LAND SUITABILITY MAP

ARABICA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF PALAWAN

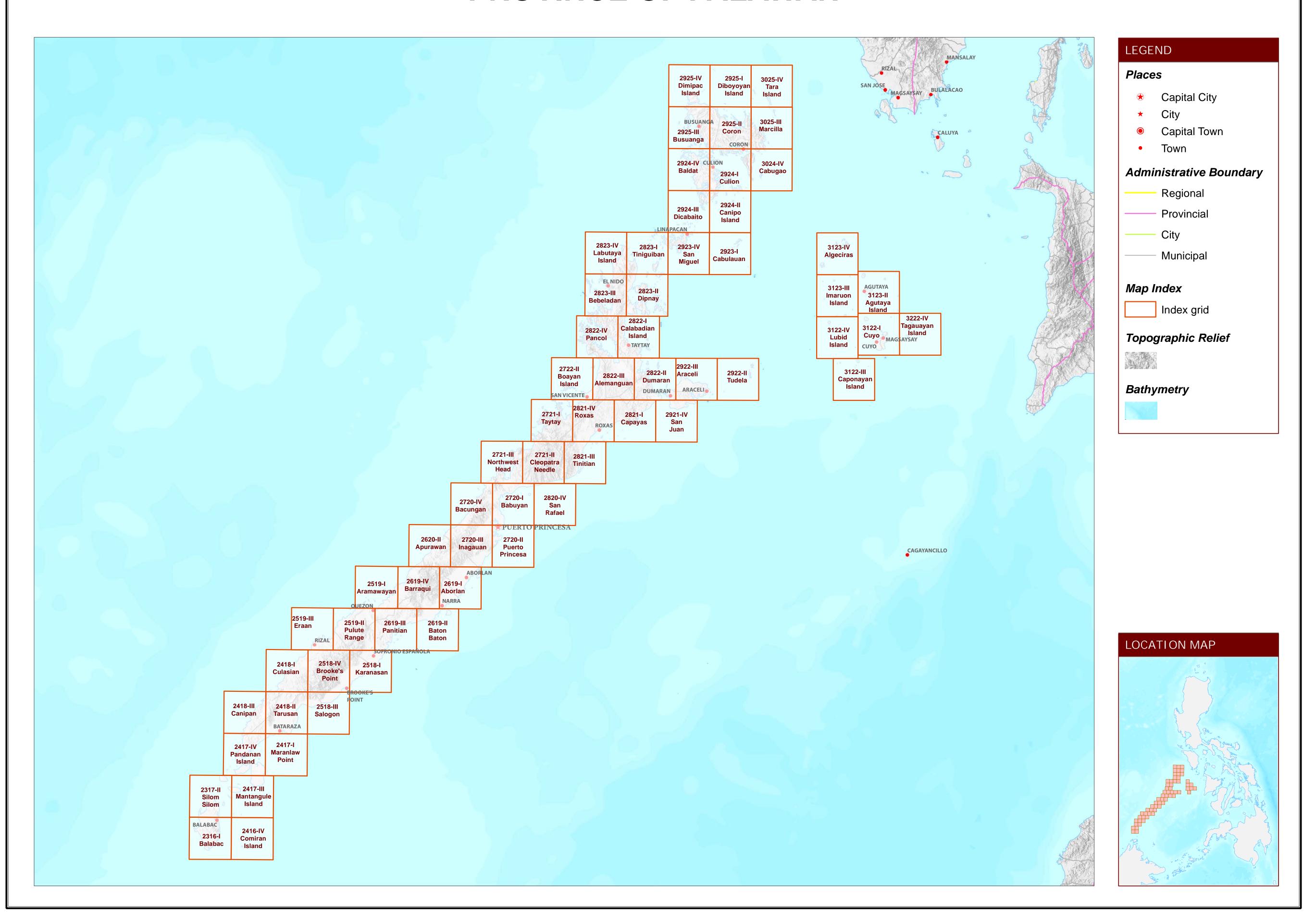




MAP INDEX

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PROVINCE OF PALAWAN



LAND SUITABILITY MAP FOR ARABICA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PALAWAN, REGION IV-B

EXTENT OF SUITABILITY FOR ARABICA COFFEE PRODUCTION BY MUNICIPALITY

						EX	KPANSION A	AREA (H	a)			CONF	LICT RES	OLUTION	(Ha)		TOTAL
MUNICIPALITY	EXISTI	NG COFFE	EE (Ha)	TOTAL EXISTING AREA (Ha)	Coc	onut	Shrubl unmana	, ,	Grass unmar	•	Со	rn	Rice paddy, non-irrigated		Other crops		POTENTIAL EXPANSION
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)
ABORLAN	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-
AGUTAYA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
ARACELI	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BALABAC	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
BATARAZA	-	25	-	25	_	-	-	-	-	-	-	-	-	-	-	-	-
BROOKE'S POINT	-	-	-	-	_	-	-	16	-	-	-	-	-	-	-	-	16
BUSUANGA	-	-	-	-	_	_	-	-	-	-	-	-	-	-	-	-	-
CORON	-	-	-	-	_	-	-	-	-	7	-	-	-	-	-	-	7
CULION	-	-	-	-	_	_	-	-	-	-	-	-	-	-	-	-	-
CUYO	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-
DUMARAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
EL NIDO	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
LINAPACAN	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MAGSAYSAY	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
NARRA	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
PUERTO PRINCESA CITY	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
QUEZON	-	28	5	33	-	-	-	-	-	-	-	-	-	-	-	-	-
RIZAL	-	174	306	480	-	-	-	53	-	-	-	-	-	-	-	-	53
ROXAS	-	-	2	2	-	-	-	-	-	-	-	-	-	-	-	-	-
SAN VICENTE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
SOFRONIO ESPAÑOLA	-	145	104	249	-	-	-	-	-	-	-	-	-	-	-	-	-
TAYTAY	-	-	-	-	-	_	-	-	-	-	-	-	-	-	-	-	-
TOTAL	-	372	419	791	-	-	_	69	-	7	_	_	_	-	-	_	76

Note: Delivery of coffee planting materials must be started on the onset of rainy season. *establishment of shade trees prior to planting of 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	

	33	3, 10, 401, 51	VI D,ED (5.0 - 7.5	10 W Severe	Severe	Indity	>2500	>450	0
SLOPE (9	%)	SOIL DRAINAGE	SOIL REACTION ((pH) S	OIL TEXTUR	RE			
0 - 3	- level to gently sloping	ED - excessively drained	< 4.5 - extre	mely acid C	Coarse			Fine	
3 - 8	- gently sloping to undulating	WD - well drained	4.5 - 5.0 - very s	strongly acid S	- sa	and		SC	- sandy clay
8 - 18	- undulating to rolling	MWD - moderately well drained	d 5.1 - 5.5 - stron	gly acid L	S - lo	amy sand		SiC	- silty clay
18 - 30	- rolling to moderately steep	SPD - somewhat poorly draine	ed 5.6 - 6.0 - mediu	um acid C	SL - co	oarse sandy loam		С	- clay
30 - 50	- steep	PD - poorly drained	6.1 - 6.5 - slight	ly acid S	SL - sa	andy loam		HC	- heavy clay
> 50	- very steep	VPD - very poorly drained	6.6 - 7.2 - neutr	al N	Medium				
			7.3 - 7.8 - mildly	y alkaline F	SL - fi	ne sandy loam			
SOIL DE	РТН (ст)	SURFACE IMPEDIMENT	7.9 - 8.4 - mode	rately alkaline L	lo	oam			
0 - 30	- very shallow	ROCK OUTCROPS	> 8.5 - strong	gly alkaline S	iL - si	lt loam			
30 - 50	- shallow	< 10% - none - few		C	L - cl	ay loam			
50 - 100	- moderately deep	10 - 30% - common		S	iCL - si	lty clay loam			
> 100	- deep to very deep	> 30% - many		S	CL - sa	andy clay loam			

I AND I IMITATIONS DESCRIPTION AND COMPINATIONS

LAND LIMITATIONS DESCRIPT	TION AND COMBINATIONS		
ELEVATION	SOIL DRAINAGE	SOIL DEPTH	SOIL EROSION
El2 - 500 - 1000m or 2000 - 2500m	D2 - Somewhat poorly drained to poorly drained	Sh2 - Shallow to moderately deep (30 - 100cm)	E2 - Moderate erosion
El3 $-<500$ m or >2500 m	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow (< 30cm)	E3 - Severe erosion
SLOPE/TOPOGRAPHY	SOIL TEXTURE	ROCK OUTCROPS	FLOODING
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	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION	CODE	LAND LIMITATION
1	E3-Rc3	11	El2-Tc	21	T2-El2-E3-Sh2-Rc3	31	T3-El2-E3-Rc3
2	El2	12	Sh2-Rc2	22	T2-El2-F2-D2	32	T3-El2-E3-Sh2-Rc3
3	El2-E2	13	T2	23	T2-El2-F3-D2	33	T3-El2-E3-Sh3-Rc2
4	El2-E2-Sh2-Rc2	14	T2-E3	24	T3	34	T3-El2-E3-Sh3-Rc3
5	El2-E3-Rc3	15	T2-E3-Rc3	25	Т3-Е3	35	T3-El2-F3-D2
6	El2-F2-D2	16	T2-El2	26	T3-E3-Sh2-Rc3		
7	El2-F3-D2	17	T2-El2-E3	27	T3-E3-Sh3-Rc3		
8	El2-Rc2	18	T2-El2-E3-Rc2	28	T3-El2		
9	El2-Sh2	19	T2-El2-E3-Rc3	29	T3-El2-E3		
10	El2-Sh2-Rc2	20	T2-El2-E3-Sh2-Rc2	30	T3-El2-E3-Rc2		

CODE	LAND USE
2	Rice paddy, non-irrigated
4	Corn
81	Coffee
82	Cacao
116	Coconut
126	Grassland
134	Shrubland, unmanaged
137	Rubber

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

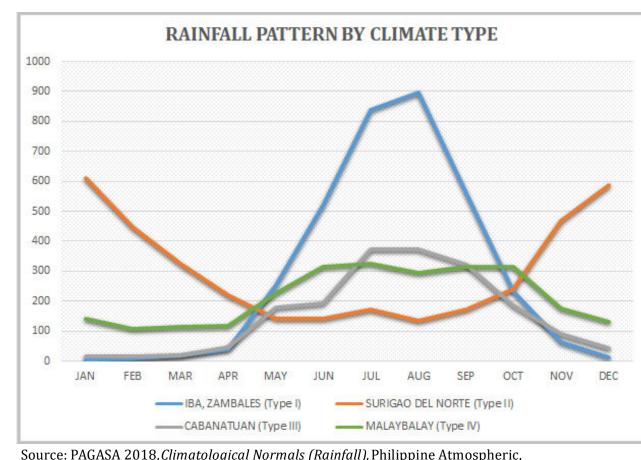
TYPE I: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

Northwestern part of Palawan belongs to climatic Type I and southeast part of the island is Type III.



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.

