

Why the climate action must focus more on combatting desertification in India? substantiate.

Lithosphere and atmosphere are closely interacting realms, that keeps the biosphere alive. Any visible changes due to anthropogenic activity on land, affects the climate over a long period of time. IPCC special report emphasizes this relationship in its report "Land and climate change".

UNCCD COP14 reports India's extent of degradation to be at 96 million hectares of land. Multiplying factors of urbanisation, population explosion, scourge for resources, subsequent increase in temperature would endanger 520 million population directly associated with land.

Land Degradation: First step for climate action
Neutrality

1) Development at the cost of environment

Rapid urbanisation, led to deforestation, loss of viable carbon sink and loose soil cover increases vulnerability of floods, landslides.

Case study in India

western ghats sector of Kerala, unscientific land use lead to episodes of floods in 2018, 2019

2) climate led migration, degradation

Turning of FRA for existing indigenous abitato has changed natural landscapes. degradation through exotic species invasion eroded water table.

Maldhari community's have started to move away from Banni grasslands due to invasion of Prosopis julifera.

Food security

Food ecosystem contributes 22-35% of income. Modern agricultural practises encourage salinity, alkalinity due to excessive pesticide usage, creating malnourished, climate hunger, water scarcity.

Food diversity intake among the central highland tribal belts has created malnourished children, susceptible to misdiagnosis malerial infection

4) Economics of land degradation

climate change caused melting of glaciers, throwing open new land for expansion. However, unscientific usage, reduced the productivity and livestock for export sector.

nearly 73% of apple production has been affected due to pest attack in Kinnaur district Himachal Pradesh. reckless expansion, pests reduction of soil moisture. Affects exports for state.

5) Wetland usage

Peaty, marshy soil are store house of CO₂. Utilising them for urbanisation, not only releases CO₂ but loss of biodiversity, green cover. In urban areas, it contributes to urban heat island.

Decrease in wetland cover by 67% in Chennai metropolitan area has caused significant increase in average temperature of the region - study by Breast Survey Report.

Thus, combatting desertification negates climate change effects by improving soil carbon, reducing erosion, improving air quality. In order to achieve reclamation of 30m of degraded land by 2030, as a target in UNCCD. India needs to have multistakeholder cultural mode of conservation practices, redefine land use pattern. empowering local government would be key to solve the crisis.