Geography · GS - I

The process of desertification does not have climate boundaries. Justify with examples.

EXAM YEAR	PAPER	SUBJECT
2020	GS - I	Geography

MARKS	WORD LIMIT
10	~150 words

Answer Hint

Land degradation; arid and non-arid regions; human activities; climatic variability; deforestation; unsustainable agriculture; Indian examples; land restoration

Model Answer

Introduction

Desertification is land degradation in arid, semi-arid and dry sub-humid areas. Although climatic conditions influence its severity, human activities can cause desertification-like degradation well beyond conventional desert boundaries.

Why desertification transcends climate boundaries

- **Deforestation:** Removal of vegetation accelerates soil erosion and reduces moisture retention, even in relatively humid regions.
- **Unsustainable agriculture:** Excessive tillage, monocropping and inappropriate irrigation degrade soil structure and fertility.
- **Overgrazing:** Excessive livestock pressure removes protective vegetation, leaving land vulnerable to wind and water erosion.

- **Water mismanagement:** Over-extraction of groundwater and improper irrigation can cause salinisation and reduce agricultural productivity.
- **Climate variability:** Droughts and rising temperatures intensify land degradation, but their impacts depend on land use and ecosystem resilience.
- **Indian examples:** Land degradation affects Rajasthan and Gujarat, but also parts of the Deccan Plateau and other regions experiencing erosion, vegetation loss and soil deterioration.

Qualification

The United Nations Convention to Combat Desertification uses a specific definition that focuses on drylands. Therefore, not all land degradation in humid areas is technically classified as desertification, even though similar processes occur there.

Conclusion

Desertification is not simply the expansion of deserts; it reflects the interaction of climate, land use and resource management. Sustainable agriculture, afforestation, watershed development and controlled grazing are essential to prevent land degradation across regions.

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