

International Conference on Bridging Science and Communities in Biodiversity Conservation and Ecorestoration

Centre for Ecology Taxonomy Conservation and Climate Change (CEtC) of Hornbill Foundation and Research Department of Botany, MES Asmabi College, Kodungllur, Kerala. India.

24th and 25th February 2025

Funded by Kerala State Biodiversity Board and Western Ghats Hornbill Foundation

In Partnership with IUCN Commission on Ecosystem Management, BMC SN Puram

Programme Report

Introduction

A two-day International Conference on Bridging Science and Communities in Biodiversity Conservation and Ecorestoration was held on February 24.02.2025 & 25.02.2025, supported by Kerala State Biodiversity Board and Western Ghats Hornbill Foundation at Centre for Ecology Taxonomy Conservation and Climate Change (CEtC) MES Asmabi College, P. Vemballur, Kerala, India. The conference aimed to foster collaboration between scientific research and community-driven conservation initiatives. The event was organized in a hybrid mode with collaborations from IUCN CEM, BMC Sreenarayanapuram Gramapanchayath and IQAC MES Asmabi College. The event featured keynote, plenary sessions, paper presentations, panel discussion and an interactive workshop. Nearly 120 participants including students, researchers and community members attended the programme.



Inaugural Session

The inaugural session commenced with a prayer, followed by the welcome address by Dr. Amitha Bachan K.H., Programme Convenor and IQAC Coordinator. Dr. Reena Mohamed, Principal of MES Asmabi College, delivered the presidential address.



Inaugural Session



Inaugural Session - Welcome by Dr. Amitha Bachan KH, Program Convenor



Inaugural Session - Presidential Address by Dr. Reena mohammed



Inauguration by Dr. V Balakrishana, Member Secretary, Kerala State Biodiversity Board

The conference was inaugurated by Dr. V. Balakrishnan, Member Secretary, Kerala State Biodiversity Board, who also delivered the inaugural address. In his address, he emphasized

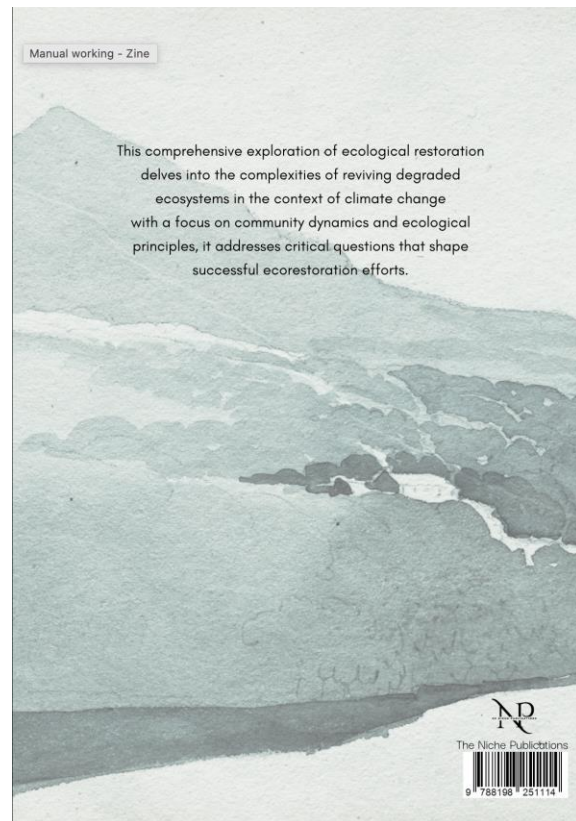
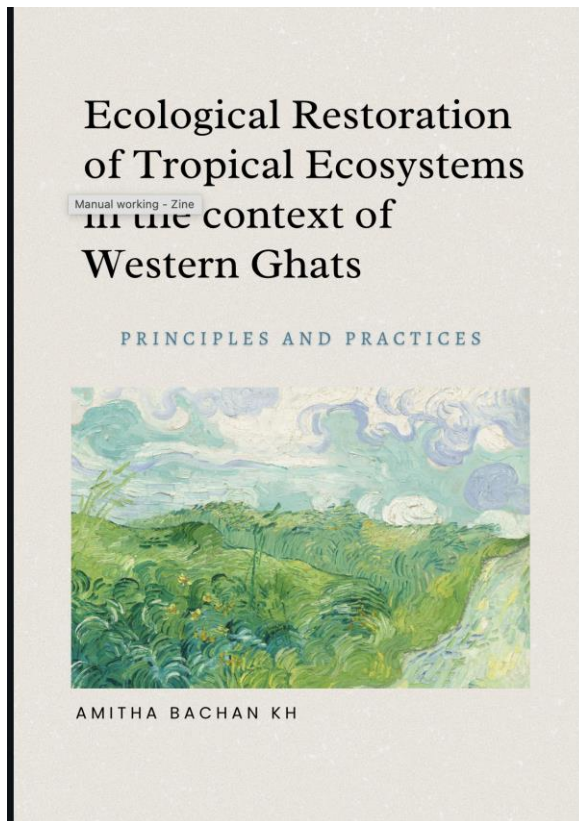
the importance of local initiatives involving self-governing bodies, panchayats, Biodiversity Management Committees (BMCs), MGNREGA, the Forest Department, and academic institutions. He acknowledged the collaborative efforts of the Hornbill Foundation and MES Asmabi College in advancing ecorestoration initiatives. Dr. V Balakrishnan mentioned the ecorestoration initiative for ecorestoration of the coastal zone of Kerala, in the SN Puram Grama Panchayath, where they have engaged local women through MGNREGA and technical assistance from the CEtC Centre of Hornbill Foundation at the MES Asmabi College campus. He further elaborated that the ecorestoration program achieved success in revitalizing the coastal vegetation belt, degraded sacred groves, mangroves, among other ecosystems along the coast, which was conferred the prestigious BMC award for the state by the Kerala State Biodiversity Board and serves as an exemplary model for scientifically informed, community-involved ecological restoration that transpired in Kerala.

Release of the book cover

During the unveiling of the book cover, Dr. V. Balakrishnan stated that the volume titled “Ecological Restoration of Tropical Ecosystems in the Context of Western Ghats – Principles and Practice” will serve as a pragmatic guide for ecorestoration practitioners and encompasses essential prerequisites to ensure the scientific rigor of ecological restoration, as well as pragmatic guidance for the planning and execution of ecorestoration endeavours across various ecosystems in Kerala.

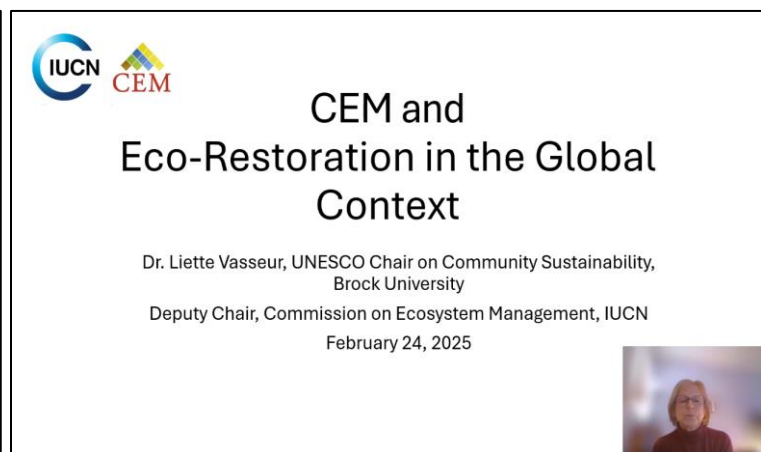


Releasing of the Book cover Dr V Balakrishnan, Dr. N Sasidharan, Dr. Ajith Kumar



The Thematic Session

The thematic address was delivered online by Dr. Liette Vasseur, Deputy Chair for IUCN CEM and co-lead of the Climate Change and Biodiversity Policy and Practice group. She mentioned that the mandate of the IUCN Commission on Ecosystem Management spans seven priority areas, among which Ecosystem Restoration and Ecosystem Governance are two important ones. She also discussed their governance structure, thematic groups, commissions, and social platforms where communities across the globe can participate. She gave a brief overview of global principles and standards of ecological restoration. Dr. Vasseur emphasized the importance of such regional deliberations and publications in mainstreaming the knowledge and practice of ecological restoration.



The Special Address

The conference commenced with a distinguished discourse on the necessity of multi-stakeholder engagement in the ecological restoration of degraded forests and ecosystems by Dr. Pramod G Krishnan IFS, APCCF and Chief Wildlife Warden, Kerala Forest Department. He articulated that ecological restoration must constitute a pivotal element in addressing climate change and Human-Wildlife Conflict. He further asserted that mere afforestation cannot be classified as ecological restoration, referencing the international definition of ecological restoration which necessitates scientific contributions, local community participation, and therefore mandates multi-stakeholder involvement. He also highlighted that the Kerala Government is the first state to adopt an ecological restoration policy. He emphasized that particular attention is essential for the conservation and ecorestoration of threatened species' habitats and mentioned a collaborative initiative with various entities, including the CETC of Hornbill Foundation, the conference organizer for pilot niche-specific ecological restoration planning and implementation in Vazhachal.



A special address by Mr. Pramod G. Krishnan, IFS, APCCF & Chief Wildlife Warden, Kerala Forest & Wildlife Department (Online)



Dr Ajith Kumar interacting with Mr Pramod G Krishnan



Felicitations were given by Mr. Febin Francis, District Coordinator of Thrissur, KSBB.



Vote of thanks by Dr. Amitha P. Mani, IQAC Joint Coordinator



Photo session with Student participants

Plenary Sessions

Four keynote talks were presented on the first day of the conference:

1. Dr. N. Sasidharan (Retd. Chief Scientist, KFRI, Peechi) – *Plant Diversity & Conservation Challenges in Kerala.*

Dr. N Sasidharan is a renowned botanist and conservationist with over three decades of experience. As a former Chief Scientist at KFRI, he has worked extensively on plant diversity, conservation, and sustainable forest management. His expertise and passion for botany and conservation make him an authority on the subject. The Kerala, with its unique geography and climate, is home to a rich and diverse array of plant species. However, this biodiversity is facing numerous threats, including habitat loss, fragmentation, and degradation, as well as climate change. In this talk, Dr. N Sasidharan delivered the current state of plant diversity in Kerala, highlighting the challenges and opportunities for conservation. He points out the floristic diversity of endemic and threatened species at the protected area level. His knowledge on rich botanical heritage of Kerala brought out an insight to participants about the current status and knowledge of floristics in Kerala.





2. Dr. Ajith Kumar (Affiliate Senior Scientist, Centre for Wildlife Studies, Bangalore) – *Ecorestoration in the Context of Wildlife Habitat Management*.

He delivered an insightful talk on "Ecorestoration in the Context of Wildlife Habitat Management" at the international conference. This presentation equipped participants with valuable knowledge on the role of ecorestoration in maintaining healthy wildlife habitats, highlighting the importance of balancing human and wildlife needs.





Dr. N Sasidharan interacting with Dr. Ajith Kumar

3. Dr. P.E. Rajasekharan (Principal Scientist, Division of Plant Genetic Resources, Indian Institute of Horticultural Research) – *Revitalizing Madhuca insignis: Integrated Conservation Strategies for a Critically Endangered Species* (Online)

He highlighted the significance of ecological niche modelling in predicting suitable habitats for the species, informing effective conservation strategies. His presentation underscored the importance of integrated approaches to conservation, ensuring the long-term survival of critically endangered species like *Madhuca insignis*.



4. Dr. Amitha Bachan K H (Member IUCN, CEM, CBPP & SSGs) – *The Science and Practice of Ecological Restoration of Degraded Ecosystems and Threatened Species Habitats*

Dr. Amitha Bachan KH, Director CEtC, member IUCN CEM, SSG for Hornbills and Global Tree Assessment Group provided an overview of the global mandate on ecological restoration, referring to IUCN, SER, and the Kunming-Montreal Global Biodiversity Framework, which targets 30% by 2030. He discussed important assumptions required for ecological restoration, principles, and standards. These principles serve as a foundation for effective restoration efforts, ensuring that ecological integrity is maintained while fostering resilience in ecosystems facing climate change and human impact. Dr. Bachan explained in detail the various seven steps required for ecological restoration in the context of the new book that is going to be released regarding the Western Ghats. These include planning, benchmarking to assess the current situation of targeted ecosystems, decision-making, local nurseries to ensure genetic diversity, implementation including species selection, maintenance and monitoring, and finally, evaluation. He explained step by step based on the status of degradation of various ecosystems of the Western Ghats and the species selection procedures for each ecosystem, as well as the process of multi stakeholder involvement. This was followed by various questions and discussions from the participants and earmarked as one of the important sessions for ecorestoration planning.





Paper and Poster Presentations

A paper presentation session was held online from 2:00 PM to 3:30 PM as a parallel session, providing a platform for researchers to showcase their studies. Nearly 20 students and researchers presented their studies relevant to the conference theme.





Meeting with BMC and Community Members





Dr. V Balakrishnan, member secretary KSBB addressing the meeting of the Biodiversity Management Committee members from different Panchayaths.



Ecorestoration Site Visit

The first day concluded with an eco restoration site visit at 5:00 PM, allowing participants to observe conservation efforts firsthand. The participants had an opportunity to visit the coastal vegetation belt restoration site of Sree Narayanapuram Grama Panchayath where the Hornbill Foundation provided the technical support. The saplings were planted and maintained by the women in MGNREGA scheme. The participants especially the scholars and students interacted with the community working in the coastal eco restoration.





Day 2: Case Studies and Community Engagement

Film Screening and Panel Discussion

The second day began with the screening of the film *Kaadu Kadar Ongal* at 9:00 AM in the Mini Theatre. The film portrayed two decade long story of Kadar Indiginous community involved conservation of Hornbills and their nesting habitat in the Vazhachal Forests intitited by Dr. Amitha Bachan KH and Hornbill Foundation. The session was chaired by Dr. Reema Mohamed, Principal of MES Asmabi College. Following the screening, a panel discussion featured insights from Ms. Stephanie Stafford, an independent filmmaker, Senthil Kumar & ManikyaRaj, Kadar indigenous community members, and Dr. Amitha Bachan K.H., Director, CEtC Hornbill Foundation. The session concluded with an acknowledgment of the film team's contributions.



Honouring the Indigenous community members in Hornbill Conservation

Link to the film - https://youtu.be/jUxIYfC3NUo?si=QLZVIXa_WvwJeLMX

Technical Session

At 10:30 AM, Ms. Devika M. Anilkumar presented a technical session on *Niche-Specific Conservation and Ecorestoration of Three Threatened Trees*.



Ms. Devika M. Anilkumar, Ecorestoration Program Coordinator of CEtC, Rufford Fellow, and member of the IUCN Global Tree Assessment Group, provided a detailed insight into the integrated methodology developed for the identification of conservation and ecorestoration potential areas at landscape and administrative levels for threatened tree species based on a case study on ecorestoration of three threatened trees. The integrated methodology developed by Ms. Devika and Dr. Bachan, combining ecological niche modeling with niche profiling, has been recognized as a nature-based solution for niche-specific ecorestoration of threatened taxa.

Panel Discussion

A panel discussion on *Community in Conservation & Ecorestoration* followed at 11:00 AM, moderated by Ms. Alphonsa Jojan, a PhD candidate at the University of Newcastle, Australia. Panelists included:

- Mr. M.S. Mohanan, President, Sree Narayanapuram Grama Panchayat
- Ms. Rahana P. Anand, Secretary, Sree Narayana Puram Grama Panchayat
- Mr. T P Velayudhan, BMC Convenor, Mookkannoor Gramapanchayath
- Mr. Abdul Lathief, State Biodiversity Award winner
- Mr. Raheshkumar R, Joint Programme Officer, MGNREGA Thrissur

Film Screening on ecorestoration in the SN Puram Grama Panchayat. A three minutes film “Climate Change Resilience through Ecological Restoration” screened prior to the panel discussion. Link to the Film <https://youtu.be/I6f-HTP-BpI?feature=shared>



This panel discussion comprised individuals, community members, and members and officers of panchayat, and members of Biodiversity Management Committees (BMC), and officers of MGNREGA who have supported and engaged themselves in conservation and restoration activities. The session was moderated by Advocate Alphonsa Jojan who set the stage for discussion through a participatory interaction on the role of laws that support community conservation and eco-restoration. With inputs from the participants of the conference on the various legislations such as the Biological Diversity Act in conservation and eco-restoration, the panel discussion began with panellists explaining their actions in conservation and eco-restoration.

The President of the award-winning Sree Narayanapuram Panchayat, Sri M S Mohanan delivering an insightful talk recalled how the sacred grove of the Panchayat became the focal point of initiation of conservation and ecological restoration activities. He also emphasised the

critical role played by MES Asmabi College in leading the conservation efforts upon which the panchayat earned the title of the Best BMC of 2022. He remarked how the Biodiversity Award is an impetus to go ahead with current and future conservation activities in the local area including reclamation of degraded lands. He also highlighted that the model of collaboration between local self-governments and educational institutions can lead to exemplary activities that are mutually beneficial. Secretary of the Panchayat, Shri Rahana P Anand described the geo-ecological diversity of the Panchayat that require further conservation efforts.

T P Velayudhan, the BMC convenor of Mukkanoor Gram Panchayat opened his talk by sharing his involvement with the preparation of the People's Biodiversity Register in Ernakulam. He recalled that the Register was prepared in the late 1990s even before the enactment of the 2002 BD Act. He further emphasised the role of the people's representatives and the governing authorities in preventing pollution, conserving forest, protecting shores, riverside, and lake that can come under the purview of the Working Group on Climate, Biodiversity. He underscored the need to come back to nature and revitalise traditional, local knowledge on the plants, animals-especially the local medicinal knowledge.

Advocate Abdul Latheef, another biodiversity award winner in the individual category stressed the importance of awareness of diverse ecosystems. He explained his efforts to grow many varieties of plants began with bringing a few saplings from the Kerala Forest Research Institute, and thereafter nurturing plants including many rare species has become his primary goal in life.

Advocate Raheesh Kumar, the Assistant Program Officer of MGNREGA of Thrissur district was eloquent about the ways in which the Mahatma Gandhi Rural Employment Guarantee Act (MGREGA) can support conservation activities especially rejuvenating water bodies. Shrimati Shyamili, Assistant Engineer handling the MGNREGA and member of the BMC of Sree Narayana Puram elucidated how MGNREGA supported the conservation and livelihood generation activities of SN Puram Gram Panchayat.

Student representative shared her appreciation of local people's knowledge about the plants and animals in the Panchayat area of SN Puram during her field visits for preparing the Peoples Biodiversity Register.



Mr. M.S. Mohanan, President, Sree Narayanapuram Grama Panchayat



Ms. Rahana P. Anand, Secretary, Sree Narayana Puram Grama Panchayat



Mr. T P Velayudhan, BMC Convenor, Mookkannoor Gramapanchayath



Mr. Abdul Lathief, State Biodiversity Award winner



Mr. Raheshkumar R, Joint Programme Officer, MGNREGA Thrissur



Ms. Alphonsa Jojan, PhD candidate at the University of Newcastle, The moderator



Ms Shyamili, Assistant Engineer, MGNREGA, Sree Narayana Puram Grama Panchayat

Ecorestoration Workshop

A participatory workshop was held, focusing on the preparation of a multi-stakeholder involved ecorestoration plan. This interactive session facilitated knowledge exchange among scientists, policymakers, and community representatives. Participants were provided with a template for the development of restoration plan proposals in various landscapes.



Valedictory Session

The conference concluded with a valedictory session at 3:00 PM in the Conference Hall. The session featured:

- Welcome Address: Dr. Girija T.P., Head, Research Department of Botany
- Presidential Address: Dr. Reena Mohamed PM, Principal, MES Asmabi College
- Inauguration: Mr. E.T. Taison Master, MLA, Kaipamangalam
- Certificate Distribution
- Vote of Thanks: Dr. Amitha P Mani, Programme Coordinator.



Mr E T Tyson, MLA Kaipamangalam Constituency





Conclusion

The conference successfully facilitated discussions on biodiversity conservation and the role of communities in ecorestoration. The event highlighted the significance of integrating scientific research with traditional ecological knowledge, bridging partnerships for mainstreaming and accelerating ecological restoration. The workshop and site visit provided practical insights, strengthening the collaboration between researchers, policymakers, and local communities. The multistakeholder involvement in coastal ecorestoration, with scientific inputs and effective utilization of the MGNREGA rural employment scheme, recognized the long-term involvement of local communities, especially women, in ecorestoration implementation, maintenance, and monitoring as a replicable model. The conference decided to initiate similar efforts in some of the Panchayats and forest areas with similar partnerships. The conference outcomes are expected to contribute to future conservation and ecorestoration initiatives in Kerala and beyond. The conference highlighted the possibilities of effective global-to-local partnerships in ecological restoration and biodiversity conservation.

Glimpses from the Two-Day Conference































