LAND SUITABILITY MAP

CASSAVA

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

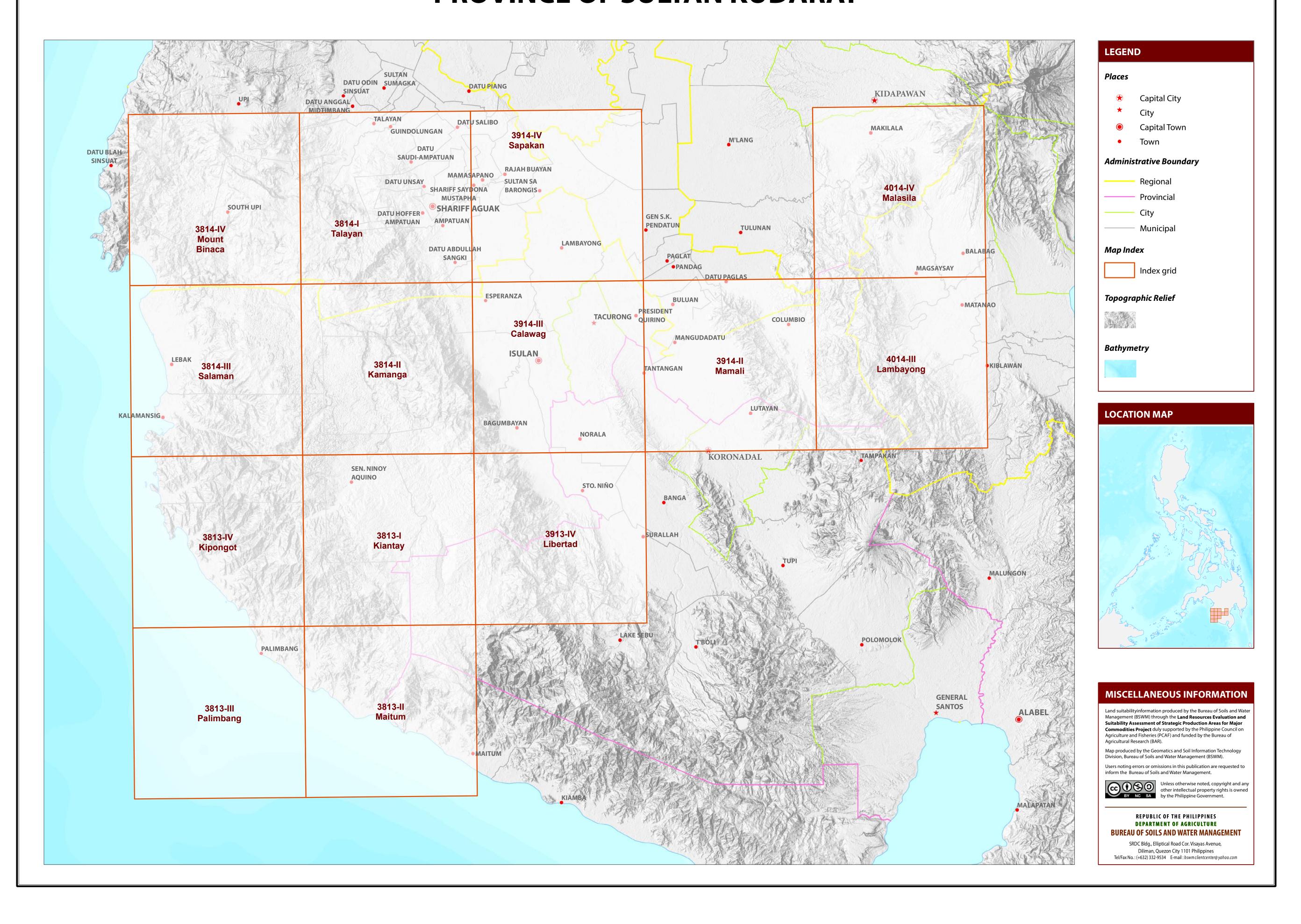
PROVINCE OF SULTAN KUDARAT





MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF SULTAN KUDARAT



LAND SUITABILITY MAP FOR **CASSAVA**

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS SULTAN KUDARAT, REGION XII

EXTENT OF SUITABILITY FOR CASSAVA PRODUCTION BY MUNICIPALITY

						EXI	PANSION	AREA (Ha	1)			СО	NFLICT A	REA (Ha)			TOTAL	
MUNICIPALITY	EXISTIN	IG CASSA	VA (Ha)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrub unmana	,	Grassla unmana	- 1	Cor	n	Oil pa	lm Other crops		crops	POTENTIAL EXPANSION	
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)	
BAGUMBAYAN	-	-	-	-	1,690	972	9	49	20	652	3,113	1,693	77	31	-	-	8,305	
CITY OF TACURONG	-	-	-	-	161	1	4	-	1,593	1,370	3,137	37	1,809	-	9	-	8,122	
COLUMBIO	-	-	-	-	32	9	-	14	1,139	3,193	1,767	175	-	-	-	-	6,330	
ESPERANZA	-	-	-	-	573	709	-	30	4	83	3,280	1,665	-	-	-	-	6,345	
ISULAN	-	-	-	-	430	294	-	33	-	94	4,324	1,144	1,556	146	-	-	8,021	
KALAMANSIG	-	-	-	-	1,920	595	32	343	-	201	73	4	-	-	-	-	3,169	
LAMBAYONG	-	-	-	-	152	-	-	-	-	-	4,243	29	-	-	-	-	4,425	
LEBAK	_	-	-	-	3,594	2,898	1	187	101	84	411	2,365	-	-	1	-	9,641	
LUTAYAN	_	-	-	-	848	72	318	12	115	523	3,793	65	-	-	-	-	5,746	
PALIMBANG	_	-	-	-	5,563	1,897	-	673	-	120	1,219	449	-	-	-	-	9,920	
PRESIDENT QUIRINO	-	-	_	-	1,271	7	-	-	-	-	3,587	4	-	-	-	-	4,868	
SEN. NINOY AQUINO	-	-	-	-	-	-	-	-	-	158	_	2,819	-	-	-	-	2,977	
TOTAL	-	-		-	16,233	7,454	364	1,342	2,972	6,478	28,947	10,449	3,442	177	10	-	77,869	

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

*establishment of shade trees prior to planting of cassava.

AGRONOMIC REQUIREMENT OF CASSAVA 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	>50	FSL, L, SiL, CL, SiCL, SCL, SC, SiC, C	WD,MWD	5.6 -7.2	high	none-slight	none-slight	none-few	<500	1000-2000	I,II, III, IV
Cassava	S2	8 - 18	30 - 50	SL, HC	SPD, PD	5.1 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1500	2001-4500	II
	S3	18 - 30	<30	S, LS, CSL	VPD,ED	<5.0 - > 7.9	low	severe	severe	many	>1500	<1000 >4500	

	33	10 - 30	<30	ა, ఒა, აა	V P D,ED	< 5.0 - >	7.9 10W	severe	Severe	Illally	>1300	>450	0
SLOPE (%	%)		SOIL DRA	INAGE		SOIL REA	ACTION (pH)		SOIL TEXT	URE			
0 - 3	- level to gently sloping		ED	- excessively drained		< 4.5	- extremely acid		Coarse			Fine	
3 - 8	- gently sloping to undu	ılating	WD	- well drained		4.5 - 5.0	 very strongly acid 		S	- sand		SC	- sandy clay
8 - 18	- undulating to rolling		MWD	- moderately well drain	ed	5.1 - 5.5	- strongly acid		LS	- loamy sand		SiC	- silty clay
18 - 30	- rolling to moderately	steep	SPD	- somewhat poorly drai	ned	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
> 50	- very steep		VPD	 very poorly drained 		6.6 - 7.2	- neutral		Medium				
						7.3 - 7.8	 mildly alkaline 		FSL	- fine sandy loam			
SOIL DEF	TH (cm)		SURFACE	IMPEDIMENT		7.9 - 8.4	- moderately alkaline		L	- loam			
0 - 30	- very shallow		ROCK OUT	CCROPS		> 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

ELEVATION	SO	IL DRAINAGE	SOIL DE	PTH	SOIL	EROSION
El2 - 500 - 1000n	or 2000 - 2500m D2	- Somewhat poorly drained to poorly drained	Sh2 - S	Shallow to moderately deep (30 - 100cm)	E2	- Moderate erosion
El3 -< 500m or >	2500m D3	- Very poorly drained or excessively drained	Sh3 - V	Very shallow (< 30cm)	E3	- Severe erosion
SLOPE/TOPOGRAI	PHY SO	IL TEXTURE	ROCK O	UTCROPS	FLOO	DING
T2 - Undulating	to moderately steep	- Coarse texture	Rc2 - C	Common	F2	- Moderate seasonal flooding
T3 - Steep to ver	y steep		Rc3 - N	Many	F3	- Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	El2	11	T2-El2-E3-Sh2-Rc3	21	T3	31	T3-El2-E3-Sh2-Rc2	41	T3-F3-D2	51	T3-El3-E3-Sh3-Rc3
2	El2-E2-Sh2-Rc3	12	T2-El2-Rc2	22	Т3-Е3	32	T3-El2-E3-Sh2-Rc3	42	T3	52	T3-El3-E3-Sh3-Rc3
3	El2-Sh2-Rc2	13	T2-El2-Sh2-Rc2	23	T3-E3-Rc2	33	T3-El2-E3-Sh3-Rc2	43	T3-E3	53	Tc
4	F2-D2	14	T2-El2-Sh2-Rc3	24	T3-E3-Sh2-Rc2	34	T3-El2-E3-Sh3-Rc3	44	T3-E3-Rc3		
5	F3-D2	15	T2-El3	25	T3-E3-Sh2-Rc3	35	T3-El3-E3	45	T3-E3-Sh3-Rc3		
6	Sh2	16	T2-El3-E3-Sh2-Rc3	26	T3-E3-Sh3-Rc2	36	T3-El3-E3-Sh2-Rc2	46	T3-E12		
7	Sh2-Rc2	17	T2-El3-Sh2-Rc2	27	T3-E3-Sh3-Rc3	37	T3-El3-E3-Sh2-Rc3	47	T3-El2-E3		
8	T2	18	T2-F2-D2	28	T3-El2	38	T3-El3-E3-Sh3-Rc2	48	T3-El2-E3-Rc3		
9	T2-E2-Sh2-Rc2	19	T2-F3-D2	29	T3-El2-E3	39	T3-El3-E3-Sh3-Rc3	49	T3-El2-E3-Sh3-Rc3		
<i>10</i>	T2-E12	20	T2-Sh2-Rc2	30	T3-El2-E3-Rc2	40	T3-F2-D2	<i>50</i>	T3-El3-E3		

CODE	LANDUSE
4	Corn
81	Coffee
82	Cacao
91	Banana
116	Coconut
119	Oil palm
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

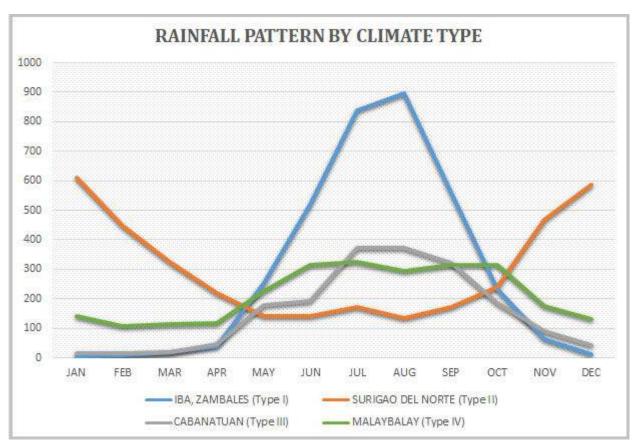
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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 season.

The Eastern part of Sultan Kudarat is classified as climatic Type III and the Southern part lies to climatic 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.

