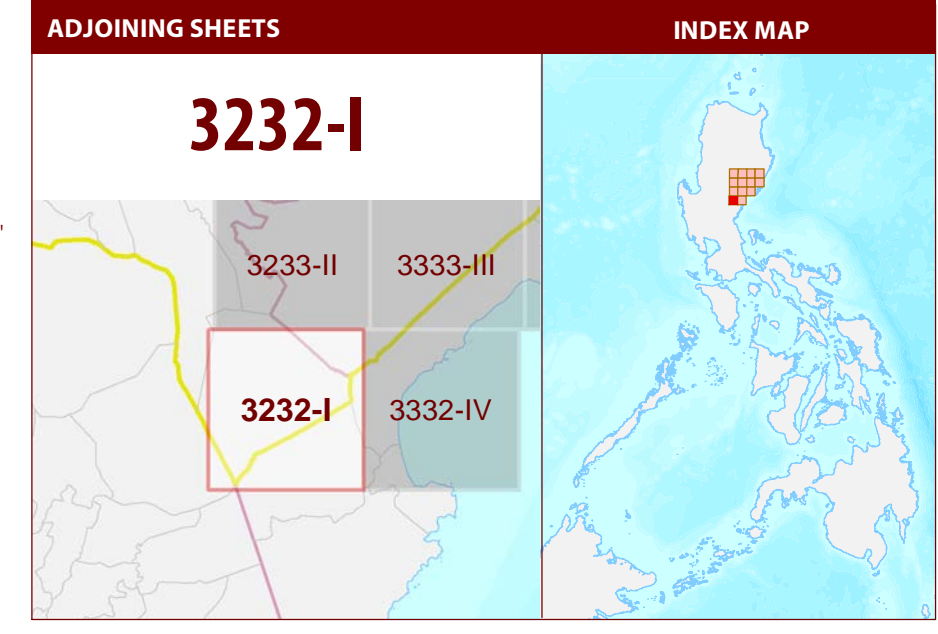
- S1 Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 Moderately Suitable** - Land having limitations which 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
- Coffee
- 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
<b>LAND USE</b>		
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 (PAO, 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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