# LAND SUITABILITY MAP

## NATURAL RUBBER

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

## PROVINCE OF ZAMBOANGA SIBUGAY





### MAP INDEX

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF ZAMBOANGA SIBUGAY



# LAND SUITABILITY MAP FOR RUBBER

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS ZAMBOANGA SIBUGAY, REGION IX

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

							EX	PANSION	AREA (H	a)			CONFLIC	Γ RESOL	UTION AI	REA (Ha)		TOTAL
MUNICIPALITY	Y	EXISTING RUBBER (Ha)			TOTAL EXISTING AREA (Ha)	Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Paddy rice, non-irrigated		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>	S1	S2	AREA (IIa)
ALICIA		-	-	-	-	1,399	4,546	66	356	300	85	778	1,535	-	-	-	-	9,067
BUUG		-	-	4	4	830	3,216	57	632	20	203	564	448	-	-	1	1	5,973
DIPLAHAN		-	-	-	-	186	664	74	363	11	304	1,366	482	-	-	3	-	3,453
IMELDA		-	-	-	-	315	2,694	8	65	51	174	428	261	-	-	1	-	3,997
IPIL		537	375	49	961	2,801	2,596	259	78	41	390	2,030	674	-	-	-	4	8,873
KABASALAN		63	459	753	1,275	1,131	2,642	3	349	7	34	448	391	-	-	-	-	5,004
MABUHAY		-	-	-	-	423	2,823	-	79	-	467	302	1,781	-	-	-	-	5,875
MALANGAS		-	-	-	-	1,909	3,925	32	78	22	123	928	711	-	-	2	1	7,730
NAGA		671	455	125	1,252	2,075	4,286	24	17	20	78	484	435	-	-	-	-	7,418
OLUTANGA		-	-	-	-	131	3,080	-	78	-	26	9	1,510	-	-	-	-	4,835
PAYAO		-	-	-	-	1,113	5,550	150	427	7	849	1,125	1,451	-	-	22	35	10,729
ROSELLER LIM		5	10	63	77	838	4,893	58	69	179	936	954	1,220	-	-	-	-	9,148
SIAY		33	228	201	462	375	2,891	143	447	80	-	2,105	489	-	-	-	-	6,529
TALUSAN		-	5	-	5	151	1,813	18	122	-	178	132	1,689	-	-	-	1	4,104
TITAY		1,002	1,510	564	3,075	4,275	7,481	102	25	118	3,993	1,262	887	-	-	-	-	18,143
TUNGAWAN		7	14	36	57	2,800	6,747	67	304	1,659	7,959	1,211	1,620		-	-	-	22,368
	TOTAL	2,318	3,057	1,793	7,168	20,752	59,847	1,062	3,488	2,516	15,798	14,125	15,585	-	-	30	42	133,246

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

\*establishment of shade trees prior to planting of rubber.

### AGRONOMIC REQUIREMENT OF RUBBER PRODUCTION

LANI UTILIZA TYP	TION	SUITABILITY RATING	SLOPE (%)	SOIL DEP	TH SOIL TEXTURE	SOIL DRAINAGE	SOIL REACTIO (pH)	INHERENT FERTILITY	FLOODING CLASS	EROSION CLASS	ROCK OUTCROPS	ELEVATION (masl)	ANNU RAINF (mm	ALL 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	1000-2	2000 III, IV
Rubber'	Tree	S2 8 - 30		30 - 100	FSL, L, SiL, SL	PD,VPD	4.5 - 5.5 7.3 - 7.8	medilim	moderate	moderate	moderate common		2001-4	1, II, III
		S3	>30	<30	S, LS, CSL	ED	<4.5 - > 7	.9 low	severe	severe	many	>1000	<100 >450	
SLOPE (%	6)			SOIL DRA	INAGE		SOIL REA	CTION (pH)		SOIL TEXT	URE			
0 - 3	- level	to gently sloping	5	ED	- excessively drained		< 4.5	- extremely acid		Coarse			Fine	
3 - 8	- gentl	ly sloping to undu	ılating	WD	- well drained		4.5 - 5.0	- very strongly acid		S -	sand		SC	- sandy clay
8 - 18	- undu	llating to rolling		MWD	- moderately well dra	ained	5.1 - 5.5	- strongly acid		LS -	loamy sand		SiC	- silty clay
18 - 30	- rollir	ng to moderately	steep	SPD	- somewhat poorly d	rained	5.6 - 6.0	- medium acid		CSL -	coarse sandy loam	l	С	- clay
30 - 50	- steep	)		PD	- poorly drained		6.1 - 6.5	<ul> <li>slightly acid</li> </ul>		SL -	sandy loam		HC	- heavy clay
> 50	> 50 - very steep		VPD - very poorly drained			6.6 - 7.2	- neutral		Medium	Medium				
							7.3 - 7.8	<ul> <li>mildly alkaline</li> </ul>		FSL -	fine sandy loam			
SOIL DEP	SOIL DEPTH (cm)			SURFACE IMPEDIMENT			7.9 - 8.4	7.9 - 8.4 - moderately alkaline			loam			
0 - 30	- very	shallow		ROCK OUT	CROPS		> 8.5	- strongly alkaline		SiL -	silt loam			
30 - 50	- shall	ow		< 10%	- none - few					CL -	clay loam			
50 - 100	- mode	erately deep		10 - 30%	- common					SiCL -	silty clay loam			
> 100	- deep	to very deep		> 30%	- many					SCL -	sandy clay loam			

ELEVA	ATION		SOIL	SOIL DRAINAGE					DEPTH			SOIL EROSION		
El2	- 500 - 1000m or 2000	- 2500m	D2	- Somev	vhat poorly drained to	poorly d	rained	Sh2	- Shallow	to mode	erately deep (30 - 100cm)	E2	- Moderate erosion	
El3	- < 500m or > 2500m		D3	- Very p	oorly drained or excess	sively dr	ained	Sh3	- Very sh	allow (<	30cm)	E3	- Severe erosion	
SLOPE	/TOPOGRAPHY		SOIL	TEXTUR	RE			ROCI	K OUTCRO	PS		FLO	ODING	
Γ2	- Undulating to modera	ately steep	Tc Tc	- Coarse	etexture			Rc2	- Commo	n		F2	- Moderate seasonal floodin	
Т3	- Steep to very steep							Rc3	- Many			F3	- Severe seasonal flooding	
CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION			CODE	LANDUSE	CODE	LANDUSE	
	DII-III I I I I I I I I I I I I I I I I	CODE		CODE	ZII II I I I I I I I I I I I I I I I I	CODE	DII-III I I I I I I I I I I I I I I I I			CODE	IIII OJL	CODE	LANDUSE	
1	El2	11	T2-E3-Sh2-Rc3	21	T3-E3-Rc2	31	T3-E3-Rc3			4	Corn	137	Rubber	
1 2	+													
1 2 3	El2	11	T2-E3-Sh2-Rc3	21	T3-E3-Rc2	31	T3-E3-Rc3			4	Corn	137	Rubber	
	E12 F2-D2	11 12	T2-E3-Sh2-Rc3 T2-El2	21 22	T3-E3-Rc2 T3-E3-Sh2-Rc3	31 32	T3-E3-Rc3 T3-E3-Sh3-Rc3			4 81	Corn Coffee	137	Rubber	
3	E12 F2-D2 F3-D2	11 12 13	T2-E3-Sh2-Rc3 T2-El2 T2-El2-E3	21 22 23	T3-E3-Rc2 T3-E3-Sh2-Rc3 T3-E3-Sh3-Rc2	31 32 33	T3-E3-Rc3 T3-E3-Sh3-Rc3 T3-E12-E3			4 81 82	Corn Coffee Cacao	137	Rubber	
3 4	E12 F2-D2 F3-D2 Sh2-Rc2	11 12 13 14	T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3 T2-E12-E3-Sh2-Rc2	21 22 23 24	T3-E3-Rc2 T3-E3-Sh2-Rc3 T3-E3-Sh3-Rc2 T3-E3-Sh3-Rc3	31 32 33 34	T3-E3-Rc3 T3-E3-Sh3-Rc3 T3-E12-E3 T3-E12-E3-Sh3-Rc3			4 81 82 85	Corn Coffee Cacao Mango	137	Rubber	
3 4 5	E12 F2-D2 F3-D2 Sh2-Rc2 T2	11 12 13 14 15	T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3 T2-E12-E3-Sh2-Rc2 T2-E12-E3-Sh2-Rc3	21 22 23 24 25	T3-E3-Rc2 T3-E3-Sh2-Rc3 T3-E3-Sh3-Rc2 T3-E3-Sh3-Rc3 T3-E12	31 32 33 34	T3-E3-Rc3 T3-E3-Sh3-Rc3 T3-E12-E3 T3-E12-E3-Sh3-Rc3			4 81 82 85 91	Corn Coffee Cacao Mango Banana	137	Rubber	
3 4 5	E12 F2-D2 F3-D2 Sh2-Rc2 T2 T2-E2-Sh2-Rc2	11 12 13 14 15 16	T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3 T2-E12-E3-Sh2-Rc2 T2-E12-E3-Sh2-Rc3 T2-E12-Sh2-Rc2	21 22 23 24 25 26	T3-E3-Rc2 T3-E3-Sh2-Rc3 T3-E3-Sh3-Rc2 T3-E3-Sh3-Rc3 T3-E12 T3-E12-E3	31 32 33 34	T3-E3-Rc3 T3-E3-Sh3-Rc3 T3-E12-E3 T3-E12-E3-Sh3-Rc3			4 81 82 85 91 105	Corn Coffee Cacao Mango Banana Fruit trees, mixed	137	Rubber	
3 4 5 6 7	E12 F2-D2 F3-D2 Sh2-Rc2 T2 T2-E2-Sh2-Rc2 T2-E3	11 12 13 14 15 16 17	T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3 T2-E12-E3-Sh2-Rc2 T2-E12-Sh2-Rc2 T2-E12-Sh2-Rc2	21 22 23 24 25 26 27	T3-E3-Rc2 T3-E3-Sh2-Rc3 T3-E3-Sh3-Rc2 T3-E3-Sh3-Rc3 T3-E12 T3-E12-E3 T3-E12-E3	31 32 33 34	T3-E3-Rc3 T3-E3-Sh3-Rc3 T3-E12-E3 T3-E12-E3-Sh3-Rc3			4 81 82 85 91 105 115	Corn Coffee Cacao Mango Banana Fruit trees, mixed Mixed crops	137	Rubber	

### **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**

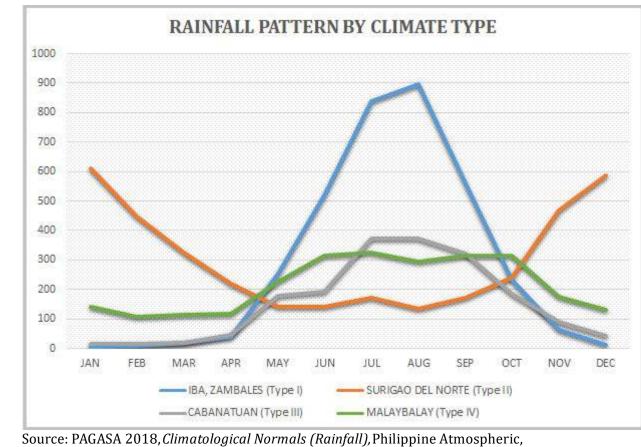
wet during the rest of the year. Maximum rain period is from June to September

**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

Western part of Zamboaga Sibugay is classified as climatic Type III and Eastern part is Type IV.



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>.

