UPSC Civil Services Examination

UPSC Notes [GS-I]

Topic: Group E & H Climates (Koeppen's Climate Classification) [Geography Notes for UPSC]

Group E climates

- Group E climates are regulated by the polar and arctic air masses of high latitudes which lie above 60° North and South latitudes.

Polar Climates (E)

- Polar climates are found in the pole ward beyond 70° latitude.
- Polar climates consist of two types:
    - Tundra (ET)
    - Ice Cap (EF)

Tundra Climate (ET)

- The tundra climate (ET) is so called after the types of vegetation, such as lichens, low-growing mosses, and flowering plants.
- The regions experiencing this climate are:
    - Mount Rainier
    - Macquarie Island
    - Crozet Islands
    - Campbell Island
    - Kerguelen Islands
    - Prince Edward Islands
- This is the region of permafrost.
- The subsoil in this region is permanently frozen.
- The water logging and short growing season support only low growing plants.
- The tundra regions have a very long period of daylight during summer.

Ice Cap Climate (EF)

- The ice cap climate (EF) found in the interior Greenland and Antarctica.
- The regions experiencing this climate are:
    - Vostok Station, Antarctica
    - Mount Ararat, in Turkey
    - Mount Everest
    - Scott Base, Antarctica
    - Summit Camp, Greenland
    - Plateau Station, Antarctica
- The temperature is below freezing point even in summer.
- This region receives very little precipitation.
- The ice and snow get amassed and the increasing pressure causes the deformation of the ice sheets and they break.
- These broken pieces move as icebergs and float in the Antarctic and Arctic waters.

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Group H climates
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Highland Climates (H)

- Group H climate contains all highland areas not easily categorized by other climate types.
- Highland climates are dominated by topography.
- In high mountains, large changes in average temperature occur over short distances.
- Precipitation types and intensity of the precipitation also differ spatially across highlands.
- There is vertical zonation of layering of climatic types with elevation in the mountain environment.