LAND SUITABILITY MAP

NATURAL RUBBER

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

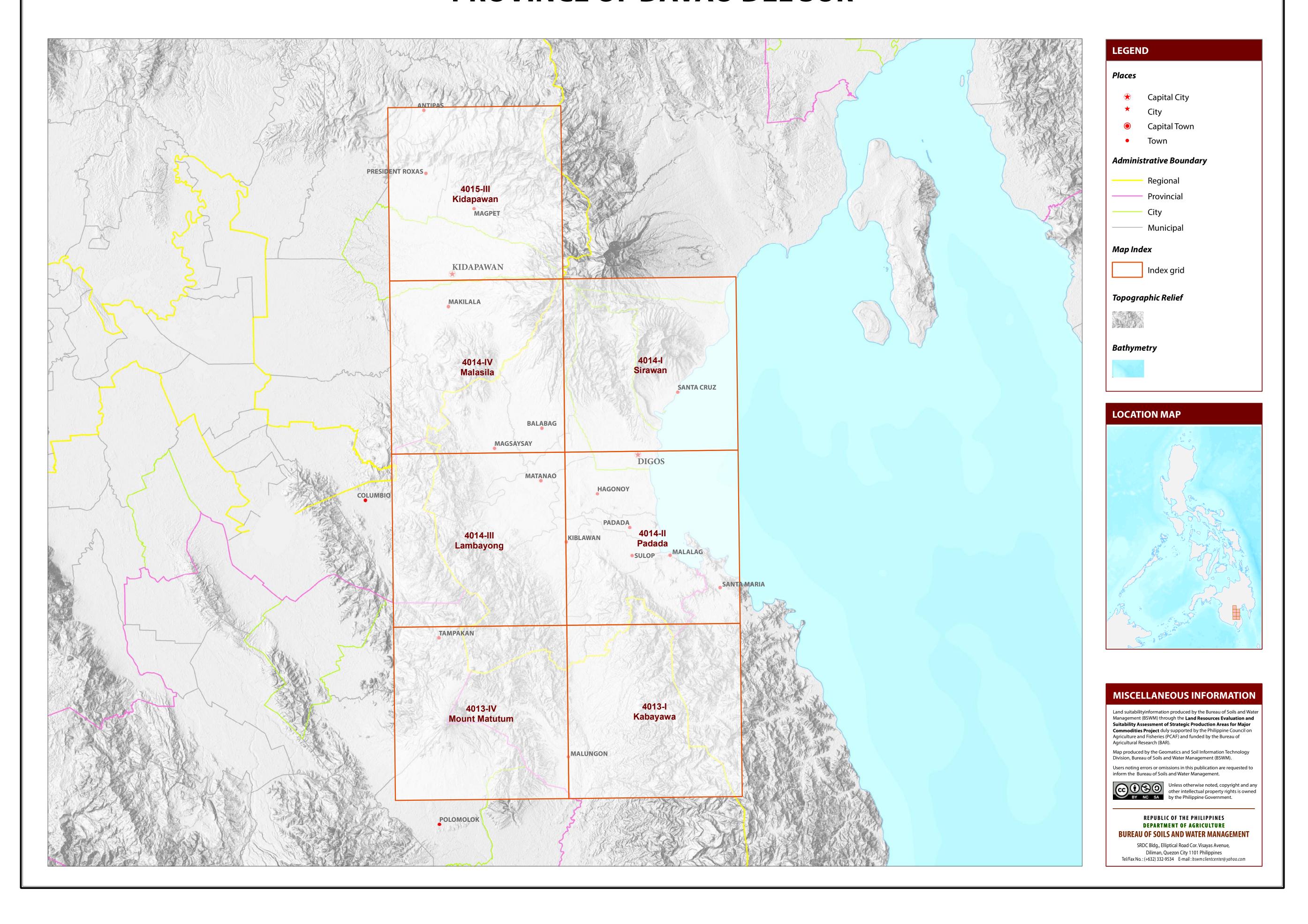
PROVINCE OF DAVAO DEL SUR





MAP INDEX

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



LAND SUITABILITY MAP FOR RUBBER

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

EXTENT OF SUITABILITY FOR RUBBER PRODUCTION BY MUNICIPALITY

						EXPANSION AREA (Ha)					CONFLICT RESOLUTION (Ha)										TOTAL	
MUNICIPALITY	EXISTING RUBBER (Ha)			TOTAL EXISTING AREA (Ha)	Coconut Shrubland, unmanaged*		•	Grassland, unmanaged*		Mango		Banana		Corn		Sugarcane		Other crops		POTENTIAL EXPANSION		
		S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)
BANSALAN		86	105	6	197	3,019	2,960	-	108	-	-	1,371	1,151	-	1	23	1	19	10	11	146	8,820
CITY OF DIGOS		8	-	-	8	2,631	948	13	-	31	8	627	43	65	-	47		16	1	115	60	4,605
HAGONOY		-	-	-	-	678	14	-	-	-	-	96	2	1,214	105	42	1	13	-	187	78	2,429
KIBLAWAN		-	-	-	-	450	1,099	-	179	-	553	13	17	756	1,012	417	1,215	754	622	-	-	7,086
MAGSAYSAY		8	10	232	250	2,465	3,028	-	9	-	280	301	122	-	-	37	89	-	-	1,196	838	8,365
MALALAG		-	-	-	-	2,783	2,820	13	43	1	77	83	44	447	95	125	30	17	4	-	-	6,583
MATANAO		1	-	-	1	742	1,186	-	-	-	254	3,436	602	18	-	338	217	688	18	21	47	7,566
PADADA		-	-	-	-	1,586	86	-	-	-	-	21	9	677	80	72	1	-	-	-	-	2,531
SANTA CRUZ		-	-	-	-	2,465	2,948	-	-	59	9	1	-	105	106	-	-	-	-	177	700	6,569
SULOP		2	-	-	2	3,605	1,850	6	140	-	10	82	53	478	1,089	131	29	31	30	-	-	7,534
TO)TAL	106	116	238	459	20,424	16,939	32	478	91	1,192	6,030	2,042	3,759	2,487	1,231	1,584	1,537	685	1,707	1,869	62,089

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

*establishment of shade trees prior to planting of rubber.

very shallow

moderately deep

- deep to very deep

shallow

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.

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.

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.

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)	ANNUA RAINFA (mm	LL 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	1000-20	000 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	2001-45	500 I, II, III
	S3	>30	<30	S, LS, CSL	ED	<4.5 - > 7.9	low	severe	severe	many	>1000	<1000 >4500	
SLOPE (%)			SOIL DRAINA	GE		SOIL REACTI	ON (pH)		SOIL TEXTU	RE			
0 - 3 - leve	el to gently sloping	5	ED - ex	cessively drained		< 4.5 - e	xtremely acid		Coarse			Fine	
3 - 8 - gen	tly sloping to und	ulating	WD - we	ell drained		4.5 - 5.0 - v	ery strongly acid		S -:	sand		SC	- sandy clay
8 - 18 - und	lulating to rolling		MWD - me	oderately well dra	ined	5.1 - 5.5 - st	trongly acid		LS -	loamy sand		SiC	- silty clay
18 - 30 - roll	ing to moderately	steep	SPD - so	mewhat poorly di	rained	5.6 - 6.0 - n	nedium acid		CSL -	coarse sandy loam		С	- clay
30 - 50 - stee	ер		PD - po	orly drained		6.1 - 6.5 - sl	lightly acid		SL -:	sandy loam		HC	- heavy clay
>50 - ver	y steep		VPD - ve	ery poorly drained		6.6 - 7.2 - n	eutral		Medium				
						7.3 - 7.8 - n	nildly alkaline		FSL -	fine sandy loam			
SOIL DEPTH (c			SURFACE IMP	EDIMENT		7.9 - 8.4 - n	noderately alkaline		L -:	loam			

strongly alkaline

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ROCK OUTCROPS

> 30%

10 - 30% - common

- none - few

ELEVATION El2 - 500 - 1000m or 2000 - 2500m El3 - < 500m or > 2500m	 SOIL DRAINAGE D2 - Somewhat poorly drained to poorly drained D3 - Very poorly drained or excessively drained 	SOIL DEPTH Sh2 - Shallow to moderately deep (30 - 100cm) Sh3 - Very shallow (< 30cm)	SOIL EROSIONE2 - Moderate erosionE3 - 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	El2	11	T2-E2-Sh2-Rc2	21	T2-El2-Sh2-Rc3	31	T3-E3-Sh3-Rc3	41	T3-E3-Rc3
2	El2-Sh2-Rc2	12	T2-E3	22	T2-El3-E3	<i>32</i>	T3-El2	42	T3-E3-Sh3-Rc3
3	El3	13	T2-E3-Rc2	23	T2-El3-E3-Sh2-Rc2	33	T3-El2-E3	43	T3-El2
4	El3-Sh2-Rc2	14	T2-E3-Sh2-Rc2	24	T2-El3-Sh2-Rc2	34	T3-El2-E3-Sh3-Rc2	44	T3-El2-E3
5	F2-D2	15	T2-E3-Sh2-Rc3	25	T2-F2-D2	<i>35</i>	T3-El2-E3-Sh3-Rc3	45	T3-El2-E3-Sh3-Rc3
6	F2-Tc	16	T2-El2	26	T2-F3-D2	36	T3-El3-E3-Sh3-Rc2	46	T3-El3-E3-Sh3-Rc3
7	F3-D2	17	T2-El2-E3	27	Т3	<i>37</i>	T3-F2-D2	47	T3-El3
8	Sh2	18	T2-El2-E3-Sh2-Rc2	28	Т3-Е3	38	T3-F3-D2	48	Тс
9	Sh2-Rc2	19	T2-El2-E3-Sh2-Rc3	29	T3-E3-Rc2	39	Т3		
10	T2	20	T2-El2-Sh2-Rc2	30	T3-E3-Sh3-Rc2	40	T3-E3		

CODE	LANDUSE	CODE	LANDUSE
4	Corn	105	Fruit trees, mixed
34	Diversified crops	107	Abaca
50	Rootcrops	112	Sugarcane
81	Coffee	116	Coconut
84	Pineapple	126	Grassland
85	Mango	134	Shrubs, unmanaged
89	Durian	137	Rubber (T)
90	Pomelo		
91	Banana		
93	Mangosteen		

- silt loam

SiCL

- clay loam

- silty clay loam

- sandy clay loam

CLIMATE TYPE

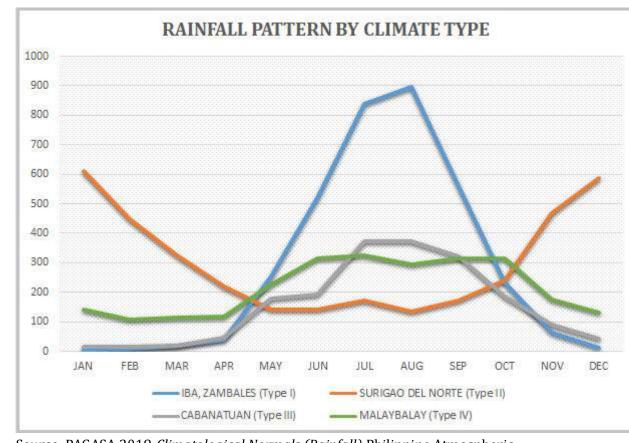
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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 season.

Davao Del Sur 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>.

