Geography · GS - I

What characteristics can be assigned to monsoon climate that succeeds in feeding more than 50 percent of the world population residing in Monsoon Asia?

EXAM YEAR	PAPER	SUBJECT
2017	GS - I	Geography

MARKS	WORD LIMIT
15	~250 words

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Answer Hint

Seasonal wind reversal; concentrated rainfall; summer monsoon; agricultural dependence; thermal contrast; spatial and temporal variability

Model Answer

Introduction

Monsoon Asia, extending across South, Southeast and parts of East Asia, supports a large proportion of the global population. Its monsoon climate sustains intensive agriculture through seasonal rainfall and water availability.

Major Characteristics

1. Seasonal Reversal of Winds

Differential heating of land and sea produces seasonal pressure changes. Moisture-laden winds generally blow towards the Asian landmass during summer and reverse direction during winter.

2. Concentrated Summer Rainfall

- A large proportion of annual precipitation occurs during the summer monsoon.
- Orographic uplift along the Western Ghats, Himalayas and other mountain ranges enhances rainfall.
- Rainfall supports paddy cultivation and replenishes reservoirs and groundwater.

3. High Temperature and Humidity

Warm conditions and abundant moisture create a long growing season, supporting multiple cropping in suitable areas.

4. Spatial and Temporal Variability

- Rainfall varies considerably across regions, from very wet areas to arid interiors.
- Delayed onset, early withdrawal, dry spells and excessive rainfall influence crop yields.
- El Niño, Indian Ocean conditions and climate change can affect monsoon behaviour.

5. Agricultural and Economic Significance

Monsoon rainfall supports rice, tea, jute, sugarcane and other crops. It also sustains livestock, freshwater systems and rural livelihoods.

6. Associated Hazards

Excess rainfall can cause floods, landslides and erosion, while deficient rainfall can trigger droughts, crop losses and water scarcity.

Conclusion

The monsoon climate sustains Monsoon Asia through seasonal water supply and favourable growing conditions. However, its variability requires irrigation infrastructure, climate-resilient crops, accurate forecasts and effective water management.

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