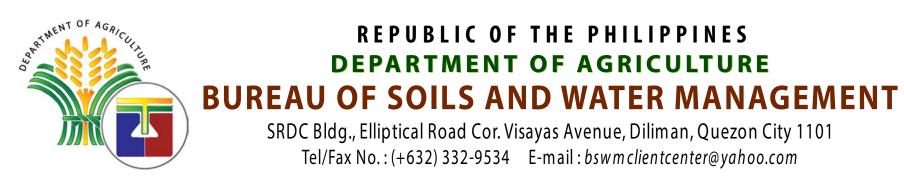
LAND SUITABILITY MAP

ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF NUEVA VIZCAYA

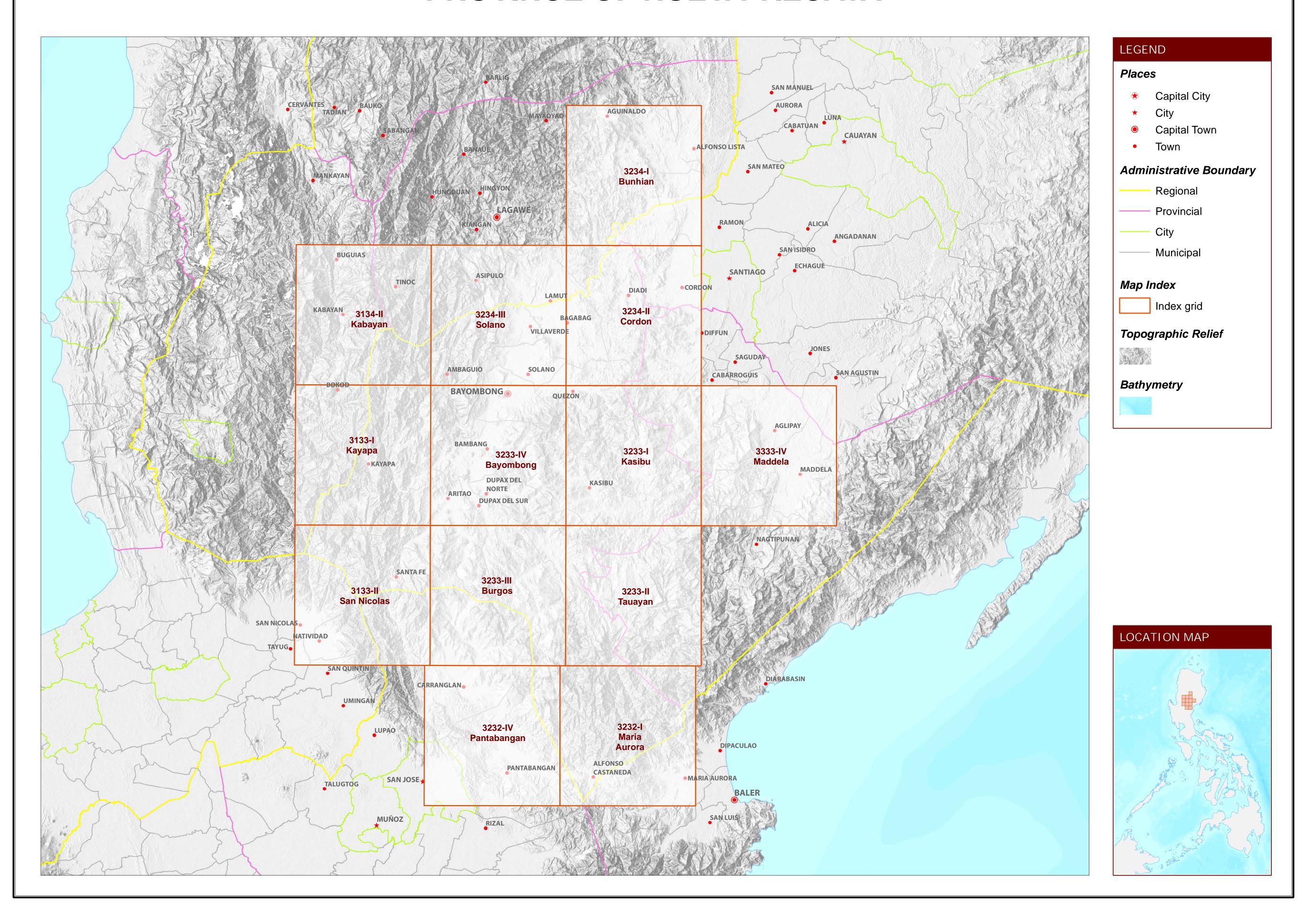




MAP INDEX

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

PROVINCE OF NUEVA VIZCAYA



LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

NUEVA VIZCAYA, REGION II

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

					EXPANSION AREA (Ha)					CONFLICT RESOLUTION (Ha)					TOTAL		
MUNICIPALITY	EXISTI	NG COFFE	EE (Ha)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrub unman	,	Grass unman		Со	rn	Rice p non-irr	• •	Other	crops	TOTAL POTENTIAL EXPANSION
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	AREA (Ha)
ALFONSO CASTANEDA	32	-	256	288	-	-	27	-	577	4	205	-	169	-	-	ı	980
AMBAGUIO	-	-	-	-	_	-	-	-	9	26	-	11	-	-	-	-	47
ARITAO	187	-	532	719	52	-	118	-	1,445	51	958	109	766	3	-	-	3,502
BAGABAG	-	-	-	-	158	-	3	-	3,120	16	2,870	-	1,620	-	-	-	7,788
BAMBANG	8	-	95	103	88	10	-	-	2,426	53	1,451	439	1,460	15	-	-	5,941
BAYOMBONG	-	-	-	-	42	45	-	-	1,084	743	1,081	271	995	3	-	-	4,266
DIADI	-	-	10	10	527	-	477	-	2,739	34	2,713	5	678	-	-	-	7,174
DUPAX DEL NORTE	-	97	14	111	121	-	-	-	879	2,355	473	684	332	-	-	-	4,845
DUPAX DEL SUR	-	219	154	373	-	-	-	-	1,076	1,787	202	1	166	-	-	-	3,232
KASIBU	-	-	425	425	-	96	8	112	84	341	73	1,305	11	-	-	-	2,030
KAYAPA	-	-	34	34	8	8	-	-	123	27	84	7	3	2	-	-	262
QUEZON	-	-	-	-	-	-	-	-	2,970	27	855	-	364	-	-	-	4,216
SANTA FE	-	-	180	180	-	-	-	-	35	3	-	122	4	5	-	-	168
SOLANO	-	-	-	-	13	-	-	-	608	241	1,044	33	1,636	8	-	-	3,583
VILLAVERDE	-	-	-	-	16	13	-	15	324	545	966	214	1,234	18	-	-	3,345
TOTAL	227	316	1,700	2,243	1,026	172	633	127	17,500	6,254	12,975	3,201	9,437	53	-	-	51,379

Note: Delivery of coffee planting materials must be starteed on the onset of rainy season.

*establishment of shade trees prior to planting of coffee.

AGRONOMIC REQUIREMENT OF ROBUSTA, LIBERICA AND EXCELSA 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
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	

Liberio	ca) S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 -> 7.9	low	severe	severe	many	>2000	<100 >450	
SLOPE (%	%)	•	SOIL DRA	INAGE		SOIL REACT	ΓΙΟΝ (pH)		SOIL TE	XTURE			
0 - 3	- level to gently slopi	ing	ED	- excessively drained		< 4.5	extremely acid		Coarse			Fine	
3 - 8	- gently sloping to ur	ndulating	WD	- well drained		4.5 - 5.0 -	very strongly acid		S	- sand		SC	- sandy clay
8 - 18	- undulating to rollin	ıg	MWD	- moderately well drain	ed	5.1 - 5.5 -	strongly acid		LS	- loamy sand		SiC	- silty clay
18 - 30	- rolling to moderate	ely 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	1			
						7.3 - 7.8 -	mildly alkaline		FSL	- fine sandy loam			
SOIL DEF	PTH (cm)		SURFACE	IMPEDIMENT		7.9 - 8.4 -	moderately alkaline		L	- loam			
0 - 30	- very shallow		ROCK OUT	'CROPS		> 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	SOIL DRAINAGE	SOIL DEPTH	SOIL EROSION
El2 - 1000m - 2000m	D2 - Somewhat poorly drained to poorly drained	Sh2 - Shallow to moderately deep (30 - 100cm)	E2 - Moderate erosion
El3 -> 2000m	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow (< 30cm)	E3 - Severe erosion
GV ODD (TODOGD ADVIV)	CON THUMBURD	DOG CAMERO OF	TI CODING
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	E2-Sh2-Rc2	11	Sh2-Rc3	21	T2-El2-E3-Rc3	31	T3-E3-Sh3-Rc3
2	E2-Sh2-Rc3	12	T2	22	T2-El2-E3-Sh2-Rc2	32	T3-El2
3	E3-Rc3	13	T2-E3	23	T2-El2-E3-Sh2-Rc3	33	T3-El2-E3
4	E3-Sh2-Rc3	14	T2-E3-Rc2	24	T2-El2-E3-Sh3-Rc2	34	T3-El2-E3-Sh3-Rc3
5	El2	15	T2-E3-Sh2-Rc2	25	T2-El2-E3-Sh3-Rc3	35	T3-El3-E3
6	El2-E2-Sh2-Rc3	16	T2-E3-Sh2-Rc3	26	T2-El3-E3	36	T3-El3-E3-Sh3-Rc3
7	El2-E3-Sh2-Rc3	17	T2-E3-Sh3-Rc2	27	T2-El3-E3-Sh3-Rc3		
8	El2-Sh2-Rc2	18	T2-E3-Sh3-Rc3	28	T3		
9	El3	19	T2-El2	29	T3-E3		
10	Sh2-Rc2	20	T2-El2-E3	30	T3-E3-Rc3		

CODE	LAND USE
2	Rice paddy, non-irrigated
4	Corn
47	Vegetable
81	Coffee
82	Cacao
116	Coconut
126	Grassland
134	Shrubland, 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.

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.

Moderatel
Land having
moderately
given use; the

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 wet during the rest of the year. Maximum rain period is from June to September

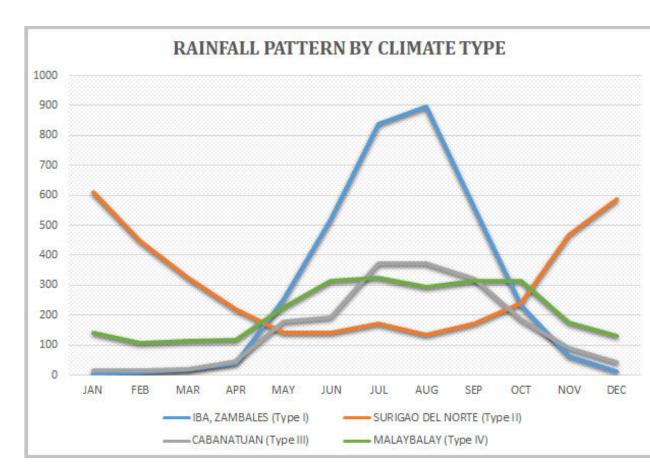
No dry season with a very pronounced maximum rain period from December to February. There is not a single dry month. Maximum monthly rainfall occurs during the period from March to May.

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.

Rainfall is more or less evenly distributed throughout the year. This type resembles Type II since it has no dry

 $Almost\ whole\ part\ of\ Nueva\ Vizcaya\ classified\ as\ climatic\ Type\ III\ and\ small\ part\ in\ the\ western\ side\ is\ Type\ I.$



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.

