



THE  
HABITATS  
TRUST

# Annual Report

## 2024-25



Close-up of a tiny patch of hydroids and sea sponges, on the side of a tide pool in Goa,  
Photo Credit: Abhishek Jamalabad.



# Message from the Trustees



Across India, there are landscapes that remain quiet in their presence - grasslands where the Indian wolf treads softly, mangroves that buffer storms while sheltering unseen life, coral reefs rebuilding themselves, polyp by polyp. These places may not call attention to themselves, but they hold entire worlds.

At The Habitats Trust, we begin with a simple belief: nature is not a resource to be used, but a living, breathing presence. Every species, every habitat - no matter how small or obscure - plays a vital role in sustaining the delicate sequence of life.



In an era where the planet's balance grows increasingly fragile, our responsibility is to enable. To support those working closest to the land. To empower communities that have lived in harmony with nature for generations. And to build bridges between science, policy, and grassroots action.

We do not strive to act alone. Our greatest strength lies in collaboration - in bringing together field wisdom, technological tools, and a shared purpose. Whether we are tracking endangered species, restoring critical habitats, or strengthening conservation capacity, our work is always part of a larger, interwoven effort.

We believe the future of conservation will not be shaped by singular actions, but by collective resolve - rooted in humility. The kind of humility that honours the intelligence of ecosystems, the agency of wild species, and the lived knowledge of people who know their land intimately.

As we look ahead, our vision remains constant: to protect not just what is visible, but what is vital. To nurture the quiet corners of India's natural heritage. And to sustain the equilibrium that allows all life - human and more-than-human - to thrive, together.

With resolve and purpose,

**Roshni Nadar Malhotra & Shikhar Malhotra**  
Trustees, The Habitats Trust

# Message from the Head, The Habitats Trust



Dear Friends and Supporters,

This year at The Habitats Trust has been one of consolidation, strategic foresight, and targeted impact. As we reflect on our journey, we do so with both humility and a clear sense of purpose, guided by our unwavering commitment to devising and implementing solutions to the intricate challenges posed by economic growth in the face of climate change and biodiversity loss.

Over the past year, THT has grown steadily, not merely in scale but in strength, thanks to the power of partnerships. Each month welcomed new collaborators into our ever-expanding network, and it is within these alliances that our true strength resides. Finding solutions is a collective endeavour, and we are proud to be part of a growing community united by a common mission.

Several key milestones this year exemplify the breadth and depth of our work. We launched the Conservation Practitioners' Course to equip early-career conservationists with both the theoretical knowledge and practical field experience necessary to lead effectively. In the marine realm, we advanced our research by deploying rovers to depths of up to 100 metres to study mesophotic reefs and examined resilience factors across coral systems along India's west coast, critical work in an era of accelerating climate change.

In terrestrial and freshwater conservation, we commenced restoration work in the degraded forests of Tadoba, aiming to rejuvenate vital habitats for countless species. Our teams also developed the first vocalisation model for the Hoolock Gibbon, pioneering new frontiers in the study of primate behaviour. Across India, more than 25 terrestrial projects are currently underway, addressing threats to biodiversity in a wide array of ecosystems. These are collaborative

efforts with our partners. Unfortunately, our findings have confirmed that the critically endangered Bengal Florican is now functionally extinct in Uttar Pradesh. However, this sobering discovery also presents an opportunity to reintroduce the species and revive its population.

Our Grants Programme continues to grow stronger, supporting dynamic projects with tangible, grassroots impact. This year, we also initiated systematic surveys across three landscapes to explore how social change affects conservation outcomes, an essential link in ensuring long-term ecological success.

Storytelling remains a powerful pillar of our mission. We completed filming two documentary series, along with a dedicated film exploring the importance of sardines. These narratives bring pressing environmental issues to the forefront of public awareness.

As the challenges facing our environment grow more complex, The Habitats Trust is increasingly positioning itself as a provider of solutions, offering data, insight, and partnerships that confront the interwoven crises of climate change and biodiversity loss. We are acutely aware of the magnitude of this responsibility, but our resolve remains stronger than ever.

We are proud of how far we have come, yet we are even more energised by the possibilities that lie ahead. With every project, every partner, and every step forward, we edge closer to our vision of a thriving, biodiverse future.

With gratitude,

**Rushikesh Chavan**



# About The Habitats Trust

The Habitats Trusts (THT) was founded in 2018 by Roshni Nadar Malhotra and Shikhar Malhotra. The objective was to protect India's natural habitats, and its native flora and fauna. THT's larger mission is to drive concerted efforts toward the conservation and restoration of ecological functionality of the varied natural habitats in the country — tropical forests, swamps, grasslands, deserts, alpine forests, islands and oceans.

After a closer look at the natural spaces around us, Rohini Nadar Malhotra and Shikhar Malhotra discovered that on-ground conservation efforts in India were often restricted to larger mammals. When it came to lesser-known species and smaller mammals, a gap needed to be filled.

Thus began their — now seven-year-long — journey to conserve lesser-known species and habitats. It was clear that THT would take a collaborative approach and get all stakeholders on board.

From Lakshadweep's coral reefs to Rajasthan's grasslands and Arunachal Pradesh's rainforest — THT now operates in 32 states and Union Territories with over 130 on-ground partners. It has enabled the conservation of over 52 species with grants disbursed to over 60 organisations and individuals for meaningful impact.

In its seventh year, THT continues to build on its core mission and values through its eight programmes — by facilitating organisations and individuals in their efforts to preserve natural ecosystems and species on ground and underwater. To further this goal, THT has also launched comprehensive, scientific, impact-oriented initiatives.

While counting the year's accolades is essential, THT believes, the conservation of natural habitats is a long and collaborative journey. And we hope that the billion inhabitants of our species, tread with us.

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# Communications and Outreach



# THT Communications and Outreach

The Habitats Trust's Communications and Outreach team strategically crafts compelling narratives across diverse platforms to elevate public consciousness regarding their conservation initiatives. Their diligent storytelling showcases the tangible impact of projects, from Lakshadweep's regenerative solutions to the conservation of UP Terai Grasslands, Hoolock Gibbons, and Myristica Swamps.

Employing a multi-faceted approach, the team strategically leverages the emotive power of visual media through impactful films such as 'Stories from the Ground' North East Films and the award-winning *Gharial: On the Brink* series, fostering profound emotional connections with the natural world.

By strategically using various communication channels - from social media platforms to our dedicated YouTube channel on-ground messaging, and designing boards in partnership with the Border Roads Organisation (BRO)- the Communications and Outreach team ensures that THT's message reaches diverse audiences, inspiring understanding, support and ultimately, active participation.

The overarching program is designed to cultivate a passionate and actively involved community, both online and offline, that champions and contributes to conservation initiatives nationwide. Looking ahead, the program's success will be rigorously evaluated against key performance indicators, including measurable increases in public awareness, summits, events, and film festivals; demonstrable shifts in attitudes towards conservation; tangible actions such as increased volunteer engagement and advocacy efforts; and the amplified overall impact of The Habitats Trust's vital conservation work as a solution provider through strategic and impactful communication.

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## **ANNUAL REPORT - COVER DESIGN AND LAYOUT 2023-24**

From a creative and design perspective, THT's annual report last year aimed at a creative yet professional presentation, adopting a clear and simple tone to effectively communicate THT's diverse activities. Recognising the interconnectedness of its programmes, the cover design strategically employed a unique symbol for each. These symbols were carefully chosen to encapsulate the core function or overarching goal of their respective programmes, offering a visual shorthand for stakeholders. This approach sought to provide an immediate and intuitive understanding of THT's multifaceted work at a glance, enhancing the report's accessibility and impact. The design was intended to be both aesthetically engaging and informative, reflecting the organisation's commitment to clarity and innovation.

## **THE HABITATS TRUST'S FILMS**

*List of THT films -*

1. On the Brink
2. Maha MTB - Species & Habitats Awareness Programme | Wildlife Marathi Documentaries
3. Dusty Foot - Stories from the Ground: Northeast India
4. REEF & THT Film
5. Tadoba Ecorestoration Film
6. Seeking Sardines
7. Ecology of Dudhwa
8. Shared spaces - Bahar Dutt films

THT has a diverse film portfolio, spanning from multi-seasonal series like On the Brink (OTB) to focused documentaries such as the Sardine Film. This portfolio holds significant importance across community engagement, viewership, branding and marketing within the realm of conservation. In terms of community engagement, these films act as powerful tools for raising awareness and fostering a sense of connection with nature and people.

The documentaries on specific regions like Northeast and Maharashtra, as well as focused initiatives like Tadoba's Seed collection and Dudhwa can resonate deeply with local communities by highlighting environmental issues and conservation efforts that directly impact their lives.

By showcasing local stories and perspectives, these films empower communities to become active participants in conservation initiatives.

In terms of viewership, the diversity of THT's films appeals to a broad audience. Our engaging series like Wild You Were Sleeping and On the Brink consistently attract viewers, while impactful documentaries such as Maha MTB series - with its extensive collection - draw in those specifically interested in wildlife and adventure.

This diverse content strategy maximises reach and ensures that conservation messages are disseminated across different demographics.

THT's films offer rich and compelling content for outreach efforts. Trailers, clips, and behind-the-scenes footage can be utilised across various platforms to generate interest and raise conservation awareness. The visual nature of film enables powerful storytelling that captures attention and inspires action, making it an invaluable asset for marketing conservation initiatives and garnering support for THT's work. The diversity of topics further allows for targeted marketing campaigns, effectively reaching specific audiences interested in particular conservation themes.

THT's commitment to producing high-quality films on a range of conservation topics positions it as a credible and authoritative voice in the conservation space. The volume and diversity of our work, as evidenced by the numerous films listed, demonstrate a sustained dedication to environmental storytelling strengthening THT's identity as a leader in conservation communication.

**By showcasing local stories and perspectives, these films empower communities to become active participants in conservation initiatives.**

## **BRO BOARDS - COMMUNICATION & BRANDING**

The collaborative effort between THT and the Border Roads Organisation (BRO) to install wildlife awareness boards in Ladakh represents a strategic and impactful initiative with significant implications for branding, marketing, public awareness, and information dissemination.

Our communication team has designed the BRO boards with a



research-based design process that ensures that the information presented is accurate, relevant, and engaging for the target audience. By consulting with various stakeholders, including local communities, wildlife experts, and BRO personnel, the content and visual design of the boards were tailored to resonate with the intended viewers, maximising comprehension and impact. The boards feature striking visuals of Ladakh's unique wildlife species, coupled with concise and informative text in accessible languages, raising awareness about their ecological significance, potential threats and conservation needs.

The placement of these 15 installed boards, with plans for many more along key routes and strategic locations managed by the BRO, ensures widespread visibility. This outdoor advertising approach effectively reaches a broad spectrum of the public, including those who may not actively seek out conservation information through traditional media channels. Tourists gain valuable insights into the region's biodiversity, fostering a deeper appreciation and sense of responsibility towards wildlife. For local communities the availability of accessible information about the species that share their landscape can promote a greater sense of coexistence and encourage active participation in conservation efforts.

**The boards feature striking visuals of Ladakh's unique wildlife species, coupled with concise and informative text in accessible languages, raising awareness about their ecological significance, potential threats and conservation needs.**

## **GRANTS - COMMUNICATION AND BRANDING**

From the communication and branding perspective, THT's Grants Campaign 2024 strategically employed a clean, clear, and formal visual identity to underscore its credibility and wildlife-centric focus, aiming to maximise engagement. This consistent aesthetic across social media posts, reels, website and social media banners, and emailers reinforced THT's professional image and commitment to wildlife conservation.

The deliberate choice of visuals centred on wildlife, aimed to capture

audience attention, evoke emotional connections, and directly communicate the campaign's core purpose: supporting impactful wildlife initiatives.

This cohesive visual language strengthened THT's identity as a serious and reliable organisation dedicated to wildlife preservation. Wildlife-centric visuals ensured that the brand message consistently aligned with its mission, enhancing brand recall and recognition within the conservation sector. Visually appealing and informative materials were designed to encourage submissions and amplify the campaign's reach. Clear calls to action on website banners and social media posts directed potential applicants to detailed grant information. Engaging reels and visually striking banners were crafted for easy sharing across social media platforms, leveraging the power of visual content to spread awareness. Professionally designed emailers effectively communicated the grant opportunity to relevant networks and individuals. This multi-pronged visual strategy aimed to streamline the application process and generate widespread interest, ultimately attracting high-quality proposals and maximising the campaign's impact on wildlife conservation.

**Visually appealing and informative materials were designed to encourage submissions and amplify the campaign's reach. Clear calls to action on website banners and social media posts directed potential applicants to detailed grant information.**

## **COLLECTIVE COMMUNICATION - C4CAMPAIGN**

The #RediscoverNature campaign, a noteworthy collaborative initiative in February 2025, brought together the communications teams from 23 diverse Indian conservation organisations. Recognising the potential for greater collective impact, this initiative sought to explore the efficacy of a unified approach to conservation messaging. Through a series of online discussions, the participating organisations jointly developed weekly Instagram prompts encouraging audience interaction with nature, all under the shared #RediscoverNature hashtag.

The campaign strategically balanced uniformity and flexibility. A common design template and core caption text provided a cohesive visual identity, while organisations retained the autonomy

to incorporate their unique imagery and supplementary content. This approach ensured a consistent campaign message while allowing individual organisations to resonate with their specific audiences.

Over the course of the campaign, an impressive reach of over 3 lakh Instagram accounts was achieved, with approximately 1,000 individuals actively responding to the prompts through their own posts and stories. This level of engagement highlighted the effectiveness of the collaborative strategy. Beyond the tangible metrics, the participating communications teams reported a positive experience that fostered a sense of community and shared purpose. The success of this initial campaign not only established #RediscoverNature as an annual event but has also sparked conversations around future collaborative ventures, marking a significant step toward a more unified and impactful conservation communication landscape in India.

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## **EVENTS**

### ***Film Screening – On The Brink – Gharial Episode***

THT's strategic outreach extended beyond traditional film distribution with impactful screenings of *On the Brink*(Gharial) and community-focused events across India. The film screening at the prestigious India Habitat Centre in New Delhi served as a platform to engage a diverse urban audience, including policymakers, conservationists, and the general public. The event aimed to raise awareness about the critically endangered gharial, its ecological significance, and the urgent need for its conservation.

### ***Northeast Community Screening***

Complementing its urban outreach, THT organised community screenings across Northeast India, including in Nagaland and Assam. These screenings were carefully tailored to engage local communities living near the regions featured in the films. By

showcasing the films within their own landscapes, THT aimed to foster a sense of ownership and responsibility toward conservation and climate action. The events included interactive sessions, discussions in local languages, and engagement with local conservation groups, fostering deeper understanding of the climate related threats and encouraging active community participation. This two-pronged approach, targeting both urban influencers and local communities, reflects THT's commitment to inclusive awareness and holistic engagement in conservation.

## **MEDIA COVERAGE**

Media coverage of THT's events—from the PARC press release to the Republic Day celebration in Lakshadweep—generated significant interest across diverse audiences. Reports on the Navy's Ocean Day celebration and the Sanctuary Asia Awards resonated with environmental enthusiasts and those invested in conservation milestones. Similarly, coverage of the Vasundhara Awards spotlighted grassroots environmental efforts, inspiring local communities. The Republic Day event in Lakshadweep, with THT's involvement, brought conservation themes to a national stage, expanding the reach of these messages to a broader viewership.

The participation of filmmakers from the Northeast series, who shared their experiences working with THT, added a personal and authentic dimension to the media narrative. Sharing these stories—and THT's broader mission—in multiple languages during community screenings across North India was vital for fostering local engagement, especially in remote areas with limited access to mainstream media. This multilingual approach ensured that conservation messages were both accessible and culturally resonant, increasing viewership and strengthening community connection to environmental issues.

By strategically leveraging diverse media channels and languages, THT successfully amplified its message, deepening engagement and extending its impact across a wide cross-section of the population.

**The participation of filmmakers from the Northeast series, who shared their experiences working with THT, added a personal and authentic dimension to the media narrative.**



## **PARTNERS MEET - COMMUNICATION & BRANDING**

The annual Partners Meet at THT, centred around the powerful theme of ‘Collaborations for Lasting Impact’, strategically leveraged its event identity to foster a welcoming and engaging environment for conservation practitioners from across India. The carefully curated installations, banners, standees, digital screens, merchandise, participant hampers, and dockets were all designed with inclusivity and partnership at their core, aiming to foster a strong sense of community and enable meaningful networking.

The strategic design of banners and logos prioritised a welcoming and approachable aesthetic. Vibrant yet harmonious colour themes were chosen to appeal to a diverse group of individuals and organisations. The visual language avoided overly technical or exclusive imagery, instead opting for designs that conveyed a sense of unity and shared purpose. Given the participation of around 100 partners, the branding elements were designed to be adaptable and inclusive while allowing for subtle variations and acknowledgments of individual partners.

The huge wall illustrations, specifically conceptualised around the partnership theme, served as a central visual anchor for the event. These large-scale artworks aimed to visually represent the interconnectedness of conservation efforts and the power of working together. Overall it encapsulates the diverse elements of nature and conservation activities coming together, reinforcing the ‘Collaborations for Lasting Impact’ theme in a visually compelling and memorable way.

The creation of merchandise and participant booklets also reflected this inclusive branding strategy. These tangible items served not only as practical tools for the event but also as lasting reminders of the collaborative spirit. Their design would have echoed the overall visual identity, reinforcing the theme and fostering a sense of belonging among participants. Digital screens strategically placed throughout the venue further amplified the message, showcasing

**The carefully curated installations, banners, standees, digital screens, merchandise, participant hampers, and dockets were all designed with inclusivity and partnership at their core, aiming to foster a strong sense of community and enable meaningful networking.**

partner logos, quotes on collaboration, and visually engaging content that underscored the importance of working together for effective conservation outcomes.

In essence, the entire event identity was meticulously crafted from a communication perspective to ensure inclusivity, foster community building, and highlight the significance of partnerships in achieving lasting impact in the field of conservation. The welcoming and engaging design elements aimed to create an atmosphere conducive to open dialogue, networking, and the forging of stronger collaborations among the diverse group of conservation practitioners.

**In essence, the entire event identity was meticulously crafted from a communication perspective to ensure inclusivity, foster community building, and highlight the significance of partnerships in achieving lasting impact in the field of conservation.**

## **PRACTITIONERS COURSE – DESIGN STRATEGY AND BRANDING**

The visuals and communication strategy for the Practitioners Course - part of THT's Education and Awareness programme—were thoughtfully developed by THT's communication team. The use of imaginative, welcoming illustrations proved to be both effective and visually engaging. These visuals helped go beyond simply sharing information, creating a more relatable and emotionally resonant experience for the audience. By presenting course content in an accessible and appealing way, the team likely boosted interest and understanding. This human-centered design approach played a key role in shaping a positive impression of both the course and the broader programme.



# Conservation Behavioral Science



# Conservation Behavioral Science Programme

## VISION

The Conservation Behavioral Science (CBS) Programme of The Habitats Trust is dedicated to leveraging behavioural science to drive impactful conservation outcomes. Our vision is to provide evidence-based solutions for public policy and conservation action through the creation of human-centric data, moving beyond existing secondary data available in government repositories. By integrating socio-economic and psychological insights, we aim to deliver case-and-place-based prescriptive solutions that prioritise landscapes for conservation action, foster large-scale impact, and establish The Habitats Trust as a credible science-based organisation. Our work is structured around two strategic approaches: K-strategy projects, which focus on systemic, long-term impact through policy and data-driven solutions, and r-strategy projects, which emphasise rapid, community-driven assessments to inform immediate conservation priorities.

**Our vision is to provide evidence-based solutions for public policy and conservation action through the creation of human-centric data, moving beyond existing secondary data available in government repositories.**

***K-strategy projects*** are designed for systemic, long-term impact by addressing public policy issues and creating human-centric data to inform conservation strategies. Key initiatives include:

- *Systemically Identifying Public Policy Issues:* A shortlisting exercise is underway to identify critical public policy challenges that intersect with conservation goals. This process aims to provide actionable solutions with large-scale impact by aligning conservation efforts with policy frameworks.
- *Creating Human-Centric Data:* We are pioneering the generation of primary human data to design case-and-place-based prescriptive solutions. This approach moves beyond reliance on secondary



government data, enabling tailored interventions grounded in empirical social science evidence.

- *Socio-Economic Studies for Konkan Sadas Prioritisation:* This flagship project prioritises the Konkan landscape for conservation action by integrating biological and socio-demographic parameters. The study serves as a case study for CBS-type projects, providing empirical evidence to inform conservation strategies and offering actionable inputs to partners.
- *Establishing Scientific Credibility:* We aim to have eight key papers from our three major CBS projects accepted for publication in peer-reviewed journals, alongside five comprehensive reports. These publications will solidify The Habitats Trust's reputation as a science-driven organisation, enhancing the credibility of our conservation interventions. Papers are being submitted to international organisations.

**We are pioneering the generation of primary human data to design case-and-place-based prescriptive solutions.**

**r-strategy projects** focus on rapid, community-driven assessments to inform immediate conservation priorities. Key initiatives include:

- *Community Baseline Surveys:* We are reviewing baseline surveys in the Dudhwa-Pilibhit landscape, Lakshadweep, and the West Coast (Karnataka and Goa) to understand community preferences and environmental consciousness. These surveys provide critical insights into local attitudes and behaviours, shaping targeted conservation interventions.
- *Environmental Consciousness in Children:* This initiative explores how environmental awareness is fostered among children, aiming to cultivate a conservation ethic in future generations.

## PROJECTS

### ***Public Policy: Systematically Identifying Public Policy Issues***

The shortlisting exercise to identify public policy issues relevant to conservation is ongoing. This initiative focuses on aligning conservation goals with policy frameworks to ensure systemic,

scalable impact. Progress includes stakeholder consultations and preliminary analyses to prioritise policy areas for intervention.

## **KONKAN SADAS SOCIO-ECONOMIC STUDY**

### ***Introduction***

Large areas across the Northern western ghats and Konkan region (including the study sites - Ratnagiri and Sindhudurg districts) are covered with rocky outcrops. Apart from being home to several endangered, and endemic plant and animal species, new species are being continuously discovered on these plateaus. Rocky outcrops also play a key role in water catchments.

With shifting preferences, governance, and aspirations of the residents, the outcrops on these plateaus are now under the risk of being lost. The major threats are anthropogenic such as mining, construction, plantation, industries, tourism activities, burning, and other uses (Watve, 2008). In addition, areas under rocky outcrops are classified as wastelands in government records (Wasteland Atlas of India, 2019).

In light of the conservation significance of large plateaus at risk for being sold and developed, in a landscape otherwise grappling with economic and social challenges, an extensive psychological study of the kind being proposed becomes important for concerns regarding conservation and welfare in the landscape.

### ***Goals***

To model behaviours and their antecedents of stakeholders to design an intervention aimed at conservation of rocky outcrops of Konkan. To understand the conservation mindedness of people in the landscape and design an intervention towards conservation of rocky outcrops and lateritic plateaus in the landscape.

### ***Key Collaborator***

Sahyadri Nisarga Mitra

### ***Region***

Ratnagiri and Sindhudurg Districts

**Apart from being home to several endangered, and endemic plant and animal species, new species are being continuously discovered on these plateaus.**

### ***Updates 2024-25***

- Development of seven psychometric instruments to understand human-nature relationships.
- Collection of socio-demographic hamlet data
- Data collection of 3000 households across two districts on various socio-economic and psychological variables

The Konkan Sadas project is a cornerstone of our K-strategy, aimed at prioritising the Konkan landscape for conservation action. Key progress includes:

- **Team Development:** A field coordinator and data collectors have been onboarded and trained to ensure high-quality data collection.
- **Data Compilation and Validation:** Secondary data compilation is complete, and psychological scales have been validated to ensure robust data collection.
- **Sampling and Data Collection:** Sampling is based on biological and socio-demographic parameters, with data collection ongoing across 14 instruments, 50 attributes, and over 400 indicators. The study spans 2 districts, 9 talukas, and 48 villages, ensuring comprehensive coverage.
- **Outcomes:** This project will provide a case study for CBS-type initiatives, offering empirical social science evidence to guide conservation action and inform partners.

### ***Next steps***

- **Analysis of the data collected** followed by analysis, report writing, and paper submissions. **Intervention Design:** Develop and pilot an intervention design for the Konkan landscape, leveraging insights from the socio-economic study
- **Publication and Reporting:** Write a paper on the psychometric instruments developed for CBS projects. Complete the publication of eight key papers and five reports to establish scientific credibility.

## **DUDHWA-PILIBHIT LANDSCAPE: UNDERSTANDING COMMUNITY PREFERENCES**

People around protected areas experience higher safety concerns. This data will show systematically and empirically that compatible incentives need to be provided around project areas for



compromising their safety for the public good. This study will also help understand conservation behaviours and map the experience of people living in and around protected areas.

### **Goals**

To understand preferences, decisions and behaviours of communities residing along protected areas.

### **Key collaborator**

None. Being done by THT.

### **Region**

Villages along the Dudhwa, Pilibhit and Katarniaghat Terai region

### **Updates 2024-25**

This project focuses on understanding community preferences for conservation in the Dudhwa-Pilibhit landscape. Progress includes:

- **Team Development:** Two on-field coordinators have been onboarded, and a team of 40 candidates across 54 villages in Katarniaghat, Dudhwa, and Pilibhit regions is being trained for data collection.
- **Survey Design and Training:** A comprehensive survey has been designed, and online training for data collectors is complete. In-person team training is scheduled for April 14–18, 2025.
- **Community Engagement:** Local community members are conducting surveys, ensuring cultural relevance and trust. A robust monitoring system is in place to maintain data quality.
- **Achievements:** A report on the psychographic profile of the Forest Department has been submitted and discussed with a government committee for implementation. Papers on this work, including a study on the Tharu community, have been submitted to journals, with the Tharu study receiving the Best Paper Award at an international conference.

**Local community members are conducting surveys, ensuring cultural relevance and trust. A robust monitoring system is in place to maintain data quality.**

### **Next steps**

- Completion of community survey
- Analysis of the community survey data

## LAKSHADWEEP: COMMUNITY BASELINE SURVEY

### **Goals**

To understand people's behaviour towards marine ecosystems and their conservation behaviours towards these ecosystems and coral reefs in particular.

### **Key collaborator**

Research and Environmental Education Foundation

### **Region**

Multiple islands in Lakshadweep

### **Updates 2024-25**

The Lakshadweep project aims to understand community preferences and environmental consciousness across all islands.

Progress includes:

- Phase 1 Completion: Qualitative data collection has been completed across all islands, with a field coordinator appointed to oversee operations.
- Instrument Development: Instruments are being developed based on Phase 1 findings and are being piloted on the islands.
- Data Collection Preparation: A team of data collectors is being onboarded and trained for large-scale data collection across all islands.
- West Coast Expansion: A coordinator for the West Coast (Karnataka and Goa) has been onboarded, with a rapid survey piloted and conducted to inform conservation priorities.

**Qualitative data collection has been completed across all islands, with a field coordinator appointed to oversee operations.**

### **Next Steps**

- Completion of qualitative analysis
- Development of psychometric instruments
- Quantitative data collection

To build on the progress made in 2024-25, the CBS programme has outlined the following priorities:

- Publication and Reporting: Write a paper on the psychometric instruments developed for CBS projects. Complete the publication of eight key papers and five reports to establish scientific credibility.
- Large-Scale Data Collection: Finalise large-scale data collection

in Konkan, Dudhwa-Pilibhit, and Lakshadweep before June 2025, followed by analysis, report writing, and paper submissions.

- **Intervention Design:** Develop and pilot an intervention design for the Konkan landscape, leveraging insights from the socio-economic study.
- **Eye-Tracker Experiments:** Complete eye-tracker experiments in the Konkan landscape to further understand community behaviours and preferences.
- **West Coast Expansion:** Expand rapid surveys and community engagement efforts in Karnataka and Goa to inform conservation strategies.

## CONCLUSION

The Conservation Behavioral Science programme has made significant strides in 2024-25, advancing both K-strategy and r-strategy projects to deliver evidence-based solutions for conservation. By prioritising public policy, creating human-centric data, and engaging communities, we are laying the foundation for large-scale impact. Our ongoing efforts in Konkan, Dudhwa-Pilibhit, Lakshadweep, and the West Coast, coupled with a commitment to scientific rigor, position The Habitats Trust as a leader in conservation behavioural science. The next steps will focus on completing data collection, publishing findings, and designing targeted interventions to drive measurable conservation outcomes.

**By prioritising public policy, creating human-centric data, and engaging communities, we are laying the foundation for large-scale impact.**



# Ecological Restoration Programme



# Ecological Restoration Programme

## PROGRAMME INTRODUCTION

The Ecological Restoration Programme at The Habitats Trust (THT) operates with the mandate of ensuring critical and endangered habitats are recovered through a combination of securing, rehabilitation, and restoration. Since its conception, the Programme has made progress through partnerships and engagements with other organisations, apart from setting up its own in-house restoration operations.

### ***Objectives***

- Expand in-house restoration programme to secure and restore critical habitats.
- Design and execute eco-restoration projects in scientifically robust formats, in collaboration with organisations and individuals.
- Support (technical, technological, and financial) existing eco-restoration projects in India to link up and scale efforts.

## PROJECTS UPDATE

### OLYMPIC FOREST PROJECT, ODISHA

#### ***Introduction***

The International Olympic Association (IOC) has teamed up with the Abhinav Bindra Foundation Trust (ABFT) and Odisha Forest Department (OFD) to create Olympic Forests in Odisha across 22 sites chosen by the OFD. To guide the reforestation towards genuine ecological restoration, IUCN directed ABFT to consult THT as a regional expert. As part of this endeavour, a survey was conducted, recommendations were made, and workshops were held in 2023-24.

#### ***Goal***

To create Olympic forests based on ecological restoration principles, in Odisha.



### ***Key Collaborators***

The International Olympic Association (IOC), Abhinav Bindra Foundation Trust (ABFT), Odisha Forest Department (OFD) and International Union for Conservation of Nature (IUCN).

### ***Region***

Odisha

### ***Updates 2024-25***

Since detailed reports with roadmap and strategy were submitted to the PCCF, followed by workshops and training of OFD staff in the 2023-24 period, a state government change altered the dynamics our key partner ABFT had with both the state leadership and the OFD, and as a result, implementation of the restoration recommendations have been stalled. So, none of the recommendations provided by THT have manifested on the ground in 2024-25 as was originally projected.

### ***Next Steps***

Conclude the Odisha Olympic Forest Project with a well-defined closure report, clear ecological outcomes, and partnership reflections.

## **MYRISTICA SWAMP CONSERVATION PROJECT, KARNATAKA**

### ***Introduction***

This project, led by the Snehakunja Trust, and coordinated and supported by THT, aims to consolidate the endangered Freshwater Swamp habitats in the state of Karnataka. To achieve this, this collaborative pilot project is mapping all Myristica Swamp and other freshwater swamp habitats across the Western Ghats of Karnataka, along with forging relationships with key stakeholders and raising awareness amongst them.

### ***Goal***

Secure and restore freshwater swamp habitats in Karnataka.

### ***Key Collaborators***

Snehakunja Trust

### ***Region***

Western Ghats of Karnataka

### ***Updates 2024-25***

- Freshwater swamps, including those dominated by *Myristica* and *Elaeocarpus* species, are being mapped in Uttara Kannada, Kodagu, and Shimoga districts. The vegetation composition in different swamps is also being quantified through surveys.
- Seeds of various swamp species have been collected and germinated to raise around 10,000 saplings for restoration activities in the coming years.
- Swamp festival conducted with Forest Department officials and staff in Uttara Kannada district.
- Sensors deployed to understand the microclimate requirements of obligatory swamp ecosystem species.
- Complementary sub-project supported with a seed grant to aid in the development of a methodology for soil treatment protocol for swamps.

**Seeds of various swamp species have been collected and germinated to raise around 10,000 saplings for restoration activities in the coming years.**

### ***Next Steps***

Jointly develop a proposal and budget to expand the project in the following year.

## **COASTAL PLANTATION PROJECT, MAHARASHTRA**

### ***Introduction***

Originally projected by THT to be a coastal restoration project, but with project partner Policy Advocacy Research Centre (PARC) pushing for an easily manageable plantation model, this project though intended to mitigate the impact of storms and cyclones on coastal villages in Maharashtra that have been increasingly affecting the west coast of India, has now become a simpler plantation project.

### ***Goal***

Establish an ecological barrier to lessen impact of storms and cyclones on coastal villages of Maharashtra.

### ***Key Collaborators***

Policy Advocacy Research Centre (PARC)



### **Region**

Velas Beach, Coastal Maharashtra

### **Updates 2024-25**

- A grid-patterned planting approach has been taken to plant 6 species selected by PARC within a 100X100 m plot between Velas beach and farmland, with all legal and community clearances obtained.
- A very managed operation has been set up with water tanks, pipelines, and drip-irrigation in the plot to facilitate sapling survival and growth. While this infrastructure enhances initial establishment, it does not fully align with ecological restoration principles, which emphasise replicating the natural conditions experienced by ecosystems and plant communities in the wild.

### **Next Steps**

Conclude the PARC Coastal Plantation Project with a closure report and partnership reflections.

**This project is intended to mitigate the impact of storms and cyclones on coastal villages in Maharashtra that have been increasingly affecting the west coast of India.**

## **TADOBA TIGER RESERVE RESTORATION PROJECT, MAHARASHTRA**

### **Introduction**

This project began with the objective of restoring degraded forest patches along the periphery of relocated villages within the core of the Tadoba Andhari Tiger Reserve (TATR) in Maharashtra. As part of this effort, a native plant nursery has been established, and specific restoration sites have been identified in the designated area in Kolasa Village.

### **Goal**

To restore degraded habitats within Tadoba Andhari Tiger Reserve in Maharashtra.

### **Key Collaborators**

Tadoba Andhari Tiger Reserve Conservation Foundation.

### **Region**

Eastern Maharashtra, Central India.

### **Updates 2024-25**

- Native plant nursery being established in Moharli.
- Dedicated THT staff for project overseeing progress on ground.
- Seed collections with a target of 657 species including trees, shrubs, climbers, and herbs underway. Out of the 657 target species, seeds have been collected for 119, and out of these 119 species, seeds of around 10 species have been germinated.
- Specific restoration sites identified for planting around the relocated Kolasa village within the core of TATR.
- The budget for building a fence around the 4.7-hectare nursery area at Moharli has been cleared following the internal approval process.

### **Next Steps**

- Build the fence.
- Expand nursery collection in number of species and diversity. There is a target of raising 20,000-50,000 saplings belonging to 80-90 different tree species, along with smaller numbers of non-tree species, over the year 2025-26,
- While these saplings mature, planting of around 5000 saplings representing ~50 regionally native species in degraded sites in the core area will begin in early monsoon season of 2025. These saplings will be ordered from a reliable external nursery for which native mother trees and genetic diversity of saplings will be verified prior to purchase.
- Secure and monitor planted areas.
- Develop plans for new sites within TATR.

**While these saplings mature, planting of around 5000 saplings representing ~50 regionally native species in degraded sites in the core area will begin in early monsoon season of 2025.**

# Education and Awareness Programme





# Education and Awareness Programme

## PROGRAMME INTRODUCTION

THT's Education and Awareness Programme uses a comprehensive approach by integrating environmental education into the syllabus taught in the Shiv Nadar Schools, enabling students to become environmentally conscious. It also focuses on interdisciplinary conservation training for Conservation Practitioners across the country. The programme explores opportunities to generate awareness in specific areas of interest through partnerships with various organisations.

## PROGRAMME OBJECTIVES

The Education and Awareness Programme aims to build a deeper public understanding of India's biodiversity and conservation challenges by integrating nature into education, supporting early-career conservation professionals, and fostering public engagement. The programme promotes nature-linked learning by incorporating ecological concepts into school curricula and creating regional-language resources. It empowers young practitioners through an interdisciplinary Conservation Practitioners' Course focused on ecological knowledge, field skills, leadership, and reflective practice with flexible, inclusive access. Public awareness is further expanded through partnerships with institutions like the Border Roads Organisation, the Nature Conservation Foundation, and the Kiran Nadar Museum of Art—bringing wildlife education to new and diverse audiences. By supporting key wildlife conferences, the programme also strengthens networks, facilitates knowledge exchange, and encourages collaborative conservation efforts. Overall, it aims to

**The Education and Awareness Programme aims to build a deeper public understanding of India's biodiversity and conservation challenges by integrating nature into education, supporting early-career conservation professionals, and fostering public engagement.**



cultivate informed, connected, and action-oriented communities that can drive lasting change for India's biodiversity.

## **NATURE INTEGRATION PROGRAMME**

### ***Goal***

Integrate nature-related examples into the school curriculum to nurture students' understanding of the interconnectedness of nature with all subjects, thereby fostering environmental consciousness among students from the Shiv Nadar Schools.

### ***Integration of Environmental Education into the Curriculum***

Based on findings from the previous Teacher's Survey, a chapter-wise template was created to facilitate curriculum integration. Initially implemented in the science curriculum for Grades 6, 7, and 8, this integration has now expanded to other subjects including Mathematics, Social Sciences, and English.

### ***Key Collaborators***

Educators and students at Shiv Nadar Schools

### ***Region***

Uttar Pradesh, Tamil Nadu, Haryana

### ***Updates 2024-25***

- A structured template was defined and shared with schools for this integration exercise.
- Sample chapters for Grade 6 were distributed among teachers for review and feedback.
- Integration for all subjects across Grades 6 to 10 was initiated.

### ***Next Steps***

- Create a Nature Integration syllabus for Early Years to Grade 5.
- Identify experts to contribute to this syllabus.
- Facilitate teacher training to incorporate nature into classroom instruction.
- Complete integration for Grades 6 to 10 and hand over to the school.

## **CONSERVATION PRACTITIONERS' COURSE**

The Conservation Practitioners' Course is a nine-month certification

programme developed in collaboration with the Academy of Continuing Education at Shiv Nadar Institution of Eminence. It combines online learning with a two-week in-person bootcamp, equipping conservationists with interdisciplinary, practice-oriented skills.

The 2024–25 cycle marked the programme’s transition from the planning stage to a formal academic offering. This involved building institutional partnerships, refining the curriculum, onboarding faculty, conducting outreach, enrolling participants, and officially launching the programme.

### **Goal**

Transition the Conservation Practitioners’ Course into a fully institutionalised certificate programme.

### **Key Collaborator**

Academy of Continuing Education, Shiv Nadar Institution of Eminence

### **Region**

Pan-India (online learning + two-week in-person bootcamp)

### **Updates 2024-25**

- *Institutional Partnerships:* The programme is formally hosted within the Academy of Continuing Education and involves field experts as faculty.
- *Course Design:* A detailed curriculum was developed with inputs from practitioners, researchers, and educators. A structured course flow including assessments, grading, and final projects was established.
- *Faculty Onboarding and Coordination:* 15 faculty members were onboarded, each contributing to specific modules.
- *Outreach and Applications:* A multi-platform outreach campaign yielded over 100 registrations. From these, 28 candidates completed applications and 16 were selected.
- *Scholarships:* Needs-based scholarships were awarded to seven participants, covering 50%–90% of the course fees.
- *Course Launch:* Officially launched on March 28, 2025, followed by

**A detailed curriculum was developed with inputs from practitioners, researchers, and educators. A structured course flow including assessments, grading, and final projects was established.**

ongoing online sessions.

### **Next Steps**

- Ensure smooth coordination between faculty and students.
- Onboard faculty for the second term.
- Plan and conduct the in-person bootcamp.
- Collect feedback from participants and faculty.
- Reflect internally on course design and scalability.
- Initiate planning for future cohorts.

## **AWARENESS GENERATION THROUGH ORGANISATIONAL PARTNERSHIPS**

This initiative explores opportunity-based collaborations to raise awareness about wildlife. In the past year, THT partnered with the Border Roads Organisation and the Kiran Nadar Museum of Art.

### **Goal**

Generate awareness regarding wildlife in collaboration with various organisations.

### **Key Collaborators**

Border Roads Organisation – Project Vijayak, Ladakh; Kiran Nadar Museum of Art

### **Region**

For BRO- Zozilla Pass to Leh region, For KNMA – Delhi and NCR

### **Updates 2024-25**

- With the Border Roads Organisation, 15 wildlife messaging boards were installed along the Zozilla Pass to Leh highway. These boards featured five key species and addressed local issues such as speeding and littering.
- With the Kiran Nadar Museum of Art, the following workshops were conducted:
  1. *“Capturing the Perfect Shots from Nature for Storytelling”* by Prasenjeet Yadav
  2. *Nature Journaling Session* by Richa Kedia
  3. *Story Reading Session* by Bhavna Menon

### **Next Steps**

For BRO, install boards in the Project Himank area once the BRO proposal is ready and signed

For KNMA, help connect KNMA Education programme with experts who can conduct sessions for the ‘Triggered by Motion’ exhibition in two locations.

## **SPONSORSHIPS**

### ***Goal***

To support wildlife conferences across the country to strengthen conservation networks and promote knowledge exchange through broader participation.

### ***Key Collaborators***

Students Conference on Conservation Sciences (SCCS), Indian Regional Association for Landscape Ecology (IRALE), Central Indian Landscape Symposium (CILS)

### ***Region***

PAN India

### ***Updates 2024-25***

- Three conferences were supported as partners with THT.
- THT participated in the IRALE as a partner.

### ***Next steps***

- Continue support for the recurring conferences to promote networking of students and faculty across the country.



# Marine Conservation Programme



# Marine Conservation Programme

The Marine Programme was conceived with the aim of securing and conserving threatened marine habitats and ecosystems, with an effort to go above and beyond the limitations inherent to management of this space. Recognising the complex, multi-dimensional nature of most marine conservation issues in the region, it has also evolved into a provider of regenerative solutions for human use of pelagic, coastal, and island habitats.

The Marine Programme works towards the following broad objectives:

- Facilitating the translation of marine conservation science, which has advanced in India in the recent decades, into on-ground management and conservation implementation
- Addressing the complex multi-dimensional conservation problems in the marine space, which more often than not involve economic and social problems behind the ecological symptoms
- Expanding ongoing marine conservation and essential research efforts to potentially critical areas and ecosystems off the radar, such as distant open ocean and deep sea habitats.

**Recognising the complex, multi-dimensional nature of most marine conservation issues in the region, it has also evolved into a provider of regenerative solutions for human use of pelagic, coastal, and island habitats.**

Some of the strategies employed by the programme to achieve these objectives are:

- Identifying critical research gaps hindering conservation action and directing THT's research investment accordingly
- Building and leveraging a network of grassroots partners for a collaborative effort, optimising each partner's capacities towards a shared vision
- Engaging with stakeholders across the spectrum of each identified problem to develop novel conservation solutions that also address their needs



## MARINE CONSERVATION IN THE LAKSHADWEEP ISLANDS

### *Introduction*

Lakshadweep is an archipelago of small sandy islands resting atop age-old reefs. Highly vulnerable to the effects of climate change, they depend heavily on reef health for their structural and functional integrity. Lakshadweep is one of THT's key regions where conservation intervention is urgent and imperative.

THT works in the Lakshadweep Islands in partnership with REEF, on the conservation of coral reef and lagoon ecosystems, with active involvement from islander communities. The project carries out critical research and simultaneously works towards conservation action and sustainable practices in this fragile seascape.

The work encompasses archipelago-wide reef biodiversity documentation, health monitoring and restoration of corals and seagrass, community stewardship programmes, and citizen science.

### *Goal*

Participatory conservation of coral reef and lagoon ecosystems across the Lakshadweep archipelago

### *Key Collaborators*

REEF (Research and Environmental Education Foundation)

**The work encompasses archipelago-wide reef biodiversity documentation, health monitoring and restoration of corals and seagrass, community stewardship programmes, and citizen science.**

### *Updates: 2024-25*

- Reef biodiversity surveys were completed this year in Kalpeni, Androth, and Minicoy. A total of 51 sites across these three islands were surveyed.
- 10 coral transplantation tables were established in Agatti, with a total of 255 coral fragments representing eight genera sourced from the lagoon. Monthly monitoring is conducted to assess survival rates, bleaching, and to remove dead or diseased fragments.
- Reef assessments in 2024 showed severe bleaching, with 84.6% of corals affected. However, assessments of the transplantation sites showed 53% bleaching, 39% healthy corals, and 8% showing pale colouration. Many of the transplanted genera exhibited greater

resilience, sustaining their symbiotic relationships under stressful conditions.

- Three seagrass cages were established in Agatti, with regular monitoring. These cages are set up to assess the growth and survival of two native species, *Cymodocea rotundata* and *Thalassia hemprichii*, and to protect in-situ specimens for subsequent transplantation.
- 12 community outreach events were conducted across five islands. These included clean-up drives, reef exploration, plantation of native flora, workshops about marine biodiversity, fisheries and local ecological knowledge, and themed painting competitions. The events engaged diverse local stakeholders, including school students, women's self-help groups, local environmental organisations, fishermen, police, and Coast Guard personnel.

### ***Next steps***

- Conduct reef biodiversity surveys at Bitra, Kiltan, Chetlat, Kadmat, Amini, Suheli, Valiyapani, and Cheriyanani
- Conduct seagrass surveys in Bitra, Kiltan, Chetlat, Kadmat, and Amini
- Set up seagrass cages in Kalpeni
- Develop a citizen science program in Kalpeni
- Capacity building within the REEF team, to streamline and strengthen the functioning of the project and the organisation.

## **SURVEYS OF DEEP CORAL REEFS USING REMOTELY OPERATED VEHICLE (ROV)**

### ***Introduction***

Mesophotic reefs are reefs lying approximately below the 30m depth mark, and therefore cannot be surveyed using the conventional scuba diving method. These reefs are extensions of shallower and better-studied coral reefs, with a gradual transition of biotic communities, but often comparable to the shallow reefs in richness. In some parts of the world, mesophotic reefs have been found to host a richness of fish life, far exceeding their shallow counterparts.

**Mesophotic reefs are reefs lying approximately below the 30m depth mark, and therefore cannot be surveyed using the conventional scuba diving method.**



Several species exist across both these zones, and since the deeper mesophotic zone is less affected by heat, it is thought to be a safe zone or refugium for some of these species, from which larvae could replenish shallower reefs in the wake of adverse climate events.

However, across much of the world, including in India, these habitats are poorly known. Whether they need conservation attention, and if so, what the nature of this need is, remains even more of a mystery. Many mesophotic reefs lie on the deeper slopes of inhabited islands, and as such, island development could impact them. Others lie on submerged mountainous features in remote oceanic areas, where they may face threats we are yet to understand.

### ***Goal***

Document the biodiversity and health status of mesophotic coral reefs in India, to add to the current scientific understanding of coral reef conservation needs

### ***Key Collaborators***

EyeROV Technologies Pvt Ltd

THT Technology for Conservation team

### ***Region***

Various submarine features and island slopes in India, where the occurrence of mesophotic reefs is inferred from bathymetry charts or local knowledge.

### ***Updates- 2024-25***

In November 2024, a third ROV trial was conducted at Bassas de Pedro, a submerged bank located north of Lakshadweep. Despite being hampered by unforeseen adverse weather, the expedition proved useful to test and confirm the suitability of a more advanced tethered ROV model for this purpose, and its ability to conduct systematic reef surveys.

### ***Next steps***

Conduct further tests to standardise survey protocol to document mesophotic coral reefs. Deployment to be planned in an area where the presence of such reefs has already been confirmed through local knowledge, such as in Lakshadweep.

## REGENERATIVE TOURISM DEVELOPMENT SOLUTIONS IN LAKSHADWEEP

### *Introduction*

The picturesque beaches and vibrant coral reefs of Lakshadweep offer immense potential for tourism, which is currently being scaled up, with development of large-scale infrastructure and a rapid increase in tourist footfall. This brings with it an increased stress on the fragile ecology and structural integrity of these islands, which rest atop submerged coral reefs and also depend on these reefs for a plethora of ecosystem services. Keeping in mind climate change impacts and resource constraints inherent to such islands, while also recognising the importance of tourism to the local economy, THT and its partners aim to develop a local context-based, nature-inspired model for regenerative development. The current work with Biomimicry 3.8 follows a scoping phase, a 'discovery' phase to identify relevant nature-inspired solutions, and a 'create' phase to design tailor-made solutions for the local context. Further, THT aims to engage directly with the Lakshadweep administration to strategise the implementation of these solutions.

### *Goal*

Implement a nature-inspired regenerative development model that serves the interests of stakeholders and safeguards natural processes governing the stability of the Lakshadweep islands.

### *Key Collaborators*

Biomimicry 3.8

### *Region*

The Lakshadweep islands, with a specific focus on developing a model for Kalpeni island, to be replicable in other islands undergoing tourism expansion

### *Updates- 2024-25*

- A 'Genius of Place' report was compiled by Biomimicry 3.8, based on the scoping visit conducted in March 2024 at Bangaram island. It identified ways in which natural systems and organisms in the region address key challenges such as water and energy provisioning, structural construction and waste management.

**It identified ways in which natural systems and organisms in the region address key challenges such as water and energy provisioning, structural construction and waste management.**

- In October 2024, a scoping exercise was conducted in Kavaratti Island, as a site that has undergone a significant degree of infrastructure development.
- A ‘Regenerative Design Playbook’ was compiled by the Biomimicry 3.8 team, with 50 models that are applicable to challenges across these islands, and relevant case studies of their implementation in similar settings.
- To ensure sound selection of models, a comprehensive four-stage vetting process was developed, with multiple criteria to evaluate the viability and efficiency of each model.

### ***Next steps***

- The vetting process is currently underway to select biomimicry models that can be implemented within 3-5 years in Kalpeni island, an emerging tourism hub. Further, THT plans to engage directly with the islanders and Lakshadweep administration for their insights on model selection.
- A detailed economic analysis will be carried out to evaluate the viability of various biomimicry models.

## **CONSERVATION OF CORAL REEFS ALONG INDIA’S MAINLAND COASTLINE**

### ***Introduction***

Several lesser-known coral reefs lie along the coastline of mainland India, with a mostly patchy distribution. Though relatively small in scale, they all host a considerable diversity of marine life and provide important ecosystem services.

The reef communities here have evolved to tolerate conditions such as turbid waters, higher nutrient loads, and heat, but they are now threatened by worsening weather patterns, unregulated development and tourism, and pollution. Their inherent resilience, however, can be bolstered through THT’s interventions.

The project aims to assess the resilience potential of these reefs, and then prioritise critical locations where management interventions can be targeted to secure the wider reef ecosystem across the coast.

The ecological resilience surveys involve evaluating species diversity, resilience-based classification of corals, and functional role-based

classification of reef fish and other organisms. These and other parameters help understand the ‘resilience potential’ of each surveyed site – the ability of the local reef to bounce back from adverse events.

Simultaneously, a connectivity analysis between these sites is underway to determine larval dispersal between these reefs on ocean currents. The results could help further identify reefs that are important larval sources to other reefs around them, thus taking the site prioritisation exercise further.

The findings from the ecological analyses, coupled with simultaneous work by the THT Conservation Behavioural Science team, will be synthesised to understand the status and needs of each site and to prioritise sites for conservation action accordingly.

**The results could help further identify reefs that are important larval sources to other reefs around them, thus taking the site prioritisation exercise further.**

### **Goal**

Assess the potential for resilience and understand the interdependence between individual reef sites across the west coast, to prioritise critical locations for tailor-made management strategies that secure the functionality of reefs across the region.

### **Key Collaborators**

Goa & Karnataka – Barracuda Diving India

Maharashtra – Gomantak Scuba

Gujarat – Sustainable Ecology Foundation

### **Regions**

Maharashtra, Goa, Karnataka, Gujarat

### **Updates 2024-25**

- Data from Karnataka, Goa, and Maharashtra were analysed to produce a matrix of scores for several reef health factors, with a resilience score for each site within each region.
- Surveys in the Gulf of Kutch have been initiated with Sustainable Ecology Foundation, with three sample sites being surveyed presently.
- Analysis of connectivity and dispersal between these regions has been initiated.

### **Next steps**

- Publication of the reef resilience evaluation in a peer reviewed journal



- Presenting the findings and recommendations to stakeholders after finalising a strategy to approach regional-level management.

## INDIAN OCEAN ALLIANCE

### ***Introduction***

The Indian Ocean (IO) harbours Earth's richest marine and coastal biodiversity. The IO's complex geomorphic features (such as submarine ridges, basins, seamounts, continental shelves, and hydrothermal vents), combined with the tropical environment in the region favour high marine biodiversity and endemism. However, a range of unsustainable human activities (such as unsustainable fishing, discharge of pollutants, coastal infrastructure development, intensive shipping, etc.) pose significant threats to this marine biodiversity. Furthermore, due to climate change, the IO's sea surface temperature has warmed at a rate of 0.12°C per decade between 1950 and 2020, putting the region under a permanent heatwave state, and thereby exacerbating the degradation of marine biodiversity. A number of species affected by this, as well as a number of threats to them, are of a transboundary nature, spanning the entire region. Given these challenges, regional collaboration among parties across the IO is important for enhancing long-term marine protection and conservation.

In this context, the alliance was conceptualised during the THT Summit held in February 2024, where Oceans Alive (Kenya) and THT committed to lead the formation of an 'Indian Ocean Alliance' to take this vision forward.

### ***Goal***

To build a network of partners across the Indian Ocean region, for a concerted effort towards addressing the transboundary conservation needs of this vast marine area.

### ***Key Collaborators***

Oceans Alive, Kenya

### ***Regions***

India & east coast of Africa (at present)

**Given these challenges, regional collaboration among parties across the IO is important for enhancing long-term marine protection and conservation.**

### ***Updates 2024-25***

Discussions were conducted with the Ocean Alliance to hone the vision, strategy, goals, and support for the alliance, and to identify next steps towards collaborative projects and network-building.

### ***Next steps***

Specific projects currently run by THT and Oceans Alive will be identified, with the aim of exploring opportunities for scaling these projects up through a collaborative approach. This would involve the exchange of knowledge and know-how, as well as conducting cross-regional field trials of novel methods and technologies.

## **INDIAN OIL SARDINE PROJECT**

### ***Introduction***

Among all of India's fisheries, the Indian Oil Sardine fishery, based off the west coast of India, tells a story that demands urgent attention. This species has held a vital place in the economies, livelihoods, nutrition, and culture of the human communities living across this region. The fishery has undergone declines and recoveries in the past decades, but in recent years, the drops seem to be getting more prolonged and frequent, and the recoveries are shorter-lived. The result is that the entire economy centred around this species suffers, livelihoods and nutrition are affected, and there are likely ecological impacts in the sea that are not being documented.

This is a story taking place over many decades, and needs to be viewed through multiple lenses and from the perspectives of people — fishers, traders, consumers, and researchers — connected to this species in different ways. Moreover, beyond the species itself, this represents a picture of the pelagic ecosystem and its status in India, and underscores the need for better management of this important resource.

THT is documenting these facets and their interconnectedness in the form of a film, which will be presented not just to the general public, but also to fishers, boat owners, fishery managers, and

**Moreover, beyond the species itself, this represents a picture of the pelagic ecosystem and its status in India, and underscores the need for better management of this important resource.**

decision-makers. While conservation and management efforts will be part of the film, it will acknowledge that adverse issues may not be due to a singular cause or the sole responsibility of a particular stakeholder, but many factors, some of which are beyond local control.

### ***Goal***

To bring together existing pieces of knowledge about the Indian Oil Sardine, and its management needs as a representative of the pelagic ecosystem off India's Western coast, through a film.

### ***Key Collaborators***

Evanesence Studios

### ***Regions***

Karnataka

### ***Updates 2024-25***

- Filming was completed in 2024, with the film now in its final stages.
- An in-depth study of the economics of the Indian Oil Sardine fishery was conducted by economists working with THT, and produced in the form of a report.

### ***Next steps***

- Prepare a screening strategy for the film, and conduct screenings based on that
- Publish the economics study, with its significant findings, in a peer-reviewed academic journal

## **MARINE CONSERVATION WITH THE INDIAN NAVY**

### ***Introduction***

As a leading maritime defense force in the Indian Ocean region, the Indian Navy (IN) has a vast footprint across Indian seas and beyond. The IN wishes to address the issue of the global impacts of naval operations on biodiversity and the environment, and to lead by example by incorporating ecologically responsible practices within its realm of operations. This led to THT and the IN being party to an MoU that, among other objectives, aims to: (1) reduce the ecological footprint of Naval bases, through responsible infrastructure development and waste management (2) address the

unintended impacts of naval SONAR pinging on marine mammals, by adopting guidelines for the safe operation of SONAR when marine mammal presence is detected. Additionally, THT also works with the IN towards collection of biologically valuable data during Naval expeditions, owing to the IN's ease of access to poorly studied offshore areas.

### **Goal**

Collaboratively minimise the ecological impact of the Indian Navy's operations on marine ecosystems, and facilitate scientific gap-filling on data deficient species and habitats

### **Key Collaborators**

Indian Navy, various subject matter experts and key service providers for each sub-project

### **Region**

Several areas under naval control along the Indian coastline, and the open ocean areas where the Navy operates

### **Updates 2024-25**

- A report titled "Effects of Naval Sonar on Marine Mammals and Steps Towards Impact Mitigation by the Indian Navy and The Habitats Trust" was submitted to the Indian Navy in April 2024. It provided an overview of known information about this threat, along with guidelines to reduce negative impacts of SONAR pinging on marine mammals.
- A work plan was formulated with the Kochi Naval base (INS Venduruthy) and AlphaMERS to install a Floating Trash Barrier near the base to capture riverine debris before it disperses into the sea.
- In August 2024, THT and Indian Navy (IN) organised a seminar to mark one year of the partnership, to discuss milestones THT and IN achieved since the signing of the MoU, and to deliberate on next steps. THT also presented an annual report during this event.
- THT and IN jointly observed two events, on World Environment Day (5th June) and World Oceans Day (8th June), at six naval bases across the country. Guest lectures and field outings were

**A report titled "Effects of Naval Sonar on Marine Mammals and Steps Towards Impact Mitigation by the Indian Navy and The Habitats Trust" was submitted to the Indian Navy in April 2024.**



held for naval staff at these locations.

- A meeting was held between the Chief of Naval Staff (CNS) and THT's founder trustee Mrs Roshni Nadar Malhotra, to revisit and reiterate the commitment made under the MoU.
- Installed a gazebo in INS Kadamba to facilitate IN personnel to observe important natural areas in the base and surrounding waters

### ***Next steps***

- IN to direct Naval bases to collect marine mammal data on their voyages, to be shared with THT periodically. THT to conduct training on marine mammal identification and data collection for the IN staff.
- Continue discussions with IN for effective and practical implementation of SONAR guidelines

## **CONSERVATION OF MARINE SPECIES AND ECOSYSTEMS WITH INDIAN COAST GUARD**

### ***Introduction***

The Indian Coast Guard (ICG) is the one of the maritime agencies which is on constant watch over India's territorial waters. The charter of the ICG mainly is to ensure maritime law enforcement, carry out search and rescue operations, and protect India's oceanic and offshore resources from illegal exploitation or damage due to accidents such as oil spills.

The Habitats Trust, in collaboration with the HCL Foundation, formalised an MoU with the Indian Coast Guard in 2024 to form a strategic partnership aimed at addressing critical marine and coastal conservation challenges through following objectives:

- Identification and removal of ghost nets from Indian seas and coasts
- Conservation of Sea Turtles in Indian Waters
- Marine mammal rescue and critical data collection
- Science-based recommendations to lower the ecological footprint of the Indian Coast Guard
- Gap-filling in scientific understanding of marine biodiversity and conservation
- Sensitise and train Indian Coast Guard personnel on environment and biodiversity conservation through training

### **Goal**

Work together to secure India's coastal, oceanic, and island habitats and species, and engage the Indian Coast Guard bases in impactful local-level work geared towards conservation.

### **Key collaborators**

Indian Coast Guard, HCL Foundation, multiple regional on-ground partners

### **Region**

Several areas under the watch of the Coast Guard along the Indian coastline and in the Exclusive Economic Zone of Indian seas

### **Updates 2024-25**

- On 19th September 2024, a Memorandum of Understanding was signed for this project, between the Indian Coast Guard, The Habitats Trust and HCL Foundation, at the Coast Guard Headquarters in New Delhi.
- A lagoon clean-up activity in association with Indian Coast Guard and Indian Navy was conducted at Minicoy Island, Lakshadweep for Republic Day, 26th January 2025. Approximately 3.5 tons of marine debris was removed from the lagoon and processed for further segregation and transportation to the mainland for recycling.
- An event on intertidal biodiversity was conducted on 29th March 2025 at Narara Marine Sanctuary, in collaboration with THT's local partner Sustainable Ecology Foundation (SEF). The event, which had 30 attendees from the Indian Coast Guard Station Vadinar, was aimed at raising awareness about the critical importance of marine ecosystems in the region.

**Approximately 3.5 tons of marine debris was removed from the lagoon and processed for further segregation and transportation to the mainland for recycling.**

### **Next steps**

- The marine team will conduct training on marine mammal identification and data collection for Coast Guard staff. The trained staff are to collect data on patrolling voyages and share it with THT periodically.
- Conduct collaborative ghost net removal at sites that are critical habitats for sea turtles with local ICG stations.
- Plans are underway to conduct collaborative activities on International Coastal Cleanup Day 2025.



# Terrestrial and Freshwater Programme



# Terrestrial and Freshwater Programme

## INTRODUCTION

India's forests, grasslands, and freshwater systems face unprecedented threats despite their ecological importance. THT's Terrestrial and Freshwater Programme serves as a critical problem-solver, targeting conservation gaps for critical terrestrial and freshwater habitats across India's diverse landscapes. This programme empowers experts with resources and technical support to implement effective solutions that preserve endangered ecosystems and their unique species before they vanish forever.

**THT's Terrestrial and Freshwater Programme serves as a critical problem-solver, targeting conservation gaps for critical terrestrial and freshwater habitats across India's diverse landscapes.**

## PROGRAMME OBJECTIVE

- Identify and fill broad gaps in ecological knowledge and conservation requirements in terrestrial and freshwater landscapes. This is achieved through research and evidence-based intervention, and a network of partners.
- Establish a strong network of teams across India, working with the common goal of human well-being through inclusive biodiversity conservation.

In 2024-25, Terrestrial and Freshwater Programme had 13 active programmes with multiple projects, and 15 partners/collaborators working in over 28 states. It has a direct impact on nearly 7,000 sq km of land and an indirect impact on over 50,000 sq km of wild habitats across India.

## THE UP GRASSLANDS PROJECT (BENGAL FLORICAN CONSERVATION PROJECT)

### *Introduction*

The alluvial grasslands of Terai are among the most threatened



ecosystems with many grass-lands obligate species facing extinction threats. Conserving these grasslands by working with the stakeholders to ensure a healthy and functional habitat is a priority. Grasslands are threatened by rapidly changing ecologies and ill-planned management regimes, followed by anthropogenic pressures outside the protected areas. The challenges need to be addressed holistically to ensure the survival of iconic species such as the Bengal Florican and the grassland habitats.

### **Goal**

To conserve the alluvial grasslands of Uttar Pradesh and its obligate species, with Bengal Florican as a model species.

### **Key Collaborators**

Uttar Pradesh Forest Department

### **Region**

Dudhwa and Pilibhit Tiger Reserves in Uttar Pradesh, India

### **Objectives**

- Identify important sites and understand the management impact on alluvial grasslands.
- Support the Forest Department in conserving grasslands and provide technical inputs.
- Address grassland conservation issues outside protected areas.

### **Updates 2024-25**

- Submitted the draft Tiger Conservation Plan 2025-35 (grassland section) to Dudhwa Tiger Reserve
- Published two scientific notes from surveys conducted in Dudhwa across the seasons (West Himalayan Bush Warbler, Rufous-vented Grass Babbler)
- Conducted initial dialogues with the UPFD to initiate the Bengal Florican reintroduction programme
- Submitted the official recommendations based on Dudhwa and Pilibhit Psychographic Reports to the committee to be appraised to the CM for inclusion in HR policies

### **Next Steps**

- Formally presenting THT's Bengal Florican reintroduction proposal to the UPFD.

## ARMED FORCES PROJECT

### **Introduction**

Ladakh, located at the northern frontier of India, holds immense strategic importance, making it a key region for national security. Beyond its geopolitical significance, Ladakh is also a unique high-altitude biodiversity hotspot, home to rare and endangered species such as the Snow Leopard, Tibetan Argali, Ladakh Urial, Tibetan Antelope, Black-necked Crane, and Brown Bear. Its fragile ecosystems are critical for both conservation and the ecological stability of the trans-Himalayan region. While the state and UT Forest departments are the main custodians of biodiversity, there is an urgent need to engage with and strengthen the other main stakeholders of the bordering regions, including the Indian Army.

### **Goal**

Long-term biodiversity monitoring and conservation along India's international borders in partnership with the Indian Army.

### **Key Collaborators**

Indian Army and Bombay Natural History Society (BNHS)

### **Region**

Ladakh

### **Objectives**

- Integrating a module on environment, biodiversity and climate change in the army training curriculum
- Reviving the eco-cells in each command of Indian Army and Army Headquarters
- Conducting awareness programmes for army personnel posted in the selected border outposts
- Monitoring of critically endangered wildlife
- Addressing the issues of feral dogs in Changthang region of Ladakh with the help of Indian Army
- Addressing the issue of human-brown bear conflict in Drass region of Ladakh

### **Updates 2024-25**

- Ideal Organic waste composter machines were deployed at two

**Beyond its geopolitical significance, Ladakh is also a unique high-altitude biodiversity hotspot, home to rare and endangered species such as the Snow Leopard, Tibetan Argali, Ladakh Urial, Tibetan Antelope, Black-necked Crane, and Brown Bear.**

pilot sites (Nyoma, Drass) based on assessment of garbage at units.

- Awareness programs have been conducted in 14 army units
- Black necked cranes were extensively surveyed in 11 potential sites in Changthang wildlife sanctuary in 2024.
- A herd of six Tibetan gazelle was observed at Kalak Tartar, the last known habitat for this species.
- 300+ dog sterilisations were done

### ***Next Steps***

- Prepare a detailed module, focusing on the major thematic areas including wildlife laws and acts; biodiversity monitoring & management; community-based conservation; climate change (covering National and State Action Plans for Climate Change, the United Nations Framework Convention on Climate Change, IPCC reports, etc.); and traditional knowledge.

## **HOOLOCK GIBBON CONSERVATION ACTION PROGRAMME**

### ***Introduction***

The Endangered Western Hoolock Gibbon, India's only ape species, inhabits the lowland rainforests of Northeast India. Expanding agriculture and infrastructure have reduced and fragmented its habitat, threatening survival and genetic connectivity. These biodiverse forests also support many other threatened species. Conserving gibbon habitats is crucial not only for the species' survival but also for protecting associated flora and fauna. This, in turn, helps maintain the integrity of functional rainforests, which play a key role in climate change mitigation.

### ***Goal***

To secure key Hoolock Gibbon populations and habitats, improve habitat and genetic diversity connectivity, and identify and implement key recommendations for gibbon conservation. To build capacity among the stakeholders to take conservation action.

### ***Key Collaborators***

Aaranyak, Conservation Initiatives

### ***Region***

Rainforests of Assam, Meghalaya, Nagaland, Arunachal Pradesh, Manipur, Mizoram and Tripura.

## **Objectives**

- Assess population status and distribution of gibbons in Northeast India.
- Assess landscape connectivity for gibbons in select conservation landscapes.
- Assess region-specific threats to gibbons and their habitat.
- Support community-based conservation.
- Undertake capacity building of forest frontline staff and local community to take conservation action.
- Undertake landscape-level habitat change assessment of gibbon populations using geospatial technology.
- Undertake landscape-level monitoring of gibbon populations using genetic tools.
- Evaluate physiological stress in gibbons in human-dominated landscapes through enzyme immunoassays-based analysis of faecal glucocorticoid levels.

## **Updates 2024-25**

- A series of week-long capacity building programs for the forest department were conducted at the Gibbon Conservation Centre in Hollongapar Gibbon Sanctuary, Assam. Additionally, education and awareness programs were conducted across 24 schools in the fringe areas of Namdapha National Park and Tiger Reserve.
- Forest canopy density analysis for the entire state of Assam has been completed for 1989 and 2024.
- Genetic research on isolated gibbon populations made progress with successful DNA analysis from faecal samples and the development of new primers to improve sequencing from low-quality DNA.
- Conducted ecological surveys in Nambor Wildlife Sanctuary, village community forests, and reserve forests of Karbi Anglong to assess the distribution of Hoolock gibbons.
- Over 450 gibbon recordings, containing more than 10,000 call segments, have been analysed using custom classification scripts and manual verification as part of ongoing vocalisation studies.
- Over the past six months, awareness programs were conducted in 8 schools and 9 villages across Karbi Anglong district.

**Over 450 gibbon recordings, containing more than 10,000 call segments, have been analysed using custom classification scripts and manual verification as part of ongoing vocalisation studies.**



- In five Karbi Anglong villages, where social and ecological surveys were conducted, bio-stoves were distributed following community consultations.

### ***Next Steps***

- Jointly produce a threat map which will highlight the severity and spread of threats to hoolock gibbon populations and habitats.

## **PYGMY HOG AND BENGAL FLORICAN CONSERVATION PROJECT**

### ***Introduction***

Pygmy Hog and Bengal Florican are two Critically Endangered grassland specialist species on the brink of extinction, with a global population of around 200 individuals. Sub-Himalayan alluvial grasslands of Assam are some of the last homes for both species. The Pygmy Hog, the smallest wild pig in the world, is extremely susceptible to habitat changes, disturbance, and disease threats. The Bengal Florican, on the other hand, is losing its prime grassland habitat used for lekking and breeding, and is also vulnerable to hunting pressures outside protected areas. Ensuring secure habitats with ideal attributes is critical for the survival of these two species. While the reintroduction of Pygmy Hogs is already underway, the future of the Bengal Florican is yet to be decided.

### ***Goal***

Conserving the rich and diverse sub-Himalayan grasslands for the benefit of dependent endemic species, including the Pygmy Hog (*Porcula salvania*) and the Bengal Florican (*Houbaropsis bengalensis*), and the communities which rely upon them.

### ***Key Collaborators***

Aaranyak, Durrell Wildlife Conservation Trust

### ***Region***

Manas National Park, Orang National Park, and other Sub Himalayan grasslands beyond Assam.

### ***Objectives***

- Research and develop best practices for grassland habitat management and restoration.
- Assess the feasibility of targeted interventions for Bengal Florican

conservation in Assam.

- Explore opportunities for grassland habitat restoration beyond Manas National Park, focusing on other sub-Himalayan sites.
- Promote community-based biosecurity measures for Pygmy Hog survival and enhance livelihood resilience.

### ***Updates 2024-25***

- Community engagement is underway to understand the community's role in preventing the spread of African Swine Flue in small-scale piggeries.
- Experimental grassland plots are actively maintained, with early findings showing late burning boosts grass species density—informing new best-practice guidelines, including a planned “mid-burn” trial.
- Bengal Florican surveys in Orang National Park estimated a population of ~16 individuals, while habitat restoration and community-led biosecurity work progressed around the Pygmy Hog centre, with women playing a key role in pig rearing and management.

**Community engagement is underway to understand the community's role in preventing the spread of African Swine Flue in small-scale piggeries.**

### ***Next Steps***

- Conduct soil type profiling to better understand the presence and absence of Pygmy Hogs, and to establish a baseline for long-term soil health monitoring in Orang National Park.
- Organise capacity-building training for the community team and carry out a household survey to gather socio-economic and ecological information from the community.

## **DECCAN PLATEAU CARNIVORE PROJECT**

### ***Introduction***

Wild canids (Indian Gray Wolf, Golden Jackal, Bengal Fox) and hyenas are among the most under-represented groups of large carnivores in India in terms of scientific research and conservation. The wildlife habitats in the Deccan Plateau, where these species thrive, including the rocky outcrops, dry evergreen forests, woodland savanna, and scrub forests, are lesser known and endangered due to a lack of understanding and appreciation about their importance from a wildlife conservation perspective.

Wild canids are important predators in the Deccan ecosystems, and hyenas are important scavengers in the landscape. A low priority on their conservation efforts may reduce their populations and eventually lead to the disruption of ecological processes in the landscape.

### **Goal**

Conservation of Wild canids and hyenas in the Deccan Plateau landscape of Karnataka

### **Key Collaborators**

Holématthi Nature Foundation

### **Region**

North Karnataka Deccan Plateau

### **Objectives**

- Understand the distribution of three canid species (Indian Gray Wolf, Golden Jackal, and Bengal Fox) and the Striped Hyena across the Deccan Plateau in Karnataka.
- Estimate relative abundance for the three canid species and their prey, and absolute abundance for the Striped Hyena in a few select sites across the Deccan Plateau in Karnataka.
- Evaluate and identify areas with high conservation potential for wild canids and hyenas for conservation investment and protection efforts.
- Develop public support and awareness through outreach activities with wild canids and hyenas as flagship species.

### **Updates 2024-25**

- Completed camera trapping fieldwork across 58 reserved forests in 5 divisions—Raichur, Bagalkote, Koppal, Gokak, and Gadag—covering 916.73 sq km with 547 trap locations.
- Recorded 21 mammal species, submitted 2 reports to the Forest Department, and proposed 4 habitat conservation initiatives.
- Distributed 1,000 copies of the Chincholi mammal pocket guide to the Forest Department for wider community outreach.

### **Next Steps**

- Conduct three workshops to engage journalists by showcasing the uniqueness and value of the landscape, highlighting regional conservation challenges, and offering technical and scientific support to enhance their reporting on important conservation issues.

**A low priority on their conservation efforts may reduce their populations and eventually lead to the disruption of ecological processes in the landscape.**

## A MODEL FOR LANDSCAPE CONSERVATION THROUGH HUMAN-SNAKE CONFLICT MITIGATION

### *Introduction*

Human-snake conflict is a serious global issue, and in India alone, nearly 60,000 lives are lost annually due to snakebites. A major barrier to reducing these deaths is the lack of accurate knowledge about snake ecology and behaviour, which is often based on anecdotal or inaccurate information. There is an urgent need for robust scientific research to address this gap. Establishing India's first state-of-the-art serpentarium will be a crucial step in this direction. It will set a national precedent, establish protocols and quality standards, and enable informed interventions to assess and improve snakebite response and treatment. This facility will also serve as a pioneering research hub, deepening understanding of key issues such as human-snake conflict dynamics, snake ecology and behaviour, venom characterisation and its variation and effects, landscape change and its impact on snake populations, and barriers to the adoption of effective mitigation and management strategies—ultimately supporting science-driven conservation and public health efforts.

**A major barrier to reducing these deaths is the lack of accurate knowledge about snake ecology and behaviour, which is often based on anecdotal or inaccurate information.**

### *Goal*

Designing and setting up the serpentarium, building robust monitoring and ecological field studies, building a baseline understanding of the current reality of human snake conflict in Mysore Rural District and setting up the scaffolding for community-level interventions.

In three years, the project will have tested various human-snake conflict mitigation interventions across the district and developed robust action plans for human-snake conflict mitigation and the conservation of snakes.

### *Key Collaborators*

The Liana Trust



## **Region**

Mysuru Rural District, Karnataka

## **Objectives**

- Building and setting up a serpentarium for research, outreach, and training.
- Conducting research to assess the efficacy of various practices and interventions in human-snake conflict mitigation.
- Community and landscape research and intervention
- Education, awareness, training and capacity building for conflict mitigation
- Capacity building amongst the Forest Department, NGOs, and rescuers

## **Updates 2024-25**

- The serpentarium has been fully set up and functional since February 2025, with an official inauguration on 10th February. This facility will support research and venom extraction once required clearances are obtained.
- Ongoing and planned experiments include the use of actual gumboots to study snakebite effects and upcoming mosquito net experiments. Behavioral research for Common Krait is set to start in April 2025, focusing on predatory mechanisms and prey responses.
- Rodent surveys began in February 2025 with local farmer participation and Irula community support. Plans include habitat modifications like live edges, fencing, and owl perches to manage rodent populations, with surveys scheduled bi-monthly to gather ongoing data.

**The serpentarium has been fully set up and functional since February 2025, with an official inauguration on 10th February.**

## **STATE OF INDIA'S BIRDS**

### **Introduction**

India is one of the richest countries in terms of bird life. With a large number of peer-reviewed science and reports declaring the global decline of birds, special focus is needed to know how the birds in India are faring, and the distribution and abundance trends over

time. This information is needed not just for threatened species but for common species as well before they become threatened, such that effective conservation action can be implemented.

### **Goal**

To provide assessments of the conservation status of Indian bird species, by estimating their abundance trends. In the long term, the assessments should help create better strategies for the conservation of both abundant and threatened species.

### **Key Collaborators**

Nature Conservation Foundation (Bird Count India)

### **Region**

Pan India

### **Objectives**

- Use best available data to evaluate the conservation status of Indian species
- Synthesise what is known about priorities and action for bird conservation in narrative form
- Produce a variety of research outputs on top of the core SoIB assessments
- Make available a variety of accompanying digital products for use by various stakeholders
- Identify knowledge gaps and advocate to fill them
- Engage with national and international conservation policy and action
- Engage deeply with outreach and communication with multiple audiences

### **Updates 2024-25**

- Over 50 million eBird data records were analysed to update bird distribution and population trends for India and its states, though challenges in uncertainty estimation due to statistical software issues are being actively addressed with alternative methods.
- Successful outreach and awareness for bird monitoring data was achieved through the launch of MYNA 2.0 tool, social media

**With a large number of peer-reviewed science and reports declaring the global decline of birds, special focus is needed to know how the birds in India are faring, and the distribution and abundance trends over time.**

campaigns, regional language videos and a successful engagement at Kawal Bird Festival with over 350 stakeholders.

- The main methods paper for SoIB was accepted by a peer-reviewed journal, a threats review paper is near completion, and SoIB recommendations contributed to IUCN Red List assessments for three Indian bird species.

### ***Next Steps***

- Continue annual updates on species distribution and population trends, with the next update to be published on the SoIB website by Dec 2025.
- Upgrade MYNA to version 3.0 and beyond, enhancing functionality with quarterly data reporting, multilingual support, and improved usability and metrics.
- Begin scoping and preparatory work for the next comprehensive SoIB report, slated for release in November 2027.

## **ECOTRACK**

### ***Introduction***

The ECOTRACK project is designed to advance the post-release monitoring and management of Indian wildlife. Escalating human-wildlife conflicts in Maharashtra, fueled by urban expansion and agricultural encroachment, pose serious challenges to conservation. Such conflicts not only imperil individual animals but also undermine efforts to preserve biodiversity. The project aims to craft a comprehensive framework for the post-release surveillance of rehabilitated wildlife. It will use cutting-edge tracking technologies and meticulous field observations to glean invaluable insights into the behavioural adaptations, ecological roles, and habitat integration post-release. ECOTRACK proposes a methodical approach that enhances understanding of wildlife ecology and informs future conservation strategies. It focuses on extensive tracking, thorough analysis, and collaborative research to cultivate a future where conservation is guided by detailed knowledge of animal behaviour and ecosystem dynamics.

**The project aims to craft a comprehensive framework for the post-release surveillance of rehabilitated wildlife.**

### **Goal**

To establish a comprehensive framework for the post-release monitoring of rehabilitated wildlife, significantly enhancing our understanding of their adaptation, survival, and ecological impact in both natural and human-dominated landscapes, while facilitating the systematic collection of biological samples for genetic analysis and conservation research.

### **Key Collaborators**

RESQCT

### **Region**

Western region of Maharashtra

### **Objectives**

- Implement a comprehensive post-release monitoring framework
- Establish long-term data repository for conservation strategies
- Collaborative research

### **Updates 2024-25**

- The first-ever Eurasian Otter in Pune district was discovered and successfully rescued; its habitat was assessed through sign surveys and camera traps, followed by its release to a minimally disturbed stream.
- Bhamburda Reserve Forest in Pune was monitored through camera trapping across 400+ acres of urban forest resulting in the development of a preliminary biodiversity checklist.
- Ensured survey completion across all divisions and submitted the preliminary division-level analysis report.
- Designed and rolled out the Habitat & Wildlife Interaction Study(HWIS) Framework; trained 230+ field staff across four Forest Divisions in Pune Circle.
- Developed EcoTrack, a web-based application for spatial visualisation and post-release monitoring, was developed and is currently undergoing implementation testing, with historic data mapped for two hyenas and one wolf.
- Initiated development of Wildlife Rehabilitation SOPs for commonly admitted species, including raptors, passerines, felids, canids, primates, and chelonians.

### **Next Steps**

- Deploying tracking devices and initiating real-time monitoring of released animals, continuing focused site monitoring such as for



otters.

- Uploading collected HWIS and PRM (post release monitoring) data into the centralised digital portal and resume biological sample collection following finalised protocols.
- Prepare and submit seasonal reports and conservation updates to the Forest Department, including training materials, threat assessments, and biodiversity data.

## CREATING A DRAFT NATIONAL GRASSLAND POLICY OF INDIA

### ***Introduction***

Grasslands are vital ecosystems that provide immense ecological and socio-economic benefits. They support diverse species, including iconic wildlife like rhinos, lions, tigers, the Great Indian Bustard, and Floricans. Grasslands play a key role in climate regulation by storing about one-third of the world's terrestrial carbon. They also deliver essential ecosystem services such as water filtration, flood prevention, groundwater conservation, soil erosion control, and offer cultural and recreational value. In India, grasslands span from Gujarat's Banni region to the Terai near the Himalayas but remain poorly protected, especially outside forest and Protected Areas (PAs). Even within PAs, they are threatened by overgrazing, ill-suited tree plantations, and invasive species like Lantana and Prosopis. Less than 5% of India's grasslands are protected, and many are wrongly classified as wastelands, prompting misguided tree-planting efforts. A national policy is urgently needed to protect these ecosystems, which are crucial for biodiversity, climate resilience, and the livelihoods and heritage of local communities.

**In India, grasslands span from Gujarat's Banni region to the Terai near the Himalayas but remain poorly protected, especially outside forest and Protected Areas (PAs).**

### ***Goal***

Below we list the goals that will be primarily led by Conservation Action Trust, and implemented in collaboration with THT:

- To draft a National Grassland Policy based on interactions with Government Officials and other NGOs.
- To raise awareness about the importance of grasslands.

### ***Key Collaborators***

Conservation Action Trust

### ***Region***

Gujarat, Rajasthan, Maharashtra, Madhya Pradesh, Uttar Pradesh, and Assam

### ***Objectives***

- Expand and enforce legal and physical protection for grasslands, ensuring they are safeguarded under the National Policy.
- Utilise integrated management approaches, including mechanical removal, chemical treatments, and cultural practices, to address invasive species. Implement a ban on planting invasive species to prevent further spread.
- Advocate for sustainable land use and agricultural practices to prevent habitat loss and degradation.
- Educate stakeholders and the public about the importance of grasslands and the need for their conservation.
- Create a comprehensive atlas to map existing grassland habitats, analyse changes, and guide restoration efforts. Prioritise the mapping of high-biodiversity regions and use globally standardised classification systems.

### ***Updates 2024-25***

- Key grassland habitats and local stakeholders from Maharashtra, Gujarat, and Rajasthan have been shortlisted for focused conservation efforts.
- Secondary data on grasslands, including historical grazing policies and current research, is being compiled to support the project.
- Site visits, surveys, and consultations with local NGOs, government officials, and partners were conducted to strengthen collaboration and inform conservation strategies.

### ***Next Steps***

- Visit more grasslands across the country and meet local partners actively working on the protection and conservation of grassland habitats.

## **AVIFAUNA DISTRIBUTION GAP FILLING PROJECT**

### ***Introduction***

State of India's Birds assessment has been vital for updating the

conservation status of many avifauna species in India. But despite massive data from citizen science platforms, many regions in India remain under-surveyed and thereby making correct assessments of certain species in some regions difficult. Hence, this project was conceived to identify and fill these gaps in distribution knowledge of avifauna such that correct assessments for SoIB trends can be made and then the knowledge can be used to develop conservation strategies in collaboration with national and international agencies of concern.

### **Goal**

Generate key distribution knowledge to strengthen bird conservation assessments

### **Key Collaborators**

Nature Conservation Foundation (Bird Count India)

### **Region**

Under-sampled regions in the country:

- Northern Deccan Plateau
- UP and Bihar
- North-west of India
- Parts of North-east India

### **Objectives**

- Generate systematic data for four seasons (as defined in SoIB) to calculate the abundances of birds in the under surveyed regions
- Generate capacity and interest in birdwatching.
- Produce communication outputs tailored to specific audiences

### **Updates 2024-25**

- Data from under-sampled regions in Northern Deccan revealed concerning absences of key species like Indian Courser, Great Grey Shrike, and Chestnut-bellied Sandgrouse, prompting collaboration with BirdLife International for conservation actions.
- Multiple multi-day birdwatching and monitoring workshops were conducted in February 2025 to build local capacity and interest.

**Multiple multi-day birdwatching and monitoring workshops were conducted in February 2025 to build local capacity and interest.**

### ***Next Steps***

- Fieldwork is being planned for North-East India and Northern Uttar Pradesh.

## **DEVELOPMENT OF A REPLICABLE MODEL TO INTEGRATE BIODIVERSITY CONSIDERATIONS AND CLIMATE MITIGATION ACTIONS IN MOSAIC LANDSCAPES**

### ***Introduction***

There is growing global interest in combining efforts to tackle climate change and biodiversity loss, aiming to strengthen ecosystems and the communities that rely on them. Integrating these goals can increase funding for species and habitats, especially beyond protected and forested areas, while enhancing the value of climate investments through biodiversity co-benefits. However, this integration faces challenges due to the lack of tools that jointly measure biodiversity and climate benefits, insufficient models for effective interventions across varied habitats, and weak links to sustainable financing. These gaps are particularly critical for landscapes outside formal protected networks. This project seeks to address these challenges over the next three years in two key Madhya Pradesh landscapes: Dhar and Sanjay Dubri-Bandhavgarh. Both reflect common conditions in Central India, with limited conservation focus, data gaps on biodiversity, and climate mitigation potential across forests, grasslands, and croplands.

**There is growing global interest in combining efforts to tackle climate change and biodiversity loss, aiming to strengthen ecosystems and the communities that rely on them.**

### ***Goal***

The overall goal is to develop and demonstrate a replicable model for the purposeful alignment of biodiversity conservation with climate change mitigation, for landscapes that include forests, grasslands, and croplands, along with associated wetlands and waterbodies. This model will include the development of planning tools and design of field interventions, which will be tested and validated via field pilots. It will also incorporate techniques for long-term sustainability via linkages with both governmental and other sources of financing.



### **Key Collaborators**

The Nature Conservancy (TNCC)

### **Region**

Madhya Pradesh: Dhar district and area between Sanjay Dubri and Bandhavgarh tiger reserves

### **Objectives**

- Identify and prioritise areas (across forests, grasslands, and croplands, along with associated wetlands and waterbodies) where high biodiversity value aligns with high climate change mitigation potential.
- Develop a set of replicable interventions (including detailed plans) that align biodiversity benefits with climate mitigation potential for each habitat.
- Demonstrate prioritised interventions via field pilots.
- Test and validate mechanisms for long-term financial and institutional sustainability of field interventions.

### **Updates 2024-25**

- A biodiversity value quantification model was refined.
- Discussions with the global TNCC team have been underway to understand and adapt their Natural Climate Solutions methodologies for forests, cropland, and grasslands.

### **Next Steps**

- Further refining of the Naturebase tool

## **SANCTUARY ASIA**

### **Introduction**

The Sanctuary Nature Foundation's flagship publication, Sanctuary Asia magazine, has been published continuously since 1981 under the guidance of its founder and editor, Bittu Sahgal. In 1984, responding to strong demand, a youth-focused edition, Sanctuary Cub, was launched. The foundation was registered as a Section 8 company in 2015 under the Ministry of Corporate Affairs, with a mission to create science-based communications, design, and implement conservation projects, and address interconnected human, wildlife, and climate challenges. Beyond the print and digital versions of Sanctuary Asia, the foundation produces books, responsible wildlife tourism guides, and organises nature festivals,

expeditions, workshops, and discussions. Operating at the intersection of biodiversity, economics, and climate change, it fosters collaboration and conflict resolution among diverse stakeholders worldwide. With a vision to create a future rich in biodiversity, a sustainable climate, and equity for all, the Sanctuary Nature Foundation continues to advance India's wildlife and nature conservation movement. As of October 2024, Sanctuary Asia reaches an annual circulation of approximately 5,000 print copies and 25,000 digital copies.

### **Goal**

To promote and strengthen wildlife and nature conservation in India through science-based communication, collaborative projects, and inclusive advocacy—fostering a sustainable future with abundant biodiversity, a stable climate, and equitable opportunities for all.

### **Key Collaborators**

Sanctuary Nature Foundation

### **Region**

Pan-India

### **Objectives**

- Six issues of Sanctuary Asia magazine will be published annually.
- Six issues of Sanctuary Cub magazine will be published annually.
- Every edition of Sanctuary Asia will carry a story on the work and partnerships of THT.
- TSNF and THT will organise at least two joint social media campaigns annually.
- THT and TSNF will organise at least two joint events (one online and one offline) annually.
- TSNF will provide access to its historical content, including the photo library for THT's work.

### **Updates 2024-25**

- Publication of two issues of Sanctuary Asia magazine

### **Next Steps**

- Planning of events in collaboration with THT

**With a vision to create a future rich in biodiversity, a sustainable climate, and equity for all, the Sanctuary Nature Foundation continues to advance India's wildlife and nature conservation movement.**

## KONKAN SADAS PROJECT

### **Introduction**

The thin strip of lateritic plateaus in the Western Ghats is a habitat that is under threat from human pressures. These plateaus in Maharashtra, especially in the districts of Ratnagiri and Sindhudurg, face immense threats from quarrying, plantations, and rapid urbanisation in the landscape that mostly consists of private lands.

These areas are special because of the high rates of endemism in flowering plants and also because they form headwaters of many important rivers in the region acting as the water providers for millions of people. THT's partner from the grants programme, Bombay Environmental Action Group (BEAG), has worked on understanding the uniqueness of the landscape. It was discovered that there is an urgent need to scale up the work and involve all stakeholders of the region to identify site-specific intervention measures for effective conservation.

**These plateaus in Maharashtra, especially in the districts of Ratnagiri and Sindhudurg, face immense threats from quarrying, plantations, and rapid urbanisation in the landscape that mostly consists of private lands.**

### **Goal**

Form a multi-stakeholder partnership and implement effective conservation measures to protect the Kokan Sadas and their bio-cultural heritage

### **Key Collaborators**

Multiple stakeholders

### **Region**

Lateritic outcrops in the districts of Ratnagiri, Sindhudurg, and Raigad

### **Objectives**

- Identify and bring together various diverse stakeholder groups interested in conserving the bio-cultural heritage of Konkan Sadas.
- Test various behavioural, economic, and ecological intervention strategies and implement them for long-term protection of the biocultural heritage of the region.
- Derive ecological functioning baselines for habitats with Konkan

Sadas as a model

***Updates 2024-25***

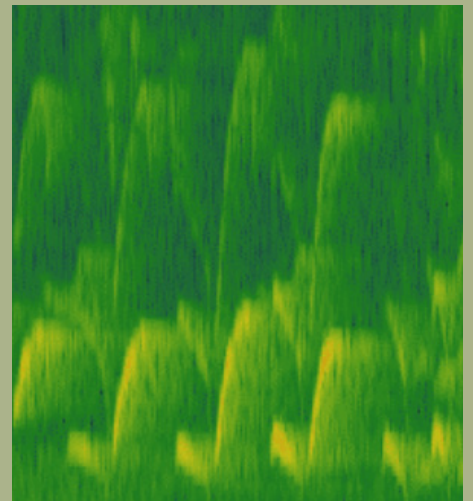
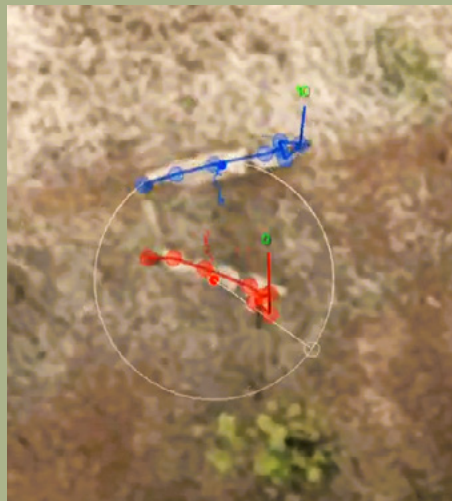
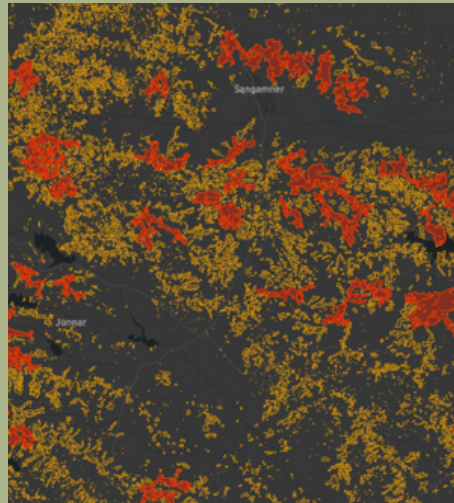
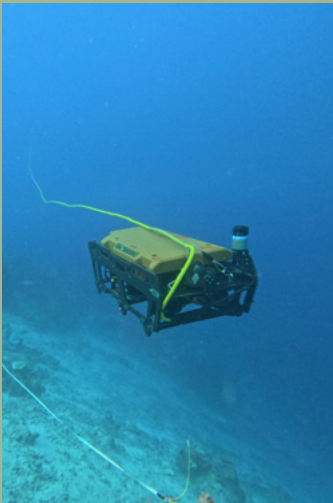
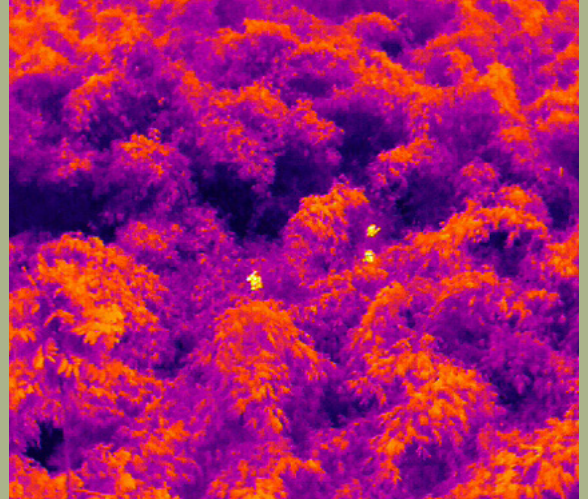
- Identified key resource people who will contribute to the project

***Next Steps***

- Formalising a project proposal for work in this region
- Field visit to the Sadas



# Technology for Conservation



# Technology for Conservation

## INTRODUCTION

Technology for Conservation (TfC) at THT aims to innovate, develop, adapt, fill gaps, and procure various technologies to speed up wildlife/habitat conservation and research.

It aims to harness the power of technology for the sake of conservation rather than developing or innovating it for the sake of technology.

TfC believes that technology can help scale and speed up global conservation efforts.

**TfC aims to harness the power of technology for the sake of conservation rather than developing or innovating it for the sake of technology.**

## OBJECTIVES

- Explore technologies that help break the barriers/limits and take THT to new heights.
- Identify technological interventions to expedite mapping, monitoring, securing, and conserving various ecosystems.
- Look for technological solutions established in other domains that can be adapted to the conservation domain.
- Review various technologies used in conservation and establish their efficacy and relevance.
- Establish technology as a core component to be considered during conservation design discussions.
- Horizon scanning for innovation opportunities and to fill the gaps using applicable technological solutions.

## EXPLORING MESOPHOTIC REEFS WITH ROVS

### *Introduction*

Coral reefs, one of the most critical ecosystems threatened with a range of threats, are in urgent need of conservation attention. At

THT, we have an ambitious project to monitor and conserve the coral reefs of India. While various field methods and techniques are being used in this project by the THT team and partners, TfC is exploring various technological solutions to expedite these efforts. Remotely Operated Vehicles (ROVs) are one such tool that has been experimented with, during the past couple of years.

Traditional coral monitoring by divers or fixed platforms is limited in scale, depth, and efficiency, especially in studying mesophotic reefs beyond 30–35 meters. These deeper reefs, which may extend from shallow reefs, host significant biodiversity but remain poorly understood due to logistical and financial constraints. As interest in these zones grows, especially in Lakshadweep, we are exploring technological solutions like ROVs. ROVs offer a cost-effective and flexible alternative to expensive submarines and AUVs (Autonomous Underwater Vehicle).

### **Goals**

- To extend our understanding of Mesophotic zones.
- Explore technological ways to expedite coral reef monitoring work.
- To map coral reefs along the West Coast of India and in the Lakshadweep.
- Find a solution that is scalable and can be standardised.

### **Key Collaborators**

TfC and Marine programmes of THT, REEF and IROV Technologies

### **Region**

Islands and submerged banks of Lakshadweep and its neighbouring regions

### **Updates 2024-25**

During the first two trials, the capabilities of ROVs and the feasibility of their usage to collect data were explored. Considering the possibilities, it was decided to equip the ROV with additional

**While various field methods and techniques are being used in this project by the THT team and partners, TfC is exploring various technological solutions to expedite these efforts. Remotely Operated Vehicles (ROVs) are one such tool that has been experimented with, during the past couple of years.**



payloads to collect quantifiable data.

- Additional payloads that were considered to enable ROV to collect quantifiable data include 4K instead of HD cameras at the front and bottom of the ROV, a bottom camera perpendicular to the ROV, a Laser scalar for size reference, a higher capability ROV, and 3D cameras.
- We attempted an expedition to Bassas De Pedro, a submerged bank to the north of Lakshadweep and experimented with transect surveys using ROV. Though the expedition was disrupted by rough weather and unfavourable sea conditions, surveys were done at four different sites within the bank and collected over 1.5 hours of data.
- Completed surveys near Kalpeni and Androth islands, which included vertical and horizontal transects, quadrats, belt transects, 3D mapping and habitat exploration.

### ***Next Steps***

- Post-processing the collected data to make it analysis-ready.
- Analysing the ecological data collected through transects and quadrat surveys.
- Extracting inferences.
- Assessing the whole approach and planning the next surveys, if necessary, to complete the standardisation of the ROV surveys.

## **LARGE SCALE SEMI-SYSTEMATIC CAMERA TRAPPING**

### ***Introduction***

THT aims to collect ecological data from the habitats, ecosystems, and landscapes that were largely ignored or with deficient data, to understand the presence of various species in those areas and to help determine the importance of such areas and expedite ways to protect them.

### ***Key Collaborators***

Sahjeevan

The Grasslands Trust

Policy Advocacy Research Centre (PARC)

### ***Regions***

Gujarat, Maharashtra, and Tripura



## **Goals**

- To understand the occupancy and fine-scale distribution of wild mammal species in areas outside PAs.
- Capacity building on long-term camera trap based ecological monitoring for THT's local partner organisations.
- Focused efforts in select landscapes to understand the density/ population of target species and implement conservation strategies through suitable interventions. These could include securing landscapes by bringing them under the PA network and CCAs, and exploring economic incentives if appropriate.
- To establish a seamless pipeline to handle camera trap images using the latest technologies to ease data analysis and facilitate quicker inferences.

## **Updates 2024-25**

- Successfully piloted the project and collected data from four different sites.
- The PARC team completed the analysis of the data collected from protected areas (PAs) of Tripura. Surveys led to the first photographic records for the Ferret Badger and the Fishing cat in the state of Tripura.
- The Grasslands Trust completed surveys in Rajewadi (20 sq. km) and Mudhale (38 sq. km) grassland patches and established the presence of wolves, hyenas, foxes and other grassland species. Interestingly, the surveys revealed the presence of Pangolin, one of the first records for this region.
- The Sahjeevan team completed the sampling of a 168 sq. km area around Reshamiya and Chotila villages in Surendrangar district of Gujarat. It was a mixed landscape including patches of reserve forests, revenue wastelands, vidis, gauchar and other community lands. Sampling was intended to understand the presence of wolves, hyenas, jackals, foxes, and other species, as well as their space use. At present, data analysis is in progress.
- Design and other details are finalised for camera trap surveys in 1065 sq. km of Northern Western Ghats between Tamhini Wildlife Sanctuary and Jor Jhambli Conservation Reserve. Deployments will start in April 2025.

**Surveys led to the first photographic records for the Ferret Badger and the Fishing cat in the state of Tripura.**

## **Next steps**

- Complete the data analysis and inference extraction for all the sites.

- Understand the data analysis pipeline and approaches followed by partners.
- Continue the project and extend these surveys to newer sites.
- Work with partners to secure potential patches within the sampled sites

## **HARMONISED WILDLIFE VISUAL DATA ANALYSIS PIPELINE**

### ***Introduction***

In line with the vision, TFC actively enables and facilitates technology use in various on-ground projects, especially to bridge the knowledge and data gap. In this regard, we are using camera traps, drones and ROVs, amongst others, to extend our understanding of lesser-known species and habitats. Likewise, many of our partners are also collecting data using a range of technologies. Overall, the usage of these equipment is leading to huge amounts of image/video data. This necessitates the availability of harmonised frameworks and intelligent tools that can ease data analysis and speed up reaching inferences.

### ***Goals***

To explore and establish a data analysis pipeline for handling wildlife image/video data, particularly from camera traps, along with data from drones, ROVs, and other sources. The intention is to come up with an easily accessible tool that utilises machine intelligence but keeps humans in the loop.

- To explore and understand globally available image data analysis pipelines and tools.
- To identify the key gaps and challenges that are restricting their large-scale adoption in India.
- Engage with stakeholders to discuss their requirements.
- Develop a harmonised pipeline with an integrated tool or an assortment of tools.

### ***Key Collaborators***

Arnav Aditya, Jayin Khanna and Sharath Aggarwal

### ***Region***

NA

### ***Updates 2024-25***

- Collated existing frameworks, pipelines and tools from around the

world for handling wildlife image data.

- Assessed the key features and limitations of several publicly available tools.
- Identified key gaps and areas for improvements in the existing solutions.
- Designed a comprehensive questionnaire to gather insights from partners and other conservation organisations about their analysis workflows and challenges.
- Synthesised a data analysis pipeline informed by literature review and learnings from existing tools.

### ***Next steps***

- Improvise the tools available for data segregation with subjects specific to the Indian context.
- Develop strategies to streamline and reduce the annotation efforts.
- Refine classification models to improve accuracy for selected target species.
- Curate datasets for lesser-known species and threat scenarios.

## **MAPPING OPEN NATURAL ECOSYSTEMS**

### ***Introduction***

India's semi-arid Open Natural Ecosystems (ONEs) are a set of terrestrial habitats with sparse or no tree cover. These include systems, such as woodland savannas, shrublands, grasslands, and sand dunes. Each system has a unique biodiversity that has supported culturally diverse pastoral and agro-pastoral communities for centuries.

ONEs have been viewed by the governments as 'wastelands', putting them under the immense pressure of diversion for development and more productive land uses such as agriculture or industry. However, because of their carbon sequestration abilities and important ecological and agro-pastoral roles, it is essential to accurately determine the distribution and extent of these open habitats to enable better management and conservation.

**Because of their carbon sequestration abilities and important ecological and agro-pastoral roles, it is essential to accurately determine the distribution and extent of these open habitats to enable better management and conservation.**

### **Goals**

- To build a reliable, open source, high-resolution spatio-temporal dataset on India's ONEs, enabling its integration into conservation efforts, policy frameworks and public engagement initiatives.
- Spatial mapping of ONEs
- Temporal mapping of ONEs

### **Key Collaborators**

MD Madhusudan & Pradeep Koulgi

### **Region**

India's semi-arid zones, spanning 18 non-Himalayan states with focus on low-tree cover ecosystems, including grasslands, savannas and dunes.

### **Updates 2024-25**

- Developed a 10 m resolution map for all Open Natural Ecosystems (ONEs) in India, which is currently being further refined.
- Compared the ONE Maps classifications with other LULC maps, such as ESRI and Global Pastoral Watch, to understand the approach and classification relevance.
- Summarised observations on ONE Map classifications for sample sites across Maharashtra, Karnataka, and Tamil Nadu to understand their classifications better.

### **Next Steps**

- Create a Time Series of open annual land cover maps from 2021 to understand the trend and status of India's ONEs over time.
- Develop a no-code platform or dashboard to access and download the ONE Map.
- Conduct ONE Map outreach activities.

## **HOOLOCK GIBBON SPECIES CLASSIFIER**

### **Introduction**

Hoolock Gibbons (*Hoolock hoolock*) are arboreal primates which live in dense rainforests and rarely venture downwards to the ground. Their presence in the lush forests of north-eastern India is recognised through their reverberating vocalisation they exhibit, which is characteristic of this species. The TfC team at THT and the partner organisation, Conservation Initiatives (CI), are working towards understanding gibbons better, using passive acoustic

monitoring technology and analysing their recordings using machine learning techniques. This intersection between technology and on-ground work has enabled data collection, processing and analysing of long-term acoustic data to be more efficient. An exhaustive compilation of hoolock gibbons' presence data in the north-eastern forests of India provides us with usable information for downstream analysis, such as occupancy estimation, which eventually leads us to come up with better conservation actions.

### **Goals**

- To detect and classify gibbon calls from recordings.

### **Key Collaborators**

Conservation Initiatives

### **Region**

North-eastern India

### **Updates 2024-25**

- A preliminary species classification model, adapted from a similar study, based on a transfer learning approach, was packaged into an easy-to-use tool and shared with our partner organisation. The model was false positive-inflated just not to miss any gibbon vocalisation instance, enabling more accurate detection of gibbon presence. This version has assisted the partner significantly in analysing large numbers of recordings efficiently.
- Iterative refinements were carried out based on validation feedback shared by the partner, especially to address misclassifications caused by overlapping sounds such as rain, crickets, cicadas etc. Such noise events were annotated and were used to retrain the model, which has been shared with the partner for feedback.
- Additional tools were developed such as a Visual Basic (VBA) tool for validating prediction outputs, and a Python-based visualiser for gibbon call notes, both of which have added value to the work.

### **Next steps**

- To better/refine the model outputs iteratively based on further feedback from the partner.
- To publish the outcomes and insights of these efforts along with the partner organisation.



## **HOOLOCK GIBBON GROUP CLASSIFIER**

### ***Introduction***

Hoolock Gibbons (*Hoolock hoolock*) are arboreal primates and live in groups in dense rainforests of north-eastern India. Their presence is known by their characteristic vocalisations from the dense canopies. The call sequence or bout patterns are complex in nature and are referred to as 'duets.' Our partner, Conservation Initiatives, has been conducting extensive field surveys including acoustic data collection in their study area. This work is to understand the gibbon population in the country and recognise their conservation requirement and act towards better protection of their habitat and gibbons themselves.

**This work is to understand the gibbon population in the country and recognise their conservation requirement and act towards better protection of their habitat and gibbons themselves.**

### ***Goals***

- To decipher the individual signatures among gibbon groups effectively and help in population estimation exercise.

### ***Key Collaborators***

Conservation Initiatives

### ***Region***

North-east India

### ***Updates 2024-25***

- Annotated specific call segments and unique call features from the gibbon recordings.
- Developed a visualisation interface to understand the apparent differences between gibbon notes across various groups.
- Extended the supervised species classifier to classify gibbon groups which resulted in poor classification accuracy and provided a direction to proceed further.
- Understood the need for context information for group classification in model training.
- Successfully recorded video of gibbons with complete vocalisation bouts during the field visit to Assam.

### ***Next steps***

- Annotation exercise based on the visuals collected.

- Compiling various call characteristics for the known gibbon groups.
- Exploring better techniques for individual identification including supervised approach.

## **MULTI-CHANNEL MICROPHONE ARRAY**

### ***Introduction***

Bioacoustics technology has been emerging as a potential and a reliable way of understanding our surroundings better. Recording animal vocalisations and soundscapes from habitats has played a vital role in understanding biodiversity. In recent years, the usage of passive acoustics monitoring for ecosystem health, threats, species, and their populations has become the preferred approach. Unlike active (collecting data using handheld recorders) acoustic data collection, passive acoustic monitoring poses a challenge in understanding the direction and distance of the source. Currently, off-the-shelf recorders (except a few used in marine space) that are primarily used do not provide details on the direction and distance of the source. To overcome this, some researchers deploy a gridded microphone array which makes the setup cumbersome and expensive. Hence, we are considering the development of a simple, cost-effective microphone array along with a visualiser to localise and estimate the distance of sound sources.

### ***Goals***

- To develop a simple, easy-to-use, cost-effective microphone array.
- To develop and customise algorithms for sound source localisation and its distance measurement.

### ***Key Collaborators***

Makesh Chandrasekaran (Consultant)

### ***Region***

NA

### ***Updates 2024-25***

- Completed the working prototype of the device with field testing.
- Built the first prototype using off the shelf microphone array integrated with a Raspberry Pi module. The device is currently in its prototype 2 stage after rigorous testing and development.
- Developed an intuitive interface to visualise and record the

soundscapes with direction.

- The device is packed with features like configuration setting, frequency band selection, multi channel spectrogram visualisation, parallel recording and visualisation among others.

### ***Next steps***

- Create a stable and functional field ready prototype 3 which fills all the gaps observed from earlier prototypes.
- Refine the algorithm for distance estimation and a seamless interface for the same.
- Integrate machine learning model for detection and classification of target species of interest.

## **THERMAL DRONES FOR CONSERVATION**

### ***Introduction***

The drones have been a widely used tool in the field of conservation in recent years. Drones offer versatility and a range of capabilities that have led to the evolution of a myriad of use cases. To harness their full potential, global use cases have been thoroughly examined to identify potential applications suitable for the Indian context. Based on this assessment, a pilot initiative was launched to evaluate the feasibility of using drones to detect and monitor hard-to-observe species, particularly those in inaccessible habitats. For initial trials, canopy-dwelling and ground-dwelling species have been considered.

Wild animals that live in the canopies are often difficult to survey and study because of the inaccessibility of the treetops and landscapes, along with their camouflage strategies. Similarly, ground-dwelling birds and animals are often hard to observe because of their habitat, elusive nature and well-blended into their surroundings. Thermal drones are proving to be an alternative by overcoming these hurdles and helping us map and monitor such species. The thermal drones excel at detecting heat signatures, making them highly valuable in wildlife monitoring, especially

**Drones offer versatility and a range of capabilities that have led to the evolution of a myriad of use cases. To harness their full potential, global use cases have been thoroughly examined to identify potential applications suitable for the Indian context.**

in conditions of limited visibility and hard-to-abate conditions. However, efforts in this regard are very limited in the Indian scenario.

### ***Key Collaborators***

The Conservation Initiatives (CI) team, Karthik (Foreintel Solutions)

### ***Region***

Assam

### ***Goals***

- Assess the feasibility of detecting canopy-dwelling and ground-dwelling species in target landscapes using thermal drones.
- Collect quantifiable data on these species to support and advance conservation efforts.
- Establish a standardised framework for drone-based surveys.

### ***Updates 2024-25***

- Completed feasibility trials near Karbi Anglong, Assam, detecting the presence of Hoolock Gibbons.
- Captured photographic evidence of Assamese macaques, a significant record for this region.
- Understood the limitations of drone operations and piloting challenges in such hilly terrains.
- Compiled a thermal image catalogue of Hoolock Gibbons and developed a preliminary classification model.

### ***Next steps***

- Develop effective piloting strategies by studying the drone flight dynamics from the current trials.
- Validate the Gibbon thermal images classification model.
- Conduct follow-up surveys to test the feasibility of systematic sampling of a target landscape.

## **INTEGRATING TECHNOLOGY ACROSS THE SCALES: CONSERVATION PROGRAM FOR INDIAN GREY WOLF AND SAVANNAH GRASSLANDS**

### ***Introduction***

Open Natural Ecosystems (ONEs) have long been among the most neglected habitats in the Indian conservation scenario for centuries. Often tagged as wastelands, they are constantly under

pressure from land-use conversion for various purposes. The Indian Grey Wolf (*Canis lupus pallipes*), a key predator inhabiting these ecosystems, faces growing threats yet remains largely overlooked in mainstream conservation efforts. Despite being as endangered as tigers, little is known about wolves' ecology and behaviour. Most wolves live outside protected areas, making the conservation of remaining ONEs very critical.

In addition, wolves are vulnerable to prey depletion, competition with feral dogs and retaliatory killings. Given the imminent threat to wolves and their habitat, there is an urgent need for multi-scale, integrated monitoring and conservation strategies. Further, to overcome the limitations of conventional monitoring techniques and to accelerate conservation efforts, harnessing the latest technologies has become imperative.

**Given the imminent threat to wolves and their habitat, there is an urgent need for multi-scale, integrated monitoring and conservation strategies.**

### ***Key Collaborators***

The Grasslands Trust

### ***Region***

Maharashtra

### ***Goals***

- To establish a comprehensive and scalable conservation program for Indian grey wolves and their habitat that integrates advanced technologies, ecological insights, and community participation.
- Individual identification and movement patterns of wolf packs using Drones and AI.
- Understanding the health of the savannah: Mammal surveys using drones, camera traps, and computer vision.
- High-resolution landscape mapping.
- Capacity building and awareness.

### ***Updates 2024-25***

- Drone-based movement tracking of three wolf packs in Pune.
- High-resolution mapping of denning sites and their surroundings for these three packs.
- Completed camera trap surveys in two wolf denning sites.
- Trails completed for drone-based ungulate surveys.
- Refined the computer vision model that tracks the wolves'



movement from drone videos.

- Completed capacity building workshop for Mayureshwar Wildlife Sanctuary forest officials at Supe.

***Next steps:***

- Completing the analysis of camera trap data.
- Extracting estimates of prey from the drone transect videos.
- Developing an individual wolf identification model.
- Extending drone-based movement tracking for other packs in Pune and Ahmadnagar districts along with finalising the visualisation tool.

## **THE GRASSLANDS PROJECT**

### ***Introduction***

Grasslands are key habitats for several specialised species and cover approximately 18–20% of India's geographical area. Despite their ecological and social significance, they have been among the most neglected ecosystems in the Indian conservation landscape for centuries. Building on our earlier efforts to identify key districts and large grassland patches across India, we expanded our focus to include proxy parameters that offer alternative perspectives on the threats these habitats are facing. Parameters, such as Night Light, Land Surface Temperature (LST), and Normalised Difference Vegetation Index (NDVI), among others, were analysed to gain more insights into the pressures on grasslands and the ways to incorporate these into prioritisation frameworks. Additionally, we examined the challenges associated with the classifications.

**Grasslands are key habitats for several specialised species and cover approximately 18–20% of India's geographical area.**

### ***Goals***

- Deducing the extent of grasslands (Open Natural Ecosystems) in India and their primary threats.
- Identifying critical grassland patches and prioritising areas for securing and conservation interventions.
- Advocating for policy reforms correcting the misclassification of grasslands as wastelands.

### ***Key Collaborators***

Internal project

### ***Region***

India

### ***Updates 2024-25***

- Reviewed global frameworks or methodologies for grassland prioritisation.
- Extracted LST, NDVI, Night Light details for Pune district to understand their trends and impacts. The results aligned with our field observations, especially the impact of irrigation leading to the increased NDVI (associated with standing crops) in the region.
- Migrated the grassland extents extraction workflow from ARCGIS to QGIS

### ***Next steps***

- Collate all relevant GIS layers that would be necessary to carry out a prioritisation exercise.
- Derive an approach to identify key grassland patches for conservation and protection.
- Complete land use mapping for a target site to determine the precise extent of grasslands that can be conserved.
- Assess the impact of various threats on the grassland species.

# The Habitats Trust Grants





# The Habitats Trust Grants

## PROGRAMME INTRODUCTION

The Habitats Trust Grants recognises and supports conservation organisations and individuals, who work to conserve India's natural habitats and native flora and fauna, especially the lesser-known species and neglected habitats. The Grants aim to support holistic, innovative, and replicable conservation projects.

## PROGRAMME OBJECTIVES

The THT Grants Program was established with the following objectives in mind:

1. **Conserving Lesser-Known Species and Habitats:** To protect species and habitats that are often overlooked and are in urgent need of conservation.
2. **Capacity building through the Grants:** To address different conservation needs through two different categories of grants, such as the THT Action Grant, and the THT Conservation Grant.
3. **Supporting Grassroots Conservationists:** To recognise and support conservationists at the grassroots level, helping them expand their efforts and gain more support.
4. **On-Ground Action and Community Involvement:** To support practical conservation work, focusing on a holistic approach involving communities, to ensure long-term success.
5. **Partnerships and Collaborations:** To encourage conservation efforts based on accurate scientific research, teamwork, and policy advocacy to conserve ecosystems and support human well-being by working with a network of stakeholders.

The THT Grants Programme is administered in two ways; annual and monthly grants. The large grants are annual in nature while the small ones are administered every month.

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## **ANNUAL GRANTS**

### ***THT Conservation Grant***

The THT Conservation grant is for INR one crore and supports organisations working towards the conservation of lesser-known species and critical habitats. It will assist the grantees in addressing the critical conservation challenges in India, including but not limited to habitat degradation and destruction, loss of biodiversity, conservation of endangered species, and solutions for human-wildlife conflict. This grant is open to organisations that have a proven record of working in wildlife conservation for a minimum of five years. The selected projects need to be executed over three years. It allows sufficient time for the winners to make the most of the grant and create a deeper impact on the ground.

### ***THT Action Grant***

The Action Grant is for INR 25 Lakhs and is open to organisations and individuals. The Habitats Trust Action Grant supports on-ground work on lesser-known species and/or habitats that require urgent conservation intervention. The selected individuals or organisations must have been working in the field of wildlife conservation for a minimum of two years. The selected project must be executed over two years.

### ***Annual Grant Recipients 2024***

- Total 5 Annual Grantee were selected in the 2024
- 1 Conservation Grants and 4 Action Grants were granted.
- Total Funding for Annual Grant- INR 1,99,77,000/-

## **THE HABITATS TRUST GRANTS: 2024 RECIPIENTS**

In its seventh edition, The Habitats Trust received 155 applications from 1194 registrations from across the country through our online portal. After every application was reviewed by our external auditors; 32 applicants were shortlisted for field-level verification, carried out by THT Grants Sub-Jury.

On 25th and 26th October, 2024, 9 finalists shortlisted in the Sub-jury meeting, presented their proposals to our eminent jury comprising of Ms. Bahar Dutt, Mr. Brian Heath, Dr. MK Ranjitsinh, and Ms. Roshni Nadar Malhotra. A total of 5 applicants were the recipients of the THT Grant 2024.



## **THT CONSERVATION GRANT**

### ***Indian Institute of Science***

#### *Project Title:*

Understanding the population biology of the critically endangered, point-endemic Bugun Liocichla, to design effective conservation strategies

#### *Location:*

The Singchung Bugun Village Community Reserve (SBVCR) and Eaglenest Wildlife Sanctuary (EWS)

#### *Project Objectives:*

- To estimate the current effective population size (i.e., the number of breeding individuals) of the Bugun Liocichla.
- Study the breeding biology of the Red-Faced Liocichla and Bugun Liocichla
- To apply population genetics techniques to:
  - Estimate recent effective population size and pre-disturbance effective population size, and determine target population sizes necessary for stability.
  - Assess if there are genetic constraints to creating in-situ or ex-situ reserve populations of the species.
  - Simulate the demographic parameters required for sustaining such a small population and develop conservation guidelines for the Bugun Liocichla.

#### *Expected Outcomes:*

- A comprehensive understanding of the population size and current and historical population dynamics of the critically endangered point-endemic, the Bugun Liocichla. The project will estimate the current effective population sizes for the species and will provide the target effective population sizes where the population was historically stable.
- A scientifically informed plan of action regarding most appropriate conservation measures e.g., captive breeding, establishment of satellite populations, egg transplantation to nests of congeneric species to encourage double brooding and to increase yearly reproductive output needed to ensure long-term viability of the Bugun Liocichla as a species. With the ongoing climate crisis and emerging threats such as infectious diseases, it is important to prepare for extremely undesirable scenarios. The

proposed project will provide an action plan for such scenarios.

- A management plan submitted to the Arunachal Pradesh Forest Department and the Singchung Village Council.
- At least two scientific papers in high impact international peer-reviewed journals.

## **THT ACTION GRANT (INDIVIDUAL)**

### **1. Divya Panicker**

#### *Project Title:*

Surveying endangered Blue Whales in the Lakshadweep archipelago

#### *Location:*

Lakshadweep archipelago

#### *Project Objectives:*

- To understand the acoustic occurrence of Blue Whales in the Lakshadweep archipelago by monitoring their vocalisations using passive acoustic monitoring (PAM) technology.
- To determine the seasonality of Blue Whales in the Lakshadweep archipelago by identifying patterns in their vocalisations over time.
- To disseminate findings on Blue Whale presence and behaviour to local authorities and develop a comprehensive management plan to ensure effective conservation and protection of the species in the region.

#### *Expected Outcomes:*

- In Lakshadweep, significant efforts by the administration and Government of India aim to promote tourism (Kumar et al, 2019). Plans are underway to emulate the luxury tourism model of Maldives, including infrastructure developments like seaplane services and lagoon villas (Department of Tourism, GOI, 2019, 2021). Concerns raised by scientists and local communities about ecological impacts remain unresolved (The Wire, 2021), with no assessments on how these developments might affect cetaceans, their prey, or habitats. One major challenge is the lack of baseline data on species diversity and distribution in these waters, hindering integration of cetacean assessments into development plans. Our study aims to fill this gap by enhancing understanding of blue whale distribution in Lakshadweep. Blue whales rely

on abundant zooplankton resources, making them vital indicators of marine ecosystem health. This research not only supports blue whale conservation but also serves as a flagship for broader marine ecosystem conservation. Currently, there are no field studies focused chiefly on blue whales in Indian waters, underscoring the urgency of our project in establishing foundational distribution data essential for conservation planning.

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## **2. Malyasri Bhattacharya**

### *Project Title:*

Safeguarding the critically endangered vulture habitat through community-led ecotourism in Kangra, Himachal Pradesh

### *Location:*

Kangra, Himachal Pradesh

### *Project Objectives:*

- Regular monitoring to track nest health, vulture populations, and habitat conditions.
- Engage local communities, including the Gaddi, Gujjar, and Chamar communities, in sharing and enhancing their knowledge of the species and involving them as nest protectors.
- Involve tribal communities in all aspects of habitat protection, fostering a sense of ownership and responsibility for vulture conservation.
- Develop and implement an ecotourism model in Triund and Bir Billing to engage local communities, reduce tourist pressure, and mitigate human-wildlife conflicts.
- Create a comprehensive conservation management plan for vulture habitats in Himachal Pradesh, detailing strategic measures for effective conservation, implementation, and long-term habitat protection.

### *Expected Outcomes:*

- The project aims to achieve several measurable outcomes that will significantly impact vulture habitats, endangered flora and fauna in Himachal Pradesh. The project will enhance awareness

and stewardship among residents living near critical vulture nesting sites and vulnerable black bear habitats by bridging the gap between wildlife conservation and local communities.

- Strategies will be developed to mitigate threats such as forest fires and resin tapping, ensuring the preservation of these endangered habitats. The implementation of sustainable ecotourism practices will not only provide economic incentives for local communities but also reduce human-wildlife conflicts and promote coexistence. The conservation management plan will systematically identify and address location-specific threats, empowering forest managers with actionable data to implement effective conservation measures. Moreover, the project will cultivate a cadre of local bird guides, naturalists, and young conservationists through educational initiatives. These individuals will play a crucial role in extending conservation efforts beyond the project's duration, safeguarding the biodiversity of Kangra and fostering a balanced relationship between wildlife and human activities in the region.

## **THT ACTION GRANT (ORGANISATION)**

### ***1. Veditum India Foundation***

*Project Title:* Protecting riparian habitats in Madhya Pradesh from destructive sand mining - India Sand Watch by Veditum

*Location:*

Riparian habitats in Madhya Pradesh

*Project Objectives:*

- Improve the availability and accessibility of open data on sand mining
- Establish accountability mechanisms and empower collective action
- Advocate for ecological considerations in the identification and allocation of mining zones.

*Expected Outcomes:*

- 500 reports on sand mining in MP on <https://sandwatch.envmonitoring.in/>
- State-level report: Sand Mining in Madhya Pradesh (i) State of sand mining & environmental governance (ii) Identifying 5

districts for focused research and intervention iii) Stakeholder map

- 5 data-focused workshops to build the data archive and introduce stakeholders to the archive
- 5 data-sprints to add to the archive of data on MP -
- Reports on sand mining in 5 districts including (i) Environmental Assessment (ii) Identifying 2 sand-mining hot-spots per district - 10 Participatory Action Plans with local stakeholders for hotspots to (i) identify urgent concerns and (ii) interventions (and relevant actors) required
- 5 training sessions with actors and stakeholders to implement identified interventions
- Creation of a new imagination for environmental governance around sand mining in India
- A scalable, replicable system for better protection of rivers, riverine habitats and biodiversity, especially outside Protected Areas that considers the environment & biodiversity, and involves Local communities as stakeholders
- An accessible and robust archive of data on sand mining that enables public participation in decision-making, and improves accountability in law enforcement and management of sand mines.

## **2. Durgapur Wildlife Information & Nature Guide Society**

### *Project Title:*

Community-driven conservation of Indian Grey Wolves in human-dominated landscapes of West Bengal

### *Location:*

Bankura and Paschim Bardhaman districts, West Bengal

### *Project Objectives:*

- Collect baseline data on the relative abundance of Indian Grey Wolves in the study areas.
- Use camera traps to monitor and understand the movement patterns of wolves.
- Analyse scat samples to identify the prey base and compare prey composition between human-dominated and forested areas.
- Identify priority conservation areas where human-wolf conflicts are most prevalent.



- Test the effectiveness of non-lethal deterrent methods, such as fladry, around cattle enclosures to reduce livestock loss.
- Raise awareness among local communities about the importance of wolves in the ecosystem to promote coexistence.
- Support the sustainable livelihoods of local people by promoting wildlife tourism.

#### *Expected Outcomes:*

The expected conservation impact of a wolf conservation program can be multifaceted and significant:

- **Population Stabilisation and Growth:** By implementing effective management strategies such as habitat conservation, reducing human-wolf conflicts, and monitoring migration paths, the program will aim to stabilise and potentially increase wolf populations.
- **Ecological Balance:** Wolves are crucial in maintaining ecosystem health by regulating prey populations, influencing vegetation dynamics, and promoting biodiversity. This program can help reinstate these ecological processes.
- **Community Engagement and Support:** Engaging local communities through education, awareness campaigns, and involvement in conservation activities fosters understanding and support for wolf conservation. This can reduce human-wildlife conflict and enhance coexistence.
- **Policy Influence:** This program will advocate for policies that protect critical wolf habitats and regulate hunting practices. These efforts can have lasting impacts on conservation beyond the immediate program duration.
- **Research and Monitoring:** Continuous monitoring of wolf populations and their habitats will provide valuable data for adaptive management strategies.
- **Cultural and Economic Benefits:** Indian Grey Wolves can contribute to cultural heritage and eco-tourism opportunities, generating economic benefits for local communities through wildlife tourism initiatives.

**Continuous monitoring of wolf populations and their habitats will provide valuable data for adaptive management strategies.**

## ONGOING ANNUAL GRANTS AND THEIR STATUS

S.No	Title	Category	Grantee	Start	End	Amount	Status of Project
2022							
1	Revitalising conservation of tender canopy-dependent flora in Wayanad, Kerala	Conservation Grant	Munnarakkunnu Trust	01.04.2023	31.03.2026	₹ 1,00,00,000	Ongoing
2	Hilly Tropical Dry Evergreen Forest - Species and Habitat - Conservation	Conservation Grant	The Forest Way	01.04.2023	31.03.2026	₹ 1,00,00,000	Ongoing
3	Saving the White-bellied Heron in Arunachal Pradesh, India	Action Grant	Ashoka Trust for Research in Ecology and the Environment	01.04.2023	31.03.2025	₹ 25,00,000	Completed
4	Guardians of the Skimmer-Conserving riverine birds through community participation	Action Grant	Bombay Natural History Society	01.04.2023	31.03.2025 Extension till 31 Aug 2025	₹ 25,00,000	Ongoing
5	Community Conservation of Great Indian Bustard in Jaisalmer, Rajasthan	Action Grant	The ERDS Foundation	01.04.2023	31.03.2025	₹ 25,00,000	Completed
6	Population status and conservation of Softshell turtles in Mizoram, India	Action Grant	H.T Lalremsanga	01.04.2023	31.03.2025	₹ 25,00,000	Completed
2023							
7	Conserving the Overlooked Subterranean Cave Habitat: A Sustainability Approach	Conservation Grant	SACON	01.04.2024	31.03.2027	₹ 1,00,00,000	Ongoing
8	Conservation of Forest Owlet by Multi-Stakeholder Engagement in Madhya Pradesh	Conservation Grant	WRCS	01.04.2024	31.03.2027	₹ 1,00,00,000	Ongoing
9	Restoration of degraded critical elephant habitat by supporting local livelihoods	Action Grant	Forest First Samithi	01.04.2024	31.03.2026	₹ 25,00,000	Ongoing
10	Creating capacities for Hornbill Conservation in Buxa Tiger Reserve	Action Grant	Nature Mates Nature Club	01.04.2024	31.03.2026	₹ 25,00,000	Ongoing

11	Empowering Communities through Ecotourism for Red Panda and Takin Conservation.	Action Grant	Rimung Tasso	01.04.2024	31.03.2026	₹ 25,00,000	Ongoing
2024							
12	Fish-Fishing Cat-Fisherfolk: Visualising persistence of a rich socio-ecological system	Lesser-Known Species Grant (2021)	HEAL	01.04.2024	30.07.2025	₹ 25,00,000	Ongoing
13	Understanding the population biology of the critically endangered point endemic, the Bugun Liocichla, to design effective conservation strategies	Conservation Grant	Indian Institute of Science (IISc)	01.04.2025	31.03.2028	₹ 1,00,00,000	Ongoing
14	Surveying Endangered Blue Whales in the Lakshadweep Archipelago	Action Grant	Divya Panicker	01.04.2025	31.03.2027	₹ 25,00,000	Ongoing
15	Safeguarding the Critically Endangered Vulture Habitat through Community-led Ecotourism in Kangra, Himachal Pradesh	Action Grant	Malyasri Bhattacharya	01.04.2025	31.03.2027	₹ 25,00,000	Ongoing
16	Protecting Riparian Habitats in Madhya Pradesh from Destructive Sand Mining - India Sand Watch by Veditum	Action Grant	Veditum India Foundation	01.04.2025	31.03.2027	₹ 24,77,000	Ongoing
17	Community-driven Conservation of Indian Grey Wolves in Human-dominated Landscapes of West Bengal	Action Grant	Durgapur Wildlife Information and Nature Guide Society	01.04.2025	31.03.2027	₹ 25,00,000	Ongoing

### **THT SEED GRANTS (MONTHLY)**

The Habitats Trust Seed Grant was introduced in August 2022. This is a recurring grant that reviews applications every month and supports up to 15 applicants every year. The total amount provided to each selected applicant is up to INR 3 lakhs. This grant is open to organisations and individuals working on small, limited-duration projects, or conservation research efforts that tackle issues related to lesser-known species and habitats, pilot projects in relatively unexplored landscapes or data-deficient species, or testing new methodologies and conducting rapid surveys.

- Total 14 Seed Grant projects were selected in the FY 2024-2025
- Total Funding for Seed Grant- INR 40,92,260/-

### SEED GRANT RECIPIENTS 2024

Sr.No	Grantee	Title	Funding Amount (INR)	Project Location
1	Imrana Khan	Learning To Live For The Future: An Environmental Education	3,00,000	Delhi
2	Karishma Modi	Empowering Local Voices In Conserving Andaman Islands' Evergreen Forests	2,99,910	Port Blair, Chiriyatapu Biological Park
3	Prathamesh Amberkar	Distribution And Threats Faced By The White-Striped Viper Gecko.	2,99,950	Konkan, Maharashtra
4	Vinaykamal Dethe	Conservation Of Critically Endangered Vultures In Nashik, Maharashtra, India.	1,96,000	Nashik, Maharashtra
5	Manya Singh	Predators and Pastoralists Conflict Dynamic in Grasslands of Surendranagar	3,00,000	Chotila and Thangadh, Gujarat
6	Karan Jadhvani	Conservation Of The Marvels Of Magadi	2,98,400	Magadi, Ramanagara, Karnataka
7	Yashmita Ulman	Community-Driven Conservation Of Painted Stork Nesting Sites In Uttar Pradesh	3,00,000	Banda & Etawah, Uttar Pradesh
8	Tropical Rainforest Ecological Camp	Soil Microbial Diversity In Myristica Swamp Forests	3,00,000	Kathlekan swamp forest, Uttara Kannada, Karnataka
9	Siddharth Foundation	Firefly Ecology Of Nilgiris And Adjacent Landscapes, Western Ghat, India	3,00,000	Nilgiri, Western Ghat- Tamil Nadu, Kerala
10	Red Crest Charity Trust	Conserving Breeding Habitat Of Tor Khudree By Eradicating Water Hyacinth	3,00,000	Dhom- Satara- Maharashtra
11	Seegreen Foundation	Training Working Elephants Using Positive Reinforcement In Pakke Tiger Reserve	3,00,000	Pakke Tiger Reserve- East Kameng District- Arunachal Pradesh
12	Adhiwas Foundation	In Situ Conservation Of Endangered Shrub Species Abutilon Ranadei	2,98,000	Panshet Dam Catchment- Pune- Maharashtra
13	Nikitaa Sivaakumar	Animated Video Explainer For Shola Sky Islands Conservation Learning Program	3,00,000	Kotagiri- Nilgiris- Tamil Nadu
14	Jayashree Mazumder	Impact Of Timber Poaching On Hoolock Gibbon Movement Ecology	3,00,000	Hollongapar Gibbon Wildlife Sanctuary- Mariani- Assam
			<b>40,92,260</b>	

# Input-Output

**~38,000 sq km**

THT direct impact area

**10 of 10**

Biogeographic  
zones of India

**>75,000 sq km**

THT area of influence

**32**

Number of  
Annual Grants

**45**

Number of  
Seed Grants

**> ₹50 crore**

Amount for  
all Grants

**32**

States & Union  
Territories

**50**

Number of  
Projects

**130+**

Number of  
Partners

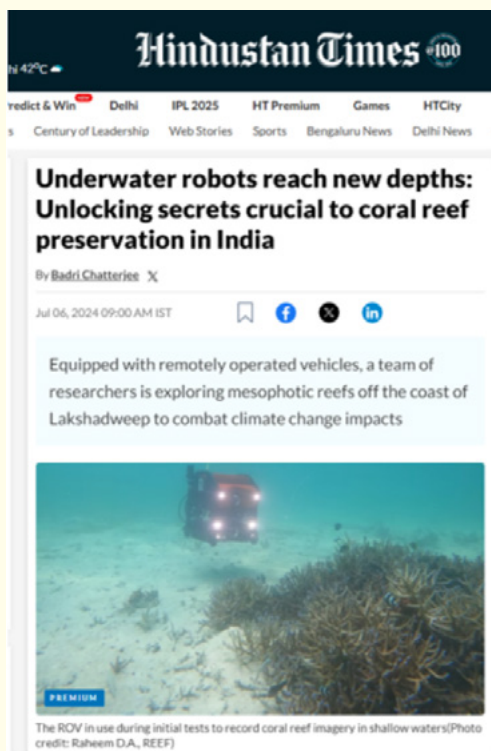


# Press and Media

*July, 2024*

## **THE TEAM DEPLOYED REMOTELY OPERATED VEHICLE (ROV) IN LAKSHADWEEP**

Image credit: Online news coverage



*Use of Remotely Operated Vehicle for documenting mesophotic corals, a Hindustan Times coverage, July, 2024*

Mesophotic coral reefs (found below 30m depth) cannot be surveyed using the conventional scuba diving method and therefore very little is known about the status of these reefs. To document the biodiversity and health status of mesophotic coral reefs in India and to add to the current scientific understanding of coral reef conservation needs, THT team deployed Remotely Operated Vehicle in Lakshadweep.

<https://www.hindustantimes.com/environment/underwater-robots-reach-new-depths-unlocking-secrets-crucial-to-coral-reef-preservation-in-india-101720209133922.html>

*August, 2024*

## **THE INDIAN NAVY, THT AND HCL FOUNDATION SEMINAR**

*One year strong! The Indian Navy, Habitats Trust, & HCL Foundation lead the way in maritime, August, 2024.*

A significant milestone in environmental stewardship was celebrated with a seminar held on August 1, 2024, commemorating one year of impactful collaboration. This event marks the anniversary of a tripartite Memorandum of Understanding (MoU) signed in March 2023 between the Indian Navy, The Habitats Trust, and HCL Foundation. The gathering underscored the Indian Navy's strong commitment to being a conscious climate change protector and a proactive promoter of green initiatives



within the maritime sector. This ongoing partnership exemplifies a dedicated effort towards fostering sustainability and environmental responsibility, reinforcing the collective commitment to a greener future and impactful annual contributions.

September, 2024

## THE INDIAN COST GUARD, THT & HCL FOUNDATION'S MOU

*The Indian Coast Guard, THT, and HCL Foundation formed a strategic partnership to address critical marine conservation challenges, September, 2024.*



*Image of MoU signing event posted on ICG's Instagram page and Online article in Deccan Herald*

Indian Coast Guard (ICG) is one of the crucial maritime agencies responsible to protect India's marine resources and enforce maritime laws. Therefore, THT and HCL Foundation formalised a Memorandum of

Understanding (MoU) with ICG on 19 September 2024 to form a strategic partnership to address critical marine conservation challenges.

## The Habitats Trust, HCLFoundation, and Indian Coast Guard Sign MoU for Coastal and Marine Conservation

by NS — September 20, 2024 in Business 0

0 SHARES 168 VIEWS

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New Delhi : The Habitats Trust (THT), in collaboration with the HCLFoundation, formalized a Memorandum of Understanding (MoU) with the Indian Coast Guard, marking the beginning of a strategic partnership aimed at addressing critical marine and coastal conservation challenges. This partnership is grounded in a shared commitment to safeguard India's unique marine life, address growing environmental challenges, and strengthen conservation efforts by combining scientific

## PARC - POLICY ADVOCACY RESEARCH CENTRE

Report Titled: Status of Mammals in the Protected Areas of Tripura: A Rapid Assessment Report, September, 2024

**तरुण भारत**  
Main Edition | 2024-10-02 | Page: 2  
epaper.mahamth.com

### त्रिपुरात प्रथमच नोंदवला दुर्मिळ 'फेरेट बॅजर'

मुंबईकर ऑकार पाटीलची कामगिरी; त्रिपुरा वनविभाग आणि टीएचटीच्या साहाय्याने घडले ऑनग्राऊंड संशोधन

त्रिपुरा वनविभागाचे आभार  
या संशोधन कर्वाला समर्थन आणि प्रोत्साहन देणारे त्रिपुरा राज्याचे प्रधान मुख्य वनसंरक्षक आर के सामल यांचे 'विवेक पार्क फाउंडेशन' आणि 'दी हॅबिटॅट्स ट्रस्ट'चे आभार मानले आहेत. भविष्यात 'बीबीएफ'कडून त्रिपुरामध्ये करण्यात येणाऱ्या संशोधनात्मक अभ्यासांना देखील त्यांनी पाठिंबा देईल असे आहे. त्रिपुराचे तत्कालीन प्रधान वन्यजीव रक्षक श्री डी.एल.आयवॉल आणि उनाओ अनररीबोहाटे दिग्विजय वन अधिकाारी श्री के.जी.रॉय यांचेही योगी संस्थानी आभार मानले आहेत.

हा अभ्यास महत्वाचे पाऊल  
त्रिपुरा हा जगातील जैववैविध्यपूर्ण एक हॉटस्पॉट आहे. या राज्यात अनेक दुर्मिळ आणि संकटग्रस्त प्रजातींचा अधिवास आहे. त्रिपुराची जैववैविध्यता आणि तेथील परिसंस्थेच्या संवर्धन आणि संरक्षणासाठी त्रिपुरा वनविभागाला संतुष्टिकरीत्या केलेला हा अभ्यास एक महत्वाचे पाऊल आहे.

पहिलाच वैज्ञानिक अभ्यास  
त्रिपुरा राज्यातील सारन प्राण्यांच्या अधिवासासंदर्भातील हा पहिलाच नियोजितरित्या केलेला वैज्ञानिक अभ्यास आहे. ज्यासाठी अन्मही 'कॅनरेल ट्रॅकिंग' आणि 'सर्वाइन ट्रॅन्सेक्ट' अशा सर्वेक्षण पद्धतींचा अवलंब केला. जेथूनच आयत्याला कन्दाखाण्यांची आणि त्यांच्या अधिवासाची परिस्थिती समजत नाही, तोपर्यंत त्यांचे संरक्षण करणे कठीण असते. त्यामुळेच आम्ही त्रिपुरातील संरक्षित क्षेत्रात अभ्यास करून तेथील सारन प्राणी आणि त्यांच्या अधिवासाला असलेले धोके, त्यावरचे उपाय यांचे दस्तऐवजीकरण केले आहे.

— ऑकार पाटील, सियरॅल स्कॉलर, विवेक पार्क फाउंडेशन-वॉल्डलॉईफ रिलीफ फिडिलिटी.

### त्रिपुरार सुरक्षित एलाकाय स्तन्यापायी प्राणींके संरक्षण करते ह्याबिटाट्स ट्रस्ट, विवेक पिआरसि फाउंडेशन एवंग त्रिपुरा वन विभागेर उद्योगे प्रकाशित हल ग्राउंड ब्रेकिंग रिपोट

त्रिपुरा राज्यातील सारन प्राण्यांच्या अधिवासासंदर्भातील हा पहिलाच नियोजितरित्या केलेला वैज्ञानिक अभ्यास आहे. ज्यासाठी अन्मही 'कॅनरेल ट्रॅकिंग' आणि 'सर्वाइन ट्रॅन्सेक्ट' अशा सर्वेक्षण पद्धतींचा अवलंब केला. जेथूनच आयत्याला कन्दाखाण्यांची आणि त्यांच्या अधिवासाची परिस्थिती समजत नाही, तोपर्यंत त्यांचे संरक्षण करणे कठीण असते. त्यामुळेच आम्ही त्रिपुरातील संरक्षित क्षेत्रात अभ्यास करून तेथील सारन प्राणी आणि त्यांच्या अधिवासाला असलेले धोके, त्यावरचे उपाय यांचे दस्तऐवजीकरण केले आहे.

— ऑकार पाटील, सियरॅल स्कॉलर, विवेक पार्क फाउंडेशन-वॉल्डलॉईफ रिलीफ फिडिलिटी.



THT supported a crucial rapid assessment of mammal populations in Tripura's protected areas, conducted by the Vivek PARC Foundation and the Tripura Forest Department. This study, spanning key sanctuaries and national parks, provides a vital snapshot of the region's biodiversity. THT's support, including the involvement of its Tech for Conservation team, enabled researchers to document mammalian species, understand conservation challenges, and identify opportunities for future research and preservation efforts. The findings underscore the importance of these mammals as "umbrella species," crucial for the overall health of Tripura's ecosystems. This significant initiative has been covered by various mainline and regional newspapers, highlighting its importance in regional conservation efforts.

*October 2024*

### **70TH NATIONAL FILM AWARD - 'ON THE BRINK' GHARIAL EPISODE**

*Media screening at IHC- New Delhi, October 2024*

Roshni Nadar Malhotra, Co-founder and Trustee, The Habitats Trust and Producer of the 'On the Brink' series received the 70th National Film Award from the President of India for the Best Non Feature Film, Promoting Social and Environmental Values for the film 'Gharial'.

THT celebrated a significant achievement with its film on the Gharial earning national recognition. This award underscores THT's commitment to using impactful storytelling to highlight crucial conservation issues. The film effectively brought the plight of the Gharial, a critically endangered species, to a wider audience, fostering greater awareness and the urgent need for its protection. This national accolade serves as a testament to THT's dedication to producing high-quality cinematic content that not only informs but also inspires action towards safeguarding India's natural heritage and its vulnerable inhabitants. THT also conducted exclusive media screening with OTB director and prominent journalists.



Image: Roshni Nadar Malhotra, Co-founder and Trustee, The Habitats Trust and Producer of the 'On the Brink' series received the 70th National Film Award from the President of India for the Best Non Feature Film

November, 2024

## NORTH EAST THT'S FILMS MEDIA COVERAGE

Indian Express coverage of Muga rearer from Assam and NE Films media screening, Guwahati, November, 2024

THT's Northeast films highlight the region's rich biodiversity and conservation challenges. These films serve as a powerful medium to raise awareness and inspire action. THT and Dusty Foot jointly addressed the media roundtable conducted in Guwahati and spoke at length about the regional biodiversity and showcased regional stories.

Image credit: Regional and National Newspaper clippings





The trailer for one of THT's Northeast films was notably featured by The Indian Express, significantly boosting its reach and underscoring the media's recognition of the importance of these stories. THT amplifies the impact of these films through organic and boosted social media campaigns, ensuring these compelling stories reach a wider audience and foster greater engagement.

*December, 2024*

### **SANCTUARY ASIA WILDLIFE SERVICE AWARD**

*Mariyambi P.C. and Shabeena M. - THT's grantees, have received the award and become the first women from Lakshadweep to pursue doctoral studies in marine biology, December, 2024*

THT is privileged to support pioneering marine research in Lakshadweep. Mariyambi P.C. and Shabeena M. have become the first women from the region to pursue doctoral studies in marine biology. THT's grant humbly contributes to their groundbreaking work, conducted under the mentorship of K.K. Idreesbabu. This initiative underscores THT's commitment to fostering scientific exploration and empowering local communities in biodiversity conservation.

As featured in Sanctuary Asia (December 2024), Mariyambi is playing a vital role in exploring Lakshadweep's rich marine life. Her contributions include the discovery of several new species, highlighting the significance of THT grants in enabling critical research and expanding our understanding of India's biodiversity. The recognition from Sanctuary Asia further validates the importance of this work in the field of marine biology.

THT's support extends beyond funding, aiming to create a sustainable model for marine research and conservation in the region. By providing resources and mentorship, THT empowers researchers like Mariyambi and Shabeena to make significant contributions to the scientific community and to the preservation of Lakshadweep's unique ecosystem.



*Image credit: File photos : Mariyambi P.C. and Shabeena M. - THT's grantees, receiving Wildlife Service Award*

January, 2025

## KIRLOSKAR VASUNDHARA INTERNATIONAL FILM FESTIVAL (KVIFF)

*Filmmaker Category Award - Kirloskar Vasundhara Mitra Honor-2025, for THT's phenomenal work in the field of conservation, January, 2025*

Image credit: Newspaper clippings

**पर्यावरणीय समस्या मांडण्याचे चित्रपट प्रभावी माध्यम : चव्हाण**

पुणे, ता. १ : 'भारतातील पर्यावरणीय विविधता अनेक कारणांनी धोक्यात येत असून, निसर्गातील काही प्रजाती नामशेष होण्याच्या मार्गावर आहेत. धोरणकर्त्यांपर्यंत त्याचे गांभीर्य पोहोचविण्यासाठी चित्रपट हे एक प्रभावी माध्यम आहे,' असे मत 'द हॅबिटॅट ट्रस्ट'चे प्रमुख ऋषिकेश चव्हाण यांनी व्यक्त केले.

१८ व्या किरलोस्कर वसुंधरा आंतरराष्ट्रीय चित्रपट महोत्सवात हवामान बदलाविषयी सजगतेने लेखन करणाऱ्या मुक्त पत्रकार निधी जामवाल यांना 'वसुंधरा मित्र (पर्यावरण) पुरस्कार'; तर दिल्ली येथील 'द हॅबिटॅट ट्रस्ट' यांना 'वसुंधरा मित्र (फिल्ममेकर) पुरस्कार' प्रदान करण्यात आला. 'द हॅबिटॅट ट्रस्ट'च्या वतीने ट्रस्टचे प्रमुख ऋषिकेश चव्हाण यांनी पुरस्कार स्वीकारला. यानिमित्त आयोजित विशेष वार्तालापात ते बोलत होते. याप्रसंगी महोत्सवाचे अध्यक्ष राजेंद्र देशपांडे, 'फॅसिलिटेटर' **ऋषिकेश चव्हाण निधी जामवाल**

आनंद चितळे, संयोजक वीरेंद्र चित्राव, इरा चव्हाण आदी उपस्थित होते.

चव्हाण म्हणाले, "पर्यावरण चित्रपट निर्मितीमध्ये गेल्या १५ वर्षांत नावीन्यपूर्ण संकल्पनांसह अनेक तरुण प्रवेश करीत आहेत, हे आशादायी चित्र आहे. पर्यावरणीय चित्रपट तयार करणे, म्हणजे केवळ निसर्ग किंवा वाघ, चित्ता, हत्ती या प्राण्यांचे चित्रीकरण करणे, असा मर्यादित अर्थ नसून समुद्राखालचे आणि भूपृष्ठीय वन्यप्राण्यांचे जीवन छायाचित्रित करणे अपेक्षित आहे. पर्यावरणीय चित्रपटांच्या माध्यमातून होणारे हे दस्तऐवजीकरण हा जैवविविधतेचा वारसा आहे."

**18th KVIFF to feature over 100 films & 3 Vasundhara Mitra honours**

Anjali Jhangiani / Jan 3, 2025, 00:29 IST

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**TOI**

Pune: Set to showcase more than 100 globally acclaimed films, the 18th Kirloskar Vasundhara International Film Festival (KVIFF) will be held from Jan 7 to 10. The festival, themed 'Nutritious Food, Flourishing Nature, and Healthy Society', has garnered over 85,000 delegate registrations worldwide.

The festival will open with Shatabdi Chakrabarti and Kartik Chandramouli directed 'Red Sand Boa: Traded to Extinction?'.

Image credit: Online TOI article

The Kirloskar Vasundhara Committee has nominated THT for the esteemed 'Kirloskar Vasundhara Mitra Honor' (Filmmaker Category) 2025. This nomination recognizes THT's significant contributions to

conservation through impactful filmmaking. Their extensive work in highlighting threatened natural habitats and indigenous species, including lesser-known ones, via 190 commissioned films, aligns with the Kirloskar Vasundhara International Film Festival's (KVIFF) commitment to environmental protection. This honour, consisting of a 'Puneri Pagdi', 'Uparana', citation, and memento, underscores the value of THT's storytelling in raising crucial awareness.

*February, 2025*

## **REDISCOVER NATURE CAMPAIGN**

*THT along with 23 Indian conservation organizations collaborated on the inaugural #RediscoverNature campaign, February, 2025*

#RediscoverNature campaign, a unified initiative to raise awareness and foster a sense of community around nature conservation. The campaign

leveraged Instagram, utilizing weekly prompts under the common hashtag and a shared design template with core captions, while allowing each organization to personalize content with their own visuals and specific messaging.

The #RediscoverNature campaign achieved a significant reach, touching over 300,000 Instagram accounts and generating approximately 1,000 responses from the public. Communications teams involved reported a highly positive experience, highlighting the increased sense of community and collaborative spirit among the participating organizations.

Adding to its success, the campaign garnered media attention, with Mid-day news covering the initiative and featuring comments from Rushikesh Chavan, Head, The Habitats Trust. Due to its overwhelming positive reception and impact, #RediscoverNature is now slated to become an annual event.



Image credit: Newspaper clippings – Midday coverage



March, 2025

## THT AND THE INDIAN COAST GUARD ORGANIZED INTERTIDAL WALK

*THT and the Indian Coast Guard (ICG) successfully organized an intertidal walk at the Narara Marine Sanctuary, March, 2025.*

This initiative, conducted in partnership with the Sustainable Ecology Foundation (SEF), engaged 50 Coast Guard personnel in both practical conservation efforts and environmental awareness activities. The event underscored the participating organizations' collective commitment to marine ecosystem protection.



*Image of the event posted on ICG's Instagram page*

## MEDIA HIGHLIGHTS

Here's a glimpse of significant media highlights throughout the year



*Image 1: News coverage Lakshadweep Times : "Our Reef, Our Life" Initiative by REEF and THT*

# Mumbai's wetlands: A developmental a

Updated on: 01 February,2025 11:19 PM IST | Mumbai  
Rushikesh Chavan | mailbag@mid-day.com

Share:



Text AA AA



Our flood-prone areas could have wetlands that not only store excess water but also double as recreational areas for families and friends to gather. Further, the water can be used for public utilities, reducing pressure on our dams



Image 2: Mid-day article by Rushikesh Chavan, Head THT

**OUTLOOK BUSINESS**  
THINK BEYOND. STAY AHEAD.

INDIA MONEY TRAVELLER LUXE HINDI

≡ MARKETS NEWS CORPORATE AI MAGAZINE OB DATALENS IN DEPTH ECONOMY & POLICY

Columns

## Embracing Regenerative Multi-Solving for a Thriving Planet

Regenerative ecological multi-solving differs from traditional afforestation-based approaches by helping humans achieve economic benefits while rejuvenating nature's processes. It aims to rebuild entire ecosystems, making them resilient, biodiverse and adaptive to climate change

**Rushikesh Chavan**  
Updated on: 9 December 2024 7:10 pm

Image 3: An OUTLOOK BUSINESS article on Embracing Regenerative Multi-solving for a Thriving Planet by Rushikesh Chavan, Head THT



# Tame Our Runaway Wildlife Destruction

India's diversity extends far beyond its people, food and culture. It encompasses a breathtaking array of biodiversity. With nearly 6.5% of the world's wildlife species, India is home to some 7.6% of mammals and 12.6% of bird species. Sadly, this natural wealth is under threat. Take elephants. The latest population estimate, conducted by Wildlife Institute of India and forest departments, shows their number has plummeted from 19,825 in 2017 to 15,887, a decline of almost 20%. This estimate, based on DNA analysis between 2022 and 2023, excludes tusk-ers from northeastern states. While some attribute this drop to a different counting method, more significant factors include habitat loss, poaching, electrocution and train accidents.



Data presented in Lok Sabha revealed that 528 elephants have died from unnatural causes over the past five years, with electrocution claiming 392 lives and train accidents resulting in 73 deaths. These are 'killings', not 'deaths'.

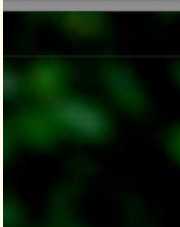
We must create space for wildlife and secure corridors they use to move from one area to another. Innovative solutions are crucial for reducing human-animal conflict and making space for animals. HCL Group-backed The Habitats Trust implemented a mobile-based early warning system in the Valparai plateau of Tamil Nadu. This system alerts locals via bulk SMS and voice calls, helping them avoid fatal encounters with elephants. These efforts have fostered community participation, reduced human injury incidents and enhanced coexistence, serving as a model for other states.

*Image 4: Economic Times article on Tame our Runaway Wildlife destruction by Rushikesh Chavan, Head THT*

## Partnership in the Context of Sustainable Development and Climate Solutions

In this conversation with TerraGreen, **Rushikesh Chavan**, Head, The Habitats Trust, outlines the role of partnership in the context of sustainable development and climate solutions. As per him—the most crucial enabler for partnerships is a shift in mindset. We must transition from being gatekeepers to being aggregators, co-creators, and facilitators. True partnerships require empathy, active collaboration, and a hands-on approach.

TERRAGREEN | MARCH 2025

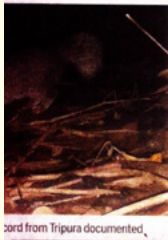


challenges, offering a collective path forward to address the complex challenges arising from climate crisis.

How do you envision integrating climate solutions and sustainability across policies, industries, and sectors?



*Image 5: Terra Green Magazine and article on Partnership in the context of Sustainable Development and Climate Solutions by Rushikesh Chavan, Head THT*



The team that set up camera traps in the forest

## Wildlife breakthrough in Tripura

Mumbai researchers capture first camera-trap footage of rare ferret badger

RANJEET JADHAV

ranjeet.jadhav@mid-day.com

MUMBAI-based researchers Omkar Patil and Dr Ashutosh Joshi from the Vivek PARC Foundation have conducted a rapid assessment of mammalian fauna in Tripura's protected areas, uncovering vital insights into local wildlife and habitats. Among their significant findings is the first-ever camera-trap footage of a ferret badger in Gumti Wildlife Sanctuary, highlighting the urgent need for ongoing conservation efforts in the region.

Conducted from January to April 2024, the study covered all protected sites, including Sepahjila Wildlife Sanctuary, Clouded Leopard National Park, Rowa Wildlife Sanctuary, Trishna Wildlife Sanctuary, Bison National Park, and Gumti Wildlife Sanctuary. The study aimed to document diverse mammalian species, analyse threats to wildlife and eco-

systems and identify key factors for long-term conservation strategies.

Led by researchers Patil and Dr Joshi, the study received support from The Habitats Trust's Technology for Conservation team. Patil said, "The significant finding was the confirmation of a ferret badger in Gumti Wildlife Sanctuary, for which the first-ever camera-trap images were captured during the research."

The survey provides an in-depth overview of the state of

mammalian fauna and their habitats within Tripura's protected areas. Methods such as camera trapping and line transects were utilised to collect data. Various images of some of the most cryptic species, like the leopard cat, fishing cat, and crab-eating mongoose, were documented. Indirect signs of large carnivores were also recorded during line transects and foot patrols by the team.

A medium to large scat (faecal matter) belonging to a big cat (suspected to be a clouded leopard) was discovered in the Clouded Leopard National Park, indicating the possible existence of this big cat in the park. The Relative Abundance Index (RAI) from camera traps was highest for species such as the Common Palm Civet and Crab-eating Mongoose, while other species had a lower RAI. Vikram Sankaranarayanan, executive director of the Vivek PARC Foundation, emphasised that "This fruitful collaboration with the Tripura Forest Department shall pave the way for multifaceted and diverse interventions that will strategically support the conservation and management of wildlife in Tripura for years to come."

Rushikesh Chavan, head of The Habitats Trust, added, "Tripura is part of the global biodiversity hotspot. It harbours several rare and threatened species. These joint studies with the Tripura Forest Department are a critical first step to ensure that the biodiversity and ecosystems of Tripura are safeguarded."

### Why this study matters

The rapid assessment of mammalian fauna in Tripura's protected areas is vital for several reasons. It marks the first systematic documentation of local wildlife through camera trapping, uncovering species like the ferret badger. This

research highlights the urgent need for conservation efforts, especially in a region that is part of global biodiversity hotspots. By identifying threats to wildlife and ecosystems, it enables targeted protection strategies.

Image 6: THT's TfC team and PARC in a Mid-day news coverage

10 CITY

## Budget wishlist: Relief, reforms & reality check

From senior citizens to small businesses, stakeholders push for tax cuts, better policies and bold reforms

Continued from page 1

Transport and infrastructure

Member of the National Council of Ministers

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Citizen wishes

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Senior citizens' expectations

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Environment & climate change

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Image 7: Union Budget and THT's Wishlist

## The cost of ignoring our wetlands

Without urgent conservation efforts, Mumbai's wetlands may vanish completely, leaving city exposed

BY INVITATION

Rushikesh Chavan

Flamingos in the wetland areas of Navi Mumbai. PHOTO: PRADEEP

Flamingos in the wetland areas of Navi Mumbai. PHOTO: PRADEEP

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ment this as part of the MMR region's development, the ever-growing Mumbai could not only contribute to MMR's goal of 15% per cent growth for Maharashtra but also bring in ecological security that supports human well-being, cultural benefits, and improves satisfaction and happiness for its residents. Our food-premise areas could have wetlands that not only store excess water but also double as recreational areas for families and friends to gather. Further, the water can be used for public utilities, reducing pressure on our dams. Wetlands visited by flamingos can be ecologically secured and converted into tourist attractions. There is enough research done to come up with viable improvements in areas of regenerative development of infrastructure and waste management to ensure that all sewage and effluent are treated before entering water bodies. Equally important is the restoration of native flora and fauna. In the realm of political economy, it is essential to prevent and minimise the diversion of wetlands for alternate purposes.

Lately, using existing legal provisions to protect wetlands to our advantage by converting short-term, need-based development into a new regime that allows wetlands to play their role in human development is key. We must shift focus from policy to effective action. It is not known to the people who matter? It is the challenge lies in addressing the pressing needs that drive short-term exploitation such as food, water, and livelihood. Equally critical is creating incentives that prioritise long-term benefits over immediate gains. India already has some of the most well-drafted legal provisions to achieve this. There are several 'joanas' and several lakhs of crores are pumped through them. This has limited impact on ground. The focus has to shift to mitigating the challenges in implementing the law. This is a long-drawn battle, but the one that can and must be won. On this World Wetlands Day let us not just talk about our theme of 'Protecting wetlands for our Common Future' but protect wetlands for our common future. Rushikesh Chavan is head of The Habitats Trust

Image 8: Flamingos in the wetland areas of Navi Mumbai an article in Mid-day by Rushikesh Chavan, Head THT

# Team

## **Rushikesh Chavan**

Head, The Habitats Trust

## **Communications and Outreach**

Sejal Mehta, Lead(till June 2024)

Kanak Angirish, Lead (from July 2024)

Lubna Amir, Manager

## **Ecological Restoration**

Robin Abraham, Lead

Nishant Seth, Deputy Manager

## **Education and Awareness**

Rutuja Dhamale, Lead

## **Marine Programme**

Abhishek Jamalabad, Lead

Deepika Sharma, Senior Executive

## **Terrestrial and Freshwater Programme**

Anup Bokkasa, Lead

Devyani Singh, Associate Manager

Kaushik Sarkar, Senior Executive

Maxim Rodrigues K, Executive

## **Technology for Conservation**

Santhosh SL, Lead

Kishore Panaganti, Associate Manager

Abigith Baby, Deputy Manager

## **THT Grants**

Rutuja Dhamale, Lead

Sunaina Mullick, Deputy Manager

Ninad Bhosale, Associate Manager

Sukanya David, Senior Executive

## **THT Operations**

Subhadradevi Leela, Lead

Sambhav Sirya, Associate Manager

Sandeep Chauhan, Senior Executive

# Budget

## The Habitats Trust

### Balance Sheet as at 31 March 2025

(All amounts are in lakhs of Indian Rupees, unless otherwise stated)

	Note	As at 31 March 2025	As at 31 March 2024
<b>I Sources of funds</b>			
<b>1 NPO funds</b>			
(a) Restricted funds		-	-
(b) Unrestricted funds	3	175.79	43.77
		<u>175.79</u>	<u>43.77</u>
<b>2 Non-current liabilities</b>			
(a) Long-term provisions	4	20.46	15.14
		<u>20.46</u>	<u>15.14</u>
<b>3 Current liabilities</b>			
(a) Payables	5	154.26	216.13
(b) Other current liabilities	6	129.56	75.34
(c) Short-term provisions	7	1.70	0.92
		<u>285.52</u>	<u>292.39</u>
<b>Total</b>		<u><u>481.77</u></u>	<u><u>351.30</u></u>
<b>II Application of funds</b>			
<b>1 Non-current assets</b>			
(a) Property, plant and equipment and intangible assets			
(i) Property, plant and equipment	8	62.93	59.32
(b) Long-term loans and advances	9	0.33	0.61
		<u>63.26</u>	<u>59.93</u>
<b>2 Current assets</b>			
(a) Cash and bank balances	10	23.71	11.45
(b) Short-term loans and advances	11	394.80	279.92
		<u>418.51</u>	<u>291.37</u>
<b>Total</b>		<u><u>481.77</u></u>	<u><u>351.30</u></u>
<b>Significant accounting policies</b>	2		

The notes referred to above form an integral part of the financial statements

As per our report of even date attached

For **B S R & Co. LLP**

Chartered Accountants

Firm Registration Number: 101248W/W-100022

**RAKESH DEWAN**  
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**Rakesh Dewan**  
Partner  
Membership No.: 092212

Place: Gurugram  
Date : 28 July 2025

For and on behalf of the Board of Trustees of  
**The Habitats Trust**

**ROSHNI NADAR MALHOTRA**  
Digitally signed by  
ROSHNI NADAR  
MALHOTRA

**Roshni Nadar Malhotra**  
Managing Trustee

Place: Noida, UP  
Date : 28 July 2025

**SHIKHAR NEELKAMAL MALHOTRA**  
Digitally signed by  
SHIKHAR NEELKAMAL  
MALHOTRA

**Shikhar Neelkamal Malhotra**  
Trustee

Place: Noida, UP  
Date : 28 July 2025



**The Habitats Trust**

**Income and Expenditure Account for the year ended 31 March 2025**

(All amounts are in lakhs of Indian Rupees, unless otherwise stated)

	Note	For the year ended 31 March 2025			For the year ended 31 March 2024		
		Unrestricted funds	Restricted funds	Total	Unrestricted funds	Restricted funds	Total
<b>I Income</b>							
(a) Donation and grants	12	3,244.00	-	3,244.00	1,805.50	-	1,805.50
<b>II Other income</b>	13	13.57	-	13.57	5.32	-	5.32
<b>III Total income (I+II)</b>		<b>3,257.57</b>	<b>-</b>	<b>3,257.57</b>	<b>1,810.82</b>	<b>-</b>	<b>1,810.82</b>
<b>IV Expenses</b>							
(a) Donation and grants paid	14	1,523.03	-	1,523.03	498.21	-	498.21
(b) Employee benefits expense	15	314.26	-	314.26	265.65	-	265.65
(c) Depreciation and amortisation	16	17.03	-	17.03	24.33	-	24.33
(d) Other expenses							
- Project expenses	17	1,118.05	-	1,118.05	841.82	-	841.82
- Administrative and general expenses	18	153.18	-	153.18	125.12	-	125.12
<b>Total expenses</b>		<b>3,125.55</b>	<b>-</b>	<b>3,125.55</b>	<b>1,755.13</b>	<b>-</b>	<b>1,755.13</b>
<b>V Excess of income over expenditure for the year</b>		<b>132.02</b>	<b>-</b>	<b>132.02</b>	<b>55.69</b>	<b>-</b>	<b>55.69</b>

**Significant accounting policies**

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The notes referred to above form an integral part of the financial statements

As per our report of even date attached

For **BSR & Co. LLP**

Chartered Accountants

Firm Registration Number: 101248W/W-100022

**RAKESH DEWAN**  
Digitally signed by RAKESH DEWAN  
Date: 2025.07.28  
21:29:26 +05'30'

**Rakesh Dewan**  
Partner  
Membership No.: 092212

Place: Gurugram  
Date : 28 July 2025

For and on behalf of the Board of Trustees of

**The Habitats Trust**

**ROSHNI NADAR MALHOTRA**  
Digitally signed by ROSHNI NADAR MALHOTRA

**Roshni Nadar Malhotra**  
Managing Trustee

Place: Noida, UP  
Date : 28 July 2025

**SHIKHAR NEELKAMAL MALHOTRA**  
Digitally signed by SHIKHAR NEELKAMAL MALHOTRA

**Shikhar Neelkamal Malhotra**  
Trustee

Place: Noida, UP  
Date : 28 July 2025





A9, Block A, Sector 3,  
Noida, Uttar Pradesh 201307

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