LAND SUITABILITY MAP

CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

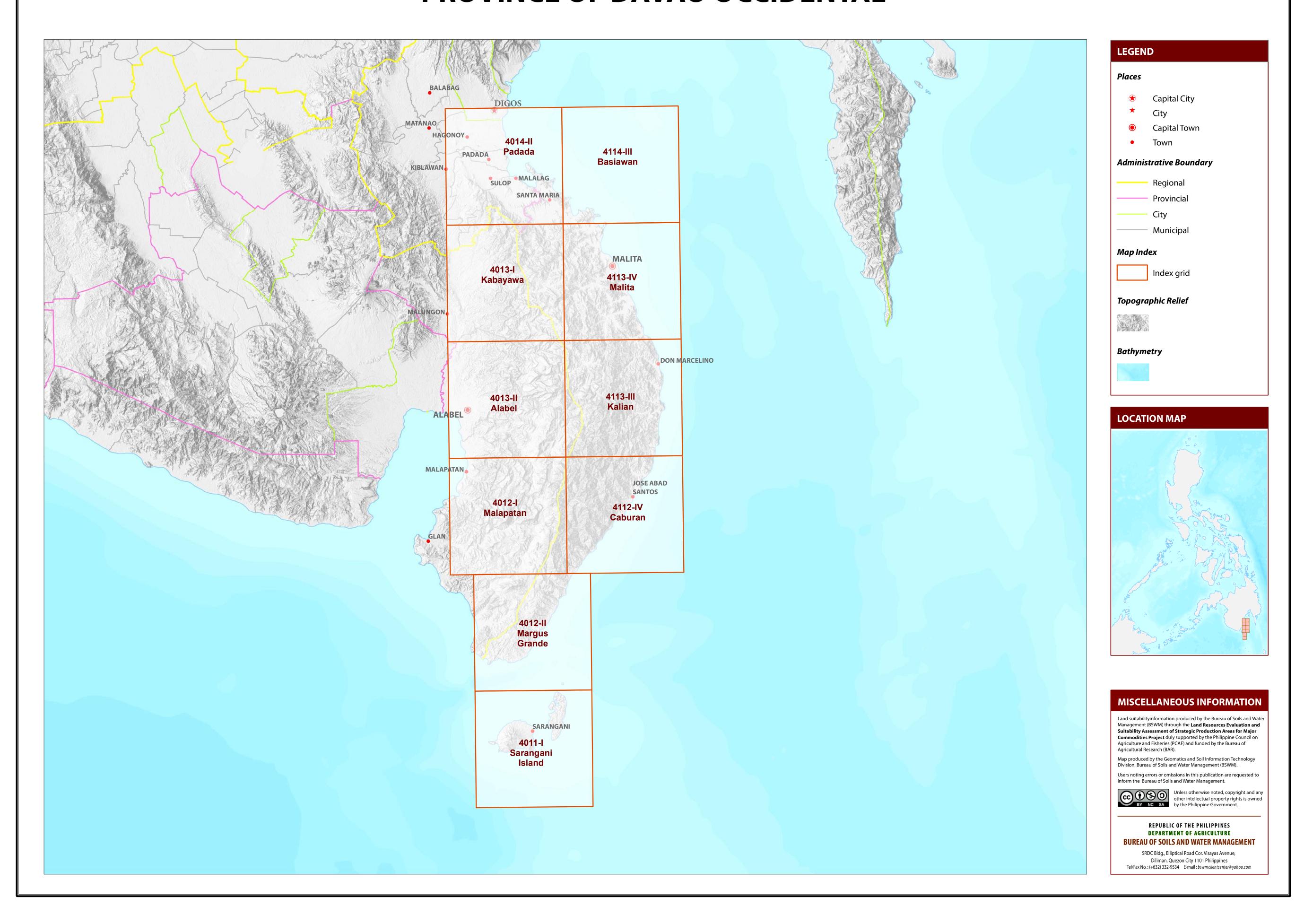
PROVINCE OF DAVAO OCCIDENTAL





MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF DAVAO OCCIDENTAL



LAND SUITABILITY MAP FOR **CASSAVA**

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS DAVAO OCCIDENTAL, REGION XI

EXTENT OF SUITABILITY FOR CASSAVA PRODUCTION BY MUNICIPALITY

				TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)						CONFLICT RESOLUTION AREA (Ha)					TOTAL	
MUNICIPALITY	EXISTI	NG CASSA	VA (Ha)		Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Banana		Corn		Other crops		POTENTIAL EXPANSION
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)
DON MARCELINO	_	_	-	-	27	1,423	-	-	4	118	-	80	-	-	-	-	1,653
JOSE ABAD SANTOS	_	_	-	-	192	2,825	-	1	44	676	-	1	1	20	-	1	3,760
MALITA	-	_	-	-	813	5,252	1	47	40	666	11	479	15	65	6	147	7,542
SANTA MARIA	_	_	_	-	3,475	1,652	-	-	23	380	-	-	-	-	16	1	5,546
SARANGANI	_	-	_	-	120	2,191	-	-	-	-	-	-	-	-	-	-	2,311
TOTAL	-	-	-	-	4,626	13,343	1	48	111	1,839	11	561	16	85	21	149	20,811

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

SOIL DEPTH (cm)

5 F3-D2

9 T2-E12

8 T2-E2-Sh2-Rc2

10 T2-El2-E3-Rc3

6 Sh2

7 T2

30 - 50

very shallow

moderately deep

- deep to very deep

AGRONOMIC REQUIREMENT OF CASSAVA PRODUCTION

LAND UTILIZATI TYPE	ON 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	
	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	
Cassava	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 (%)			SOIL DRAIN	AGE		SOIL REACTION	ON (pH)		SOIL TEXT	SOIL TEXTURE				
0 - 3	0 - 3 - level to gently sloping			excessively drained		< 4.5 - extremely acid			Coarse		Fine			
3 - 8	3 - 8 - gently sloping to undulating		WD -	- well drained		4.5 - 5.0 - very strongly acid			S -	- sand		SC - s	andy clay	
8 - 18	8 - 18 - undulating to rolling		MWD -	moderately well draine	ed	5.1 - 5.5 - strongly acid			LS -	loamy sand		SiC - s	silty clay	
18 - 30	18 - 30 - rolling to moderately steep		SPD -	somewhat poorly drair	ned	5.6 - 6.0 - medium acid			CSL -	coarse sandy loan	n	C - 0	clay	
30 - 50	30 - 50 - steep		PD -	poorly drained		6.1 - 6.5 - slightly acid			SL -	sandy loam		HC - l	neavy clay	
> 50 - very steep		VPD -	very poorly drained		6.6 - 7.2 - ne	eutral		Medium						

7.3 - 7.8 - mildly alkaline

- moderately alkaline

- strongly alkaline

- fine sandy loam

- loam

91 Banana

116 Coconut

126 Grassland

137 Rubber (T)

134 Shrubs, unmanaged

107 Abaca

- silt loam

- clay loam

- silty clay loam

- sandy clay loam

15 T3-E3

16 T3-E3-Rc2

17 T3-E3-Sh2-Rc2

18 T3-E3-Sh2-Rc3

19 T3-E3-Sh3-Rc2

20 T3-E3-Sh3-Rc3

SURFACE IMPEDIMENT

- none - few

ROCK OUTCROPS

> 30%

10 - 30% - common

LAN	LAND LIMITATIONS DESCRIPTION AND COMBINATIONS												
ELEVA	TION		SOIL I	SOIL DRAINAGE					ТН	SOIL EROSION			
El2 - 500 - 1000m or 2000 - 2500m				D2 - Somewhat poorly drained to poorly drained					allow to moderately de	E2	- Moderate erosi	on	
El3 $-<500$ m or >2500 m				D3 - Very poorly drained or excessively drained				Sh3 - Very shallow (< 30cm)				- Severe erosion	
SLOPE	/TOPOGRAPHY		SOILT	SOIL TEXTURE					TCROPS	FLOODING			
T2 -	T2 - Undulating to moderately steep				Γc - Coarse texture				ommon	F2 - Moderate seasonal flooding			
Т3 -	T3 - Steep to very steep							Rc3 - Many				- Severe seasonal	lflooding
										,			.
CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	L	ANDUSE	
1	El2	11	T2-El2-Sh2-Rc2	21	T3-El2	31	T3-El3-E3-Sh3-Rc2	41	T3-El3-E3-Sh3-Rc3	4	Corn		
2	El2-Sh2-Rc2	12	T2-F2-D2	22	T3-El2-E3	32	T3-F2-D2	42	T3-El3	34	Diversifie	ed crops	
3	F2-D2	13	T2-F3-D2	23	T3-El2-E3-Rc3	33	T3-F3-D2	43	Тс	85	Mango		
4	F2-Tc	14	Т3	24	T3-El2-E3-Sh2-Rc2	34	Т3			89	Durian		
1	I .	1	I .	1	1	1	I .	1	1		1		l .

38 T3-El2

25 T3-E12-E3-Sh2-Rc3 35 T3-E3

28 T3-El3-E3-Rc3

26 T3-El2-E3-Sh3-Rc2 36 T3-E3-Rc3

29 T3-El3-E3-Sh2-Rc2 39 T3-El2-E3

27 T3-El2-E3-Sh3-Rc3 37 T3-E3-Sh3-Rc3

30 T3-El3-E3-Sh2-Rc3 40 T3-El2-E3-Sh3-Rc3

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

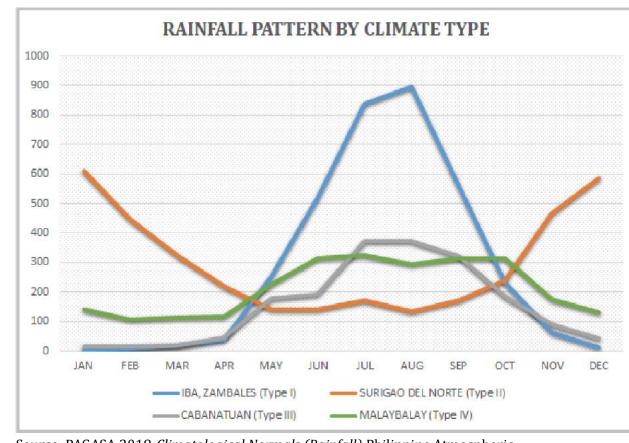
TYPE I: Two pronouced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

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.

Davao Occidental 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.

