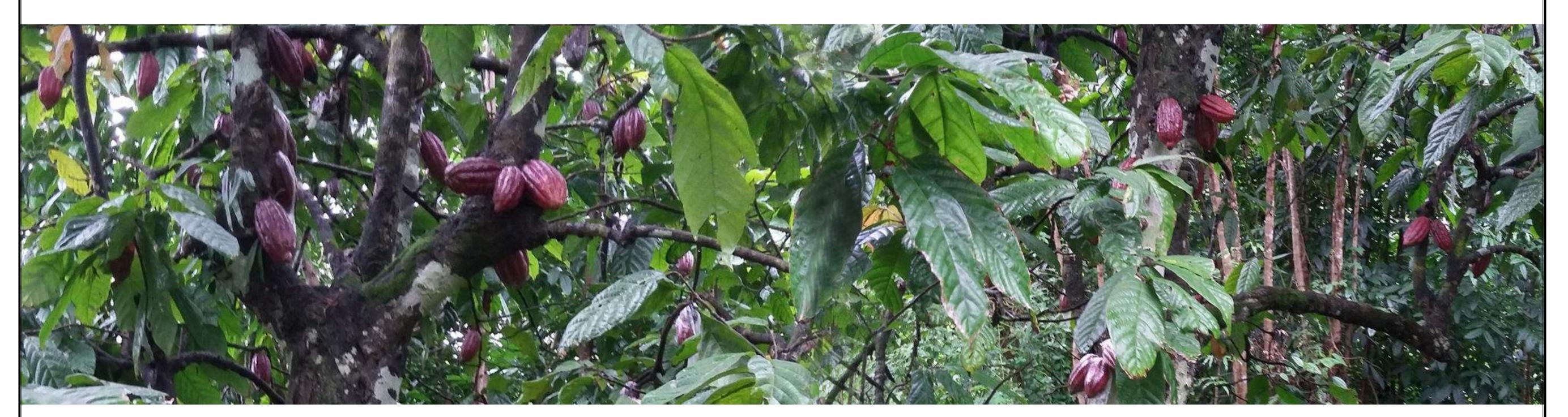
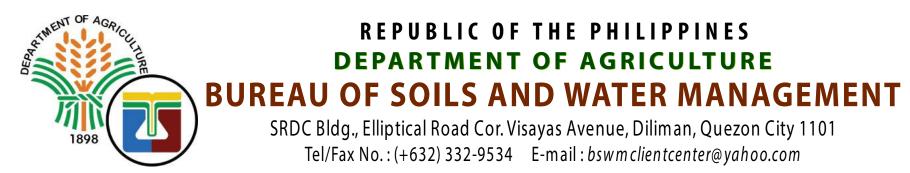
LAND SUITABILITY MAP

CACAO

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

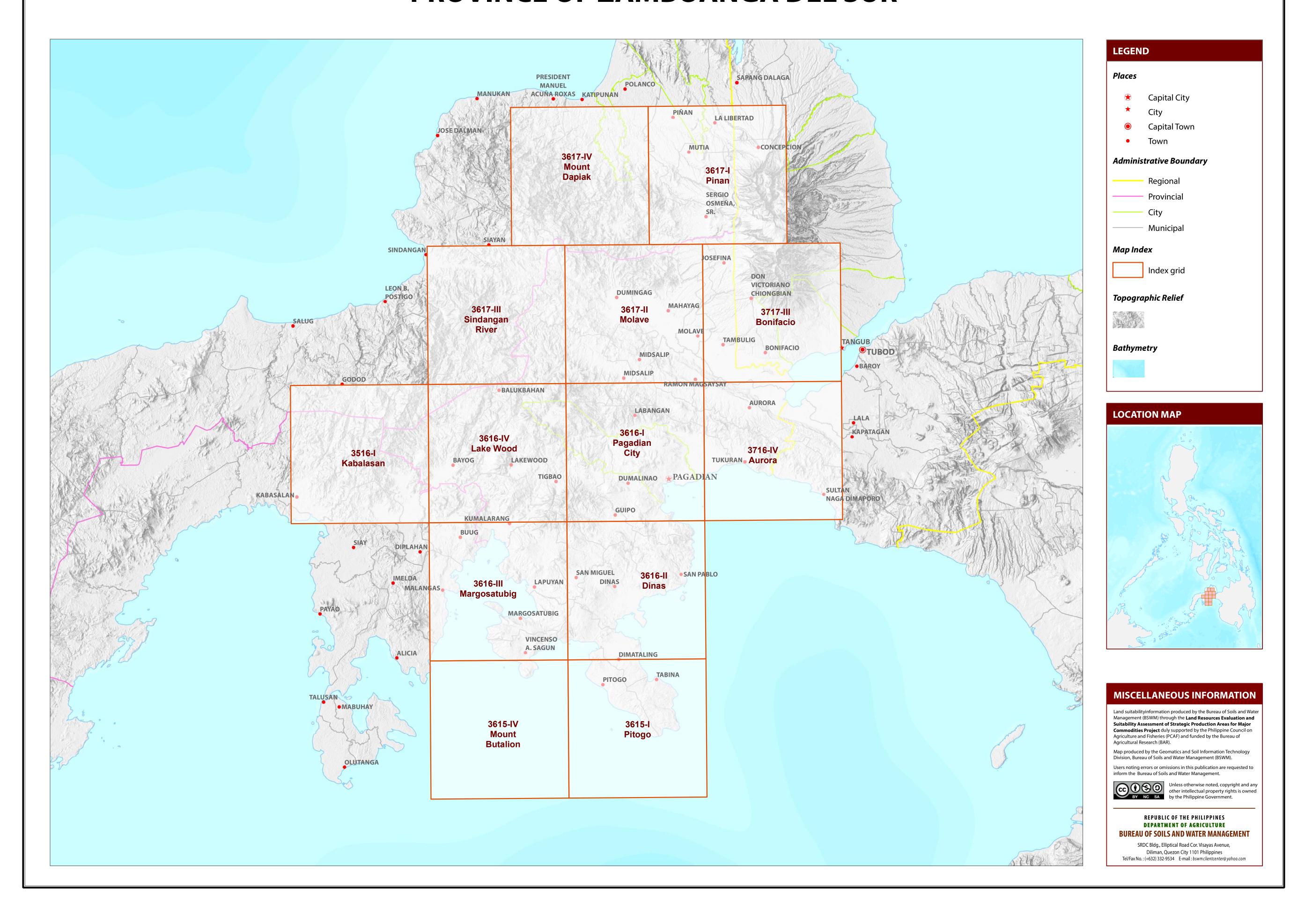
PROVINCE OF ZAMBOANGA DEL SUR





MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF ZAMBOANGA DEL SUR



LAND SUITABILITY MAP FOR **CACAO**

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

ZAMBOANGA DEL SUR, REGION IX

EXTENT OF SUITABILITY FOR CACAO PRODUCTION BY MUNICIPALITY

						EXP	ANSION	AREA (H	la)			(CONFLICT	RESOL	UTION AF	REA (Ha)			TOTAL
MUNICIPALITY	EXISTING CACAO (Ha) TOTAL EXISTING AREA (Ha)		EXISTING	Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Mango		Ban	Banana		crops	POTENTIAL EXPANSION	
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)
AURORA	1	-	-	1	6,887	1,118	100	7	287	92	1,119	67	-	-	-	ı	-		9,676
BAYOG	-	-	8	8	667	-	234	15	3,430	260	1,070	-	-	-	-	-	-		- 5,675
DIMATALING	4	1	6	10	5,214	350	288	2	-	-	441	-	8	-	-	-	-		- 6,303
DINAS	-	-	-	-	8,515	-	241	-	144	-	1,385	-	6	-	-	1	5		10,296
DUMALINAO	1	37	-	38	3,594	3	9	-	403	-	2,856	103	-	-	-	ı	-		6,969
DUMINGAG	1	-	19	19	282	-	133	-	7,764	85	1,228	-	-	-	-	-	-		9,491
GUIPOS	-	-	-	-	953	19	8	1	430	-	2,380	-	-	-	-	-	-		- 3,791
JOSEFINA	-	-	-	-	685	702	7	162	-	135	630	1,167	-	-	-	-	-		- 3,488
KUMALARANG	-	-	-	-	1,994	103	10	-	128	134	988	-	-	-	-	-	-		- 3,359
LABANGAN	5	3	-	8	204	-	18	-	1,640	-	2,620	-	-	-	-	-	1		- 4,483
LAKEWOOD	-	-	-	-	2,208	15	126	2	818	59	541	-	-	-	-	-	3		- 3,771
LAPUYAN	-	-	-	-	7,241	120	413	-	190	-	1,155	-	-	-	-	-	-		- 9,120
MAHAYAG	-	-	-	-	2,461	-	127	-	656	16	2,649	-	-	-	9	-	2		- 5,920
MARGOSATUBIG	-	-	-	-	4,285	1	191	-	24	-	514	-	-	-	-	-	-		- 5,015
MIDSALIP	-	-	-	-	49	20	154	-	3,967	182	850	46	-	-	-	-	-		- 5,268
MOLAVE	-	-	-	-	1,877	43	272	-	1	-	3,964	86	-	-	-	-	-		- 6,243
PAGADIAN CITY	-	-	-	-	4,290	29	205	3	976	17	4,245	410	-	-	-	-	-		- 10,174
PITOGO	-	-	-	-	3,432	2,292	-	-	-	-	241	37	-	-	-	-	-		- 6,001
RAMON MAGSAYSAY	-	-	-	-	4,093	-	49	-	445	-	1,351	-	-	-	-	-	-		- 5,938
SAN MIGUEL	1	-	2	3	4,052	6	113	-	136	-	1,186	-	-	-	-	-	-		- 5,494
SAN PABLO	-	-	_	-	4,523	-	-	-	28	-	991	-	2	-	-	-	-		- 5,545
SOMINOT	-	-	-	-	1,594	128	68	-	2,569	70	607	35	-	-	-	-	-		- 5,070
TABINA	-	-	-	-	1,111	4,581	-	-	-	-	8	65	-	-	-	2	5		- 5,771
TAMBULIG	-	-	1	1	2,690	-	1	-	66	-	2,288	-	-	-	-	-	_		- 5,046
TIGBAO	-	-	-	-	1,659	60	72	19	157	16	1,170	6	1	-	-	-	3		- 3,162
TUKURAN	-	-	-	-	447	-	107	-	3,617	29	1,043	-	-	-	3	-	-		- 5,245
VINCENZO A. SAGUN	6	-	7	12	4,285	-	-	-	25	-	149	-	1	-	-	-	_		- 4,460
TOTAL	17	42	42	101	79,292	9,590	2,944	211	27,901	1,095	37,669	2,022	17	-	11	2	20		- 160,775

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	

						+			71300
SLOPE (%	6)	SOIL DRAIN	AGE	SOIL REA	ACTION (pH)	SOIL	TEXTURE		
0 - 3	- level to gently sloping	ED - e	excessively drained	< 4.5	- extremely acid	Coar	se	Fine	
3 - 8	- gently sloping to undulating	WD -	well drained	4.5 - 5.0	 very strongly acid 	S	- sand	SC	- sandy clay
8 - 18	- undulating to rolling	MWD - 1	moderately well drained	5.1 - 5.5	- strongly acid	LS	- loamy sand	SiC	- silty clay
18 - 30	- rolling to moderately steep	SPD - s	somewhat poorly drained	5.6 - 6.0	- medium acid	CSL	 coarse sandy loam 	С	- clay
30 - 50	- steep	PD - J	poorly drained	6.1 - 6.5	- slightly acid	SL	- sandy loam	НС	- heavy cla
> 50	- very steep	VPD - v	very poorly drained	6.6 - 7.2	- neutral	Medi	um		
				7.3 - 7.8	- mildly alkaline	FSL	- fine sandy loam		
SOIL DEP	TH (cm)	SURFACE IM	IPEDIMENT	7.9 - 8.4	- moderately alkaline	L	- loam		
0 - 30	- very shallow	ROCK OUTCR	ROPS	> 8.5	- strongly alkaline	SiL	- silt loam		
30 - 50	- shallow	< 10% - 1	none - few			CL	- clay loam		
50 - 100	- moderately deep	10 - 30% - 0	common			SiCL	- silty clay loam		
> 100	- deep to very deep	> 30% - 1	many			SCL	- sandy clay loam		

	> 100 - deep to very deep I AND I IMITATIONS DESCRI	> 30% - many	SCL	- sandy clay loam
	I AND I IMITATIONS DESCRI			
	I AND HMITATIONS DESCRI			
	LAND LIMITATIONS DESCRI	PTION AND COMBINATIONS		
	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	SOIL TEXTURE	ROCK OUTCROPS	FLOODING
•	T2 - Undulating to moderately steep	Tc - Coarse texture	Rc2 - Common	F2 - Moderate seasonal flooding
,	T3 - Steep to very steep		Rc3 - Many	F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	E2-Sh2-Rc2	11	T2	21	T2-El2-E3-Sh2-Rc3	31	T3-El2-E3-Rc2	41	T3-El2-E3
2	El2	12	T2-E3	22	T2-F2-D2	32	T3-El2-E3-Sh3-Rc2	42	T3-El2-E3-Sh3-Rc3
3	El2-E3-Sh2-Rc3	13	T2-E3-Rc2	23	T2-F3-D2	33	T3-El2-E3-Sh3-Rc3	43	T3-El4
4	El2-Rc2	14	T2-E3-Rc3	24	Т3	34	T3-El3-E3-Sh3-Rc3		
5	El2-Sh2-Rc2	15	T2-E3-Sh2-Rc2	25	Т3-Е3	35	T3-F2-D2		
6	El2-Sh2-Rc3	16	T2-E3-Sh2-Rc3	26	T3-E3-Sh2-Rc3	36	T3-F3-D2		
7	F2-D2	17	T2-El2	27	T3-E3-Sh3-Rc2	37	T3		
8	F2-Tc	18	T2-E12-E3	28	T3-E3-Sh3-Rc3	38	Т3-Е3		
9	F3-D2	19	T2-E12-E3-Rc2	29	T3-E12	39	T3-E3-Sh3-Rc3		
10	Sh2-Rc2	20	T2-E12-E3-Sh2-Rc2	30	T3-E12-E3	40	T3-El2		

CODE	LANDUSE	CODE	LANDUSE
4	Corn	131	Ipil ipil
47	Vegetable	134	Shrubs, unmanaged
81	Coffee	137	Rubber
82	Cacao		
85	Mango		
87	Jackfruit		
91	Banana		
105	Fruit trees, mixed		
116	Coconut		
126	Grassland		
	,		,

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

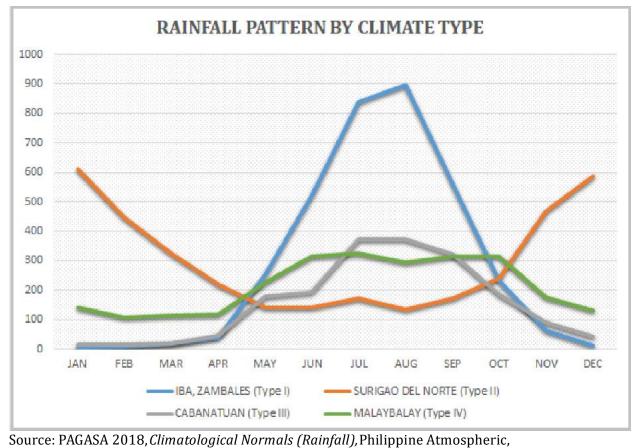
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

Eastern part of Zamboanga Del Sur belongs to Type III climate classification and the rest on Wesstern part belongs to Type IV.



Geophysical and Astronomical Services Administration (PAGASA), accessed 27 July 2018, https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals.

