

Koppens climatic classification

The most widely used classification is the climatic classification scheme developed by German climatologist and plant geographer V. Koppen in 1918. The

the annual as well as monthly averages of temperature and precipitation formed the basis of Koppen classification of climate.

He also based his classification on the distribution of weather conditions. Koppen in his classification laid great emphasis that all the characteristics of climate can be well be expressed through the distribution of natural vegetation that's why he tried to associate his climate type with vegetation zones of the world.

He presented five five main climatic types. Each of these climate types was represented by capital english alphabets of A, B, C, D and E.

A = Humid tropical climate: winterless climatic; it is hot all seasons, all months have a mean temperature above 18°C .

B = Dry climate: In this climate evaporation exceeds precipitation; there is a constant water deficiency.

C = Humid mesothermal climates or Temperate climate:

The average temperature of the coldest month is higher than -3°C but below 18°C .

D = Continental climate or Humid microthermal:

The average temperature of coldest month is -3°C or below.

E = Polar climates: Summerless, the warmest monthly mean temperature is below 10°C .

While keeping temperature and precipitation variation in view of these five climate types were further sub-divided as shown in the following table. —

chief climatic group	climatic types
A. Tropical climate	1. Tropical rain forest type climate (Af) 2. Savannah type climate (Aw) 3. Monsoon type climate (Am)
B. Dry climate	4. Desert type (Bw) climate 5. steppe type climate (Bs)
C. Temperate climate	6. Mediterranean climate (Ccs) 7. China type climate (Cw) 8. West European type climate (Cf)
D. Continental climate	9. Targa climate (Df) 10. Eastern coastal cold climate (Dw) 11. Continental climate
E. Polar climate	12. Tundra climate (ET) 13. snow capped region type climate. (Es)

Criticism of Koppen's classification:

Views in favour:

- ① Koppen has represented climatic types with the help of some alphabets. This has ended the difficult difficulty of expressing the characteristics of climate group with the help of words and sentences.
- ② Koppen's classification was very successful in presenting the pattern of the climate of the world.
- ③ He used temperature and precipitation statistics in his classification. These two weather elements are easy to measure.
- ④ It is possible to assign a given area to a particular climatic sub-group only on the basis of certain easily acquired statistics about an area, temperature and precipitation.

Weaknesses / Drawbacks / Against :- of Koppen classification:

- ① climatic elements such as air pressure, air masses, humidity, etc. have not been considered despite effective scale in the characterisation of climate.

② Mathematical calculations using computers could have more reliable ~~result~~ results.

③ Landforms play a decisive role in the distribution of vegetation and climatic characteristics characterisation. Land forms, have not been included in the scheme of climate classification.

④ Aspects of climate change and occurrence of extreme events deserve to have found some space in the classification because of its increasing consequences.

Despite, some of the weaknesses Koppen's classification of climate is considered to be the most scientific, as it is based on the empirical data and inductive approach. It is widely used classification of climate. It is easy to decode the climate type and understand its approach, the annual, locational as well as seasonal characteristics.