

Phytosociological Research Center

www.globalbioclimatics.org

Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

(Adapted to Synoptical Table 30/08/2017)

DACCA TEZGAON (BANGLADESH)

Altitude: 7 m.

Latitude: 23°46'N Longitude: 90°23'E

Temperature observation period.: 1934-1994 (61)

Rainfall observation period....: 1933-1994 (62)

(C/mm)	Ti	Mi	mi	M'i	m'i	Pi	Epi
Jan.	19.17	25.00	13.33	31.11	6.11	7.6	39.70
Feb.	21.39	27.78	15.00	34.44	6.67	30.5	55.98
Mar.	26.11	32.22	20.00	40.56	10.56	61.0	131.17
Apr.	28.33	33.33	23.33	42.22	16.67	137.2	159.16
May.	28.61	32.78	24.44	41.11	14.44	243.8	175.25
Jun.	28.62	31.67	25.56	36.67	19.44	315.0	173.81
Jul.	28.61	31.11	26.11	35.00	21.11	330.2	176.77
Aug.	28.61	31.11	26.11	36.11	21.67	337.8	170.68
Sep.	28.89	31.67	26.11	36.67	21.11	248.9	157.72
Oct.	27.50	31.11	23.89	37.22	17.22	134.6	142.07
Nov.	23.89	28.89	18.89	34.44	11.11	25.4	84.63
Dec.	20.27	26.11	14.44	30.56	7.22	5.1	47.84
Year	25.83	30.23	21.43	36.34	14.44	1877	1514.8

BIOCLIMATIC INDICES AND DIAGNOSIS

Thermicity index.....(It):	642
Compensated thermicity index.....(Itc):	642
Simple continentality index.....(Ic):	9.7
Diurnality index.....(Id):	12.8
Annual ombrothermic index.....(Io):	6.06
Monthly dry ombrothermic index.....(Iod1):	0.25
Bimonthly dry ombrothermic index.....(Iod2):	0.32
Three monthly dry ombrothermic index.....(Iod3):	0.60
Four monthly dry ombrothermic index.....(Iod4):	1.90
Annual ombro-evaporation index.....(Ioe):	6.10
Annual positive temperature.....(Tp):	3100
Annual negative temperature.....(Tn):	0
Dry station temperature.....(Td):	633
Positive precipitation.....(Pp):	1877

N. of	P>4T	P:2T-4T	PT-2T	P<T	T<0
Months	7	1	2	2	0

Latitudinal Belt...: Subtropical

Continentalty.....: Hyperoceanic - High Subhyperoceanic

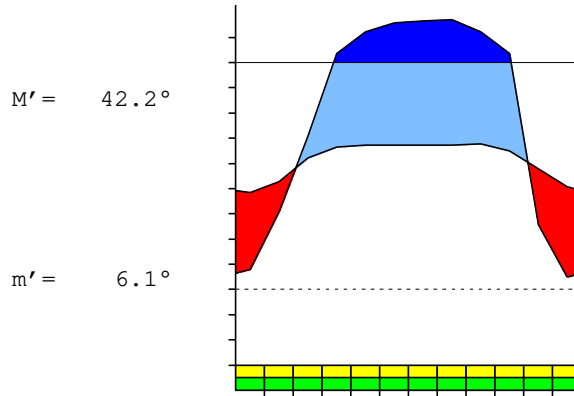
Bioclimate(Variant): TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)

Bioclimatic Belt...: LOW THERMOTROPICAL LOW HUMID

DACCA TEZGAON (BANGLADESH)

7 m

P= 1877 23° 46'N 90° 23'E 61/62 y.
 T= 25.8° Ic= 9.7 Tp= 3100 Tn= 0
 m= 13.3° M= 25.0° Itc= 642 Io= 6.1



TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)
 LOW THERMOTROPICAL LOW HUMID

WATER INDEX CARD

DACCA TEZGAON (BANGLADESH)

Altitude: 7 m.

Latitude: 23° 46'N

(C/mm)	T	PE	P	VR	R	RE	DF	SP	DR	HC
Jan.	19.2	40	8	0	0	8	32	0	7	-0.8
Feb.	21.4	56	31	0	0	31	25	0	4	-0.4
Mar.	26.1	131	61	0	0	61	70	0	2	-0.5
Apr.	28.3	159	137	0	0	137	22	0	1	-0.1
May.	28.6	175	244	69	69	175	0	0	0	0.3
Jun.	28.6	174	315	31	100	174	0	110	55	0.8
Jul.	28.6	177	330	0	100	177	0	153	104	0.8
Aug.	28.6	171	338	0	100	171	0	167	136	0.9
Sep.	28.9	158	249	0	100	158	0	91	113	0.5
Oct.	27.5	142	135	-7	93	142	0	0	57	0.0
Nov.	23.9	85	25	-59	33	85	0	0	28	-0.6
Dec.	20.3	48	5	-33	0	38	9	0	14	-0.8
Year	25.8	1515	1877	*	*	1356	159	521	521	*

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

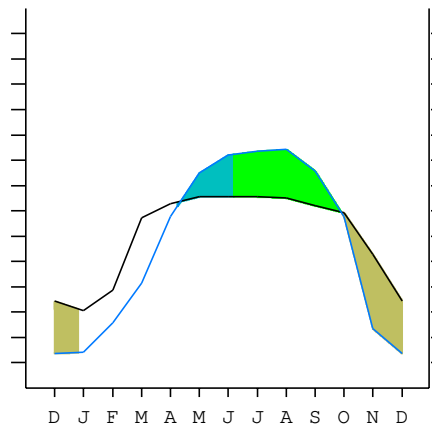
DACCA TEZGAON (BANGLADESH)

23°46'N 90°23'E

7 m 61/62 y.

T= 25.8 Ic= 9.7 TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)
 m= 13.3 Tp= 3100 LOW THERMOTROPICAL
 M= 25.0 Tn= 0 LOW HUMID
 M' = 42.2 Itc= 642
 m' = 6.1 Io= 6.1
 P= 1877 mm ———
 PE= 1515 mm ———

Imbibing	8 Apr.
Saturation	7 Jun.
Reserve Use	28 Sep.
Deficit	24 Dec.



DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

SUMMARY OF RIVAS-MARTINEZ CLASSIFICATION

Continental Index [A3a]
 + Type: A. Hyperoceanic
 + Subtype: 3. Subhyperoceanic
 + Variant: a. High
 Thermic types [A3.A1]
 + Latitudinal zone: A. Warm
 + Latitudinal belt: 3. Subtropical
 + Thermic type: A. Warm
 + Thermic subtype: 1. Torrid
 Bioclimatic types [A4.2b.7b]
 + Macrobioclimate: A. TROPICAL
 + Bioclimate: 4. PLUVISEASONAL
 + Bioclimatic variant ..:
 + Thermic type.....: 2. THERMOTROPICAL
 + Thermic subtype.....: b. LOW
 + Ombrothermic type ...: 7. HUMID
 + Ombrothermic subtype : b. LOW
 Bioclimatic Classification: Trde.Ttr.Hum

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

PRECIPITATION PARAMETERS

Warmest semester of the year.....(Pss): 1613
 Coldest semester of the year.....(Psw): 264
 Warmest four months period of the year.....(Pcm1): 1232
 Following warmest four months period.....(Pcm2): 173
 Positive precipitation dryest 3 months.....(Ppd): 38
 Positive precipitation dryest 2 months.....(Ppd2): 13
 Positive precipitation dryest 1 month.....(Ppd1): 5
 Positive precipitation warmest 3 months.....(Pps): 917
 Positive precipitation warmest 2 months.....(Pps2): 587
 Positive precipitation warmest 1 month.....(Pps1): 249
 Positive precipitation coldest 3 months.....(Ppw): 43
 Positive precipitation coldest 2 months.....(Ppw2): 13
 Positive precipitation coldest 1 month.....(Ppw1): 8

Seasons	Winter Tr1-W	Spring Tr2-P	Summer Tr3-S	Automn Tr4-F
Rainfall	43	442	983	408

Seasonal rainfall rhythms: S > P > F > W

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

TEMPERATURE PARAMETERS

Average warmest month [T].....(Tmax): 28.9
 Average coldest month [T].....(Tmin): 19.2
 Maximum temp. warmest month [M].....(Tmmax): 33.3
 Minimum temp. coldest month [m].....(Tmmin): 13.3
 Absolute Max.temp. warmest month [M'].....(Tamax): 42.2
 Absolute Min.temp. coldest month [m'].....(Tamin): 6.1
 First warmest contrasted month [M].....(Tcmax): 27.8 (2)
 First coldest contrasted month [m].....(Tcmin): 15.0 (2)
 Dry station temperature.....(Td): 633
 Positive temperature dryest 3 months.....(Tpd): 633
 Positive temperature dryest 2 months.....(Tpd2): 394
 Positive temperature dryest 1 month.....(Tpd1): 203
 Positive temperature warmest 3 months.....(Tps): 861
 Positive temperature warmest 2 months.....(Tps2): 575
 Positive temperature warmest 1 month.....(Tps1): 289
 Positive temperature coldest 3 months.....(Tpw): 608
 Positive temperature coldest 2 months.....(Tpw2): 394
 Positive temperature coldest 1 month.....(Tpw1): 192

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

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

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

OMBROTHERMIC PARAMETERS

Annual aridity index.[PE/P].....(Iar): 0.81
 Mediterranean index of July.[PE/P].....(Im1): 0.54
 Mediterranean index of July & August.....(Im2): 0.52
 Mediterranean index of June, July & August....(Im3): 0.53

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp(x10)	51	76	305	610	1372	2438	3150	3302	3378	2489	1346	254
Tp	203	192	214	261	283	286	286	286	286	289	275	239
Io (Iom)	0.25	0.40	1.43	2.34	4.84	8.52	11.0	11.5	11.8	8.62	4.89	1.06
Seasons	Winter			Spring			Summer			Autumn		
Pp(x10)/Tp	432 / 608			4420 / 831			9830 / 858			4089 / 803		
Io (Iot)	0.710			5.322			11.45			5.093		
Semesters	December-May						June-November					
Pp(x10)/Tp	4852 / 1439						13919 / 1661					
Io (Iosm)	3.372						8.379					

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

Aridity Value Index (AVI)

[10xPP/TP=IO]: 18771/3100=6.06 **There is No Yearly Aridity**

Months	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.
Pp [P*10]	51	76	305	610	1372	2438	3150	3302	3378	2489	1346	254
Tp [T*10]	203	192	214	261	283	286	286	286	286	289	275	239
Iom [Pp/Tp]	25	40	143	234	484	852	\$\$	\$\$	\$\$	862	489	106
Avm [200-Iom]	175	160	57	***	***	***	***	***	***	***	***	94
Seasons	Winter			Spring			Summer			Autumn		
Pp / Tp	432 / 608			4420 / 831			9830 / 858			4089 / 803		
Iot [Pp/Tp]	71			532			1145			509		
Avs E[Avm<200]	393			***			***			***		
Lower hyperarid [1]							Upper hyperarid [1]					
Weak lower arid [1]							Strong lower semiarid [1]					
Weak lower semiarid [1]												

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

BIOCLIMATIC INDICES I

CI of Supan (1884) [Tmax-Tmin]	(Sp): 9.72
CI of Gorezinski (1920) [1.7*Sp/sin(Lat)-20.4]	20.60
CI of Conrad (1946) [1.7*Sp/sin(Lat+10)-14]	15.73
+ Hyperoceanic (-20<CI<20)	
CI of Currey (1974) [CI=Sp/(1+Lat/3)]	1.09
+ Oceanic (0.6<CI<1.1)	
Rainfall Index of Lang (1925) [R=P/T]	72.66
+ Temperate warm (100>R>60)	
Aridity Index of Martonne (1926) [Ia=P/(T+10)]	52.38
+ Humid (60>Ia>30)	
I of Emberger (1930) [Q=100*P/(Tmax ² -Tmin ²)]	201.15
+ Humid (Q>90)	
I of Dantin & Revenga (1940) [DR=100*T/P]	1.38
+ Humid (2>DR>0)	
Aridity Index of UNEP [I=P/PE]	1.24
+ Humid (I>0.65)	
Potential Erosion I of Fournier (1960) [K=Pi ² /P]	60.79
+ Low (60<K<90)	

DACCA TEZGAON (BANGLADESH)

Latitude: 23°46'N Longitude: 90°23'E Altitude: 7 m

BIOCLIMATIC INDICES II

Bioclimatic classification of Gaussen & Bagnouls (1957)
 + Climate

- + Climate
- + Region
- + Thermic type: 1. Megathermic

Thornthwaite (1948)													
	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	
P-E ratio	0.02	0.11	0.21	0.49	0.92	1.22	1.28	1.32	0.93	0.49	0.08	0.02	
T-E ratio	8.63	9.63	11.75	12.75	12.87	12.88	12.87	12.87	13.00	12.38	10.75	9.12	
Precipitation-effectiveness:	70.78					Temperature-efficiency							139.50
Moisture Index [MI=100*(P-PE)/PE]												23.92	
+ B1.Humid low-humid (20<MI<40)													
Index of dryness [DI=100*d/PE]												10.50	
+ No deficit (0<DI<16.7)													
Index of humidity [HI=100*s/PE]												34.42	
+ Strong surplus (20<HI)													
Potential Evapotranspiration PE												1514.76	
+ Megathermic (PE>1440)													

