

## **Importance of Ecosystem services**

### **What is the issue?**

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There is a critical need for preserving biodiversity by the development firms to ensure the “flow” of ecosystem services.

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### **What are ecosystem services?**

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- Ecosystems are communities formed by the interaction between living (plants, animals, microbes) and non-living organisms (air, water, mineral soil).

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- Human beings are both part of ecosystems and benefit from ecosystems in many ways.

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- The acquired benefits are known as ecosystem services.

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- For example, Wetlands provide fresh, clean water, regulate pollution, and reduce climate risk and uncertainty for people, agriculture and aquaculture (fisheries).

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- They are also hotbeds of biodiversity and are home to a vast range of animals, especially bird species.

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### **What were the measures taken?**

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- The recognition of biodiversity conservation has become extremely important from the perspective of treating the biodiversity as “natural capital”.

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- The Earth Summit of 1992 adopted the Brundtland Commission Report’s

definition of “sustainable development” and it provides an important framework on biodiversity conservation.

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- Convention of Biological Diversity (CBD) provides the framework of an international law, recognising conservation of biological diversity as an integral part of the development process.

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- The Millennium Ecosystem Assessment (MA) of 2005 enhanced human understanding of the fact that the ecosystem functions in its own inimitable ways to provide ecosystem services to the society in the form of -

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1. Provisioning services (food, raw materials, genetic resources, water, etc)
2. Regulating services (carbon sequestration and climate regulation)
3. Cultural services (tourism and religion)
4. Supporting services that are necessary for production of all other ecosystem services (nutrient recycling and soil formation, among others).

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- Natural Capital Protocol entails a standardised framework for identification, measurement and valuation of the ecosystem services.
- It helps the firms understand their dependencies on nature and also the impact of their initiatives on the ambient environment and the biodiversity.

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## **What is the importance of ecosystem service valuation?**

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- The recognition of biodiversity conservation has become extremely important from the perspective of treating the biodiversity as “natural capital” in recent times.
- While new investment can lead to addition in capital stock thereby raising production, investment in “natural capital” can help in sustaining the good

health of the ecosystem and its services.

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- The Economics of Ecosystems and Biodiversity (TEEB) recognised that **ecosystem services are “GDP of the poor”**, as the poor’s incomes and survival are dependent on the ecosystem.
- A monetary value to ecosystem services helps humans understand the importance of the ecosystem to the society and will offer an objective instrument for decision-making.
- Valuation can raise awareness of policy-makers on the importance of the ecosystem services under consideration.
- Ecosystem service valuation can also help legal proceedings determine damages caused by the relevant party.
- For instance, pollution resulting from upstream areas that affects the downstream ecosystems negatively can be adequately measured.
- This will pave the way for proper compensation policies in accordance with the economic value of the harm so caused.
- It can also help revise investment decisions, if the particular development process causes harm to the ecosystem services.

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### **What are the ground realities?**

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- In a recent research on the Terai Arc Landscape (TAL) in Uttarakhand conducted by WWF India, the aggregate values of seven ecosystem services were found to be around \$6 billion in 2015-16.
- Thus the implication being ruining this landscape tantamount to destroying a value of \$6 billion.
- More than half the population in TAL-Uttarakhand is living below poverty levels and an earning member of a household gets as little as \$1.9/day.
- The ecosystem dependency of these households is higher than those earning average per capita incomes, as they earn more from ecosystem services than incomes from various sources.

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- This implies that any policy towards land-use change in the landscape leads to land-use change in the wildlife habitats.

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- Thus, there is a dire need to take into account ecosystem service loss along with economic value loss, as it is the poor who suffer the most from the loss in ecosystem services.

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## **What should be done?**

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- Despite the best intentions, there is a gap in planting the idea in the minds of development firms that conservation is everybody's business.

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- Though they produce sustainability reports, there is hardly the recognition that their bottomlines are dependent on the ecosystem services.

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- Hence the communication has to change from "conservation for the sake of conservation" to "**Conservation for Development**" for the masses and the businesses to really think that conservation is core to their survival.

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- Thus, valuation of ecosystem services and natural capital assessments should be inculcated at the core of development firms.

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## **Source: Business Line**

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