

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

SALVADOR (BRAZIL)

Altitude: 6 m.

Latitude: 12°55'S Longitude: 38°20'W

Temperature observation period.: 1969-1994 (26)

Rainfall observation period....: 1974-1994 (21)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	26.67	30.00	23.33	34.44	20.00	66.0	150.55
Feb.	26.67	30.00	23.33	37.78	11.11	134.6	134.12
Mar.	26.67	30.00	23.33	37.78	17.22	154.9	143.71
Apr.	26.11	28.89	23.33	34.44	20.00	284.5	126.05
May.	25.00	27.78	22.22	36.11	17.78	274.3	110.28
Jun.	24.17	26.67	21.67	32.22	10.00	238.8	94.64
Jul.	23.34	26.11	20.56	29.44	12.22	182.9	86.96
Aug.	23.34	26.11	20.56	32.22	12.22	121.9	90.51
Sep.	24.17	27.22	21.11	32.22	12.22	83.8	99.62
Oct.	25.00	28.33	21.67	37.22	15.00	101.6	119.20
Nov.	25.56	28.89	22.22	36.11	12.78	114.3	127.07
Dec.	25.84	28.89	22.78	33.33	18.89	142.2	137.95
Year	25.21	28.24	22.18	34.44	14.95	1900	1420.7

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	719
Compensated thermicity index.....(Itc):	719
Simple continentality index.....(Ic):	3.3
Diurnality index.....(Id):	6.7
Annual ombrothermic index.....(Io):	6.28
Monthly dry ombrothermic index.....(Iod1):	3.47
Bimonthly dry ombrothermic index.....(Iod2):	3.77
Threemonthly dry ombrothermic index.....(Iod3):	4.01
Fourmonthly dry ombrothermic index.....(Iod4):	4.30
Annual ombro-evaporation index.....(Ioe):	1.34
Annual positive temperature.....(Tp):	3025
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	747
Positive precipitation.....(Pp):	1900

N. of Months	P>4T	P:2T-4T	PT-2T	P<T	T<0
	10	2	0	0	0

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

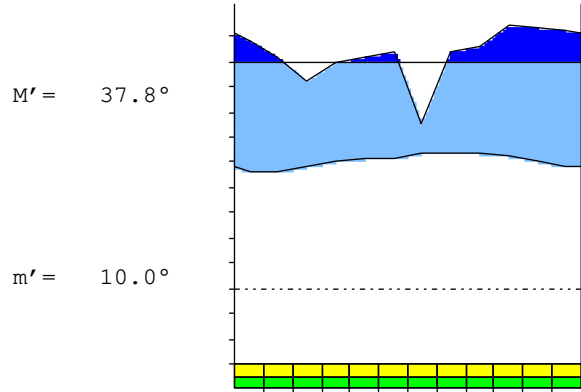
Bioclimate(Variant): TROPICAL PLUVIAL (SUBHYGROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL LOW HUMID

SALVADOR (BRAZIL)

6 m

P= 1900 12° 55'S 38° 20'W 26/21 y.
 T= 25.2 ° Ic= 3.3 Tp= 3025 Tn= 0
 m= 20.6 ° M= 26.1 ° Itc= 719 Io= 6.3



TROPICAL PLUVIAL (SUBHYGROPHYTIC)
 UPPER INFRATROPICAL LOW HUMID

WATER INDEX CARD SALVADOR (BRAZIL)
 Altitude: 6 m. Latitude: 12° 55'S

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jul.	23.3	87	183	0	100	87	0	96	109	1.1
Aug.	23.3	91	122	0	100	91	0	31	70	0.3
Sep.	24.2	100	84	-16	84	100	0	0	35	-0.1
Oct.	25.0	119	102	-18	67	119	0	0	18	-0.1
Nov.	25.6	127	114	-13	54	127	0	0	9	-0.1
Dec.	25.8	138	142	4	58	138	0	0	4	0.0
Jan.	26.7	151	66	-58	0	124	26	0	2	-0.5
Feb.	26.7	134	135	0	0	134	0	0	1	0.0
Mar.	26.7	144	155	11	12	144	0	0	1	0.0
Apr.	26.1	126	285	88	100	126	0	70	35	1.2
May.	25.0	110	274	0	100	110	0	164	100	1.4
Jun.	24.2	95	239	0	100	95	0	144	122	1.5
Year	25.2	1421	1900	*	*	1394	26	506	506	*

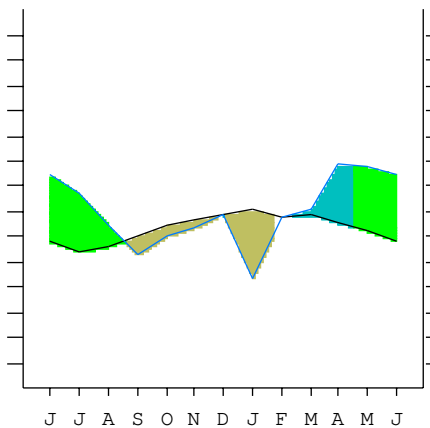
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

SALVADOR (BRAZIL)

12°55'S 38°20'W 6 m 26/21 y.

T= 25.2 Ic= 3.3 TROPICAL PLUVIAL (SUBHYGROPHYTIC)
 m= 20.6 Tp= 3025 UPPER INFRATROPICAL
 M= 26.1 Tn= 0 LOW HUMID
 M' = 37.8 Itc= 719
 m' = 10.0 Io= 6.3
 P= 1900 mm ———
 PE= 1421 mm ———

Imbibing	30 Jan.
Saturation	17 Apr.
Reserve Use	2 Dec.
Deficit	21 Jan.



SALVADOR (BRAZIL)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continentality Index [A1b]
 + Type: A. Hyperoceanic
 + Subtype: 1. Ultrahyperoceanic
 + Variant: b. Low
 Thermic types [A2.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 2. Eutropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A5.1a.7b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 5. PLUVIAL
 + Bioclimatic variant .: SUBHYGROPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic ClassificationTrpl(Shi).Itr.Hum.Uho

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 897
 Coldest semester of the year.....(Psw): 1003
 Warmest four months period of the year.....(Pcm1): 640
 Following warmest four months period.....(Pcm2): 818
 Positive precipitation dryest 3 months.....(Ppd): 300
 Positive precipitation dryest 2 months.....(Ppd2): 185
 Positive precipitation dryest 1 month.....(Ppd1): 66
 Positive precipitation warmest 3 months.....(Pps): 356
 Positive precipitation warmest 2 months.....(Pps2): 201
 Positive precipitation warmest 1 month.....(Pps1): 66
 Positive precipitation coldest 3 months.....(Ppw): 544
 Positive precipitation coldest 2 months.....(Ppw2): 305
 Positive precipitation coldest 1 month.....(Ppw1): 183

Seasons	Jun+Jul+Aug Ttr3-3	Sep+Oct+Nov Ttr4-4	Dec+Jan+Feb Ttr1-1	Mar+Apr+May Ttr2-2
Rainfall	543	299	342	713

Tropical rainfall rhythms: 2 > 3 > 1 > 4

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 26.7
 Average coldest month [T].....(Tmin): 23.3
 Maximum temp. warmest month [M].....(Tmmax): 30.0
 Minimum temp. coldest month [m].....(Tmmin): 20.6
 Absolute Max.temp. warmest month [M'].....(Tamax): 37.8
 Absolute Min.temp. coldest month [m'].....(Tamin): 10.0
 First warmest contrasted month [M].....(Tcmax): 30.0 (1)
 First coldest contrasted month [m].....(Tcmin): 23.3 (1)
 Dry station temperature.....(Td): 747
 Positive temperature dryest 3 months.....(Tpd): 747
 Positive temperature dryest 2 months.....(Tpd2): 492
 Positive temperature dryest 1 month.....(Tpd1): 267
 Positive temperature warmest 3 months.....(Tps): 800
 Positive temperature warmest 2 months.....(Tps2): 533
 Positive temperature warmest 1 month.....(Tps1): 267
 Positive temperature coldest 3 months.....(Tpw): 709
 Positive temperature coldest 2 months.....(Tpw2): 467
 Positive temperature coldest 1 month.....(Tpw1): 233

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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): 0.75
 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)	1422	660	1346	1549	2845	2743	2388	1829	1219	838	1016	1143
Tp	258	267	267	267	261	250	242	233	233	242	250	256
Io (Iom)	5.50	2.47	5.05	5.81	10.9	11.0	9.88	7.84	5.22	3.47	4.06	4.47
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	3428 / 792			7137 / 778			5436 / 709			2997 / 747		
Io (Iot)	4.329			9.176			7.673			4.010		
Semesters	December-May						June-November					
Pp(x10)/Tp	10565 / 1570						8433 / 1456					
Io (Iosm)	6.731						5.793					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 18998/3025=6.28 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	1422	660	1346	1549	2845	2743	2388	1829	1219	838	1016	1143
TP [T*10]	258	267	267	267	261	250	242	233	233	242	250	256
Iom [Pp/TP]	550	247	505	581	\$\$	\$\$	988	784	522	347	406	447
Avm [200-Iom]	***	***	***	***	***	***	***	***	***	***	***	***
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	3428 / 792			7137 / 778			5436 / 709			2997 / 747		
Iot [Pp/TP]	433			918			767			401		
Avs E [Avm<200]	***			***			***			***		

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp):	3.33
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]		4.93
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]		0.54
+ Hyperoceanic (-20<CI<20)		
CI of Currey (1974) [CI=Sp/(1+Lat/3)]		0.63
+ Oceanic (0.6<CI<1.1)		
Rainfall Index of Lang (1925) [R=P/T]		75.35
+ Temperate warm (100>R>60)		
Aridity Index of Martonne (1926) [Ia=P/(T+10)]		53.95
+ Humid (60>Ia>30)		
I of Emberger (1930) [Q=100*P/(Tmmax ² -Tmmin ²)]		398.04
+ Humid (Q>90)		
I of Dantin & Revenga (1940) [DR=100*T/P]		1.33
+ Humid (2>DR>0)		
Aridity Index of UNEP [I=P/PE]		1.34
+ Humid (I>0.65)		
Potencial Erosion I of Fournier (1960) [K=Pi ² /P].....		42.60
+ Very low (K<60)		

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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

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.22	0.49	0.58	1.15	1.13	0.99	0.75	0.48	0.31	0.38	0.42	0.54
T-E ratio	12.00	12.00	12.00	11.75	11.25	10.88	10.50	10.50	10.88	11.25	11.50	11.63
Precipitation-effectiveness: 74.38						Temperature-efficiency: 136.14						
Moisture Index [MI=100*(P-PE)/PE]												
+ B1.Humid low-humid (20<MI<40)												
Index of dryness [DI=100*d/PE]												
+ No deficit (0<DI<16.7)												
Index of humidity [HI=100*s/PE]												
+ Strong surplus (20<HI)												
Potential Evapotranspiration PE												
+ Forth mesothermic (997<PE<1440)												

