

FAQs

1. What is climate? What are the factor that affect it?

- Climate is a measure of the average pattern of variation in temperature, humidity, atmospheric pressure, wind, precipitation, atmospheric particle count in a given region over long period of time, say 30 year.
- The climate of a location is affected by its latitude, terrain, and attitude as well as nearby water bodies and their current.

2. Briefly explain about warm and humid climate

- ❖ A climate with an excess of moisture, in which the solar heat received is sufficient to evaporate all moisture occurring in the form of precipitation.
- ❖ This climate is found in belt near equator extending to about 15° north & south.
- ❖ There is very less seasonal variation throughout the year.
- ❖ Example – Colombo, Singapore, Hawaii , Malaysia etc.

3. What are the reasons for warm and humid climate?

- Places that are close to seas or oceans have a humid climate as there is large amount of water vapour in the air. Actually what happens, land and water don't get heated at the same rate.
- Land gets heated faster so it radiates the energy, that heats the air above the land, as a result of which air above the land gets heated faster than air above the water bodies.
- Now hot air is lighter so it moves up and the surrounding air above the seas rushes to take its place which has lots of water vapour in it. This is the reason for warmth and humidity.

4. How does site and orientation help in passive cooling?

- **SITE**

Landform - For flat sites, design considerations for the landform is immaterial. In case of slopes and depressions, the building should be located on the windward side or crest to take advantage of cool breezes.

- **ORIENTATION AN PLATFORM**

As temperature are not very high, free plans can be evolved as long as the house is under protective shade. An unobstructed air path through the interiors is important to ensure proper ventilation. The buildings could be long and narrow to allow cross-ventilation. For example, a singly loaded corridor plan is preferable over a doubly loaded one.

5. How is climate and architecture interlinked?

- Since beginning climate has its effects on man, surroundings and architecture.
- A climate responsive architecture takes advantage of the free energy in the form of heat and light.
- An adaptive thermal comfort design is essential.