

## Classification of climate: North-East India:

Introduction: The North-East India has a sub-tropical climate, only in Arunachal Pradesh experiencing the Alpine conditions.

Hills and mountains, in general have salubrious climate (~~उत्पुष्ट~~) healthy, while the plain sections have hot summers and cool winters. The distribution of the mountain systems have remained crucial in the climatic pattern of the region.

They prevented the Central Asiatic or the cold Siberian air mass and the Pacific maritime air mass while permitted the tropical maritime air mass to penetrate the region in summer.

Winter conditions are dominated by the Easterly Jet Streams. The general anticyclonic conditions lowered the ~~dit~~ diurnal temperatures.

The outbreak of the monsoons is more or less similar to the rest of the country. The windward side receive the maximum rainfall for example, Cherrapunji and Mawsynram get more than 1000 cm of rain during the season and are the areas of heaviest rainfall in the world.

The season is characterised by extremely high humidity conditions and widespread low clouds. The period of the retreating monsoon, particularly October and November experience unsteady winds.

Thus on the basis of the aspects that have been discussed so far, the regional climate can be classified as to belong to the following categories. These are —

- 1) The cold humid monsoon climate of areas over 2000 m ASL,
- 2) The wet sub-tropical monsoon climate of southern Arunachal Pradesh, western Nagaland, western Manipur and Mizoram.
- 3) The humid mesothermal with heavy rains in the monsoon season, as in the entire Brahmaputra valley, Meghalaya and Tripura
- 4) The mesothermal sub-tropical monsoon climate of southern Meghalaya, where stations like Cherrapunji, Mawsynram not only receive heavy rainfall but also have no dry season at all.

Similarly, the regional climate of the area can be identified as:

- a) Dfh — Humid continental, severe winter conditions, moist in all seasons and short summer — this includes the northern two thirds of Arunachal Pradesh, eastern parts of Nagaland and Manipur

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b) Cwa — subtropical monsoon, dry winter — this includes southern parts of Arunachal and areas in the adjacent state of Assam, rest of Manipur and eastern parts of Cachar plain and parts of northern, central and southern Mizoram.

c) Cwb — subtropical monsoon, mild winter, warm and humid summers — this is in rest of Assam, whole Tripura as well as the eastern and western Mizoram, and

d) Cwm — subtropical humid monsoon with very heavy summer monsoon. No period of the year is dry. This is concentrated in the southern parts of the Meghalaya Plateau.

N.B. Temperature varies from  
minimum:  $0^{\circ}\text{C}$  — maximum:  $39^{\circ}\text{C}$  upto  $40^{\circ}\text{C}$   
eg. Arunachal (Tawang)

Rainfall

minimum: 1000 mm — maximum 4000 mm.  
Cherrapunji in Meghalaya