**TDC, 1st Year, 2nd Sem**

**Mala Moni Kalita, Asstt. Prof**.

**Koeppen’s Climate Classification**

Koeppen’s Classification of climate is the most commonly used classification of climate. This climate classification scheme was developed by Wladimir Peter Koeppen in 1884. He recognized a close relationship between the distribution of vegetation and climate. The categories are based on the data of annual and monthly averages of temperature and precipitation. He selected specific values of temperature and precipitation and related them to the distribution of vegetation and used these values for classifying the climates. The Koeppen climate classification system recognizes five major climatic types and each type is designated by a capital letter- A, B, C, D, E, and H.

The seasons of dryness are indicated by the small letters: f, m, w, and s.

f -no dry season

m – Monsoon climate

w- Winter dry season

s – Summer dry season

The small letters a, b, c, and d refer to the degree of severity of temperature.

**List of climatic groups and their characteristics according to Koeppen**

|  |  |
| --- | --- |
| **Group** | **Characteristics** |
| A-     Tropical | The average temperature of the coldest month is 18° C or higher |
| B-     Dry Climates | Potential evaporation exceeds precipitation |
| C-     Warm Temperate | The average temperature of the coldest month of the (Mid-latitude) climates years is higher than minus 3°C but below 18°C |
| D-    Cold Snow forest | The average temperature of the coldest month is minus 3° C or below |
| E-     Cold Climates | Cold Climates Average temperature for all months is below 10° C |
| H-    Highlands | Cold due to elevation |

**Climatic Types According to Koeppen**

|  |  |  |  |
| --- | --- | --- | --- |
| Group | Type | Letter Code | Characteristics |
| A-Tropical  Humid Climate | Tropical Wet | Af | No dry season |
| Tropical Monsoon | Am | Monsoonal, Short dry season |
| Tropical wet and dry | Aw | Winter dry season |
| B-Dry Climate | Subtropical Steppe | BSh | Low-latitude semi-arid or dry |
| Subtropical Desert | BWh | Low-latitude arid or dry |
| Mid-latitude Steppe | BSk | Mid-latitude semi-arid or dry |
| Mid-latitude Desert | BWk | Mid-latitude arid or dry |
| C-Warm temperate Climates | Humid | Cfa | No dry season |
| subtropical | Cs | Dry hot summer |
| Mediterranean  Marine west coast | Cfb | No dry season, warm and cool summer |
| D- Cold Snow-forest Climates | Humid Continental | Df | No dry season, severe winter |
| Subarctic | Dw | Winter dry and very severe |
| E-Cold climates | Tundra | ET | No true summer |
| Polar ice cap | EF | Perennial ice |
| H-highland | Highland | H | Highland with snow cover |