LAND SUITABILITY MAP

NATURAL RUBBER

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

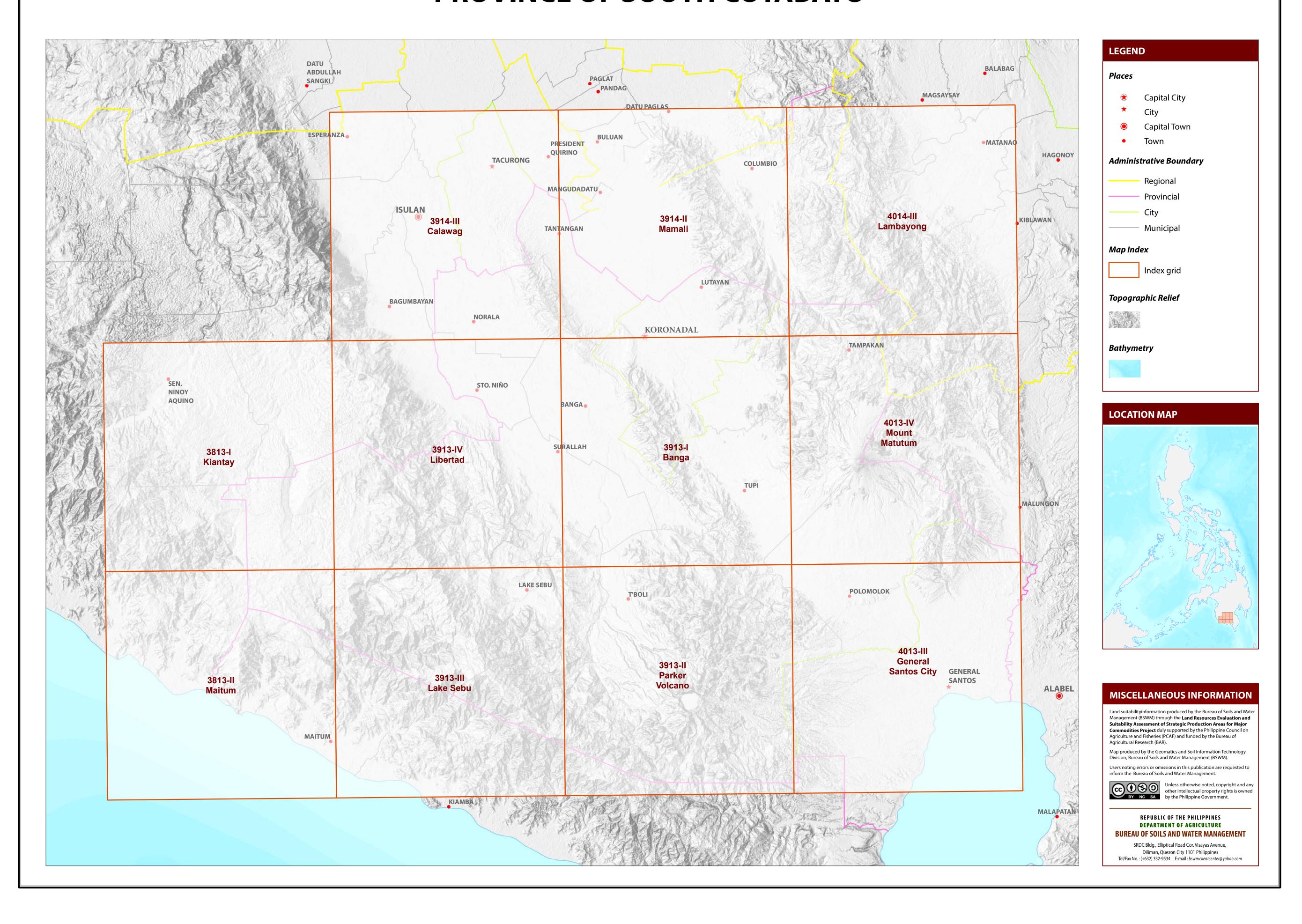
PROVINCE OF SOUTH COTABATO





MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF SOUTH COTABATO



LAND SUITABILITY MAP FOR RUBBER

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS SOUTH COTABATO, REGION XII

EXTENT OF SUITABILITY FOR RUBBER PRODUCTION BY MUNICIPALITY

						EX	PANSION	AREA (Ha	a)				CO	ONFLICT .	AREA (Ha	a)			TOTAL
MUNICIPALITY	EXISTIN	IG RUBB	ER (Ha)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrub unman	,	Grass unman	·	Co	rn	Pinea	pple	Bana	ana	Other	crops	POTAL POTENTIAL EXPANSION AREA (Ha)
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (IIa)
BANGA	-	-	_	-	570	145	-	-	383	1,331	9,505	586	-	-	5	-	-	-	12,526
CITY OF KORONADAL	-	-	_	-	2,215	401	35	105	202	1,254	6,024	581	-	-	-	-	-	-	10,817
LAKE SEBU	-	-	_	-	4	519	-	174	118	3,150	579	3,404	-	-	-	1	-	-	7,949
NORALA	-	-	_	-	367	139	-	-	189	530	2,055	50	-	-	-	-	-	-	3,329
POLOMOLOK	-	-	_	-	752	860	1	390	11	1,030	8,482	2,749	3,379	4,196	-	-	-	-	21,850
SANTO NIÑO	-	-	_	-	44	5	-	-	19	-	1,858	17	-	-	-	-	-	-	1,944
SURALLAH	-	-	_	-	607	219	17	82	54	807	9,435	2,359	-	-	-	-	4	-	13,584
TAMPAKAN	-	-	_	-	1,760	123	-	119	55	1,098	2,696	294	-	2	-	-	-	-	6,148
TANTANGAN	-	-	_	-	539	72	11	8	1,036	1,843	3,545	231	2	-	4	-	-	-	7,291
T'BOLI	-	-	_	-	61	83	-	158	138	4,899	2,063	2,563	-	-	-	2	-	-	9,968
TUPI	-	-	_	-	3,362	766	-	39	132	1,859	1,641	2,017	3,730	1,246	-	-	-	_	14,790
TOTAL	-		_	-	10,282	3,332	64	1,076	2,336	17,801	47,882	14,851	7,112	5,444	9	3	4		110,195

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

LAND UTILIZAT TYPE	ION 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	>100	CL, SiCL, SCL, SC, SiC, C, HC	WD,MWD, SPD	5.6 -7.2	high	none-slight	none-slight	none-few	<500	1000-2000	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	2001-4500	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 TEXT	URE			
0 - 3	- level to gently slopin	ıg	ED - ex	cessively drained		< 4.5 - ex	xtremely acid		Coarse			Fine	
3 - 8	- gently sloping to und	lulating	WD - we	ell drained		4.5 - 5.0 - ve	ery strongly acid		S	- sand		SC - san	ıdy clay
8 - 18	- undulating to rolling		MWD - mo	oderately well dra	ined	5.1 - 5.5 - st	rongly acid		LS	- loamy sand		SiC - silt	y clay
18 - 30	- rolling to moderately	y steep	SPD - so	mewhat poorly dr	ained	5.6 - 6.0 - m	nedium acid		CSL	- coarse sandy loam		C - cla	y
30 - 50	- steep		PD - po	orly drained		6.1 - 6.5 - sl	ightly acid		SL	- sandy loam		HC - hea	nvy clay
> 50	- very steep		VPD - ve	ry poorly drained		6.6 - 7.2 - ne	eutral		Medium				
						7.3 - 7.8 - m	iildly alkaline		FSL	- fine sandy loam			
SOIL DEPT	TH (cm)		SURFACE IMP	EDIMENT		7.9 - 8.4 - m	noderately alkaline		L	- loam			
0 - 30	- very shallow		ROCK OUTCRO	PS		> 8.5 - st	rongly alkaline		SiL	- silt loam			
30 - 50	- shallow		< 10% - no	ne - few					CL	- clay loam			
50 - 100	- moderately deep		10 - 30% - co	mmon					SiCL	- silty clay loam			
> 100	- deep to very deep		> 30% - ma	any					SCL	- sandy clay loam			

ELEVA	TION		SOIL D	RAINAGE			SOIL D	EPTH		SOIL	EROSION
El2 -	500 - 1000m or 2000 - 250	00m	D2 -	Somewhat	poorly drained to poorly	y drained	Sh2 -	Shallow to	moderately deep (30 - 100cm)	E2	- Moderate erosion
El3 -	< 500 m or > 2500 m		D3 -	Very poorl	y drained or excessively	drained	Sh3 -	Very shallo	ow (< 30cm)	E3	- Severe erosion
SLOPE	/TOPOGRAPHY		SOILT	EXTURE			ROCK	OUTCROPS	}	FLO	ODING
T2 -	Undulating to moderately	steep	Tc -	Coarse text	ture		Rc2 -	Common		F2	- Moderate seasonal flooding
Т3 -	Steep to very steep						Rc3 -	Many		F3	- Severe seasonal flooding
CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LANDUSE
CODE 1	LIMITATION El2	CODE 11	LIMITATION T2-E3-Rc2	CODE 21	LIMITATION T2-El2-Sh2-Rc2	CODE 31	LIMITATION T3-E12-E3	CODE 41	LIMITATION T3-E3-Sh3-Rc3	CODE 4	LANDUSE Corn
CODE 1 2							_				
1	El2	11	T2-E3-Rc2	21	T2-El2-Sh2-Rc2	31	T3-El2-E3	41	T3-E3-Sh3-Rc3	4	Corn
1 2	El2 El2-E2-Sh2-Rc3	11 12	T2-E3-Rc2 T2-E3-Sh2-Rc2	21 22	T2-El2-Sh2-Rc2 T2-El3-E3	31 32	T3-El2-E3 T3-El2-E3-Rc2	41 42	T3-E3-Sh3-Rc3 T3-El2	4 81	Corn Coffee
1 2 3	El2 El2-E2-Sh2-Rc3 El2-F2-D2	11 12 13	T2-E3-Rc2 T2-E3-Sh2-Rc2 T2-E3-Sh2-Rc3	21 22 23	T2-El2-Sh2-Rc2 T2-El3-E3 T2-El3-E3-Sh2-Rc2	31 32 33	T3-El2-E3 T3-El2-E3-Rc2 T3-El2-E3-Sh3-Rc2	41 42 43	T3-E3-Sh3-Rc3 T3-El2 T3-El2-E3	4 81 82	Corn Coffee Cacao
1 2 3 4	E12 E12-E2-Sh2-Rc3 E12-F2-D2 E12-Rc2	11 12 13 14	T2-E3-Rc2 T2-E3-Sh2-Rc2 T2-E3-Sh2-Rc3 T2-El2	21 22 23 24	T2-El2-Sh2-Rc2 T2-El3-E3 T2-El3-E3-Sh2-Rc2 T2-El3-Sh2-Rc2	31 32 33 34	T3-El2-E3 T3-El2-E3-Rc2 T3-El2-E3-Sh3-Rc2 T3-El2-E3-Sh3-Rc3	41 42 43 44	T3-E3-Sh3-Rc3 T3-E12 T3-E12-E3 T3-E12-E3-Rc3	4 81 82 85	Corn Coffee Cacao Mango
1 2 3 4 5	El2 El2-E2-Sh2-Rc3 El2-F2-D2 El2-Rc2 El2-Sh2-Rc2	11 12 13 14 15	T2-E3-Rc2 T2-E3-Sh2-Rc2 T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3	21 22 23 24 25	T2-El2-Sh2-Rc2 T2-El3-E3 T2-El3-E3-Sh2-Rc2 T2-El3-Sh2-Rc2 T3	31 32 33 34 35	T3-El2-E3 T3-El2-E3-Rc2 T3-El2-E3-Sh3-Rc2 T3-El2-E3-Sh3-Rc3 T3-El2-F2-D2	41 42 43 44 45	T3-E3-Sh3-Rc3 T3-E12 T3-E12-E3 T3-E12-E3-Rc3 T3-E12-E3-Sh3-Rc3	4 81 82 85 91	Corn Coffee Cacao Mango Banana
1 2 3 4 5	El2 El2-E2-Sh2-Rc3 El2-F2-D2 El2-Rc2 El2-Sh2-Rc2 _tabl	11 12 13 14 15 16	T2-E3-Rc2 T2-E3-Sh2-Rc2 T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3 T2-E12-E3-Rc2	21 22 23 24 25 26	T2-El2-Sh2-Rc2 T2-El3-E3 T2-El3-E3-Sh2-Rc2 T2-El3-Sh2-Rc2 T3 T3-E3	31 32 33 34 35 36	T3-El2-E3 T3-El2-E3-Rc2 T3-El2-E3-Sh3-Rc2 T3-El2-E3-Sh3-Rc3 T3-El2-F2-D2 T3-El3-E3	41 42 43 44 45 46	T3-E3-Sh3-Rc3 T3-E12 T3-E12-E3 T3-E12-E3-Rc3 T3-E12-E3-Sh3-Rc3 T3-E13-E3	4 81 82 85 91 105	Corn Coffee Cacao Mango Banana Fruit trees, mixed
1 2 3 4 5 6 7	E12 E12-E2-Sh2-Rc3 E12-F2-D2 E12-Rc2 E12-Sh2-Rc2 _tabl Sh2-Rc2	11 12 13 14 15 16 17	T2-E3-Rc2 T2-E3-Sh2-Rc2 T2-E3-Sh2-Rc3 T2-E12 T2-E12-E3 T2-E12-E3-Rc2 T2-E12-E3-Sh2-Rc2	21 22 23 24 25 26 27	T2-El2-Sh2-Rc2 T2-El3-E3 T2-El3-E3-Sh2-Rc2 T2-El3-Sh2-Rc2 T3 T3-E3 T3-E3-Rc2	31 32 33 34 35 36 37	T3-El2-E3 T3-El2-E3-Rc2 T3-El2-E3-Sh3-Rc2 T3-El2-E3-Sh3-Rc3 T3-El2-F2-D2 T3-El3-E3 T3-El3-E3	41 42 43 44 45 46	T3-E3-Sh3-Rc3 T3-E12 T3-E12-E3 T3-E12-E3-Rc3 T3-E12-E3-Sh3-Rc3 T3-E13-E3	4 81 82 85 91 105 116	Corn Coffee Cacao Mango Banana Fruit trees, mixed Coconut

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

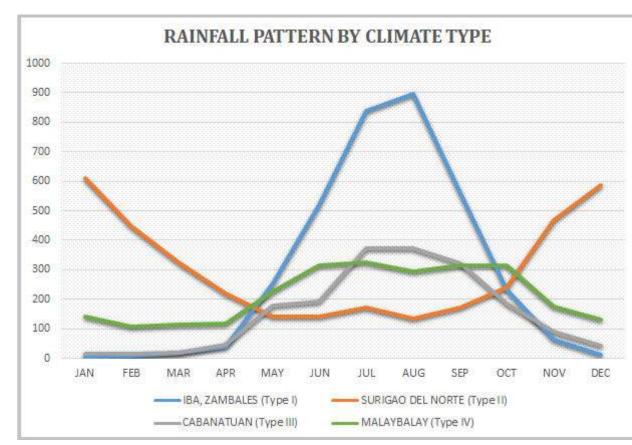
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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.

Small part in the Northern side of South Cotabato is classified as climatic Type III and in the Southern side is 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.

