



DAILY EDITORIAL ANALYSIS

TOPIC

**ECOLOGY IS THE WORLD'S
PERMANENT ECONOMY**

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ECOLOGY IS THE WORLD'S PERMANENT ECONOMY

Context

- As climate change accelerates and biodiversity declines, recognizing nature as the foundation of economic stability is more crucial than ever.

About

- The phrase '**Ecology is the World's Permanent Economy**', popularized by environmentalist **Sunderlal Bahuguna**, underscores the fundamental link between ecological health and human prosperity.
- It highlights the **inseparable link** between **environmental sustainability and economic stability**.

Concept of Ecology

- Ecology is the scientific study of **interactions between organisms and their environment**, encompassing ecosystem dynamics, biodiversity, and conservation.
- '**Human Ecology and Family Sciences**' (HEFS) explains the term '**ecology**' in two ways:
 - It is referred to as a **branch of Biology** that deals with **relations between living organisms and their environment**.
 - It is stated to be a **complex of relationships** between an organism and its environment.
- Ecology is basically concerned with **four levels of biological organisation – organisms, populations, communities and biomes**.
- It examines how living organisms interact with each other and their surroundings, influencing natural resource cycles, climate patterns, and habitat stability.
- According to the **Wildlife Institute of India (WII)**, habitat ecology helps advance our understanding of species distribution and conservation efforts.
- Ramdeo Misra** is revered as the **Father of Ecology in India**.

How Ecology Supports Economic Growth

- Natural Resources Drive Industries:** Forests, rivers, and oceans provide essential resources for industries like agriculture, fisheries, and tourism.
 - Overexploitation leads to economic instability, affecting food security and energy production.
- Climate Resilience and Disaster Prevention:** Investing in ecological conservation strengthens climate resilience, reducing disaster-related economic losses.
 - Sustainable practices ensure long-term economic viability without depleting natural assets.
- Green Jobs and Sustainable Development:** Karnataka's Climate Action Plan integrates afforestation and clean energy, creating employment opportunities.
 - Businesses adopting sustainability strategies experience higher efficiency and brand equity.
- Biodiversity and Human Well-Being:** Healthy ecosystems support pollination, water purification, and soil fertility, essential for agriculture.
 - Conservation efforts enhance quality of life, preventing environmental degradation and health crises.

Related Case Studies

- Economic Valuation of Tiger Reserves in India:** It assesses the economic benefits of conserving tiger reserves, showing how biodiversity protection enhances local economies.
 - It demonstrates that investment in conservation leads to higher tourism revenue and ecosystem services.
- Natural Resource Accounts of Air and Water Pollution:** It examines how environmental degradation impacts economic productivity.
 - It highlights the financial burden of pollution and the economic advantages of adopting sustainable practices.

Challenges in Balancing Ecology and Economy

- **Deforestation and Habitat Loss:** Industrial expansion often prioritizes short-term gains over ecological preservation.
- **Pollution and Resource Depletion:** Unsustainable practices erode natural capital, leading to economic downturns.
- **Policy and Governance Issues:** Weak environmental regulations hinder effective conservation strategies.

Policy Measures for Long-Term Ecological and Economic Balance

- **Climate Finance and Green Investments:** The Ministry of Finance has developed **India's Climate Finance Taxonomy**, facilitating greater resource flow to climate-friendly technologies
 - ♦ The **Union Budget 2024-25** emphasizes green transition, supporting renewable energy and carbon-neutral initiatives.
- **Carbon Market and Emission Reduction:** India has committed to reducing greenhouse gas emissions by 45% by 2030 under the Paris Agreement.
 - ♦ The **Indian Carbon Market Framework** incentivizes industries to adopt low-carbon technologies through carbon credit trading.
- **Sustainable Agriculture and Biodiversity Conservation:** The **National Biodiversity Action Plan** promotes eco-friendly farming practices and forest conservation.
 - ♦ The **PM-KUSUM scheme** encourages solar-powered irrigation, reducing dependence on fossil fuels.
- **Coastal and Urban Sustainability Initiatives:** The **National Assessment of Shoreline Changes** provides erosion control guidelines, protecting India's coastline.
 - ♦ The **Smart Cities Mission** integrates green infrastructure, ensuring urban sustainability.

Way Forward

- **Integrating Ecology into Economic Policies:** Governments must prioritize sustainability in development plans.
- **Promoting Green Technologies:** Innovations in renewable energy and eco-friendly industries can drive economic growth.
- **Strengthening Conservation Efforts:** Encouraging community participation in environmental protection ensures long-term benefits.

Conclusion

- Acknowledging that ecology is the permanent economy shifts the focus toward sustainable development, climate resilience, and biodiversity conservation.
- By embracing nature-centric policies, societies can achieve economic stability while preserving the planet for future generations.

Source: TH

Mains Practice Question

[Q] How does the concept of 'Ecology is the world's permanent economy' emphasize the interdependence of environmental sustainability and economic stability, and what policy measures can governments adopt to ensure long-term ecological and economic balance?

