

## 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.

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- 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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