

# Phytosociological Research Center

www.globalbioclimatics.org

## Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

**TAVOY (MYANMAR -BURMA-)**

Altitude: 17 m.

Latitude: 14° 6'N Longitude: 98° 13'E

Temperature observation period.: 1949-1994 (46)

Rainfall observation period....: 1962-1994 (33)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
<b>Jan.</b>	25.28	32.22	18.33	36.67	10.00	5.1	109.08
<b>Feb.</b>	26.67	33.33	20.00	37.22	10.56	10.2	125.91
<b>Mar.</b>	28.06	33.89	22.22	37.22	13.89	40.6	152.43
<b>Apr.</b>	29.17	34.44	23.89	38.33	17.78	66.0	163.15
<b>May.</b>	27.78	31.67	23.89	38.89	20.00	576.6	160.32
<b>Jun.</b>	26.11	28.89	23.33	36.11	20.56	1122.7	135.76
<b>Jul.</b>	25.83	28.33	23.33	37.78	20.00	1249.7	133.98
<b>Aug.</b>	25.83	28.33	23.33	33.89	20.00	1201.5	130.36
<b>Sep.</b>	26.11	28.89	23.33	37.22	20.56	840.8	128.22
<b>Oct.</b>	26.95	31.11	22.78	37.22	16.67	269.3	140.49
<b>Nov.</b>	26.67	31.67	21.67	37.78	11.11	58.4	131.39
<b>Dec.</b>	25.00	31.11	18.89	36.11	8.89	10.2	103.53
<b>Year</b>	26.62	31.16	22.08	37.04	15.84	5451	1614.6

### — BIOCLIMATIC INDICES AND DIAGNOSIS —

Thermicity index.....(It):	766
Compensated thermicity index.....(Itc):	766
Simple continentality index.....(Ic):	4.2
Diurnality index.....(Id):	13.9
Annual ombrothermic index.....(Io):	17.06
Monthly dry ombrothermic index.....(Iod1):	0.20
Bimonthly dry ombrothermic index.....(Iod2):	0.30
Threemonthly dry ombrothermic index.....(Iod3):	0.33
Fourmonthly dry ombrothermic index.....(Iod4):	0.81
Annual ombro-evaporation index.....(Ioe):	3.38
Annual positive temperature.....(Tp):	3195
Annual negative temperature.....(Tn):	-0
Dry station temperature.....(Td):	770
Positive precipitation.....(Pp):	5451

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0°
Months	6	2	1	3	0

Latitudinal Belt...: Eutropical

Continentalty.....: Hyperoceanic - High Euhyperoceanic

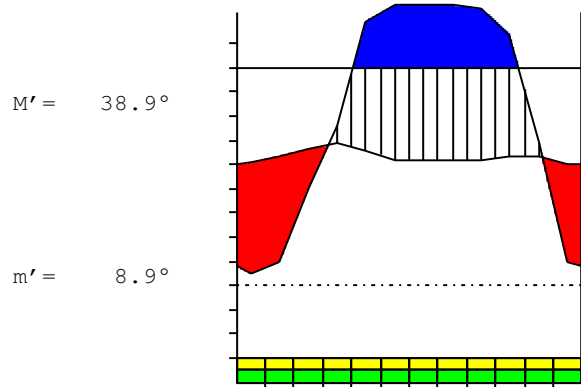
Bioclimate(Variant): TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)

Bioclimatic belt...: UPPER INFRATROPICAL LOW HYPERHUMID

**TAVOY (MYANMAR -BURMA-)**

17 m

P= 5451      14° 6'N      98° 13'E      46/33 y.  
 T= 26.6 °      Ic= 4.2      Tp= 3195      Tn= -0  
 m= 18.9 °      M= 31.1 °      Itc= 766      Io= 17.1



**TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)  
 UPPER INFRATROPICAL LOW HYPERHUMID**

**WATER INDEX CARD**

**TAVOY (MYANMAR -BURMA-)**

Altitude: 17 m.

Latitude: 14° 6'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	25.3	109	5	0	0	5	104	0	60	-0.9
Feb.	26.7	126	10	0	0	10	116	0	30	-0.9
Mar.	28.1	152	41	0	0	40	112	0	15	-0.7
Apr.	29.2	163	66	0	0	66	97	0	8	-0.5
May.	27.8	160	577	100	100	160	0	316	162	2.5
Jun.	26.1	136	1123	0	100	136	0	987	574	7.2
Jul.	25.8	134	1250	0	100	134	0	1116	845	8.3
Aug.	25.8	130	1202	0	100	130	0	1071	958	8.2
Sep.	26.1	128	841	0	100	128	0	712	835	5.5
Oct.	27.0	140	269	0	100	140	0	129	482	0.9
Nov.	26.7	131	58	-73	27	131	0	0	241	-0.5
Dec.	25.0	104	10	-27	0	37	66	0	120	-0.9
<b>Year</b>	<b>26.6</b>	<b>1615</b>	<b>5451</b>	<b>*</b>	<b>*</b>	<b>1120</b>	<b>495</b>	<b>3277</b>	<b>3277</b>	<b>*</b>

R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

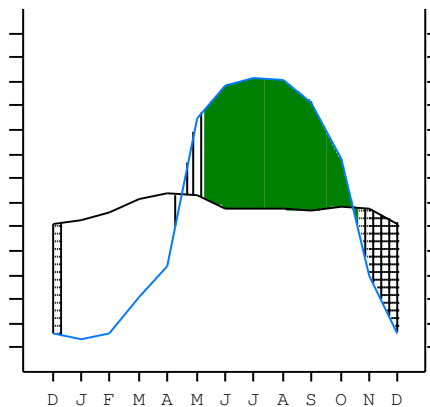
**TAVOY (MYANMAR -BURMA-)**

14°6'N    98°13'E    17 m 46/33 y.

T= 26.6    Ic= 4.2  
 m= 18.9    Tp= 3195  
 M= 31.1    Tn= -0  
 M' = 38.9    Itc= 766  
 m' = 8.9    Io= 17.1  
 P= 5451    mm ———  
 PE= 1615    mm ———

**TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)  
 UPPER INFRATROPICAL  
 LOW HYPERHUMID**

	Imbibing	6 Apr.
■	Saturation	8 May.
▨	Reserve Use	20 Oct.
□	Deficit	9 Dec.



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**SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION**

Continental Index [A2a]  
 + Type .....: A. Hyperoceanic  
 + Subtype .....: 2. Euhyperoceanic  
 + Variant .....: a. High

Thermic types [A2.A1]  
 + Latitudinal zone ....: A. Warm  
 + Latitudinal belt ....: 2. Eutropical  
 + Thermic type .....: A. Warm  
 + Thermic subtype .....: 1. Torrid

Bioclimatic types [A4.1a.8b]  
 + Macrobioclimate .....: A. TROPICAL  
 + Bioclimate .....: 4. PLUVISEASONAL  
 + Bioclimatic variant .:  
 + Thermic type.....: 1. INFRATROPICAL  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 8. HYPERHUMID  
 + Ombrothermic subtype : b. LOW

**Bioclimatic Classification .....: Trde.Itr.Hhu**

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**PRECIPITATION PARAMETERS**

Warmest semester of the year.....(Pss): 3066  
 Coldest semester of the year.....(Psw): 2385  
 Warmest four months period of the year.....(Pcm1): 693  
 Following warmest four months period.....(Pcm2): 4415  
 Positive precipitation dryest 3 months.....(Ppd): 26  
 Positive precipitation dryest 2 months.....(Ppd2): 15  
 Positive precipitation dryest 1 month.....(Ppd1): 5  
 Positive precipitation warmest 3 months.....(Pps): 683  
 Positive precipitation warmest 2 months.....(Pps2): 107  
 Positive precipitation warmest 1 month.....(Pps1): 66  
 Positive precipitation coldest 3 months.....(Ppw): 74  
 Positive precipitation coldest 2 months.....(Ppw2): 15  
 Positive precipitation coldest 1 month.....(Ppw1): 10

Seasons	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4
Rainfall	25	683	3573	1168

**Tropical rainfall rhythms: 3 > 4 > 2 > 1**

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**TEMPERATURE PARAMETERS**

Average warmest month [T].....(Tmax): 29.2  
 Average coldest month [T].....(Tmin): 25.0  
 Maximum temp. warmest month [M].....(Tmmax): 34.4  
 Minimum temp. coldest month [m].....(Tmmin): 18.3  
 Absolute Max.temp. warmest month [M'].....(Tamax): 38.9  
 Absolute Min.temp. coldest month [m'].....(Tamin): 8.9  
 First warmest contrasted month [M].....(Tcmax): 32.2 (1)  
 First coldest contrasted month [m].....(Tcmin): 18.3 (1)  
 Dry station temperature.....(Td): 770  
 Positive temperature dryest 3 months.....(Tpd): 770  
 Positive temperature dryest 2 months.....(Tpd2): 520  
 Positive temperature dryest 1 month.....(Tpd1): 253  
 Positive temperature warmest 3 months.....(Tps): 850  
 Positive temperature warmest 2 months.....(Tps2): 572  
 Positive temperature warmest 1 month.....(Tps1): 292  
 Positive temperature coldest 3 months.....(Tpw): 770  
 Positive temperature coldest 2 months.....(Tpw2): 503  
 Positive temperature coldest 1 month.....(Tpwl): 250

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**SEASONAL PARAMETERS**

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Warmest semester...(Sms)		o	o	o	o	o	o					
Dryest semester...(Smd)	o	o	o	o							o	o
Warmest 4 months...(Cm1)		o	o	o	o							
Dryest 4 months...(Cmd)	o	o	o									o
Vegetation Activity(Pav)	o	o	o	o	o	o	o	o	o	o	o	o
Ultragelid...[M' <=0] (Pf)												
Hypergelid...[M <=0] (Pf)												
Gelid.....[T <=0] (Pf)												
Subgelid....[m <=0] (Pf)												
Pregelid....[m' <=0] (Pf)												
Agelid.....[m' > 0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o
HiperAgelid..[all>0] (Pf)	o	o	o	o	o	o	o	o	o	o	o	o

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**OMBROTHERMIC PARAMETERS**

Annual aridity index.[PE/P].....(Iar): 0.30  
 Mediterranean index of July.[PE/P].....(Im1): No  
 Mediterranean index of July & August.....(Im2): No  
 Mediterranean index of June, July & August....(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	102	51	102	406	660	5766	11227	12497	12015	8408	2693	584
Tp	250	253	267	281	292	278	261	258	258	261	270	267
<b>Io (Iom)</b>	0.41	0.20	0.38	1.45	2.26	20.8	43.0	48.4	46.5	32.2	9.99	2.19
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	255 / 770			6832 / 850			35739 / 778			11685 / 797		
<b>Io (Iot)</b>	0.331			8.037			45.95			14.66		
Semesters	December-May						June-November					
Pp(x10)/Tp	7087 / 1620						47424 / 1575					
<b>Io (Iosm)</b>	4.376						30.11					

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**BIOCLIMATIC INDICES I**

CI of Supan (1884) [Tmax-Tmin] .....(Sp): 4.17  
 CI of Gorezinski (1920) [1.7\*Sp/sin(Lat)-20.4] .....: 8.70  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 3.36  
 + Hyperoceanic (-20<CI<20)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 0.73  
 + Oceanic (0.6<CI<1.1)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 204.76  
 + Humid (R>160)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 148.85  
 + Perhumid (Ia>60)  
 I of Emberger (1930) [Q=100\*P/(Tmmax<sup>2</sup>-Tmmin<sup>2</sup>)] .....: 641.21  
 + Humid (Q>90)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 0.49  
 + Humid (2>DR>0)  
 Aridity Index of UNEP [I=P/PE] .....: 3.38  
 + Humid (I>0.65)  
 Potential Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 286.50  
 + Very high (160<K)

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**BIOCLIMATIC INDICES II**

Bioclimatic classification of Gaussen & Bagnouls (1957)

- + Climate ....: A. Warm and temperate warm
- + Region .....: 3. Termoxerotic (Mediterranean warm)
- + Thermic type: 1. Megathermic

Thorntwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.01	0.03	0.13	0.21	2.43	5.28	5.99	5.73	3.83	1.06	0.20	0.03
T-E ratio	11.38	12.00	12.63	13.13	12.50	11.75	11.62	11.62	11.75	12.13	12.00	11.25
Precipitation-effectiveness: 249.36						Temperature-efficiency ....: 143.76						
Moisture Index [MI=100*(P-PE)/PE] .....: 237.61 + A.Extremely humid (MI>100) Index of dryness [DI=100*d/PE] .....: 30.65 + Moderate deficit (16.7<DI<33.3) Index of humidity [HI=100*s/PE] .....: 202.94 + Strong surplus (20<HI) Potential Evapotranspiration PE .....: 1614.63 + Megathermic (PE>1440)												

