

Geography

Discuss the factors that affect Indian Monsoon and explain its mechanism.

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Answer

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Factors affecting the Indian Monsoon and Its Mechanism

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Physiography

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1. Existence of the Himalayan and the Tibetan plateau:

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- The jet streams that lie about 12 km in the troposphere are bifurcated by the Himalayan Mountains and the Tibetan Plateau

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2. Triangular relief structure of south Indian land mass:

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- This results in two branches of south west monsoon.

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- The Arabian Sea branch covers more area than the Bay of Bengal branch

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Temperature

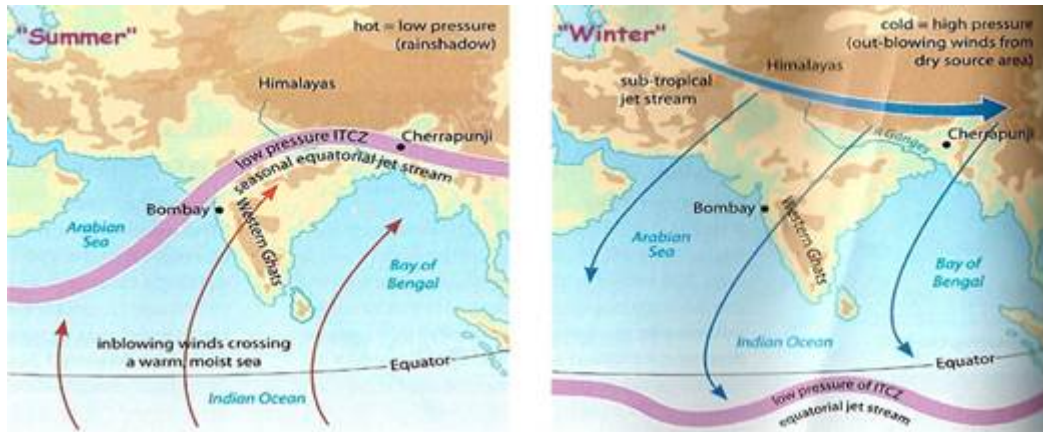
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- Movement of ITCZ.

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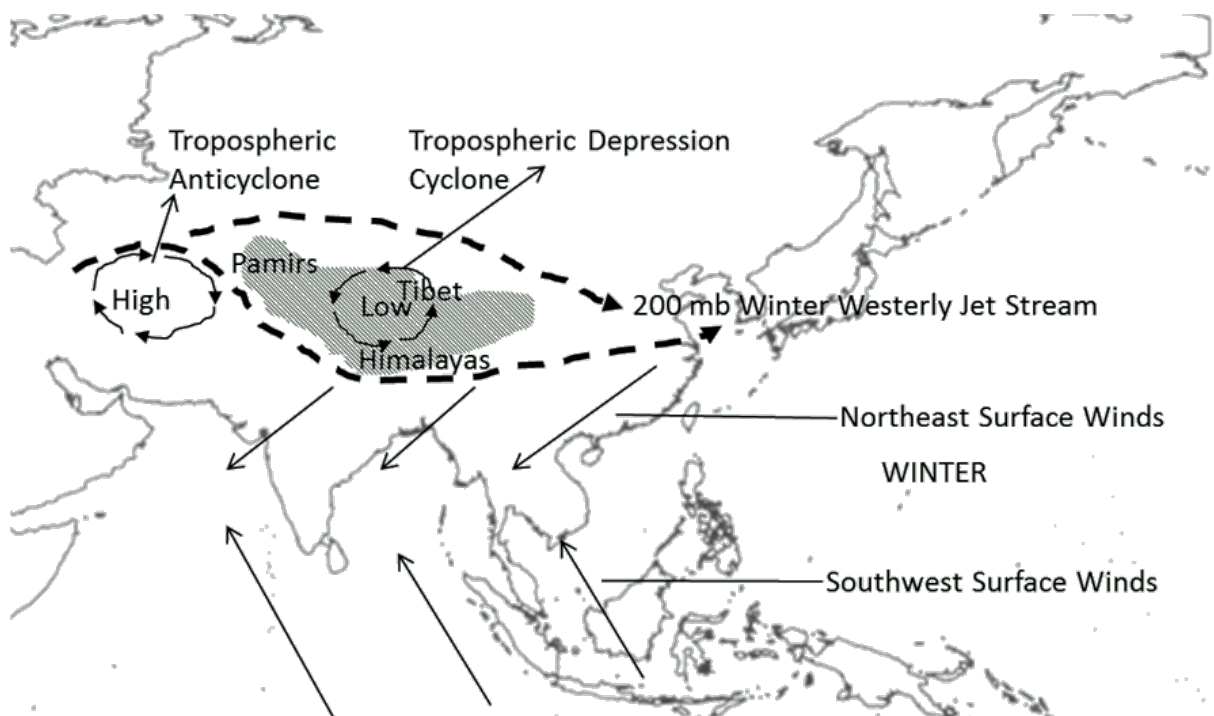
- The differential heating and cooling of the landmass of Asia and the Indian Ocean.

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- Strong vertical air currents from Tibetan plateau.

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Direction of rain bearing winds

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- Movement of westerly jet streams to the north of Himalayas.
- Presence of easterly jet streams in the Indian peninsula.

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Seasonal distribution of rainfall

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- Rainfall is mostly dependent on the monsoonal seasons

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Amount of rainfall

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- It is not same all over India, it depends upon origin of monsoonal winds.

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Form of precipitation

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- The occurrence of heavy-light snow over the Himalayan region, due to artic cold winds.

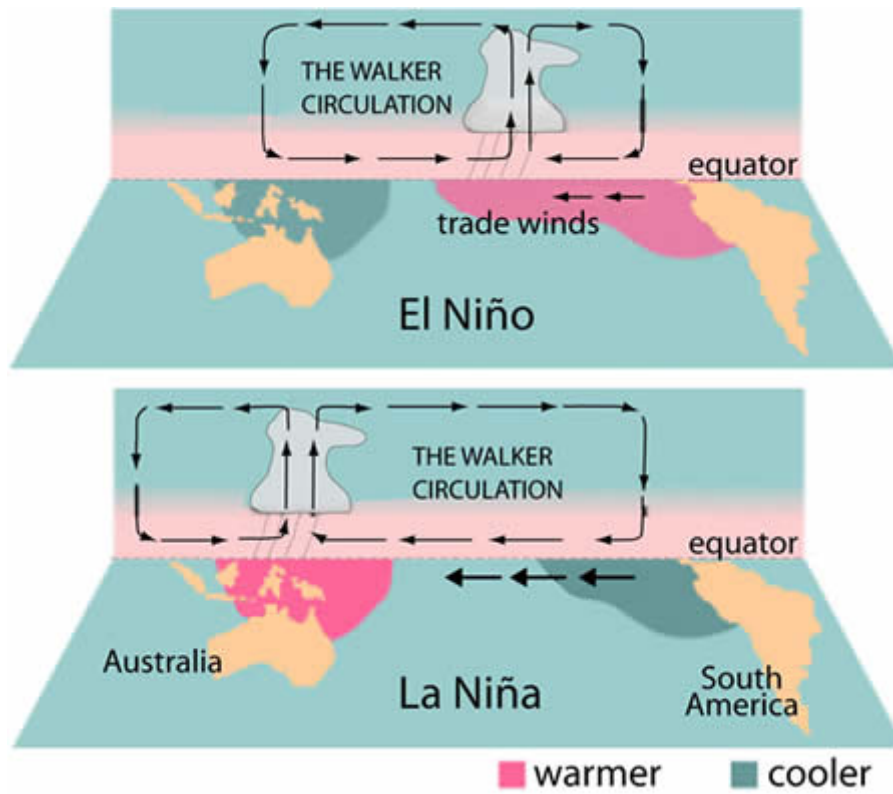
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Global climatic phenomenon

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- El Nino and La Nina.

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- High pressure area in East of Madagascar-It lies in the path of SW monsoonal winds.

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