

A Coding Challenge



CODE⁴ NATURE

Solutions for a Sustainable World

Introduction

Welcome to “**CODE 4 NATURE**” – an innovative coding challenge where technology meets environmental challenges. As our planet faces growing ecological threats, it's more important than ever to use the power of code and digital innovation to drive sustainability and biodiversity preservation.

CODE 4 NATURE brings together developers, designers, data analysts, environmental enthusiasts, and problem-solvers from diverse backgrounds to collaborate on impactful solutions. Whether you're an experienced programmer or just starting out with a love for nature, this challenge offers a unique opportunity to create real change through technology.

Challenge Themes

Participants are invited to create tools under two main themes:

Tools for combating Climate Change

- Species distribution models (Applications in Agriculture, ecological restoration, etc.)
- Forest fire prediction & assessment
- Heatwave early warning systems
- Village-level weather forecasting

Community based Decision Support System for Natural Resource Management

- Know my surroundings (Converge all open data for a village adding elements of Village Ecological Register)
- Ground water analysis at village level
- Surface water analysis (source sustainability, conservation potential)
- Eco-restoration support tools
- Interactive games to promote commoning in villages around natural resources



What You Can Build

Original, tech-driven solutions like:

- Ecological data platforms
- Crowdsourcing apps (mobile/web)
- Remote sensing analytics
- AI/ML tools for environmental insights
- Public dashboards using open APIs



Participation Details

- **Team Size:** 2–4 (interdisciplinary & diverse teams encouraged)
- **Eligibility:** Indian citizens (18+), can participate from anywhere
- **Challenge Duration:** 5 July – 18 August 2025
- **Format:** Submit your tool + summary (format will be shared after registration)

Considerations

- 1st Prize: ₹ 1,00,000
- 2nd Prize: ₹ 50,000
- 3rd Prize: ₹ 25,000
- E-certificates for all final submissions
- Internship/volunteer opportunities at FES
- Winning solutions featured on indiaobservatory.org.in



Code4Nature Challenge 2025 Timeline

10 July, 2025
Registration Share
concept note



15 July – 28 August 2025
Challenge starts Transform
ideation to product



10th Aug., 2025
Mid term Report
Architecture design
and wireframes



25th July, 2025
Inception Report First
phase mid report



28 August 2025
Final Submission
Submit the final
product



30 September 2025
Results Announcement of
challenge results



Evaluation Criteria

- Relevance, innovation, feasibility
- Scalability, automation, user-friendliness
- Preference for FOSS tools & documented code
- Gender and diversity inclusion

Why Join?

- Drive real impact on environmental issues
- Learn and collaborate with experts
- Win exciting prizes and recognition
- Be part of India's eco-tech movement



Register Now

Registration Link:

<https://docs.google.com/forms/d/e/1FAIpQLSc3By0kquW9qnd0aEY5Hwrbt1haXTsXkVCg3ReFdK3TUi96Rg/viewform>

Let's code for a greener, more sustainable future!

Licensing and attribution

Entries submitted for the challenge including code, datasets, multimedia content etc. need to be licensed under a CC-BY-NC or CC-BY license. Selected outputs/tools may be used, modified or improved upon by the Foundation for Ecological Security at its discretion subject to licensing conditions. FES will not monetise the product in anyway, but would provide the product/tools for public use hosted on the India Observatory Platform. Participants must clearly document the source and licensing terms and conditions of any external data or code that they utilise in creating the project. Participants must ensure that submissions are not copies of already existing products but are original works.

Contact Us:

For enquiries and sponsorship opportunities, please contact code4nature@fes.org.in

LET'S CODE 4 NATURE
AND CREATE A GREENER,
MORE SUSTAINABLE WORLD TOGETHER!



FOUNDATION FOR ECOLOGICAL SECURITY