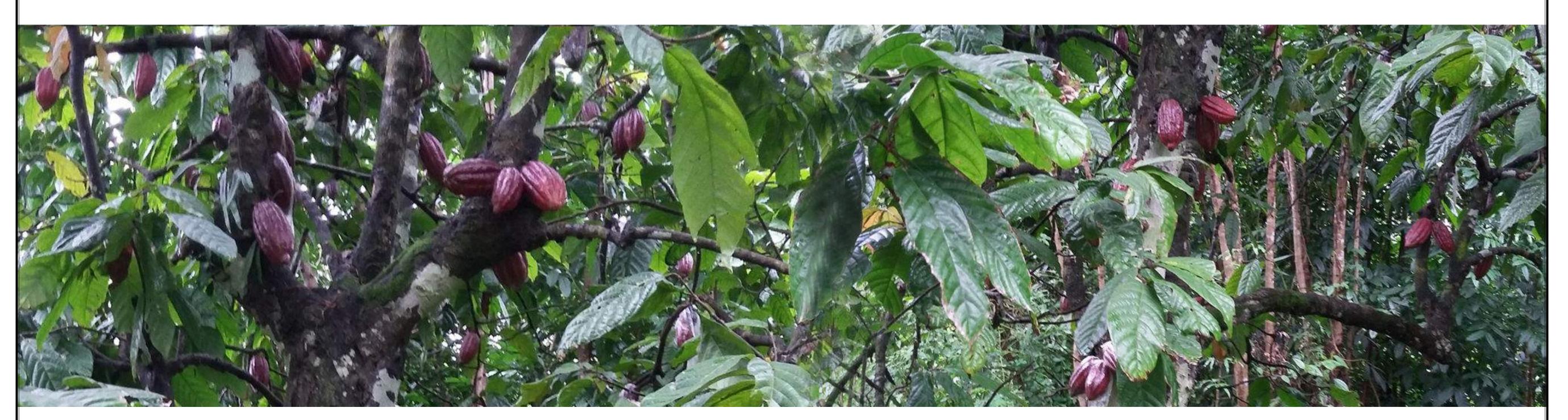
LAND SUITABILITY MAP

CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

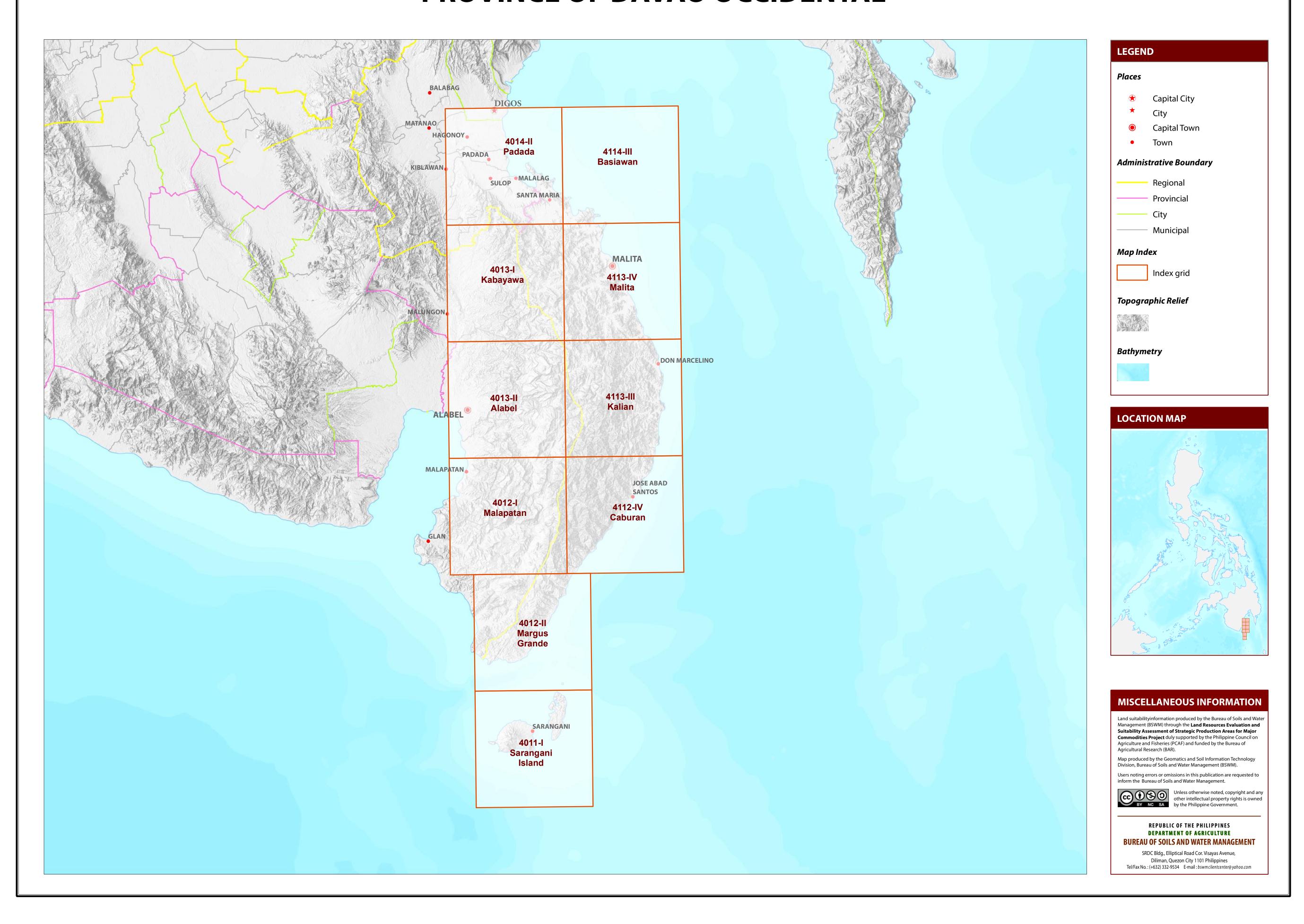
PROVINCE OF DAVAO OCCIDENTAL





MAP INDEX

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



LAND SUITABILITY MAP FOR **CACAO**

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

EXTENT OF SUITABILITY FOR CACAO PRODUCTION BY MUNICIPALITY

						EX	PANSION	AREA (H	a)		(CONFLIC	T RESOLU	JTION A	REA (Ha)		TOTAL			
MUNICIPALITY	EXIST	ING CACA	10 (Ha)	TOTAL EXISTING AREA (Ha)	Coco	nut	ıt l		Shrubland, unmanaged*		,		Banana		Corn		Other crops		POTENTIAL EXPANSION	
	S1	S2	S 3	1	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)			
DON MARCELINO	-	-	-	-	969	481	-	-	122	1	40	41	-	_		-	1,653			
JOSE ABAD SANTOS	_	_	-	-	2,794	212	1	4	720	-	1	-	21	_	1	-	3,754			
MALITA	-	-	-	-	3,904	2,194	36	12	497	394	92	398	80	-	30	123	7,760			
SANTA MARIA	-	_	-	-	5,127	-	-	-	361	7	-	-	-	-	17	-	5,512			
SARANGANI	_	_	-	-	2,247	64	-	-	-	-	-	-	-	-	-	-	2,311			
TOTAL	-	-	-	-	15,041	2,951	38	16	1,699	401	133	438	101	-	47	123	20,989			

Note: Delivery of cacao planting materials must be started on the onset of rainy season.

*establishment of shade trees prior to planting of cacao.

AGRONOMIC REQUIREMENT OF CACAO PRODUCTION

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

	აა	>30	<30	ა, ⴑა, Საև, აև	V F D,ED	< 5.0 -	- 7.9	IOW	Severe	seve	ere	Illally	>1300	;	4 500	
SLOPE (%	6)	'	SOIL DRAIN	AGE		SOIL REA	ACTION (pH)	'	SOIL TEX	XTURE					'
0 - 3	- level to gently slopin	g	ED -	excessively drained		< 4.5	- extremel	y acid		Coarse				Fine		
3 - 8	- gently sloping to und	ulating	WD -	well drained		4.5 - 5.0	- very stro	ngly acid		S	- sand		(SC	- sandy	clay
8 - 18	- undulating to rolling		MWD -	moderately well drained		5.1 - 5.5	- strongly	acid		LS	- loamy	sand	(SiC	- silty cl	ay
18 - 30	- rolling to moderately	steep	SPD -	somewhat poorly draine	d	5.6 - 6.0	- medium	acid		CSL	- coarse	sandy loam	ſ	С	- clay	
30 - 50	- steep		PD -	poorly drained		6.1 - 6.5	- slightly a	cid		SL	- sandy	loam	,	HC	- heavy	clay
> 50	- very steep		VPD -	very poorly drained		6.6 - 7.2	- neutral			Medium	l					
						7.3 - 7.8	- mildly al	kaline		FSL	- fine sa	ndy loam				
SOIL DEP	TH (cm)		SURFACE IN	IPEDIMENT		7.9 - 8.4	- moderate	ely alkaline		L	- loam					
0 - 30	- very shallow		ROCK OUTC	ROPS		> 8.5	- strongly	alkaline		SiL	- silt loa	m				
30 - 50	- shallow		< 10% -	none - few						CL	- clay lo	am				
50 - 100	- moderately deep		10 - 30% -	common						SiCL	- silty c	ay loam				
> 100	- deep to very deep		> 30% -	many						SCL	- sandy	clay loam				
	1 1			J							,	3				

I AND I IMITATIONS DESCRIPTION AND COMPINATIONS

10 T2-E3

LAND LIMITATIONS DESCRIP	PHUN AND CUMBINA HUNS		
ELEVATION	SOIL DRAINAGE	SOIL DEPTH	SOIL EROSION
El2 - 1000m - 1500m	D2 - Somewhat poorly drained to poorly drained	Sh2 - Moderately deep (50 - 100cm)	E2 - Moderate erosion
El3 -> 1500m	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow to shallow (< 50cm)	E3 - Severe erosion
SLOPE/TOPOGRAPHY T2 - Undulating to moderately steep T3 - Steep to very steep	SOIL TEXTURE Tc - Coarse texture	ROCK OUTCROPS Rc2 - Common Rc3 - Many	FLOODING F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	E2-Sh2-Rc2	11	T2-E3-Rc2	21	T2-F2-D2	31	T3-E12-E3-Sh3-Rc2	41	T3-E12
2	El2	12	T2-E3-Sh2-Rc2	22	T2-F3-D2	32	T3-El2-E3-Sh3-Rc3	42	T3-El2-E3
3	El2-E3-Rc3	13	T2-E3-Sh2-Rc3	23	Т3	33	T3-El3-E3-Sh2-Rc3	43	T3-El2-E3-Sh3-Rc3
4	El2-Sh2-Rc2	14	T2-E12	24	Т3-Е3	34	T3-El3-E3-Sh3-Rc2	44	T3-El3-E3-Sh3-Rc3
<i>5</i>	F2-D2	15	T2-El2-E3	25	T3-E3-Rc2	35	T3-F2-D2	45	T3-El3
6	F2-Tc	16	T2-E12-E3-Rc3	26	T3-E3-Sh3-Rc2	36	T3-F3-D2	46	Тс
7	F3-D2	17	T2-El2-E3-Sh2-Rc2	27	T3-E3-Sh3-Rc3	37	T3		
8	Sh2	18	T2-El2-E3-Sh2-Rc3	28	T3-E12	38	Т3-Е3		
9	T2	19	T2-El3-E3-Rc3	29	T3-El2-E3	39	T3-E3-Rc3		

20 | T2-El3-E3-Sh2-Rc2 | 30 | T3-El2-E3-Sh2-Rc3 | 40 | T3-E3-Sh3-Rc3

CODE	LANDUSE
4	Corn
34	Diversified crops
85	Mango
89	Durian
91	Banana
107	Abaca
116	Coconut
126	Grassland
134	Shrubs, unmanaged
137	Rubber (T)

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

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

wet during the rest of the year. Maximum rain period is from June to September

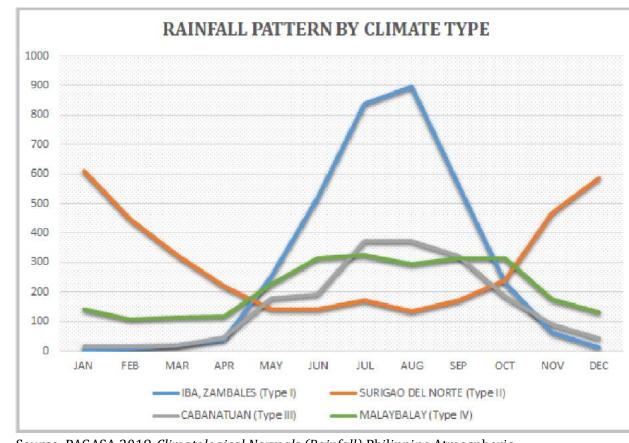
inferior to that expected on class S1 land.

TYPE I: Two pronouced season, dry from November to April and **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

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.

