LAND SUITABILITY MAP

CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

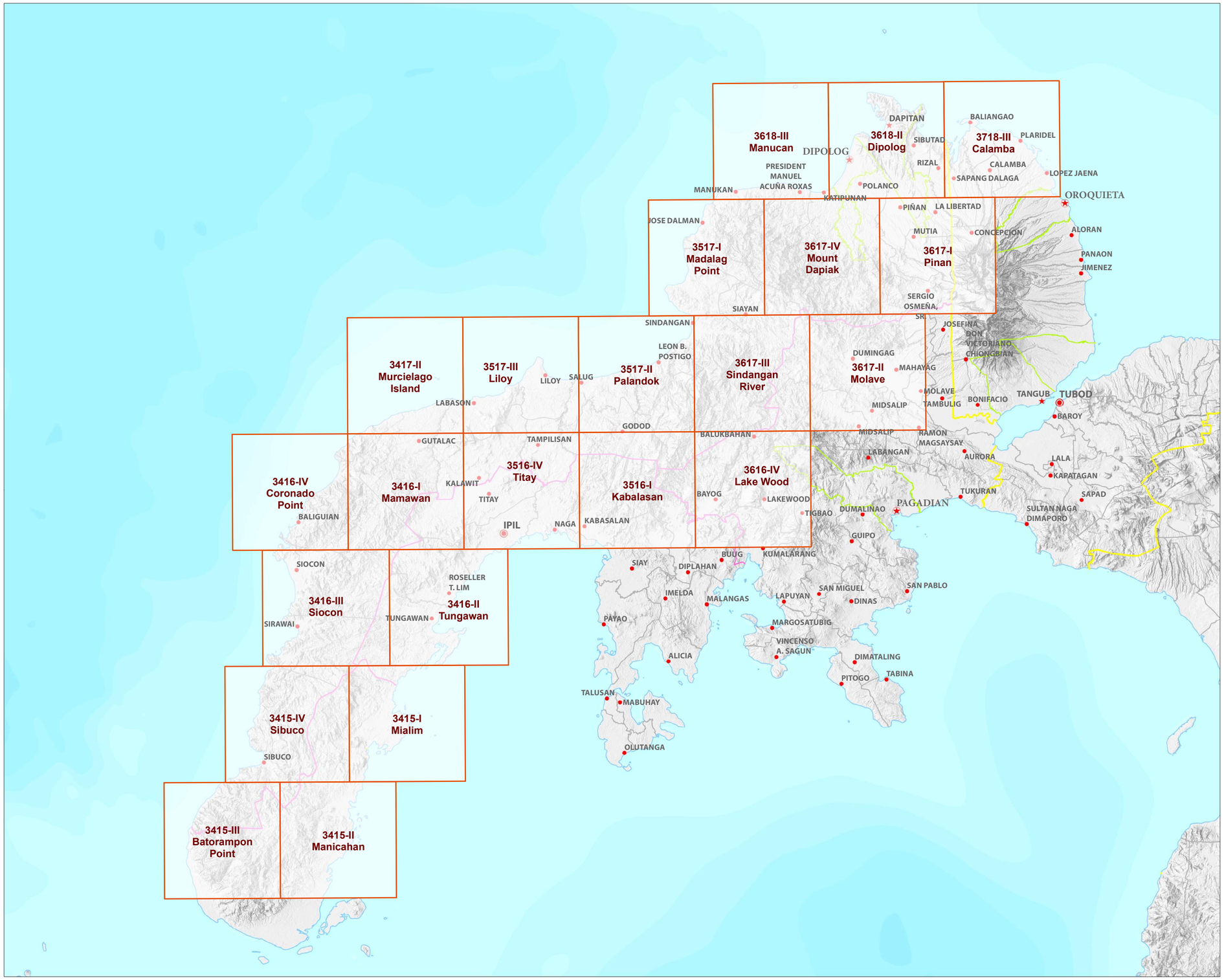
PROVINCE OF ZAMBOANGA DEL NORTE

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*

MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF ZAMBOANGA DEL NORTE



LEGEND

Places

- Capital City
- City
- Capital Town
- Town

Administrative Boundary

- Regional
- Provincial
- City
- Municipal

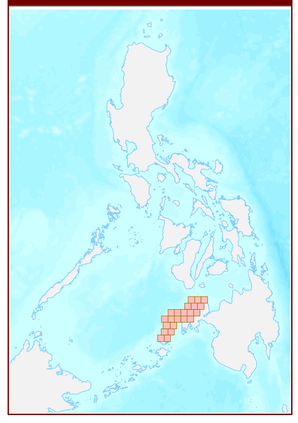
Map Index

- Index grid

Topographic Relief

Bathymetry

LOCATION MAP



MISCELLANEOUS INFORMATION

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

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

Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

REPUBLIC OF THE PHILIPPINES
DEPARTMENT OF AGRICULTURE
BUREAU OF SOILS AND WATER MANAGEMENT
SRDC Bldg., Elliptical Road Cor. Visayas Avenue,
Diliman, Quezon City 1101 Philippines
Tel/Fax No.: (+632) 332-9534 E-mail: *bswmclientcenter@yahoo.com*

LAND SUITABILITY MAP FOR CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

ZAMBOANGA DEL NORTE, REGION IX

EXTENT OF SUITABILITY FOR CASSAVA PRODUCTION BY MUNICIPALITY

MUNICIPALITY	EXISTING CASSAVA (Ha)			TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)						CONFLICT RESOLUTION AREA (Ha)						TOTAL POTENTIAL EXPANSION AREA (Ha)
					Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Paddy rice, non-irrigated		Other crops		
	S1	S2	S3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	
BACUNGAN	-	-	-	-	310	2,208	-	55	41	870	73	87	-	-	-	-	3,645
BALIGUIAN	-	-	-	-	404	1,659	37	251	31	194	43	75	-	-	-	-	2,694
DAPITAN CITY	-	-	-	-	3,449	4,532	50	613	1	132	40	29	-	-	-	-	8,846
DIPOLOG CITY	-	-	-	-	2,612	3,094	46	98	25	58	660	261	-	-	-	-	6,853
GODOD	-	-	-	-	581	4,220	395	2,943	126	836	111	280	-	-	-	-	9,492
GUTALAC	-	-	-	-	180	11,144	4	88	5	1,996	-	96	-	-	-	-	13,514
JOSE DALMAN	-	-	-	-	544	2,708	-	142	49	723	95	464	-	-	-	-	4,725
KALAWIT	-	-	-	-	495	10,530	-	31	61	1,168	96	2,639	-	-	-	-	15,020
KATIPUNAN	-	-	-	-	792	4,369	147	1,210	14	355	215	174	-	-	-	-	7,275
LA LIBERTAD	-	-	-	-	1,098	2,869	-	-	-	92	133	51	-	-	-	-	4,242
LABASON	-	-	-	-	231	5,029	-	19	2	1,700	-	136	-	-	-	-	7,117
LILOY	-	-	-	-	2,135	2,898	-	-	103	208	2,517	2,384	-	-	-	-	10,245
MANUKAN	-	-	-	-	774	2,365	-	81	119	718	185	172	-	-	-	-	4,414
MUTIA	-	-	-	-	478	3,342	-	15	82	503	-	46	-	-	-	-	4,467
PIÑAN	-	-	-	-	4,141	4,671	29	155	500	212	98	58	-	-	-	-	9,863
POLANCO	-	-	-	-	5,269	3,508	30	231	448	349	1,211	540	-	-	-	3	11,589
PRES. MANUEL A. ROXAS	-	-	-	-	163	443	-	8	15	211	784	2,875	-	-	-	-	4,499
RIZAL	-	-	-	-	1,254	2,852	-	-	34	54	42	41	-	-	-	-	4,277
SALUG	-	-	-	-	1,492	5,816	15	252	210	918	266	534	-	-	-	-	9,503
SERGIO OSMEÑA SR.	-	-	-	-	408	3,518	62	111	132	1,024	83	60	-	-	-	-	5,397
SIAYAN	-	-	-	-	144	1,322	19	485	351	5,394	168	227	-	-	-	-	8,110
SIBUCO	-	-	-	-	258	3,078	60	742	746	3,456	18	107	-	-	-	-	8,465
SIBUTAD	-	-	-	-	1,937	973	22	119	19	103	49	44	-	-	-	-	3,267
SINDANGAN	-	-	-	-	1,181	4,364	88	776	287	3,574	1,356	1,042	-	-	-	-	12,669
SIOCON	-	-	-	-	1,214	3,868	105	390	395	1,085	509	314	-	-	-	-	7,880
SIRAWAI	-	-	-	-	581	4,235	21	368	17	722	233	249	-	-	-	-	6,425
TAMPILISAN	-	-	-	-	147	6,072	-	38	55	395	250	3,045	-	-	-	-	10,001
TOTAL	-	-	-	-	32,272	105,688	1,129	9,221	3,868	27,048	9,237	16,027	-	-	-	-	**204,490**

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

AGRONOMIC REQUIREMENT OF CASSAVA 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
Cassava	S1	<8	>50	FSL, L, SiL, CL, SiCL, SCL, SC, SiC, C	WD,MWD	5.6 -7.2	high	none-slight	none-slight	none-few	<500	1000-2000	I,II, III, IV
	S2	8 - 18	30 - 50	SL, HC	SPD, PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1500	2001-4500	II
	S3	18 - 30	<30	S, LS, CSL	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
El2 - 500 - 1000m or 2000 - 2500m
El3 - < 500m or > 2500m

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

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

SOIL TEXTURE
Tc - Coarse texture

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

ROCK OUTCROPS
Rc2 - Common
Rc3 - Many

SOIL EROSION
E2 - Moderate erosion
E3 - Severe erosion

FLOODING
F2 - Moderate seasonal flooding
F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	El2	*11*	T2-E2-Sh2-Rc2	*21*	T3-E3-Rc2	*31*	T3-El2-E3-Sh2-Rc3	*41*	T3-El2-E3
2	El2-E2-Rc3	*12*	T2-El2	*22*	T3-E3-Rc3	*32*	T3-El2-E3-Sh3-Rc2	*42*	T3-El2-E3-Sh3-Rc3
3	El2-E2-Sh2-Rc3	*13*	T2-El2-E3-Rc3	*23*	T3-E3-Sh2-Rc2	*33*	T3-El2-E3-Sh3-Rc3	*43*	T3-F3-D2
4	El2-Rc2	*14*	T2-El2-E3-Sh2-Rc3	*24*	T3-E3-Sh2-Rc3	*34*	T3-F2-D2	*44*	T3-El3
5	El2-Sh2-Rc2	*15*	T2-El2-Sh2-Rc2	*25*	T3-E3-Sh3-Rc2	*35*	T3-F3-D2	*45*	Tc
6	F2-D2	*16*	T2-El2-Sh2-Rc3	*26*	T3-E3-Sh3-Rc3	*36*	T3		
7	F3-D2	*17*	T2-F2-D2	*27*	T3-El2	*37*	T3-E3		
8	Sh2	*18*	T2-F3-D2	*28*	T3-El2-E3	*38*	T3-E3-Rc3		
9	Sh2-Rc2	*19*	T3	*29*	T3-El2-E3-Rc3	*39*	T3-E3-Sh3-Rc3		
10	T2	*20*	T3-E3	*30*	T3-El2-E3-Sh2-Rc2	*40*	T3-El2		

CODE	LANDUSE
4	Corn
81	Coffee
82	Cacao
115	Mixed crops
116	Coconut
126	Grassland
134	Shrubs, unmanaged
137	Rubber

SUITABILITY CLASSES:

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

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

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

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

CLIMATE TYPE

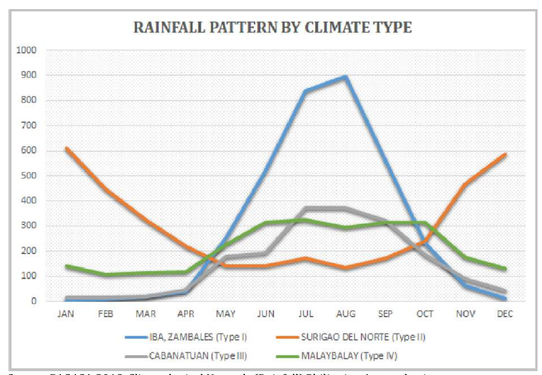
TYPE I : Two pronouced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

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

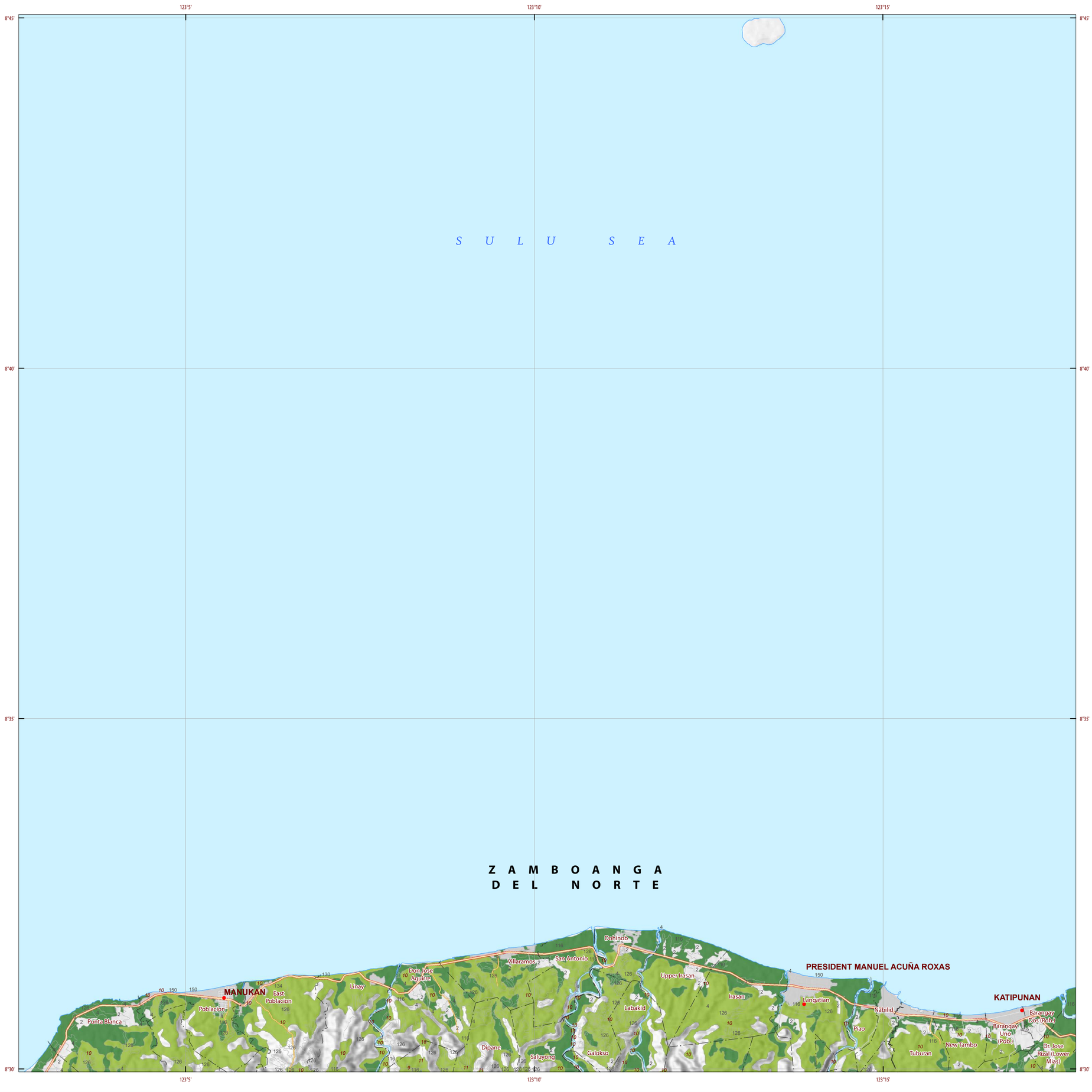
TYPE III : No very pronounced maximum rain period, with a dry season lasting only from one to three months, either during the period from December to February or from March to May. This type resembles Type I since it has a short dry season.

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

Northeastern part of Zamboaga Del Norte is classified as climatic Type IV and Northwestern part is Type III.



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



LAND SUITABILITY MAP
CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3618-III
3618-III 3618-II
3517-I 3617-IV 3617-I

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 : IRVIN K. SAMALCA

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

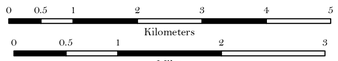
Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

SCALE 1 : 50 000



Universal Transverse Mercator Zone 51 N. PRS 1992 Datum

DISCLAIMER : All political boundaries are not authoritative.

LEGEND

SUITABILITY CLASSES

- S1 — **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 — **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 — **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 / 118 — 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

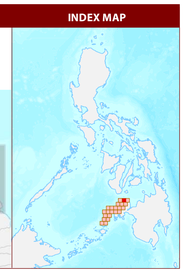
ADJOINING SHEETS

3618-II

3618-III | 3618-II | 3718-III

3517-I | 3617-IV | 3617-I

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3718-III

3618-II 3718-III 3617-IV 3617-I

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP
CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

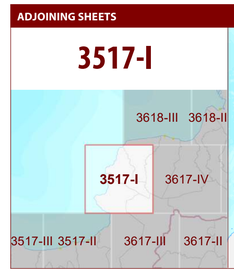
BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

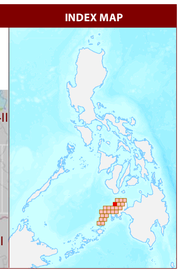
PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS



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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

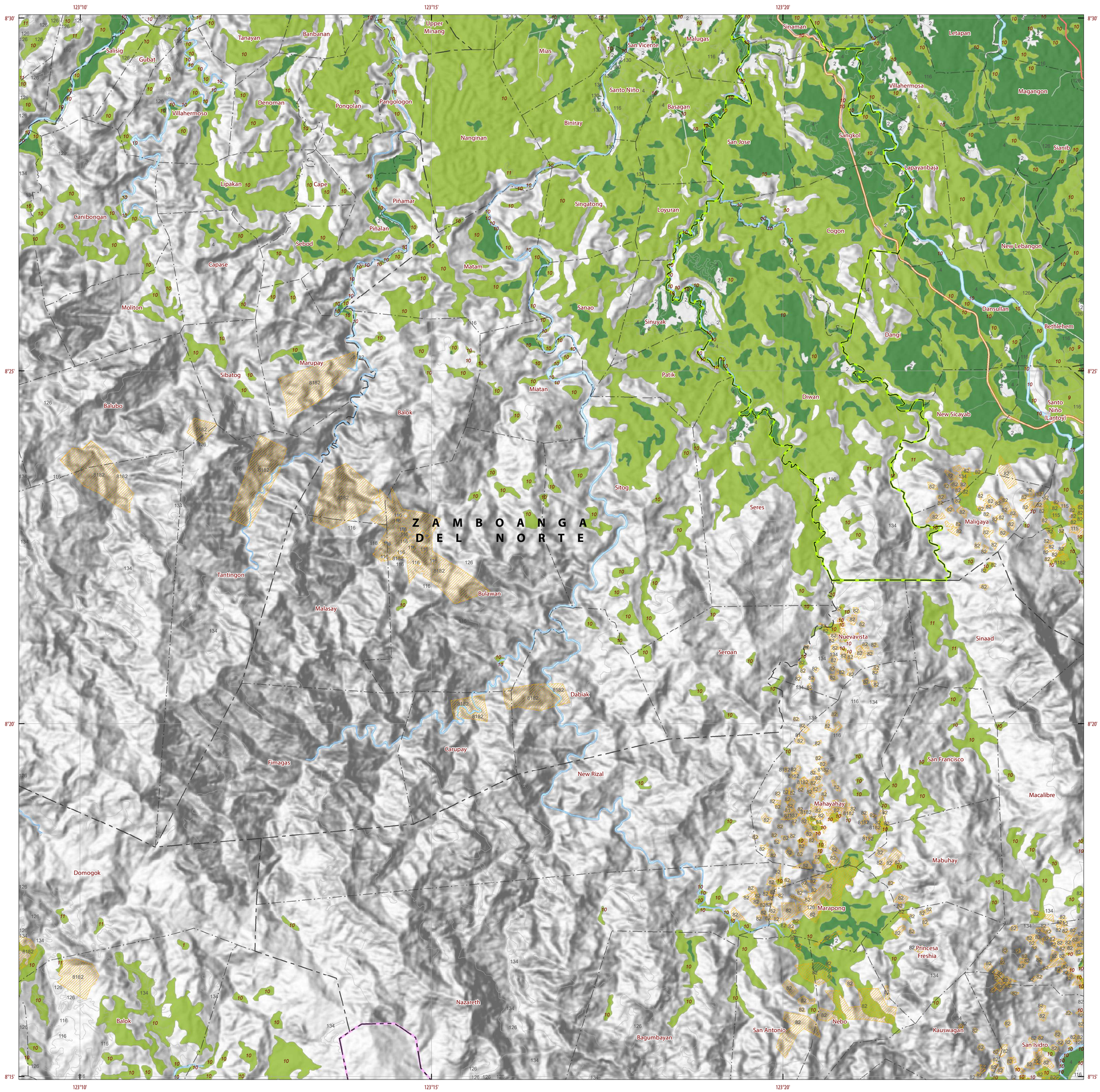
BSWM, 2019. *Land Suitability Map Series for Cassava of the PROVINCE OF ZAMBOANGA DEL NORTE (50,000 Scale)* . CC BY NC SA 4.0.

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*

3617-IV

PROVINCE OF ZAMBOANGA DEL NORTE

Mount Dapiak



DEPARTMENT OF AGRICULTURE 1898

DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL RESEARCH

DEPARTMENT OF AGRICULTURE 1898

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N W E S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 / 116 Land limitation / Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

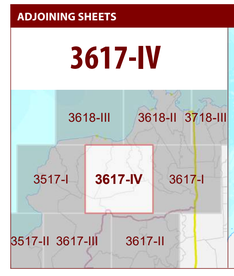
BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

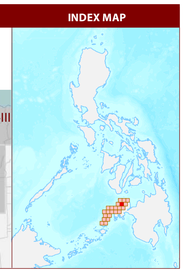
PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS



INDEX MAP



MISCELLANEOUS INFORMATION

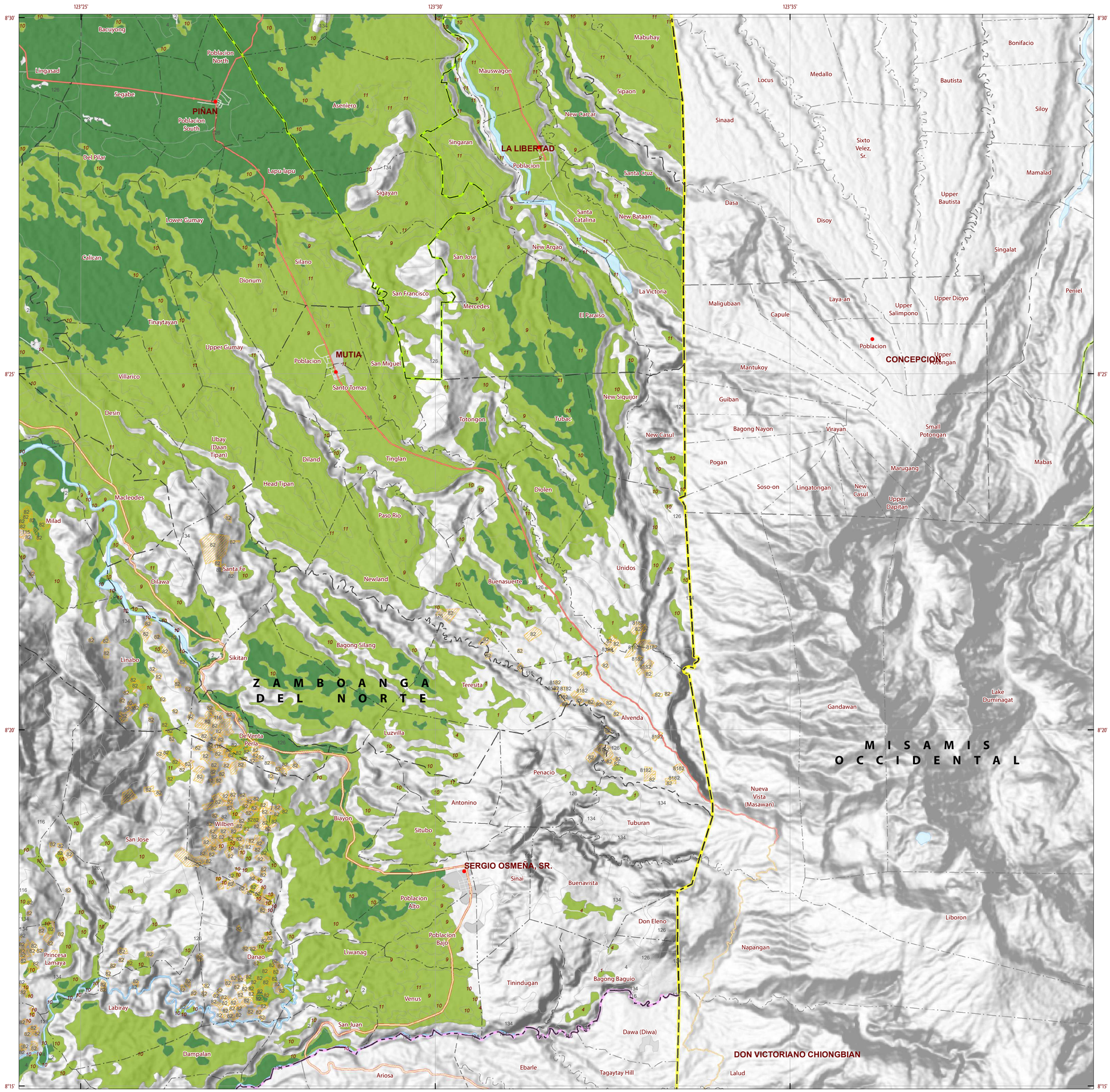
SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from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

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*



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
- 1 — Land limitation
- 118 — Land use

CONVENTIONAL SIGNS

ROADS
- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

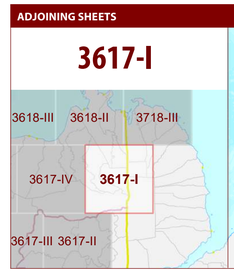
BOUNDARY
- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY
- Sea / Shoreline
- Lakes / Rivers

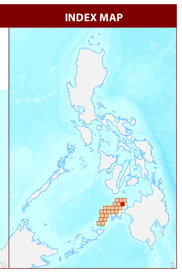
PLACES
- Capital City / City
- Capital Town / Town

LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS



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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

DEPARTMENT OF AGRICULTURE 1898

DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL RESEARCH

DEPARTMENT OF AGRICULTURE 1898

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

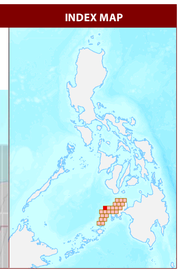
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3417-II

3417-II 3517-III
3416-IV 3416-I 3516-IV

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

DEPARTMENT OF AGRICULTURE 1898

DEPARTMENT OF AGRICULTURE BUREAU OF AGRICULTURAL RESEARCH

DEPARTMENT OF AGRICULTURE 1898

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 / 116 Land limitation / Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

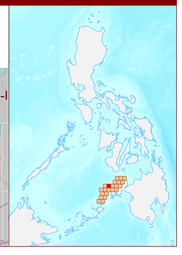
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3517-III

3517-I
3417-II | 3517-III | 3517-II
3416-I | 3516-IV | 3516-I

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3517-II

3517-I 3617-IV
3517-III 3517-II 3617-III
3516-IV 3516-I 3616-IV

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).

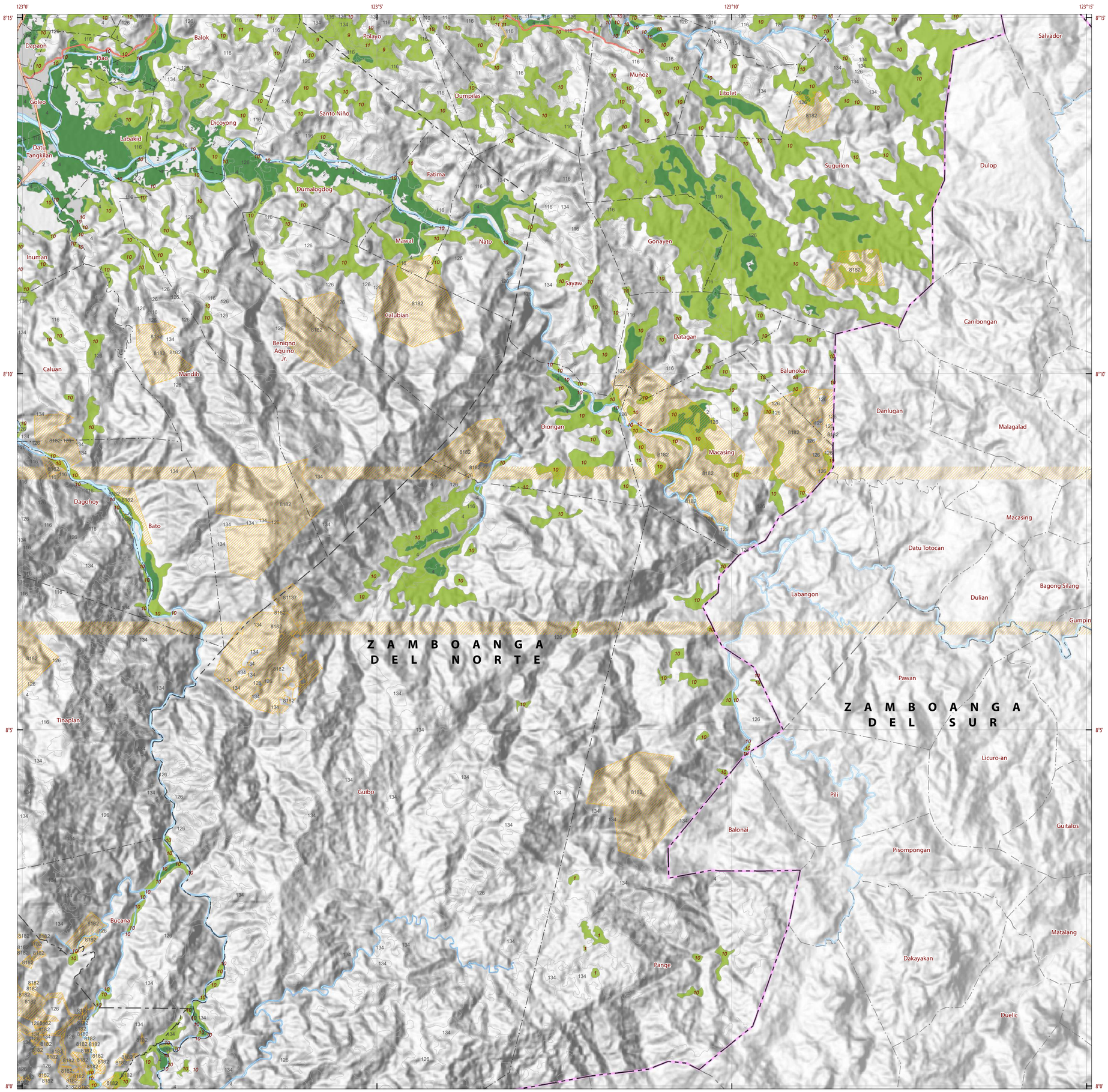
Project Leader : BERNARDO B. PASCUA
GIS and Cartography : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

PROVINCE OF ZAMBOANGA DEL NORTE



LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

- S1 **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 / 116 Land limitation / Land use

CONVENTIONAL SIGNS

ROADS
- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY
- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY
- Sea / Shoreline
- Lakes / Rivers

PLACES
- Capital City / City
- Capital Town / Town

LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3617-III

3517-I | 3617-IV | 3617-I
3517-II | 3617-III | 3617-II
3516-I | 3616-IV

INDEX MAP

MISCELLANEOUS INFORMATION

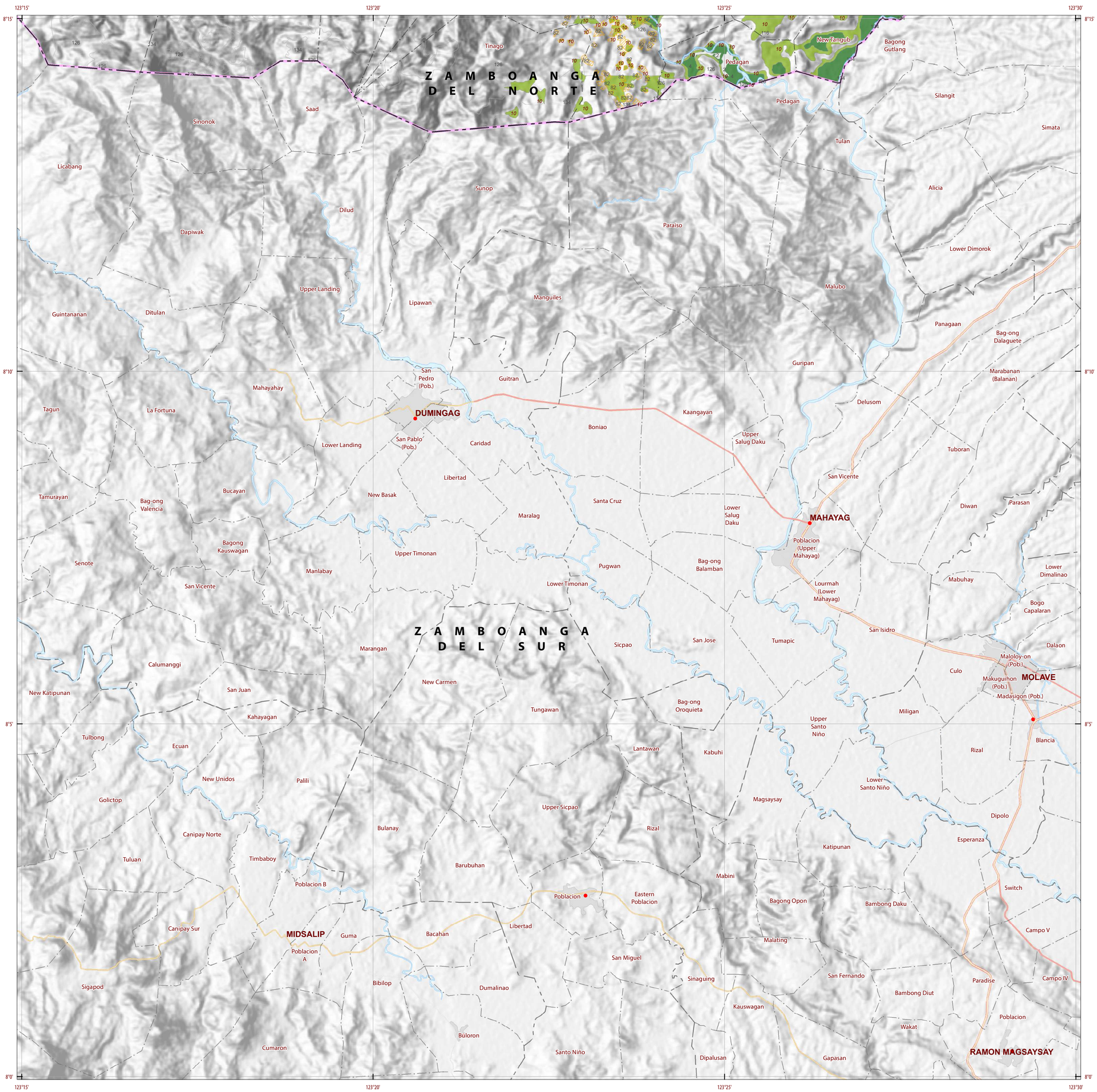
SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale. Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from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

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*



LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 / 116 Land limitation / Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

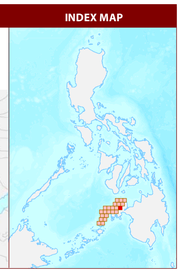
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3617-II

3517-I | 3617-IV | 3617-I
3617-III | 3617-II
3616-IV

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

- S1 — **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 — **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 — **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 — Land limitation
- 116 — Land use

CONVENTIONAL SIGNS

ROADS
- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY
- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY
- Sea / Shoreline
- Lakes / Rivers

PLACES
- Capital City / City
- Capital Town / Town

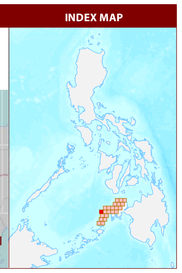
LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3416-IV

3417-II
3416-IV
3416-I
3416-III
3416-II

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 : IRVIN K. SAMALCA

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

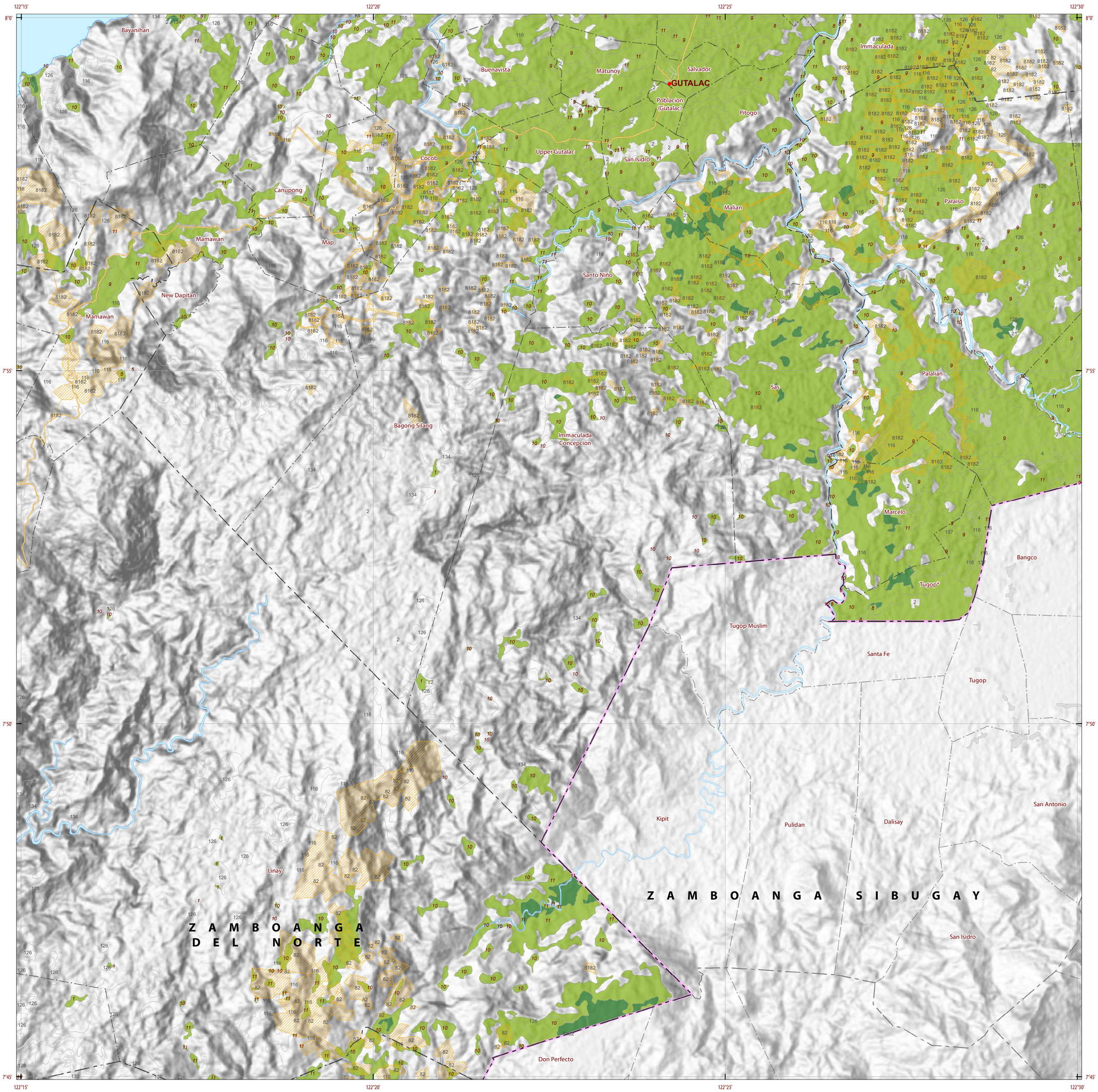
Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

3416-I

PROVINCE OF ZAMBOANGA DEL NORTE

Mamawan



LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

- S1 **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 / 116 Land limitation / Land use

CONVENTIONAL SIGNS

ROADS
- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY
- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY
- Sea / Shoreline
- Lakes / Rivers

PLACES
- Capital City / City
- Capital Town / Town

LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3416-I

3417-II | 3517-III
3416-IV | 3416-I | 3516-IV
3416-III | 3416-II

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N W E S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

- S1 **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 Land limitation
- 118 Land use

CONVENTIONAL SIGNS

ROADS
- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY
- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY
- Sea / Shoreline
- Lakes / Rivers

PLACES
- Capital City / City
- Capital Town / Town

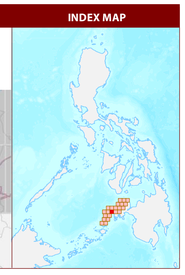
LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3516-IV

3417-II | 3517-III | 3517-II
3416-I | 3516-IV | 3516-I
3416-III | 3416-II

INDEX MAP



MISCELLANEOUS INFORMATION

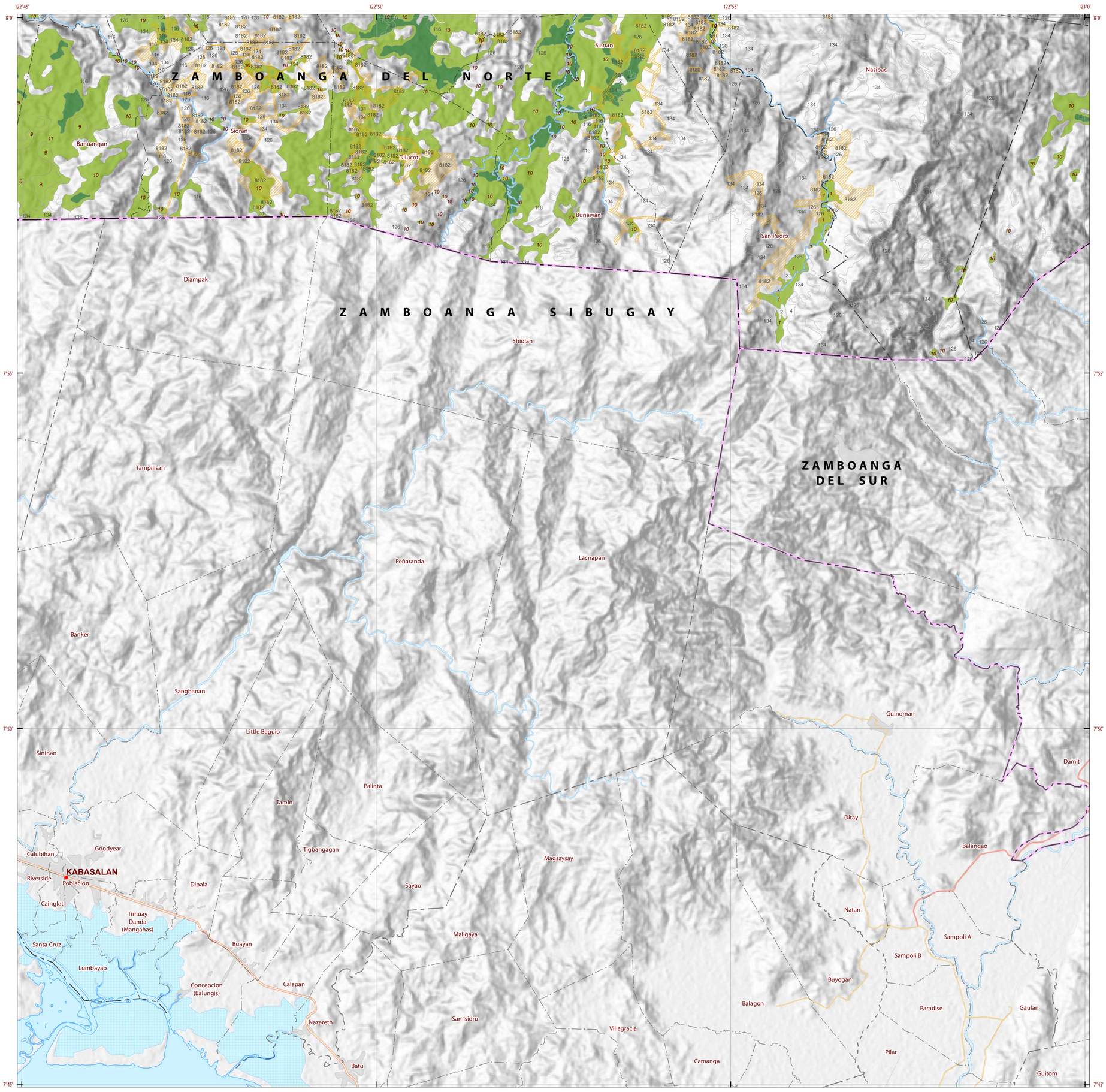
SOURCES OF INFORMATION : Topographic information taken from NAMRIA Topographic Map at 1:50,000 scale; Land resources information from the Agricultural Land Management and Evaluation Division (ALMED), Soils Survey Division (SSD) and Laboratory Services Division (LSD) of BSWM. Rice areas obtained from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

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*



LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

- S1 **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 Land limitation
- 118 Land use

CONVENTIONAL SIGNS

ROADS
- Expressway
- Trunk line
- Primary
- Secondary
- Tertiary

BOUNDARY
- Region
- Province
- District
- Municipality
- Barangay

HYDROLOGY
- Sea / Shoreline
- Lakes / Rivers

PLACES
- Capital City / City
- Capital Town / Town

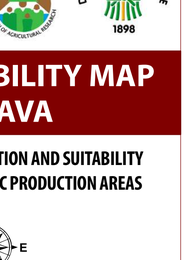
LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3516-I

3517-III | 3517-II | 3617-III
3516-IV | 3516-I | 3616-IV
3416-II

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 : IRVIN K. SAMALCA

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

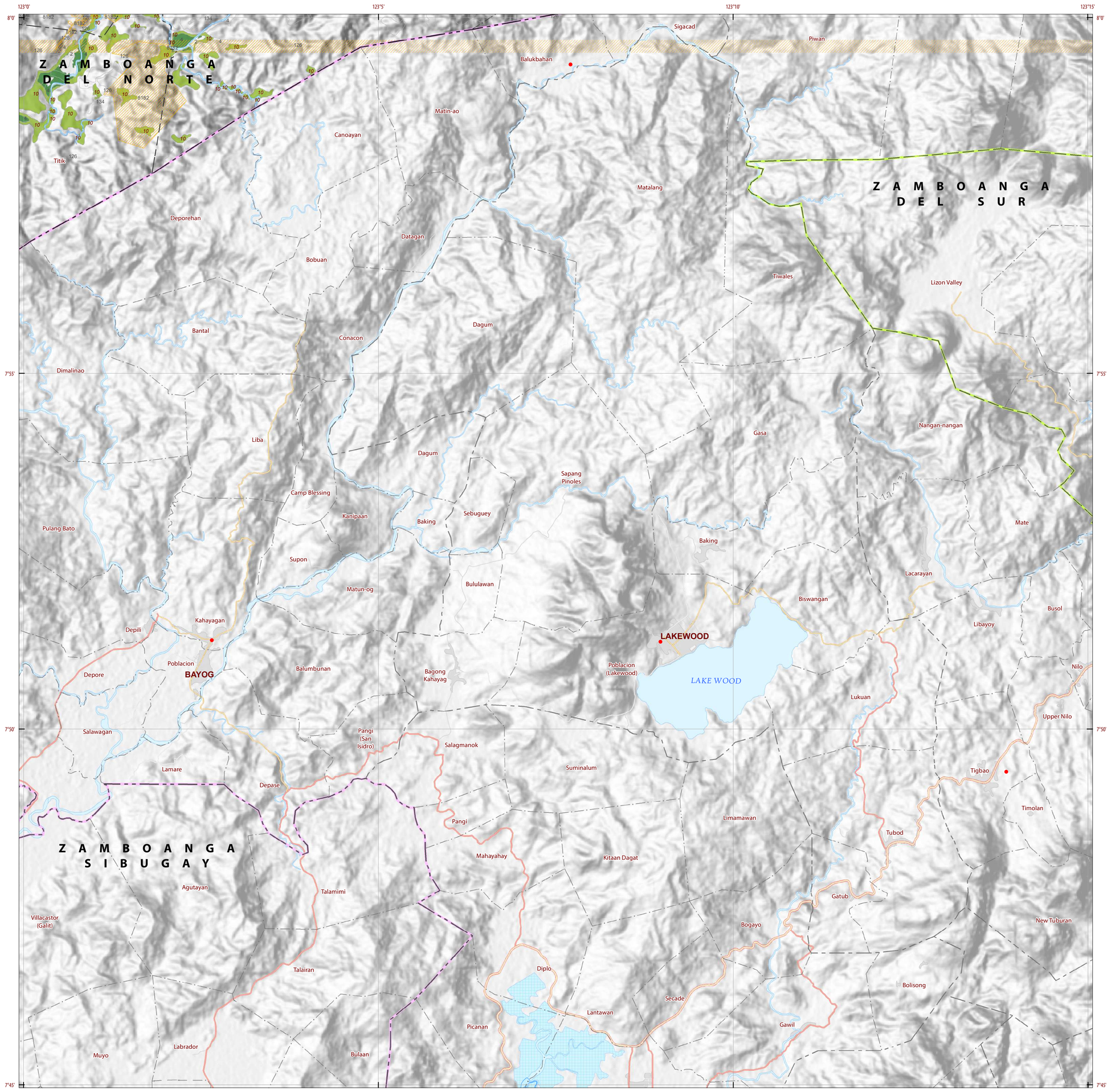
Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

3616-IV

PROVINCE OF ZAMBOANGA DEL NORTE

Lake Wood



LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
116 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

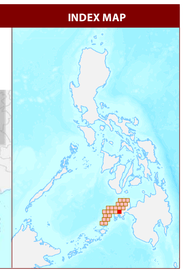
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3616-IV

3517-II | 3617-III | 3617-II
3516-I | 3616-IV

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3416-III
3416-IV
3416-I
3416-II
3415-IV
3415-I

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP
CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3416-II
3416-IV 3416-I 3516-IV 3516-I
3416-III 3416-II
3415-IV 3415-I

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

- S1 **Highly Suitable** - Land having no significant limitations to sustained application of a given use, or only minor limitations that will not significantly reduce productivity or benefits and will not raise inputs above an acceptable level.
- S2 **Moderately Suitable** - Land having limitations which in aggregate are moderately severe for sustained application of a given use; the limitations will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.
- S3 **Marginally Suitable** - Land having limitations which in aggregate are severe for sustained application of a given use and will so reduce productivity or benefits, or increase required inputs, that this expenditure will be only marginally justified.
- **Not Suitable/ Not Relevant**

OTHER SIGNS

- NGP Areas
- Cacao
- 1 / 118 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

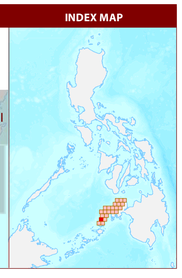
LAND USE
- Built-up
- Fishpond
- Mangrove

ADJOINING SHEETS

3415-IV

3416-III 3416-II
3415-IV 3415-I
3415-III 3415-II

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers

0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

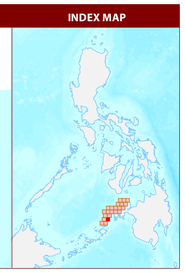
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3415-I

3416-III 3416-II
3415-IV 3415-I
3415-III 3415-II

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

PROVINCE OF ZAMBOANGA DEL NORTE

LAND SUITABILITY MAP
CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3415-III
3415-IV 3415-I
3415-III 3415-II

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*

3415-II

PROVINCE OF ZAMBOANGA DEL NORTE

Manicahan

LAND SUITABILITY MAP CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

N
W E
S

SCALE 1 : 50 000

0 0.5 1 2 3 4 5
Kilometers
0 0.5 1 2 3
Miles

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

LEGEND

SUITABILITY CLASSES

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

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

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

Not Suitable/ Not Relevant

OTHER SIGNS

NGP Areas
Cacao
1 Land limitation
118 Land use

CONVENTIONAL SIGNS

ROADS
Expressway
Trunk line
Primary
Secondary
Tertiary

BOUNDARY
Region
Province
District
Municipality
Barangay

HYDROLOGY
Sea / Shoreline
Lakes / Rivers

PLACES
Capital City / City
Capital Town / Town

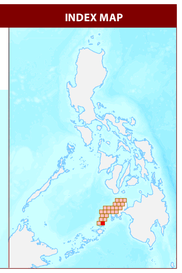
LAND USE
Built-up
Fishpond
Mangrove

ADJOINING SHEETS

3415-II

3415-IV 3415-I
3415-III 3415-II

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 : IRVIN K. SAMALCA

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

Map produced by the Geomatics and Soil Information Technology Division, Bureau of Soils and Water Management (BSWM).
Users noting errors or omissions in this publication are requested to inform the Bureau of Soils and Water Management.

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*