# LAND SUITABILITY MAP

## NATURAL RUBBER

# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS

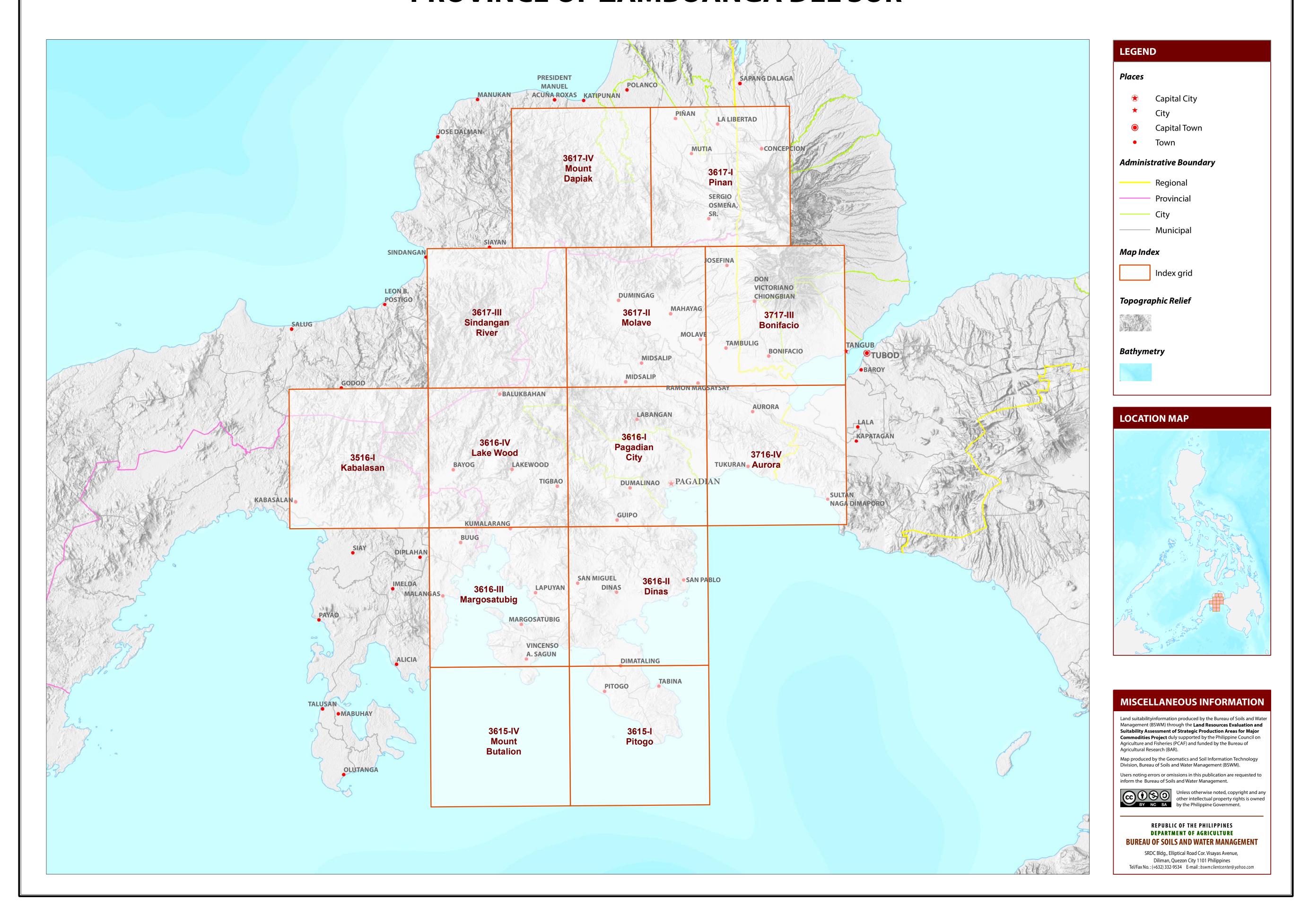
## PROVINCE OF ZAMBOANGA DEL SUR





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# LAND RESOURCES EVALUATION AND SUITABILITY ASSESSMENT OF STRATEGIC PRODUCTION AREAS PROVINCE OF ZAMBOANGA DEL SUR



# LAND SUITABILITY MAP FOR RUBBER

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

## ZAMBOANGA DEL SUR, REGION IX

**EXTENT OF SUITABILITY FOR RUBBER PRODUCTION BY MUNICIPALITY** 

	EXISTING RUBBER (Ha)					EXPANSION AREA (Ha) CONFLICT RESOLUTION AREA (Ha)												TOTAL	
MUNICIPALITY				TOTAL EXISTING AREA (Ha)	Coco	nut	Shrubl unmana		Grassl unmana	·	Cor	'n	Ma	ngo	Ban	ana	Other	crops	POTENTIAL EXPANSION AREA (Ha)
	<b>S1</b>	<b>S2</b>	<b>S</b> 3		<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	<b>S1</b>	S2	<b>S1</b>	<b>S2</b>	<b>S1</b>	<b>S2</b>	АКЕА (Па)
AURORA	-	-	-	-	480	7,525	6	100	28	351	453	733	-	-	-	-	-	-	9,676
BAYOG		-	-	-	79	587	14	235	244	3,446	601	469	-	-	-	-	-	-	5,675
DIMATALING		-	-	-	1,915	3,649	60	230	-	-	257	185	7	1	-	-	-	-	6,303
DINAS	-	-	-	-	3,372	5,143	23	218	85	59	533	852	3	3	-	-	2	3	10,296
DUMALINAO	1	1	-	2	678	2,920	-	9	16	387	855	2,104	-	-	-	-	-	-	6,969
DUMINGAG	-	-	-	-	25	257	12	121	549	7,300	1,051	176	-	-	-	-	-	-	9,491
GUIPOS	-	-	-	-	101	871	-	9	44	386	760	1,619	-	-	-	-	-	-	3,791
JOSEFINA	-	-	-	-	-	1,387	-	169	-	135	42	1,755	1	-	-	1	ı	-	3,487
KUMALARANG	-	-	-	-	358	1,775	1	9	1	262	451	546	-	-	-	-	-	-	3,403
LABANGAN	-	-	-	-	153	51	-	18	284	1,356	2,397	223	-	-	-	-	1	-	4,483
LAKEWOOD	-	-	-	-	37	2,186	-	127	39	839	44	497	-	-	-	-	-	3	3,771
LAPUYAN	-	-	-	-	1,258	6,103	40	373	11	179	499	656	-	-	-	-	-	-	9,120
MAHAYAG	-	-	-	-	1,435	1,026	75	52	249	423	1,553	1,096	-	-	6	2	2	-	5,920
MARGOSATUBIG	6	1	-	7	801	3,485	19	171	4	20	157	357	-	-	-	-	-	-	5,015
MIDSALIP	-	-	-	-	6	63	83	72	532	3,617	589	307	-	-	-	-	-	-	5,268
MOLAVE	-	-	-	-	488	1,432	77	195	-	1	965	3,085	-	-	-	-	-	-	6,243
PAGADIAN CITY	-	-	-	-	1,235	3,084	34	173	161	832	1,785	2,870	-	-	-	-	-	-	10,174
PITOGO	-	-	-	-	2,115	3,608	-	-	-	-	160	118	-	-	-	-	-	-	6,001
RAMON MAGSAYSAY	-	-	-	-	708	3,384	6	43	235	209	212	1,140	-	-	-	-	-	_	5,938
SAN MIGUEL	-	-	-	-	1,121	2,937	4	110	12	124	412	774	-	-	-	-	-	_	5,494
SAN PABLO	-	-	_	-	761	3,763	_	-	_	28	332	659	-	2	-	-	-	_	5,545
SOMINOT	-	-	-	-	254	1,468	12	56	617	2,022	159	482	-	-	-	-	-	-	5,070
TABINA	-	-	_	-	725	4,967	-	-	-	-	6	68	-	-	-	2	5	_	5,771
TAMBULIG	-	-	-	-	172	2,518	-	1	20	46	1,334	954	-	-	-	-	-	-	5,046
TIGBAO	-	-	_	-	39	1,680	-	91	3	170	255	921	1	-	-	-	_	3	3,162
TUKURAN	-	-	_	-	70	377	7	100	493	3,154	623	421	-	-	3	-	-	-	5,245
VINCENZO A. SAGUN	-	-	_	-	904	3,381	-	-	-	25	68	81	-	1	-	-	-	_	4,460
TOTAL	7	2.	_	8		69,627	474	2,681	3,626	25,370	16,553	23,147	10	7		4	11	8	160,818

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

#### AGRONOMIC REQUIREMENT OF RUBBER 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, SPD	5.6 -7.2	high	none-slight	none-slight	none-few	<500	1000-2000	III, IV
Rubber Tree	S2	8 - 30	30 - 100	FSL, L, SiL, SL	PD,VPD	4.5 - 5.5 7.3 - 7.8	medium	moderate	moderate	common	500-1000	2001-4500	I, II, III
	S3	>30	<30	S, LS, CSL	ED	<4.5 - > 7.9	low	severe	severe	many	>1000	<1000 >4500	

		3, 2, 32		33,333	>4500
SLOPE (%	%)	SOIL DRAINAGE	SOIL REACTION (pH)	SOIL TEXTURE	
0 - 3	- level to gently sloping	ED - excessively drained	< 4.5 - extremely acid	Coarse	Fine
3 - 8	- gently sloping to undulating	WD - well drained	4.5 - 5.0 - very strongly acid	S - sand	SC - sandy clay
8 - 18	- undulating to rolling	MWD - moderately well drained	5.1 - 5.5 - strongly acid	LS - loamy sand	SiC - silty clay
18 - 30	- rolling to moderately steep	SPD - somewhat poorly drained	5.6 - 6.0 - medium acid	CSL - coarse sandy loam	C - 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	
			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 OUTCROPS	> 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	

CODE

4 Corn

81 Coffee

82 Cacao 85 Mango 87 Jackfruit 91 Banana

116 Coconut 126 Grassland

47 Vegetable

105 Fruit trees, mixed

LANDUSE

CODE

131 Ipil ipil

137 Rubber

134 Shrubs, unmanaged

LANDUSE

### LAND LIMITATIONS DESCRIPTION AND COMBINATIONS

ELEV	VATION	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	- < 500m or > 2500m	D3 - Very poorly drained or excessively drained	Sh3 - Very shallow (< 30cm)	E3 - Severe erosion
SLOI	PE/TOPOGRAPHY	SOIL TEXTURE	ROCK OUTCROPS	FLOODING
T2	- Undulating to moderately steep	Tc - Coarse texture	Rc2 - Common	F2 - Moderate seasonal flooding
Т3	- Steep to very steep		Rc3 - Many	F3 - Severe seasonal flooding

CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION	CODE	LIMITATION
1	E12	11	T2-E3-Rc2	21	T2-El2-Sh2-Rc2	31	T3-El2	41	T3-E3-Sh3-Rc3
2	El2-Rc2	12	T2-E3-Rc3	22	T2-El2-Sh2-Rc3	32	T3-El2-E3	42	T3-El2
3	El2-Sh2-Rc2	13	T2-E3-Sh2-Rc2	23	T2-F2-D2	33	T3-El2-E3-Rc2	43	T3-El2-E3
4	F2-D2	14	T2-E3-Sh2-Rc3	24	T2-F3-D2	34	T3-El2-E3-Sh3-Rc2	44	T3-El2-E3-Sh3-Rc3
5	F2-Tc	15	T2-E12	25	T2-Sh2-Rc2	35	T3-El2-E3-Sh3-Rc3	45	T3-El3
6	F3-D2	16	T2-E12-E3	26	Т3	36	T3-El3-E3-Sh3-Rc3		
7	Sh2-Rc2	17	T2-E12-E3-Rc2	27	Т3-Е3	<i>37</i>	T3-F2-D2		
8	T2	18	T2-El2-E3-Sh2-Rc2	28	T3-E3-Sh2-Rc3	38	T3-F3-D2		
9	T2-E2-Sh2-Rc2	19	T2-E12-E3-Sh2-Rc3	29	T3-E3-Sh3-Rc2	39	Т3		
10	T2-E3	20	T2-E12-Rc2	30	T3-E3-Sh3-Rc3	40	Т3-Е3		

**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.

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.

**Marginally Suitable (S3)** 

**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**

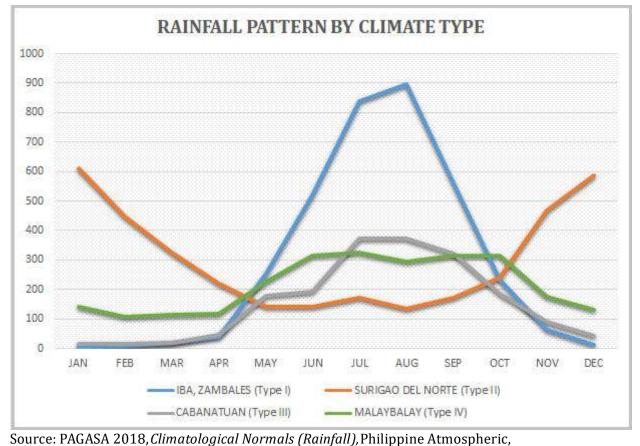
**TYPE I**: Two pronouced season, dry from November to April and **TYPE II**: No dry season with a very pronounced maximum rain wet during the rest of the year. Maximum rain period is from June to September

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

Eastern part of Zamboanga Del Sur belongs to Type III climate classification and the rest on Wesstern part belongs to Type IV.



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>.

