

LAND SUITABILITY MAP

CACAO

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

PROVINCE OF COMPOSTELA VALLEY

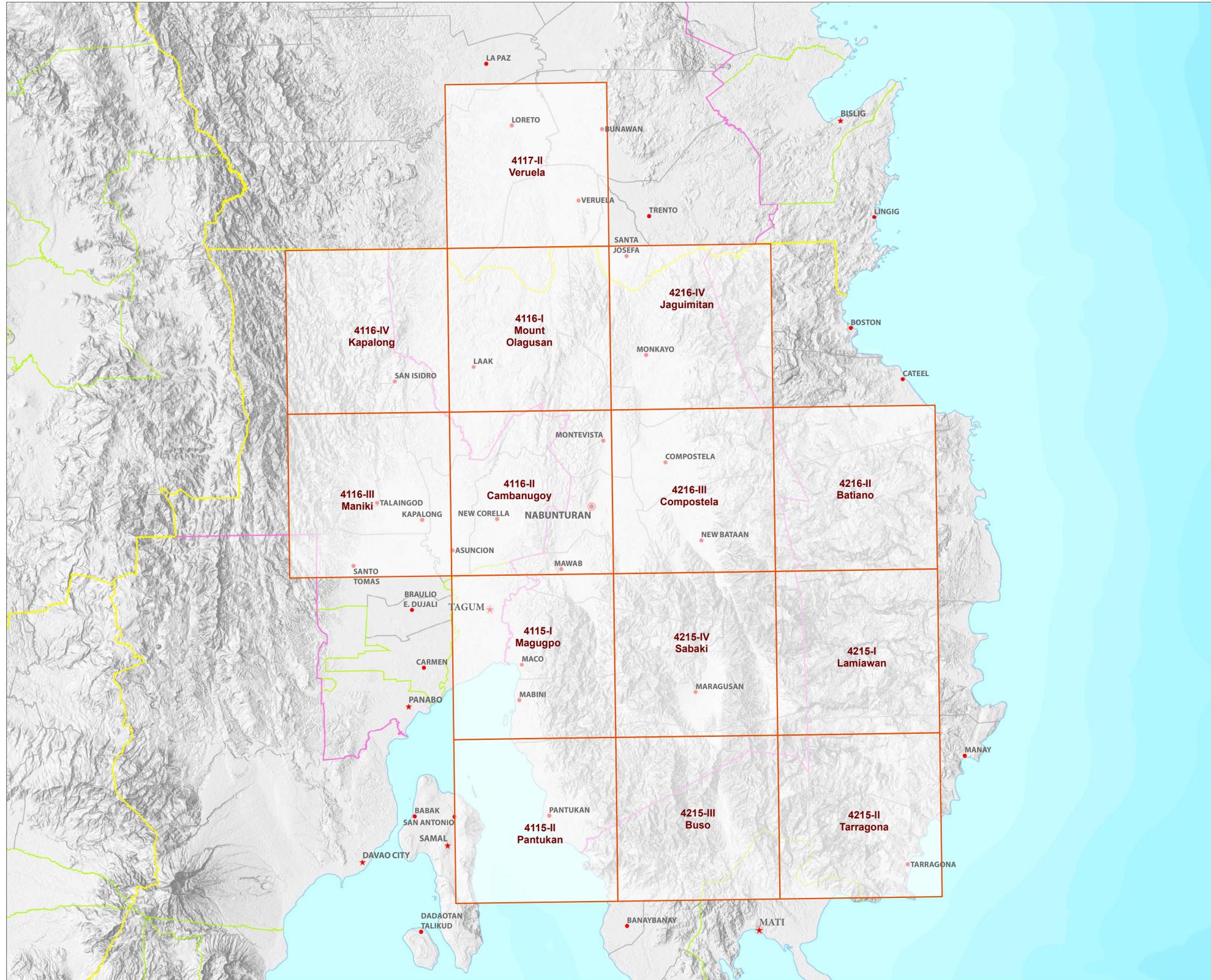


REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
BUREAU OF SOILS AND WATER MANAGEMENT

SRDC Bldg., Elliptical Road Cor. Visayas Avenue, Diliman, Quezon City 1101
Tel/Fax No.: (+632) 332-9534 E-mail: bswmclientcenter@yahoo.com

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LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF COMPOSTELA VALLEY



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

Administrative Boundary

- Regional
- Provincial
- City
- Municipal

Map Index

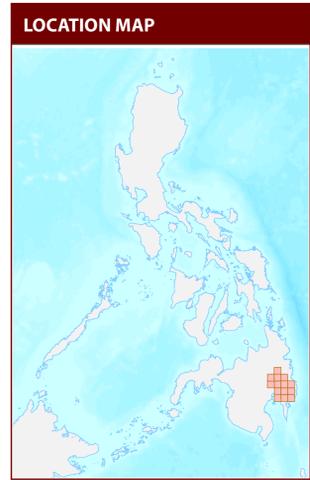
- Index grid

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).

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

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LAND SUITABILITY MAP FOR CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS COMPOSTELA VALLEY, REGION XI

EXTENT OF SUITABILITY FOR CACAO PRODUCTION BY MUNICIPALITY

| MUNICIPALITY | EXISTING CACAO (Ha) | | | TOTAL EXISTING AREA (Ha) | EXPANSION AREA (Ha) | | | | | | | | CONFLICT RESOLUTION AREA (Ha) | | | | | | | | TOTAL POTENTIAL EXPANSION AREA (Ha) |
|--------------|---------------------|-----------|------------|--------------------------|---------------------|---------------|-----------------------|--------------|-----------------------|--------------|---------------|------------|-------------------------------|------------|------------|----------|-----------|----------|-------------|-----------|-------------------------------------|
| | S1 | S2 | S3 | | Coconut | | Shrubland, unmanaged* | | Grassland, unmanaged* | | Banana | | Corn | | Oil palm | | Mango | | Other crops | | |
| | | | | | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | S1 | S2 | |
| COMPOSTELA | - | - | - | - | 2,326 | - | 78 | 61 | 18 | 7 | 3,760 | - | 1,133 | - | 43 | - | - | - | 29 | - | 7,457 |
| LAAK | 93 | 1 | 18 | 111 | 10,778 | 19,072 | 3,515 | 2,699 | 1,455 | 1,051 | 767 | 568 | 711 | 403 | - | - | - | - | - | - | 41,019 |
| MABINI | - | - | - | - | 2,356 | 8 | 83 | - | 250 | 792 | 1,223 | - | - | - | - | - | - | - | - | - | 4,712 |
| MACO | - | - | - | - | 4,367 | 3 | 157 | 21 | 157 | 1,805 | 1,197 | - | 254 | - | - | - | - | - | 5 | - | 7,966 |
| MARAGUSAN | - | - | - | - | - | - | 200 | - | - | - | - | 55 | - | - | - | - | - | - | - | 14 | 269 |
| MAWAB | - | - | - | - | 2,794 | 34 | 672 | - | 954 | 810 | 785 | 2 | 1,229 | 5 | - | - | 21 | - | 21 | - | 7,326 |
| MONKAYO | 207 | 61 | 281 | 548 | 12,096 | 2,397 | 2,053 | - | 939 | 1,411 | 2,239 | - | 582 | - | 71 | - | - | - | 9 | - | 21,797 |
| MONTEVISTA | - | - | - | - | 2,093 | 6,135 | 460 | 18 | 185 | 162 | 1,037 | 1 | 15 | 7 | - | - | - | 2 | 2 | 2 | 10,118 |
| NABUNTURAN | - | - | - | - | 8,356 | 193 | 195 | - | 705 | 476 | 763 | 19 | 72 | - | 182 | - | 1 | - | 8 | - | 10,969 |
| NEW BATAAN | 51 | - | 12 | 63 | 5,921 | - | 388 | - | 50 | 240 | 116 | - | 306 | - | - | - | - | - | - | - | 7,022 |
| PANTUKAN | - | - | - | - | 6,798 | - | 90 | 65 | 313 | 1,763 | 1,153 | 216 | 123 | - | - | - | 51 | - | 51 | - | 10,621 |
| TOTAL | 350 | 61 | 311 | 722 | 57,884 | 27,842 | 7,691 | 3,065 | 5,026 | 8,517 | 13,040 | 860 | 4,425 | 415 | 296 | - | 73 | 2 | 124 | 15 | 129,275 |

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

SUITABILITY CLASSES:

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

Marginally Suitable (S3)
Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.

Moderately Suitable (S2)
Land having limitation which in aggregate are moderately severe for sustained application of a given use; the limitation will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.

Not Suitable / Not Relevant
Land having limitations which may be surmountable in time but which cannot be corrected with existing knowledge at currently acceptable cost; the limitations are so severe as to preclude successful sustained use of the land in the given manner. Existing forest, shrubland greater than 18% slope, irrigated paddy rice and miscellaneous land types such as built up areas, roads, etc are considered as not relevant.

CLIMATE TYPE

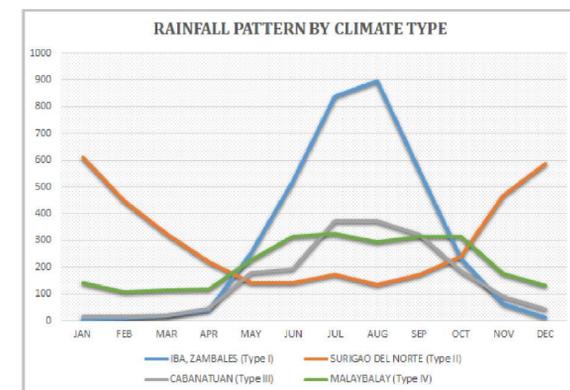
TYPE I : Two pronounced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

TYPE II : No dry season with a very pronounced maximum rain period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.

TYPE III : No very pronounced maximum rain period, with a dry season lasting only from one to three months, either during the period from December to February or from March to May. This type resembles Type I since it has a short dry season.

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

Compostela Valley is classified as 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>>.

AGRONOMIC REQUIREMENT OF CACAO PRODUCTION

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

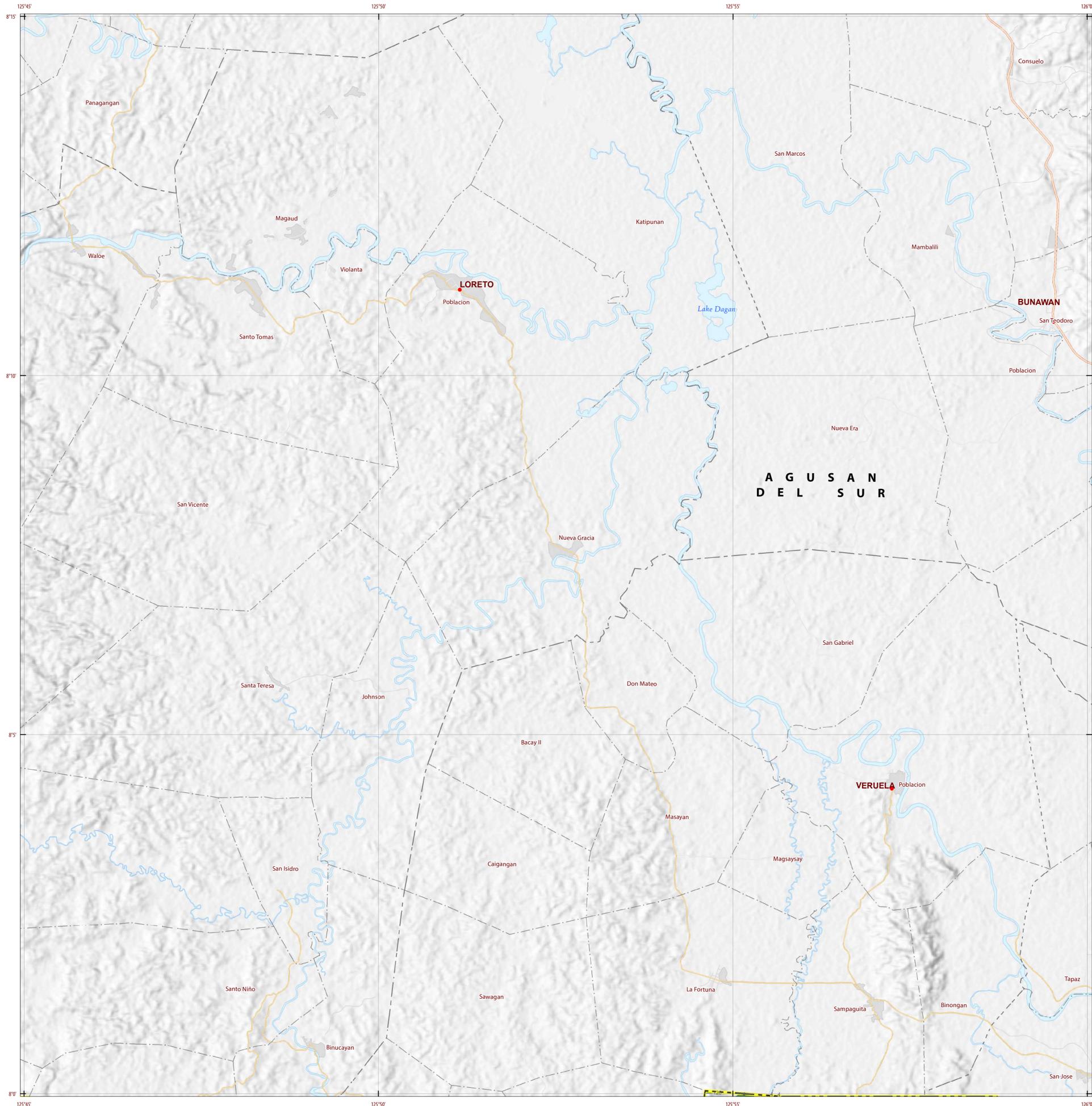
| | | | | |
|--|---|--|---|---|
| SLOPE (%) 0 - 3 - level to gently sloping 3 - 8 - gently sloping to undulating 8 - 18 - undulating to rolling 18 - 30 - rolling to moderately steep 30 - 50 - steep > 50 - very steep | SOIL DRAINAGE ED - excessively drained WD - well drained MWD - moderately well drained 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 - 1500m E13 - > 1500m | SOIL DRAINAGE D2 - Somewhat poorly drained to poorly drained D3 - Very poorly drained or excessively drained | SOIL DEPTH Sh2 - Moderately deep (50 - 100cm) Sh3 - Very shallow to shallow (< 50cm) | 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 |

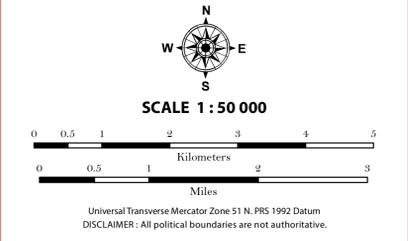
| CODE | LIMITATION | CODE | LIMITATION | CODE | LIMITATION | CODE | LIMITATION | CODE | LIMITATION | CODE | LIMITATION |
|------|----------------|------|---------------|------|-------------------|------|-------------------|------|-------------------|------|-------------------|
| 1 | E2-Sh2-Rc2 | 11 | F2-D2 | 21 | T2-E12 | 31 | T3-E3-Rc2 | 41 | T3-E3-E3-Sh3-Rc2 | 51 | T3-E13 |
| 2 | E12 | 12 | F3-D2 | 22 | T2-E12-E3 | 32 | T3-E3-Sh3-Rc2 | 42 | T3-E3-E3-Sh3-Rc3 | 52 | T3-E13-E3-Sh3-Rc3 |
| 3 | E12-E2-Sh2-Rc3 | 13 | Sh2 | 23 | T2-E12-E3-Rc2 | 33 | T3-E3-Sh3-Rc3 | 43 | T3 | 53 | T3-E13 |
| 4 | E12-E3-Sh2-Rc3 | 14 | Sh2-Rc2 | 24 | T2-E12-E3-Sh2-Rc2 | 34 | T3-E12 | 44 | T3-E3 | | |
| 5 | E12-Rc2 | 15 | T2 | 25 | T2-E12-E3-Sh2-Rc3 | 35 | T3-E12-E3 | 45 | T3-E3-Rc3 | | |
| 6 | E12-Sh2-Rc2 | 16 | T2-E3 | 26 | T2-E13 | 36 | T3-E12-E3-Rc2 | 46 | T3-E3-Sh3-Rc3 | | |
| 7 | E12-Sh2-Rc3 | 17 | T2-E3-Rc2 | 27 | T2-E13-E3-Sh2-Rc2 | 37 | T3-E12-E3-Sh2-Rc3 | 47 | T3-E12 | | |
| 8 | E13-E3-Sh2-Rc3 | 18 | T2-E3-Rc3 | 28 | T2-E13-E3-Sh2-Rc3 | 38 | T3-E12-E3-Sh3-Rc2 | 48 | T3-E12-E3 | | |
| 9 | E13-Sh2-Rc2 | 19 | T2-E3-Sh2-Rc2 | 29 | T3 | 39 | T3-E12-E3-Sh3-Rc3 | 49 | T3-E12-E3-Rc3 | | |
| 10 | E13-Sh2-Rc3 | 20 | T2-E3-Sh2-Rc3 | 30 | T3-E13 | 40 | T3-E13 | 50 | T3-E12-E3-Sh3-Rc3 | | |

| CODE | LANDUSE | CODE | LANDUSE |
|------|--------------------|------|-------------------|
| 3 | Upland rice | 126 | Grassland |
| 4 | Corn | 127 | Pasture |
| 81 | Coffee | 134 | Shrubs, unmanaged |
| 82 | Cacao | 137 | Rubber (T) |
| 83 | Citrus, calamansi | 139 | Falcata |
| 85 | Mango | | |
| 91 | Banana | | |
| 105 | Fruit trees, mixed | | |
| 116 | Coconut | | |
| 119 | Oil palm | | |



LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



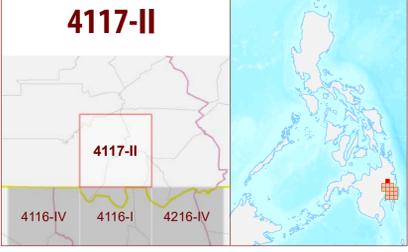
LEGEND

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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

- 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

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).

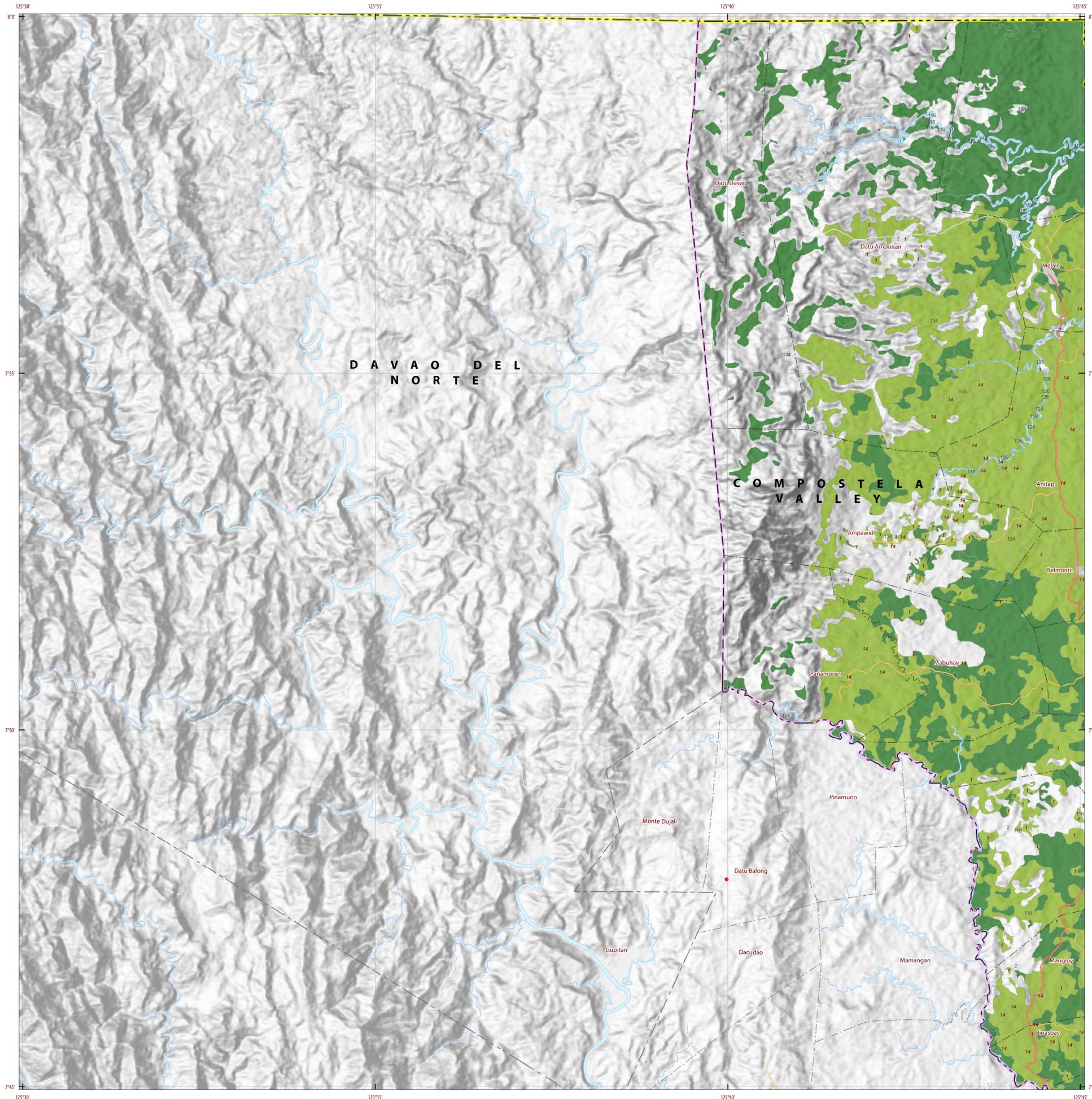
Project Leader : BERNARDO B. PASCUA
GIS and Cartography : IRWIN K. SAMALCA

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: Local Government Unit (LGU) of covered provinces and municipalities

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LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



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

LEGEND

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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 | PLACES |
| Secondary | Municipality | ★ Capital City / City |
| Tertiary | Barangay | ● Capital Town / Town |
| LAND USE | | |
| Built-up | Fishpond | Mangrove |

ADJOINING SHEETS

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MISCELLANEOUS INFORMATION

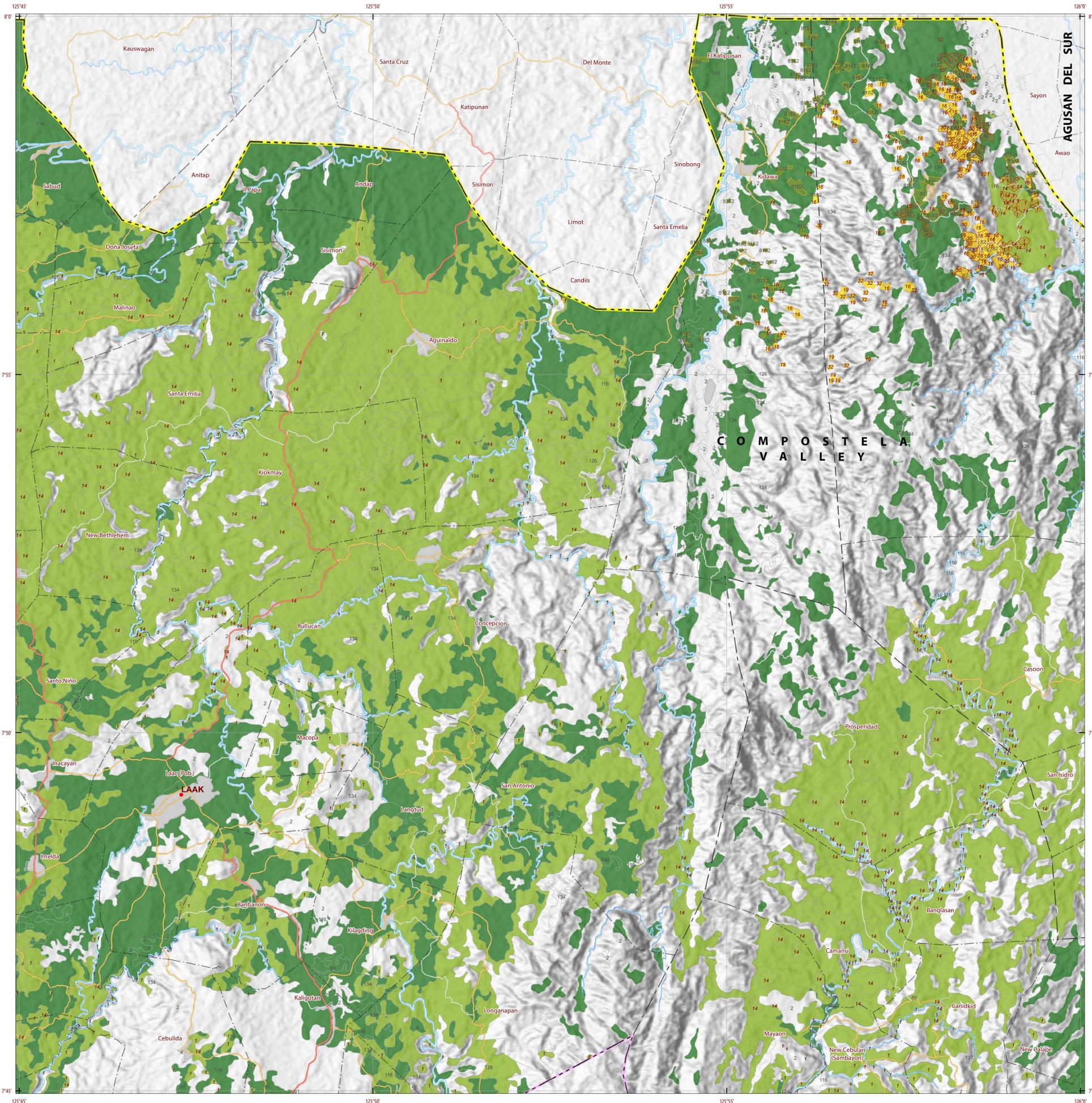
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ASSESSMENT OF STRATEGIC PRODUCTION AREAS**

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OTHER SIGNS

- NGP Areas
- Cacao
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- Land use

CONVENTIONAL SIGNS

| ROADS | BOUNDARY | HYDROLOGY |
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LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

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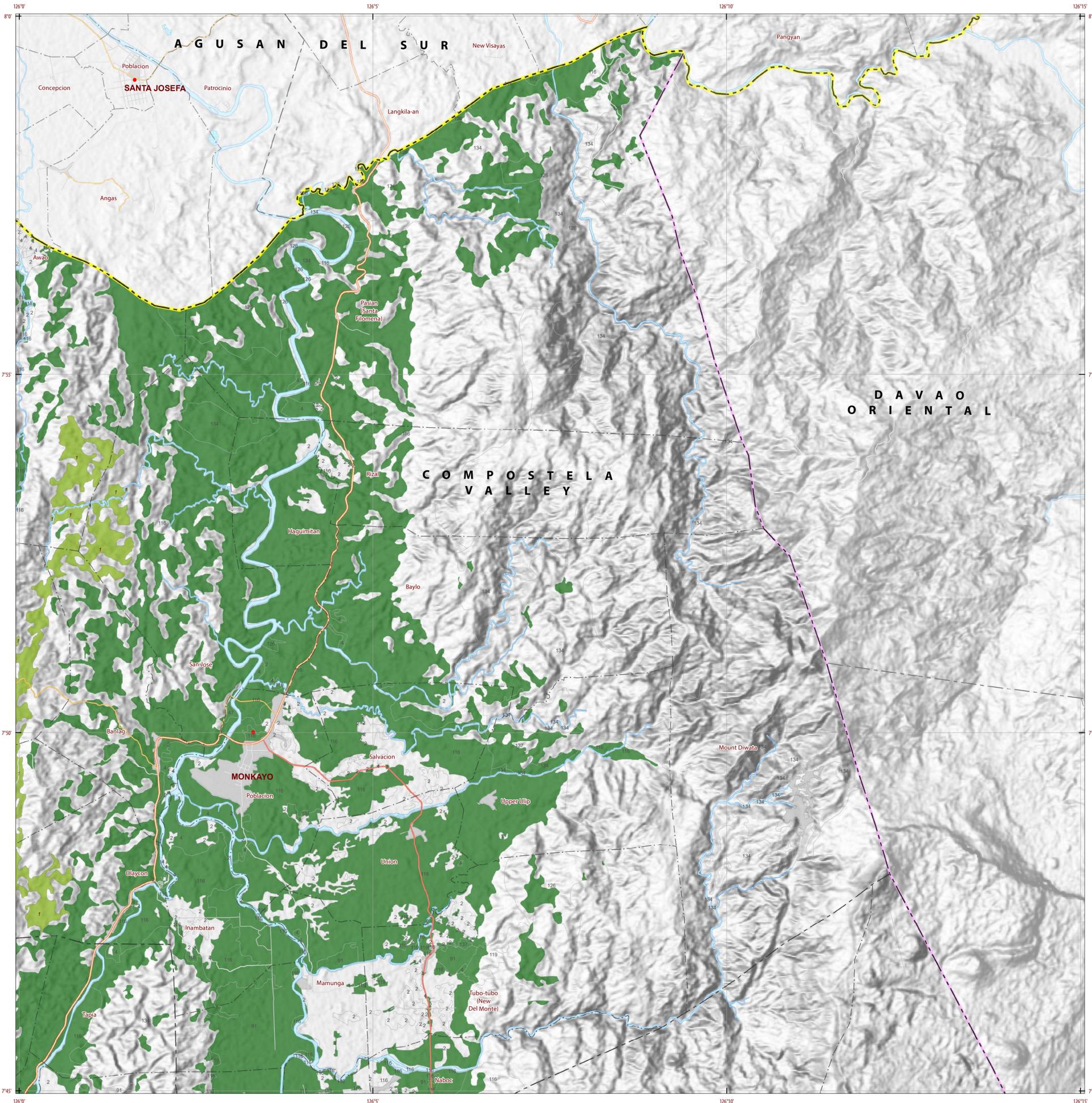
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|------------|--------------|-----------------------|
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LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

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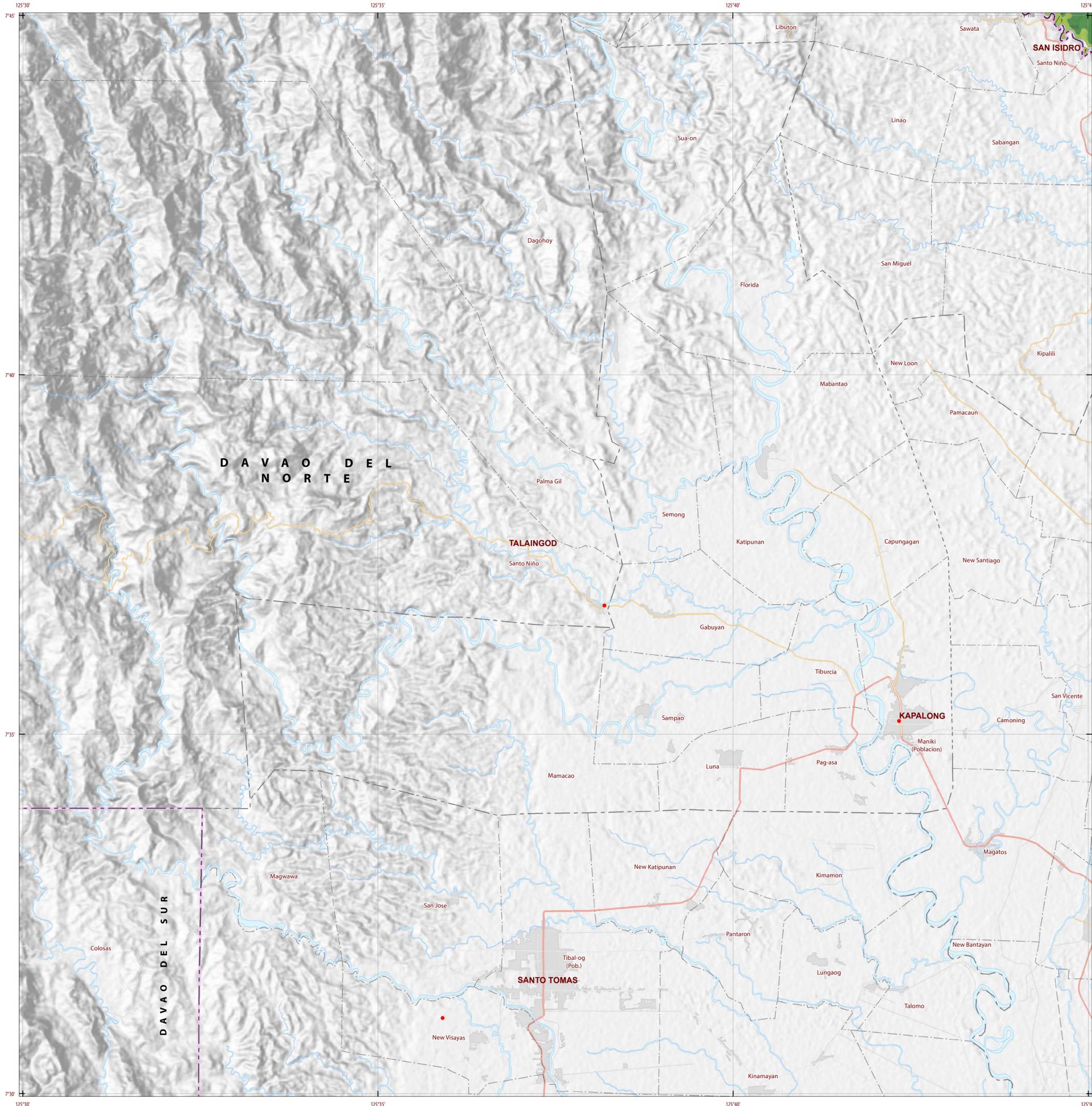
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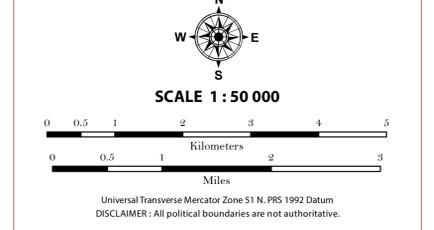
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LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



LEGEND

SUITABILITY CLASSES

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

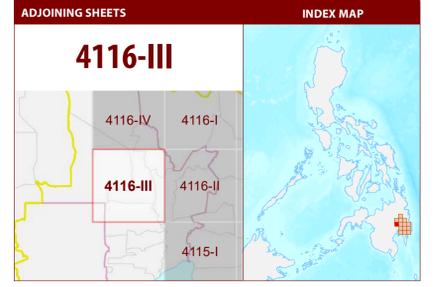
- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

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

LAND USE

- Built-up
- Fishpond
- Mangrove



MISCELLANEOUS INFORMATION

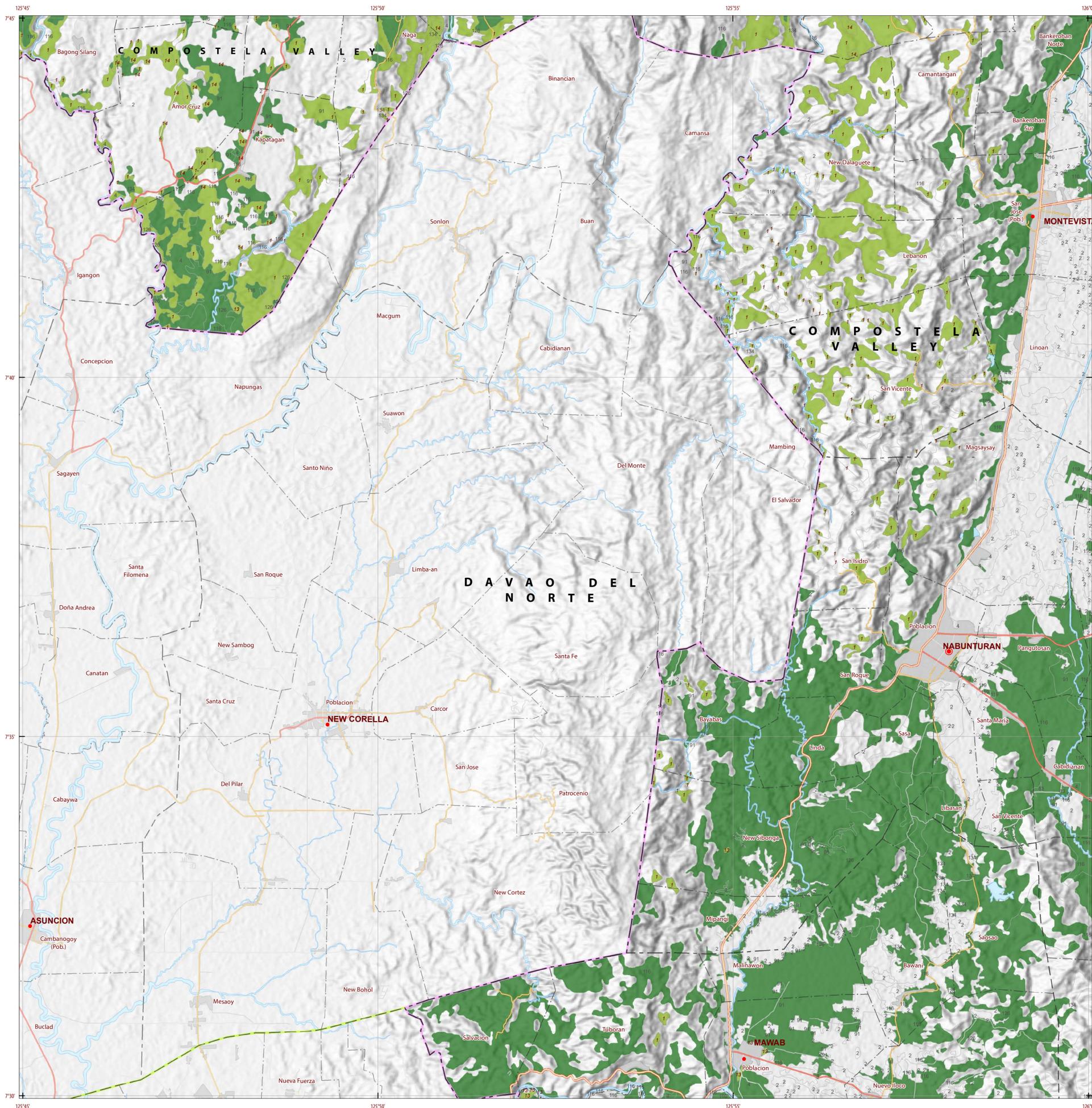
SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from 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)
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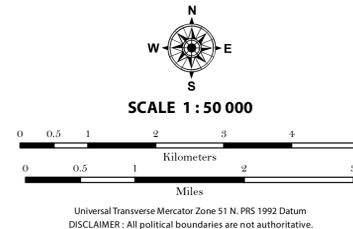
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LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY
ASSESSMENT OF STRATEGIC PRODUCTION AREAS



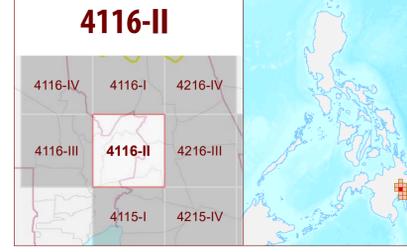
LEGEND

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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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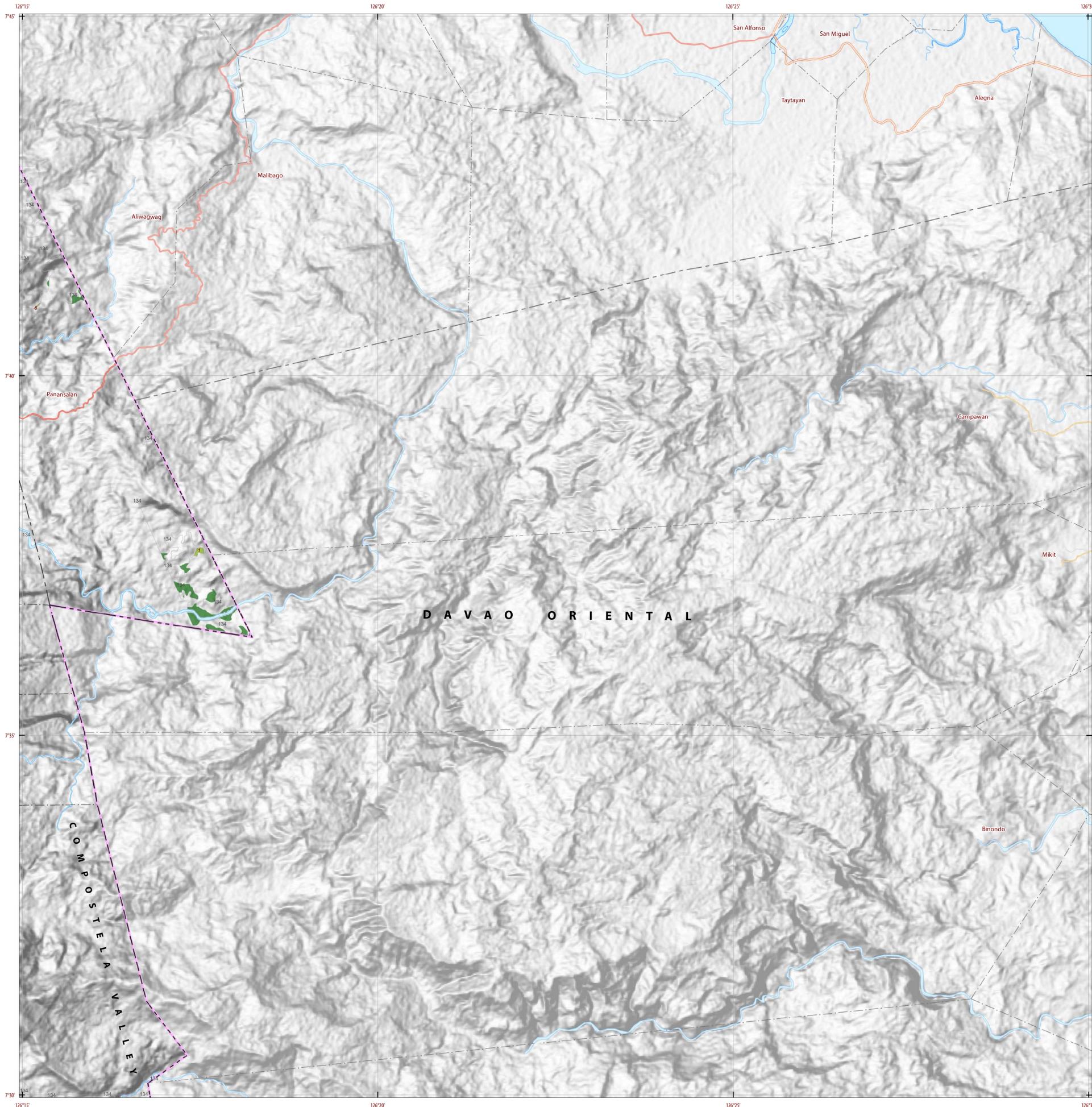
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LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

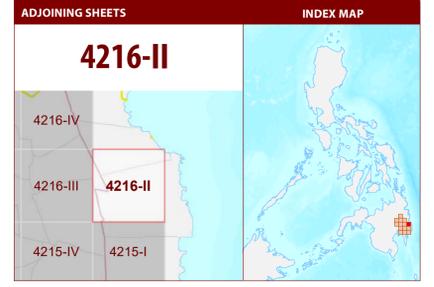
0 0.5 1 2 3
Miles

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

LEGEND

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

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



MISCELLANEOUS INFORMATION

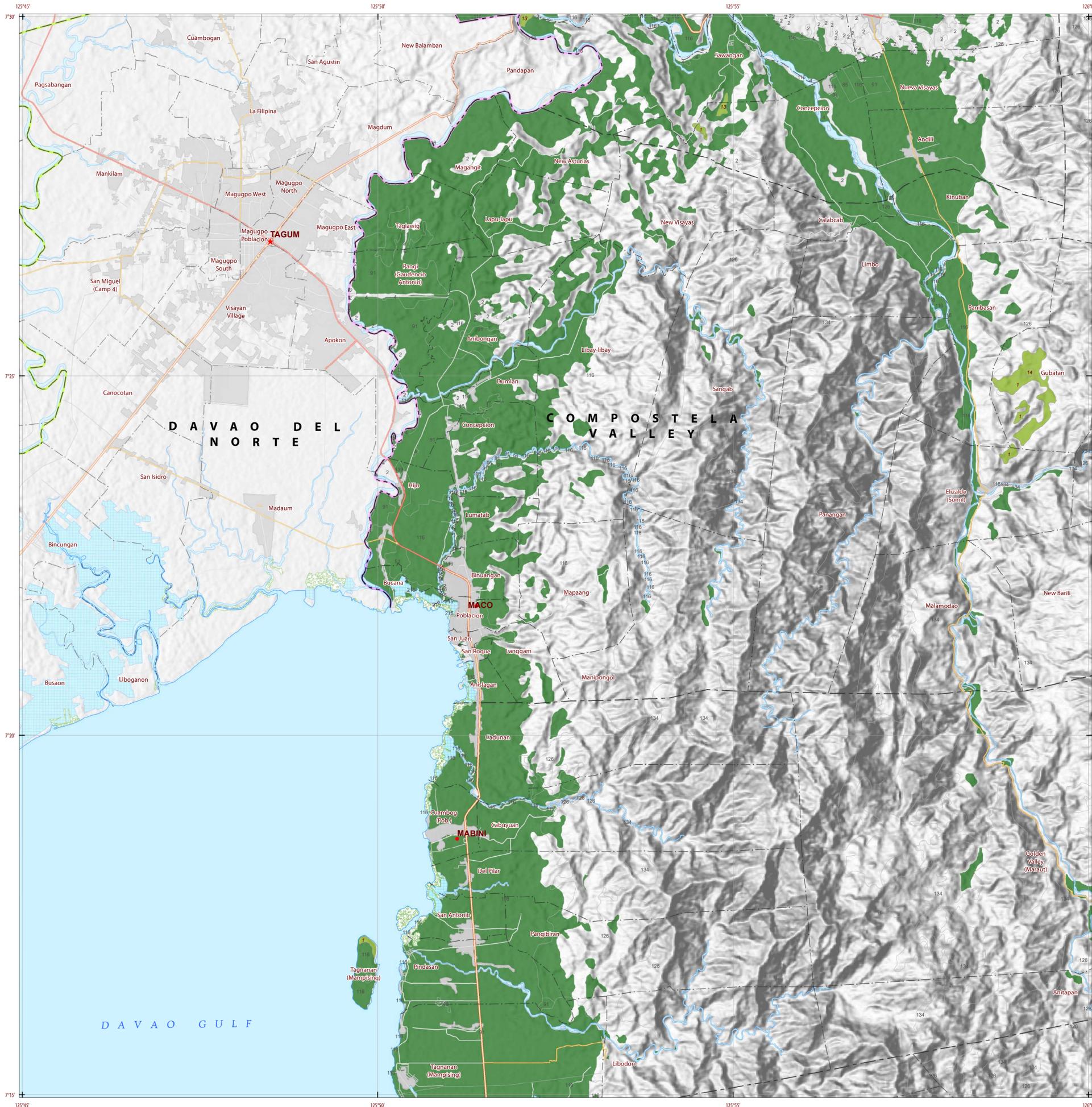
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LAND SUITABILITY MAP CACAO

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

Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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LEGEND

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OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

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

LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

INDEX MAP

4115-I

MISCELLANEOUS INFORMATION

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

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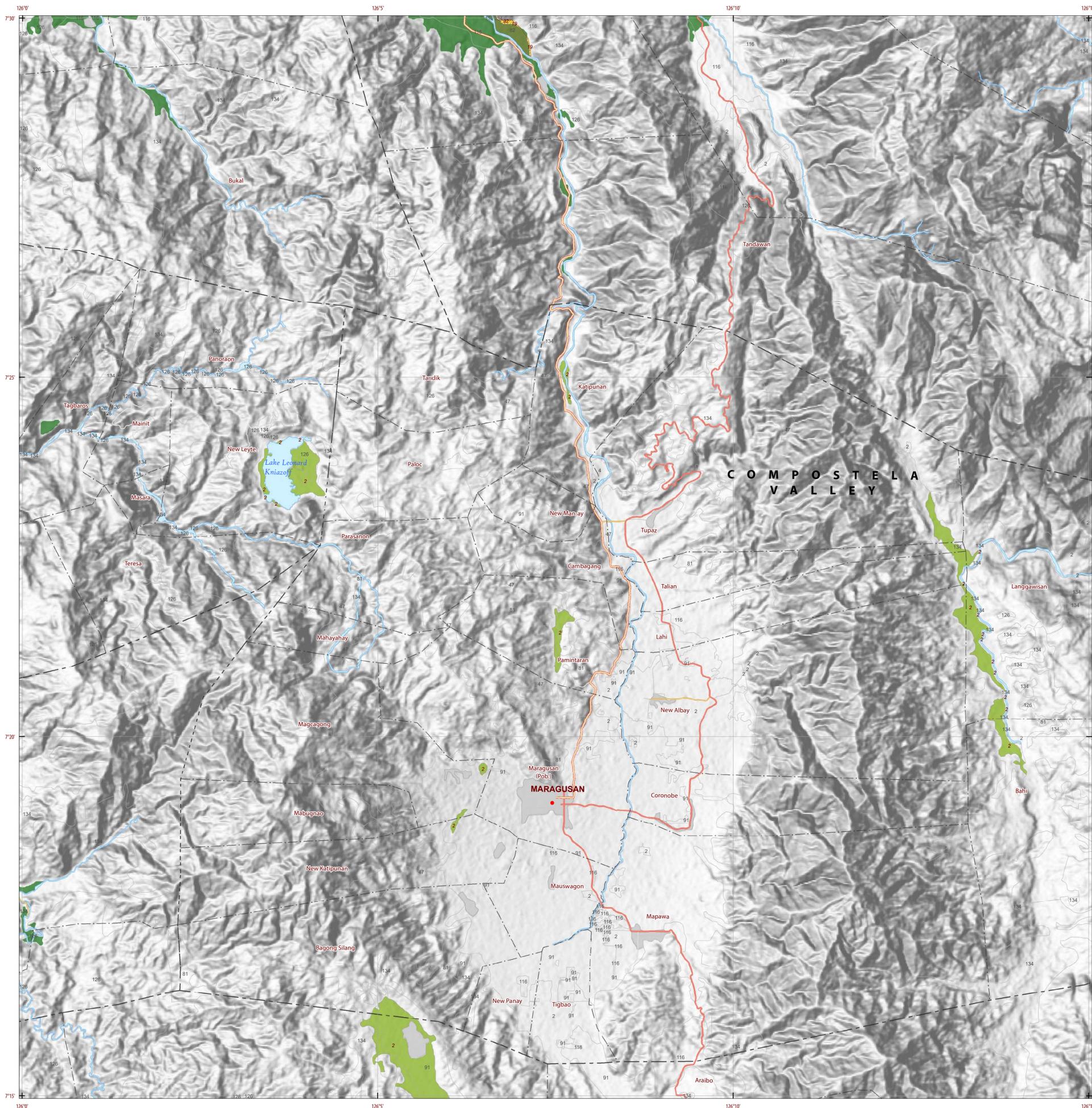
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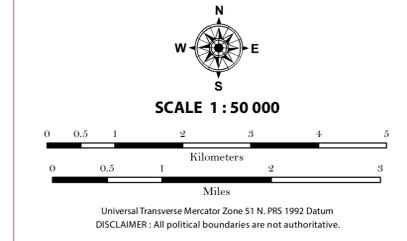
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PROVINCE OF COMPOSTELA VALLEY Sheet 9 of 14 Sheet No. 4115-I



LAND SUITABILITY MAP CACAO

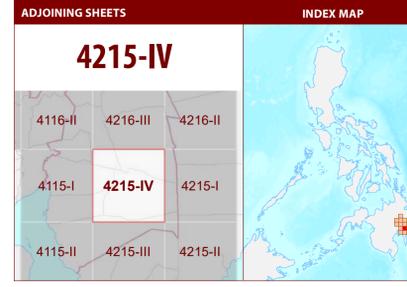
LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



LEGEND

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

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



MISCELLANEOUS INFORMATION

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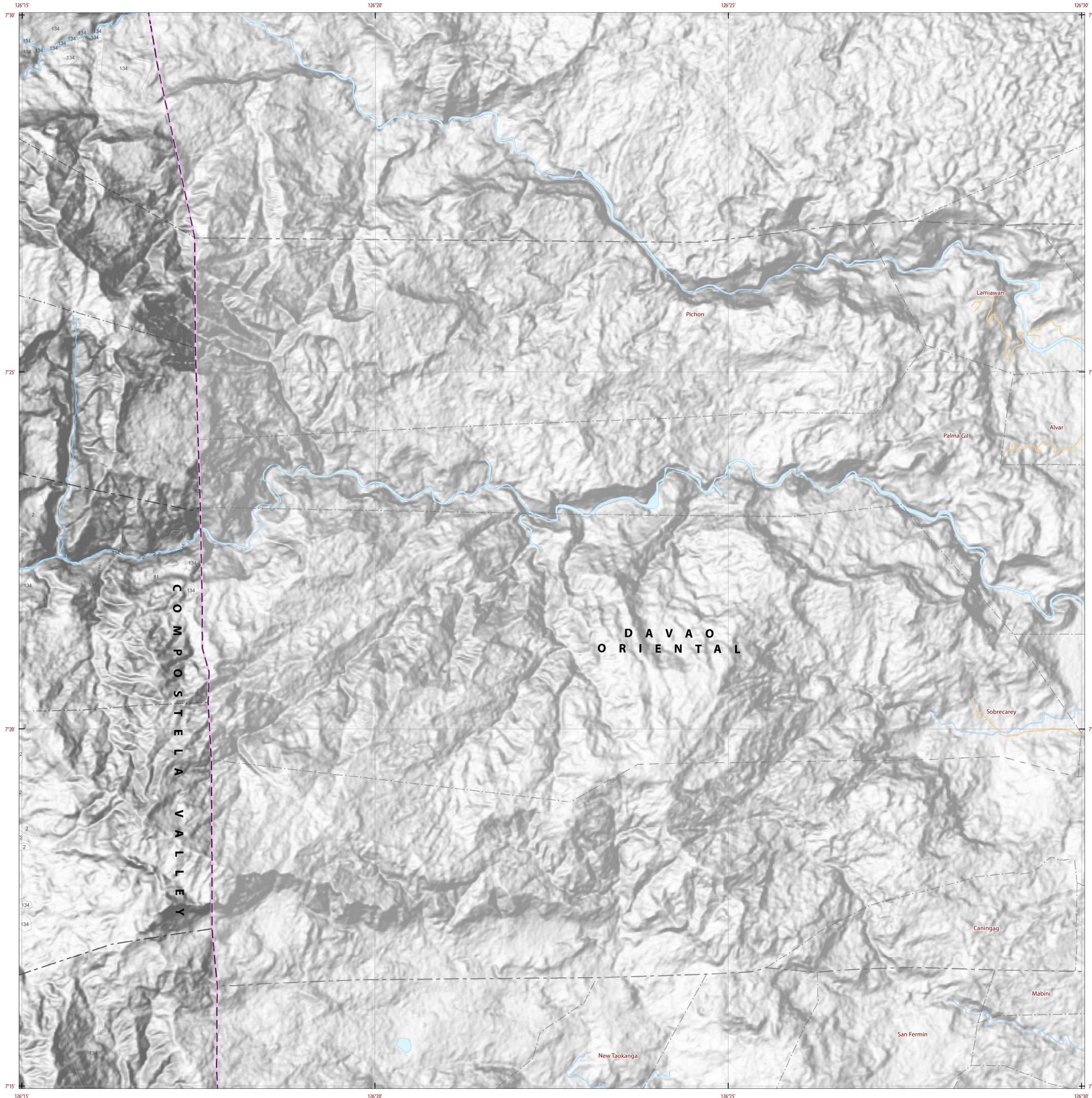
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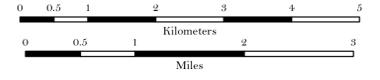


LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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LEGEND

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- Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

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

ADJOINING SHEETS

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4215-I

MISCELLANEOUS INFORMATION

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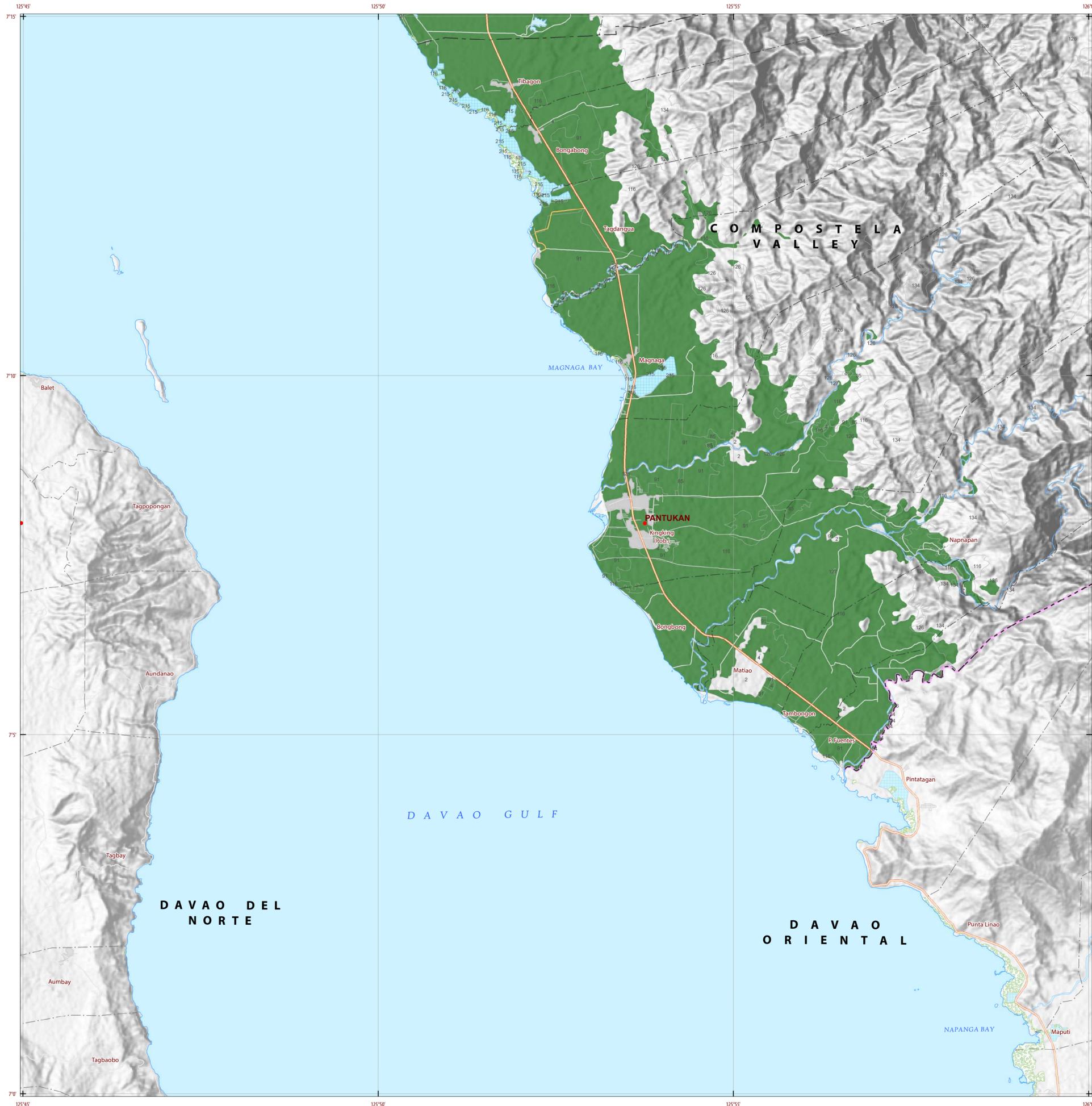
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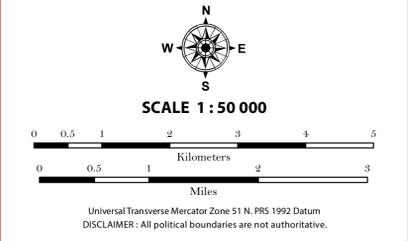
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LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



LEGEND

SUITABILITY CLASSES

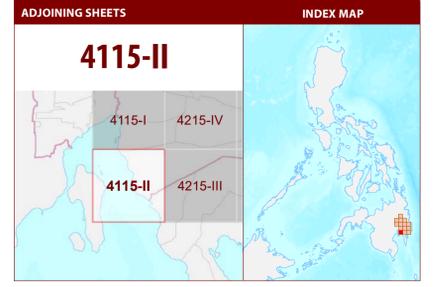
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OTHER SIGNS

- NGP Areas
- Cacao
- Land limitation
- Land use

CONVENTIONAL SIGNS

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



MISCELLANEOUS INFORMATION

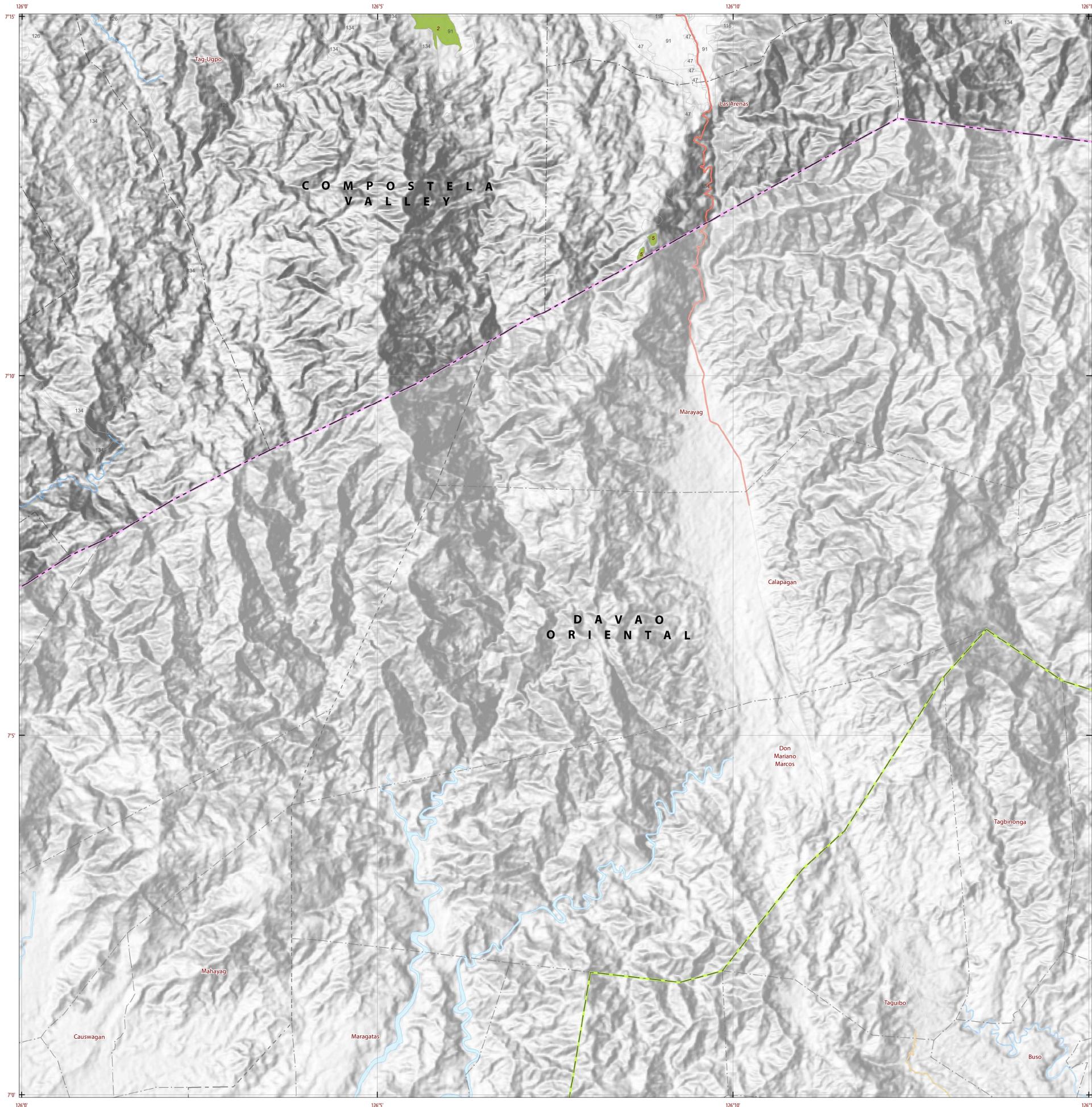
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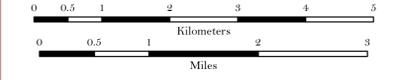


LAND SUITABILITY MAP CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



SCALE 1 : 50 000

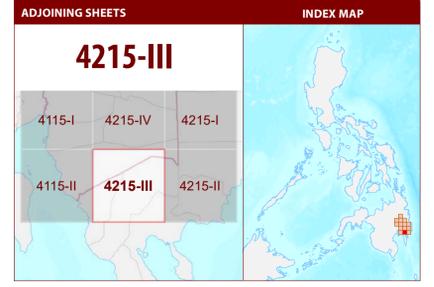


Universal Transverse Mercator Zone 51 N, PRS 1992 Datum
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LEGEND

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

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



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: Local Government Unit (LGU) of covered provinces and municipalities

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REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
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@yahoo.com



LAND SUITABILITY MAP CACAO

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

- 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 | PLACES |
| Secondary | Municipality | ★ Capital City / City |
| Tertiary | Barangay | ● Capital Town / Town |

LAND USE

- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

INDEX MAP

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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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