

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 30/08/2017)

AMAHAI (INDONESIA)

Altitude: 3 m.

Latitude: 3°19'S Longitude: 128°55'E

Temperature observation period.: 1976-1994 (19)

Rainfall observation period....: 1944-1994 (51)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	27.78	31.11	24.44	35.56	22.22	127.0	153.03
Feb.	27.78	31.11	24.44	35.56	22.78	119.4	137.00
Mar.	27.78	31.11	24.44	35.00	22.22	134.6	151.58
Apr.	27.22	30.00	24.44	33.89	21.67	279.4	142.68
May.	26.39	28.89	23.89	32.22	21.11	515.6	134.56
Jun.	25.56	27.78	23.33	30.56	20.56	637.6	115.71
Jul.	25.28	27.22	23.33	30.00	20.00	602.0	114.30
Aug.	25.28	27.22	23.33	30.56	19.44	401.3	115.41
Sep.	25.83	28.33	23.33	31.11	18.89	241.3	120.42
Oct.	26.39	29.44	23.33	32.78	18.89	154.9	135.86
Nov.	27.50	31.11	23.89	34.44	21.11	114.3	146.38
Dec.	27.78	31.11	24.44	35.56	20.00	132.1	153.03
Year	26.71	29.54	23.89	33.10	20.74	3460	1620.0

### BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	773
Compensated thermicity index.....(Itc):	773
Simple continentality index.....(Ic):	2.5
Diurnality index.....(Id):	7.2
Annual ombrothermic index.....(Io):	10.79
Monthly dry ombrothermic index.....(Iod1):	4.16
Bimonthly dry ombrothermic index.....(Iod2):	4.46
Three monthly dry ombrothermic index.....(Iod3):	4.50
Four monthly dry ombrothermic index.....(Iod4):	4.83
Annual ombro-evaporation index.....(Ioe):	0.36
Annual positive temperature.....(Tp):	3206
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	831
Positive precipitation.....(Pp):	3460

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

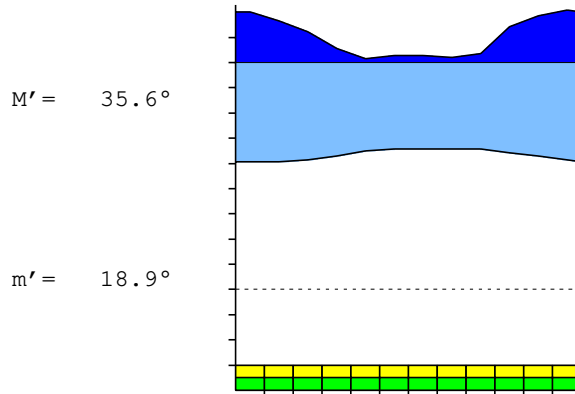
Bioclimate(Variant): TROPICAL PLUVIAL (HYGROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER HUMID

AMAHAI (INDONESIA)

3 m

P= 3460      3° 19' S      128° 55' E      19/51 y.  
 T= 26.7°      Ic= 2.5      Tp= 3206      Tn= 0  
 m= 23.3°      M= 27.2°      Itc= 773      Io= 10.8



TROPICAL PLUVIAL (HYGROPHYTIC)  
 UPPER INFRATROPICAL UPPER HUMID

WATER INDEX CARD

AMAHAI (INDONESIA)

Altitude: 3 m.

Latitude: 3° 19' S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	25.3	114	602	0	100	114	0	488	424	4.2
Aug.	25.3	115	401	0	100	115	0	286	355	2.4
Sep.	25.8	120	241	0	100	120	0	121	238	1.0
Oct.	26.4	136	155	0	100	136	0	19	129	0.1
Nov.	27.5	146	114	-32	68	146	0	0	64	-0.2
Dec.	27.8	153	132	-21	47	153	0	0	32	-0.1
Jan.	27.8	153	127	-26	21	153	0	0	16	-0.1
Feb.	27.8	137	119	-18	3	137	0	0	8	-0.1
Mar.	27.8	152	135	-3	0	138	14	0	4	-0.1
Apr.	27.2	143	279	100	100	143	0	37	20	0.9
May.	26.4	135	516	0	100	135	0	381	201	2.8
Jun.	25.6	116	638	0	100	116	0	522	361	4.5
Year	26.7	1620	3460	*	*	1606	14	1853	1853	*

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

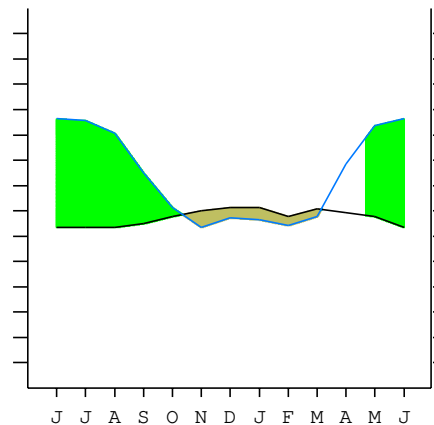
AMAHAI (INDONESIA)

3°19' S 128°55' E

3 m 19/51 y.

T= 26.7      Ic= 2.5      TROPICAL PLUVIAL (HYGROPHYTIC)  
 m= 23.3      Tp= 3206      UPPER INFRATROPICAL  
 M= 27.2      Tn= 0      UPPER HUMID  
 M' = 35.6      Itc= 773  
 m' = 18.9      Io= 10.8  
 P= 3460      mm ———  
 PE= 1620      mm ———

Imbibing	4 Mar.
Saturation	22 Apr.
Reserve Use	12 Oct.
Deficit	6 Mar.



AMAHAI (INDONESIA)

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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 [A5.1a.7a]  
 + Macrobioclimate .....: A. TROPICAL  
 + Bioclimate .....: 5. PLUVIAL  
 + Bioclimatic variant ..:  
 + Thermic type.....: 1. INFRATROPICAL  
 + Thermic subtype.....: a. UPPER  
 + Ombrothermic type ...: 7. HUMID  
 + Ombrothermic subtype : a. UPPER  
 Bioclimatic Classification .....: Trhd.Itr.Hum

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 907  
 Coldest semester of the year.....(Psw): 2553  
 Warmest four months period of the year.....(Pcm1): 513  
 Following warmest four months period.....(Pcm2): 2035  
 Positive precipitation dryest 3 months.....(Ppd): 373  
 Positive precipitation dryest 2 months.....(Ppd2): 246  
 Positive precipitation dryest 1 month.....(Ppd1): 114  
 Positive precipitation warmest 3 months.....(Pps): 381  
 Positive precipitation warmest 2 months.....(Pps2): 246  
 Positive precipitation warmest 1 month.....(Pps1): 127  
 Positive precipitation coldest 3 months.....(Ppw): 1641  
 Positive precipitation coldest 2 months.....(Ppw2): 1003  
 Positive precipitation coldest 1 month.....(Ppw1): 602

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	1640	510	378	929

Tropical rainfall rhythms: 3 > 2 > 4 > 1

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 27.8  
 Average coldest month [T].....(Tmin): 25.3  
 Maximum temp. warmest month [M].....(Tmmax): 31.1  
 Minimum temp. coldest month [m].....(Tmmin): 23.3  
 Absolute Max.temp. warmest month [M'].....(Tamax): 35.6  
 Absolute Min.temp. coldest month [m'].....(Tamin): 18.9  
 First warmest contrasted month [M].....(Tcmax): 31.1 (11)  
 First coldest contrasted month [m].....(Tcmin): 23.9 (11)  
 Dry station temperature.....(Td): 831  
 Positive temperature dryest 3 months.....(Tpd): 831  
 Positive temperature dryest 2 months.....(Tpd2): 556  
 Positive temperature dryest 1 month.....(Tpd1): 275  
 Positive temperature warmest 3 months.....(Tps): 833  
 Positive temperature warmest 2 months.....(Tps2): 556  
 Positive temperature warmest 1 month.....(Tps1): 278  
 Positive temperature coldest 3 months.....(Tpw): 761  
 Positive temperature coldest 2 months.....(Tpw2): 506  
 Positive temperature coldest 1 month.....(Tpw1): 253

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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): 0.47  
 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)	1321	1270	1194	1346	2794	5156	6376	6020	4013	2413	1549	1143
Tp	278	278	278	278	272	264	256	253	253	258	264	275
Io (Iom)	4.76	4.57	4.30	4.85	10.3	19.5	24.9	23.8	15.9	9.34	5.87	4.16
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	3785 / 833			9296 / 814			16409 / 761			5105 / 797		
Io (Iot)	4.542			11.42			21.56			6.404		
Semesters	December-May						June-November					
Pp(x10)/Tp	13081 / 1647						21514 / 1558					
Io (Iosm)	7.941						13.81					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 34595/3206=10.79 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1321	1270	1194	1346	2794	5156	6376	6020	4013	2413	1549	1143
Tp [T*10]	278	278	278	278	272	264	256	253	253	258	264	275
Iom [Pp/Tp]	476	457	430	485	\$\$	\$\$	\$\$	\$\$	\$\$	934	587	416
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	3785 / 833			9296 / 814			16409 / 761			5105 / 797		
Iot [Pp/Tp]	454			1142			2156			640		
Avs E [Avm<200]	***			***			***			***		

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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] .....: 53.06  
 CI of Conrad (1946) [1.7\*Sp/sin(Lat+10)-14] .....: 4.45  
 + Hyperoceanic (-20<CI<20)  
 CI of Currey (1974) [CI=Sp/(1+Lat/3)] .....: 1.19  
 + Subcontinental (1.1<CI<1.7)  
 Rainfall Index of Lang (1925) [R=P/T] .....: 129.50  
 + Temperate humid (160>R>100)  
 Aridity Index of Martonne (1926) [Ia=P/(T+10)] .....: 94.23  
 + Perhumid (Ia>60)  
 I of Emberger (1930) [Q=100\*P/(Tmax<sup>2</sup>-Tmin<sup>2</sup>)] .....: 816.80  
 + Humid (Q>90)  
 I of Dantin & Revenga (1940) [DR=100\*T/P] .....: 0.77  
 + Humid (2>DR>0)  
 Aridity Index of UNEP [I=P/PE] .....: 2.14  
 + Humid (I>0.65)  
 Potential Erosion I of Fournier (1960) [K=Pi<sup>2</sup>/P].....: 117.51  
 + Moderate (90<K<120)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)  
 + Climate .....: A. Warm and temperate warm  
 + Region .....: 6. Termoaxeric (Axic warm)  
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.45	0.42	0.48	1.10	2.21	2.85	2.69	1.72	0.96	0.58	0.40	0.47
T-E ratio	12.50	12.50	12.50	12.25	11.88	11.50	11.38	11.38	11.62	11.88	12.38	12.50
Precipitation-effectiveness: 143.54						Temperature-efficiency .....: 144.26						
Moisture Index [MI=100*(P-PE)/PE] .....: 113.55 + A.Extremely humid (MI>100) Index of dryness [DI=100*d/PE] .....: 0.84 + No deficit (0<DI<16.7) Index of humidity [HI=100*s/PE] .....: 114.39 + Strong surplus (20<HI) Potential Evapotranspiration PE .....: 1619.96 + Megathermic (PE>1440)												

