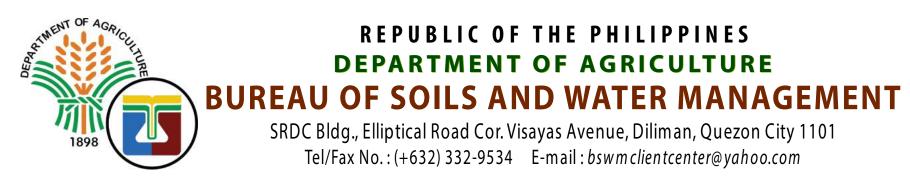
### LAND SUITABILITY MAP

### ROBUSTA, LIBERICA AND EXCELSA COFFEE

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 ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

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

		EXISTING COFFEE (Ha)			EXPANSION AREA (Ha)				CONFLICT RESOLUTION AREA (Ha)				TOTAL				
MUNICIPALITY	EXISTI			TOTAL EXISTING AREA (Ha)	Coco	nut	Shrubl unmana	·	Grassl unmana		Co	rn	_	y rice, rigated	Other	crops	TOTAL POTENTIAL EXPANSION
	<b>S1</b>	S2	<b>S</b> 3		<b>S1</b>	<b>S2</b>	S1	S2	S1	S2	<b>S1</b>	S2	<b>S1</b>	S2	<b>S1</b>	S2	AREA (Ha)
ALICIA	19	-	21	40	3,644	2,301	422	-	402	19	1,691	622	-	-	-	-	9,102
BUUG	32	4	78	114	4,028	18	670	20	103	2	1,001	12	-	_	2	-	5,856
DIPLAHAN	2	-	4	6	849	-	436	-	214	-	1,849	-	-	-	-	-	3,348
IMELDA	36	-	52	88	3,008	-	73	-	355	-	690	-	-	-	1	-	4,128
IPIL (Capital)	-	_	-	-	4,673	725	337	-	178	37	2,688	16	-	-	4	-	8,657
KABASALAN	2	-	11	12	3,742	31	352	-	381	15	839	-	-	-	-	-	5,360
MABUHAY	-	_	-	-	1,237	2,009	-	79	-	34	675	1,408	_	-	-	-	5,442
MALANGAS	44	3	37	84	5,542	292	110	-	489	-	1,510	129	-	-	3	-	8,074
NAGA	10	2	10	21	4,648	1,714	28	12	130	13	832	87	-	-	-	-	7,464
OLUTANGA	-	_	-	-	139	3,072	-	78	-	78	9	1,510	-	-	-	-	4,886
PAYAO	31	-	15	46	4,942	1,721	578	-	33	1	2,071	504	-	-	3	-	9,853
ROSELLER LIM	7	_	13	21	5,668	63	128	-	1,016	12	2,174	-	-	-	-	-	9,061
SIAY	19	-	4	24	3,265	-	590	-	1,016	-	2,594	-	-	-	-	-	7,464
TALUSAN	-	_	-	-	151	1,813	18	122	-	-	132	1,689	_	-	-	1	3,926
TITAY	1	-	1	2	6,574	5,183	106	21	170	126	1,480	668	-	-	-	-	14,328
TUNGAWAN	10	-	10	20	9,547	-	371	-	5,652	-	2,831	-	-	-	_	_	18,402
ТОТА	L 212	9	257	478	61,658	18,942	4,218	332	10,138	337	23,065	6,645	-	-	14	1	125,350

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 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
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 TEXTU	RE	. ,	· '	

				, , ,	,			,	>45	00
SL	LOPE (%)		SOIL DI	RAINAGE	SOIL REA	ACTION (pH)	SOIL TE	XTURE	' -	-
0 -	- 3 - level to	ently sloping	ED	- excessively drained	< 4.5	- extremely acid	Coarse		Fine	
3 -	-8 -gently	oping to undulating	WD	- well drained	4.5 - 5.0	<ul> <li>very strongly acid</li> </ul>	S	- sand	SC	- sandy clay
8 -	- 18 - undula	ng to rolling	MWD	- moderately well drained	d 5.1 - 5.5	- strongly acid	LS	- loamy sand	SiC	- silty clay
18	3 - 30 - rolling	moderately steep	SPD	- somewhat poorly draine	ed 5.6 - 6.0	- medium acid	CSL	- coarse sandy loam	С	- clay
30	) - 50 - steep		PD	- poorly drained	6.1 - 6.5	- slightly acid	SL	- sandy loam	HC	- heavy clay
> 5	50 - very st	ep	VPD	<ul> <li>very poorly drained</li> </ul>	6.6 - 7.2	- neutral	Mediun	1		
					7.3 - 7.8	- mildly alkaline	FSL	- fine sandy loam		
SC	OIL DEPTH (cm)		SURFAC	CE IMPEDIMENT	7.9 - 8.4	- moderately alkaline	L	- loam		
0 -	- 30 - very sł	llow	ROCK O	UTCROPS	> 8.5	- strongly alkaline	SiL	- silt loam		
30	) - 50 - shallov		< 10%	- none - few			CL	- clay loam		
50	) - 100 - moder	ely deep	10 - 30%	6 - common			SiCL	- silty clay loam		
> 1	100 - deep to	ery deep	> 30%	- many			SCL	- sandy clay loam		

#### LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

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

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	E2-Sh2-Rc2	11	T2-E3-Sh2-Rc3	21	T3-E3-Rc3
2	F2-D2	12	T2-F2-D2	22	T3-E3-Sh3-Rc3
3	F3-D2	13	Т3	23	T3-El3
4	Sh2-Rc2	14	Т3-Е3		
5	Sh2-Rc3	15	T3-E3-Rc2		
6	T2	16	T3-E3-Sh2-Rc3		
7	T2-E3	17	T3-E3-Sh3-Rc2		
8	T2-E3-Rc2	18	T3-E3-Sh3-Rc3		
9	T2-E3-Rc3	19	Т3		
10	T2-E3-Sh2-Rc2	20	Т3-Е3		

CODE	LANDUSE	CODE	LANDUSE
4	Corn	137	Rubber
81	Coffee	139	Falcata
82	Cacao		
85	Mango		
91	Banana		
105	Fruit trees, mixed		
115	Mixed crops		
116	Coconut		
126	Grassland		
134	Shrubs, unmanaged		

#### **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.

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.

Marginally Suitable (S3)

**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**

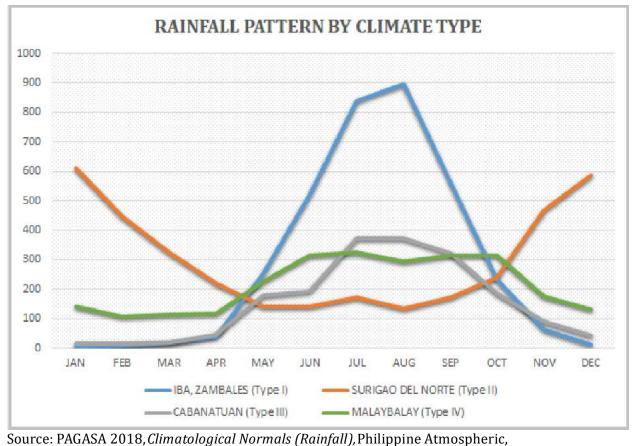
TYPE I: Two pronouced season, dry from November to April and TYPE II: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

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>.

