LAND SUITABILITY MAP

NATURAL RUBBER

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF COMPOSTELA VALLEY





MAP INDEX

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LAND SUITABILITY MAP FOR RUBBER

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS COMPOSTELA VALLEY, REGION XI

- sandy clay loam

EXTENT OF SUITABILITY FOR RUBBER PRODUCTION BY MUNICIPALITY

		EXISTING RUBBER (Ha)		TOTAL EXISTING AREA (Ha)	EXPANSION AREA (Ha)							CONFLICT RESOLUTION AREA (Ha)									TOTAL
MUNICIPALITY	EXISTIN				Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Banana		Corn		Oil palm		Ma	ngo	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)
COMPOSTELA	-	-	-	-	1,573	753	6	134	-	18	3,639	121	1,127	6	25	18	-	-	-	28	7,449
LAAK	-	-	-	•	7,420	22,431	874	5,340	724	3,650	675	659	603	511	-	-	-	-	-	-	42,886
MABINI	-	-	-	1	1,872	492	12	72	59	191	1,119	104	-	-	-	-	-	-	-	-	3,920
MACO	-	-	-	1	1,816	2,554	16	162	14	362	1,020	177	221	33	-	-	-	-	5	-	6,380
MARAGUSAN	-	-	-	1	-	-	-	200	-	8	-	55	-	-	-	-	-	-	-	14	277
MAWAB	-	-	-	1	781	2,047	124	548	51	904	783	4	1,180	54	-	-	21	-	-	-	6,497
MONKAYO	19	159	209	387	4,310	10,183	170	1,883	128	811	2,088	151	505	77	42	29	-	-	6	3	20,386
MONTEVISTA	-	1	5	5	456	7,772	29	449	6	180	570	468	7	16	-	-	-	2	2	-	9,954
NABUNTURAN	-	-	-	-	6,066	2,482	46	149	160	545	617	165	63	8	182	-	1	-	6	-	10,491
NEW BATAAN	-	-	-	-	5,008	914	165	223	-	50	116	-	278	28	-	-	-	-	-	-	6,782
PANTUKAN	-	-	-	-	5,377	1,421	4	151	49	264	1,120	248	122	1	-	-	29	21	-	-	8,808
TOTAL	19	160	214	392	34,678	51,049	1,446	9,310	1,189	6,984	11,748	2,153	4,105	735	248	47	52	23	19	45	123,831

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

- deep to very deep

AGRONOMIC REQUIREMENT OF RUBBER PRODUCTION

LAND UTILIZAT TYPE	TION SUITABILITY	SLOPE (%)	SOIL DEPTH (cm)	SOIL TEXTURE	SOIL DRAINAGE	SOIL REACTION (pH)	INHERENT FERTILITY	FLOODING CLASS	EROSION CLASS	ROCK OUTCROPS	ELEVATION (masl)	ANNUAI RAINFAL (mm)	(I.IIVI A T I (
	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	1000-200	00 III, IV
Rubber T	ree 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	2001-450	00 I, II, III
	S3	>30	<30	S, LS, CSL	ED	<4.5 - > 7.9	low	severe	severe	many	>1000	<1000 >4500	
SLOPE (%)		SOIL DRAINAG	GE		SOIL REACTION	ON (pH)		SOIL TEXTU	RE			
0 - 3	- level to gently sloping	5	ED - ex	cessively drained		< 4.5 - ex	tremely acid		Coarse			Fine	
3 - 8	- gently sloping to und	gently sloping to undulating WD - well drained		4.5 - 5.0 - ve	4.5 - 5.0 - very strongly acid			sand		SC -	- sandy clay		
8 - 18	- undulating to rolling MWD - moderately well drained		5.1 - 5.5 - st	5.1 - 5.5 - strongly acid			oamy sand		SiC -	- silty clay			
18 - 30	30 - rolling to moderately steep SPD - somewhat poorly drained			5.6 - 6.0 - m	5.6 - 6.0 - medium acid			coarse sandy loam		С -	- clay		
30 - 50	- steep PD - poorly drained		6.1 - 6.5 - slightly acid			SL - s	sandy loam		HC -	- heavy clay			
> 50	- very steep		VPD - ve	ry poorly drained	l	6.6 - 7.2 - ne	eutral		Medium				
						7.3 - 7.8 - m	ildly alkaline		FSL - 1	fine sandy loam			
SOIL DEP	ГН (ст)		SURFACE IMP	EDIMENT		7.9 - 8.4 - m	oderately alkaline		L - 1	oam			
0 - 30	- very shallow		ROCK OUTCRO	PS		> 8.5 - st	rongly alkaline		SiL - s	silt loam			
30 - 50	0 - 50 - shallow < 10% - none - few						CL - c	clay loam					
50 - 100	50 - 100 - moderately deep 10 - 30% - common							SiCL - s	silty clay loam				

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

> 30%

ELEVATION	SOIL DRAINAGE	SOIL DEPTH	SOIL EROSION
El2 - 500 - 1000m or 2000 - 2500m	D2 - Somewhat poorly drained to poorly drained	Sh2 - Shallow to moderately deep (30 - 100cm)	E2 - Moderate erosion
El3 $-<500 \text{m or} > 2500 \text{m}$	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow (< 30cm)	E3 - Severe erosion
SLOPE/TOPOGRAPHY T2 - Undulating to moderately steep T3 - Steep to very steep	SOIL TEXTURE Tc - Coarse texture	ROCK OUTCROPS Rc2 - Common Rc3 - Many	FLOODING F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	El2	11	T2-E3-Rc2	21	T2-El2-Sh2-Rc2	31	T3-E3-Rc2	41	T3-El3-E3-Sh3-Rc2	51	T3-El3
2	El2-E2-Sh2-Rc3	12	T2-E3-Rc3	22	T2-El2-Sh2-Rc3	32	T3-E3-Sh3-Rc2	42	T3-El3-E3-Sh3-Rc3	<i>52</i>	T3-El3-E3-Sh3-Rc3
3	El2-Sh2-Rc2	13	T2-E3-Sh2-Rc2	23	T2-El3	33	T3-E3-Sh3-Rc3	43	T3	<i>53</i>	T3-El3
4	F2-D2	14	T2-E3-Sh2-Rc3	24	T2-El3-E3-Sh2-Rc2	34	T3-El2	44	Т3-Е3		
5	F3-D2	15	T2-El2	25	T2-El3-E3-Sh2-Rc3	35	T3-El2-E3	45	T3-E3-Rc3		
6	Sh2	16	T2-El2-E3	26	T2-El3-Sh2-Rc2	36	T3-El2-E3-Rc2	46	T3-E3-Sh3-Rc3		
7	Sh2-Rc2	17	T2-El2-E3-Rc2	27	T2-El3-Sh2-Rc3	<i>37</i>	T3-El2-E3-Sh2-Rc3	47	T3-El2		
8	T2	18	T2-El2-E3-Sh2-Rc2	28	T2-F2-D2	38	T3-El2-E3-Sh3-Rc2	48	T3-El2-E3		
9	T2-E2-Sh2-Rc2	19	T2-El2-E3-Sh2-Rc3	29	Т3	39	T3-El2-E3-Sh3-Rc3	49	T3-El2-E3-Rc3		
10	T2-E3	20	T2-El2-Rc2	30	T3-E3	40	T3-El3	50	T3-El2-E3-Sh3-Rc3		

CODE	LANDUSE	CODE	LANDUSE
3	Upland rice	126	Grassland
4	Corn	127	Pasture
81	Coffee	134	Shrubs, unmanaged
82	Cacao	137	Rubber (T)
83	Citrus, calamansi	139	Falcata
85	Mango		
91	Banana		
105	Fruit trees, mixed		
116	Coconut		
119	Oil palm		

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

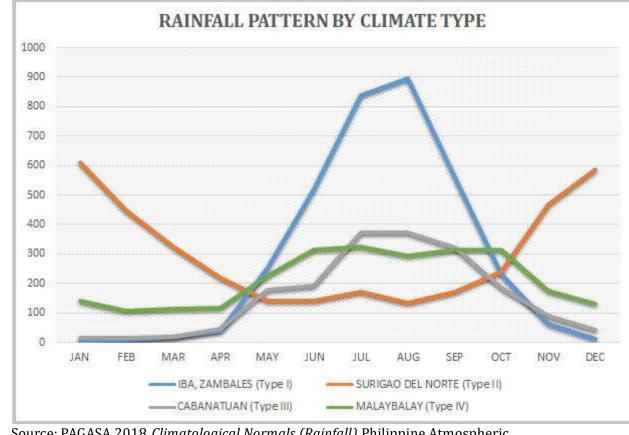
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

Compostella Valley 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.

^{*}establishment of shade trees prior to planting of rubber.

