

# Call for PapersSpecial Issue of the Indian Ecological Society, Ludhiana, Punjab

Theme: Climate Change, Its Impact, and Sustainability of Crops

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# Introduction

Climate change has emerged as one of the most pressing global challenges, profoundly impacting natural ecosystems, water resources, and agricultural productivity. In the Indian context, the ramifications of rising temperatures, erratic rainfall, frequent extreme weather events, and shifting agro-climatic zones are becoming increasingly visible across diverse cropping systems. These impacts threaten food and nutritional security, particularly in rainfed, resource-poor regions that form the backbone of Indian agriculture.

Given the urgency to address these challenges through science-led innovations and policy interventions, the **Indian Ecological Society (IES)**, **Ludhiana**, in collaboration with leading agricultural and ecological researchers, invites **original research articles**, **revie**and **case studies** for a **Special Issue on "Climate Change, Its Impact, and Sustainability of Crops." This special issue aims to synthesize recent research and promote multidisciplinary dialogue on mitigation, adaptation, and sustainable solutions to build resilient crop systems under climate stress.** 

## **Key Themes**

Authors are invited to submit contributions under (but not limited to) the following sub-themes:

## 1. Climate Change Impact on Crops and Cropping Systems

- Crop-specific vulnerability and impact assessments
- Changes in phenology, productivity, and nutritional quality
- Stress interactions (drought, heat, floods, pests/diseases)

## 2. Climate-Resilient Agricultural Technologies

- Development and deployment of resilient crop varieties
- Conservation agriculture, intercropping, and low-emission farming
- Agroecological approaches and traditional knowledge integration

## 3. Modelling and Decision Support Tools

- Crop and climate simulation models (e.g., DSSAT, APSIM)
- Use of AI/ML and geospatial technologies for climate-risk prediction
- Early warning systems and ICT tools for climate-smart advisories

## 4. Water, Soil, and Nutrient Management under Climate Stress

- Efficient water use, micro-irrigation and moisture conservation practices
- Carbon sequestration and nutrient-use efficiency
- Integrated nutrient and soil health management

## 5. Policy, Institutions, and Socio-economic Dimensions

- Role of subsidies under climate-smart insurance including financial instruments
- Gender, equity, and farmer behavioural adaptation
- Role of extension, community participation, and governance

## 6. Sustainable Livelihoods and Agroecosystem Resilience

- Crop diversification and integrated farming systems
- Climate-resilient value chains and rural sustainability
- Natural farming / organic farming

## 7. Agroforestry and Climate Resilience

- Climate-smart agroforestry practices
- Drought and flood mitigation through agroforestry
- Resilience of smallholder farmers
- Early warning and risk reduction systems
- **8.** Tree-Crop-Animal Interactions
  - Nutrient cycling and productivity
  - Competition and complementarity
  - Shade effects and microclimate regulation

## 9. Research, Innovation, and Technology in Agroforestry

- o GIS and remote sensing in agroforestry planning
- Modelling and decision-support tools
- o Agroforestry innovation platforms
- Digital and precision agroforestry

# 10. Agroforestry Policy and Institutional Framework

- National Agroforestry Policy (India and others)
- o Institutional linkages and convergence models
- o Extension services and capacity building
- o Agroforestry in rural development programs

#### **Submission Guidelines**

Manuscripts must be submitted in accordance with the author guidelines of the *Indian Journal of Ecology* [visit: <a href="https://indianecologicalsociety.com/guidelines-for-authors/">https://indianecologicalsociety.com/guidelines-for-authors/</a>)

Articles must be original, unpublished, and not under consideration elsewhere. The word limit for full-length papers is 5000 words (excluding references).

#### All submissions should include:

- Title, abstract (250words approximately), keywords (5-6)
- Full author details with institutional affiliation, email of corresponding author and ORCID (if available)
- References must follow journal style. The related papers published in *Indian J Ecology* must be cited.
- Manuscripts must be submitted online on IES
  website(<a href="https://indianecologicalsociety.com/submit-manuscript/">https://indianecologicalsociety.com/submit-manuscript/</a>) under special issue call on "Climate Change, Its Impact, and Sustainability of Crops (CCSC). Copy of full manuscript may also emailed at <a href="mailto:syedadr2@skuastj.org">syedadr2@skuastj.org</a>
- For detailed guideline, consult author guidelines of the *Indian Journal of Ecology* [visit: https://indianecologicalsociety.com/guidelines-for-authors/).

## **Important Dates**

- Manuscript Submission Deadline: [30.07.2025]
- Peer Review Completion:/31.08.2025]
- Expected Publication: [31.10.2025]

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