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## Integration of Land and Water Schemes to Tackle Land Degradation

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As about 30% of India's land is degraded, the Government of India wants to **converge various land and water schemes** to mainstream land degradation issues in national programmes.

- India aims to be **land degradation-neutral by 2030**, where any increases in land degradation are balanced by equivalent gains in land reclamation to ensure no additional net loss of land-based natural capital.
- While budgets available for all land- and water-related schemes in Centre and States are enough to solve the problem, there is a need to **bring convergence** to utilise these resources better.
- The 14<sup>th</sup> session of the Conference of the Parties (COP 14) to the **UNCCD** will be held from September 2-13 in New Delhi where Governments are expected to agree on strategic and effective land use and **sustainable land management** goals.

### Background

- The **TERI** report titled '**Economics of Desertification, Land Degradation and Drought in India**' stated that while loss of productive land for various **ecosystems** is a concern, a larger concern is the **degradation of existing ecosystems**.
- The **annual economic costs** of land degradation and land use change in the country have been estimated at ₹3,17,739 crore, which is **2.54 per cent of India's GDP** in 2014-15 and about **15.9 per cent of the GVA** from agriculture, forestry and fishing sectors.

Almost **82 per cent** of the estimated cost is on account of land degradation and only **18 per cent** due to land use change. The land area that is likely to be degraded in 2030 under these two different scenarios is projected at 94.53 mha and 106.15 mha.

- The area affected by **water erosion** and area under **open forests** (as compared with moderately dense and very dense forests) is projected to rise in both scenarios,

suggesting that India will need to strengthen reclamation efforts in these sectors.

## Classification of Forest Cover

- The forest cover is broadly classified into 4 classes, namely very dense forest, moderately dense forest, open forest and mangrove.
- Mangroves have been separately classified because of their characteristic tone and texture and unique ecological functions.
- The other classes include scrub and non-forest. These classes are defined as below.

Very dense Forest	All Lands with tree cover (Including mangrove cover) of canopy density of 70% and above
Mod Dense forest	All lands with tree cover (Including mangrove cover) of canopy density between 40% and 70% above
Open forest	All lands with tree cover (Including mangrove cover) of canopy density between 10% and 40%
Scrub	All forest lands with poor tree growth mainly of small or stunted trees having canopy density less than 10 percent
Non Forest	Any area not included in the above classes

## Causes of Land Degradation

- Population Pressure
- Climate Change
- Soil Pollution
- Land use change
- Deforestation
- Poor farming practices
- Overgrazing
- Over irrigation
- Urban sprawl

## Government Efforts to Check Land Degradation

- India is focusing on **sustainable land and resource management** for livelihood generation at community level for making the local lands healthier and productive for providing a better homeland and a better future for its inhabitants.
- The **National Action Programme** for combating desertification was prepared in 2001 to take appropriate action in addressing the problems of desertification.

- Some of the major programmes which address issues related to land degradation and desertification, being implemented currently are as follows:
  - **Integrated Watershed Management Programme (IWMP)**,
  - National Afforestation Programme (NAP),
  - National Mission for Green India (GIM),
  - The **Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS)**,
  - Soil Conservation in the Catchment of River Valley Project
  - National Watershed Development Project for Rainfed Areas (NWDPA),
  - Fodder and Feed Development Scheme-component of Grassland Development including Grass Reserves,
  - Command Area Development and Water Management (CADWM) programme,
  - **Soil Health Card Scheme** etc.
- Apart from this **numerous outreach programmes** and awareness activities have also been conducted across the country.
- **Desertification and Land Degradation Atlas** of India released in 2016, compares status of 2003-05 and 2011-2013 and provides baseline data for prioritizing action based on vulnerability and risk assessment.

**Source: BL**