## LAND SUITABILITY MAP

### NATURAL RUBBER

## LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

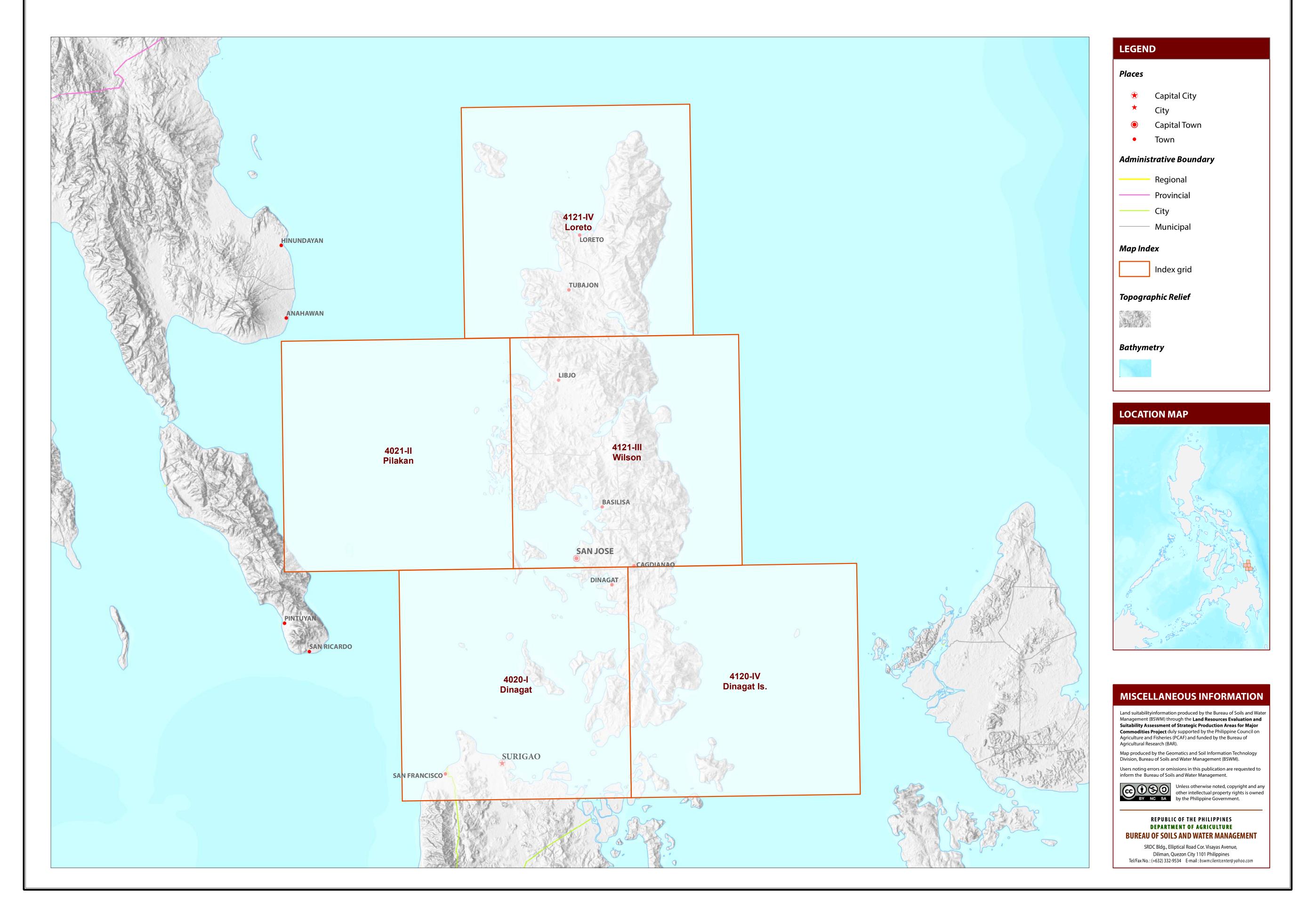
### PROVINCE OF DINAGAT ISLANDS





### **MAP INDEX**

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



# LAND SUITABILITY MAP FOR RUBBER

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

#### EXTENT OF SUITABILITY FOR RUBBER PRODUCTION BY MUNICIPALITY

						EX	PANSION	AREA (H	a)			CONFLIC	T RESOL	UTION A	REA (Ha)		TOTAL	
MUNICIPALITY	EXISTI	NG RUBB	ER (Ha)	TOTAL EXISTING AREA (Ha)	Coco	nut	Shrub unman	, ,	Grass unman		Co	rn		y rice, rigated	Other	crops	POTENTIAL EXPANSION AREA (Ha)	
	<b>S1</b>	<b>S2</b>	<b>S</b> 3		<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	AREA (IIa)	
BASILISA	-	-	-	-	42	718	19	531	7	1,356	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	-	-	-	-	31	412	23	1,065	50	3,030	11	467	-	_	_	-	5,090	
LORETO	-	-	-	-	274	693	40	412	63	794	204	303	-	_	_	_	2,783	
SAN JOSE	-	-	-	-	-	508	-	100	-	80	5	39	-	_	_	-	731	
TUBAJON	-	-	-	-	37	546	-	156	134	1,850	44	95	_	_	_	-	2,862	
TOTAL	-	-	_	-	409	4,442	95	2,736	256	8,908	336	1,401	_	_	_	_	18,583	

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

### AGRONOMIC REQUIREMENT OF RUBBER 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, SPD	5.6 -7.2	high	none-slight	none-slight	none-few	<500	1000-2000	III, IV
Rubber Tree	S2	8 - 30	30 - 100	FSL, L, SiL, SL	PD,VPD	4.5 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1000	2001-4500	I, II, III
	S3	>30	<30	S, LS, CSL	ED	<4.5 - > 7.9	low	severe	severe	many	>1000	<1000 >4500	
SLOPE (%)			SOIL DRAINAC	ЭE		SOIL REACTION	ON (pH)		SOIL TEXTU	RE			
0 - 3 - leve	el to gently slopin	g	ED - exe	cessively drained		< 4.5 - ex	tremely acid		Coarse			Fine	
3 - 8 - gen	itly sloping to und	ulating	WD - we	ell drained		4.5 - 5.0 - ve	ery strongly acid		S - s	and		SC - sa	ındy clay

30 - 50 - steep > 50 - very steep **SOIL DEPTH (cm)** 0 - 30 - very shallow

30 - 50

50 - 100

FH (cm)
SURFACE IMPEDIMENT

- very shallow
- shallow
- moderately deep
- deep to very deep

SURFACE IMPEDIMENT

ROCK OUTCROPS
- 10%
- none - few

10 - 30%
- common
- 30%
- many

PD

- excessively drained < 4.5 - extremely acid
- well drained 4.5 - 5.0 - very strongly acid
- moderately well drained 5.1 - 5.5 - strongly acid
- somewhat poorly drained 5.6 - 6.0 - medium acid
- poorly drained 6.1 - 6.5 - slightly acid
- very poorly drained 6.6 - 7.2 - neutral
7.3 - 7.8 - mildly alkaline

6.1 - 6.5 - slightly acid
 6.6 - 7.2 - neutral
 7.3 - 7.8 - mildly alkaline
 7.9 - 8.4 - moderately alkaline
 > 8.5 - strongly alkaline

LS - loamy sand
CSL - coarse sandy loam
SL - sandy loam

Medium

FSL - fine sandy loam
L - loam
SiL - silt loam
CL - clay loam
SiCL - silty clay loam

- sandy clay loam

**SOIL EROSION** 

### LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ELEVATION
El2 - 500 - 1000m or 2000 - 2500m
El3 - < 500m or > 2500m

T2 - Undulating to moderately steep

SLOPE/TOPOGRAPHY

T3 - Steep to very steep

- undulating to rolling

- rolling to moderately steep

SOIL DRAINAGE

D2 - Somewhat poorly drained to poorly drained

D3 - Very poorly drained or excessively drained

SOIL TEXTURE

Tc - Coarse texture

] ] ]

Sh2 - Shallow to moderately deep (30 - 100cm) E2 - Moderate erosion Sh3 - Very shallow (< 30cm) E3 - Severe erosion

ROCK OUTCROPS FLOODING

ROCK OUTCROPS
Rc2 - Common
Rc3 - Many

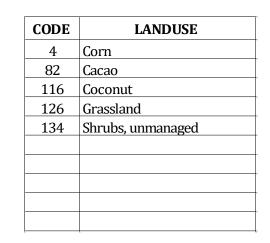
F2 - Moderate seasonal floodingF3 - Severe seasonal flooding

silty clay

heavy clay

- clay

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	El2-Sh2-Rc2	11	T2-E3-Rc3	21	T3-E3-Sh3-Rc3
2	F2-D2	12	T2-E12-E3-Rc3	22	T3-El2-E3-Sh3-Rc3
3	F2-Tc	13	T2-F2-D2	23	T3-El3
4	F3-D2	14	T2-F3-D2	24	Tc
<i>5</i>	Sh2	15	T3		
6	Sh2-Rc2	16	T3-E3		
7	T2	17	T3-E3-Sh2-Rc3		
8	T2-E2	18	T3-El2-E3-Sh2-Rc3		
9	T2-E2-Sh2-Rc2	19	T3-F3-D2		
<i>10</i>	T2-E3	20	T3		



SOIL DEPTH

#### **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.

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.

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.

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**

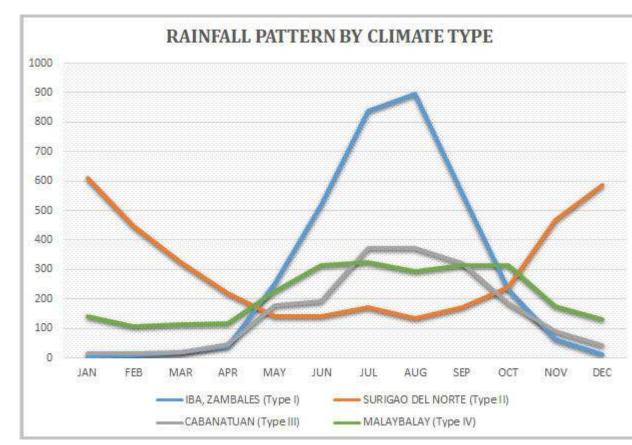
**TYPE I**: Two pronouced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

**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.

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, <a href="https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals">https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals</a>.

<sup>\*</sup>establishment of shade trees prior to planting of rubber.

