PES - OPPORTUNITIES FOR CLIMATE CHANGE MITIGATION - ROLE OF FORESTS

Group - V

Climate change and forest

- **Climate change** -change in the statistical distribution of weather patterns, when that change lasts for an extended period of time.

- Impacts of climate change threaten to catastrophically damage our world.

- Role of forests in climate change:
  1. Contribute to **global carbon emissions** when cleared, overused or degraded
  2. Produce wood fuels as a benign alternative to fossil fuels
  3. Have the potential to **absorb global carbon emissions**

Forest conservation can arrest climate change.

Forestry Sector- Neglected

- About half of the world's tropical forests have been cleared (FAO)
- Forest loss contributes between 6 percent and 12 percent of annual global warming
- Prime reason-

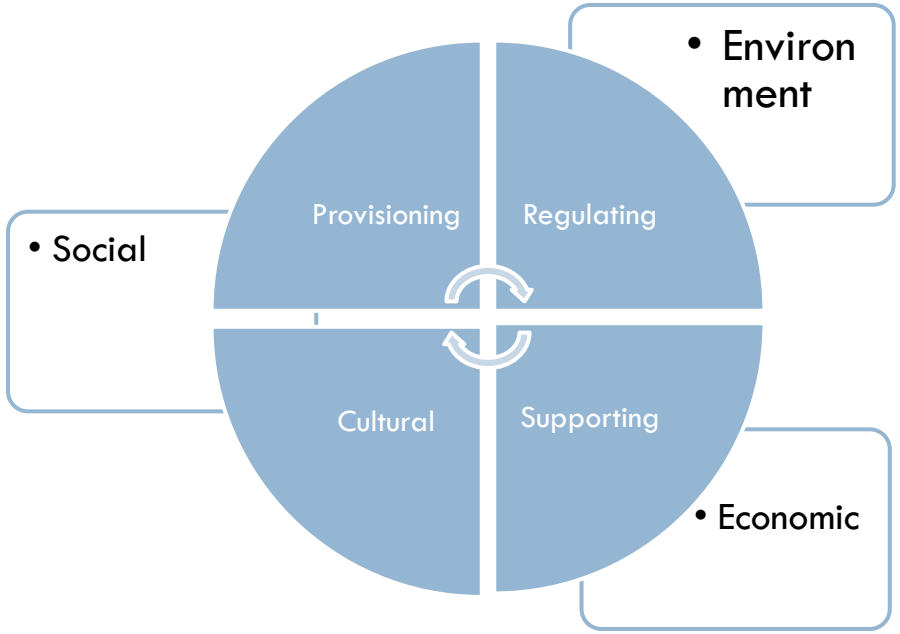
  Judging utility of forests mainly by the economic value of tangible benefits derived from forests, resulting in significantly low priority to foresty sector.

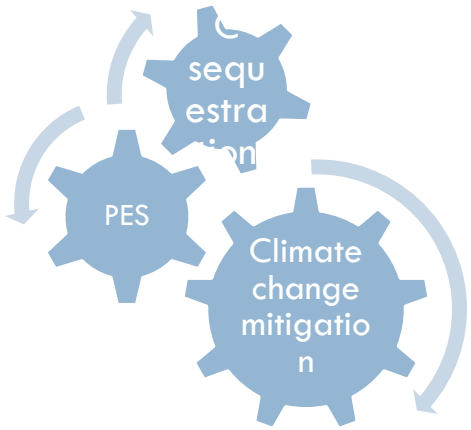
- Solution-

  The intangible benefits in form of ecosystem services should be recognised

Recognition for Ecosystem Services-PES

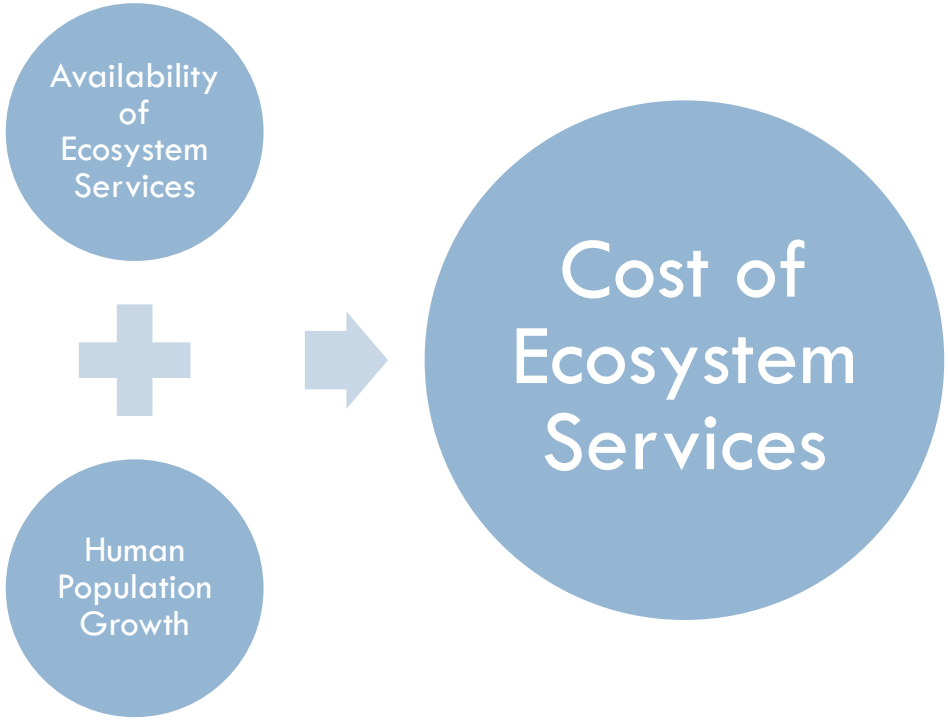
- Payment for ecosystem services (PES)- incentives offered to landowners in exchange for managing their land to provide some sort of ecological service.
- Through PES, we can implement C-Sequestration as a financially viable means to aid climate change mitigation through forestry.





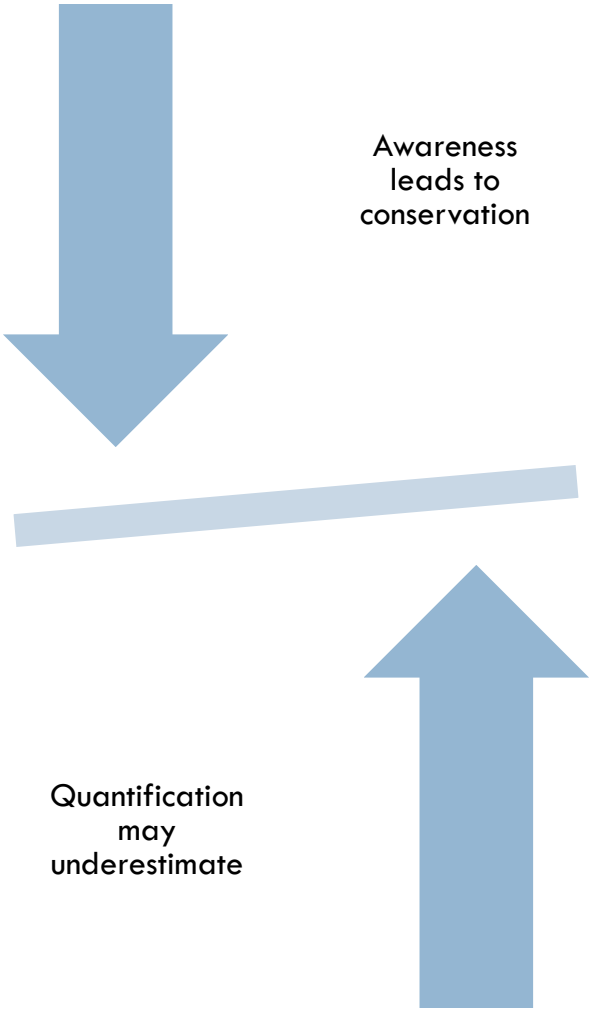
Philosophy of PES

- Demand – Supply
- Scarce Resource
- Cost of Ecosystem Services = **Availability of Ecosystem Services * f(Human population growth)**



How much to pay?

- Quantification of Ecosystem Services- e.g. : Carbon sequestration
- Creates awareness about the value of services provided by the ecosystem
- So more conservation
- Counter argument could be protection should be for the sake of forest. Quantification reduces or underestimates.



Pre-requisite for successful PES schemes

- Strong political support
- Good systems of governance
- Efficient and flexible institutional capacities

Successful examples of PES

- *Costa Rica* –
  - Programs under FUNDECOR (an NGO) and the Ministry of Environment and Energy to protect natural resources.
  - Law *7575* valued carbon fixation, hydrological services, biodiversity protection and provision of scenic beauty.

  People were able to receive tax breaks for protecting services through the new laws.

- *Brazil* – Norway paid Brazil $1 billion Dollars for successfully conserving it's Amazon rainforests under REDD+ initiative .

Indian Examples

S.No	Title of Project	Project Location
1	Himachal Mid Himalayan Watershed Development Project	Himachal Pradesh
2	Begepalli CDM reforestaion program	Karnataka
3	Reforestation of degraded land in MTPL in India	Orissa, Chhattisgarh, Andhra pradesh
4	Agro-forestry interventions	Koraput, Orissa
5	Rehabilitation of degraded wastelands	Deramandi, South Delhi

PES & REDD+

- PES initiatives motivates communities to conserve catchment and protected areas and therefore addressing REDD+ objective
- PES has direct link with climate change mitigation/adaptation and thus embracing CDM and REDD+
- PES implementation means adhering to Kyoto protocol which advocates reduction of carbon emission

Challenges

- Many PES initiatives are currently unsustainable without regular and strong external support
- The average revenues obtained from PES are still too low
- Limited recognition of the values of forest ecosystem services in public policy and financial decision making
- Complexity of rules ,absence of widely accepted standards, unclear tenure and property rights and uncertainty over long-term sustainability

Thank You