



Economic Valuation of Tiger Reserves

The [National Tiger Conservation Authority \(NTCA\)](#) has released a study titled “**Economic Valuation of Tiger Reserves in India: A Value+ Approach**”.

- The study, authored by the **Centre for Ecological Services Management** at the **Indian Institute of Forest Management (Bhopal)**, estimated the **economic valuation, based on ecosystem services, of ten tiger reserves** in the country. The ten Tiger Reserves are:
 - Anamalai (Tamil Nadu),
 - Bandipur (Karnataka),
 - Dudhwa (Uttar Pradesh),
 - Melghat (Maharashtra),
 - Nagarjunsagar-Srisailem (Andhra Pradesh/ Telangana),
 - Pakke (Arunachal Pradesh),
 - Palamau (Jharkhand),
 - Panna (Madhya Pradesh),
 - Similipal (Odisha), and
 - Valmiki (Bihar)
- **Objective:** The objective behind the report is to enhance tiger conservation by highlighting the holistic economic benefits of protected areas.
- **Approach:** The **Value+ approach** was used in the study, where the “**VALUE**” represents all the **benefits in monetary terms** for those services where monetary economic valuation is possible and derived based on the available knowledge, tools and methods.
 - **The “+” represents** all those benefits **for which economic valuation is currently not possible** on account of lack of accepted methodologies, knowledge, available technology, current resources and/or understanding of the system.

Ecosystem Services and Tiger Reserves

- Ecosystems Services can be defined as **benefits in terms of goods or services provided by nature** which are of fundamental **importance to human well-being**, for health, livelihoods, and survival.
- In the context of natural resource development, Tiger Reserves are the primary repositories of forests and other natural ecosystems.
- A range of **ecosystem services emanate from tiger reserves** such as Non Timber Forest Products (NTFPs) provisioning, employment generation, carbon sequestration, biological control, habitat for species, genepool protection, gas regulation, pollination, fuelwood, fodder grazing, watershed protection, increased soil fertility, physical and mental well being, spiritual tourism etc.

Economic Value of Tiger Reserves

- The study findings indicate that the natural ecosystems in the Tiger Reserves (TRs) provide adequate resources to humans in the range of Rs. 1643-7042 crore.
- **TRs offer protection from disease, predators, and parasites**, which is an avoided cost in the range of Rs. 7.7 crore to Rs. 24.15 crore.
- They also help in maintaining a benign physical and chemical environment for amenable living

conditions by providing necessary infrastructure and ecosystem services worth Rs. 2567-8260 crore.

- The tiger reserves play a **significant role in the lives of local communities** and conserve a range of traditional values apart from providing recreation and leisure. Thus the socio-cultural fulfilment benefits from these TRs range from 0.3 crore to 62.144 crore.
- They conserve ecosystems and natural assets worth Rs. 15310-98530 crore.

Suggestions

- **Ecosystem services should be kept as a focal area** in Tiger management.
- Comprehensive analysis of ecosystem services may result in establishing partnerships with relevant stakeholders, effective policies and mechanisms for incentivizing conservation.
- **Adequate investment in natural capital** contained in tiger reserves is essential to ensure the flow of ecosystem services in the future.

Note

The Indian Institute of Forest Management is an autonomous institute of Ministry of Environment, Forest and Climate Change, established in 1982.

[Source: TH](#)

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