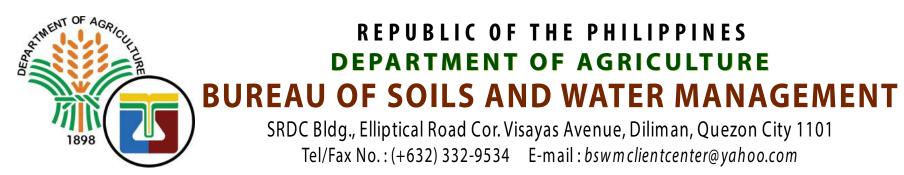
LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

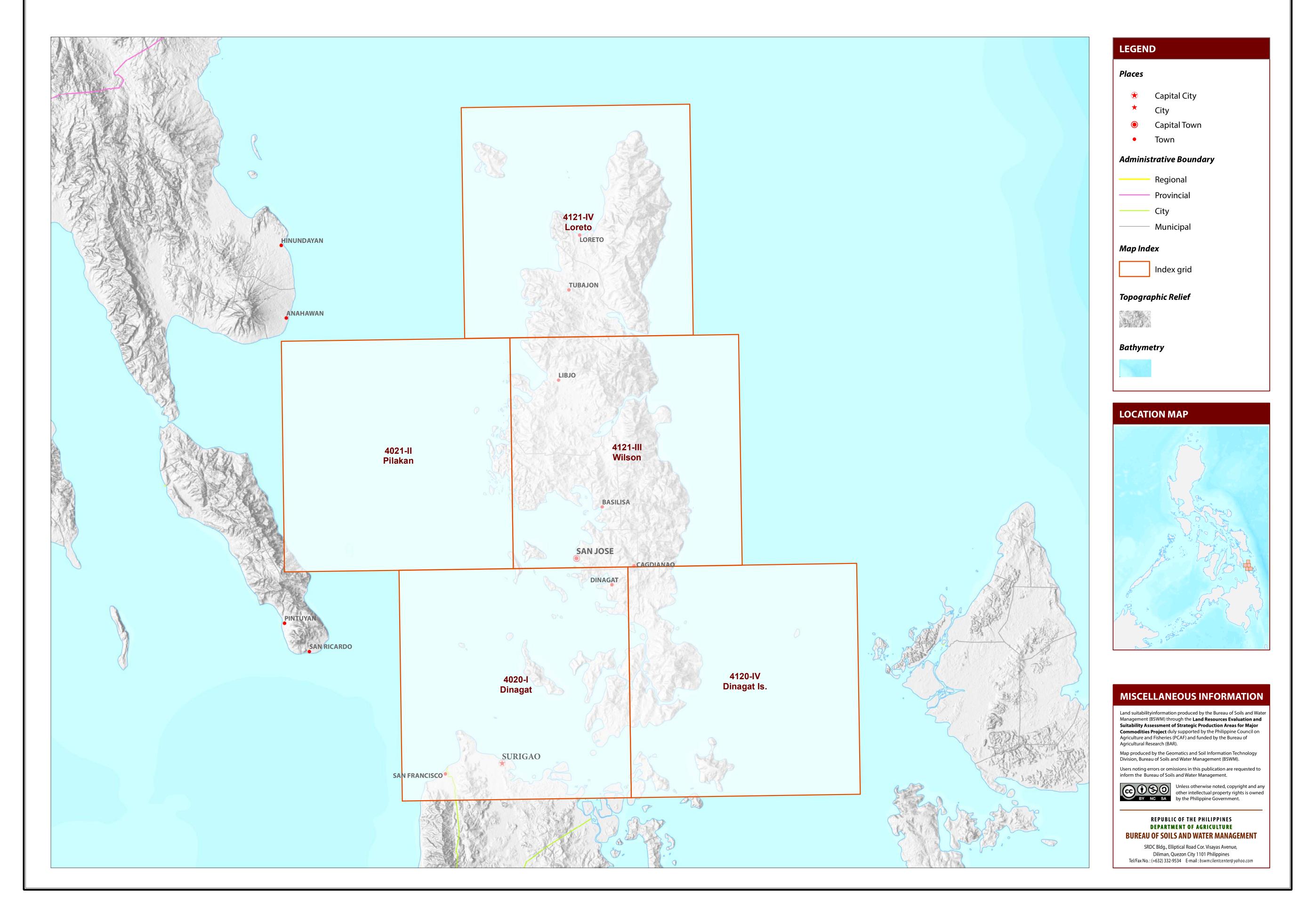
PROVINCE OF DINAGAT ISLANDS





MAP INDEX

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



LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

EXTENT OF SUITABILITY FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION BY MUNICIPALITY

				EXPANSION AREA (Ha)					CONFLICT RESOLUTION AREA (Ha)				TOTAL				
MUNICIPALITY	EXISTI	NG COFF	EE (Ha)	TOTAL EXISTING AREA (Ha)	Coco	nut	Shrub unman	, I	Grass unman	,	Cor	'n	-	y rice, rigated	Other	crops	POTAL POTENTIAL EXPANSION AREA (Ha)
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (IIa)
BASILISA	-	-	-	-	325	436	266	283	205	1,157	63	84	-	-	-	-	2,819
CAGDIANAO	-	-	-	-	505	165	185	292	532	1,002	157	171	-	-	-	-	3,008
DINAGAT	-	-	-	-	757	163	8	1	238	28	63	33	-	-	-	-	1,289
LIBJO	-	-	-	-	306	138	138	950	214	2,866	94	384	-	-	-	-	5,090
LORETO	-	-	-	-	417	550	73	379	132	726	218	289	-	-	-	-	2,783
SAN JOSE	-	-	-	-	277	231	2	99	7	73	15	29	-	-	-	-	731
TUBAJON	-	-	-	-	111	473	20	135	185	1,800	49	89	-	-	_	-	2,862
TOTAL	_	-	_	-	2,696	2,155	693	2,139	1,512	7,652	658	1,078	-	-	_	-	18,583

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

*establishment of shade trees prior to planting of robusta coffee.

AGRONOMIC REQUIREMENT OF ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION

LAND UTILIZATIO 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
Coffee	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
(Robusta, Excelsa,	S2	8 - 30	30 - 100	FSL, L, SiL	SPD,PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	1000-2000	1000-2000	I, II
Liberica)	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 -> 7.9	low	severe	severe	many	>2000	<1000 >4500	
SLOPE (%)			SOIL DRAINA	AGE		SOIL REACTION	N (pH)		SOIL TEXT	URE			
0-3 -	evel to gently slopin	g	ED - 6	excessively drained		< 4.5 - extr	remely acid		Coarse			Fine	
3-8 -	gently sloping to und	ulating	WD - v	well drained		4.5 - 5.0 - ver	y strongly acid		S -	sand		SC - s	andy clay
8 - 18 -	undulating to rolling		MWD - r	noderately well drain	ed	5.1 - 5.5 - stro	ongly acid		LS -	· loamy sand		SiC - s	ilty clay
18 - 30 -	rolling to moderately	steep	SPD - s	somewhat poorly drain	ned	5.6 - 6.0 - med	dium acid		CSL -	coarse sandy loam		C - c	lay
30 - 50 -	steep		PD - p	oorly drained		6.1 - 6.5 - slig	htly acid		SL -	sandy loam		HC - h	eavy clay

Rc3 - Many

SOIL EROSION

FLOODING

E2 - Moderate erosion

F2 - Moderate seasonal flooding

F3 - Severe seasonal flooding

E3 - Severe erosion

VPD very poorly drained 6.6 - 7.2 - neutral > 50 very steep 7.3 - 7.8 - mildly alkaline - fine sandy loam **SURFACE IMPEDIMENT** SOIL DEPTH (cm) - moderately alkaline - loam very shallow ROCK OUTCROPS - strongly alkaline - silt loam 30 - 50 - none - few - clay loam moderately deep 10 - 30% - common - silty clay loam > 30% - sandy clay loam - deep to very deep

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ELEVATION	SOIL DRAINAGE	SOIL DEPTH
El2 - 1000m - 2000m	D2 - Somewhat poorly drained to poorly drained	Sh2 - Shallow to moderately deep (30 - 100cm)
El3 -> 2000m	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow (< 30cm)
SLOPE/TOPOGRAPHY	SOIL TEXTURE	ROCK OUTCROPS
T2 - Undulating to moderately steep	Tc - Coarse texture	Rc2 - Common

CODE	LIMITATION	CODE	LIMITATION
1	E2	11	T2-E3-Rc3
2	E2-Sh2-Rc2	12	T2-F3-D2
3	E3-Rc3	13	T3
4	F2-D2	14	Т3-Е3
<i>5</i>	F2-Tc	15	T3-E3-Sh2-Rc3
6	F3-D2	16	T3-F3-D2
7	Sh2	17	T3
8	Sh2-Rc2	18	T3-E3-Sh3-Rc3
9	T2	19	T3-El3
10	T2-E3	20	Tc

T3 - Steep to very steep

CODE	LANDUSE
4	Corn
82	Cacao
116	Coconut
126	Grassland
134	Shrubs, unmanaged

Highly Suitable (S1)

SUITABILITY CLASSES:

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

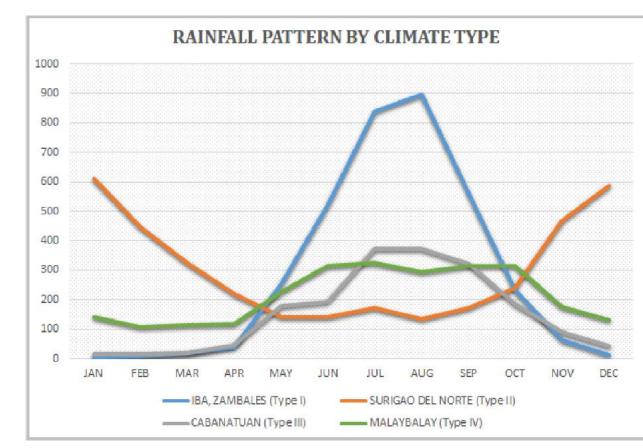
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

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.

