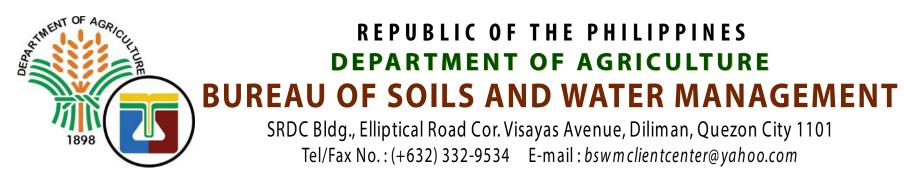
LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

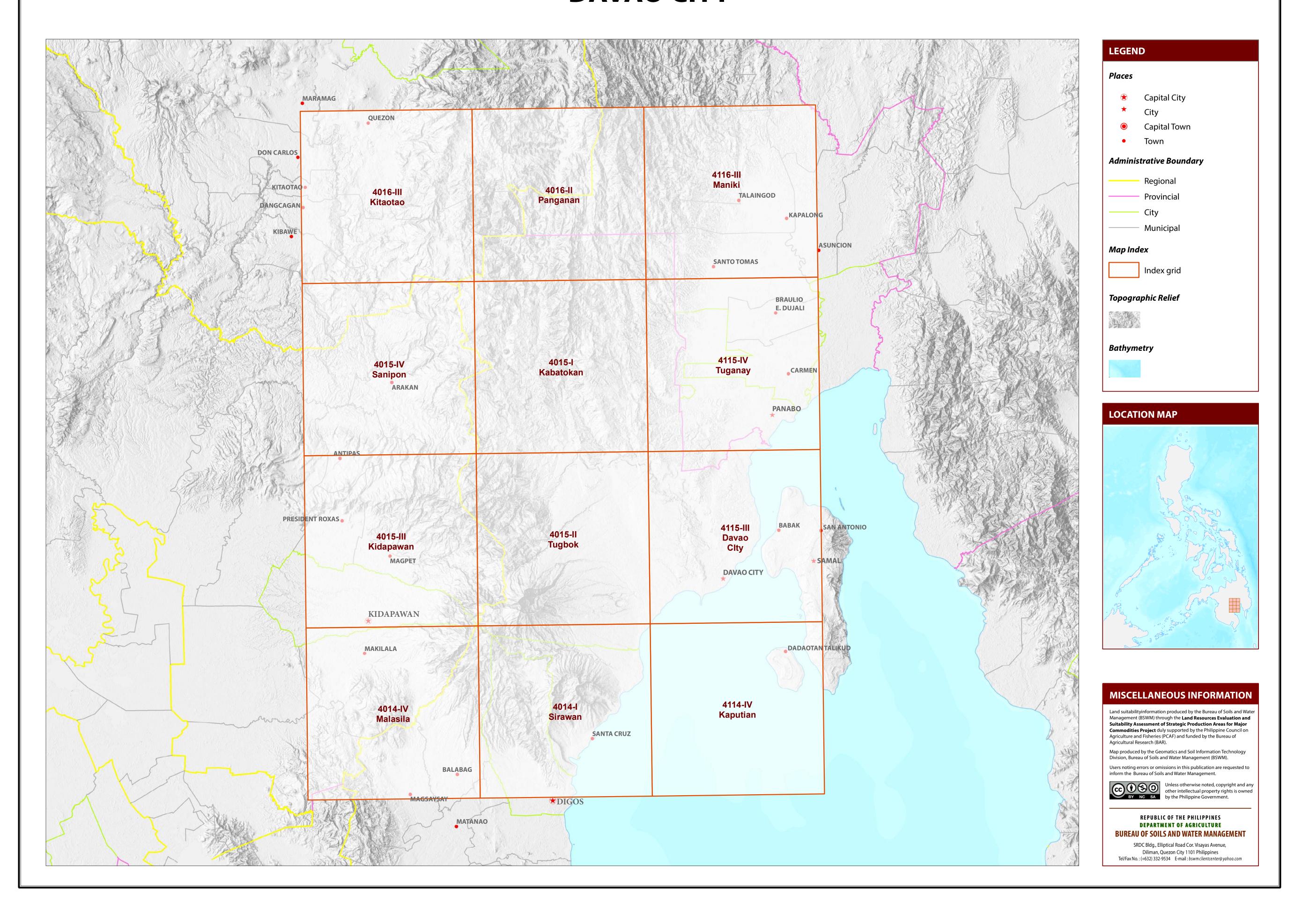
DAVAO CITY





MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS DAVAO CITY



LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS DAVAO CITY, REGION XI

116 Coconut

131 ipil ipil

126 Grassland

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

					EXPANSION AREA (Ha)						CONFLICT RESOLUTION AREA (Ha)								TOTAL		
MUNICIPALITY	EXISTIN	G ROBUS	ГА (На)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrubl unmana	•	Grass unmar	sland, naged*	Banana		Mango		Pineapple		Sugarcane		Other crops		POTENTIAL EXPANSION
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)
DAVAO CITY	461	1,313	4,870	6,644	42,559	11,286	2,452	927	7,140	3,780	2,601	2,523	1,187	11	766	553	91	25	437	116	76,452
TOTAL	461	1,313	4,870	6,644	42,559	11,286	2,452	927	7,140	3,780	2,601	2,523	1,187	11	766	553	91	25	437	116	76,452

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.

8 El2-Sh2-Rc2

9 El2-Sh2-Rc3

10 El3

18 T2

19 T2-E3

20 T2-E3-Rc2

AGRONOMIC REQUIREMENT OF ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION

	LAND UTILIZATIO TYPE	N 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 (pH)			SOIL TEXTU	IRE			
	0 - 3 - level to gently sloping			ED - excessively drained			< 4.5 - extremely acid			Coarse			Fine	
3 - 8 - gently sloping to undulating			WD - v	- well drained			4.5 - 5.0 - very strongly acid			sand		SC - sa	ndy clay	
	8 - 18 - undulating to rolling		MWD - r	MWD - moderately well drained			5.1 - 5.5 - strongly acid			LS - loamy sand			SiC - silty clay	
	18 - 30 - rolling to moderately steep			SPD - somewhat poorly drained			5.6 - 6.0 - medium acid			CSL -	coarse sandy loam		C - cl	ay
	30 - 50 - steep		PD - poorly drained			6.1 - 6.5 - slightly acid			SL -	sandy loam		HC - he	eavy 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 IM	PEDIMENT		7.9 - 8.4 - moderately alkaline			L -	- loam				
0 - 30 - very shallow			ROCK OUTCROPS			> 8.5 - strongly alkaline			SiL -	- silt loam				
	30 - 50 - s	hallow		< 10% - none - few						CL -	clay loam			
	50 - 100 - r	noderately deep		10 - 30% - 0	common					SiCL -	silty clay loam			
	> 100 - 0	leep to very deep		> 30% - r	nany					SCL -	sandy clay loam			

LAN	D LIMITATION	NS DE	SCRIPTION A	AND CO	OMBINATION	IS									
ELEVA	TION		SOIL DR	RAINAGE			SOIL	DEPTH		SOIL	EROSION				
	1000m - 2000m				poorly drained to poorl	ly drained	Sh2				E2 - Moderate erosion				
					y drained or excessively	=	Sh3				3 - Severe erosion				
SLOPE/TOPOGRAPHY SOII			SOIL TE	XTURE			ROCI	COUTCROPS		FLOO	DING				
T2 - Undulating to moderately steep			Tc - Coarse texture				Rc2 - Common			F2 - Moderate seasonal flooding					
T3 - Steep to very steep							Rc3 - Many			F3 - Severe seasonal flooding					
CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LANDUSE	CODE	LANDUSE		
CODE	E2-Sh2-Rc2	LODE	El3-Sh2-Rc2				T3-E3		-	4	Corn	134	Shrubs, unmanaged		
$\frac{1}{2}$	E2-Sh2-Rc3	12	F2-D2	21 22	T2-E3-Rc3 T2-E3-Sh2-Rc2	31	T3-E3-Rc2	41	T3-E3	34	Diversified crops				
3	E3-Sh2-Rc3	13	F3-D2	23	T2-E3-Sh2-Rc3	33	T3-E3-Rc2	43	T3-E3-Rc3	84	Pineapple				
4	E3-3112-RC3	13	Rc2	23	T2-El2	34	T3-E3-Sh3-Rc3	43	T3-E3-Sh3-Rc3	85	Mango				
5	El2-E2-Sh2-Rc3	15	Sh2	25	T2-E12-E3	35	T3-E12	45	T3-El2	91	Banana				
6	El2-E3-Sh2-Rc3	16	Sh2-Rc2	26	T2-El2-E3	36	T3-E12-E3	45	T3-El2-E3	105	Fruit trees, mixed				
7	El2-Rc2	17	Sh2-Rc3	27	T2-El2-E3-Rc2	37	T3-El2-E3-Rc2	47	T3-El2-E3-Rc3	112	Sugarcane				
/	LIL ICL	1/	JIIZ ICJ	4/	12 112-13-3112-1((2	٠,٠	13 L12-L3-102	T/	I J LIZ LJ-ICJ	116	Coconut				

48 T3-El2-E3-Sh3-Rc3

49 T3-El3-E3-Sh3-Rc3

50 T3-El3

38 T3-El2-E3-Sh3-Rc2

39 T3-El2-E3-Sh3-Rc3

40 T3-El3-E3-Sh3-Rc2

28 T2-El2-E3-Sh2-Rc3

29 T2-El3-E3-Sh2-Rc2

30 T3

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

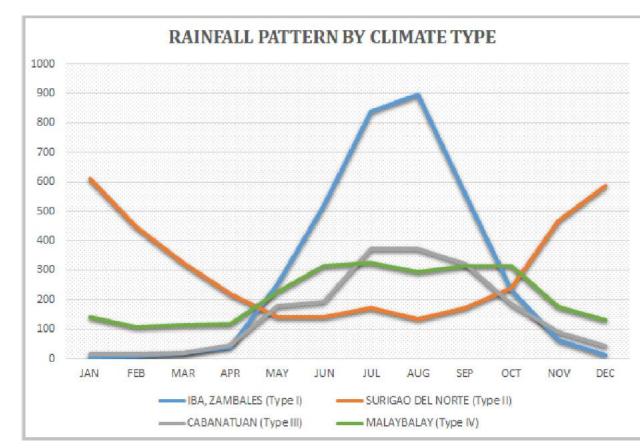
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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.

Davao City is classified as 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.

