

Local Winds

It originates because of some localized atmospheric condition and their effect is limited to specific area

1) Harmattan or Doctor Winds: It blows in the western coast of Africa in the Gulf of Guinea region. Being an equatorial region it is hot and humid which gives rise to suffocating conditions. Moreover, a high moisture content also gives rise to insects and microbes.

Harmattan while blowing over the Sahara desert carries dust particles along with it. As these winds pass over the Gulf of Guinea, these dust particles act as hygroscopic nuclei which attract moisture and thus relax the conditions in the Gulf of Guinea. They are also called as Doctor Wind.

2) Chinook- (Snow Eater)- Chinook is called the snow eater. It is a local wind and melts ice along the eastern foothills of the Rockies. It is a warm wind which causes melting of ice.

Mechanism- Moist air masses along the Pacific Ocean are dragged towards North America along the western slope of the Rockies and the western side of the Rockies experience rainfall because of the elevation of the moist air mass.

However, on the eastern side of the Rockies (Leeward area) the air mass sinks and because of the sinking, the temperature increases. This increase in temperature melts the ice along the foothills and helps in agriculture in the prairie region (Grasslands of North America).

3) Sirocco- It blows in North Africa. It brings blood rain in S. Europe. Sirocco when it moves towards North Africa, it carries a lot of dust and sand particles along with it which get mixed with moisture picked from the Mediterranean Sea. Thus, it gives a reddish appearance to the rain which is called as blood rain.