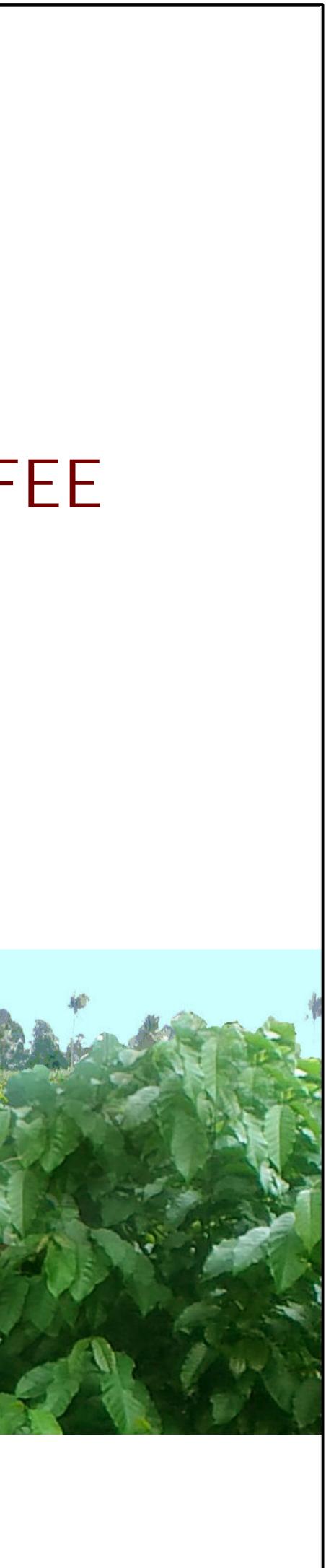
ROBUSTA, LIBERICA AND EXCELSA COFFEE

LAND RESOURCES EVALUATION AND SUITABILITY **ASSESSMENT OF STRATEGIC PRODUCTION AREAS**

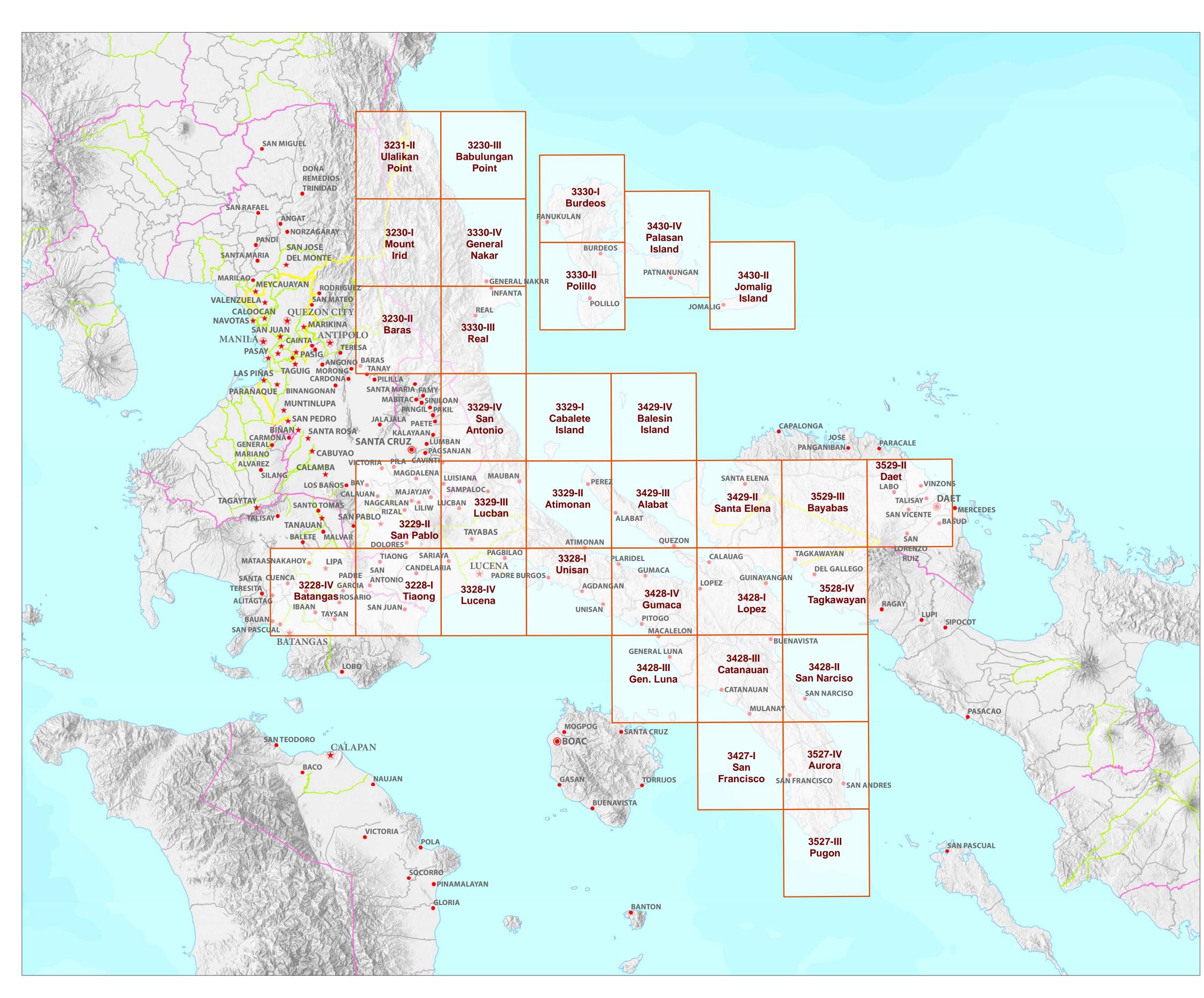
PROVINCE OF QUEZON



LAND SUITABILITY MAP



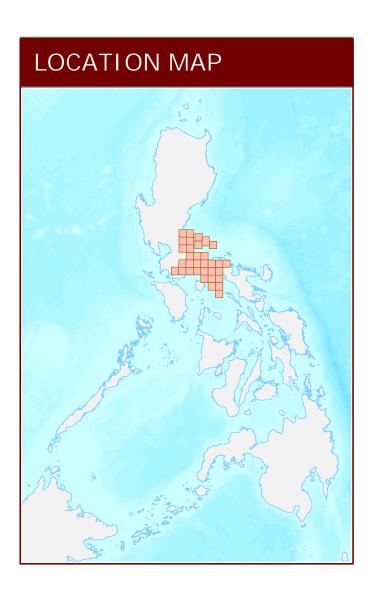
LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS



MAP INDEX

PROVINCE OF QUEZON

LEGE	ND
Place	S
۲	Capital City
*	City
۲	Capital Town
•	Town
Admi	nistrative Boundary
	Regional
	Provincial
	City
	Municipal
Map I	ndex
	Index grid
Торо	graphic Relief
Bathy	metry



LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS QUEZON, REGION IV-A

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

		EXPANSION AREA (Ha) COM							CONFLICT RESOLUTION (Ha)					TOTAL			
MUNICIPALITY	EXISTI	NG COFFI	EE (Ha)	TOTAL EXISTING AREA (Ha)	Сосо	nut	Shrub unmar	,	Grassl unmana		Co	rn	Rice p non-iri	Other c	rops	POTENTIAL EXPANSION AREA (Ha)	
	S1	S2	S 3		S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	S1	S2	inthis (ind)
AGDANGAN	-	-	-	-	2,922	-	-	-	-	-	66	-	5	-	-	-	2,993
ALABAT	-	-	-	-	2,699	32	250	40	-	-	474	-	44	-	-	-	3,539
ATIMONAN	26	-	25	52	6,911	205	349	262	2	-	340	-	149	-	-	-	8,218
BUENAVISTA	-	-	-	-	6,894	559	31	-	16	10	1,337	243	117	10	-	-	9,218
BURDEOS	90	-	-	90	3,384	-	10,404	-	11	-	281	-	372	-	-	-	14,452
CALAUAG	23	-	-	23	18,993	-	2,306	-	1,356	-	1,263	-	101	-	-	-	24,020
CANDELARIA	-	35	16	50	4,294	16	76	81	-	-	3,222	32	1,789	-	-	-	9,510
CATANAUAN	-	-	-	-	13,463	-	213	-	-	-	3,753	-	276	-	-	-	17,706
CITY OF TAYABAS	-	-	-	-	13,448	505	524	112	-	-	1,608	217	876	-	-	-	17,291
DOLORES	-	-	-	-	1,696	-	2,428	204	-	2	754	13	107	-	-	-	5,204
GENERAL LUNA	-	-	-	-	6,174	-	85	-	-	-	989	-	-	-	-	-	7,248
GENERAL NAKAR	-	-	-	-	1,041	10	240	7	142	5	81	4	224	2	-	-	1,756
GUINAYANGAN	-	-	-	-	12,762	-	2,963	12	588	-	147	-	101	-	-	-	16,574
GUMACA	32	-	18	50	11,829	10	-	-	3	-	397	-	-	-	-	-	12,239
INFANTA	-	-	-	-	1,577	34	80	-	37	8	1,213	-	204	-	-	-	3,153
JOMALIG	-	-	-	-	21	-	3,384	-	1,298	-	338	-	-	-	-	-	5,041
LOPEZ	114	-	120	234	22,832	-	1,502	-	-	-	432	-	433	-	-	-	25,200
LUCBAN	-	-	-	-	5,142	702	1,330	158	-	-	743	171	249	-	-	-	8,494
LUCENA CITY	-	-	-	-	2,189	29	-	-	-	-	2,543	2	918	2	-	-	5,683
MACALELON	-	-	-	-	5,542	90	772	-	-	-	379	-	-	-	-	-	6,783
MAUBAN	32	3	64	100	6,989	18	3,460	556	5	7	448	-	207	-	-	-	11,688
MULANAY	239	-	22	261	15,099	311	1,398	5	21	-	870	-	284	-	-	-	17,988
PADRE BURGOS	-	-	-	-	4,112	-	80	-	-	-	160	-	14	-	-	-	4,366
PAGBILAO	-	-	-	-	6,734	1	481	214	83	-	894	-	749	-	-	-	9,157
PANUKULAN	9	-	14	23	4,741	-	2,423	-	12	-	360	-	34	-	-	-	7,570
PATNANUNGAN	-	-	-	-	3,140	-	4,395	-	268	-	82	-	68	-	-	-	7,953
PEREZ	101	-	4	104	2,970	-	50	-	13	-	91	-	-	-	-	-	3,123
PITOGO	-	-	-	-	6,125	-	-	-	-	-	339	-	-	-	-	-	6,464
PLARIDEL	-	-	-	-	686	12	-	-	-	-	47	-	6	-	-	-	752
POLILLO	47	-	12	59	10,521	915	6,358	174	243	6	298	-	352	-	-	-	18,867
QUEZON	-	-	-	-	3,511	94	19	-	11	-	419	-	-	-	-	-	4,055
REAL	43	-	69	112	234	-	611	-	1	-	27	-	8	-	-	-	881
SAMPALOC	-	-	-	-	1,108	-	2,909	87	-	-	82	-	13	-	-	-	4,199
SAN ANDRES	-	-	-	-	742	223	304	178	37	-	5,646	2,164	573	15	-	-	9,881
SAN ANTONIO	-	-	-	-	5,458	30	22	-	-	-	-	-	-	-	-	-	5,510
SAN FRANCISCO	-	-	-	-	9,115	1,250	915	610	125	361	4,793	2,621	453	28	-	-	20,273
SAN NARCISO	-	-	-	-	6,166	297	1,942	25	68	-	3,941	59	325	11	-		12,833
SARIAYA	-	4	76	80	9,644	141	24	43	-	-	4,742	411	2,551	-	21	-	17,578
TAGKAWAYAN	203	-	41	243	10,086	19	15,046	249	2,524	83	504	-	414	-	-	-	28,923
TIAONG	-	-	-	-	4,436	-	1,571	4	-	-	1,170	-	967	-	-	-	8,149
UNISAN	53	-	16	69	8,204	-	-	-	3	-	598	-	53	-	-	-	8,859
TOTAL	1,012	42	497	1,552	263,634	5,501	68,948	3,022	6,865	482	45,873	5,937	13,040	68	21	-	413,392

*establishment of shade trees prior to planting of coffee.

AGRONOMIC REQUIREMENT OF ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION

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)		С	500 400			1 _		
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		300		<u> </u>	VF		\prec
(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	0 I, II		200		×	-	-	
Liberica)	S3	>30	<30	S, LS, CSL, SL	VPD,ED	<5.0 -> 7.9	low	severe	severe	many	>2000	<1000 >4500			0					
SLOPE (%)			SOIL DRAIN	NAGE		SOIL REACTIO	ON (pH)		SOIL TEXT	URE						JAN FEB MAR	APR N	AAY JUN JUL	AUG SI	EP OCT NOV DEC
	el to gently sloping	g	ED -	excessively drained		< 4.5 - ex	tremely acid		Coarse			Fine				IBA,	ZAMBALES (T	Type I) SURIGAC	O DEL NORT	ž (Type II)
•	ntly sloping to und			well drained			ery strongly acid			· sand			- sandy clay			CAB	ANATUAN (Ty	ype III) — MALAYB	BALAY (Type	IV)
	dulating to rolling			moderately well drain			rongly acid			loamy sand			- silty clay		Sourc	e: PAGASA 2018, <i>Climat</i> a	ological Noi	rmals (Rainfall), Philip	pine Atm	ospheric,
	ling to moderately	r steep		somewhat poorly drai poorly drained	ned		edium acid ightly acid			· coarse sandy loam · sandy loam	l		- clay - heavy clay			Geophysical and Astro	onomical Se	ervices Administration	n (PAGASA	A), accessed 27 July 2018
	ry steep			very poorly drained			eutral		Medium	Sanuy Ioani		110 -	- neavy clay			<https: td="" www1.paga<=""><td>sa.dost.gov</td><td>.ph/index.php/climat</td><td>e/climato</td><td>logical-normals>.</td></https:>	sa.dost.gov	.ph/index.php/climat	e/climato	logical-normals>.
	y seep		VI D	very poorty aramea			ildly alkaline			fine sandy loam										
SOIL DEPTH (c	cm)		SURFACE II	MPEDIMENT		7.9 - 8.4 - m	oderately alkaline			loam										
0 - 30 - vei	ry shallow		ROCK OUTC	ROPS		> 8.5 - sti	rongly alkaline		SiL -	silt loam										
30 - 50 - sha	allow		< 10% -	none - few					CL -	clay loam										
50 - 100 - mo	derately deep			common						silty clay loam						1				
>100 - dee	ep to very deep		> 30% -	many					SCL -	sandy clay loam				CODE LAND LIMITATION	CODE			LAND LIMITATION		LAND LIMITATION
														1 E2-Sh2-Rc2	11	T2-E3		T2-El2-E3-Sh3-Rc2	31	T3-El2-E3-Sh3-Rc3
														2 El2-Sh2-Rc2	12	T2-E3-Rc2		T2-El2-E3-Sh3-Rc3	32	T3-El3-E3-Sh3-Rc3
LAND LI	MITATION	S DESCRI	PTION AN	ID COMBINA	TIONS									3 El2-Sh2-Rc3 4 F2-D2	13 14	T2-E3-Rc3 T2-E3-Sh2-Rc2		T2-El3-E3-Sh3-Rc2 T2-F2-D2	33	Тс
ELEVATION			SOIL DRA				SOIL DEPTH			SOIL EROSION	J			5 F3-D2	14	T2-E3-Sh2-Rc3		T2-F2-D2 T2-F3-D2		
	- 2000m			mewhat poorly drained	d to poorly drain		Sold DEPTH Sh2 - Shallow to	moderately doon	(30 - 100 cm)		• ate erosion			6 Rc2	16	T2-E3-Sh3-Rc2		T3		
El3 -> 2000r				ry poorly drained or ex			Sh3 - Very shallo	P 1	(30 - 100011)	E3 - Severe				7 Sh2	17	T2-E3-Sh3-Rc3		T3-E3		
LIJ 20001	11		DS = VC								031011			8 Sh2-Rc2	18	T2-El2		T3-E3-Rc3		
SLOPE/TOPOG	GRAPHY		SOIL TEXT	ΓURE			ROCK OUTCROPS	5		FLOODING				9 Sh2-Rc3	19	T2-El2-E3-Sh2-Rc2	29	T3-E3-Sh3-Rc3		
	ting to moderately	steep		arse texture			Rc2 - Common				ate seasonal floo	ding		<u>10</u> T2	20	T2-El2-E3-Sh2-Rc3	30	T3-El2		
T3 - Steep to	•	L		-			Rc3 - Many				seasonal floodin	0		· · · ·	-				-	
Ĩ	5 I						2					~								

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.



Moderately Suitable (S2)

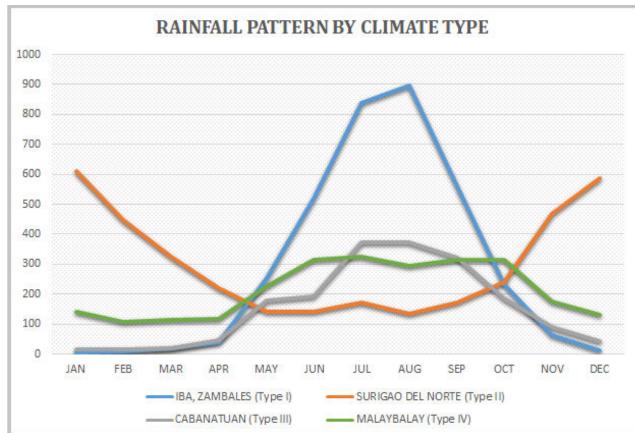
Land having limitation which in aggregate are moderately severe for sustained application of a given use; the limitation will reduce productivity or benefits and increase required inputs to the extent that the overall advantage to be gained from the use, although still attractive, will be appreciably inferior to that expected on class S1 land.

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

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.

Western part of Quezon Province is classified as climatic Type II.



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.

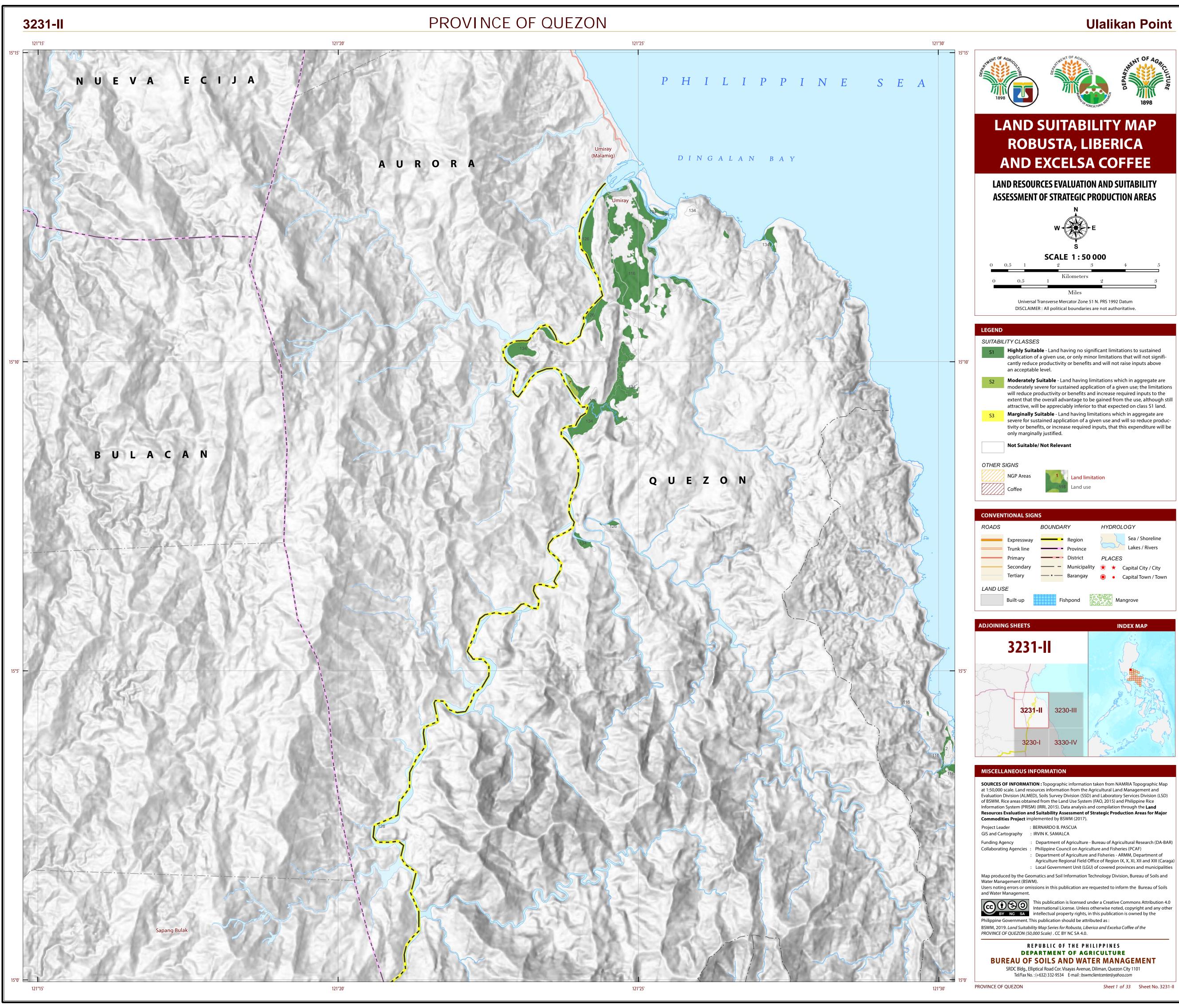
Not Suitable / Not Relevant

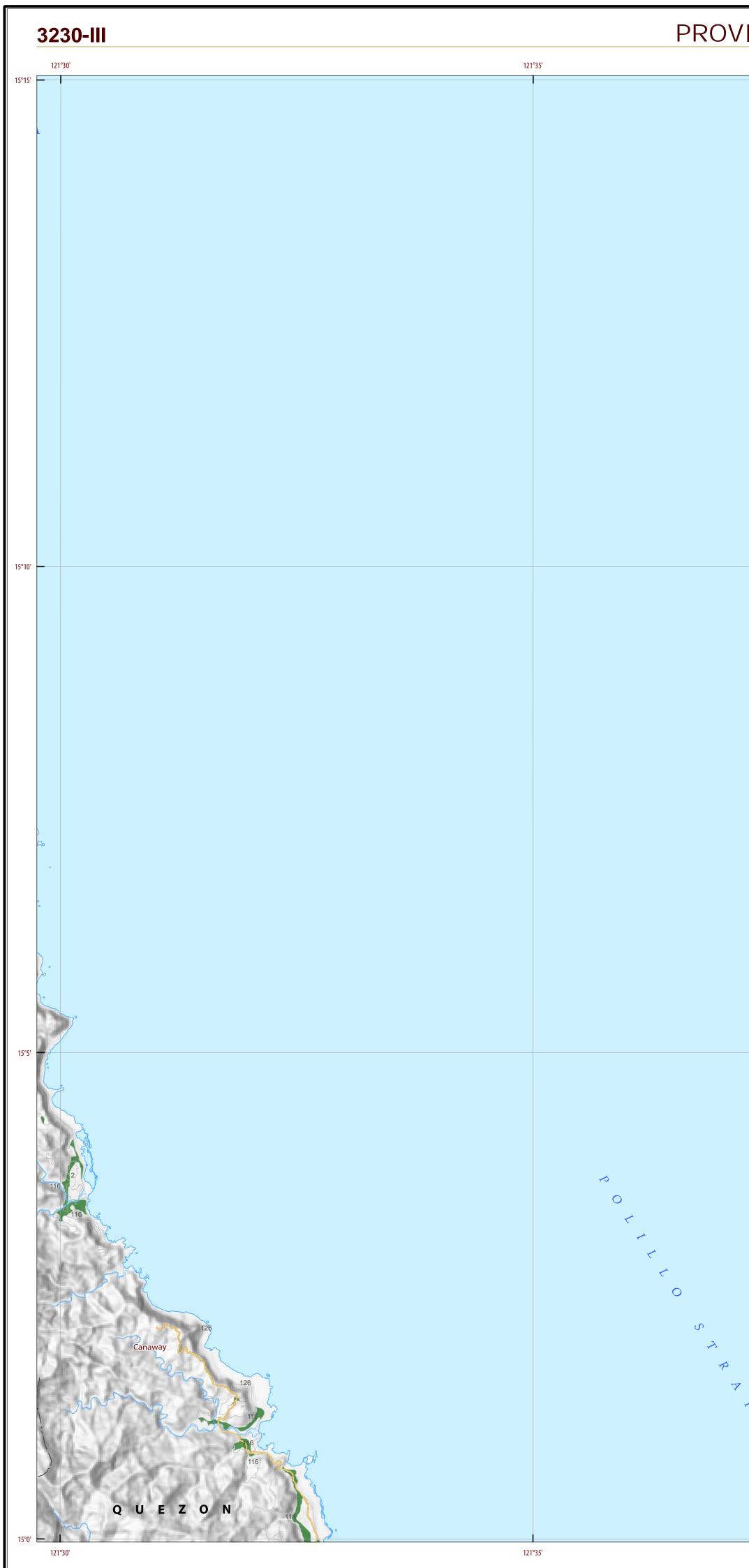
Land having limitations which may be surmountable in time but which cannot be corrected with existing knowledge at currently acceptable cost; the limitations are so severe as to preclude successful sustained use of the land in the given manner. Existing forest, shrubland greater than 18% slope, irrigated paddy rice and miscellaneous land types such as built up areas, roads, etc are considered as not relevant.

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.

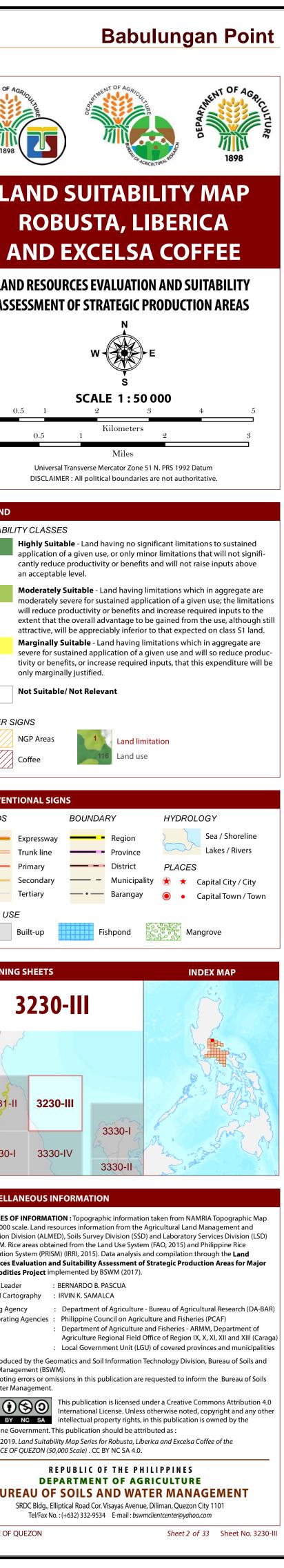
Rainfall is more or less evenly distributed throughout the year. This type resembles Type II since it has no dry season.

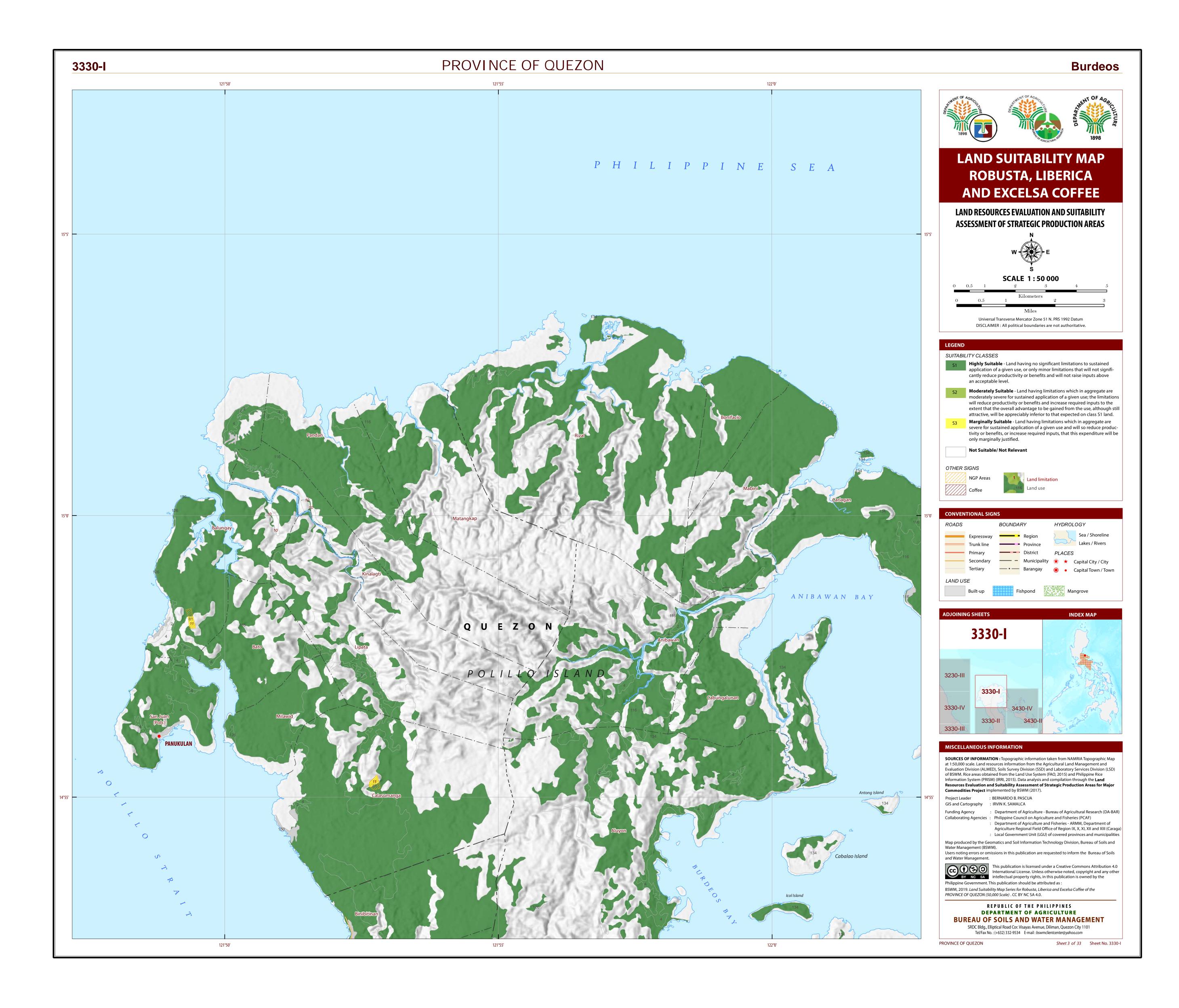
CODE	LAND USE
2	Rice paddy, non-irrigated
4	Corn
34	Coffee
81	Сасао
82	Coconut
112	Grassland
116	Coconut
126	Grassland
134	Shrubland, unmanaged

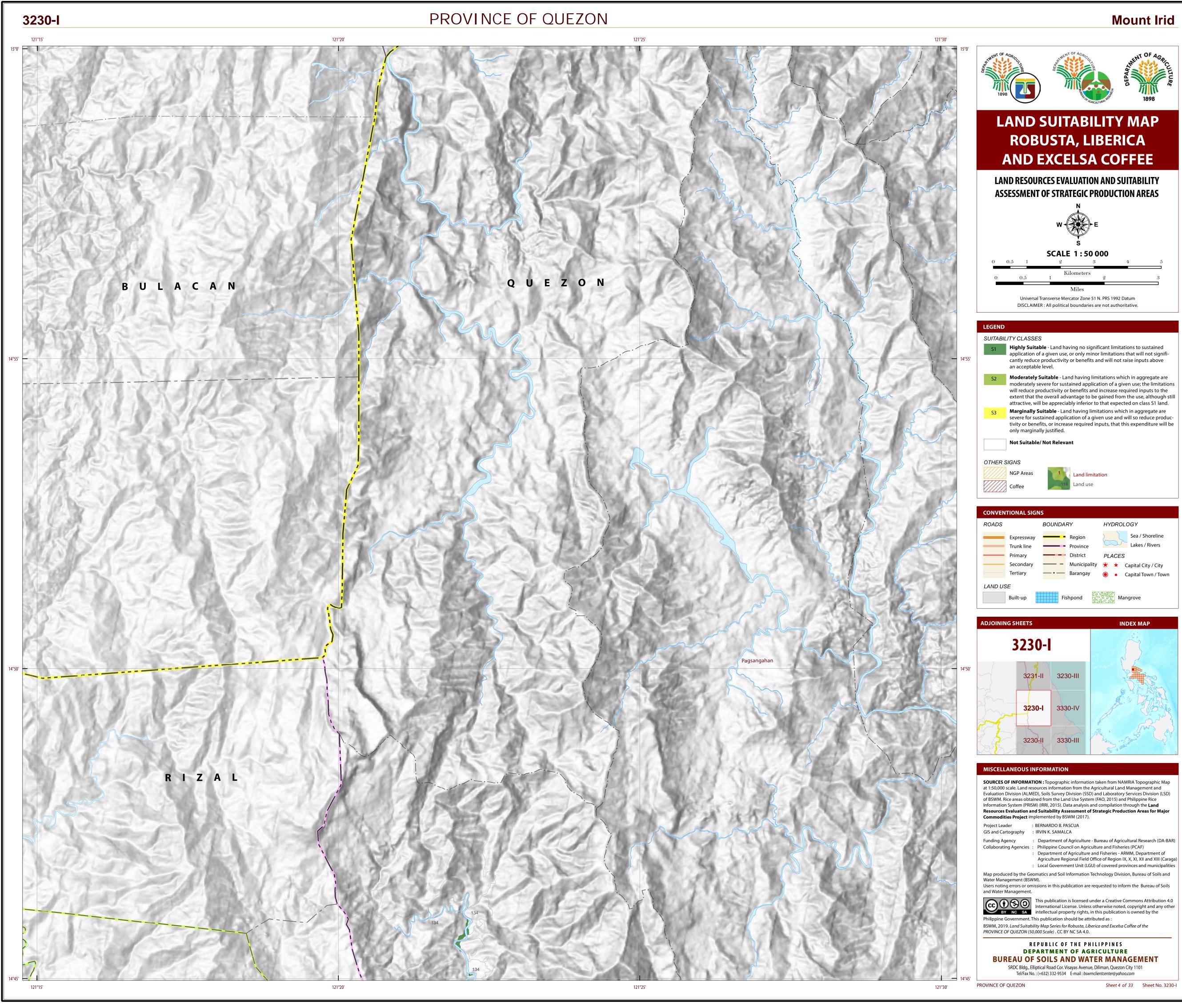


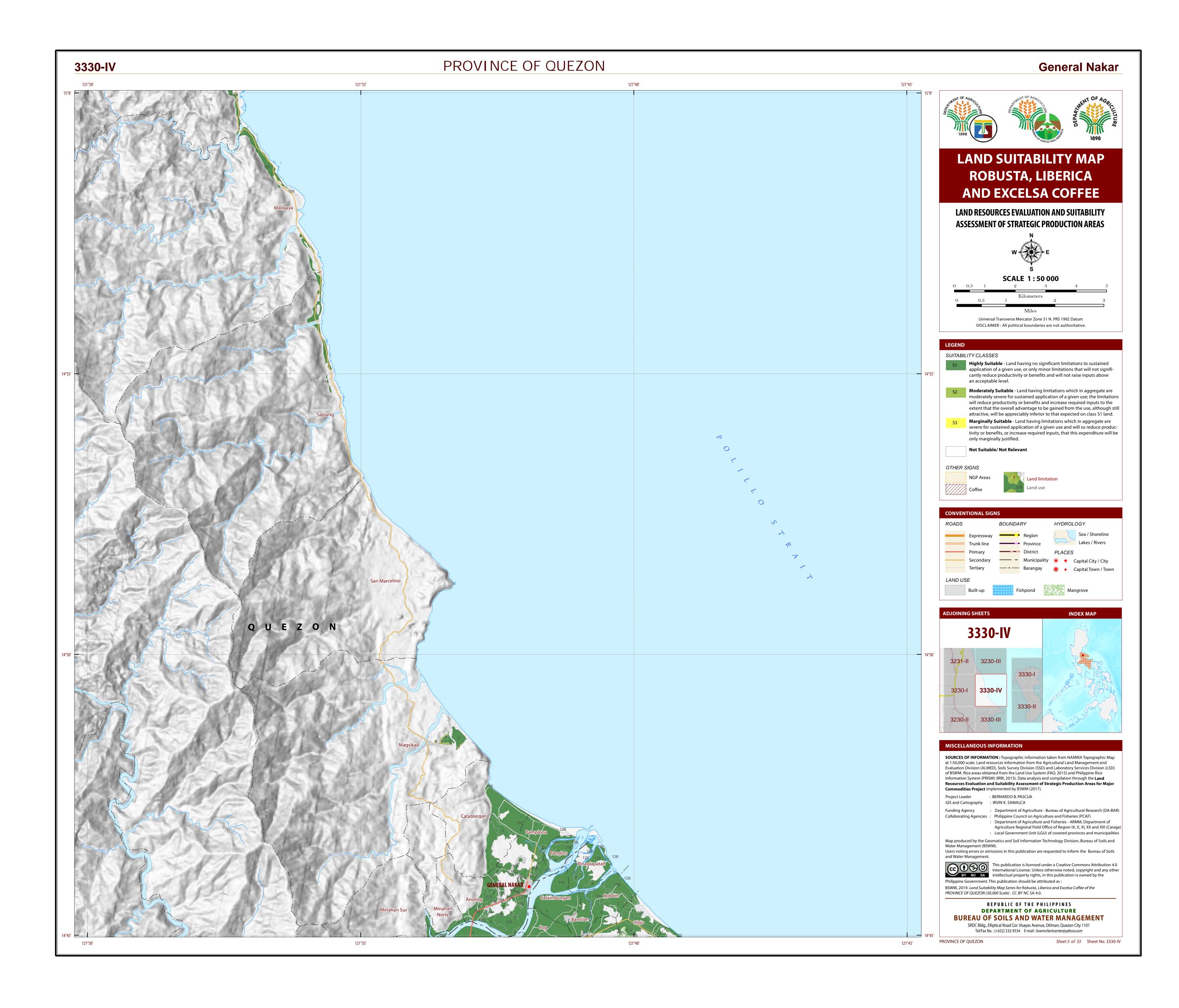


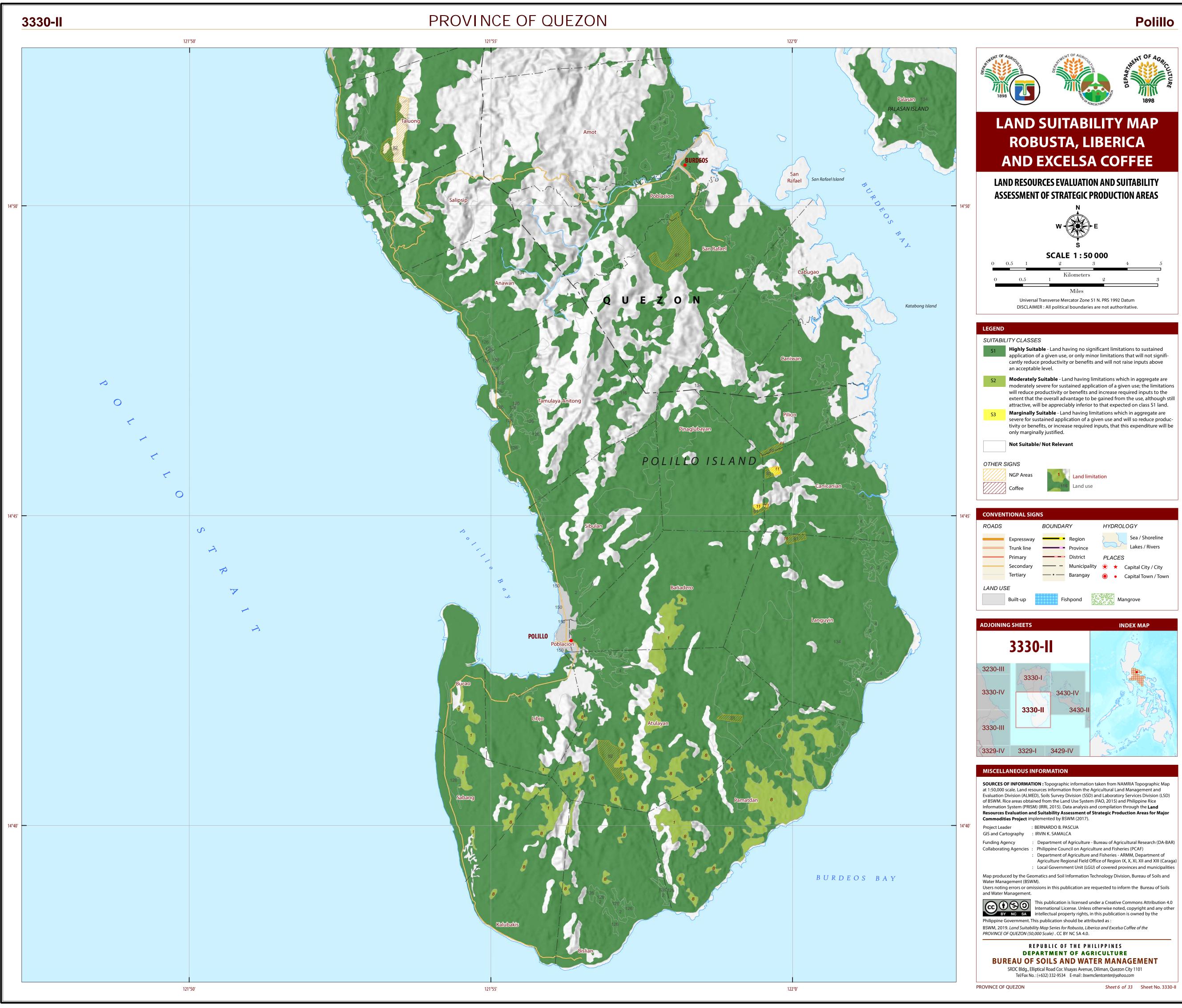
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												3231-II 3230-I MISCELLA
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												Philippine G BSWM, 2019 PROVINCE OF
121	1°40'									121°45'	- 15°0'	PROVINCE OF C

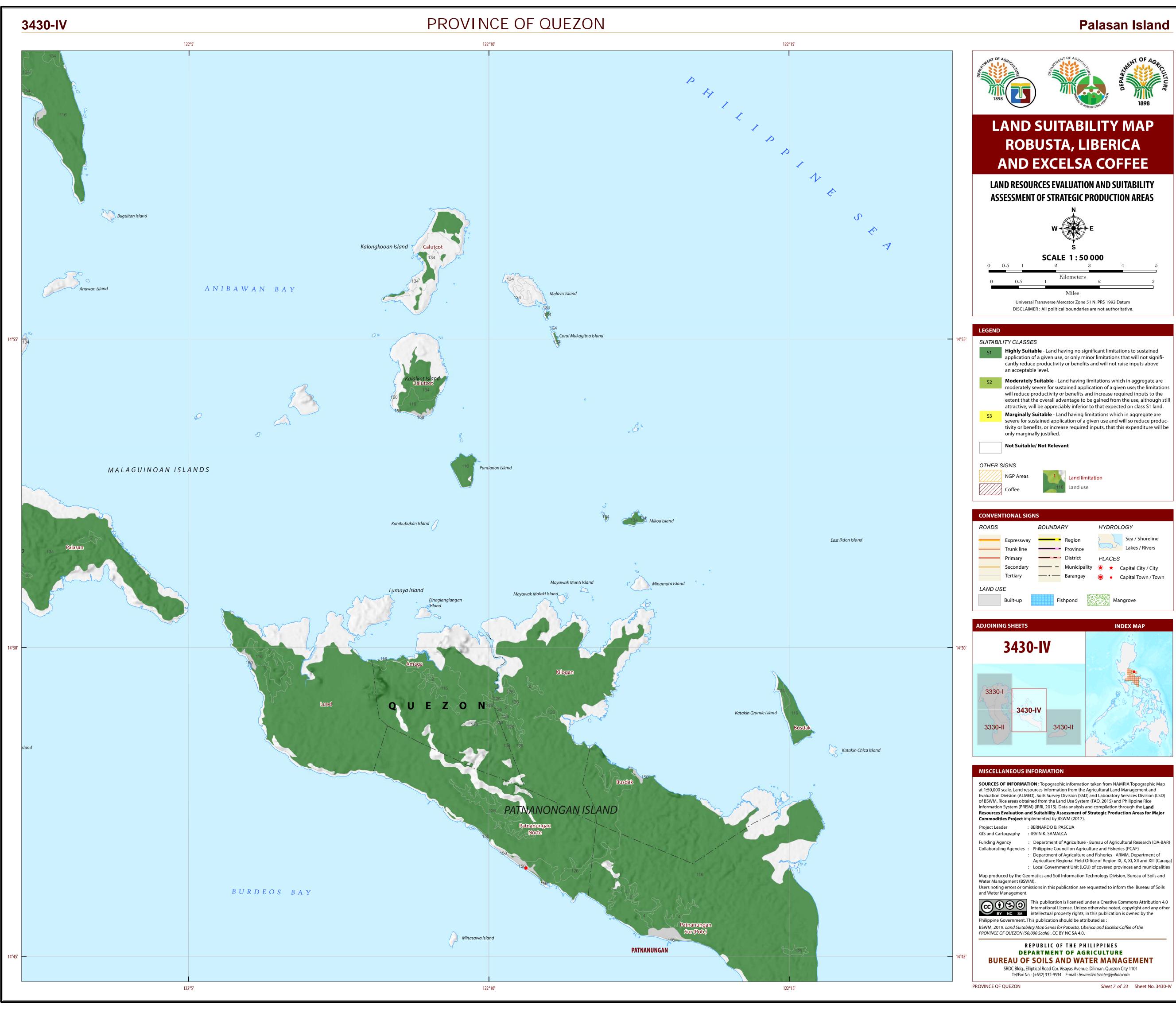


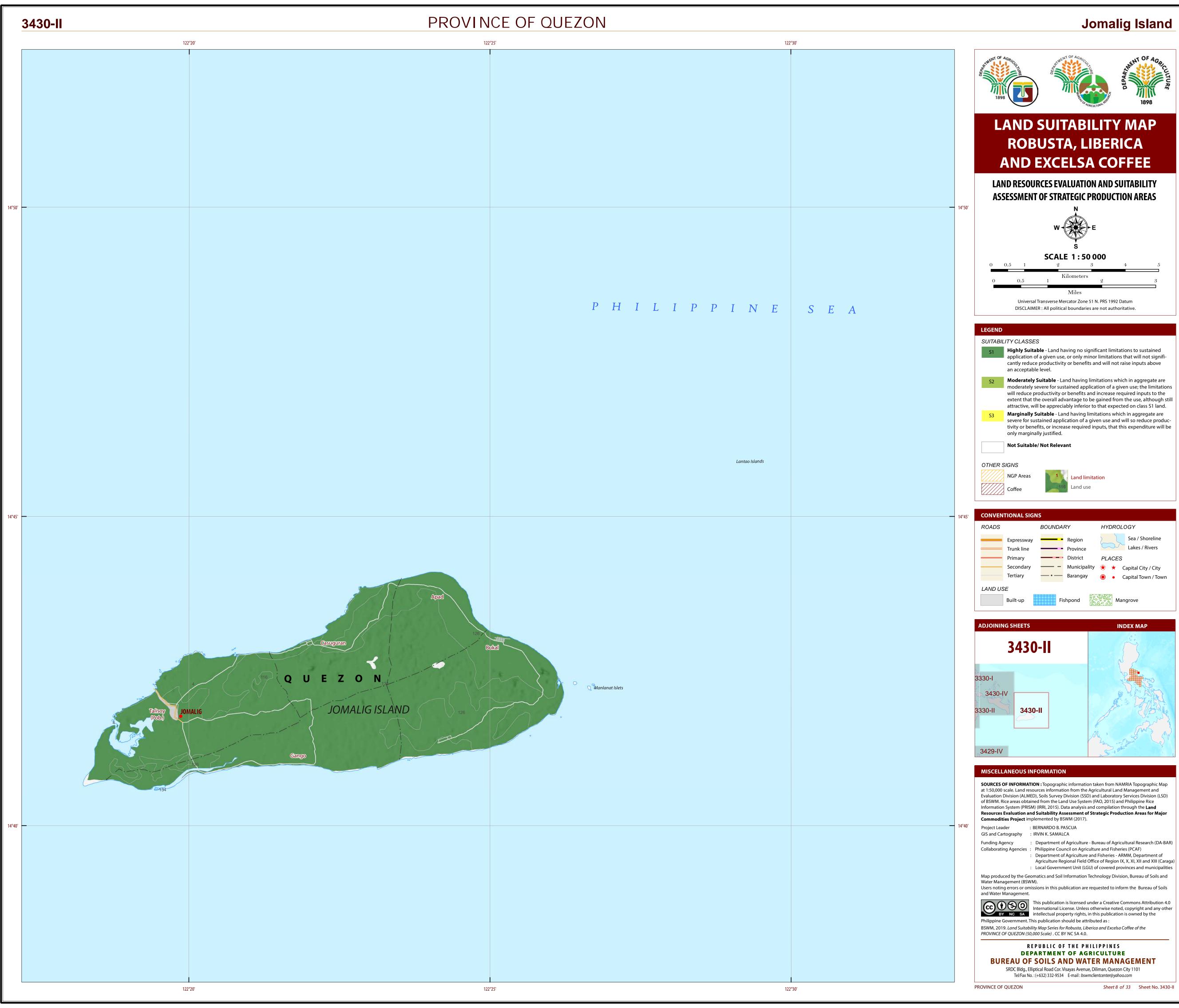


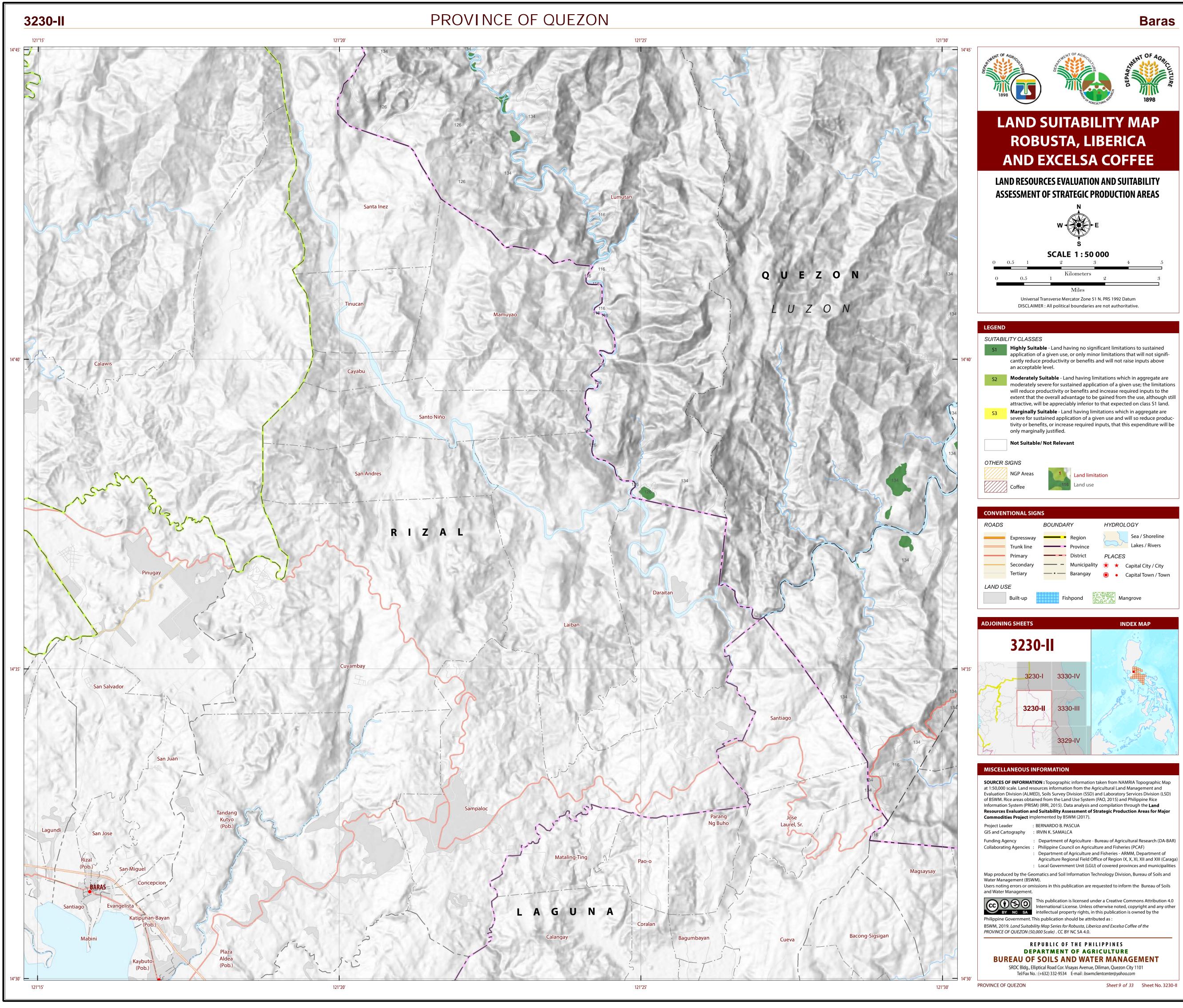


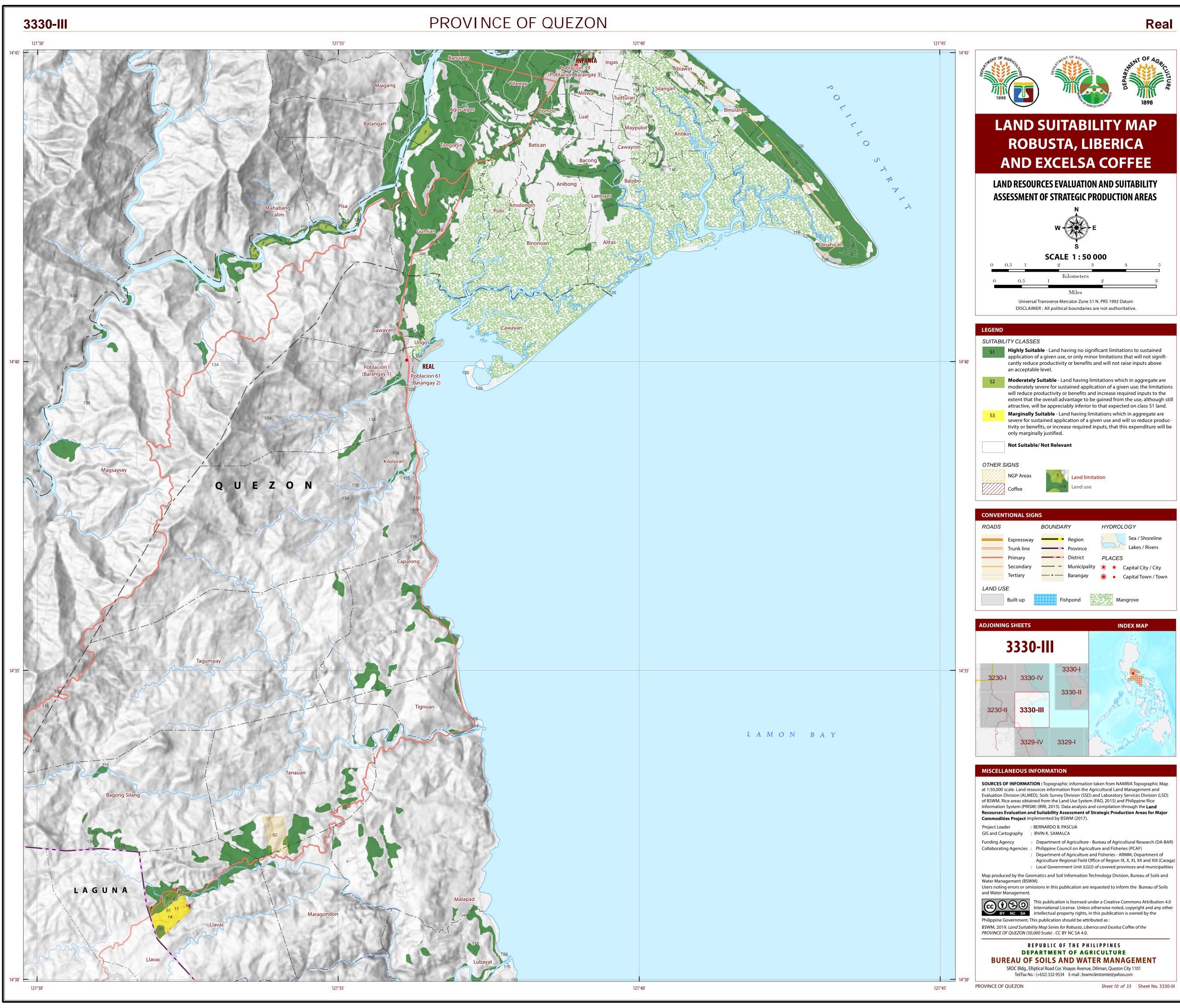


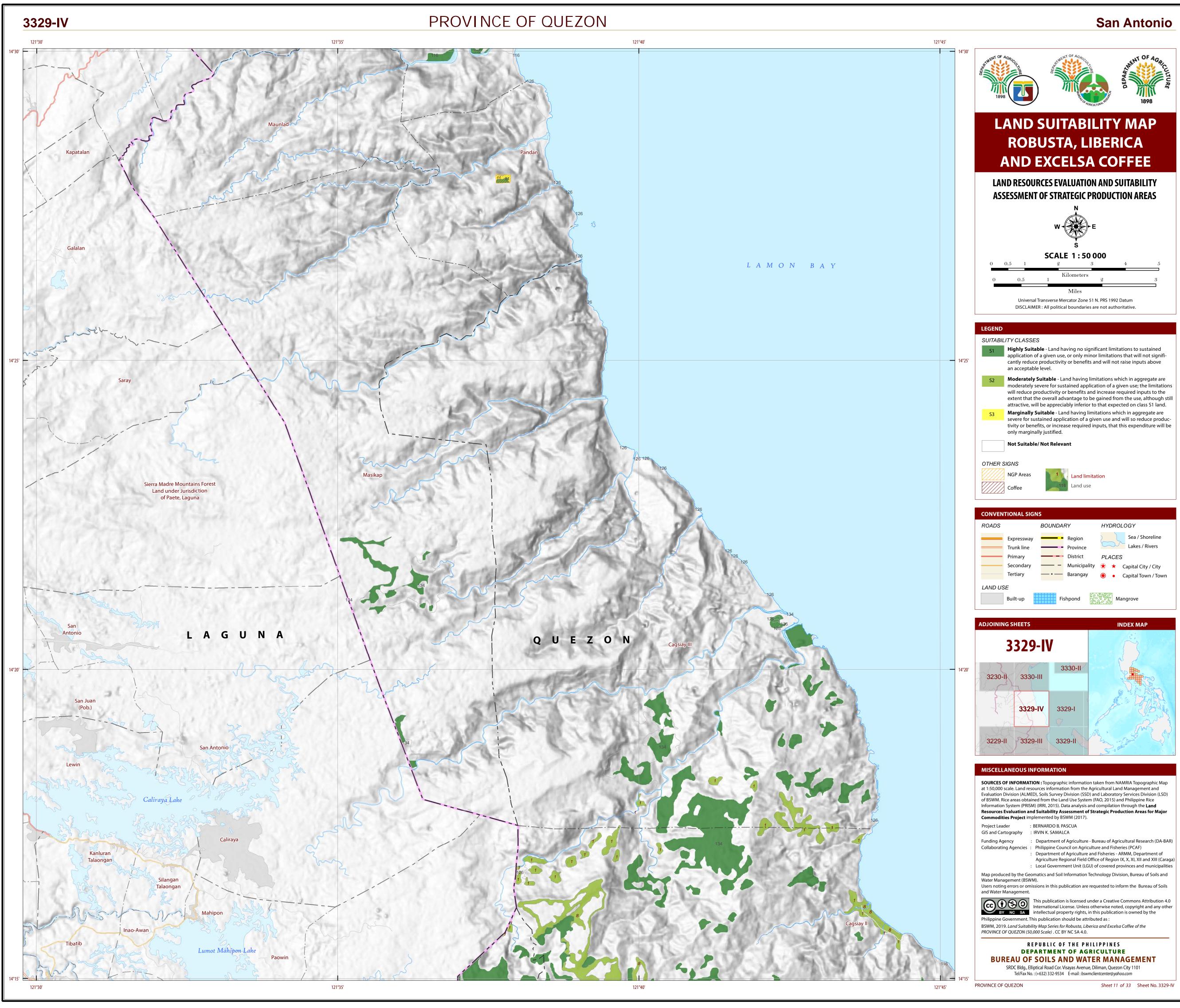




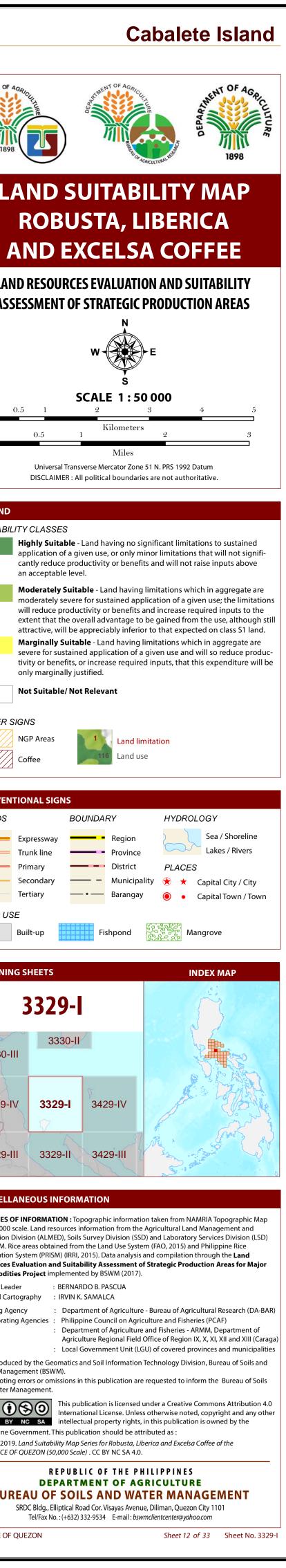






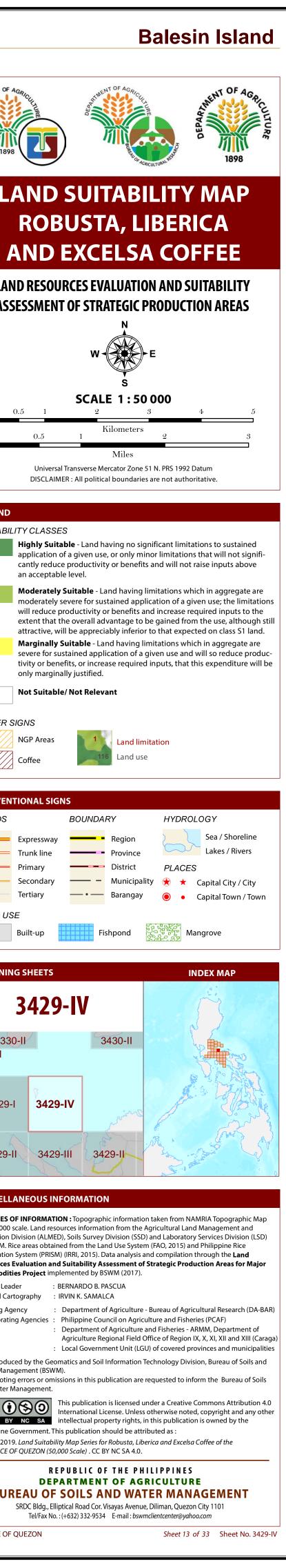


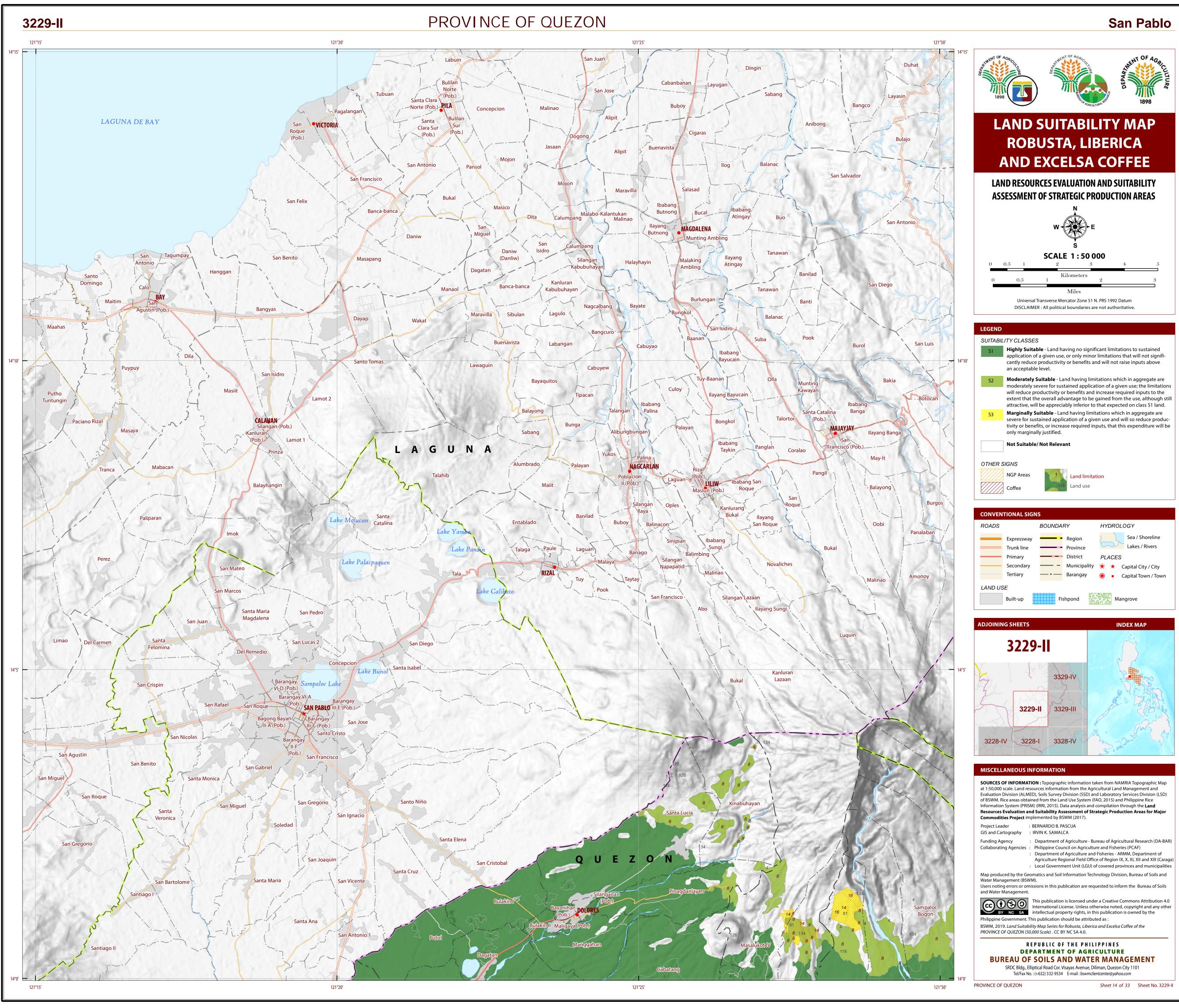
3329-I	PROVING	CE OF QUEZON
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5' <u>121°45'</u>	121°50'	14°15' 121°55' 122°0' PROVINCE OF

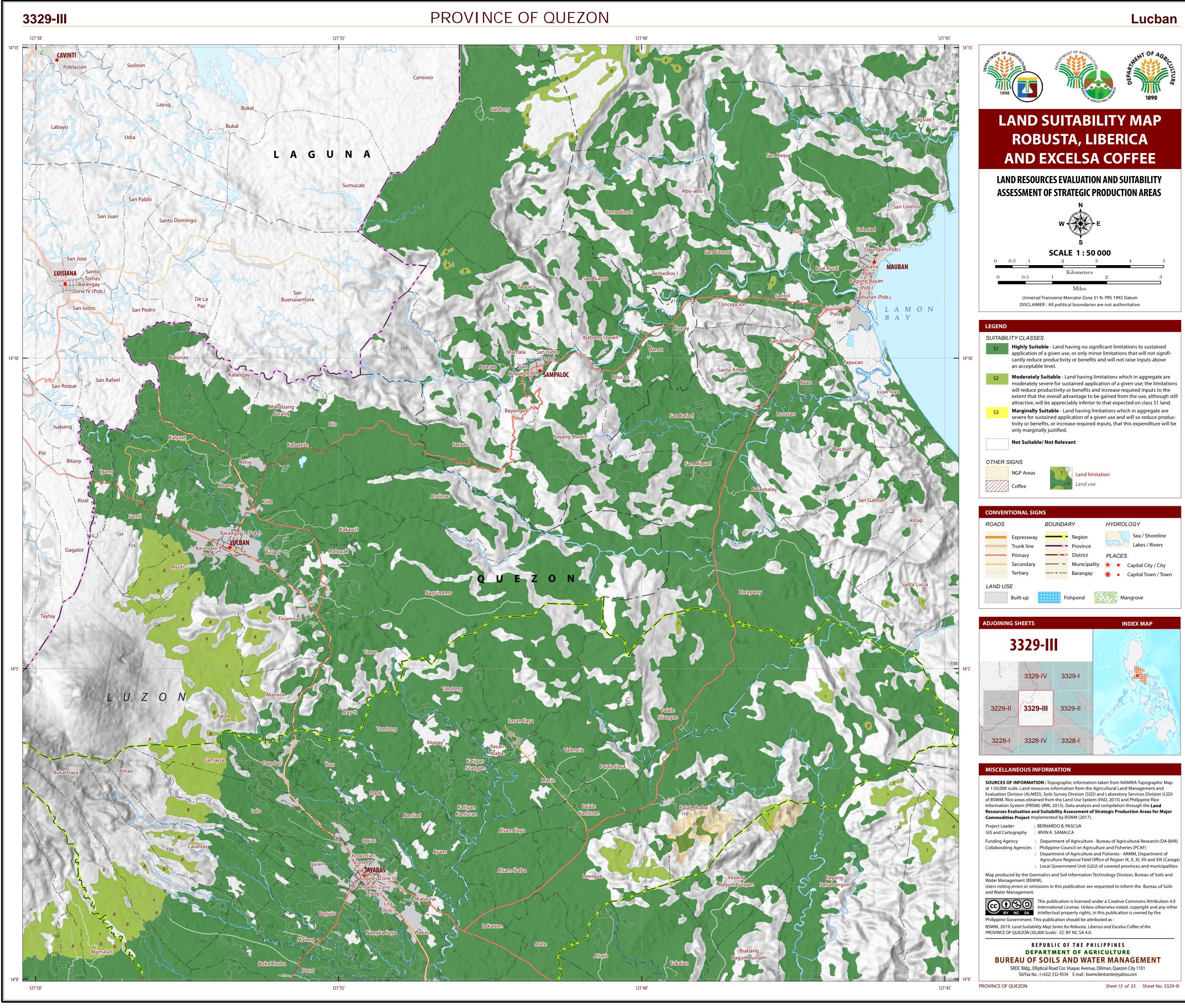


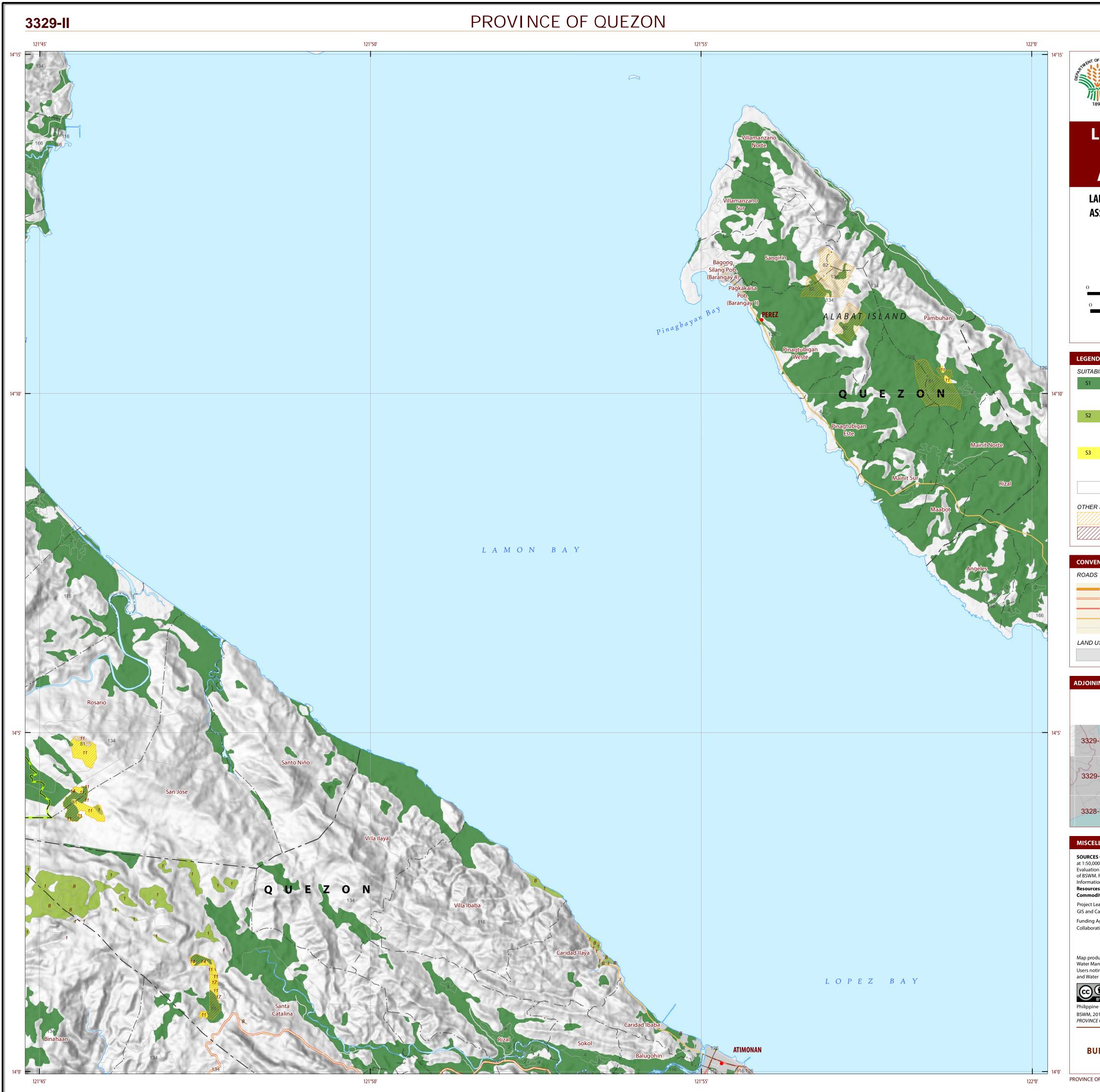


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			3330-III 3329-I
			3329-11
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122°10'	122°15'	14°15'	PROVINCE OF C

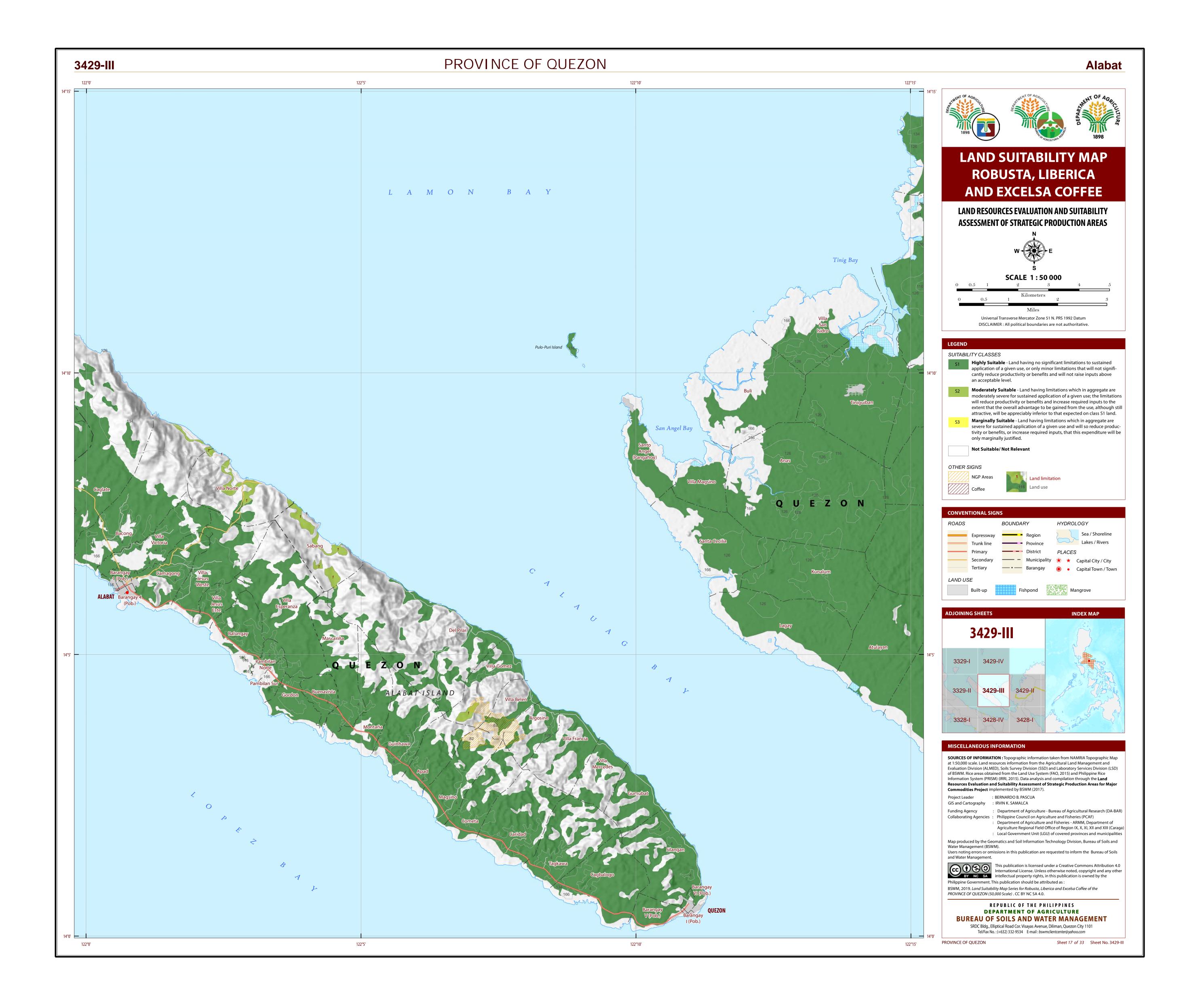


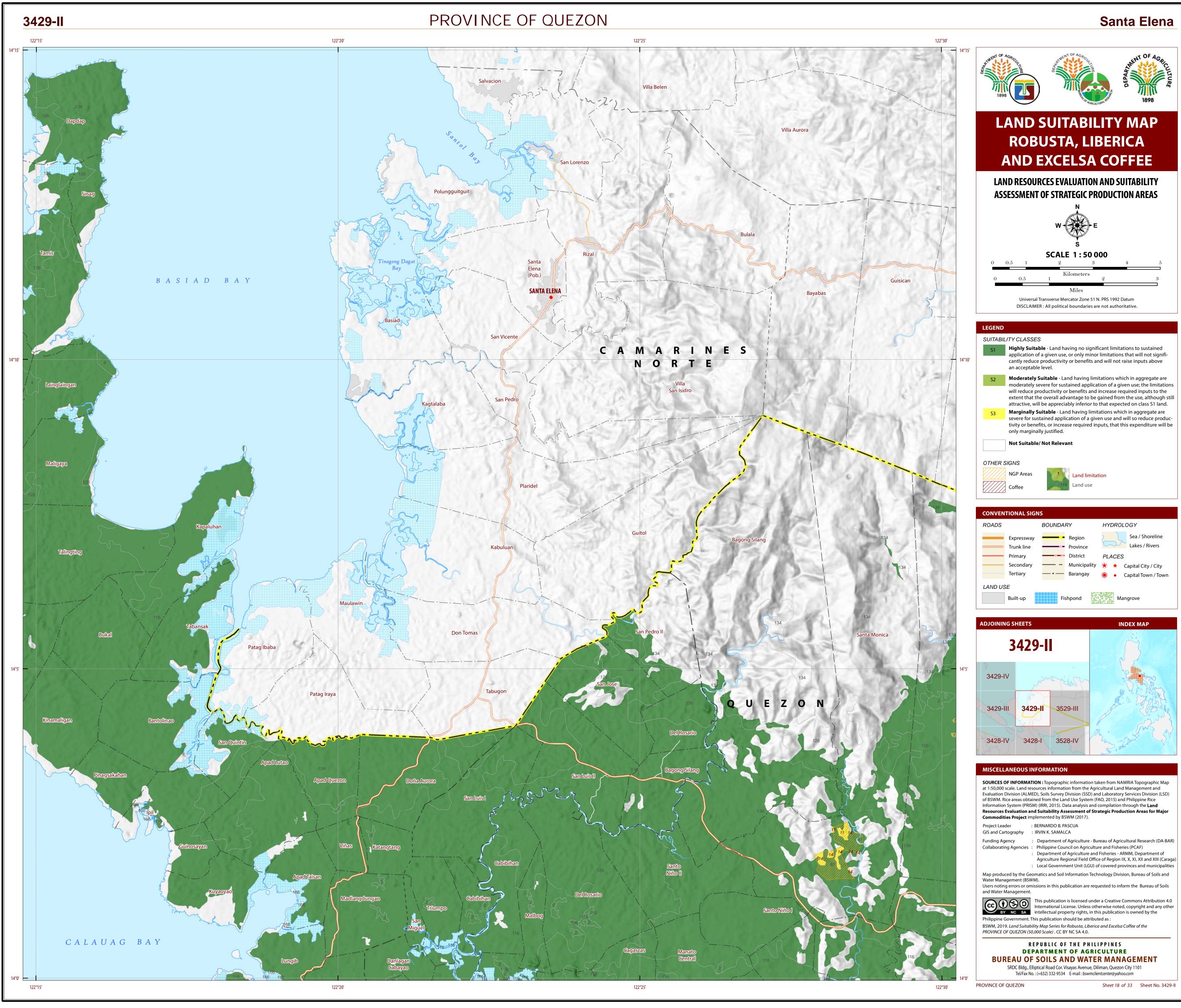


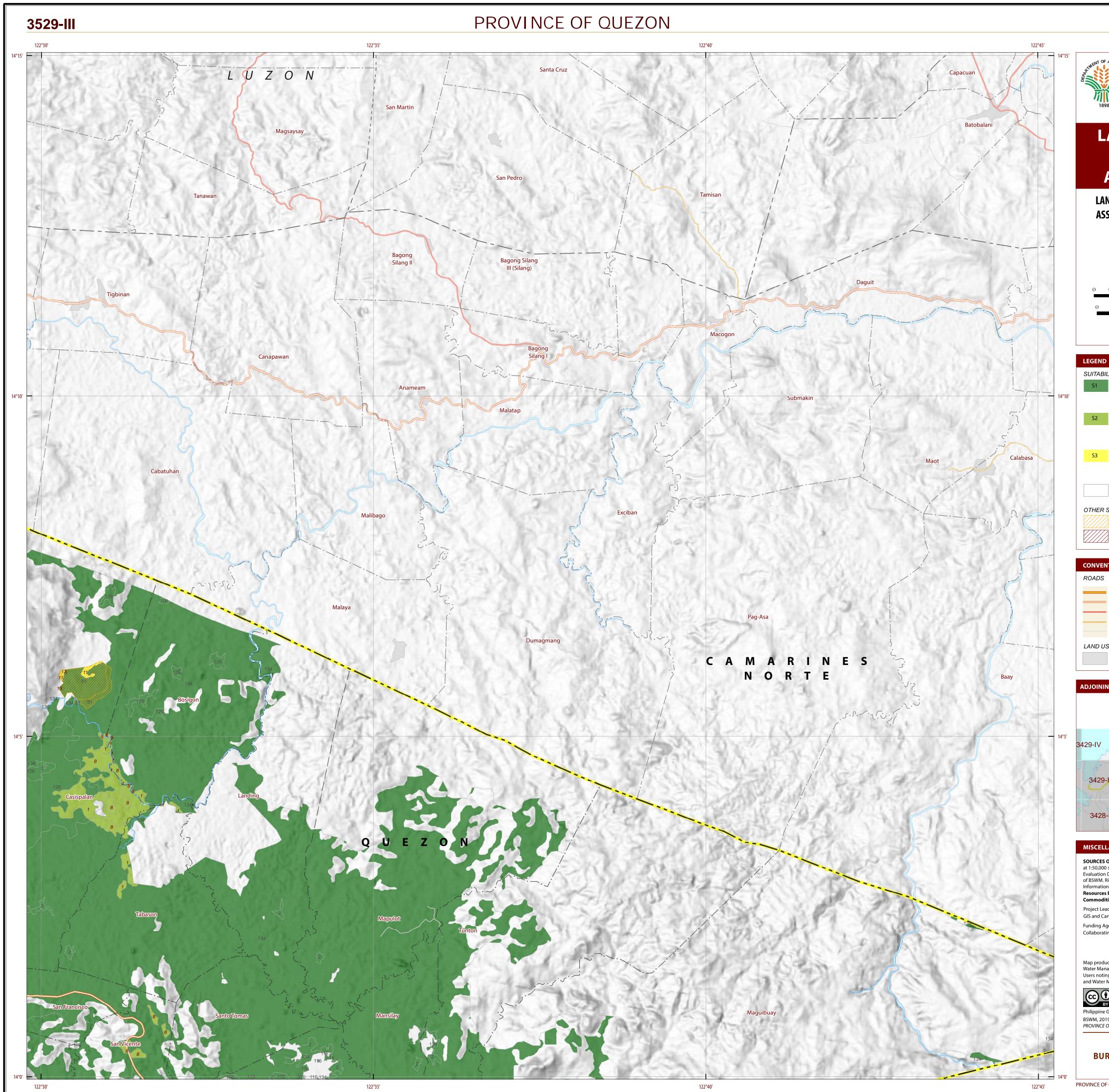




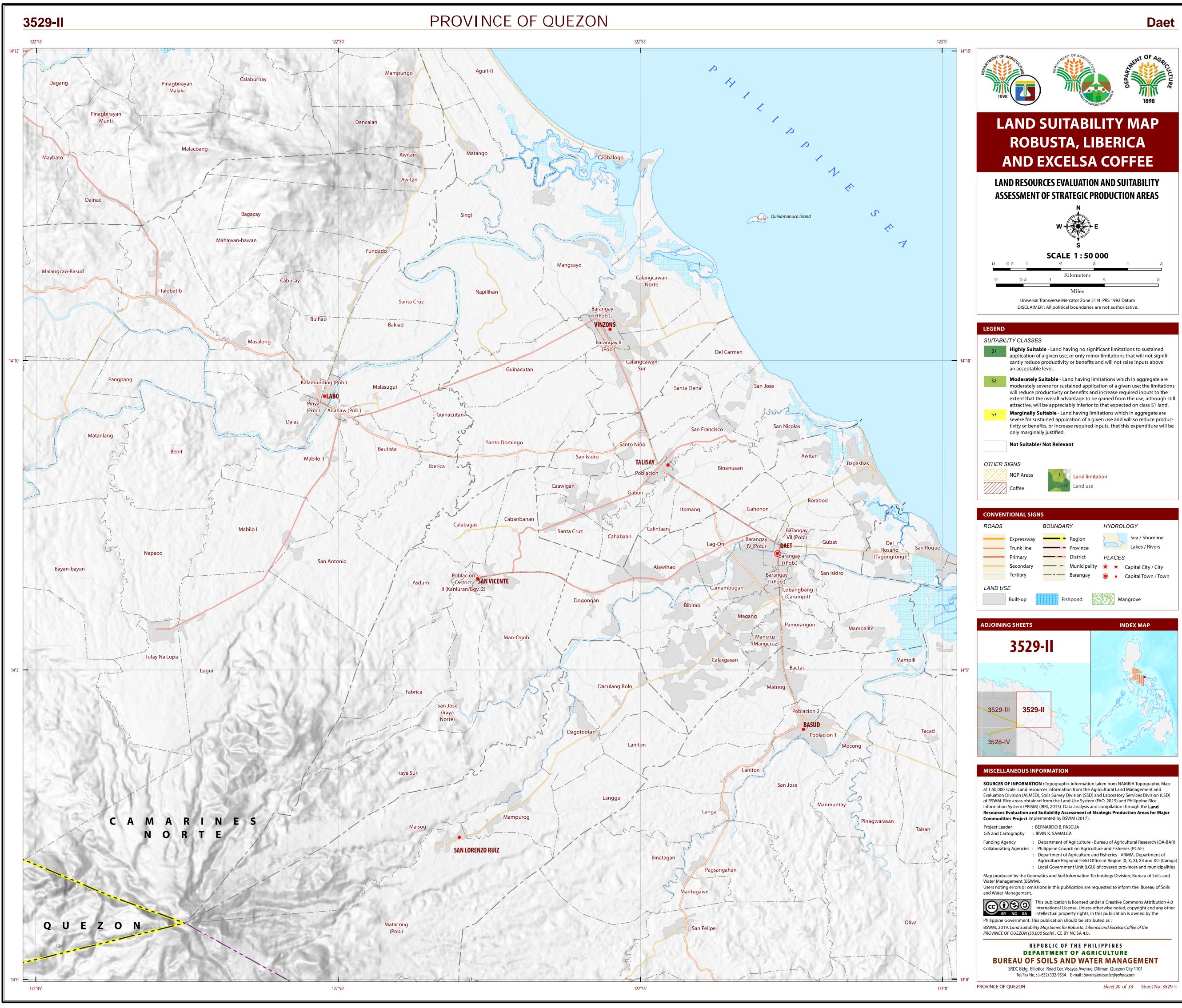
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Coffee	Land us	e	
Expressway Trunk line Primary Secondary Tertiary USE Built-up	OUNDARY Region Province District Municipa Barangay	PLACE lity ★ ★ ● •	OLOGY Sea / Shoreline Lakes / Rivers ES Capital City / City Capital Town / Town
ING SHEETS			
3329- -IV 3329-I -III 3329-II -IV 3329-II	3429-IV 3429-III 3428-IV	A A A A A A A A A A A A A A A A A A A	
0 scale. Land resources n Division (ALMED), So Rice areas obtained fro on System (PRISM) (IRR s Evaluation and Suit lities Project impleme eader : BERN.	opographic informatic information from the ils Survey Division (SSI om the Land Use Syste I, 2015). Data analysis ability Assessment o	Agricultural La D) and Laborato m (FAO, 2015) a and compilatio f Strategic Pro	ory Services Division (LSD) and Philippine Rice
ting Agencies : Phili : Dep. Agrie : Loca luced by the Geomatic nagement (BSWM).	opine Council on Agric artment of Agriculture culture Regional Field I Government Unit (LG s and Soil Information	culture and Fish and Fisheries - Office of Region GU) of covered p Technology Div	ricultural Research (DA-BAR) neries (PCAF) • ARMM, Department of n IX, X, XI, XII and XIII (Caraga) provinces and municipalities vision, Bureau of Soils and nform the Bureau of Soils
r Management. DSO This p Interr	ublication is licensed of lational License. Unless ectual property rights, plication should be att p Series for Robusta, Lik	under a Creativ s otherwise not in this publicat ributed as : perica and Excel	e Commons Attribution 4.0 ted, copyright and any other ion is owned by the
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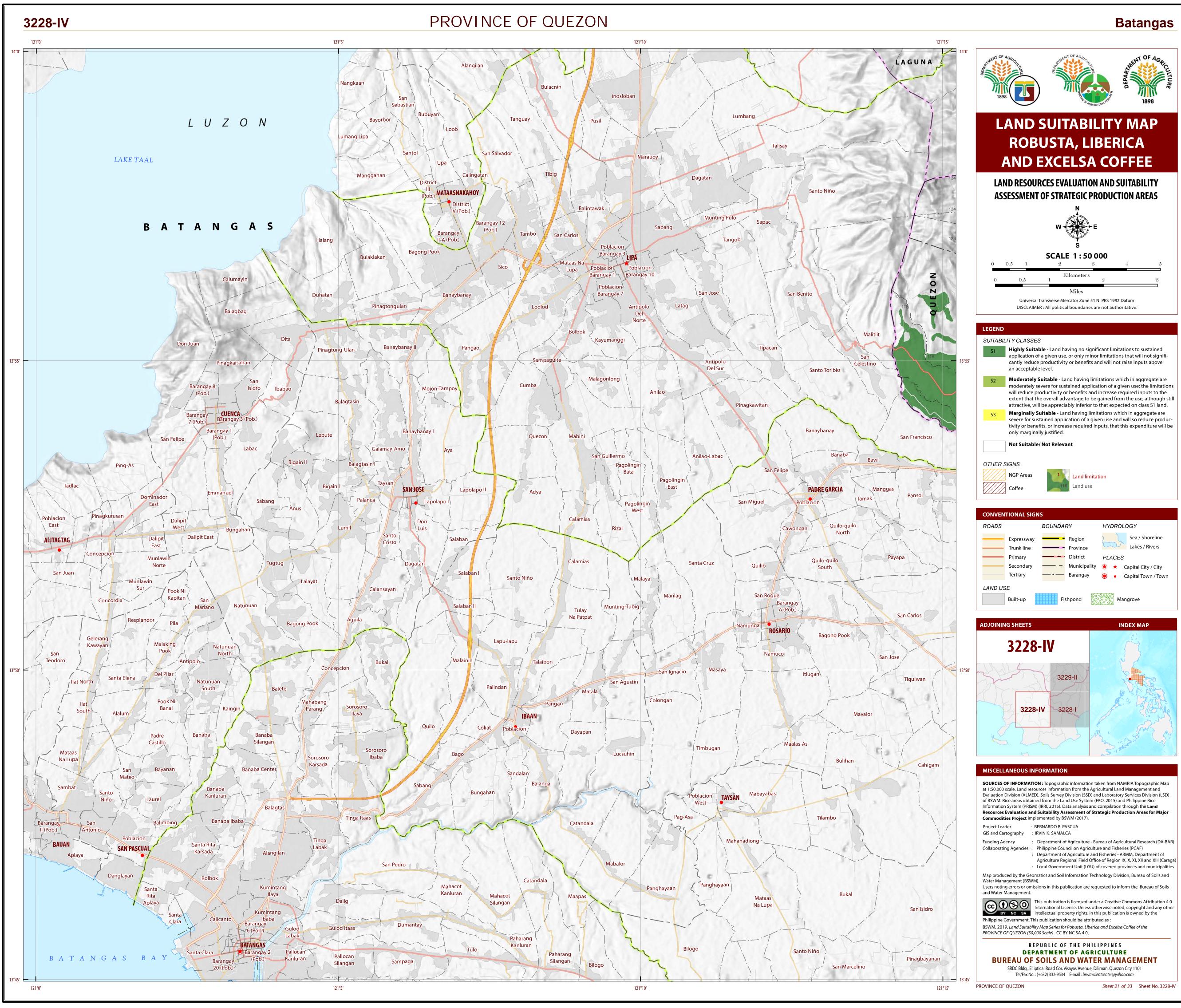


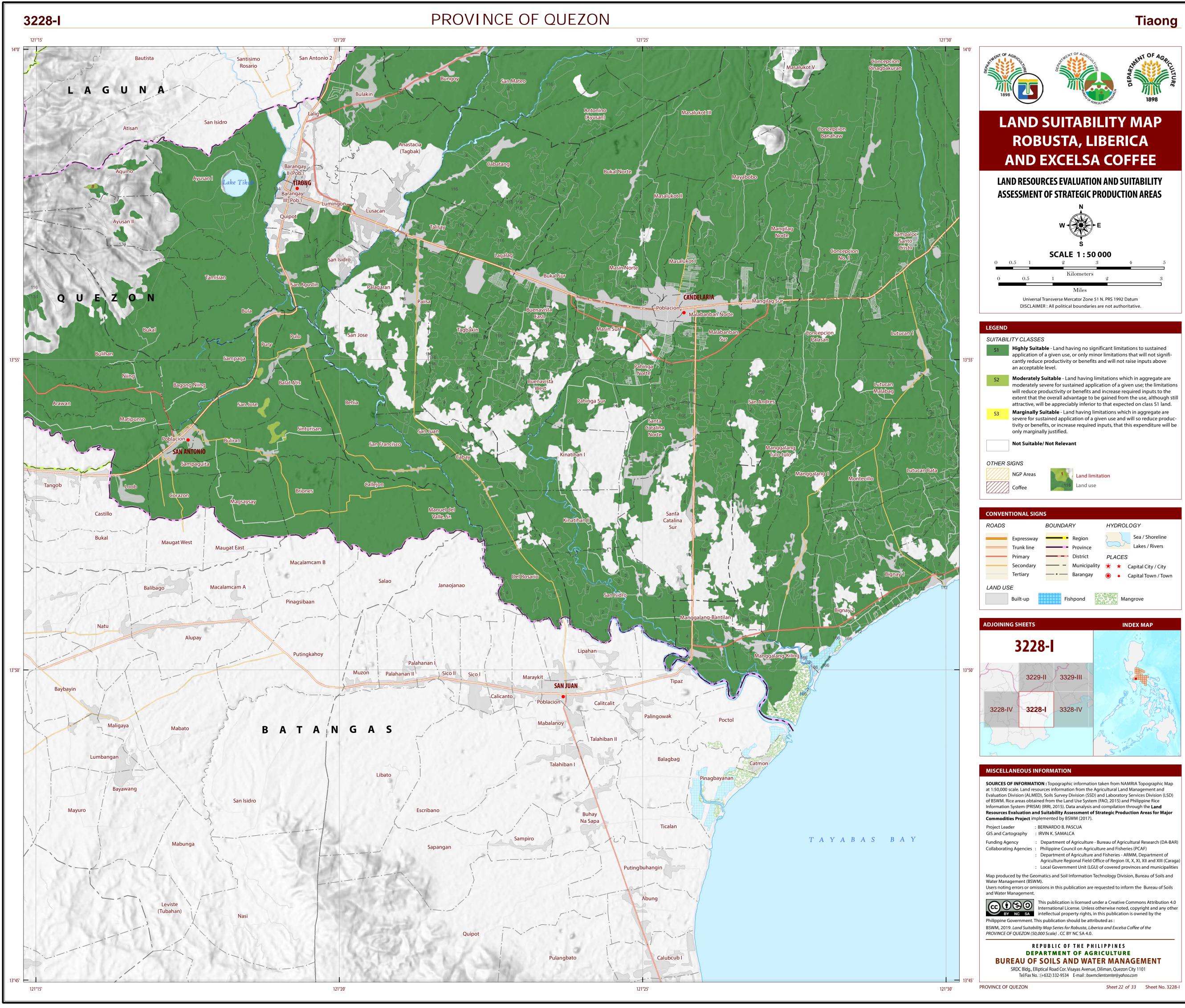


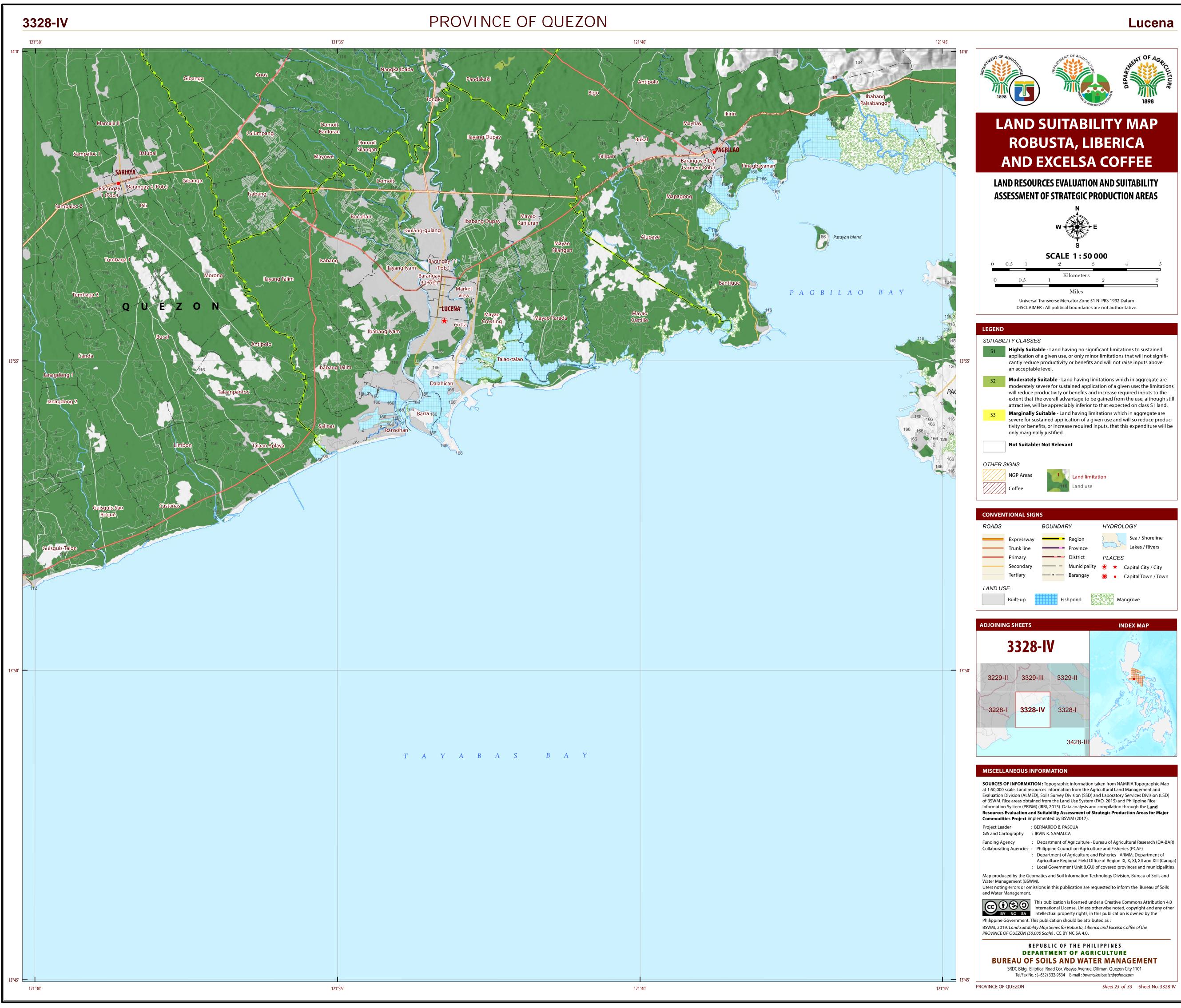


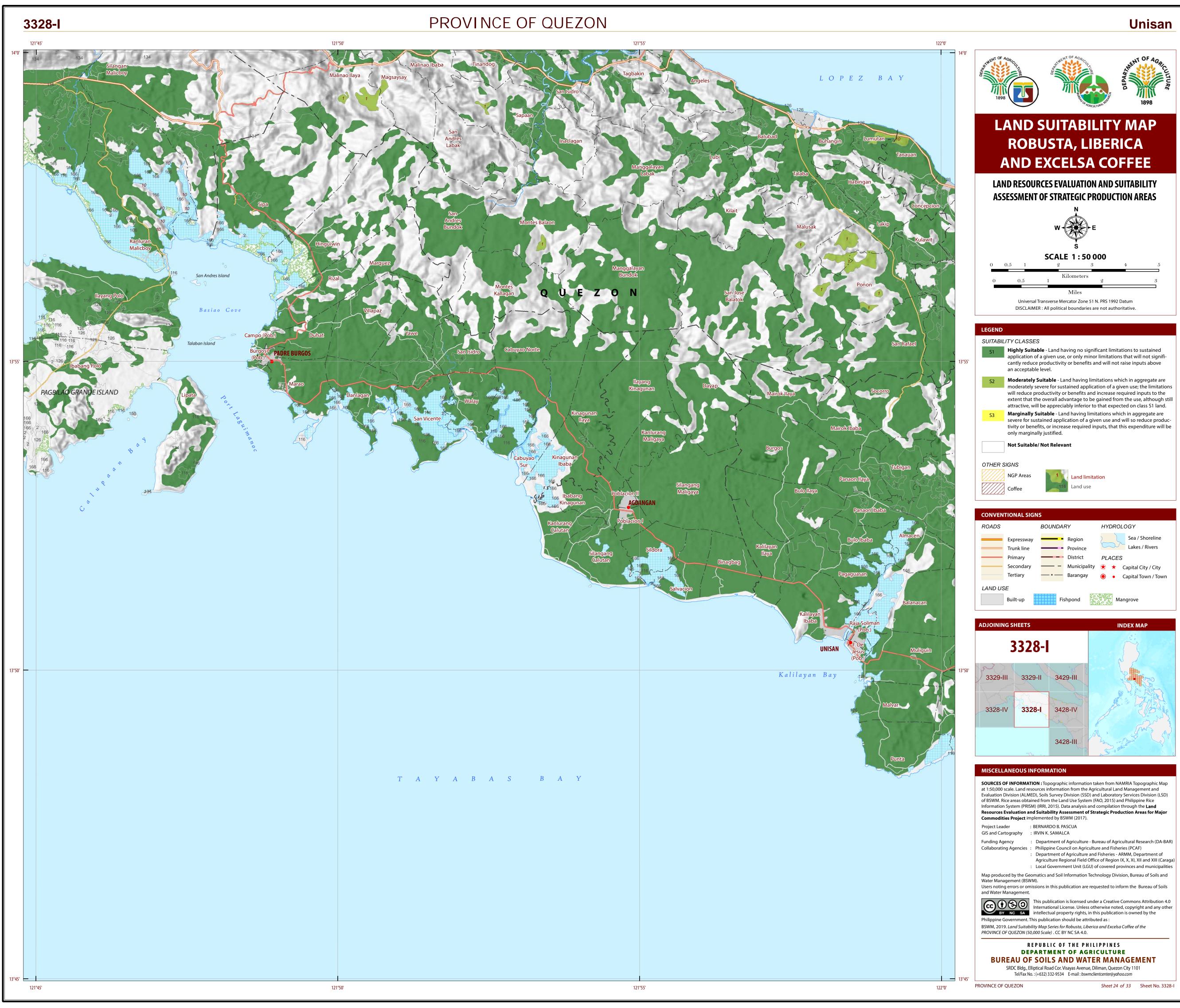
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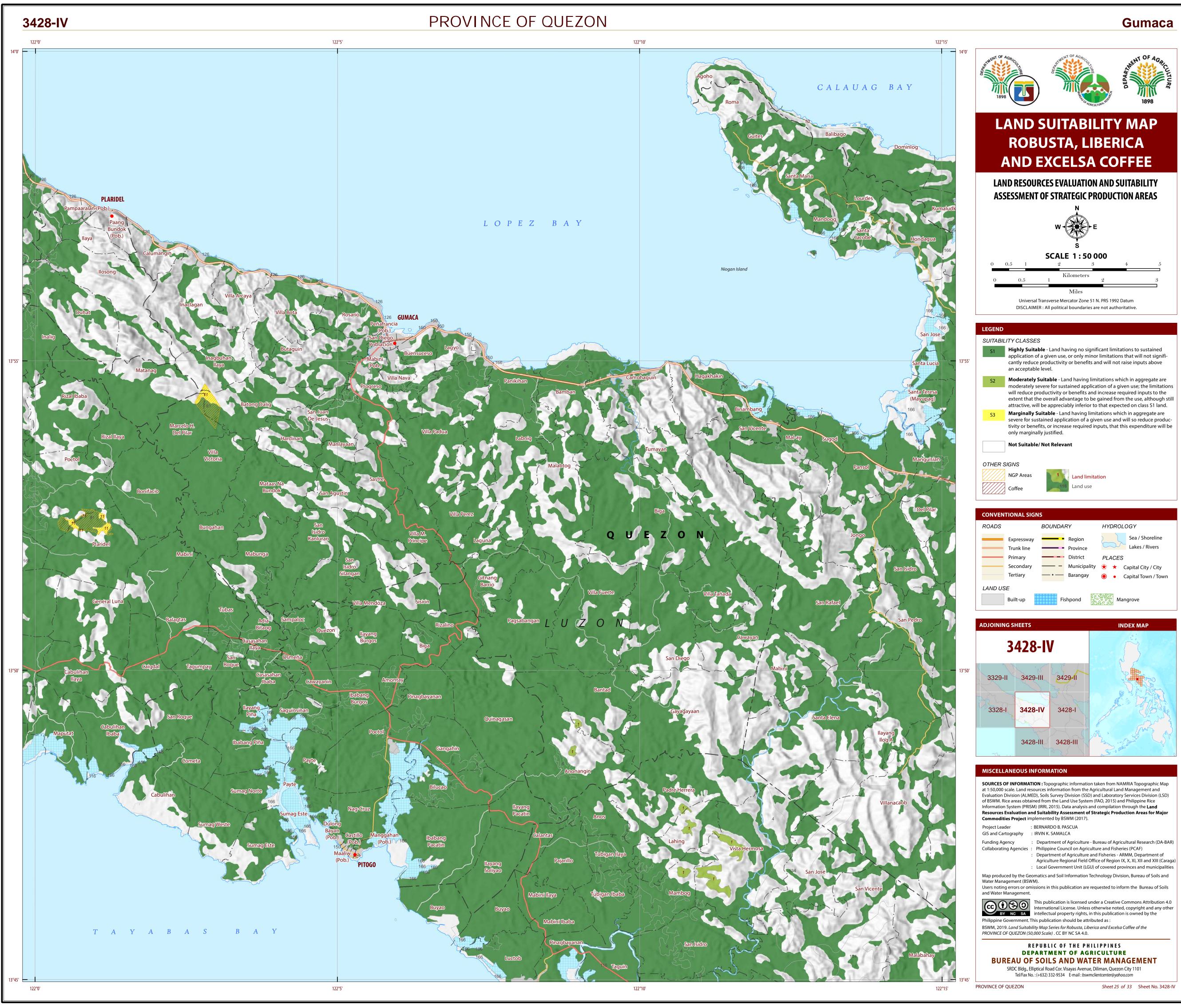


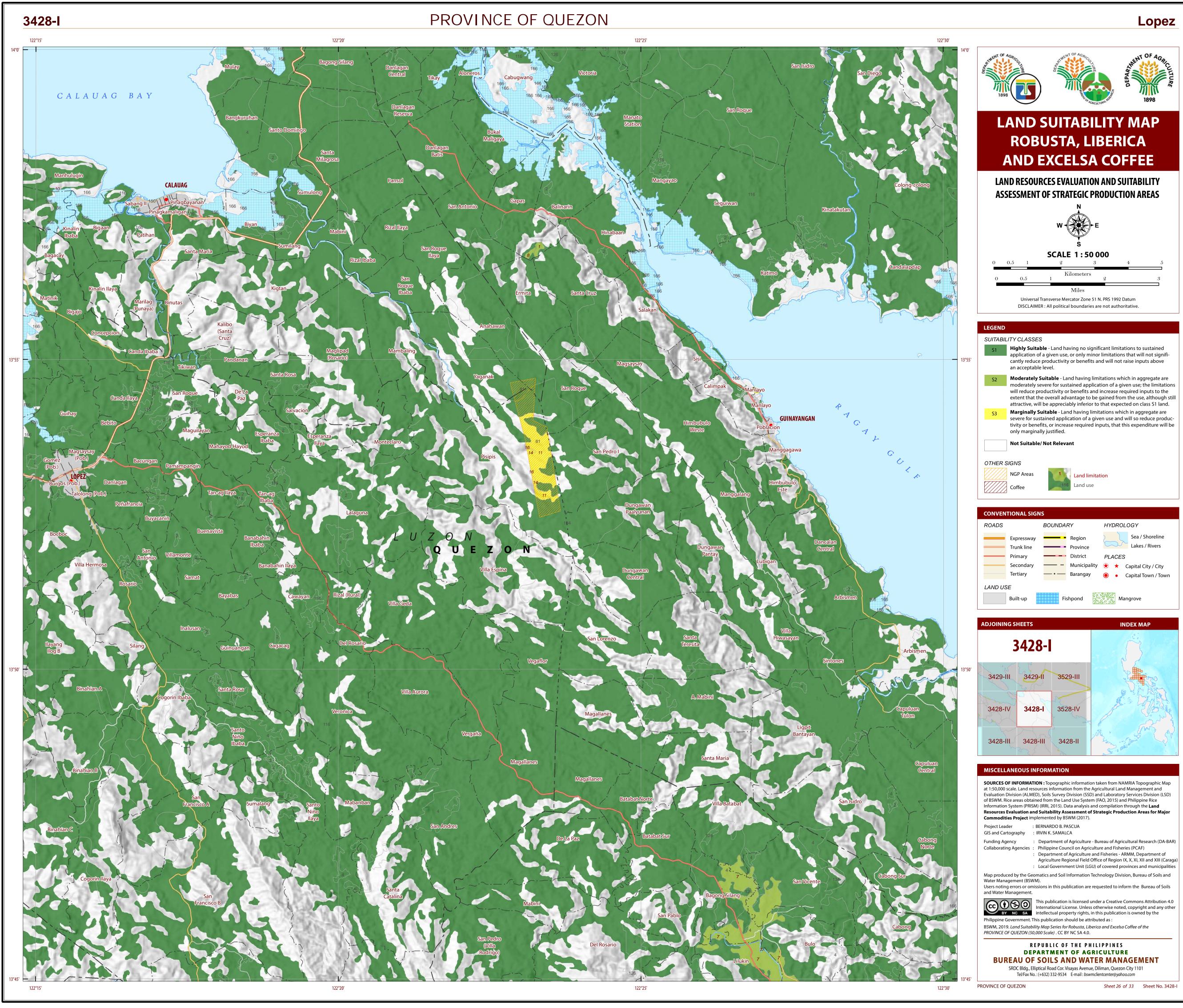


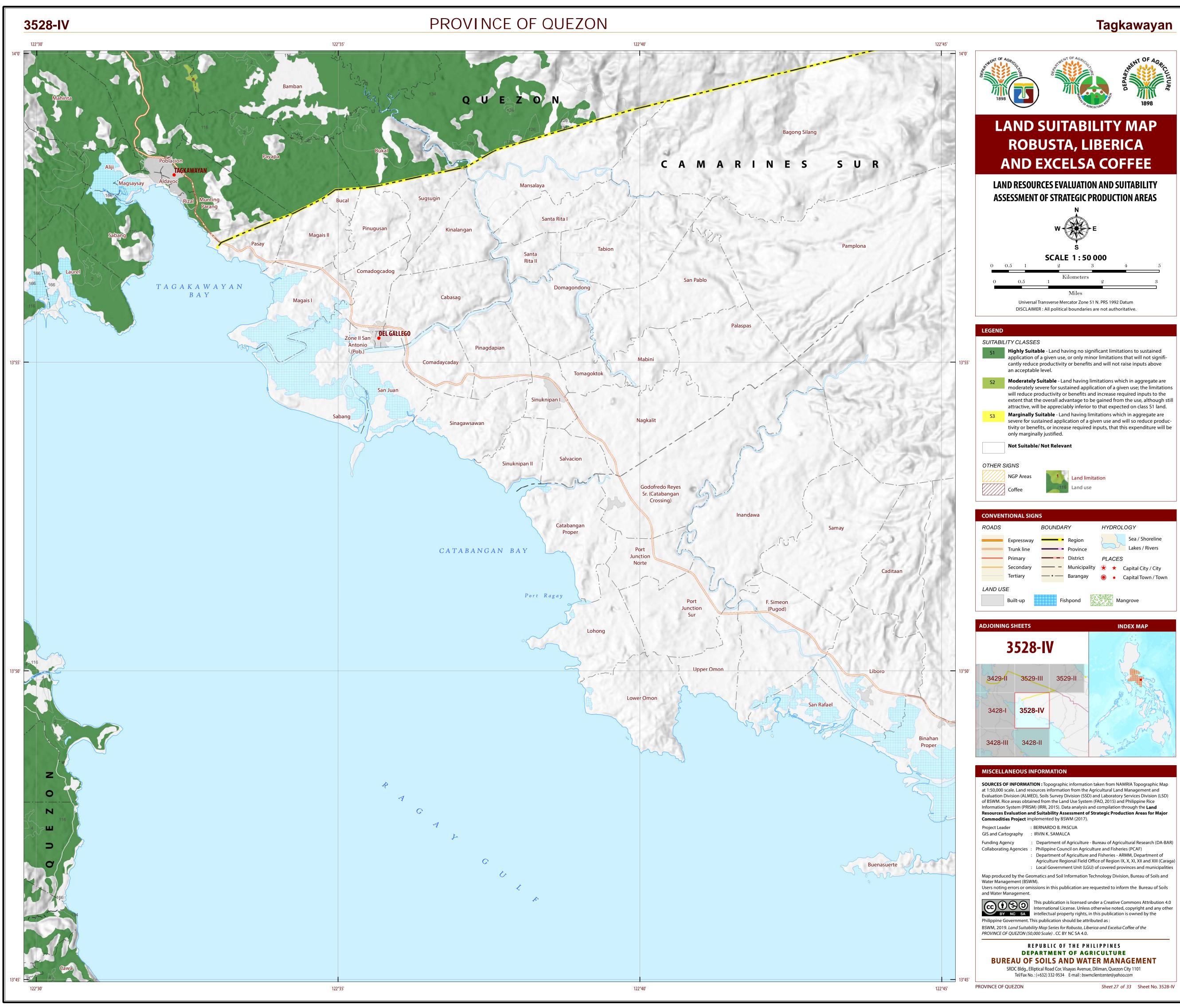


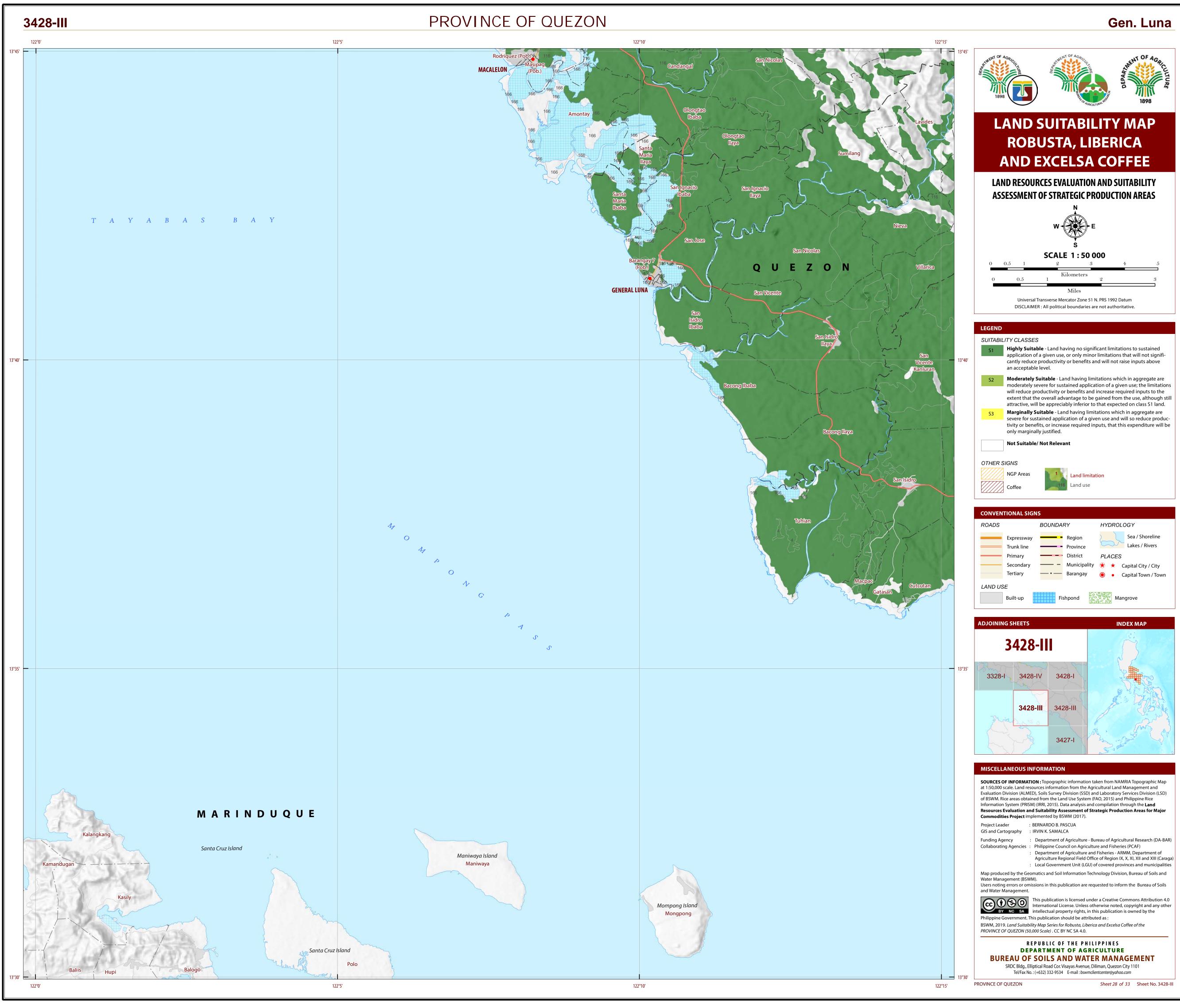


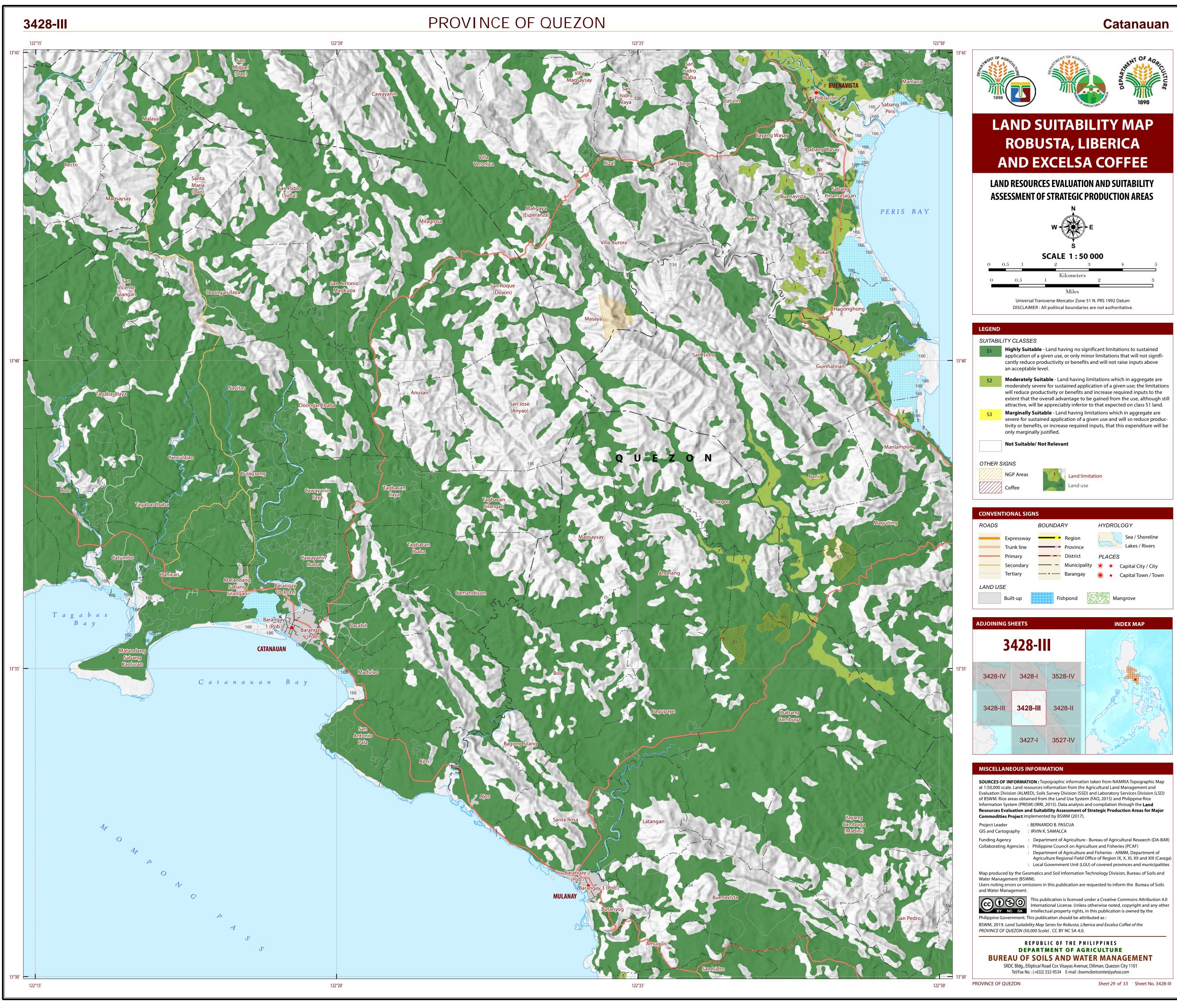


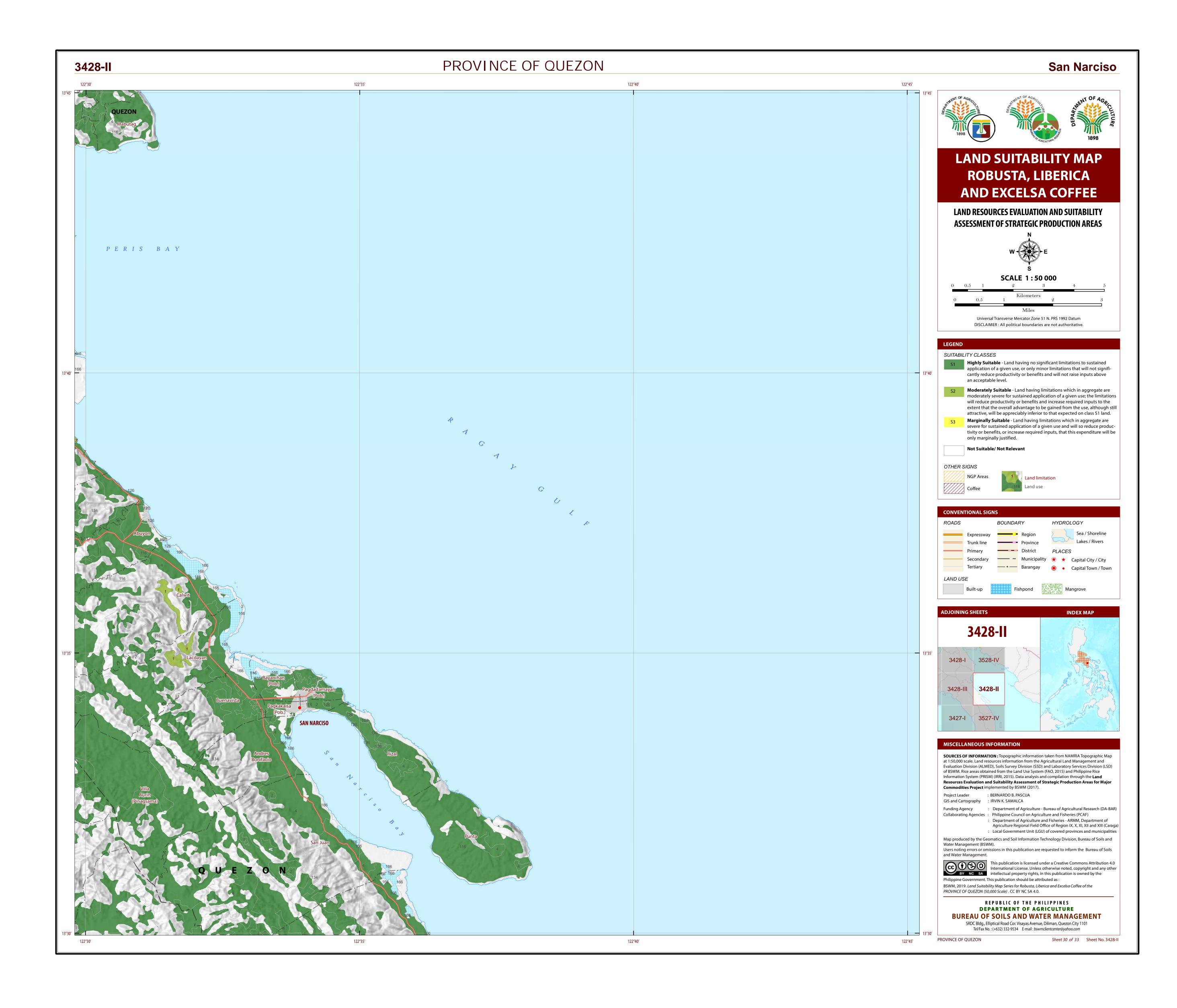












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