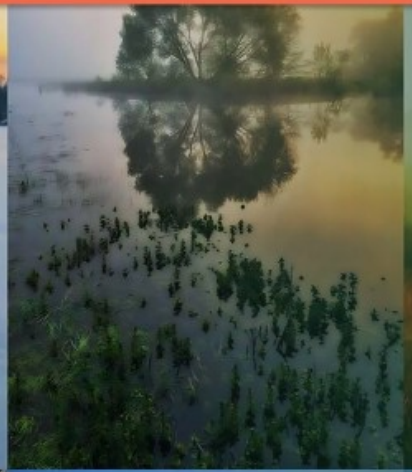

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CLASS – 7
SOCIAL SCIENCE
Exploring Society : India and Beyond
CH –3 : Climates of India
Part – 5
The Monsoons
Sukhdeep Kaur

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OVERVIEW

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1. Weather, Seasons and the Climate
2. Types of Climates in India
3. Factors Determining the Climate
4. The Monsoons
5. Climate and our Lives
6. Climates and Disasters
7. Climate Change

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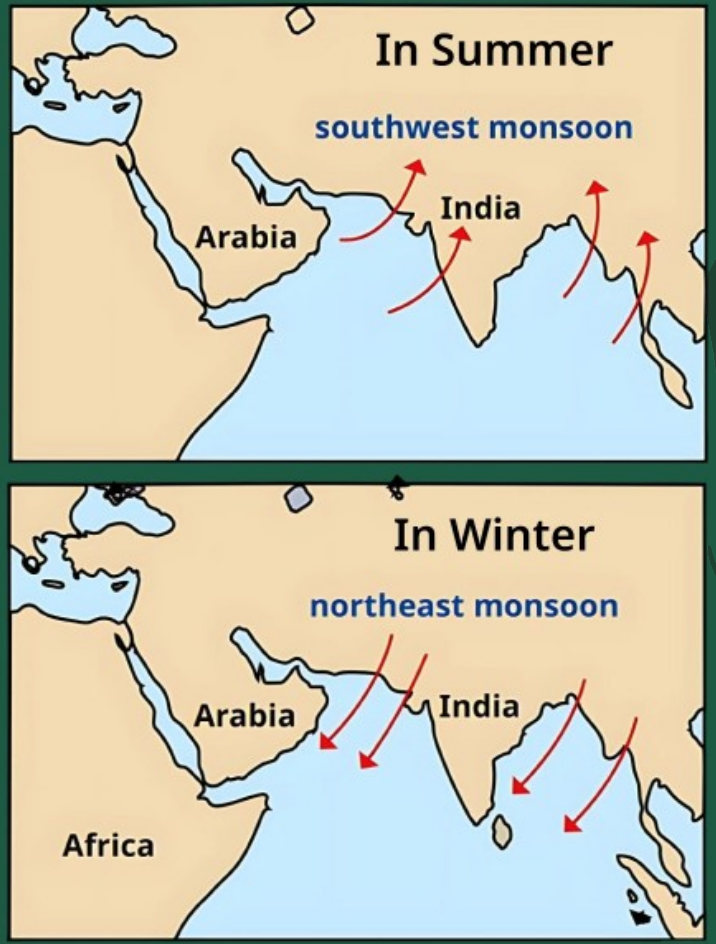
THE MONSOONS

- The monsoon season is vital to life in India.
- During monsoons:



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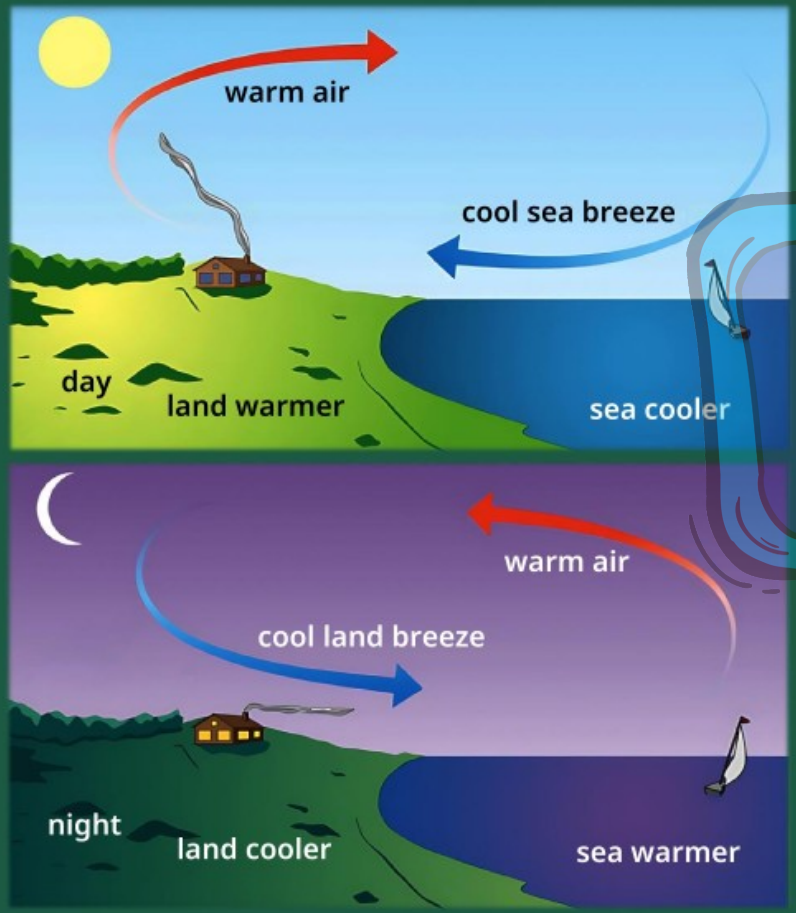
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- The term monsoon comes from the Arabic word mausim, meaning season.
- It refers to seasonal winds over the Indian Ocean and nearby regions (including Australia, Africa, and South Asia).
- Monsoons follow a yearly pattern.

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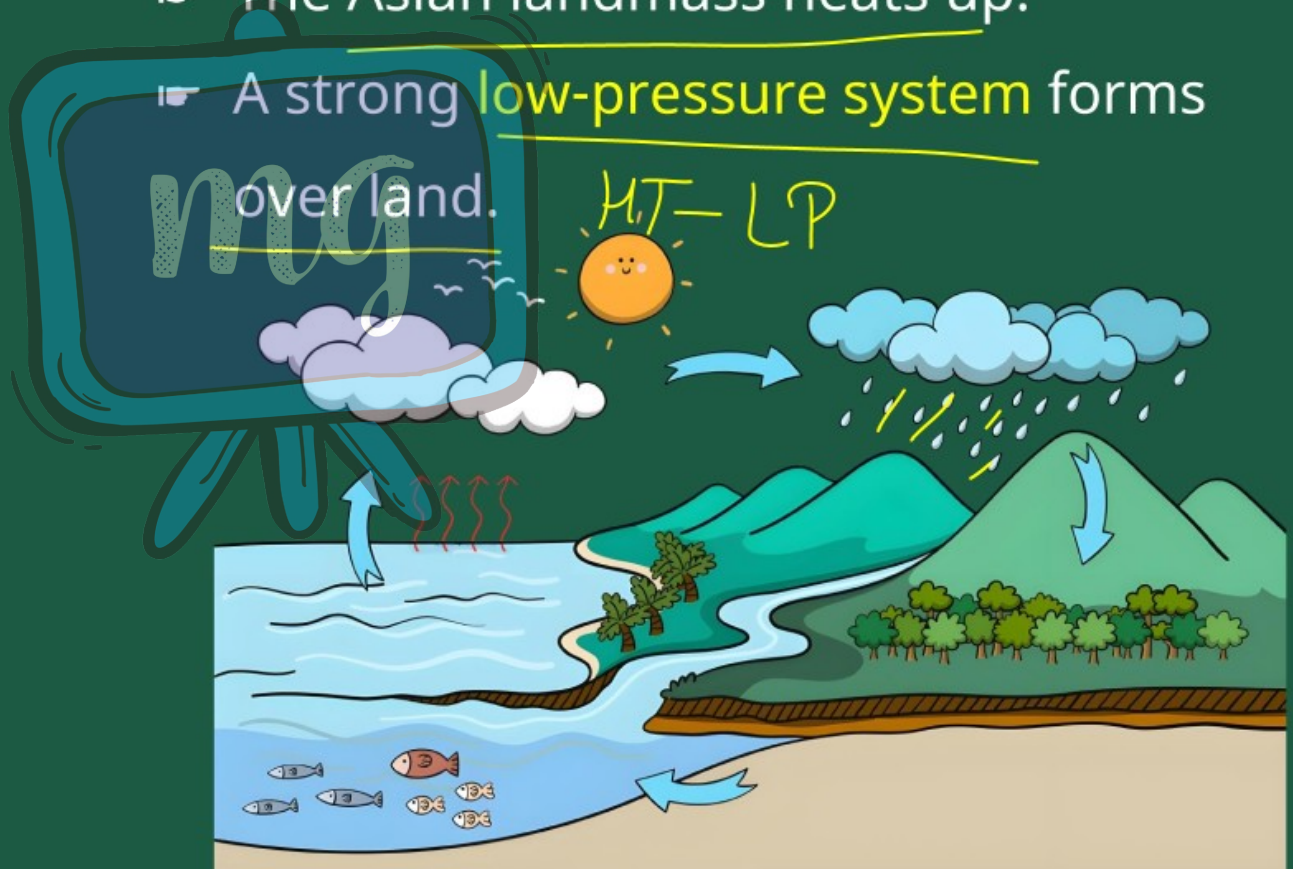
- The mechanism is complex but is based on:
  - Land heating and cooling faster than oceans.
  - The relationship between temperature, pressure, and wind movement. HT-LP

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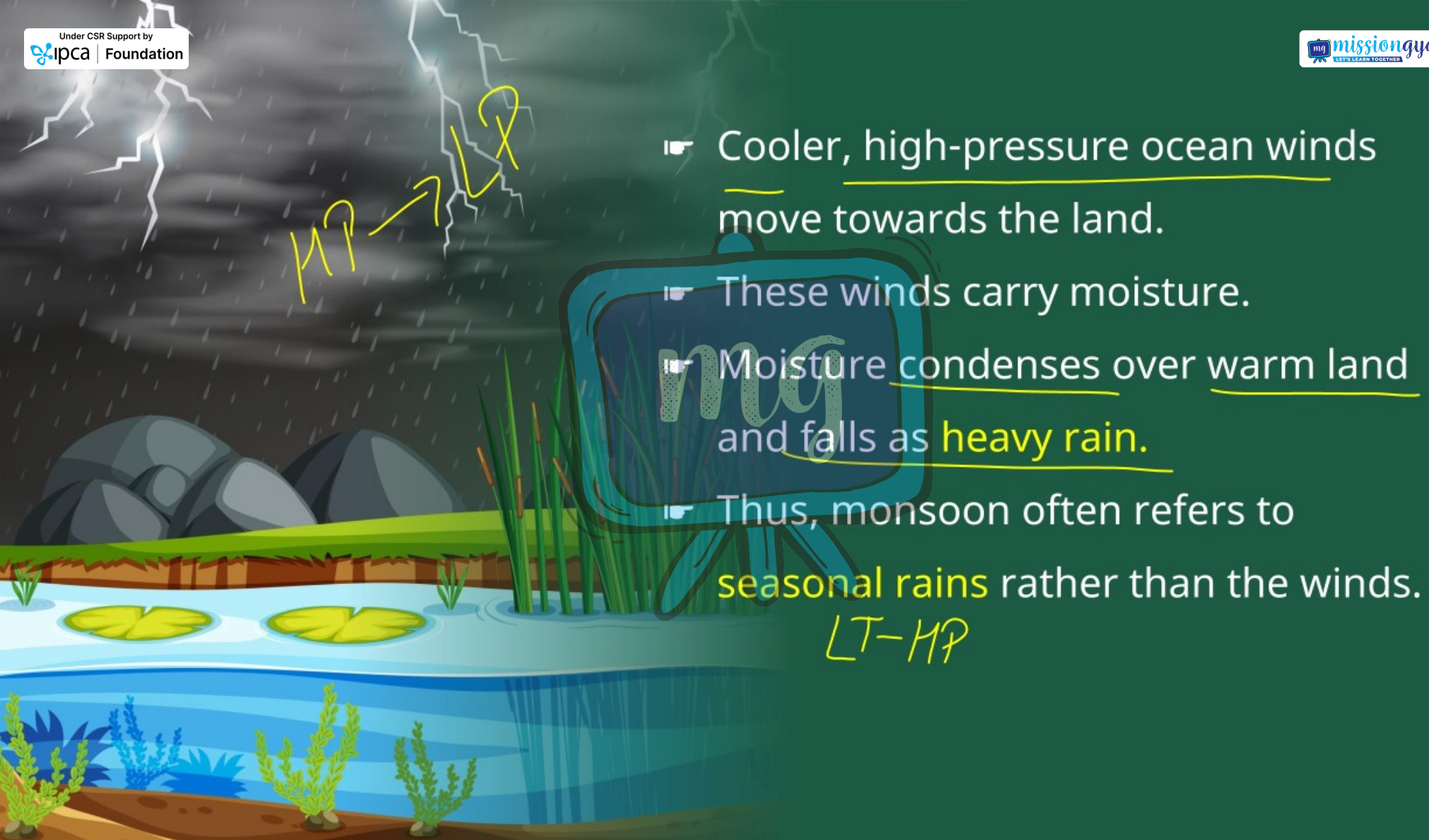
In summer

- The Asian landmass heats up.
- A strong low-pressure system forms over land.



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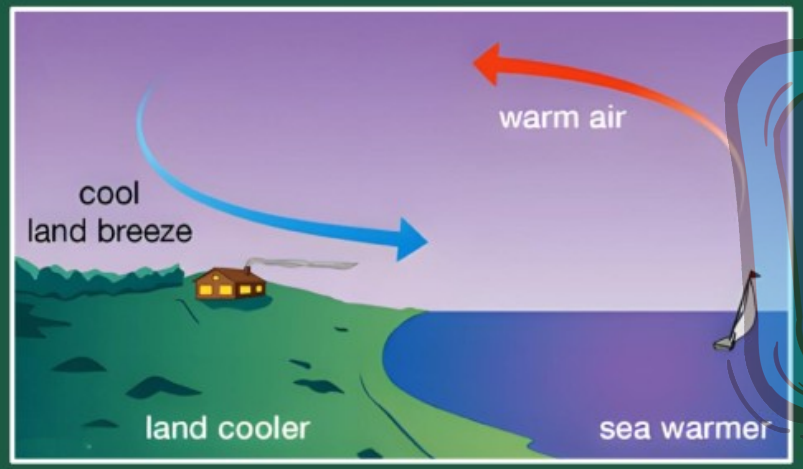


- Cooler, high-pressure ocean winds move towards the land.
- These winds carry moisture.
- Moisture condenses over warm land and falls as heavy rain.
- Thus, monsoon often refers to seasonal rains rather than the winds.

LT–HP

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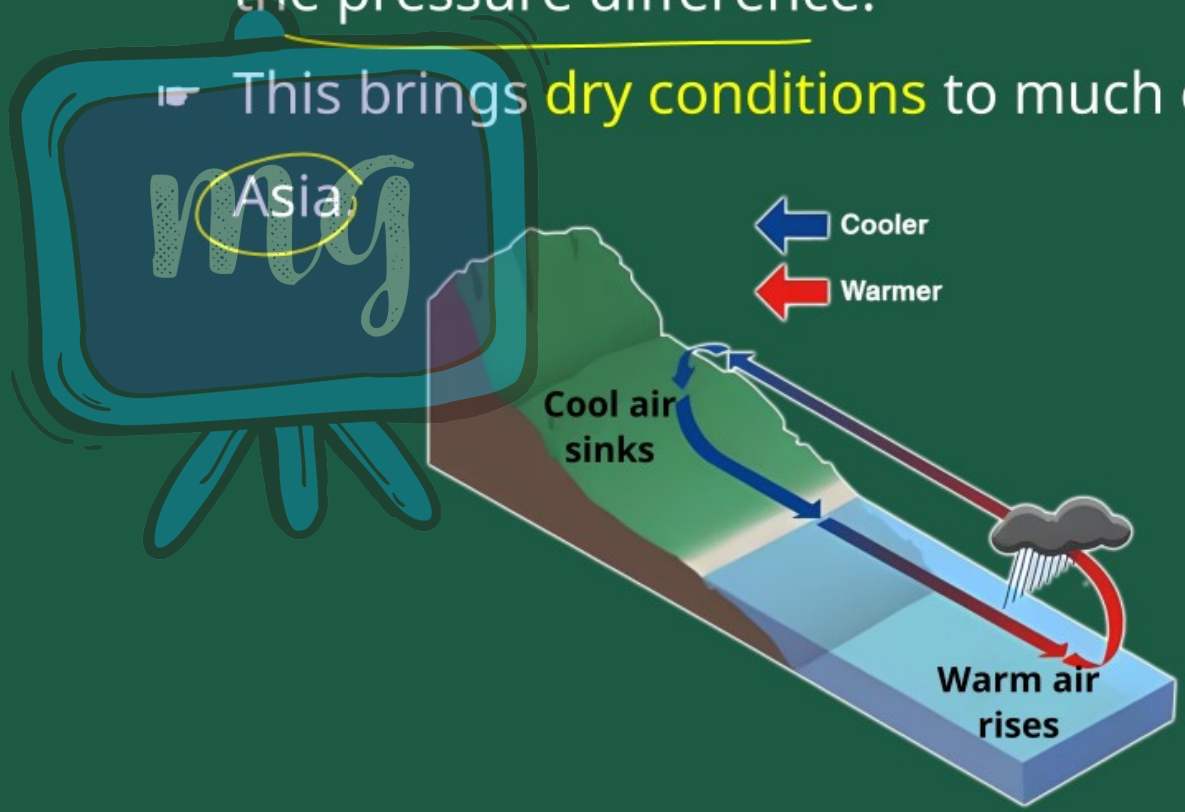
In winter

- The monsoon pattern reverses.
- The landmass cools down faster than the ocean.
- A high-pressure system forms over the land.
- The ocean remains warmer, creating a lower-pressure area.

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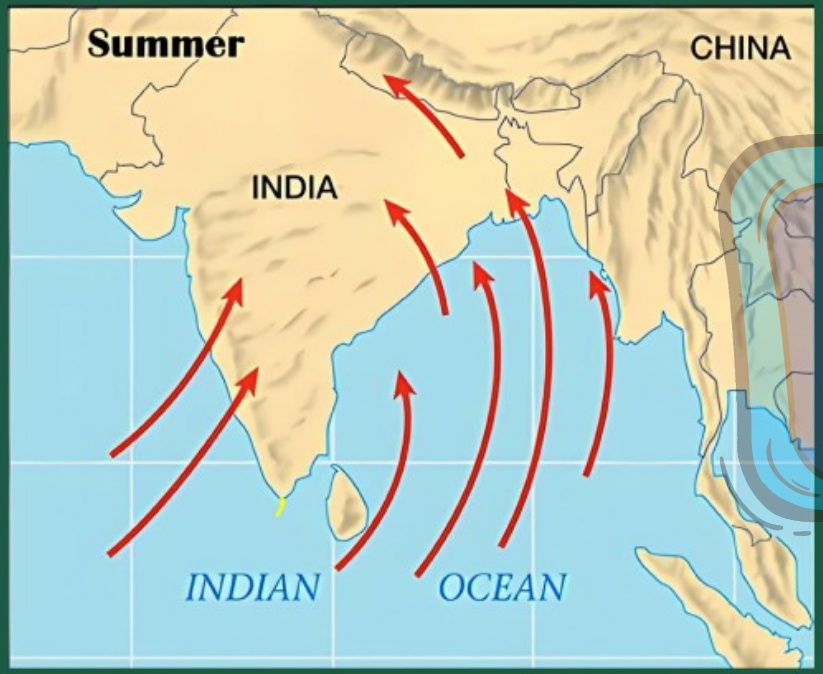
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- Winds blow from land to ocean due to the pressure difference.
- This brings dry conditions to much of Asia.



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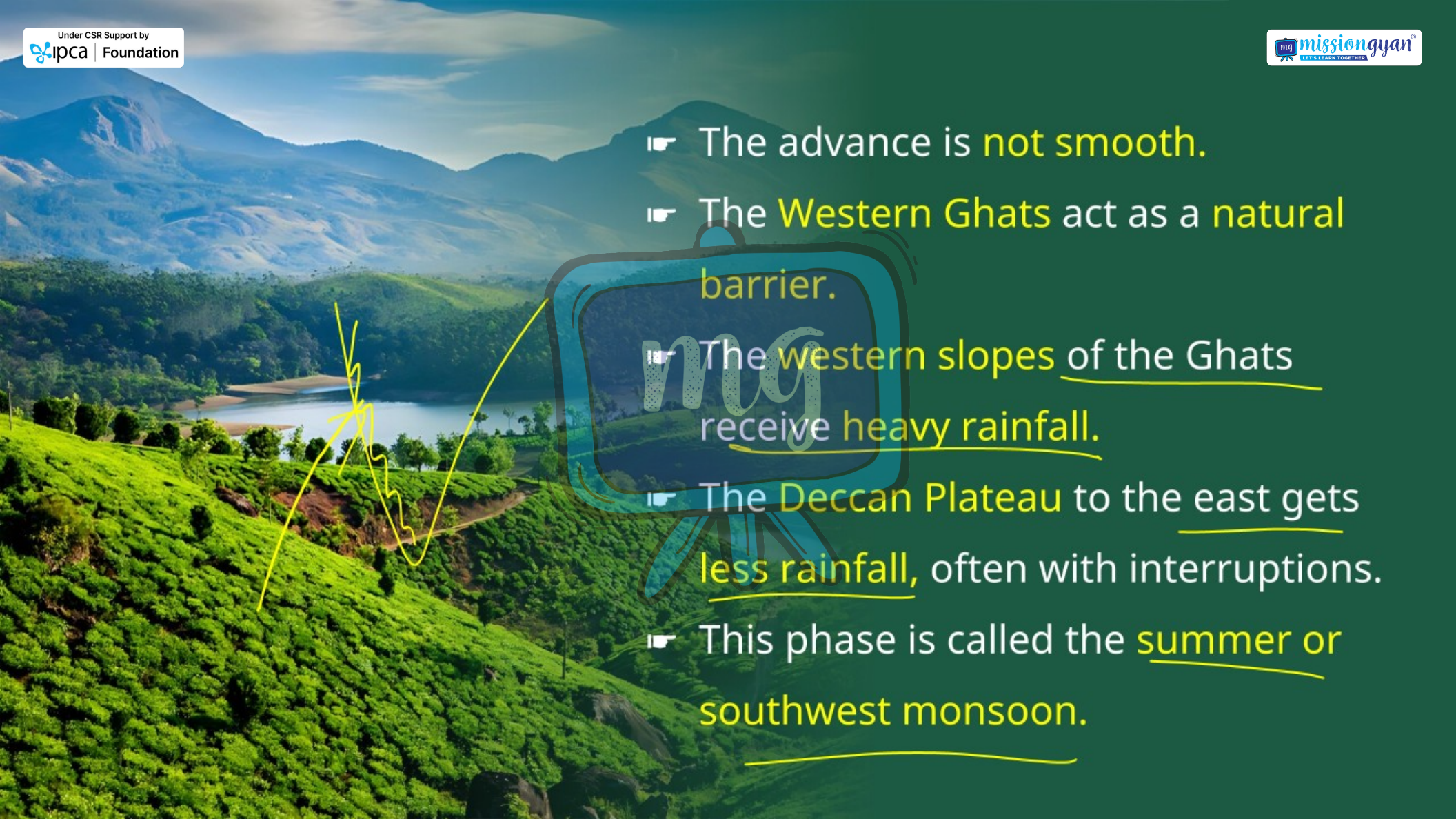


In India

- Monsoon rains usually begin at the southern tip in early June.
- The rains move northward over several weeks.
- By mid-July, the entire subcontinent is typically covered.

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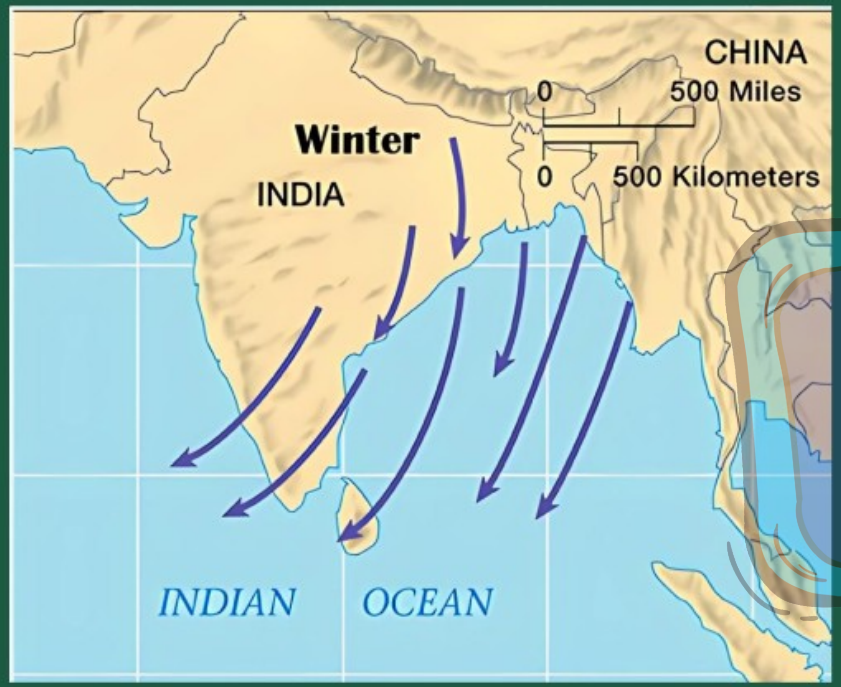
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- The advance is not smooth.
- The Western Ghats act as a natural barrier.
- The western slopes of the Ghats receive heavy rainfall.
- The Deccan Plateau to the east gets less rainfall, often with interruptions.
- This phase is called the summer or southwest monsoon.

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- "Southwest" indicates the direction from which the winds blow.
- As winter approaches, the winds reverse, blowing from land to ocean.
- These winds are dry and bring cold weather to south India.

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- A portion of these winds passes over the Bay of Bengal:
  - They pick up some moisture.
  - They bring rainfall to parts of east and south India.
  - This is known as the winter or northeast monsoon.

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DON'T MISS OUT

- Mawsynram, in Meghalaya, receives the highest average annual rainfall in the world.
- It gets about 11,000 mm (or 11metres) of rain yearly.
- Monsoons have inspired many rāgās in:

✧ Meghamalhār ✧ Amruthavarshini

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LET'S EXPLORE

- Predicting monsoon rainfall has long been important in India.
- Ancestors closely observed Nature to develop traditional knowledge.
- This local wisdom is a valuable heritage that should be preserved.

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LET'S EXPLORE

☛ Examples of traditional monsoon indicators :

✧ Fishermen on the Konkan coast Predict monsoon onset when deep-water fishes appear at the surface.

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LET'S EXPLORE

☛ In parts of southern India :

✧ Monsoon is expected within 50 days after the Golden Shower tree (Cassia fistula) blossoms.

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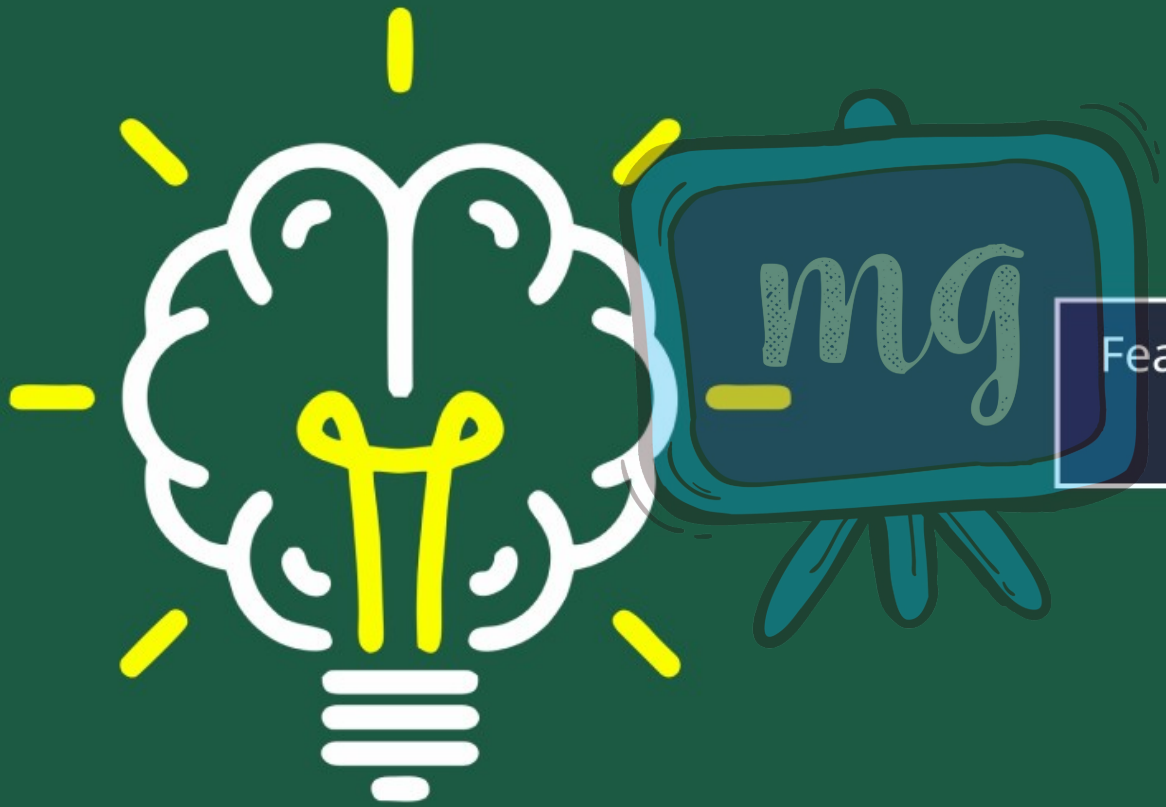
LET'S EXPLORE

- Some communities observe crow nesting behavior:
  - High nests = less rainfall.
  - Lower nests = heavy rainfall likely.
- **Suggestion :** Make a list of local knowledge about rain, fog, snow, or hail in your area.

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LEARNING OUTCOME

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Features of Indian monsoon system



1 Where does the word “monsoon” originate from?

A Sanskrit

B Persian

C Arabic

D Hindi



2 Which place receives the highest average annual rainfall in the world?

A Cherrapunji

B Darjeeling

C Mawsynram

D Shillong