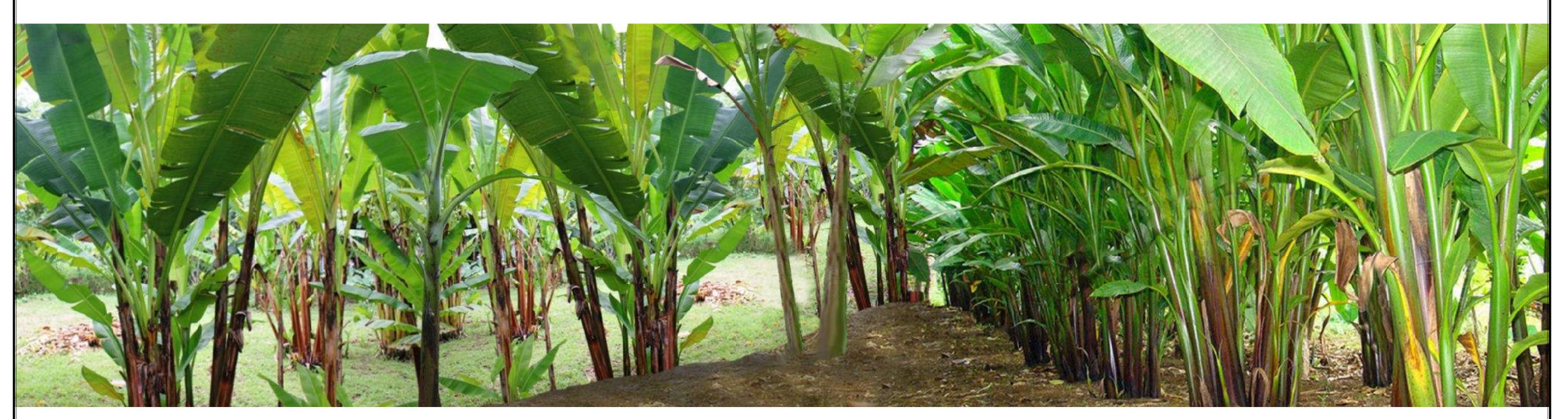
## LAND SUITABILITY MAP

### **ABACA**

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

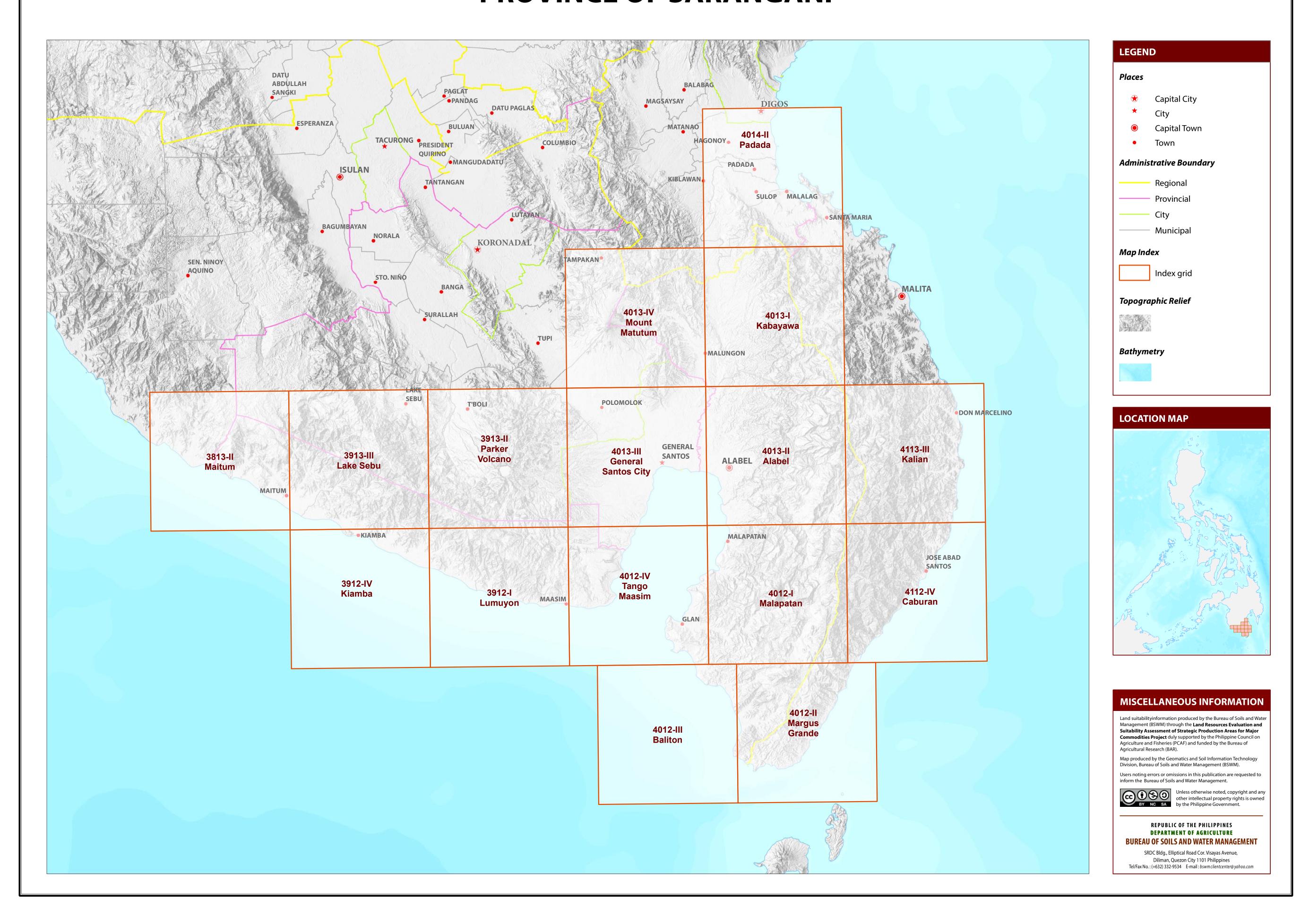
### PROVINCE OF SARANGANI





### **MAP INDEX**

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



## LAND SUITABILITY MAP FOR **ABACA**

### LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS SARANGANI, REGION XII

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

					EXPANSION AREA (Ha)					CONFLICT RESOLUTION AREA (Ha)					TOTAL		
MUNICIPALITY	EXISTING ABACA (Ha)		TOTAL EXISTING AREA (Ha)	Coconut		Shrubland, unmanaged*		Grassland, unmanaged*		Corn		Paddy rice, non-irrigated		Other crops		POTENTIAL EXPANSION	
	<b>S1</b>	<b>S2</b>	<b>S</b> 3		<b>S1</b>	S2	<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	S1	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	AREA (Ha)
ALABEL	-	-	-	-	4,027	2,282	332	316	671	4,203	710	161	-	_	-	-	12,702
GLAN	-	-	-	-	2,815	7,152	7	116	246	3,542	123	120	-	_	-	-	14,122
KIAMBA	-	-	-	-	3,639	1,666	281	128	54	122	1,283	127	-	_	-	-	7,299
MAASIM	-	-	-	-	1,179	4,198	55	352	306	3,074	14	67	-	_	-	-	9,246
MAITUM	-	-	-	-	2,091	1,522	60	103	22	121	1,296	216	-	_	-	-	5,431
MALAPATAN	-	-	-	-	1,962	4,059	2	74	90	1,547	14	18	-	_	-	-	7,766
MALUNGON	-	-	-	-	1,477	7,861	718	1,083	338	1,714	4,205	3,470	-	_	3	2	20,871
TOTAL	-	-	-	-	17,191	28,740	1,453	2,173	1,727	14,323	7,645	4,180	-	_	3	2	77,436

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

30 - 50

50 - 100

moderately deep

- deep to very deep

#### AGRONOMIC REQUIREMENT OF ABACA PRODUCTION

LANI UTILIZA TYP	TION SUITABILITY	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	>50	CL, SiCL, SCL, SC, SiC, C, HC	WD,MWD, SPD	5.6 -7.2	high	none-slight	none-slight	none-few	<500	2001-4500	II, III, IV
Abac	a S2	8 - 30	30 - 50	FSL, L, SiL, SL	PD,VPD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1500	1000-2000	I, II
	S3	>30	< 30	S, LS, CSL	ED	<5.0 - > 7.9	low	severe	severe	many	>1500	<1000 >4500	
SLOPE (%	<b>%)</b>		SOIL DRAINA	AGE		SOIL REACTIO	N (pH)		SOIL TEXT	URE			
0 - 3	0 - 3 - level to gently sloping		ED - ε	excessively drained		< 4.5 - ex	tremely acid		Coarse			Fine	
3 - 8	B - 8 - gently sloping to undulating WD - we		well drained		4.5 - 5.0 - ve	ry strongly acid		S -	sand		SC - s	andy clay	
8 - 18			noderately well drair	ned	l 5.1 - 5.5 - strongly acid			LS -	- loamy sand		SiC - s	ilty clay	
18 - 30	- rolling to moderate	ly steep	SPD - somewhat poorly drained		ined	5.6 - 6.0 - medium acid			CSL -	- coarse sandy loam C		C - 0	elay
30 - 50	- steep		PD - poorly drained			6.1 - 6.5 - slightly acid		SL -	sandy loam		HC - l	neavy clay	
> 50	- very steep		VPD - v	very poorly drained		6.6 - 7.2 - ne	utral		Medium				
						7.3 - 7.8 - mi	ldly alkaline		FSL -	fine sandy loam			
SOIL DE	PTH (cm)		SURFACE IM	PEDIMENT		7.9 - 8.4 - ma	oderately alkaline		L ·	· loam			

strongly alkaline

#### LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

<b>ELEVATION</b> 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 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	FLOODING F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	E2-Sh2-Rc3	11	T2-E3-Rc3	21	Т3-Е3	31	Т3
2	El2-Sh2-Rc2	12	T2-E3-Sh2-Rc2	22	T3-E3-Rc2	32	Т3-Е3
3	F2-D2	13	T2-E3-Sh2-Rc3	23	T3-E3-Sh2-Rc3	33	T3-E3-Rc3
4	F3-D2	14	T2-El2-E3-Rc3	24	T3-E3-Sh3-Rc2	34	T3-E3-Sh3-Rc3
5	Rc2	15	T2-El2-E3-Sh2-Rc2	25	T3-E3-Sh3-Rc3	35	T3-El2-E3
6	Sh2-Rc2	16	T2-El2-Sh2-Rc2	26	T3-El2-E3	36	T3-El2-E3-Sh3-Rc3
7	T2	17	T2-F2-D2	27	T3-El2-E3-Sh2-Rc3	37	T3-El3-E3-Sh3-Rc3
8	T2-E2-Sh2-Rc2	18	T2-F3-D2	28	T3-El2-E3-Sh3-Rc2	38	T3-El3
9	T2-E3	19	T2-Sh2-Rc2	29	T3-El3-E3-Sh3-Rc2	39	Тс
10	T2-E3-Rc2	20	Т3	30	T3-F2-D2		

ROCK OUTCROPS

> 30%

10 - 30% - common

- none - few

- many

CODE	LANDUSE
4	Corn
81	Coffee
82	Cacao
85	Mango
91	Banana
105	Fruit trees, mixed
116	Coconut
126	Grassland
134	Shrubs, unmanaged

- silt loam

SiCL

clay loam

- silty clay loam

- sandy clay loam

#### **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

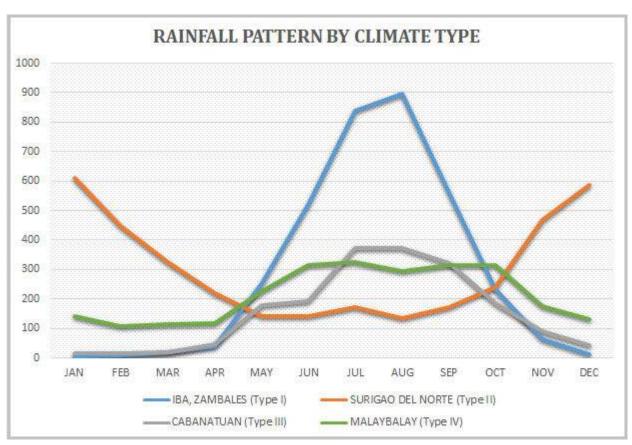
period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.

**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

season.

Sarangani is classified as climatic Type IV.



Source: PAGASA 2018, Climatological Normals (Rainfall), Philippine Atmospheric, 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>.

<sup>\*</sup>establishment of shade trees prior to planting of abaca.

