

Phytosociological Research Center

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Worldwide Bioclimatic Classification System

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(Adapted to Synoptical Table 14/02/2020)

ODIENNE (COTE D'IVOIRE)

Altitude: 442 m.

Latitude: 9°30'N Longitude: 7°34'W

Temperature observation period.: 1989-1994 (6)

Rainfall observation period....: 1960-1994 (35)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	EPI
Jan.	25.28	32.78	17.78	37.22	13.89	1.0	111.55
Feb.	27.22	35.00	19.44	40.00	15.56	11.9	129.96
Mar.	28.89	36.11	21.67	40.00	17.22	35.1	159.27
Apr.	28.89	34.44	23.33	40.00	17.22	71.9	159.27
May.	27.50	32.22	22.78	37.78	18.89	121.9	154.99
Jun.	26.95	32.22	21.67	36.11	17.78	177.0	147.45
Jul.	25.56	30.00	21.11	35.00	17.78	294.9	125.54
Aug.	25.28	29.44	21.11	34.44	17.78	413.0	119.36
Sep.	25.56	30.56	20.56	35.00	17.78	278.9	118.57
Oct.	26.12	31.67	20.56	36.11	17.78	166.9	128.59
Nov.	26.39	32.78	20.00	36.11	15.00	52.1	128.39
Dec.	25.00	32.78	17.22	37.22	12.22	9.9	105.92
Year	26.55	32.50	20.60	37.08	16.57	1635	1588.9

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	766
Compensated thermicity index.....(Itc):	766
Simple continentality index.....(Ic):	3.9
Diurnality index.....(Id):	15.6
Annual ombrothermic index.....(Io):	5.13
Monthly dry ombrothermic index.....(Iod1):	0.04
Bimonthly dry ombrothermic index.....(Iod2):	0.22
Threemonthly dry ombrothermic index.....(Iod3):	0.29
Fourmonthly dry ombrothermic index.....(Iod4):	0.72
Annual ombro-evaporation index.....(Ioe):	1.03
Annual positive temperature.....(Tp):	3186
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	775
Positive precipitation.....(Pp):	1635

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

Latitudinal Belt...: Eutropical

Continentality.....: Hyperoceanic - Low Ultrahyperoceanic

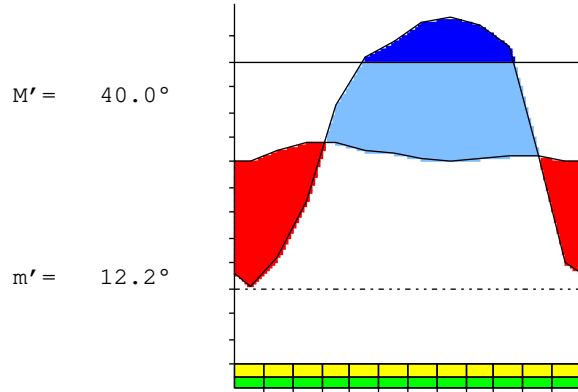
Bioclimate(Variant): TROPICAL PLUVISEASONAL (PLUVISEROTIN, SUBXEROPHYTIC)

Bioclimatic Belt...: UPPER INFRATROPICAL UPPER SUBHUMID

ODIENNE (COTE D'IVOIRE)

442 m

P= 1635 9° 30'N 7° 34'W 6/35 y.
 T= 26.6 ° Ic= 3.9 Tp= 3186 Tn= 0
 m= 17.2 ° M= 32.8 ° Itc= 766 Io= 5.1



TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 UPPER INFRATROPICAL UPPER SUBHUMID

WATER INDEX CARD

ODIENNE (COTE D'IVOIRE)

Altitude: 442 m.

Latitude: 9° 30'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	25.3	112	1	0	0	1	111	0	13	-0.9
Feb.	27.2	130	12	0	0	12	118	0	6	-0.9
Mar.	28.9	159	35	0	0	35	124	0	3	-0.7
Apr.	28.9	159	72	0	0	72	87	0	2	-0.5
May.	27.5	155	122	0	0	122	33	0	1	-0.2
Jun.	27.0	147	177	30	30	147	0	0	0	0.2
Jul.	25.6	126	295	70	100	126	0	99	50	1.3
Aug.	25.3	119	413	0	100	119	0	294	172	2.4
Sep.	25.6	119	279	0	100	119	0	160	166	1.3
Oct.	26.1	129	167	0	100	129	0	38	102	0.2
Nov.	26.4	128	52	-76	24	128	0	0	51	-0.5
Dec.	25.0	106	10	-24	0	34	72	0	26	-0.9
Year	26.6	1589	1635	*	*	1043	546	591	591	*

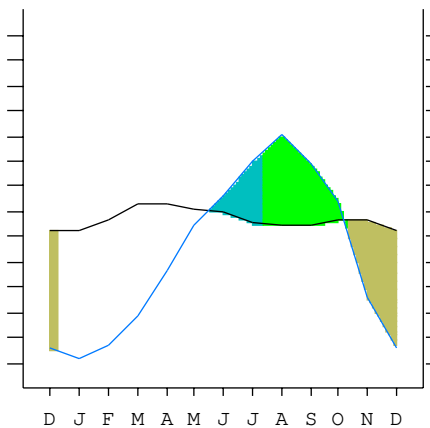
R = Reserve VR = Variation of the reserve RE = Real evapotranspiration
 DR = Drainage HC = Humidity coefficient DF = Deficit SP = Superavit

ODIENNE (COTE D'IVOIRE)

9°30'N 7°34'W 442 m 6/35 y.

T= 26.6 Ic= 3.9 TROPICAL PLUVISEASONAL (PLUVISEROTIN)
 m= 17.2 Tp= 3186 UPPER INFRATROPICAL
 M= 32.8 Tn= 0 UPPER SUBHUMID
 M' = 40.0 Itc= 766
 m' = 12.2 Io= 5.1
 P= 1635 mm ———
 PE= 1589 mm ———

Imbibing	16 May.
Saturation	13 Jul.
Reserve Use	11 Oct.
Deficit	8 Dec.



ODIENNE (COTE D'IVOIRE)

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SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental 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 [A4e.1a.6a]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant .: PLUVISEROTIN, SUBXEROPHYTIC
 + Thermic type.....: 1. INFRATROPICAL
 + Thermic subtype.....: a. UPPER
 + Ombrothermic type ...: 6. SUBHUMID
 + Ombrothermic subtype : a. UPPER

Bioclimatic ClassificationTrps(Pse).Itr.Shu.Uho

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PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 713
 Coldest semester of the year.....(Psw): 922
 Warmest four months period of the year.....(Pcm1): 241
 Following warmest four months period.....(Pcm2): 1164
 Positive precipitation dryest 3 months.....(Ppd): 23
 Positive precipitation dryest 2 months.....(Ppd2): 11
 Positive precipitation dryest 1 month.....(Ppd1): 1
 Positive precipitation warmest 3 months.....(Pps): 229
 Positive precipitation warmest 2 months.....(Pps2): 107
 Positive precipitation warmest 1 month.....(Pps1): 35
 Positive precipitation coldest 3 months.....(Ppw): 987
 Positive precipitation coldest 2 months.....(Ppw2): 11
 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	22	228	884	497

Tropical rainfall rhythms: 3 > 4 > 2 > 1

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TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.9
 Average coldest month [T].....(Tmin): 25.0
 Maximum temp. warmest month [M].....(Tmmax): 36.1
 Minimum temp. coldest month [m].....(Tmmin): 17.2
 Absolute Max.temp. warmest month [M'].....(Tamax): 40.0
 Absolute Min.temp. coldest month [m'].....(Tamin): 12.2
 First warmest contrasted month [M].....(Tcmax): 35.0 (2)
 First coldest contrasted month [m].....(Tcmin): 19.4 (2)
 Dry station temperature.....(Td): 775
 Positive temperature dryest 3 months.....(Tpd): 775
 Positive temperature dryest 2 months.....(Tpd2): 503
 Positive temperature dryest 1 month.....(Tpd1): 253
 Positive temperature warmest 3 months.....(Tps): 853
 Positive temperature warmest 2 months.....(Tps2): 578
 Positive temperature warmest 1 month.....(Tps1): 289
 Positive temperature coldest 3 months.....(Tpw): 764
 Positive temperature coldest 2 months.....(Tpw2): 503
 Positive temperature coldest 1 month.....(Tpw1): 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): 0.97
 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)	99	10	119	351	719	1219	1770	2949	4130	2789	1669	521
Tp	250	253	272	289	289	275	270	256	253	256	261	264
Io (Iom)	0.40	0.04	0.44	1.21	2.49	4.43	6.57	11.5	16.3	10.9	6.39	1.97
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp(x10)/Tp	228 / 775			2289 / 853			8849 / 778			4979 / 781		
Io (Iot)	0.294			2.684			11.38			6.378		
Semesters	December-May						June-November					
Pp(x10)/Tp	2517 / 1628						13828 / 1559					
Io (Iosm)	1.546						8.872					

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Aridity Value Index (AVI)

[10xPP/TP=IO]: 16345/3186=5.13 There is No Yearly Aridity

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	99	10	119	351	719	1219	1770	2949	4130	2789	1669	521
Tp [T*10]	250	253	272	289	289	275	270	256	253	256	261	264
Iom [Pp/Tp]	40	4	44	121	249	443	657	\$\$	\$\$	\$\$	639	197
Avm [200-Iom]	160	196	156	79	***	***	***	***	***	***	***	3
Seasons	Dec+Jan+Feb			Mar+Apr+May			Jun+Jul+Aug			Sep+Oct+Nov		
Pp / Tp	228 / 775			2289 / 853			8849 / 778			4979 / 781		
Iot [Pp/Tp]	29			268			1138			638		
Avs E[Avm<200]	513			***			***			***		
Lower ultrahyperarid [1]							Lower hyperarid [1]					
Upper hyperarid [1]							Strong lower arid [1]					
Weak lower semiarid [1]							Weak upper semiarid [1]					

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BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin](Sp): 3.89
 CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]: 19.67
 CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]: 5.81
 + Hyperoceanic (-20<CI<20)
 CI of Currey (1974) [CI=Sp/(1+Lat/3)]: 0.93
 + Oceanic (0.6<CI<1.1)
 Rainfall Index of Lang (1925) [R=P/T]: 61.56
 + Temperate warm (100>R>60)
 Aridity Index of Martonne (1926) [Ia=P/(T+10)]: 44.72
 + Humid (60>Ia>30)
 I of Emberger (1930) [Q=100*P/(Tmmax²-Tmmin²)]: 162.25
 + Humid (Q>90)
 I of Dantin & Revenga (1940) [DR=100*T/P]: 1.62
 + Humid (2>DR>0)
 Aridity Index of UNEP [I=P/PE]: 1.03
 + Humid (I>0.65)
 Potential Erosion I of Fournier (1960) [K=Pi²/P].....: 104.36
 + Moderate (90<K<120)

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BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate: A. Warm and temperate warm
 + Region: 3. Termoxeroteric (Mediterranean warm)
 + Thermic type: 1. Megathermic

Thornthwaite (1948)												
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
P-E ratio	0.00	0.03	0.11	0.23	0.43	0.67	1.21	1.77	1.14	0.64	0.17	0.03
T-E ratio	11.38	12.25	13.00	13.00	12.38	12.13	11.50	11.38	11.50	11.75	11.88	11.25
Precipitation-effectiveness: 64.36						Temperature-efficiency: 143.39						
Moisture Index [MI=100*(P-PE)/PE]: 2.87 + C2.Subhumid humid (0<MI<20)												
Index of dryness [DI=100*d/PE]: 34.33 + Strong deficit (33.3<DI)												
Index of humidity [HI=100*s/PE]: 37.20 + Strong surplus (20<HI)												
Potential Evapotranspiration PE: 1588.86 + Megathermic (PE>1440)												

