



DEPARTMENT OF HUMANITIES AND SOCIAL SCIENCES
INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI

INSEE
Indian Society for
Ecological Economics

Organise the Winter School on

“Natural Capital, Nature-Based Solutions to Climate Change, and Valuation of Ecosystem Services: A Commons Perspective”

In Collaboration With



INDIAN INSTITUTE OF TECHNOLOGY TIRUPATI, YERPEDU, ANDHRA PRADESH - 517619, INDIA



DECEMBER 7 - 12, 2026



Last Date to Apply: October 31, 2026 (Limited Seats)

Background

Natural capital—including forests, grasslands, wetlands, rivers, and aquifers—is often managed as a commons through community institutions, customary rights, shared norms, and collective stewardship. This Winter School explores how recentring the concepts of the Commons and commoning can strengthen collective stewardship, restore shared ecosystems, and build resilient futures. It brings together three interconnected pillars of sustainable environmental governance: natural capital accounting, ecosystem services valuation, and nature-based solutions. Natural capital accounting provides systematic approaches to understanding changes in natural assets and their contributions to human well-being. Ecosystem services valuation highlights the benefits ecosystems provide for society and supports informed decision-making. Nature-based solutions promote ecosystem protection, restoration, and sustainable management. Together, these approaches foster ecological resilience, equitable resource governance, biodiversity conservation, and long-term societal well-being.

Re-centering Commons for Resilient Futures



Commons Governance



Customary Rights



Community Decision-making



Care, Stewardship & Shared Responsibility

WHY RE-CENTER THE COMMONS?



Most natural capital is shared and has historically been sustained by local communities.



State- and individual-centric control has undermined commons institutions and customary rights.



Environmental degradation and climate change are intensifying.



Re-centering the Commons and commoning can restore ecosystems and build resilient futures.



Accounting for natural capital makes nature visible and reimagines metrics for growth and development.

NATURAL CAPITAL ACCOUNTING

Systematically measures natural resources and tracks their contributions to the economy and impacts of economic activities over time.

VALUATION OF ECOSYSTEM SERVICES

Assigns monetary value to ecosystem services to inform decisions for sustainable and equitable use, enhancing human well-being now and in the future.

NATURE-BASED SOLUTIONS

Addresses societal challenges through the protection, sustainable management and restoration of ecosystems for biodiversity and human well-being.

An integrated approach for sustainability and resilient futures

WHAT DO WE ACHIEVE?



Strengthened ecosystem stewardship



Empowered communities and equitable governance



Climate resilience and adaptation



Sustainable use of natural resources



Long-term human well-being and societal prosperity



INTEGRATING PEOPLE, NATURE AND ECONOMY

Aligning environmental stewardship with long-term ecological resilience, economic prosperity and societal well-being.



Objectives

This Winter School is designed to adopt an interdisciplinary approach, combining ideas from several disciplines, such as Environmental Economics, Ecological Economics, Natural Resource Management, and Political Ecology. In particular, this Winter School will discuss the theoretical and empirical developments of these disciplines on three broad themes: Natural Capital Accounting, Nature-Based Solutions, and Valuation of Ecosystem Services. It aims to:

- Provide a clear understanding of natural capital, its governance, its accounting in wellbeing measurement, and its relationship to GDP.
- Provide an overview of the notion of 'Sustainability' from diverse disciplinary perspectives.
- Provide a brief overview of the understanding of Nature-based Solutions (NbS), and their role in reducing loss and damage (L&Ds) from climate change-related events.
- Focus on monetary and non-monetary valuation methods for ecosystem services, particularly in the context of commons, and explain progress in estimating non-economic loss and damage (L&D).

Expected Outcomes

The Winter School will contribute to:

- Trained cohort of Master's / PhD students, early career researchers, practitioners, and government officials in cutting-edge research and methods for natural resource accounting, assessing non-economic L&D indicators, and valuing ecosystem services.
- An interdisciplinary research idea by integrating methods and issues from various discourses, such as environmental economics, ecological economics, political economy, commons, and systems approach.
- Improved the capacity of researchers, practitioners, and government officials from India in writing papers for specific journals related to ecological and environmental economics and interdisciplinary journals
- Strengthened network among the Indian researchers and practitioners working on the broader theme of environment and ecological issues
- Planning for joint journal publications based on the mutual interest of the faculties and participants

Intended Participants

We welcome early-career researchers, PhD Scholars, and Master's students from disciplines such as economics, environmental science, sociology, geography, public policy, natural resource management, climate change, and development studies, etc. Researchers and students from other disciplines can also apply to this winter school if their research interests align with the topics covered. Practitioners and government officials working in forestry, water, agriculture, rural development, or climate change adaptation and mitigation will also find this course relevant.

How to apply?

Write 500 words on how you resonate with the subject relating to your experiences and learnings so far. We would be interested in your reflections, interpretations, and analysis. We shall not assess this exercise on language, grammar, or presentation skills. Please fill out this form to apply.

Scan QR Code



Registration Fee:

- PhD Scholar/ Early Career Researcher/ Working Professional: INR 6000
- Master Students: INR 3000
- Participants from Foreign Countries: USD 150 (Hybrid Participation)
- The Registration fee covers costs related to administration, printing of materials, lunch, snacks, and the field trip
- There is no online participation option for participants from India. All participants from India are required to attend the event in person.
- Hostel accommodation will be provided at IIT Tirupati on a payment basis

Design

Morning: Foundational lectures by domain experts (75–90 min each, with discussion).

Afternoon: Lectures with empirical applications, Hands-on labs, software/tool tutorials, and case-based group work.

Late afternoon/evening: Panels, fireside chats, or participant-led discussions bridging disciplines.

Throughout: Each participant will be assigned to a small mentoring group (5–6 participants, 1 faculty mentor) that reconvenes daily to work toward a research proposal to be presented on Day 6.

Assessment: Daily reflection notes, a mid-week technical exercise, and a final group research pitch; certificates issued on successful completion.

Course Outline

Day 1 — Theoretical Foundations of Natural Capital: Commons, Accounting and Sustainability

Day 2 — Governing Natural Capital: Institutions, Political Economy and Systems Approach

Day 3 — Nature Based Solutions, Climate Change, and Loss and Damage Assessment

Day 4 — Effective Nature Based Solutions (GIS/ Python, Economic and Inter-disciplinary perspective) and Economics of Ecosystem Services - from Theories to Empirics

Day 5 — Valuation methods for Ecosystem Services

Day 6 — Interdisciplinary Synthesis, Research Incubation and Poster Presentation

Coordinator:

Dr Chandra Sekhar Bahinipati

Indian Institute of Technology Tirupati

&

Indian Society for Ecological Economics

Bhagyashree Moharana (Ph.D Scholar)

Indian Institute of Technology Tirupati

Organizing committee members:

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