LAND SUITABILITY MAP

CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

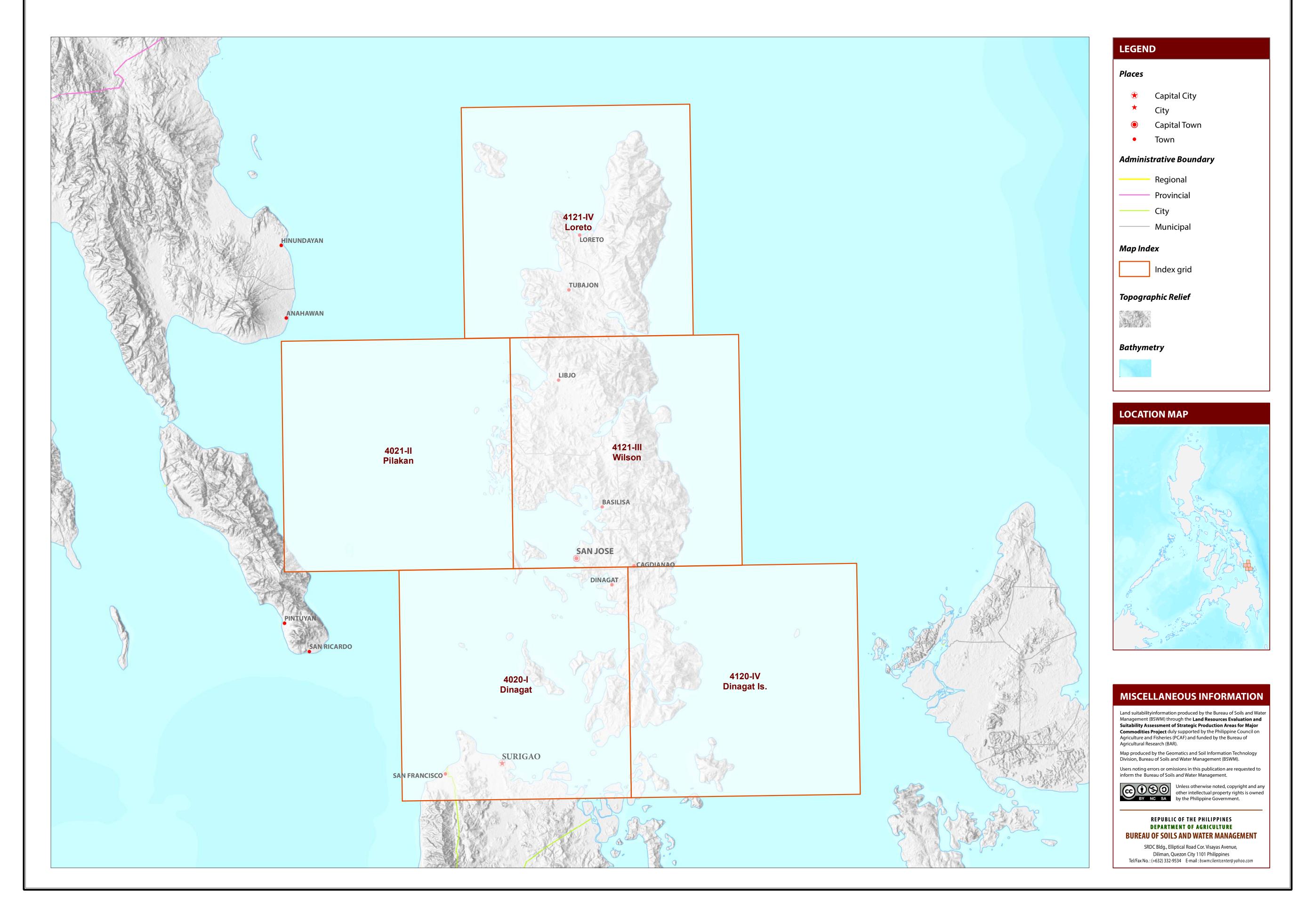
PROVINCE OF DINAGAT ISLANDS





MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF DINAGAT ISLANDS



LAND SUITABILITY MAP FOR **CASSAVA**

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS DINAGAT ISLAND, REGION XIII

EXTENT OF SUITABILITY FOR CASSAVA PRODUCTION BY MUNICIPALITY

			TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)						CONFLICT RESOLUTION AREA (Ha)					TOTAL		
MUNICIPALITY	EXISTING CASSAVA (Ha)			Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Paddy rice, non-irrigated		Other crops		POTENTIAL EXPANSION	
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1 S2		AREA (Ha)
BASILISA	-	-	-	-	42	718	19	531	35	1,328	38	109	-	-	-	-	2,819
CAGDIANAO	-	-	-	-	11	659	13	464	1	1,533	30	298	-	-	-	-	3,008
DINAGAT	_	-	-	-	14	906	-	9	-	266	5	91	-	-	-	_	1,289
LIBJO	-	-	-	-	36	408	23	1,065	50	3,030	11	467	-	-	-	-	5,090
LORETO	-	-	-	-	275	692	40	412	63	794	204	303	-	-	-	-	2,783
SAN JOSE	-	-	-	-	-	508	-	100	-	80	5	39	-	-	-	-	731
TUBAJON	-	-	-	-	42	542	-	156	134	1,850	44	95	-	-	-	-	2,862
TOTAL	-	-	-	-	419	4,432	95	2,736	284	8,880	336	1,401	-	-	-	_	18,583

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

*establishment of shade trees prior to planting of cassava.

moderately deep

- deep to very deep

El2-Sh2-Rc2

2 F2-D2

3 F2-Tc

4 F3-D2

6 Sh2-Rc2

9 T2-E2-Sh2-Rc2 10 T2-El2-E3-Rc3

5 Sh2

7 T2 **8** T2-E2

AGRONOMIC REQUIREMENT OF CASSAVA PRODUCTION

LAND UTILIZATION TYPE	SUITABILITY RATING	SLOPE (%)	SOIL DEPTH (cm)	SOIL TEXTURE	SOIL DRAINAGE	SOIL REACTION (pH)	ON 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	2 high	none-slight	none-sligh	t 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	medilim	moderate	moderate	common	500-1500	2001-4500	II
	S3	18 - 30	<30	S, LS, CSL	VPD,ED	<5.0 - > 7	7.9 low	severe	severe	many	>1500	<1000 >4500	
SLOPE (%)			SOIL DRAIN	SOIL DRAINAGE			CTION (pH)		SOIL TEX	SOIL TEXTURE			
0 - 3 - lev	vel to gently sloping	g	ED - c	excessively drained		< 4.5	- extremely acid		Coarse			Fine	
3 - 8 - ger	3 - 8 - gently sloping to undulating		WD -	WD - well drained			4.5 - 5.0 - very strongly acid			- sand		SC -:	sandy clay
8 - 18 - un	8 - 18 - undulating to rolling		MWD - 1	MWD - moderately well drained			5.1 - 5.5 - strongly acid			- loamy sand		SiC -:	silty clay
18 - 30 - rol	lling to moderately	steep	SPD -:	SPD - somewhat poorly drained			5.6 - 6.0 - medium acid			- coarse sandy loan	1	C - 0	clay
30 - 50 - ste	eep		PD - poorly drained			6.1 - 6.5 - slightly acid			SL	- sandy loam		HC -	neavy clay
> 50 - ve	ry steep		VPD -	very poorly drained		6.6 - 7.2	- neutral		Medium				
						7.3 - 7.8	- mildly alkaline		FSL	- fine sandy loam			
SOIL DEPTH (cm)		SURFACE IMPEDIMENT			7.9 - 8.4 - moderately alkaline			L	- loam				
0 - 30 - ve	0 - 30 - very shallow		ROCK OUTCROPS			> 8.5 - strongly alkaline			SiL	- silt loam			
30 - 50 - sha	allow		< 10% - 1	none - few					CL	- clay loam			

- silty clay loam

- sandy clay loam

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

11 T2-F2-D2

12 T2-F3-D2

15 T3-E3-Rc3

19 T3-F3-D2

20 T3

16 T3-E3-Sh2-Rc3 17 T3-El2-E3-Rc3

18 T3-El2-E3-Sh2-Rc3

13 T3

14 T3-E3

10 - 30% - common

21 T3-E3-Sh3-Rc3

23 T3-El3

24 Tc

22 T3-El2-E3-Sh3-Rc3

> 30%

ELEVATION			SOIL DR.	AINAGE				SOIL DEPTH				SOIL EROSION		
El2 - 5	500 - 1000m or 2000 - 2	500m	D2 - S	omewhat p	oorly drained to poorly	drained		Sh2	- Shallow to mod	erately deep (30 - 100cm)	E2	- Moderate erosion		
El3 - <	< 500m or > 2500m		D3 - V	ery poorly	drained or excessively o	drained		Sh3	- Very shallow (<	30cm)	E3	- Severe erosion		
SLOPE/	SLOPE/TOPOGRAPHY			TURE				ROCK OUTCROPS				FLOODING		
T2 - U	T2 - Undulating to moderately steep			Tc - Coarse texture					Rc2 - Common			- Moderate seasonal flooding		
T3 - S	Steep to very steep							Rc3	- Many		F3	- Severe seasonal flooding		
CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION		CODE	L	ANDUSE					

4 Corn

82 Cacao

116 Coconut

126 Grassland

134 Shrubs, unmanaged

SUITABILITY CLASSES: Highly Suitable (S1) Marginally Suitable (S3) Land having limitations which in aggregate are Land having no significant limitation to sustained application of a given use, or only minor limitations severe for sustained application of a given use and that will not significantly reduce productivity or will so reduce productivity or benefits, or increase benefits and will not raise inputs above an required inputs, that this expenditure will be only marginally justified. acceptable level. **Not Suitable / Not Relevant** Moderately Suitable (S2) Land having limitations which may be surmountable Land having limitation which in aggregate are in time but which cannot be corrected with existing moderately severe for sustained application of a knowledge at currently acceptable cost; the given use; the limitation will reduce productivity or limitations are so severe as to preclude successful benefits and increase required inputs to the extent sustained use of the land in the given manner. that the overall advantage to be gained from the Existing forest, shrubland greater than 18% slope, use, although still attractive, will be appreciably irrigated paddy rice and miscellaneous land types inferior to that expected on class S1 land. such as built up areas, roads, etc are considered as not relevant.

CLIMATE TYPE

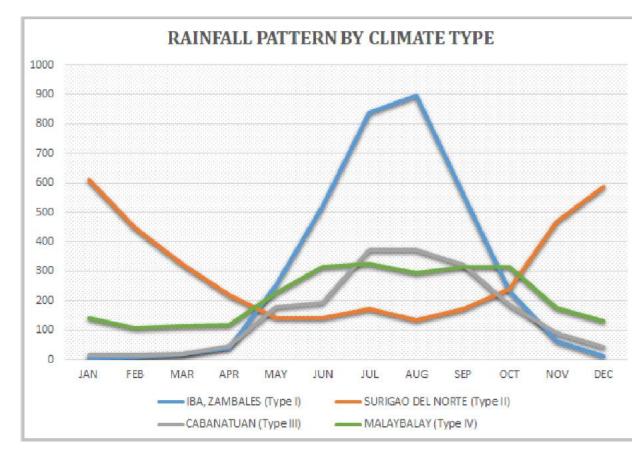
wet during the rest of the year. Maximum rain period is from June to September

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 season.

The whole of Dinagat Island is classified as climatic Type II.



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.

