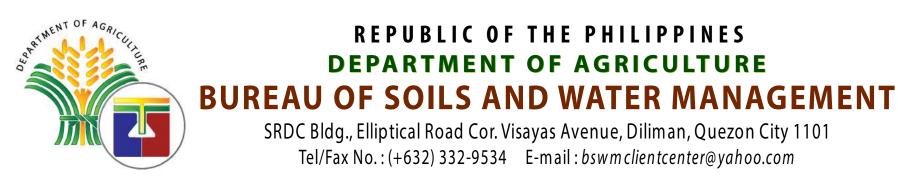
## LAND SUITABILITY MAP

# ROBUSTA, LIBERICA AND EXCELSA COFFEE

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

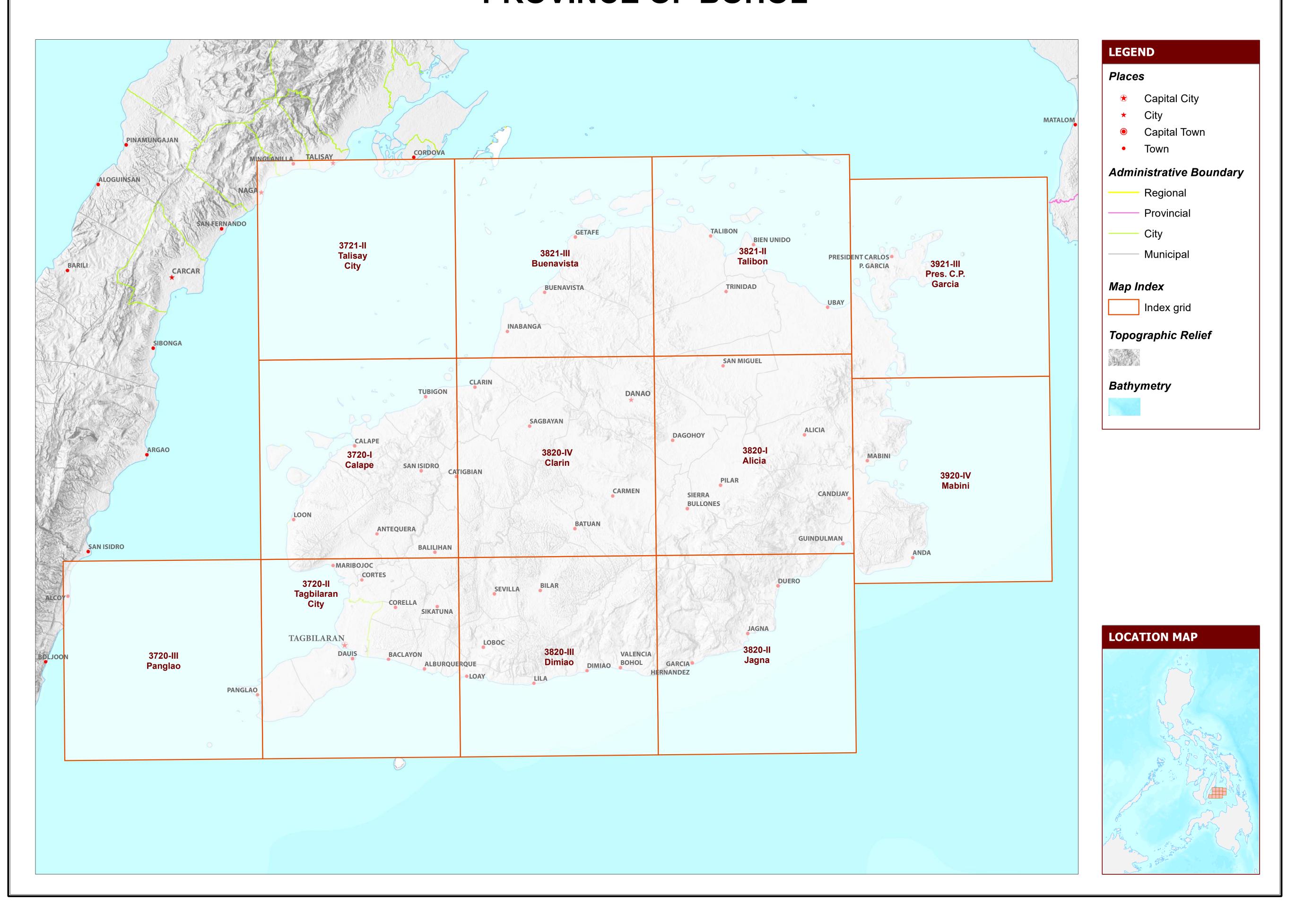
## PROVINCE OF BOHOL





## MAP INDEX

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



# LAND SUITABILITY MAP FOR ROBUSTA, LIBERICA AND EXCELSA COFFEE

## LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS BOHOL, REGION VII

### FXTENT OF SHITABILITY FOR ROBUSTA LIBERICA AND FXCELSA COFFEE PRODUCTION BY MINICIPALITY

		-				EX	PANSION	AREA (H	(a)			CONF	LICT RES	OLUTION	l (Ha)		тотат
MUNICIPALITY	EXISTIN	NG COFFE	ЕЕ (На)	TOTAL EXISTING AREA (Ha)	Coco	onut	Shrub unman	, ,	Grass unman	•	Со	rn	-	oaddy, rigated	Other	crops	TOTAL POTENTIAL EXPANSION AREA (Ha)
	<b>S1</b>	S2	<b>S</b> 3		<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	AKEA (IIa)
ALBURQUERQUE	-	-	-	-	1,906	40	18	40	106	-	245	-	-	-	-	-	2,355
ALICIA	-	-	-	-	2,368	365	119	93	1,380	45	568	-	722	-	-	-	5,660
ANDA	-	13	-	13	726	1,200	200	875	-	-	32	2	48	1	-	-	3,084
ANTEQUERA	-	-	-	-	2,725	32	2,011	61	1	-	69	-	18	-	-	-	4,917
BACLAYON	-	-	-	-	1,013	-	-	-	1,334	-	317	-	35	-	-	-	2,700
BALILIHAN	-	-	-	-	828	-	1,550	267	4,814	13	-	-	30	1	-	_	7,504
BATUAN	-	-	-	-	963	-	2,314	49	, <u>-</u>	-	851	-	245	-	_	_	4,422
BIEN UNIDO	_	-	-	_	189	-	-	-	-	-	456	-	493	-	_	_	1,137
BILAR	-	-	11	11	1,512	96	1,180	227	9	205	741	44	311	16	_	_	4,341
BUENAVISTA	122	_	13	135	4,016	_	160		3,494	-	80	_	388	_	_	_	8,138
CALAPE		_	-	-	2,927	_	-	_	-	_	174	_	279	_	_	_	3,381
CANDIJAY	<del> </del>	_	_	_	2,462	884	198	173	15	8	168	_	325	50	_	_	4,283
CARMEN	1 -	_	_	_	9,505	1,414	174	25	718	256	2,196	87	2,259	309	_	_	16,943
CATIGBIAN	<del>  _  </del>	_	_		3,182	2,172	1,694	206	, 10	230	145	686	203	236		_	8,524
CLARIN				-	2,049	268	1,071	200		_	150	536	112	65			3,180
CORELLA	<del>                                     </del>	-	-		563	4	130	37	2,242	-	130	330	4	0.5		_	2,980
CORTES	+ -	-	-	-	754	4	26	37	1,994	-	-	-	5	-		-	
	26	1	- 21	- 40		101		276	7	-	1 000	33		7	-	-	2,778
DAGOHOY			21	48	829	181	514	276	-	-	1,898		2,242		-	-	5,987
DANAO	114	80	32	226	3,628	794	36	151	928	88	902	71	381	66	-	-	7,043
DAUIS	-	-	-	-	280	-	2,376	-	537	-	26	-	92	-	-	-	3,309
DIMIAO	-	-	-	-	895	489	90	45	173	212	926	259	78	45	-	-	3,212
DUERO	-	-	-	-	541	461	-	1		-	125	17	34	6	-	-	1,185
GARCIA HERNANDEZ	-	-	-	-	674	930	30	464	175	200	220	109	90	14	-	-	2,906
GETAFE	50	-	33	83	3,269	-	-	-	1,532	-	9	-	753	-	-	-	5,564
GUINDULMAN	-	-	-	-	1,989	1,603	107	65	5	10	46	23	164	33	-	-	4,044
INABANGA	-	-	-	-	5,878	605	27	-	432	-	69	124	260	36	-	-	7,430
JAGNA	-	-	-	-	853	1,393	-	12	-	170	147	65	45	23	-	-	2,707
LILA	-	-	-	-	900	5	-	-	19	40	-	-	36	-	-	-	1,001
LOAY	-	-	-	-	1,684	5	2	-	32	2	31	-	22	-	-	-	1,779
LOBOC	-	-	-	-	1,464	126	88	52	50	258	454	81	47	4	-	-	2,625
LOON	-	-	-	-	3,980	431	657	203	-	-	791	27	357	-	-	-	6,446
MABINI	-	-	-	-	1,326	29	30	29	1,862	43	878	-	1,063	-	-	-	5,260
MARIBOJOC	-	-	-	-	2,601	16	482	62	-	-	11	-	16	-	-	-	3,187
PANGLAO	-	-	-	-	630	-	2,280	-	202	-	-	-	450	-	-	-	3,562
PILAR	-	31	14	45	1,226	280	8	43	56	-	3,061	68	2,155	30	-	-	6,926
PRES. CARLOS P. GARCIA	-	-	-	-	2,103	-	-	-	160	-	127	-	474	-	-	-	2,865
SAGBAYAN	-		-	-	572	3,843	337	68	-	-	129	1,160	81	613	-	-	6,803
SAN ISIDRO	-	-	-	-	2,348	146	619	21	-	-	83	_	14	-		-	3,231
SAN MIGUEL	15	-	-	15	2,815	32	94	10	662	22	3,543	7	2,334	48	_	_	9,567
SEVILLA	-	-	-	-	1,200	20	170	35	185	-	1,981	10	14	-	-	_	3,614
SIERRA BULLONES	-	3	6	9	2,495	762	171	132	-	-	555	285	749	19	-	_	5,168
SIKATUNA	_	-	-	-	1,806	17	244	56	140	11	4	-	3	-	-	_	2,282
TAGBILARAN CITY	-	_	-	-	325	-		-	1,355	-	-	-	3	_	-	_	1,683
TALIBON	11	_	4	15	4,789	13	246	_	2,091	1	860	_	2,288	8	_	_	10,295
TRINIDAD	20	_	2	22	1,590	_	21	_	1,646	-	4,975	9	3,447	-	_	_	11,687
TUBIGON	- 20				2,706	331	<u></u>	_		_	274	248	295	30		_	3,884
UBAY	14		_	14	2,479	331	-		1,957		5,263	<b>4</b> TU	6,791	- 30			16,490
VALENCIA		-	-	14	1,131	854	294	209	57	100	778	502	176	35			4,136
VALEINCIA	373	128	136	637	96,696	19,840	18,698	3,986	30,368	1,686	34,357	4,451	30,430	1,694	-	-	242,205

*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

- excessively drained

- moderately well drained

- somewhat poorly drained

- well drained

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	

5.6 - 6.0

SLOPE (%) - level to gently sloping - gently sloping to undulating 8 - 18 - undulating to rolling 18 - 30 - rolling to moderately steep 30 - 50 - steep > 50

- poorly drained very steep very poorly drained **SURFACE IMPEDIMENT** 

ROCK OUTCROPS 30 - 50 - shallow - none - few 10 - 30% - common 50 - 100 - moderately deep - deep to very deep

SOIL REACTION (pH) extremely acid - very strongly acid

strongly alkaline

- sand 5.1 - 5.5 - strongly acid loamy sand - medium acid - coarse sandy loam 6.1 - 6.5 - slightly acid - sandy loam 6.6 - 7.2 - neutral - mildly alkaline - moderately alkaline

- fine sandy loam - loam - silt loam  $\mathsf{CL}$ - clay loam - silty clay loam - sandy clay loam

**SOIL TEXTURE** 

LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

**SOIL DRAINAGE** 

**SOIL DRAINAGE** 

WD

SPD

**ELEVATION** 

El2 - 1000m - 2000m D2 - Somewhat poorly drained to poorly drained El3 -> 2000m D3 - Very poorly drained or excessively drained

SLOPE/TOPOGRAPHY **SOIL TEXTURE** T2 - Undulating to moderately steep Tc - Coarse texture T3 - Steep to very steep

SOIL DEPTH

**ROCK OUTCROPS** 

Rc2 - Common

Rc3 - Many

Sh2 - Shallow to moderately deep (30 - 100cm) Sh3 - Very shallow (< 30cm)

E3 - Severe erosion **FLOODING** 

F2 - Moderate seasonal flooding F3 - Severe seasonal flooding

**SOIL EROSION** 

E2 - Moderate erosion

- sandy clay

- silty clay

- heavy clay

- clay

### **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

#### **CLIMATE TYPE**

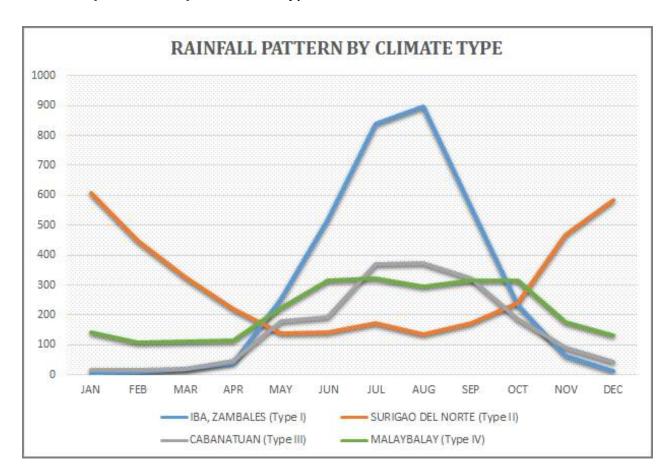
**TYPE I**: Two pronouced season, dry from November to April and wet during the rest of the year. Maximum rain period is from June to September

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

## Province of Bohol is classified as climatic Type IV.



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>.

LAND LIMITATION	CODE	LAND LIMITATION
E2-Sh2-Rc2	11	T2-E3-Rc3
E2-Sh2-Rc3	12	T2-E3-Sh2-Rc3
E3-Rc3	13	T2-E3-Sh3-Rc3
E3-Sh2-Rc3	14	T2-F3-D2
F2-D2	15	Т3
F3-D2	16	Т3-Е3
Sh2-Rc2	17	T3-E3-Rc3
T2	18	T3-E3-Sh3-Rc3
T2-E3		
T2-E3-Rc2		
	E2-Sh2-Rc2 E2-Sh2-Rc3 E3-Rc3 E3-Sh2-Rc3 F2-D2 F3-D2 Sh2-Rc2 T2 T2-E3	E2-Sh2-Rc2       11         E2-Sh2-Rc3       12         E3-Rc3       13         E3-Sh2-Rc3       14         F2-D2       15         F3-D2       16         Sh2-Rc2       17         T2       18         T2-E3       11

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

