

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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PADANG (INDONESIA)

Altitude: 7 m.

Latitude: 0° 56'S Longitude: 100° 22'E

Temperature observation period.: 1960-1980 (21)

Rainfall observation period....: 1930-1980 (51)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	27.00	30.60	23.30	33.90	21.10	351.0	145.08
Feb.	27.00	31.70	24.40	34.40	20.60	259.0	131.13
Mar.	27.00	31.70	23.90	33.90	21.10	307.0	145.08
Apr.	27.20	31.70	23.90	33.30	21.70	363.0	142.52
May.	27.50	32.20	23.90	33.90	21.70	315.0	149.25
Jun.	27.00	32.20	23.90	33.90	20.00	307.0	140.90
Jul.	25.00	31.70	23.30	33.30	21.10	277.0	111.02
Aug.	25.00	32.20	23.30	33.30	20.60	348.0	111.02
Sep.	26.70	32.20	23.90	32.80	21.10	152.0	138.47
Oct.	26.70	31.70	23.90	33.30	21.10	495.0	142.59
Nov.	26.70	31.10	23.90	32.80	21.10	518.0	138.47
Dec.	26.70	30.60	23.90	32.80	21.10	480.0	142.59
Year	26.63	31.63	23.79	33.47	21.03	4172	1638.1

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	816
Compensated thermicity index.....(Itc):	816
Simple continentality index.....(Ic):	2.5
Diurnality index.....(Id):	8.9
Annual ombrothermic index.....(Io):	13.06
Monthly dry ombrothermic index.....(Iod1):	5.69
Bimonthly dry ombrothermic index.....(Iod2):	9.67
Threemonthly dry ombrothermic index.....(Iod3):	10.13
Fourmonthly dry ombrothermic index.....(Iod4):	10.45
Annual ombro-evaporation index.....(Ioe):	2.55
Annual positive temperature.....(Tp):	3195
Annual negative temperature.....(Tn):	-0
Dry station temperature.....(Td):	767
Positive precipitation.....(Pp):	4172

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0°
Months	12	0	0	0	0

Latitudinal Belt...: Equatorial

Continentalty.....: Hyperoceanic - Low Ultrahyperoceanic

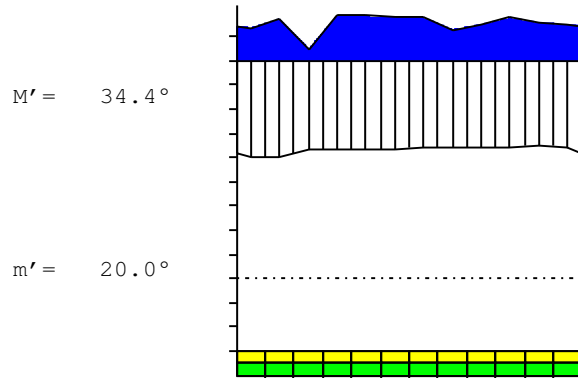
Bioclimate(Variant): TROPICAL PLUVIAL (HYGROPHYTIC)

Bioclimatic belt...: LOW INFRATROPICAL LOW HYPERHUMID

PADANG (INDONESIA)

7 m

P= 4172 0° 56'S 100° 22'E 21/51 y.
 T= 26.6° Ic= 2.5 Tp= 3195 Tn= -0
 m= 23.3° M= 31.7° Itc= 816 Io= 13.1



**TROPICAL PLUVIAL (HYGROPHYTIC)
 LOW INFRATROPICAL LOW HYPERHUMID**

WATER INDEX CARD

PADANG (INDONESIA)

Altitude: 7 m.

Latitude: 0° 56'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	25.0	111	277	0	100	111	0	166	170	1.4
Aug.	25.0	111	348	0	100	111	0	237	204	2.1
Sep.	26.7	138	152	0	100	138	0	14	108	0.0
Oct.	26.7	143	495	0	100	142	0	352	230	2.4
Nov.	26.7	138	518	0	100	138	0	380	305	2.7
Dec.	26.7	143	480	0	100	142	0	337	321	2.3
Jan.	27.0	145	351	0	100	145	0	206	264	1.4
Feb.	27.0	131	259	0	100	131	0	128	196	0.9
Mar.	27.0	145	307	0	100	145	0	162	179	1.1
Apr.	27.2	143	363	0	100	142	0	220	200	1.5
May.	27.5	149	315	0	100	149	0	166	183	1.1
Jun.	27.0	141	307	0	100	141	0	166	174	1.1
Year	26.6	1638	4172	*	*	1638	0	2534	2534	*

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

PADANG (INDONESIA)

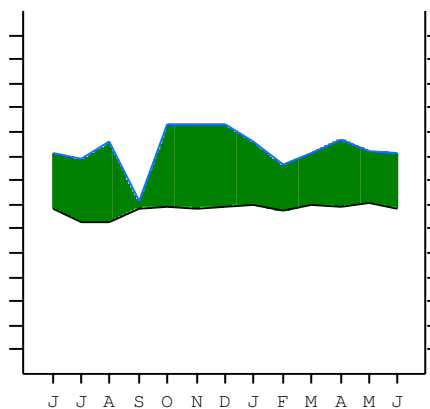
0°56'S 100°22'E 7 m 21/51 y.

T= 26.6 Ic= 2.5
 m= 23.3 Tp= 3195
 M= 31.7 Tn= -0
 M' = 34.4 Itc= 816
 m' = 20.0 Io= 13.1
 P= 4172 mm ———
 PE= 1638 mm ———

**TROPICAL PLUVIAL (HYGROPHYTIC)
 LOW INFRATROPICAL
 LOW HYPERHUMID**

	Imbibing
■	Saturation
▨	Reserve Use
□	Deficit

All over the year,
 there is no hydric deficit



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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A1b]
 + Type: A. Hyperoceanic
 + Subtype: 1. Ultrahyperoceanic
 + Variant: b. Low

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

Bioclimatic types [A5.1b.8b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 5. PLUVIAL
 + Bioclimatic variant .:
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 8. HYPERHUMID
 + Ombrothermic subtype : b. LOW

Bioclimatic Classification: Trhd.Itr.Hhu

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1902
 Coldest semester of the year.....(Psw): 2270
 Warmest four months period of the year.....(Pcm1): 1244
 Following warmest four months period.....(Pcm2): 1084
 Positive precipitation dryest 3 months.....(Ppd): 777
 Positive precipitation dryest 2 months.....(Ppd2): 500
 Positive precipitation dryest 1 month.....(Ppd1): 152
 Positive precipitation warmest 3 months.....(Pps): 985
 Positive precipitation warmest 2 months.....(Pps2): 678
 Positive precipitation warmest 1 month.....(Pps1): 315
 Positive precipitation coldest 3 months.....(Ppw): 777
 Positive precipitation coldest 2 months.....(Ppw2): 625
 Positive precipitation coldest 1 month.....(Ppw1): 277

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	932	1165	1090	985

Tropical rainfall rhythms: 4 > 1 > 2 > 3

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.5
 Average coldest month [T].....(Tmin): 25.0
 Maximum temp. warmest month [M].....(Tmmax): 32.2
 Minimum temp. coldest month [m].....(Tmmin): 23.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 34.4
 Absolute Min.temp. coldest month [m'].....(Tamin): 20.0
 First warmest contrasted month [M].....(Tcmax): 32.2 (8)
 First coldest contrasted month [m].....(Tcmin): 23.3 (8)
 Dry station temperature.....(Td): 767
 Positive temperature dryest 3 months.....(Tpd): 767
 Positive temperature dryest 2 months.....(Tpd2): 517
 Positive temperature dryest 1 month.....(Tpd1): 267
 Positive temperature warmest 3 months.....(Tps): 817
 Positive temperature warmest 2 months.....(Tps2): 547
 Positive temperature warmest 1 month.....(Tps1): 275
 Positive temperature coldest 3 months.....(Tpw): 767
 Positive temperature coldest 2 months.....(Tpw2): 500
 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): 0.39
 Mediterranean index of January.....(Im1): No
 Mediterranean index of January & February....(Im2): No
 Mediterranean index of December to February...(Im3): No

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	4800	3510	2590	3070	3630	3150	3070	2770	3480	1520	4950	5180
Tp	267	270	270	270	272	275	270	250	250	267	267	267
Io (Iom)	18.0	13.0	9.59	11.4	13.3	11.5	11.4	11.1	13.9	5.69	18.5	19.4
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	10900 / 807			9850 / 817			9320 / 770			11650 / 801		
Io (Iot)	13.51			12.06			12.10			14.54		
Semesters	December-May						June-November					
Pp(x10)/Tp	20750 / 1624						20970 / 1571					
Io (Iosm)	12.78						13.35					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 2.50
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 240.51
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 8.41
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 1.91
 + Continental (1.7<CI<2.3)
 Rainfall Index of Lang (1925) [R=P/T]: 156.69
 + Temperate humid (160>R>100)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 113.91
 + Perhumid (Ia>60)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 844.62
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 0.64
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 2.55
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 64.32
 + Low (60<K<90)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)

- + Climate: A. Warm and temperate warm
- + Region: 6. Termoaxeric (Axeric warm)
- + Thermic type: 1. Megathermic

Thorntwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	1.42	1.02	1.23	1.47	1.25	1.23	1.14	1.47	0.57	2.10	2.21	2.03
T-E ratio	12.15	12.15	12.15	12.24	12.38	12.15	11.25	11.25	12.02	12.02	12.02	12.02
Precipitation-effectiveness: 171.32						Temperature-efficiency: 143.78						
Moisture Index [MI=100*(P-PE)/PE]: 154.68 + A.Extremely humid (MI>100) Index of dryness [DI=100*d/PE]: 0.00 + No deficit (0<DI<16.7) Index of humidity [HI=100*s/PE]: 154.68 + Strong surplus (20<HI) Potential Evapotranspiration PE: 1638.12 + Megathermic (PE>1440)												

