

# Phytosociological Research Center

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## Worldwide Bioclimatic Classification System

Prof.Dr. Salvador Rivas-Martinez

### 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
<b>Year</b>	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):	1.24
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

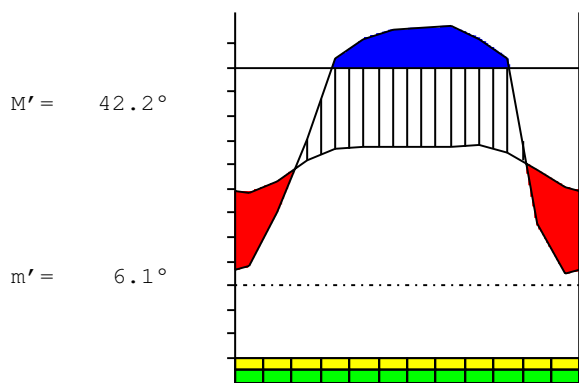
Bioclimate(Variant): TROPICAL PLUVISEASONAL (SUBXEROPHYTIC)

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	30	0	0	30	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	68	68	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	92	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
<b>Year</b>	<b>25.8</b>	<b>1515</b>	<b>1877</b>	<b>*</b>	<b>*</b>	<b>1356</b>	<b>159</b>	<b>521</b>	<b>521</b>	<b>*</b>

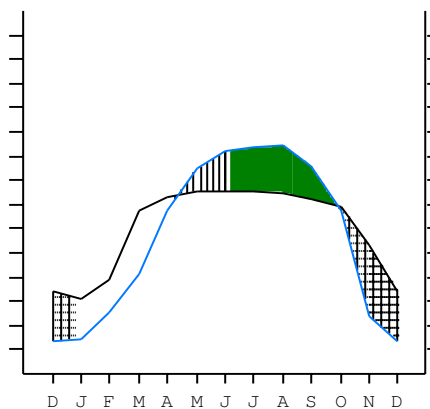
R = Reserve    VR = Variation of the reserve    RE = Real evapotranspiration  
 DR = Drainage    HC = Humidity coefficient    DF = Deficit    SP = Superavit

**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.



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**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**

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**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	Autumn Tr4-F
Rainfall	43	442	983	408

**Seasonal rainfall rhythms: S > P > F > W****DACCA TEZGAON (BANGLADESH)**

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**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

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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): 0.81  
 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
<b>Io (Iom)</b>	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	<b>Winter</b>			<b>Spring</b>			<b>Summer</b>			<b>Autumn</b>		
Pp(x10)/Tp	432 / 608			4420 / 831			9830 / 858			4089 / 803		
<b>Io (Iot)</b>	0.710			5.322			11.45			5.093		
Semesters	<b>December-May</b>						<b>June-November</b>					
Pp(x10)/Tp	4852 / 1439						13919 / 1661					
<b>Io (Iosm)</b>	3.372						8.379					

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**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/(Tmmax<sup>2</sup>-Tmmin<sup>2</sup>)] .....: 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<sup>2</sup>/P].....: 60.79  
 + Low (60<K<90)

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**BIOCLIMATIC INDICES II**

Bioclimatic classification of Gaussen & Bagnouls (1957)

- + Climate ....: A. Warm and temperate warm
- + Region .....: 3. Termoxerotic (Mediterranean warm)
- + Thermic type: 1. Megathermic

Thorntwaite (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 + Bl.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)												

