



Tropical Rainforest
Ecological Camp (R)

Annual Report

2024-25



Tropical Rainforest Ecological Camp (TREC)[®]

FROM THE DESK OF THE PRESIDENT:

Firstly, we are profoundly grateful to all those who have steadfastly supported our work, including our dedicated team members, committed interns, and selfless volunteers. During this reporting period, we have focused our efforts on nature education, research, and sustainable tourism.

Our primary objective is to make a positive impact on nature and society. Our work is steered by a robust set of values that mirror our identity as an organization in perpetual dialogue with the principles of democratic participation, transparency, good governance, creativity, and unwavering commitment.

In the upcoming year, TREC is eager to forge closer ties with other organizations operating in the realm of environment and community livelihood development. We warmly welcome the guidance and suggestions of the readers of this annual report, and we are deeply appreciative of everyone's active participation and support.

Sd/.

Balachandra Hegde.

President.

ABOUT US

The Tropical Rainforest Ecological Camp (TREC), is a registered non-profit organization dedicated to protecting the most vulnerable and important natural areas of northern Western Ghats in North Canara, Karnataka, through conservation efforts on the ground. Our mission is to safeguard biodiversity hotspots, restore degraded ecosystems, create awareness of nature conservation, and promote sustainable environmental policies.

Our mission is to foster a love for nature through exciting activities like treks, nature walks, expeditions, and camps. We also conduct research and provide support to researchers studying the natural world.





CONSERVATION ACTIVITY:

- Safeguarding Plant Diversity for a Sustainable Future

The Tropical Rainforest Ecological Camp (TREC) is dedicated to promoting environmental conservation and sustainable practices through active research and on-the-ground initiatives. By focusing on the preservation of plant diversity, TREC aims to strengthen ecosystems, support biodiversity, and foster community awareness about the critical role of vegetation in maintaining ecological balance. This report highlights TREC's recent efforts in planting and conserving a variety of native species, demonstrating the practical and environmental benefits of its conservation activities.

TREC recently undertook a major sapling distribution initiative to reinforce its commitment to environmental stewardship. A total of 75,000 saplings were distributed to Sneha Kunja, including species such as *Artocarpus lakoocha*, *Artocarpus hirsutus*, *Cinnamomum zeylanicum*, *Terminalia arjuna*, *Syzygium cumini*, *Garcinia indica*, *Garcinia gummi-gutta*, *Phyllanthus emblica*, *Mangifera indica*, *Terminalia tomentosa*, *Pterocarpus marsupium*, *Saraca asoca*, *Vitex negundo*, and *Sapindus trifoliatum*. These species were selected for their ecological significance, ability to support biodiversity, and contribution to sustainable forestry and environmental resilience.



Plants play a vital role in supporting both human and ecological well-being. They provide essential resources such as food, medicine, and raw materials, while also serving as critical habitats for a wide variety of animal species. Additionally, trees and other vegetation contribute to environmental stability by preventing soil erosion, purifying water resources, and mitigating the impacts of natural disasters. These functions underscore the importance of preserving and nurturing plant life as part of sustainable environmental management.

Through its initiatives, TREC has actively encouraged community participation, particularly among youth, in sustainable planting and conservation practices. By integrating research with practical action, TREC not only strengthens local ecosystems but also raises public awareness about the importance of biodiversity and environmental stewardship. Such efforts highlight TREC's continued commitment to fostering a greener and more sustainable future.



ECOLOGICAL CONSERVATION

- Conserving these swamps protects both visible and hidden biodiversity.

Myristica swamp forests in the Western Ghats are rare freshwater swamps with waterlogged soils that support diverse microorganisms like bacteria, fungi, actinomycetes, and archaea. These microbes play a vital role in nutrient cycling, soil fertility, and maintaining ecosystem balance. Swamp soils show higher microbial diversity than non-swamp areas due to high organic content, moisture, and slightly acidic conditions. Conserving these swamps is crucial to protect both visible biodiversity and hidden microbial life.



The project “Soil Microbial Diversity in Myristica Swamp Forests” has been supported through the THT Seed Grant under the Tropical Rainforest Ecological Camp initiative. The primary objective of this study is to understand the microbial communities thriving in the unique and endangered Myristica swamp forests of the Western Ghats and to assess their ecological role in soil health and forest resilience.

- To collect and analyze soil samples from selected Myristica swamp forest patches.
- To identify and characterize microbial diversity (bacteria, fungi, and actinomycetes).
- To evaluate the relationship between microbial communities and soil nutrient dynamics.
- To generate baseline data for conservation-based ecological studies.
- **Sample Collection:** Soil samples were collected from different swamp forest sites during field visits.
- **Soil Analysis:** Conducted under the guidance of Dr. Meghashyam Bhat, with focus on:
 - Soil pH, organic carbon, and nutrient availability.
 - Microbial colony counts and diversity analysis.
 - Isolation of dominant microbial groups.
- **Data Documentation:** Results compiled for comparative evaluation between swamp soil and surrounding non-swamp soil.





- **Myristica swamp soils show high organic content and moisture retention capacity.**
- **Distinct microbial colonies observed, indicating specialized microbial communities adapted to swamp conditions.**
- **Early findings suggest microbial diversity may play a crucial role in nutrient cycling, carbon sequestration, and forest resilience.**
- **A comprehensive microbial diversity profile of Myristica swamp soils.**
- **Contribution to scientific understanding of endangered swamp forest ecosystems.**
- **Data to aid in ecological restoration and conservation planning.**
- **Enhanced awareness and training opportunities through Tropical Rainforest Ecological Camp.**

This study has been made possible through the THT Seed Grant support. We extend our gratitude to Dr. Meghashyam Bhat for his technical guidance in soil analysis, and to the Tropical Rainforest Ecological Camp team for facilitating field research and logistics.

SOME PHOTOS GALLERY



PAPER CUTTINGS

1 OCTOBER 2024

LOCAL NEWS

TREC CHAMPIONS GREEN INITIATIVES WITH TREE-PLANTING DRIVE

INSPIRING THE NEXT GENERATION TO CARE FOR THE ENVIRONMENT

The Tropical Rainforest Ecological Camp (TREC) continues to set an inspiring example in environmental stewardship with its latest tree-planting initiative. By carefully selecting high-quality seeds and nurturing them into healthy saplings, TREC ensures that each plant has the best chance to thrive.

Once grown, these young plants are planted to enhance green spaces, contributing to a healthier and more sustainable environment. Beyond beautifying the area, the initiative raises awareness about the importance of trees, biodiversity, and eco-friendly practices.

TREC's efforts reflect a deep commitment to nature and community well-being, inspiring others to take action for a greener future. Each sapling planted is a step toward sustainability.



WORLD AIR QUALITY WORSENS

Millions of Lives at Risk

Air quality is worsening worldwide as industrial emissions, traffic, and deforestation increase pollution. Rising smog levels threaten public health, causing respiratory and heart problems, while also harming the environment. Experts urge stricter regulations, cleaner energy, and awareness campaigns. Immediate action is essential to protect both people and the planet from long-term damage.



BLURRED CITY SMOG POLLUTION ATMOSPHERE

Factories create bad air pollution

Thick smog has once again blanketed the city, reducing visibility and turning the skyline into a hazy blur. Residents are struggling with worsening air quality as harmful pollutants accumulate in the atmosphere. Experts warn that prolonged exposure can trigger respiratory problems, eye irritation, and other health issues, particularly for children and the elderly.

Traffic emissions, industrial activities, and construction dust are key contributors to this alarming pollution level. Authorities have urged citizens to minimize outdoor activities and use protective masks.



Environmentalists stress the urgent need for stricter regulations and sustainable practices to combat urban air pollution and protect public health.

23 JANUARY 2025



Savor the natural allure of the beach.

The serene beauty of the beach continues to captivate locals and tourists alike. Soft sands, gentle waves, and the soothing rhythm of the sea create a perfect escape from daily life. Visitors are encouraged to stroll along the shoreline, listen to the lapping waves, and feel the fresh ocean breeze. Beachcombing, sunbathing, and mindful relaxation offer a chance to reconnect with nature. Environmental experts emphasize preserving this delicate ecosystem, urging people to avoid littering and respect marine life. Savoring the natural allure of the beach is not only a visual delight but also a restorative experience for body and mind.

Appealing Lodgings Without Breaking the Bank

The Tropical Rainforest Ecological Camp (TREC) is setting an inspiring example in environmental stewardship through its innovative soil analysis and planting initiatives. Soil samples are collected across different seasons to study changes in composition, including essential nutrients, pH levels, and moisture content—factors that greatly influence plant growth. Based on these studies, comprehensive reports are prepared highlighting the characteristics of each soil type and recommending which plants are best suited to thrive under those conditions. This approach ensures healthier growth, sustainable agriculture, and a greener environment. By combining research with hands-on action, TREC promotes ecological awareness and inspires the community to adopt sustainable practices, creating a lasting positive impact on the environment.



18 MARCI 2025

BIODIVERSITY CONSERVATION CONSULTATION HIGHLIGHTS THE IMPORTANCE OF PLANTS



The Tropical Rainforest Ecological Camp (TREC), in collaboration with IFHD, has set a remarkable example in environmental awareness through its Biodiversity Conservation Consultation program, which focused on the vital role of plants in sustaining life. Plants are the backbone of every ecosystem, supporting humans, animals, and the environment alike. Through photosynthesis, they produce the oxygen we breathe, absorb carbon dioxide, and help maintain the balance of nature. The program highlighted how plants provide food, medicine, and raw materials, while also creating habitats for countless animal species. Trees and vegetation prevent soil erosion, purify water, and reduce the impact of natural disasters, emphasizing their critical role in maintaining ecological balance. By showcasing the importance of nurturing and protecting plant life, TREC and IFHD inspired the community, especially the younger generation, to adopt sustainable practices and contribute to a greener future. Through such initiatives, the camps reaffirm their commitment to environmental stewardship, setting a shining example for conservation and sustainability.

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THANK YOU

"The environment is where we all meet; where we all have a mutual interest."

- Lady Bird Johnson