

Despite being relatively stable region, frequency of landslides are progressively increasing in western ghats region. Justify (1)

landslides, a naturally occurring factor has been compounded by extensive human activity. The tilt in ecological balance, has disturbed a relatively stable biodiversity hotspot and escarpment. Unscientific land use practices are the major cause for such mishaps.

1) Development

Urbanisation, accommodation of migrant population is occurring at the cost of natural resources, beyond its carrying capacity. Deforestation, as a result, has naturally eroded the soil micro environment, causing increasing vulnerability to slide, slump movements. eg: recent Nilgiri landslides.

2) Dams

→ Hydroelectricity, being a major source of revenue for the government has been effectively exploited by unscientific Dam construction.

Disrupting natural river flow and storing them in reservoirs puts increased pressure on land.

→ Dams have also added to monsoon fury because of improper management, leading to flooding.

3) Quarrying and Mining

→ Exploitation of western ghats for mineral and rock mining in ecologically sensitive areas upst the wider biodiversity.

→ In stretches of Goa mountain landscape, unchecked mining has led to forests bereft of water resources in one hand and percolation of water in mining areas offsetting the pressure beyond capacity.

*) Unscientific agricultural practices

→ clearing of mountainous regions for step farming.

→ planting of crops unsuitable for region.

→ exploitation in name of plantation for commercial industry

change affect maintain landscape
↓
change in biodiversity
↓
vulnerable to floods

5) Exotic species invasions

Introduction of Eucalyptus, Wattle tree species in the shola grassland regions for commercial development caused groundwater depletion, nutrient imbalance eliminating indigenous species that act as natural barriers.

6) Erratic Monsoon

→ Climate change has affected monsoons variability. Heavy downpour in 2018 and 2019 monsoon months (July-September) occurs in short span of time

→ Monsoon bursts, aggravated by human interventions has increased the cost the lives and property.

7) Tourism and political incumbency

→ Increased medical and ecotourism, lead to higher footfall in ecologically sensitive areas, noted by Gadgil Report.

example:- The inflow of Gulf money has been utilised to build resorts in the midst of forests by political powers → unearthed from

→ Sound and light pollution in Silent valley shifted illegal occupation stern in Kerala.
the pollinator species disrupting foodweb of ecosystem ⇒ Ecological Trophic Cascade.

Scientific planning, management, legislative actions combined with

stakeholder participation is thus required to set the clock back in its right position. Adaptation of Madhav Gadgil Report, conducting EIA,

delimitation of ESA and reserved forests, dam management must work on sustainable development from grassroot participation of communities.