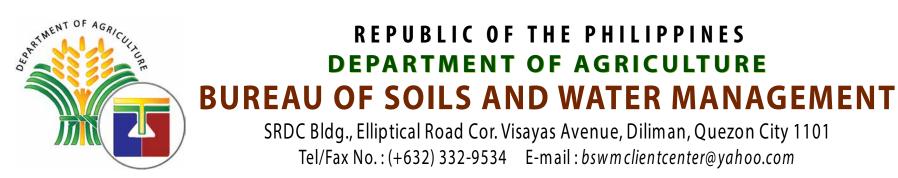
# LAND SUITABILITY MAP

# ROBUSTA, LIBERICA AND EXCELSA COFFEE

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

# PROVINCE OF PALAWAN

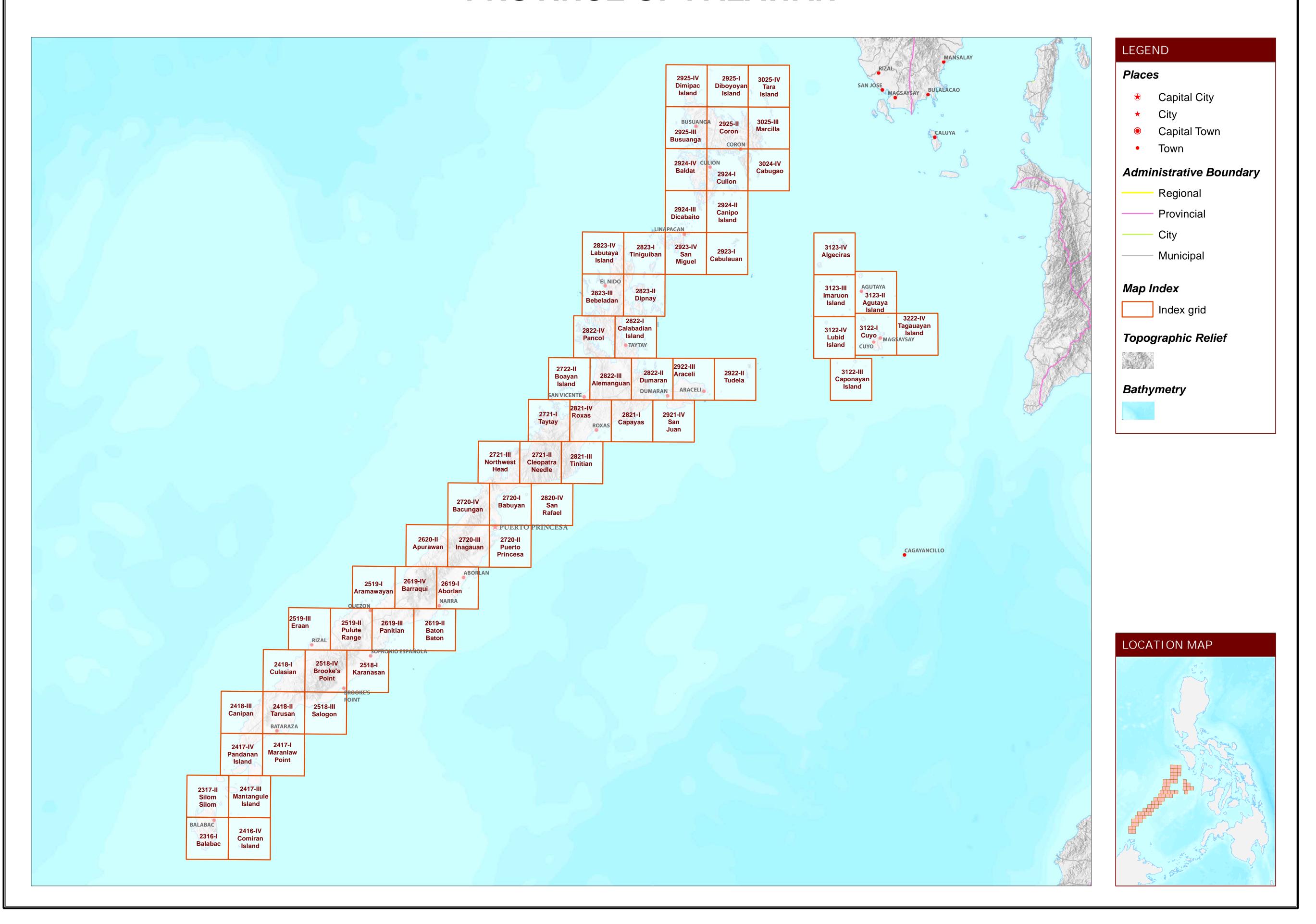




# MAP INDEX

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

## PROVINCE OF PALAWAN



# LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

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

## PALAWAN, REGION IV-B

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

					EXPANSION AREA (Ha)					CONFLICT RESOLUTION (Ha)					TOTAL		
MUNICIPALITY	EXISTI	NG COFFE	E (Ha)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrub unman	,	Grass unman	, ,	Rice p non-irr		Со	rn	Other o	crops	POTAL POTENTIAL EXPANSION AREA (Ha)
	<b>S1</b>	<b>S2</b>	<b>S</b> 3		<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	AKEA (Ha)
ABORLAN	-	-	-	-	14,186	1,202	2,897	2,444	338	46	4,372	283	2	-	-	-	25,772
AGUTAYA	-	-	-	-	96	74	-	-	1,656	99	-	-	-	-	-	-	1,924
ARACELI	-	-	-	-	4	159	300	3,399	66	584	721	1,154	-	14	-	-	6,402
BALABAC	-	-	-	-	16,565	-	1,877	43	765	7	26	-	-	-	-	-	19,283
BATARAZA	19	6	-	25	20,127	666	8,454	481	1,652	16	5,487	16	-	-	-	-	36,900
BROOKE'S POINT	-	-	-	-	19,256	835	2,051	474	-	-	8,041	27	-	-	-	-	30,684
BUSUANGA	-	-	-	-	14	25	2,353	2,604	3,808	2,999	729	514	4	2	-	-	13,054
CORON	-	-	-	-	37	95	1,793	3,693	5,501	4,962	494	294	-	-	-	-	16,869
CULION	-	-	-	-	5	9	517	2,373	2,090	5,448	1,538	775	41	21	-	-	12,818
CUYO	-	-	-	-	3,014	195	368	-	56	34	38	0.3	6	-	-	-	3,711
DUMARAN	-	-	-	-	87	99	556	2,905	1,715	4,637	3,079	1,710	-	1	-	-	14,789
EL NIDO	-	-	-	-	1,085	189	2,425	2,853	1,866	1,770	3,455	991	34	4	-	-	14,672
LINAPACAN	-	-	-	-	-	129	18	570	72	765	7	301	2	37	-	-	1,902
MAGSAYSAY	-	-	-	-	3,302	155	3	-	231	132	44	17	5	8	-	-	3,898
NARRA	-	-	-	-	6,317	501	6,286	3,045	1,484	102	16,330	195	8	-	-	-	34,267
PUERTO PRINCESA CITY	-	-	2	2	8,142	4,574	8,780	5,587	1,836	955	9,190	1,332	70	3	-	-	40,469
QUEZON	12	17	4	33	12,133	4,584	9,262	8,094	842	11	3,823	202	11	-	-	-	38,962
RIZAL	189	117	174	480	11,208	1,166	24,961	3,055	11	2	5,154	129	-	-	-	3	45,689
ROXAS	-	-	2	2	1,365	1,122	1,049	2,878	6,180	11,622	2,208	1,344	-	-	-		27,767
SAN VICENTE	-	-	-	-	130	418	87	741	1,600	3,604	2,063	1,135	75	31	-		9,884
SOFRONIO ESPAÑOLA	73	81	95	249	7,023	6,151	2,899	8,158	7	15	1,799	365	-	-	-	-	26,416
TAYTAY	-	-	-	-	680	226	3,247	4,381	5,136	5,649	9,097	1,424	66	33	-	-	29,939
TOTAL	293	221	277	791	124,777	22,574	80,184	57,779	36,913	43,460	77,695	12,206	325	154	-	3	456,070

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

## \*establishment of shade trees prior to planting of coffee.

**SUITABILITY** 

- moderately deep

- deep to very deep

## AGRONOMIC REQUIREMENT OF ROBUSTA, LIBERICA AND EXCELSA COFFEE PRODUCTION

UTILIZATION TYPE	SUITABILITY RATING	SLOPE (%)	SOIL DEPTH (cm)	SOIL TEXTURE	SOIL DRAINAGE	REACTION (pH)	INHERENT FERTILITY	FLOODING CLASS	EROSION CLASS	ROCK OUTCROPS	ELEVATION (masl)	RAINFALI (mm)	( I I I I VI A T I (
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	2001-450	) 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	1000-200	0 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 DRAIN	AGE		SOIL REACTION	ON (pH)		SOIL TEXT	URE			
0 - 3 - lev	el to gently slopin	ıg	ED - e	excessively drained		< 4.5 - ex	xtremely acid		Coarse			Fine	
3 - 8 - ger	ntly sloping to und	lulating	WD - v	well drained		4.5 - 5.0 - ve	ery strongly acid		S ·	- sand		SC	- sandy clay
8 - 18 - un	dulating to rolling		MWD - 1	moderately well draine	ed	5.1 - 5.5 - st	rongly acid		LS ·	loamy sand		SiC	- silty clay
18 - 30 - rol	lling to moderately	/ steep	SPD - s	somewhat poorly drain	ned	5.6 - 6.0 - m	nedium acid		CSL ·	- coarse sandy loam		С	- clay
30 - 50 - ste	eep		PD - J	poorly drained		6.1 - 6.5 - sl	ightly acid		SL ·	- sandy loam		HC	- heavy clay
> 50 - ve	ry steep		VPD - v	very poorly drained		6.6 - 7.2 - ne	eutral		Medium				
						7.3 - 7.8 - m	ildly alkaline		FSL ·	fine sandy loam			
SOIL DEPTH (	cm)		<b>SURFACE IM</b>	IPEDIMENT		7.9 - 8.4 - m	oderately alkaline		L .	- loam			
0 - 30 - ve	ry shallow		ROCK OUTCR	ROPS		> 8.5 - st	rongly alkaline		SiL ·	- silt loam			
30 - 50 - sha	allow		< 10% - 1	none - few					CL .	- clay loam			

INHERENT FLOODING

**EROSION** 

**ROCK** 

- silty clay loam

- sandy clay loam

**ELEVATION** 

**CLIMATIC** 

## I AND I IMITATIONS DESCRIPTION AND COMPINATIONS

> 30%

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
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	11	Sh2-Rc2	21	T2-El2-E3	31	T3-El2
2	E2-Sh2-Rc2	12	T2	22	T2-El2-E3-Rc3	32	T3-El2-E3
3	E3-Rc3	13	T2-E3	23	T2-El2-E3-Sh2-Rc3	33	T3-El2-E3-Sh3-Rc3
4	El2	14	T2-E3-Rc2	24	T2-El3-E3	34	T3-El3-E3
5	El2-E3-Rc3	15	T2-E3-Rc3	25	T2-F2-D2	35	T3-F3-D2
6	El2-Sh2-Rc2	16	T2-E3-Sh2-Rc2	26	T2-F3-D2	36	Тс
7	F2-D2	17	T2-E3-Sh2-Rc3	27	T3		
8	F3-D2	18	T2-E3-Sh3-Rc2	28	T3-E3		
9	Rc2	19	T2-E3-Sh3-Rc3	<i>2</i> 9	T3-E3-Rc3		
<i>10</i>	Sh2	20	T2-El2	<i>30</i>	T3-E3-Sh3-Rc3		

- common

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**

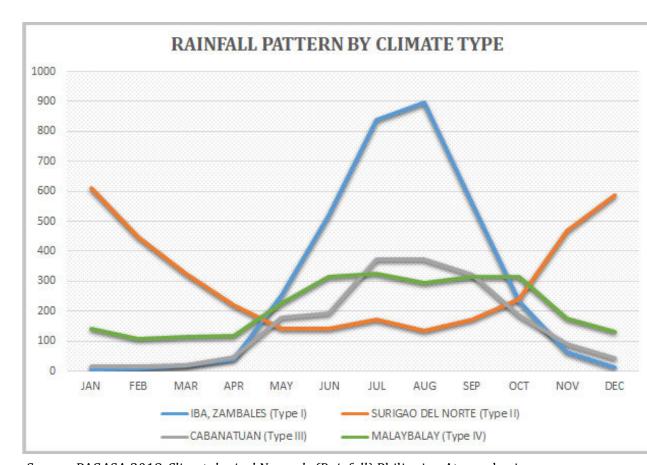
**TYPE I**: Two pronouced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

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

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, <a href="https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals">https://www1.pagasa.dost.gov.ph/index.php/climate/climatological-normals</a>.

