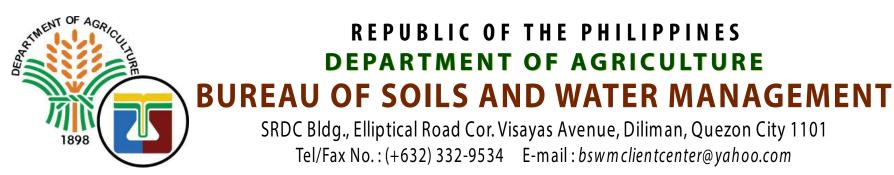
## LAND SUITABILITY MAP

### ARABICA COFFEE

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

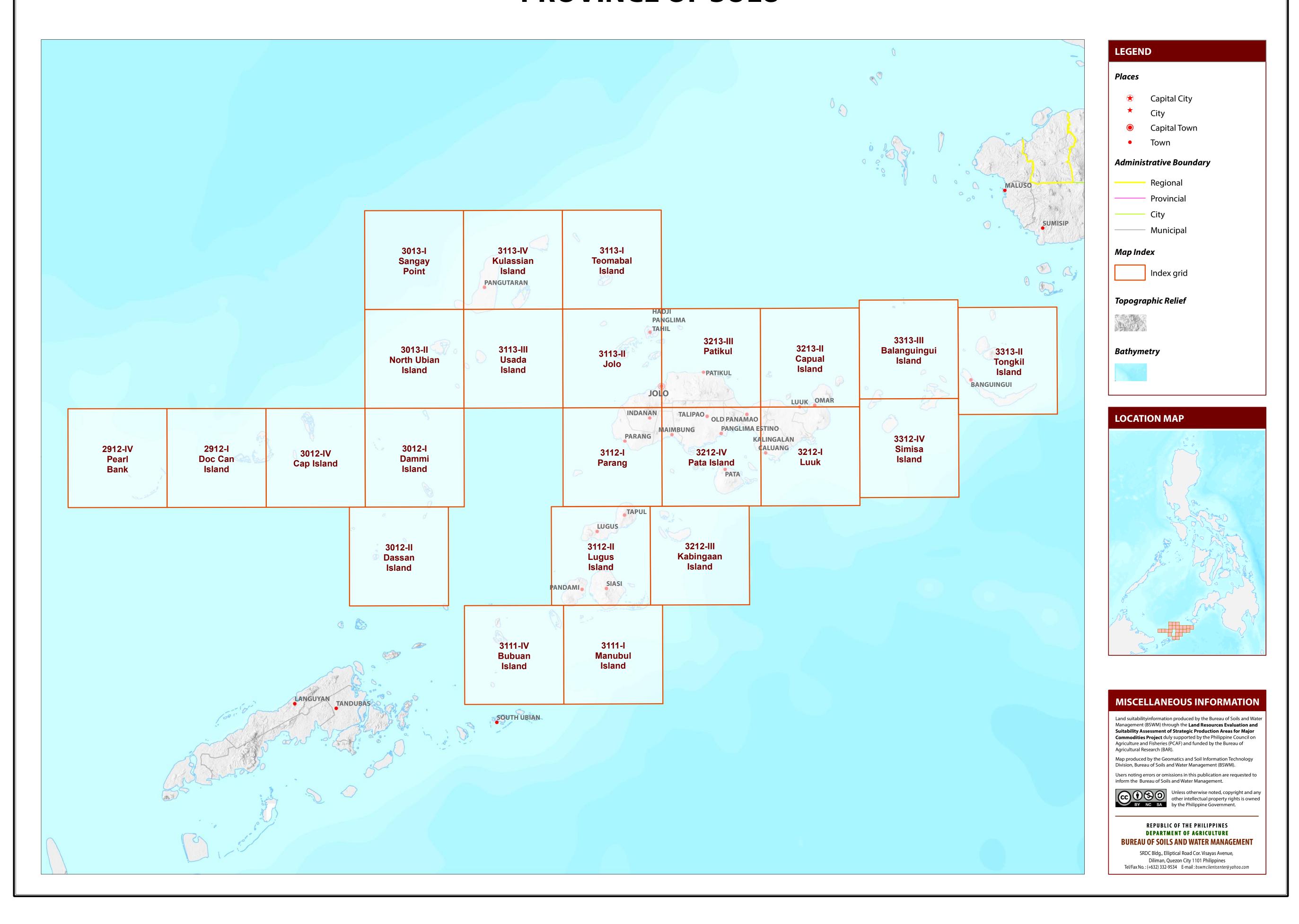
### PROVINCE OF SULU





### **MAP INDEX**

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



## LAND SUITABILITY MAP FOR ARABICA COFFEE

### LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF SULU, ARMM

#### EXTENT OF SUITABILITY FOR ARABICA COFFEE PRODUCTION BY MUNICIPALITY

						EX	XPANSION	AREA (H	(a)			CON	FLICT RES	OLUTION	l (Ha)		TOTAL
MUNICIPALITY	EXISTI	NG COFFI	ЕЕ (На)	TOTAL EXISTING AREA (Ha)	Coc	onut	Shrul unmar	oland, naged*	Grassl unman		Cori	1	Paddy non-iri		Other	crops	POTENTIAL EXPANSION
	<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 (Ha)
HADJI PANGLIMA TAHIL	-	-	-	-	_	_	-	-	-	-	-	-	- <b>-</b>	-	-	-	-
INDANAN	-	-	-	-	_	_	-	-	-	-	-	-	-   <b>-</b>	-	-	-	-
JOLO	-	-	-	-	_	_	-	-	-	-	-	-	-   <b>-</b>	-	-	-	-
KALINGALAN CALUANG	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
LUGUS	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
LUUK	-	-	-	-	_	_		-	-	-	-	_		-	-	-	-
MAIMBUNG	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
OLD PANAMAO	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
OMAR	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
PANDAMI	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
PANGLIMA ESTINO	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
PANGUTARAN	-	-	-	-	_	_	-	-	-	-	-	-		-	-	-	-
PARANG	-	-	-	-	_	_		-	-	-	-	-		-	-	-	-
PATA	-	-	-	-	_	_		-	-	-	-	-		-	_	-	-
PATIKUL	-	-	-	-	_	_		-	-	37	-	-	-	-	_	-	37
SIASI		_	-	-		_		-	-	-	-			-	_	_	-
TALIPAO	-	-	-	-			-	5	-		-			-	-	-	5
TAPUL	-	-	-	-			-		-		-			-			-
TONGKIL	-		-	-		_	_	-		_	-		-		_	-	-
Total Area (Ha)	-	_	-	-	_	_	-	5	-	37	-	-		_	_	_	41

*Note: Delivery of arabica coffee planting materials must be started on the onset of rainy season.* 

\*establishment of shade trees prior to planting of arabica coffee.

#### AGRONOMIC REQUIREMENT OF ARABICA 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
	S1	<8	>100	CL, SiCL, SCL, SC, SiC, C, HC	WD,MWD	5.6 -7.2	high	none-slight	none-slight	none-few	1000-2000	2001-4500	I, III, IV
Coffee ( Arabica )	S2	8 - 30	30 - 100	FSL, L, SiL	SPD,PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1000 2000-2500	1000-2000	I, II
	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 - > 7.9	low	severe	severe	many	<500 >2500	<1000 >4500	

SLOPE (%)	SOIL DRAINAGE	SOIL REACTION (pH)	SOIL TEXTURE	
0 - 3 - level to gently sloping	ng ED - excessively drained	< 4.5 - extremely acid	Coarse	Fine
3 - 8 - gently sloping to un	dulating WD - well drained	4.5 - 5.0 - very strongly acid	S - sand	SC - sandy clay
8 - 18 - undulating to rolling	g MWD - moderately well drained	5.1 - 5.5 - strongly acid	LS - loamy sand	SiC - silty clay
18 - 30 - rolling to moderatel	y steep SPD - somewhat poorly drained	5.6 - 6.0 - medium acid	CSL - coarse sandy loam	C - clay
30 - 50 - steep	PD - poorly drained	6.1 - 6.5 - slightly acid	SL - sandy loam	HC - heavy clay
> 50 - very steep	VPD - very poorly drained	6.6 - 7.2 - neutral	Medium	
		7.3 - 7.8 - mildly alkaline	FSL - fine sandy loam	
SOIL DEPTH (cm)	SURFACE IMPEDIMENT	7.9 - 8.4 - moderately alkaline	L - loam	
0 - 30 - very shallow	ROCK OUTCROPS	> 8.5 - strongly alkaline	SiL - silt loam	
30 - 50 - shallow	< 10% - none - few		CL - clay loam	
50 - 100 - moderately deep	10 - 30% - common		SiCL - silty clay loam	
> 100 - deep to very deep	> 30% - many		SCL - sandy clay loam	

### LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

**SOIL DRAINAGE** 

**SOIL TEXTURE** 

Tc - Coarse texture

D2 - Somewhat poorly drained to poorly drained

D3 - Very poorly drained or excessively drained

ELEV	ELEVATION					
El2	- 500 - 1000m or 2000 - 2500m					
El3	- < 500m or > 2500m					
SI OE	DE /TODOCD ADHV					

SLO	PE/TOPOGRAPHY
T2	- Undulating to moderately steep
Т3	- Steep to very steep

CODE	LIMITATION	CODE	LIMITATION
1	El3-F2-Tc	11	T3-El3
2	El3-F3-D2	12	T3-El3-E3
3	El3-Tc	13	T3-El3-E3-Sh3-Rc2
4	T2-El2-E3-Sh2-Rc2	14	T3-El3-F3-D2
5	T2-El2-Sh2-Rc2	15	T3-El2-E3-Sh3-Rc3
6	T2-El3	16	T3-El3
7	T2-El3-E3	17	T3-El3-E3
8	T2-El3-E3-Sh2-Rc2	18	T3-El3-E3-Sh3-Rc3
9	T2-El3-F3-D2	19	T3-El3
10	T3-El2-E3-Sh3-Rc2		

CODE	LANDUSE
2	Paddy rice, non-irrigated
4	Corn
81	Coffee
116	Coconut
126	Grassland, unmanaged
134	Shrubs, unmanaged

SOIL DEPTH Sh2 - Shallow to moderately deep (30 - 100cm) Sh3 - Very shallow (< 30cm)

ROCK OUTCROPS Rc2 - Common Rc3 - Many

- Moderate erosion E3 - Severe erosion **FLOODING** 

**SOIL EROSION** 

F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

#### **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.

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)

**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**

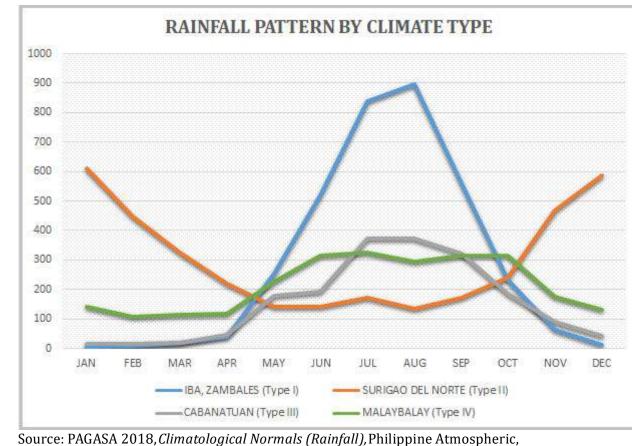
**TYPE I**: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

Province of Sulu is classified as climate 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>.

