



# ANNUAL REPORT 2024-25

Nourishing nature to secure our future

## **Aaranyak's MISSION**

Our mission is to foster conservation of biodiversity in Northeast India through research, environmental education, capacity building and advocacy and legal and policy reform to usher a new era of ecological security.

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*Aaranyak is a registered society working towards nature conservation in North East India since 1989. Our strength lies in applied research in biological, environmental and social field and our geographical area of interest is the North Eastern India and Eastern Himalayas. Aaranyak is steered ahead by young professionals dedicated and committed to the cause of conservation. Aaranyak is recognized as a Scientific and Industrial Research Organization (SIRO) by the Government of India.*

Know More About Us -[www.aaranyak.org](http://www.aaranyak.org)

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**Executive Committee Members of Aaranyak**

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## Avifauna Research and Conservation Division (ARCD)

### 1. RESEARCH AND CONSERVATION

**Greater Adjutant Stork Conservation Project**-The project was started in 2007, led by Dr. Purnima Devi Barman and soon took on the shape of a revolutionary conservation movement. Identifying the core issues that lay behind the Greater Adjutant's population decline, the initiative recognized the need of participation and ownership of nest tree owners for the bird. The movement began in Kamrup District of Assam, and focuses on a persecuted species by empowering local women to equate conservation with livelihoods, economy, and identity. By 2020 there has been an 8-fold increase in number of Hargila nests in Assam due to efforts of GASCP.

#### A. Species Research & Conservation

A.1 Species Rescue: Successfully rescued a vulnerable 4.5-month-old Hargila chick and handed it over to the Assam Forest Department's Sila Range for safekeeping and rehabilitation.



A.2 Net Installation: Installing protective nets under the trees to safeguard the birds and ensure a successful nesting period.



A.3 Monitoring: Monitoring of birds, nests, nesting patterns.

A.4. New Nesting Colony: Identification of new nesting colony in Kulahati

## **B. Habitat Research & Conservation**

B.1. Habitat Restoration: 450 number of plants were distributed among the community people, promoting green cover expansion, habitat restoration and sustainability. Hundreds of 8ft Kadam trees and other  
Avishek Sarkar

thousands of tree species were planted successfully plantation drive initiatives. Many trees have been protected from being cutting down.



B.2 Nesting Survey: Field visit to Morigaon and Kulahati to carry out a nesting survey and interaction with residents to raise awareness about Hargila conservation and gather support for protecting the nesting area.

B.3 Habitat Monitoring: Monitoring of habitat conditions in the field sites.

B.4 Formation of Community Group: Formed a women-led community group at Kulahati dedicated to protecting the majestic Hargila bird, its habitat and preserving the natural world.

B5 Field-Based Habitat Assessment and Population Count: The GASCP team conducted a field visit to the local garbage dump, where they collected valuable data on the population of Hargila birds. Additionally, they observed the nearby wetlands and documented the birds' behaviour, gaining insightful information for their conservation efforts.

## **2. Livelihood and Social Entrepreneurship**

C.1 Weaving: A total of 2000 women were given yarn for weaving purposes. More than 300 women received handloom machines to start weaving from home. Community women were involved in immersive 5-day training program was carried out involving 220 women, 10 special community women were engaged as trainers. Our weaving workshop remains ongoing, with our community women leaders providing training to promote local handicrafts. During the month of February, approximately 60 women benefited from the workshop, acquiring new skills and knowledge to preserve traditional crafts.



C.2 Organic Farming: Community members promote organic farming practices as the harvesting season begins, encouraging sustainable and eco-friendly agriculture.

C.2. Cutting and tailoring centers: Women groups running tailoring and cutting training centre to empower other community women. Training on tailoring, accessorizing clothes, making cloth bags, stitching has been provided to the community women Members.

C.3. Showcasing Women-Led Conservation Crafts: Display of Artcraft's in an exhibition in the pandal during Durga Puja by GASCP team and community women.

C.4. Entrepreneurship: Products like Hargila-themed sadors, gamusas, bags, stoles, and home décor items were sold through Pashoopakshee and Stork Sister Store deeporbeel, helping women earn income.

C.5. Ecotourism: Tourist visit Dadara village for bird watching and interact with active community members. Tourists also visit to Stork sister store Deeporbeel.

### **3. Education, Outreach and Communications:**

A. Integrating Hargila Conservation into Cultural Festivities: Community women and their daughters celebrated HargilaRongali Bihu with pride. Through this celebration they expressed their deep connection with the nature and Hargila and created awareness about this iconic species. Prior to which GASCP team organised two weeks Rongali Bihu Karmashala for the community women. A total of 80 women and girls participated in the Karmashala.

B. DC Metro Election's mascot: Kadami and Tutula mascots representing Hargila unveiled by the Kamrup Metropolitan District administration as part of an election awareness campaign. GASCP team also organised awareness campaign to create awareness about fundamental right of voting and it's importance. Community women dressed up as Kadami and Tutula to create awareness about Election mascot Kadami and Tutula. Election awareness campaign were also carried out at Dadara with Youths



C. Plantation Drive: As global warming continues to have a significant impact on our daily lives and the environment, the GASCP team organized a workshop to raise awareness about the issues caused by climate change and promote sustainable practices. As part of this initiative, a plantation drive was carried out in collaboration with local communities, encouraging active participation in protecting and restoring the environment. A Plantation Drive was started in Singimari in collaboration with Pub BongsorSamanay Samiti and community people. Along with Kadam trees, guava, neem, simolu, lychee, and bakul were planted further promoting environmental conservation and awareness

D.Hargila art workshop: A weekly Hargila summer art workshop was held for the month of July. A total of 50 students benefited from the workshop. Another art workshop at the Stork Sister Store, Deepor Beel, aimed at raising awareness about Hargila (Greater Adjutant Stork) conservation among local children. The workshop provided a creative platform for young participants to express their thoughts and understanding of nature and wildlife through art. This engaging activity not only fostered environmental awareness but also encouraged the younger generation to take pride in protecting the Hargila and its habitat.

E. Economic upliftment: Rural women from nearby villages set up livelihood stalls at Dadara Stoppage, showcasing their entrepreneurial spirit. The stalls offered a variety of products, including fresh vegetables, grains, hand-woven textiles, and beautiful paintings. This initiative provided a platform for women to earn a living, promoting economic empowerment and self-sufficient. Supporting local artisans, customers helped contribute to the growth and development of rural communities. The event was a testament to the women's hard work and determination to succeed.

F.Hargila tableau presented at Gauhati University- The students of Nagaon Girls' College presented a stunning tableau at the Youth Festival held at Gauhati University, showcasing their creativity and passion. The tableau, featuring the Hargila (Greater Adjutant Stork), is a testament to the students' admiration and

respect for the conservation efforts surrounding this majestic bird. The display has been an encouragement, reflecting the love and dedication towards conservation efforts and the bird's significance to the region.

G. Happy Hatching campaign: The GASCP team, led by Dr. Purnima Devi Barman, joyfully celebrated the Hargila's hatching season with the local community, incorporating traditional rituals and symbolic gestures. The women participants enthusiastically joined in the festivities. The celebration culminated with Dr. Barman delivering an impactful lecture on the harms of single-use plastics, followed by the distribution of eco-friendly bags to all the women, promoting a sustainable and environmentally conscious lifestyle.

#### H. Education & Awareness:

- GASCP team visited Jorhat made people aware about the Hargila conservation. Team also took a bird's survey at Jorhat.
- On the occasion of World Wildlife Day, the GASCP team organized an awareness campaign with community children to promote the importance of protecting wildlife and conserving nature for a sustainable future.
- Our team established a 'Hargila Corner' at Bongolagarh School to raise awareness about the endangered Greater Adjutant Stork. This initiative aims to inspire youth to take action for environmental conservation. The corner features informative posters, a visual representation of the Hargila's life cycle, and engaging artwork, fostering a deeper appreciation for this iconic species.
- Wall murals created by interns in community homes to spread awareness and promote conservation efforts.
- Documentary screening at the weekly Environmental Education Session team organized a film screening titled Stork Sisters of Wildhope released by PNB Nature.
- Weekly Brainstorming sessions-Community women organizes weekly meetings, where they discuss and design various Programs to create awareness about hargila conservation.
- Weekly Environmental classes at school- At Kushal Kowar High School, Pacharia, our team members providing weekly environmental classes. These classes include various interactive sessions and extra curriculum activities. Our team members organize rescuing sessions, art competition, essay competition, crafting sessions etc. And also encourages them to live closely with the nature.
- On the occasion of Teacher's Day, Dr. Barman celebrated with the community women. Dr. Barman conveyed strong and meaningful messages to the women and encouraged them to work for the nature.
- Art workshop- TheHargila Art Workshop is an ongoing activity round the year, this initiative has been promoting environmental awareness and creativity within the community. Through hands-on art activities and discussions, the workshop has achieved increased community engagement, raised environmental awareness, promoted creativity and self-expression. The workshop has been a successful initiative in inspiring creativity and environmental awareness within the community. On the occasion of Diwali art workshop was organised among community children. The motive of this workshop to create awareness about celebrating Green Diwali among children.
- Dr. Purnima Devi Barman was the esteemed guest at KidZee's annual event, where she enthralled young minds with engaging poems and mesmerizing recreations of majestic bird calls, inspired the next generation of conservationists and wildlife enthusiasts.

- Distribution of Hargila calendars among community during New Year, sharing a symbol of conservation and community spirit.
- Awareness campaign: Dr. Purnima Devi Barman engaged with over 300 community members, including women, in an interactive session at Brighu Kumar Phukan Auditorium. Dr. Barman emphasized the crucial link between women's empowerment, sustainable development, and environmental conservation. Dr. Barman's passionate appeal urged the community to join forces in preserving nature, promoting women's empowerment, and fostering sustainable development.
- Dr. Purnima Devi Barman conducted an educational outreach program at local schools to promote environmental awareness and conservation. Through engaging and interactive sessions, she connected with students using innovative tools such as a Hargila headdress, poems, and folk songs. By inspiring a love for nature and encouraging eco-friendly behaviors, Dr. Barman empowered the next generation to become stewards of the environment and protectors of the majestic Hargila bird and the broader natural world.
- Dr. Purnima Devi Barman was invited at Sanskriti The Gurukul. Dr. Barman shared facts about Hargila with the students and also shared a session on Environmental Education and its importance.
- GASCP team visited Morigaon to spread awareness about protecting the Hargila (Greater Adjutant Stork). During the visit, the team distributed safety nets to place under nesting trees to stop chicks from falling and getting hurt, eco-friendly bags to promote sustainable living, and T-shirts to appreciate the active members of the community. By working closely with the local people, the team hopes to encourage everyone to take part in saving the Hargila and protecting its home.
- Dr. Purnima Devi Barman shared her expertise on 'Community Engagement - Challenges and Best Practices' at the ITEC-Executive Course on Capacity Building for Wildlife and Conservation Practitioners. The session took place at Kaziranga National Park, Assam, highlighting the importance of community involvement in conservation efforts.
- Our community women conducted an outreach program, visiting Kulhati, Singimari, Dolibari, and Athiaboi. They raised awareness about conservation, promoting community involvement in environmental protection. The campaign aimed to educate locals about the importance of preserving natural habitats and protecting endangered species. By engaging with the community, our women's group inspired collective action towards a sustainable future. Their efforts demonstrated the power of grassroots initiatives in driving positive change.

#### **4. Complementing Conservation Efforts**

- Environment Day celebration: Women group celebrated World Environment Day by planting trees. 8 ft high Kadam trees have been planted along with guava, neem, simolu, lychee, bakul plants.
- Felicitation program: On 22nd July all the trained women who participated in the Hargila Weaving workshop were felicitated with certificates. Dr. Purnima Devi Barman and other four guests were present at the event. A total of 220 women were felicitated and got benefited from this event.
- Dr. Purnima Devi Barman had a program with RJ Pahi, Red FM India.

<https://youtu.be/r5YVWSYatng?feature=shared>

- Collaboration: The Greater Adjutant Stork Conservation Project team collaborated with Art coaching classes in Bhattapara, to guide them to adopt an environment Education program through art and connect the young kids with nature as well.

- Volleyball campaign: On the occasion of Independence Day Dr. Barman inaugurated a volleyball match for girls at Bongolagarh, Kamrup. Dr. Barman promoted sports and sideways Dr. Barman motivated them for Environmental conservation as well.
- Clean Drive- Community women conducted a cleaning Drive at Dadara, highlighting the importance of maintaining a clean and safe habitat for our environment.
- Meditation classes- Dr. Barman encouraged community women to look after their mental and physical health. With this purpose weekly meditation classes have been conducted at Dadara. An active member, Nani Rajbongshi providing these meditation classes on weekly basis.
- Development of Hargila stamp for awareness.
- Green Diwali celebration-Our team organised an awareness campaign for celebrating Green Diwali, just like other years. In Dadara, Pacharia, Singimari and Dhimorbori our team members created awareness by putting words in using eco friendly crackers that won't harm any flora fauna, or species or do not cause any harm to our environment. The main motive of this campaign to aware people about celebrating Diwali with authentic rituals by lighting lamps and diyas and making it a green Diwali.
- Greater Adjutant Stork motif promotion-To promote the Hargila motif and support conservation efforts, the team showcased custom wrappers featuring the Hargila design, raising awareness and visibility for this iconic species.
- Community women celebrated Bihu with joy, adding a conservation theme. They wore Hargila stoles, combining tradition with conservation awareness.
- The community women of Kulhati, where a new nesting colony has been established, organized a 'Naam Kirtan' (devotional singing) program, showcasing their enthusiasm and commitment to conservation efforts.
- On the vibrant occasion of Holi, our community sisters created stunning Hargila-inspired Rangoli designs, beautifully blending culture with conservation awareness. This creative expression not only celebrated their heritage but also highlighted the importance of protecting the majestic Greater Adjutant Stork and its habitat.
- Free health camp, Dadara: The GASCP team, in collaboration with ERC Downtown Hospital, organized a free eye check-up camp that benefited over 200 people. Community members received eye examinations, diagnoses, and treatment, with access to free medicines and affordable glasses, ensuring better eye health and awareness among the local population.
- On the occasion of Janmashtami, the team organized a Hargila art and fancy-dress workshop for the children of Dadara village. The event aimed to combine cultural celebration with environmental awareness by encouraging children to express their creativity through Hargila-themed art and costumes. The young participants enthusiastically took part, showcasing their artistic talents and learning about the importance of conserving the Greater Adjutant Stork. The workshop created a joyful and educational atmosphere, promoting love for nature and wildlife among the younger generation

## **5. SUCCESS STORY**

- A team from National Geographic Germany visited Dadara to document the inspiring conservation story of Dr. Purnima Devi Barman and showcase the grassroots-level conservation efforts led by local women.



- Femina Magazine featured Dr. Barman's work.
- On the 1st of May, Dr. Purnima Devi Barman was honored with the prestigious “Green Oscar” — the Whitley Gold Award 2024 — in recognition of her exceptional efforts to protect the endangered Greater Adjutant Stork. The award ceremony took place at the Royal Geographical Society in London, where Dr. Barman received the award from Her Royal Highness Anne, The Princess Royal. Following this remarkable achievement, the community, children, and youth celebrated the event enthusiastically through various awareness campaigns, drawing inspiration from Dr. Barman’s dedication to wildlife conservation and empowering others to actively participate in protecting the environment
- The 2024 Whitley Award winner Dr. Purnima Devi Barman featured in July month's Nat Geo kids UK magazine.
- Forbes featured Dr. Purnima Devi Barman as Sustainability leader. <https://www.forbes.com/sites/eduardogarcia/2024/09/19/small-scale-big-impactsustainability-leaders-making-a-difference-in-their-communities/>
- People sharing glimpses of their visit to see Hargila attire, exhibiting at Natural History Museum, London.
- BBC Radio featured Dr. Purnima Devi Barman for her inspiring conservation work and dedication to protecting the endangered Greater Adjutant Stork, locally known as Hargila. Dr. Barman's story, highlighted on BBC Radio, showcases how grassroots efforts can make a global impact in saving species and uplifting local communities.
- Dr. Purnima Devi Barman conferred with 29th International Guwahati Trade fair excellence award 2024 along with other 5 distinguished personalities from different field.

- Dr. Purnima Devi Barman was conferred the prestigious "Sanctuary Wildlife Service Award 2024" by Sanctuary Asia Magazine on December 6th in Mumbai, recognizing Dr. Barman's tireless conservation efforts and dedication to protecting the greater adjutant stork and its habitats.
- Dr. Andrew Fleming, Deputy High Commissioner for the East and Northeast regions of the British High Commission in Kolkata, visited Dadara, giving all the women group members a chance to showcase their work. Dr. Fleming was impressed by Dr. Purnima Devi Barman's dedication to Hargila conservation and listened closely as Dr. Barman shared the story of conservation journey, the challenges faced, and the formation of the community women groups.
- Dr. Purnima Devi Barman's remarkable conservation journey was prominently featured in the esteemed weekly magazine "Sukanya" by Pratidin Times, highlighting her groundbreaking work and inspiring achievements in protecting the greater adjutant stork and its habitats.
- Dr. Purnima Devi Barman was invited to give a training session on "How to work with communities to save endangered species in unprotected areas". The session was conducted by the Assam Forest Department for 36 Range Officers at Aaranya Bhawan
- The Logical Indian India's first public-spirited digital publisher featured Dr. Purnima Devi Barman's story

<https://www.facebook.com/share/p/14mFdkVjtN/>

- Dr. Purnima Devi Barman has been recognized as one of Time Magazine's Women of the Year 2025. This prestigious honor acknowledges her tireless efforts in conserving the endangered Greater Adjutant Stork, increasing the population from 450 in 2007 to over 1,800 today. As the founder of a women-led conservation movement, Dr. Barman has mobilized over 20,000 women to protect the stork's nesting sites and promote biodiversity awareness, inspiring conservation efforts globally.
- Chief Minister of Assam Dr Himanta Biswa Sarma congratulated Dr. Purnima Devi Barman for being recognized as a TIME Woman of the Year.
- Dr. Purnima Devi Barman's inspiring story is now available in a podcast with Mon Jai studio.
- The film Hargila: The Greater Adjutant Stork by Partha Sarathi Mahanta received a special mention at the 70th National Film Awards, recognizing its outstanding contribution to wildlife filmmaking and raising awareness about the endangered Greater Adjutant Stork.
- Dr. Susan Gardner, UNEP Director of Ecosystem Restoration, and her team visited Dadara village, exploring the majestic Hargila habitat and engaging with our community women. Dr. Gardner delivered an inspiring speech, highlighting the vital role women play in climate restoration and food security. Dr. Purnima Devi Barman warmly hosted Dr. Gardner, sharing the remarkable journey of community-led conservation efforts and the transformative impact of women's empowerment on environmental sustainability.
- Dr. Purnima Devi Barman was honored as the chief guest at the Reserve Bank of India's International Women's Day celebration, recognizing her remarkable contributions to conservation and women's empowerment.
- Dr. Purnima Devi Barman shares her inspiring journey on Assam Legislative Assembly TV in celebration of International Women's Day.

- Dr. Barman's captivating journey and insightful discussions on pressing issues were hold on Gplus's YouTube channel.

[https://youtu.be/FvbOfb\\_krxE?si=tJK\\_oNnvsW7hSv-p](https://youtu.be/FvbOfb_krxE?si=tJK_oNnvsW7hSv-p)

- Dr. Purnima Devi Barman honored by NABARD for her outstanding contributions to the conservation field on International Women's Day.
- Dr. Purnima Devi Barman was invited on International Women's Day by the Regional News Department of Guwahati Doordarshan Kendra, recognizing her trailblazing contributions to conservation and women's empowerment.
- Dr. Purnima Devi Barman was invited to the Centre for DNA Fingerprinting and Diagnostics (CDFD) in Hyderabad to celebrate International Women's Day. Dr. Barman shared experiences and insights with scientists and researchers at the centre, highlighting Barman's remarkable journey.
- On March 28, Dr. Purnima Devi Barman was an invited speaker at India Today's Tourism Conclave event, where Dr. Barman spoke on the topic "Tourism Meets Tenacity: Enchanting Assam Enduring Effort".

<https://youtu.be/V6VncG1P52E?si=-3fzvtY8Lvfk4LuW>

- Dr. Purnima Devi Barman was invited to SBI Dispur Branch, Guwahati, in recognition of her groundbreaking contributions to conservation and women's empowerment.
- Dr. Purnima Devi Barman was a special guest at Krishna Kanta Handiqui State Open University, Guwahati .
- Dr. Purnima Devi Barman participated in an exclusive interview with Ravi Sharma, where Dr. Barman shared her inspiring journey and impactful work in Hargila (Greater Adjutant Stork) conservation. During the discussion, Dr. Barman highlighted her community-based conservation model and the collective efforts that have transformed local perceptions toward the species. The interview featured in Ravi Sharma's special show, offering viewers an in-depth look into Dr. Barman's remarkable dedication and pioneering approach to safeguarding one of Assam's most endangered and iconic birds.
- A French School has recently signed a pact with Dr. Purnima Devi Barman to promote conservation of Greater Adjutant Stork.
- Ushulua tv, France released a film to honour conservation work and community engaging in this work, the series is called ECO HEROINE.

<https://vimeo.com/941309691/f5843d00ea?share=copy>

- The Logical Indian India's first public-spirited digital publisher featured Dr. Purnima Devi Barman's story. <https://www.facebook.com/share/p/14mFdkVjtN/>

## **6. INTERNSHIPS/VOLUNTEERS**

- Two interns, Kabyashree and Pratyashi, are actively working for educating people about the Hargila and environmental protection in the areas near Pandu. They are currently pursuing MSc from the Dept. of Zoology (Pandu College).
- Three aspiring college students visited our field site recently, and we've been preparing them for our upcoming youth empowerment program. They volunteered awareness campaigns at their localities as well.

## **7. ROADMAP TO FUTURE**

- Engaging local youth, aims to spread awareness about the importance of conservation and protection of the hargila bird, empowering the next generation to become environmental stewards.
- To foster a love for nature and conservation, "Hargila Corners" are being set up in local schools, providing a dedicated space for students to learn about and engage with the majestic hargila bird.
- Plans are underway to expand handloom initiatives and empower community women through training and awareness programs, promoting handloom creativity and providing a sustainable livelihood opportunity while preserving traditional craftsmanship.
- A collaborative effort with local schools is underway to establish additional eco-clubs, engaging students in environmental conservation and education, and fostering a new generation of eco-conscious leaders and hargila ambassadors.
- Expanding GASCP at national and international front

## **8. PUBLICATIONS**

### Peer-Reviewed

- Doley, Deepa Moni & Barman, Paramananda (2025). The role of biodiversity communication in mobilizing public participation in conservation: A case study on the Greater Adjutant Stork conservation campaign in Assam, Northeast India. *Journal for Nature Conservation*, 84, 126847. Doi:<https://doi.org/10.1016/j.jnc.2025.126847>
- Barman, P.D and Sharma, D, K (2025) Foraging Ecology of the Greater Stork, *Leptoptilos dubius* in Certain Wetlands and a Garbage Dump in Assam, India. *Academia Journal of Biology*.1. 47, Issue 2, pp. 129–144.

Doi:[10.15625/2615-9023/20939](https://doi.org/10.15625/2615-9023/20939)

### Popular Articles (both in print and digital)

Parashuram, Devathi (2024). March of the Adjutants. *Birdlife* (Jan-March), 21-23pp.

## **9. CONFERENCES/WORKSHOPS/TRAININGS/TALKS**

### A. Attended/Presented

- Dr. Purnima Devi Barman attended naturenomics workshop organized by Balipara Foundation on 6th July. The theme was Wings of Unity: Protecting the Greater Adjutant Together. Dr. Punima Devi Barman had a Day-long workshop on community led conservation with 25 indigenous women.
- Dr. Purnima Devi Barman had a interactive session with the 2024 trainees of the Professional Conservation Biology (PCB) course, coordinated by Tiger Research and Conservation division of Aaranyak. Dr. Barman had discussion on tools for environment education, awareness, and communication skill for sustainable conservation with communities.

- Dr. Purnima Devi Barman had two sessions on "Social Dimensions in Forest & Environment Sectors" for IFS Probationers of the 2023-25 course at Indira Gandhi National Forest Academy, Dehradun.
- Dr. Purnima Devi Barman participated in a Panel discussion on the National Consultation of "Building resilient communities: Women and Ecosystem" organized by the National Commission of Women in collaboration with MoeFCC, MoRD, NRLM, NDMA and UN Women held at Sushma Swaraj Bhavan, New Delhi.
- National Youth Summit: Dr. Purnima Devi Barman attended National Youth Summit 2024 of UNEPs Tide Turners Plastic pollution hosted at WWF.
- Dr. Purnima Devi Barman was invited at a conference of Central Academy for State Forest Service, Burnihat based on Conservation Education as the Chief Guest. Dr. Barman shared an inspirational presentation with the participants. Dr. Barman also felicitated the participants with the certificates.
- Dr. Purnima Devi Barman attended Research and Industrial Conclave 2024 held at IIT Guwahati as a keynote speaker. Dr. Barman interacted with 400 school students and educated them about Environmental Education and Conservation.
- Dr. Purnima Devi Barman was invited at IIT, Guwahati by Prakriti Techno-Environmental group. In this program Dr. Barman shared views on importance of technology in conservation.
- Dr. Purnima Devi Barman was invited at Pandu College as Guest of honor on the occasion of Teacher's day. Dr. Barman was felicitated by Pandu college for Barman's immense contribution towards the nature. In this event Dr. Barman had a interactive session with the students and teachers of Pandu college.
- Dr. Barman attended an environmental training program in Kyrgyzstan, where participants from various countries gathered to learn and share insights on sustainable environmental practices. The program focused on topics such as biodiversity conservation, ecosystem management, climate change mitigation, and community-driven environmental solutions.
- Dr. Barman attended awareness campaign "SANKALPA" Say No to Single-Use Plastic, organized by Guwahati Municipality corporation. In the event Dr. Barman had an interactive session with young team of GMC.
- Dr. Barman attended North East Environment Conclave as guest of honour.
- Dr. Purnima Devi Barman visited Stuttgart's Wilhelma Zoological and Botanical Garden, Germany. Dr. Barman was invited to Stuttgart in Germany to share Barman's experience with a select global gathering on Conservation scientists on "women focused community-oriented sustained conservation" of the endangered Hargila in Assam. Throughout Barman's stay in the Stuttgart, Dr. Barman exchanged her conservation experience, held educational sessions, Workshops, talks, environmental education games, crafting activities. Dr. Barman shared Assam's rich biodiversity, culture and the communities efforts towards Hargila with the participants.
- Dr. Purnima Devi Barman presented a talk on Environmental Education and Sustainability model for transforming conflict into coexistence at the EAZA 2024 conference at Leipzig Zoo, Germany.

- Dr. Purnima Devi Barman took over Environmental Educational sessions in Germany at Wilhelma Zoological for a month.

<https://renews.in/assam/assams-conservationist-dr-purnima-devi-barman-promotes-hargila-conservation-at-global-event-in-stuttgart/14636/>

- Dr. Purnima Devi Barman attended the closing ceremony of the Youth Festival at Gauhati University, where Dr. Barman shared her inspiring work in Hargila conservation. Dr. Barman also highlighted the importance of environmental awareness, and encouraged the youth to take active roles in preserving nature for future generations.
- On the occasion of Children's Day, Dr. Purnima Devi Barman was invited as the guest of honor at the GU Model School. The event, held at the Guwahati University auditorium, brought together students, teachers, and distinguished guests to celebrate this special day dedicated to children. Dr. Barman shared her inspiring journey of Hargila conservation, encouraging the students to value nature and contribute to environmental preservation.
- On the occasion of ASDMA Foundation Day, Dr. Purnima Devi Barman attended a workshop on climate change, emphasizing the crucial role of media in addressing this global issue. Dr. Barman highlighted the importance of collective action and community engagement in mitigating climate change, how media can play a transformative role in raising awareness, influencing public opinion, and inspiring sustainable practices.
- Dr. Purnima Devi Barman attended an event of Vigyan Anusandhan: National Children's Science Congress, organized by the Assam Science Technology and Environment Council and Samagra Shiksha Abhiyan, at Shilpagram. Dr. Barman shared her inspirational journey with the students, motivating them to pursue their passions and make a positive impact on the environment.

## 10. Contact Address

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## 11. Media Coverage

[https://x.com/CMOfficeAssam/status/1785954608793497695?t=n\\_ff2OaVw6VHUNwz6lH4AQ&s=08](https://x.com/CMOfficeAssam/status/1785954608793497695?t=n_ff2OaVw6VHUNwz6lH4AQ&s=08)

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<https://www.facebook.com/share/v/AaS5ZGxhmiH2uZ9Y/?mibextid=WaXdOe>

<https://www.facebook.com/share/v/AaS5ZGxhmiH2uZ9Y/?mibextid=WaXdOe>

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<https://view.e.bbcmail.co.uk/?qs=6af6796f89be79370c6c2b3f804c0442240b67a2212c49ad2f97aa4f43ddf389fdc999aa0a24bba5e15a3b2bed7ce0595136b6933ea25810377bec4a3d27cda6dc5d17eaddaaa637>

<https://www.facebook.com/share/v/aXeZWRpVvfPYDJfk/?mibextid=oFDknk>

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## **Conservation Livelihood Division**

Established in 2004, Aaranyak's Conservation and Livelihood Division has been committed to promoting sustainable livelihood opportunities for communities residing along the fringes of forests and protected areas. The division's primary goal is to minimize the dependence of these communities on forest resources by introducing eco-friendly and viable livelihood alternatives that support conservation objectives. By harmonizing environmental protection with community development, the division strives to achieve a sustainable balance between human welfare and ecosystem preservation. Its approach emphasizes empowering local communities through capacity enhancement, skill development, and the adoption of sustainable practices. These initiatives not only strengthen the economic resilience of the people but also contribute to the enduring conservation of forests and biodiversity. By fostering active community participation and involving them in decision-making and planning processes, the division seeks to establish long-term, inclusive solutions that ensure mutual benefits for both people and nature.



## 1. Livelihood and Social Entrepreneurship

The Conservation and Livelihood Division (CLD) of Aaranyak continued its steadfast efforts to promote sustainable livelihoods and strengthen community resilience across the Manas Landscape. The division's initiatives focused on building capacities, enhancing skills, and fostering local entrepreneurship to reduce dependence on forest resources and create harmony between people and nature.

Key accomplishments under this theme include:

- **Baseline and Perception Studies:**

Baseline data were collected from 243 households across eight villages in the Manas Landscape, along with perception assessments to understand community attitudes toward conservation and livelihood challenges.

- **Agricultural Support:**

Assessments for summer crop cultivation were completed among 128 selected beneficiaries to ensure better planning and productivity for the upcoming season. Distributed 4,140 kg of potato seeds and additional seeds of pumpkin, cauliflower, cabbage, red lentil, tissi, and coriander. This activity was conducted in collaboration with the Tiger Research Conservation Division.

- **Promotion of Traditional Weaving:**

The traditional loom (ONE) was handed over to the *Purnima Self-Help Group (SHG)* of Langdangpara village under the Kokilabari cluster to strengthen their weaving activities and preserve cultural craftsmanship. This activity was conducted in collaboration with the Tiger Research Conservation Division

- **Capacity Building on Home Gardens:**

An orientation programme on education and home garden development was conducted at the MCOC, Bhuyanpara, empowering 30 participants to cultivate nutritional gardens for household use. This activity was conducted in collaboration with the Tiger Research Conservation Division.

- **Youth Engagement and Learning:**

One day orientation and observation sessions were organized for 46 school students in Karebari village under the Bhuyanpara cluster to build awareness about environmental stewardship and sustainable practices. This activity was conducted in collaboration with the Tiger Research Conservation Division.

- **Food Processing Training:**

A five-day food processing training programme was conducted at MCOC for 26 participants, focusing on value addition, preservation techniques, and small-scale enterprise development. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

- **Tourism Development:**

A two-day training session for tourism stakeholders from the Manas Landscape was held at MCOC, Bhuyanpara, with 15 participants. The program aimed at strengthening sustainable tourism practices that align with conservation values. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

**Human-Wildlife Conflict (HWC) Mitigation:**

Four meetings on HWC mitigation were conducted in Bhuyanpara, Karebari, Bamunkhal, and Madanguri villages to discuss conflict prevention and coexistence strategies. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

- **Traditional Fermentation Training:**

A two-day training programme on traditional fermentation practices was organized at MCOC, Bhuyanpara, with 16 participants, promoting eco-friendly and locally relevant techniques. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

- **Handloom Diversification (Weaving):**

A two-day training on handloom diversification was conducted at MCOC, Bhuyanpara, with 34 participants. The training introduced new weaving patterns and techniques to improve design, production quality, and marketability. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.



## 2. Education, Outreach, and Communications

### Eye Care Initiative

CLD and TRCD organized a two-day **Comprehensive Eye Camp** in the Daodhara and Bhuyanpara areas to address community eye health needs. The camp reached **150 individuals**, providing full eye examinations by a team of ophthalmologists and optometrists. Following the diagnosis, **100 beneficiaries** received customized eyeglasses, significantly improving their quality of life and awareness about regular eye care.

### ‘Strengthening FPO Operations

A **Stakeholders’ Consultation Meeting** was held on at Jharbari, Kokrajhar, with the Board of Directors and Promoters of *Swmkhwr Bilai Farmer Producer Company (FPC)*. Discussions focused on statutory compliance, business plan implementation, credit access, market linkages, and equity growth. The meeting identified key compliance gaps, evaluated business progress, and explored strategies for improving financial management and expanding markets. The FPC leadership committed to implementing the discussed recommendations, while Aaranyak pledged continued support through follow-up sessions and progress monitoring.

### Community and Conservation Outreach

**Fish Farming Orientation:** Three community orientation programmes were held in Daodhara to introduce and strengthen fish farming practices among local farmers. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

**Human-Wildlife Conflict FGDs:** Eight Focus Group Discussions were conducted across Daodhara, Randhanipara, Garumara, Thwribari-Langdangpara, Bhuyanpara, Bamunkhal, and Karebari villages, engaging 181 participants (95 women and 86 men). These discussions gathered insights on perceptions, challenges, and mitigation strategies. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

- **Volunteer Training:** Two four-day orientation programmes were organized at Bhuyanpara and Kokilabari to train 18 local volunteers in collecting and reporting HWC data effectively. This

initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

- **Nature Education:**

Two-day **Nature Camps** were organized at Bormajra ME School and Khamardwisa High School, engaging 55 students. The camps encouraged hands-on learning about biodiversity, conservation, and the importance of protecting natural habitats. This initiative was conducted in collaboration with the respected Tiger Research and Conservation Division.

## **Others**

### **Financial Assessment for SFURTI Project Beneficiaries in Manas Landscape:**

In the serene landscape of Manas, Assam, the SFURTI project has been a beacon of hope for many local artisans. The project, aimed at revitalizing traditional industries, has brought together 261 skilled artisans from the Majrabari area in Baksa district. A comprehensive financial assessment was undertaken to ensure that this initiative's benefits are effectively reaching its intended beneficiaries. The primary goal was to evaluate these artisans' financial status and gather precise data on their income levels. This information would be crucial in providing them with the appropriate support and resources necessary for their growth and development.

The process began with reaching out to the 261 artisans involved in the SFURTI project. Each artisan was contacted, and arrangements were made to visit the project site in Majrabari. During these visits, the team collected income certificates from each artisan, meticulously documenting their earnings and financial status. The result of this extensive effort was the creation of comprehensive financial profiles for all 261 artisans. These profiles provided detailed insights into their economic conditions. With this data at hand, the project team could tailor financial and resource support to meet the specific needs of each beneficiary. This assessment was not just a formality; it was a vital tool for understanding the economic impact of the SFURTI project and planning further interventions to enhance the artisans' livelihoods.

**Impact:** The impact of this financial assessment was profound. Firstly, it ensured that the benefits of the SFURTI project were indeed reaching the intended beneficiaries. Secondly, it helped in identifying any gaps or areas where additional support was needed. Most importantly, it contributed to the sustainable development of the artisans by providing a clear picture of their financial status and needs. This clarity allowed for more targeted and effective support, paving the way for a brighter future for these talented individuals.

### **Successful Completion of Central Account General (CAG) Audit at CFC and RMB of Manas Traditional Dress Cluster:**

The Central Account General Audit, performed by a team from Delhi, was completed in the Manas Traditional Dress Cluster. The CAG audit is a rigorous evaluation of the performance of government-supported projects, and a successful audit reflects well on the cluster's management, especially in terms of fund utilization and impact on the artisan community. A four-member team from the CAG's Delhi office, along with three members from IIE (Indian Institute of Entrepreneurship) and two from EPCH (Export Promotion Council for Handicrafts), conducted a performance audit of the SFURTI (Scheme of Fund for Regeneration of Traditional Industries) project at the Majrabari CFC and RMB (Raw Material Bank). This audit focused on assessing how effectively the project's objectives are being achieved in terms of benefiting artisans and promoting traditional industries. The visit was well-attended, with over 80 artisans present, which highlights the involvement and commitment of the local artisan community. The successful

completion of this audit suggests that the SFURTI project at Majrabari is performing as expected in terms of its outcomes and compliance with set standards.

### **3. Complementing Conservation Efforts (This section will include all the direct support that we provide to enhance conservation efforts)**

CLD and TRCD's joint livelihood interventions are deeply intertwined with conservation. Several direct support initiatives were implemented to strengthen both community welfare and ecosystem protection:

- **Winter Seed Distribution:**

Distributed **4,140 kg of potato seeds** and additional seeds of pumpkin, cauliflower, cabbage, red lentil, tissi, and coriander among **128 beneficiaries**.

- **Summer Seed Distribution:**

Delivered **230 kg of ginger** and **560 kg of turmeric** to **49 farmers** from Daodhara and Bhuyanpara, along with other seasonal vegetable seeds to improve agricultural productivity.

- **Support for SHG Work Sheds:**

Constructed three **work sheds** for *Surjyasuli SHG* (Garumara), *Purnima SHG* (Langdangpara), and *Himalaya SHG* (Bhuyanpara) to facilitate uninterrupted production activities.

- **Yarn and Loom Material Distribution:**

Distributed **20 bundles of yarn** and weaving materials to *Purnima SHG*, Langdangpara, supporting the revival of traditional weaving.

- **Mushroom Cultivation:**

Supplied **30 kg of mushroom spawn** to interested beneficiaries to encourage eco-friendly income generation.

## **4. IMPACTS**

### **Transforming Lives and Landscapes**

Nestled in the heart of Assam's **Manas Landscape**, Aaranyak is driving transformative change. Through its integrated approach, the organization is helping forest-fringe communities reduce their dependence on forest resources while nurturing sustainable livelihoods.

### **Agriculture as a Path to Self-Reliance**

Agriculture continues to be the lifeline of rural communities in Daodhara, Kokilabari, and Bhuyanpara. By distributing seasonal seeds to 207 farmers, CLD of Aaranyak has empowered families to diversify crops, boost yields, and enhance food security. The construction of SHG work sheds in multiple villages has enabled women to pursue economic activities—such as weaving and tailoring—with renewed confidence and stability.

### **Reviving Traditional Skills and Entrepreneurship**

Through targeted interventions, traditional crafts have been rejuvenated. In Langdangpara, Purnima *SHG* received 20 bundles of yarn, revitalizing the weaving of culturally significant items like *Bodo Gamocha* and *Bihupali*.

### **Sustainable Alternatives for Conservation**

By introducing mushroom cultivation and other resource-efficient livelihoods, CLD of Aaranyak has created eco-friendly income streams for land-scarce households. Support to Purnima *SHG* in Langdangpara with 20 bundles of yarn further strengthened traditional weaving, blending culture with conservation.

### **Strengthening Conservation Awareness**

Through multiple FGDs and perception assessments, CLD of Aaranyak has engaged over 500 villagers and students in discussions on wildlife coexistence, conservation ethics, and ecosystem management. Training local volunteers to collect HWC data ensures that communities play an active role in safeguarding biodiversity.

### **A Brighter Future for Manas**

Through its holistic and community-driven interventions, Aaranyak's Conservation and Livelihood Division is weaving a vision where people and nature flourish together. From agriculture to enterprise, and from awareness to action, these initiatives exemplify the power of integrating conservation with sustainable livelihoods.

By fostering self-reliance, economic resilience, and environmental stewardship, CLD continues to light the path toward a future where communities thrive in harmony with the rich biodiversity of the Manas Landscape — a testament to hope, empowerment, and sustainability.

## **5. FUTURE ROADMAP**

The Conservation and Livelihood Division (CLD) is committed to enhancing the socio-economic well-being of underprivileged households residing in the vicinity of national parks and wildlife sanctuaries. To realize this vision, the Division has implemented a series of targeted interventions and micro-enterprise development initiatives aimed at creating sustainable income opportunities.

Its approach emphasizes empowering economically vulnerable and marginalized groups—particularly those dependent on forest resources—by strengthening their production capacities and improving their overall quality of life. Through continuous guidance, skill development, and capacity-building efforts, CLD strives to foster long-term economic resilience and self-reliance among these communities, ensuring that conservation and livelihood progress go hand in hand.

## **6. CONFERENCES/WORKSHOPS/TRAININGS/TALKS**

Mr. Manas Kumar Bhattacharjya had taken part in the following training and workshops -

1. Took part in a workshop organized by Clean Energy Access Network (CLEAN) and GOGLA global association for solar energy companies, in association with the Council on Energy, Environment and Water (CEEW), SELCO, UNDP India, CES in Guwahati, Assam, to facilitate discussions around Productive Use of Renewable Energy (PURE). The event's theme is '*Policy to Practice: Advancing Productive Use of Renewable Energy Solutions in North East India*', held on 9 July 2024 at AIC-SELCO Foundation, Guwahati.

2. Took part in the stakeholder meeting on Pobitora Wildlife Sanctuary and its conservation held on November 4, 2024, at the District Commissioner's Office in Morigaon, which was a successful gathering of key conservation leaders and stakeholders.

3. Both Bibhuti P Lahkar and Manas Kumar Bhattacharjya took part in the inauguration and partner meeting of the Thread Project in the WWF office, Delhi, in 24 and 25 March, 2025.

Apart from this, Mr. Manas Kr. Bhattacharjya took part in sixteen webinars from April 2024 to March 2025.

### **A. Organised/Co-organised**

Activities mentioned below were jointly organized with TRCD.

- **Capacity Building on Home Gardens:**An orientation programme on education and home garden development was conducted at the MCOC, Bhuyanpara, empowering participants to cultivate nutritional gardens for household use.
- **Youth Engagement and Learning:**Orientation and observation sessions were organized for school students in Karebari village under the Bhuyanpara cluster to build awareness about environmental stewardship and sustainable practices.
- **Food Processing Training:**A five-day food processing training programme was conducted for 26 participants, focusing on value addition, preservation techniques, and small-scale enterprise development.

- **Tourism Development:**A two-day training session for tourism stakeholders from the Manas Landscape was held at MCOC, Bhuyanpara, with 15 participants. The program aimed at strengthening sustainable tourism practices that align with conservation values.
- **Human-Wildlife Conflict (HWC) Mitigation:**Four meetings on HWC mitigation were conducted in Bhuyanpara, Karebari, Bamunkhal, and Madanguri villages to discuss conflict prevention and coexistence strategies.
- **Traditional Fermentation Training:**A two-day training programme on traditional fermentation practices was organized at MCOC, Bhuyanpara, with 16 participants, promoting eco-friendly and locally relevant techniques.
- **Fish Farming Orientation:** Three community orientation programmes were held in Daodhara to introduce and strengthen fish farming practices among local farmers.
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- **Volunteer Training:** Two orientation programmes were organized at Bhuyanpara and Kokilabari to train local volunteers in collecting and reporting HWC data effectively.
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- **Handloom Diversification (Weaving):** A two-day training on handloom diversification was conducted at MCOC, Bhuyanpara, with 34 participants. The training introduced new weaving patterns and techniques to improve design, production quality, and marketability.

## 7. Our Footprints

**90°22'23.29"E, 26°32'36.47"N to 92°24'43.33"E, 26°37'56.65"N**

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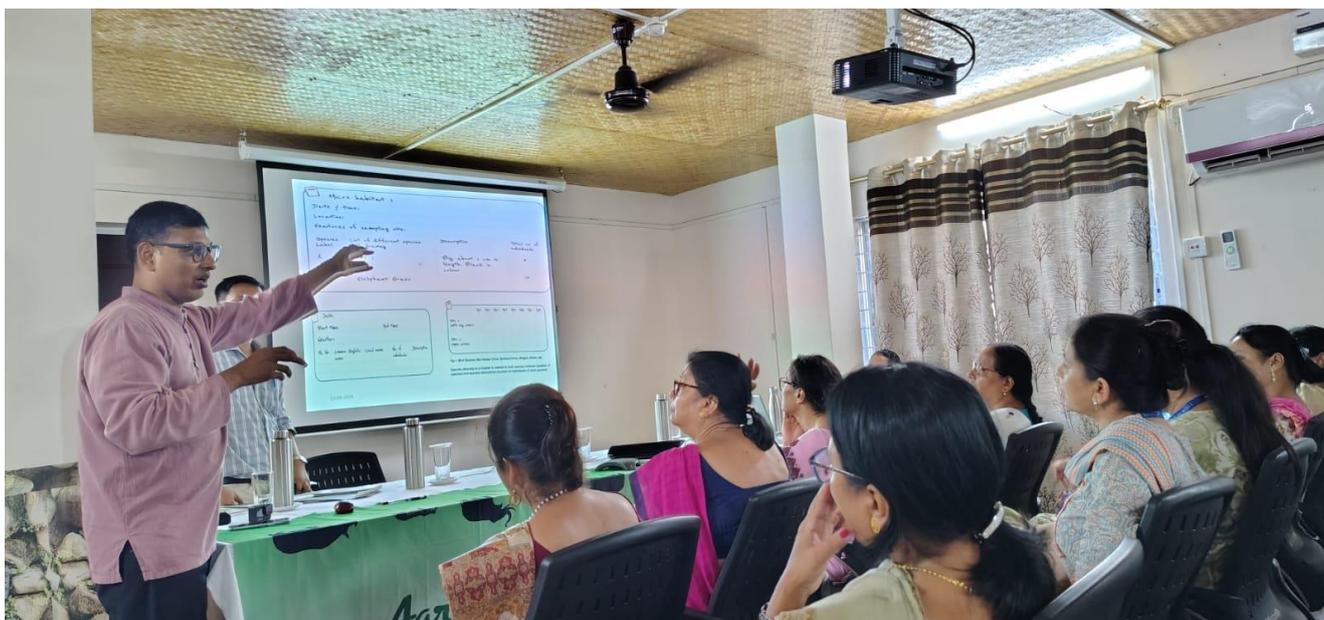
B. Acknowledgements (*Please provide high-quality logos as well*)

IUCN-KFW  
NABARD

**Environment Education and Capacity Building Division (EECBD)**

Environment Education and Capacity Building Division is working towards wildlife conservation and environment protection by sensitizing, engaging students, teachers, Government and Non-Government officials, media and community. The division capacitates various stakeholders to address different ecological issues through training and handholding. Developing effective EE resource/IEC materials for conservation is one of the major Activity of the division. We work to develop scientific temperament among younger generation for conservation as well as action research on wildlife and environment.

The EECB Division is continuously striving to for a sustainable region with ecologically literate and resilient communities, aiming to achieve One Health and promote nature and human well-being.



## 1. RESEARCH AND CONSERVATION

### A. Habitat Research & Conservation

Under UNDP-GEF SGP project a vegetation survey in and around Bhairabkunda RF in the Udalguri district of Assam, covering 51 hectares, and soil analysis of the restoration site were completed, showing 35 vascular plant/ tree species and 5 grass species in the restoration site.

As a baseline study, the density survey on invasive alien plant species has been carried out in BhairabkundaRF,wherein*Chromolaena odorata*, *Mimosa invisa*, *Lantana camara* and *Mikania micrantha* were found to be invasive in the area due to natural and anthropogenic disturbance. Of the invasive species mentioned, *Chromolaena odorata* has been found to dominate the mosaic landscape of grassland and woodland at Bhairabkunda RF.

The density survey has also marked the areas with high density of the invasive species in the eradicating of these IAPs will aid in restoring the forest and grassland ecosystem in the restoration site. In collaboration with Dhansiri–Shikaridanga JFMC, we have restored a total of 20 ha in the RF. In the 5 ha area, after manually uprooting the IAP species (*Chromolaena odorata*, *Mikania*

*micrantha, Lantana camara*), the natural regeneration of native grasses has been observed by the end two years. The post-intervention soil analysis is yet to be done.

## 2. Livelihood and Social Entrepreneurship

More than 12 training on vermicomposting, nursery management, natural farming and homestead garden management to facilitate intercropping and converting the homestead garden into a nutritional source for the community household.

## 3. Education, Outreach and Communications



### **Environmental and Sustainability Education (ESE):**

Under this broad umbrella initiative, the EECBD division has successfully engaged more than 2,500 students through 36 education and outreach activities and sustainability projects. Additionally, EECBD has trained 166 teachers from 55 schools across 6 districts under this initiative.

### **Sensitization on Snakebite prevention:**

Since 2013, EECBD, Aaranyak has been effectively addressing this critical socio-environmental issue. During the reporting period, we successfully sensitized more than 600 individuals across Assam.

### **Radio Programmes:**

We have been able to convey conservation messages on various environmental issues to approximately 60,000 listeners across Assam through All India Radio Guwahati, Dibrugarh, and Nagaon stations.

### **Nature's Wonderland and Prakriti Parichay:**

These two flagship initiatives are based on the principle of experiential learning, where nature enthusiasts are guided by experts from diverse fields. The activities are carefully designed to provide knowledge, promote relaxation, and encourage mindful reconnection with nature. A total of five events were conducted, with the active participation of approximately 140 individuals.

## **1. Legal & Policy Advocacy**

- To strengthen community participation in conservation efforts under the initiative EECBD an eye check-up camp and free cataract surgery was organized with support of Sri SankaradevaNethralaya, Guwahati in Badlapara. The initiatives helped to build trust and rapport with the community, reinforcing ownership and participation beyond the project's formal scope. This initiative aligns with Aaranyak's commitment to community welfare, emphasising that conservation efforts must go hand-in-hand with improving the quality of life for local communities.
- Manashi Goswami, Jayanta Kumar Pathak and Dr Bibhuti P Lahkar have translated the IUCN guidebook on Nature based solution in to Assamese. The book is now available online ( <https://doi.org/10.2305/ZUBS2470> ).

## **2. Natural Resource Management**

More than 54 ha area brought under improved practices, including agroforestry, homestead garden management, and organic farming in the Udlaguri district of Assam. 1 lakh saplings have been propagated, supported by the establishing a community-managed nursery. 30 SHG women members manage the women-led community nursery established in No 2 Bholatar village and have produced native, medicinal, aromatic, and deterrent species, which are protected by solar fencing and Assam lemon bio-fencing to prevent elephant intrusion. Seed preservation was also a crucial part of conservation.

## **3. Human Wildlife Conflict Mitigation**

Habitat restoration in Bhairabkunda Reserve Forest and the promotion of improved practices in Udalguri, engaging local communities, have demonstrated effective pathways for human–elephant coexistence. Under the UNDP–GEF SGP project, local communities were sensitized and trained in cultivating less palatable crops, promoting alternative cropping systems, and establishing bio-fencing using Assam lemon, along with vermicomposting practices. Currently, eight vermicompost units across three villages are fully functional.

#### 4. **Complementing Conservation Efforts**

- Over 1 Km length of fire lines were created and maintaining last two years to protect the restoration intervention in the Bhairabkunda RF.
- Provided Water Pump and Water Storage as well as field gear to Dhansiri-Shikaridganga JFMC to compliment conservation efforts under UNDP-GEF SGP project.

#### 5. **Impacts**

- A. The SGP Best Innovation Award was received by Jayanta Kumar Pathak and Rabiya Daimari for the UNDP-GEF SGP project in New Delhi in March 2025..
- B. Two projects of North Guwahati Girls High School on sustainability education guided by EECBD, Aaranyak confer the National Awards that has also be appreciated by the education minister of Assam. In addition, three projects also received the regional award for the sustainability project of guided by EECBD Aaranyak.
- C. The information education and communication (IEC) materials developed to address HEC in Assamese, Garo and Boro languages, both print and short film, have successfully created an environment which facilitating human-elephant coexistence in its operational area.

Apart from HEC, a separate set of IEC materials focusing on nursery development and agro-biodiversity management has also been well-received and found effective by the target users.

- D. The ESE initiatives has received appreciation from the education minister, other cabinet minister of Assam as well as from the department.

#### 6. **SUCCESS STORY**

##### **SGP Best Innovation Award**

Aaranyak has been conferred the SGP Best Innovation Award jointly by the United Nations Development Programme (UNDP) and The Energy and Research Institute (TERI) for its outstanding contribution in biodiversity and ecosystem conservation, community empowerment and sustainable development.

This recognition highlights the commitment in addressing various environmental challenges through innovative and sustainable solutions.

Jayanta Kumar Pathak and Rabiya Daimari of Aaranyak received the award on behalf of the organisation from Neelesh Sah, Joint Secretary & GEF-OFP India, MoEF&CC, Government of India during the World Sustainable Development Summit 2025 held in New Delhi on March 5. Aaranyak has been implementing a project titled “Community based integrated approach to facilitate Human Elephant Coexistence and biodiversity conservation in Udalguri, Assam” in

Udalguri District under the aegis of UNDP-GEF SGP and MoEF&CC, Govt of India where TERI is the nodal agency for the project.

Community empowerment is the core of our initiatives. We believe that when communities are equipped with the knowledge, resources and get the support they need, they become powerful agents of changes. We have been able to empower communities through innovative approaches enabling them to decide the course of their life. By providing tools, resources and support to the communities, we have witnessed remarkable transformations for better in the lives of individuals and communities.

The project has strived through various challenges such as HEC and unique conditions of the Bhabar belt. Through this project, EECBD, Aaranyak is working on restoring wildlife habitat in 20 hectares of land by management of invasive plants, plantation of native flora and fodder of elephants. Aaranyak is also promoting improved practices in 54 hectares of land through educating the community. A community led nursery called 'Jaikhlong community nursery' has also been established in Badlapara, Dimakuchi by empowering the locals, mostly- women from the community.

People from nearby areas have also started showing interest in similar work after observing the project activities. The project has also been able to address out-migration, and a few individuals who had previously migrated are now engaged in activities such as vermicompost production and nursery management.

The community members have been greatly enthused by the award conferred on Aaranyak. All the women associated with this project are happy, and the award has given them the confidence that they can also contribute towards a sustainable society. The project activities inspire the community to expand areas of work and explore new possibilities to creating a sustainable world.

## 7. ENVIRONMENTAL RESEARCH & INTERVENTION

### **People Perception and Attitude on Human Elephant Conflicts in Assam and Meghalaya:**

A study on People Perception and Attitude on Human Elephant Conflicts in Assam and Meghalaya carried out in 2023-2024 is completed. This study aims to explore people's attitudes toward elephant conservation, focusing on how various socio-demographic and experiential factors shape their perspectives. By analyzing responses across age groups, education levels, locations, and emotional associations with elephants, the research provides insights into the complexities of human-elephant relationships. It highlights both empathy and conflict, curiosity and fear, as well as varying degrees of awareness and responsibility regarding conservation efforts. The findings reveal a blend of cultural values and practical concerns that influence public opinion.

## 8. INTERNSHIPS/VOLUNTEERS

Provided guidance and mentoring support to two CM's Climate Fellows from ASTEC.

## 9. ROADMAP TO FUTURE

- 3000 students will be reached out each year to develop a deeper understanding of the impacts of current practices on ecosystem services and encourage a shift towards environment friendly and responsible behaviour.

- EECBD will strengthen collaboration with different stakeholders to address priority environmental issues of the state and South and Southeast Asia as well.
- The division will put effort to capacitate 50 young conservationist/naturalist from the NE regions each year.

10. **PUBLICATIONS** *(Please list all your publications here. Examples provided for each section)*

Popular Articles (both in print and digital)

Pathak J.K. 2025. Haati. A pamphlet about human-elephant coexistence published in Assamese language.

**12. CONFERENCES/WORKSHOPS/TRAININGS/TALKS**

A. Attended/Presented

- Dr. Banasree Sharma and Dipankar Haloi of EECBD attended a training on Gender Mainstreaming organised by UNDP & TERI
- Jayanta Kumar Pathak of EECBD attended a training on nature learning centre at Hanur, Karnataka.
- Jayanta Kumar Pathak of EECBD delivered a speech on "Nature and Human Wellbeing," at Tihu College in Nalbari District.
- Jayanta Kumar Pathak EECBD conducted a session on "Effective Conservation Education Campaigns" as part of the UGC-Sponsored Refresher Course in Environmental Studies and Sustainable Development organized by Sant Gadge Baba Amravati University.
- Jayanta Kumar Pathak of EECBD attended the World Sustainable Development Summit (WSDS) held at New Delhi on 5-6 March 2025.
- Tikendrajit Gogoi along with the Mentor, Jayanta Kumar Pathak of EECBD of Aaranyak actively participated in the WIPRO Foundation Partner's Forum 2024, held in Bengaluru from December 4th–7th, 2024.
- Tikendrajit Gogoi of EECBD had actively participated in a two days' workshop on Biodiversity Games Workshop at Tezpur, Assam to learn how to use innovative games for nature education on January 21-22.
- Tikendrajit Gogoi, Sustainable Educator at of EECBD had attended a day long workshop on Substantially reduce waste generation through prevention, reduction, recycling and reuse-with special emphasis on plastic generation at the Hotel Ornate, Ulubari, Guwahati on January 27, 2025.
- Tikendrajit Gogoi of EECBD had actively participated in a workshop on reflective writing with a focus on nature and sustainability at Azim Premji University, Bengaluru, to develop a deeper understanding of practice and make informed changes to improve facilitating sustainability education practices and enhance content writing skills on February 20-22,2025.

B. Organised/Co-organised

- EECBD, in collaboration with the Geography Department of Dimakuchi College, conducted an insightful workshop on the Basics of GIS & GPS, equipping local youth and faculty with essential geospatial skills for biodiversity mapping and land-use analysis.

- EECBD organized exposure visits cum training of farmers organized to Pabhoi Greens and Daffodil nursery on nursery raising and homestead garden management.
- EECBD organized Teacher training on sustainability education was conducted on in Kamrup Metro in collaboration with Samagra Siksha Assam, Kamrup (M), and Wipro earthian.
- EECBD organized five (05) trainings on vermicomposting, natural farming for community members of Udlaguri in collaboration with KVK, Udlaguri
- EECBD organized a training on nursery management for the community members and members of the 'Jaikhlong community nursery' with collaboration of TERI Guwahati.
- EECBD conducted a 10-day Student Summer Learning Programme, "Eco-Action towards Water Conservation" for students. It is worth mentioning that, as a result of the training activities, participants collectively saved 1,550 litres of water per day from their daily domestic use during the training.
- EECBD jointly with ERCD organized a workshop on Applied Environment Education the Extension Education Institute - NE Region, Assam Agriculture University, Khanapara, Guwahati, on July 11-12, 2024.
- EECBD jointly with Kahini organized workshop on the Natural Holi Colour production in Barpeta. Around 50 participants have actively participated and prepared Holi colours using different local natural ingredients.

## 11. Memberships

### **Jayanta Kumar Pathak**

Member, IUCN Commission on Education and Communication (CEC)

Member, IUCN Climate Crisis Commission (CCC)

## 12. Contact Address/ Personnel

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## 13. Acknowledgements (*Please provide high-quality logos as well*)

Samgara Shiksha Assam

Wipro Earthian

UNDP-SGP

GEF

TERI

SBIF

Forest Department

Tilinga Sports Club

All India Radio

BinBag

Help Earth,

Help Aid Foundation

Kahini

Sri SankaradevaNethralaya

## **Elephant Research and Conservation Division (ERCD)**

**The Elephant Research and Conservation Division (ERCD)**, founded in 2002 under Aaranyak, addresses elephant conservation through a blend of scientific research and community engagement. Initially focused on awareness campaigns, ERCD now monitors elephant populations, maps corridors, and identifies zones of human-elephant conflict (HEC). It emphasizes understanding both elephant ecology and the social impacts of conflict. Through grassroots involvement, multi-stakeholder collaboration, and habitat restoration, ERCD promotes coexistence and guides evidence-based conservation strategies.



## 1. **RESEARCH AND CONSERVATION**

### **A. Species Research & Conservation**

#### **Landscape approach to conserve Asian elephants in Northeast India**

- As part of a landscape-based approach to Asian elephant conservation in Northeast India, we conducted a comprehensive study focusing on the state of Meghalaya. We successfully mapped the distribution of wild Asian elephants across the state and estimated their population density within Balpakram National Park using the Indirect Dung Count method.
- To better understand the ecological factors influencing elephant presence, we identified and quantified key covariates affecting their distribution. In addition, we identified critical biological corridors across Meghalaya that facilitate elephant movement and connectivity between habitats.
- Our study included a functional assessment of the officially notified elephant corridors in the state. We mapped existing threats and pinpointed specific areas where corridors are disrupted or broken. Based on these findings, we provided the Forest Department of Meghalaya with targeted recommendations to safeguard these crucial movement pathways and proposed the identification of additional potential corridors.
- Expanding beyond state boundaries, we also mapped interstate habitat connectivity across Northeast India, with a particular focus on linkages between Assam and its neighboring states, including Arunachal Pradesh, Meghalaya, and Nagaland. This broader landscape-level mapping is essential for ensuring the long-term connectivity and conservation of Asian elephant populations across the region.
- Further, to aid in landscape management and the conservation of Asian elephants, we have successfully conducted elephant occupancy surveys across the five proposed elephant reserves in Assam: Ripu-

Khalingduar Elephant Range, Dehing-Joypur Elephant Range, Kaziranga-Karbi Anglong Elephant Range, Dhansiri-Lungding Elephant Range, and Goalpara.

### **Radio-collaring**

Human-elephant conflicts peak in the Baksa-Tamulpur landscape during the paddy harvest season (October to January). Still, little is known about elephant movements and habitat use during the rest of the year. There's a lack of data on space use, connectivity, food availability, and herd dynamics, making it essential to study their seasonal movement patterns, habitat preferences, and grouping behavior (such as fission-fusion systems). Radio-collaring provides a valuable method for gathering such information.

As such, on November 18, 2024, we successfully radio-collared a 25–30-year-old tusker in the Baksa Forest Division—the first of its kind in Assam. Later, on January 6, 2025, we collared a 30-year-old adult female, likely from the same herd, in Daranga Reserve Forest.

The study is expected to provide actionable conservation insights—from habitat prioritization and corridor planning to conflict risk mapping—supporting informed decision-making in elephant management and co-benefiting both elephants and local communities.



## **B: Habitat Research & Conservation**

### **Rejuvenating Pobitora Grasslands**

*Woody Invasion Control:* A total of 8,372 woody saplings were uprooted from restoration areas to mitigate tree encroachment and maintain optimal grassland conditions. The primary focus was on controlling the regeneration of *Lagerstroemia speciosa* (Azar), *Tetrameles nudiflora* (Bhelkor), and *Ziziphus jujuba* trees.

5378 saplings of *Lagerstroemia speciosa*, 1730 *Tetrameles nudiflora*, and 1262 *Ziziphus jujuba* were successfully uprooted in this reporting period.

*Invasive Species Management:* A total of 11 hectares of *Ipomoea carnea* infestation was manually uprooted by involving local communities.

*Tree Biomass Transfer and Disposal:* 3726.06 cubic meters of uprooted tree saplings were transported and disposed of at a faraway location. And a total volume of 1,027.65 m<sup>3</sup> of uprooted *Ipomoea carnea* was disposed of at a faraway location.

*Impact and outcome:* The sustained grassland restoration efforts in Pobitora Wildlife Sanctuary during this reporting period have significantly contributed to reducing woody plant and invasive species encroachment. Community involvement and effective mechanized support have ensured smooth implementation. These measures are expected to improve grassland health and support biodiversity conservation, particularly for flagship species like the One-horned Rhinoceros.

### **Grassland Restoration Efforts in Manas National Park**

During this period, our team focused on restoring the grasslands in the Bansbari Range of Manas National Park by managing invasive species and removing young trees that threaten open habitats essential for wildlife. To address this issue, we have implemented various experimental methods to control their growth in three pre-selected plots.

*Debarking of Bombax ceiba:* In the selected plots, we targeted *Bombax ceiba* trees with diameters over 40 cm. A total of 181 trees were debarked below breast height to prevent seed dispersal and promote their eventual die-off. These trees are being monitored to evaluate the method's long-term success.

*Invasive Plant Management:* Invasive species such as *Chromolaena odorata* and *Mikania micrantha* have spread across the plots. To prevent seed dispersal, *Chromolaena* was cut during its flowering stage in January. After cutting, the plant residues were burned through controlled burning with the support of forest staff. This was followed by manual uprooting involving local EDC members.

*Manual Uprooting of Tree Saplings:* To preserve open grassland, we manually uprooted 8,427 saplings of encroaching trees, including-

- *Bombax ceiba* – 2,857
- *Lagerstroemia parviflora* – 1,933
- *Callicarpa arborea* – 2,286
- *Dilleniapentagyna* – 1,351

These interventions aim to curb woodland expansion and promote the growth of native grasses. Regular monitoring continues to assess the impact of these methods and guide further action, with the ultimate goal of maintaining a healthy, wildlife-friendly grassland ecosystem in Manas.

## **Habitat Improvement initiatives undertaken in Bhairabkunda Reserve Forest, Udalguri**

*Plantation:* A total of 100,520 tree saplings and *Alpinia* rhizomes were planted during the reporting year, successfully achieving the annual target of 1 lakh saplings. This was done in collaboration with JFMC, Dhansiri-Sikaridanga and the Udalguri forest department. Infill planting was carried out with 3,377 saplings to replace those lost to mortality, ensuring improved survival rates.

*Nursery:* Continuous efforts in nursery site management included the collection and procurement of seeds and fruits from local sources to raise seedlings. As a result, 90,444 saplings were successfully raised for the upcoming year's plantation.

*Forest Fire Prevention:* To safeguard plantation areas from accidental fires, fire lines were established across approximately two kilometres. These fire lines divided the plantation plots into manageable sections, serving as an essential preventive measure for protecting the planted plots.

## **2. Livelihood and Social Entrepreneurship**



## **Socio-economic assessments and project evaluation in Eastern Assam, parts of Meghalaya, Western Assam, and North Bengal**

A feasibility assessment of the Doar's Landscape (North Bengal and Bhutan foothills of Assam) for a Carbon Project was undertaken, with the inception workshop serving as the key activity during this period. The workshop addressed the goals, significance, processes, and challenges of carbon projects, provided an overview of carbon markets, high-quality project components, the Verified Carbon Standard (VCS), Afforestation, Reforestation, Revegetation (ARR) methodology, and Climate, Community and Biodiversity (CCB) standards, while also discussing governance principles, risks, and community impacts. It strengthened technical and practical understanding, emphasized the role of GIS and community engagement,

and offered insights for improving site selection, communication, and reforestation strategies. Subsequently, field engagement was carried out to establish contact with selected villages and gauge community interest in ARR through Participatory Rural Appraisal (PRA). This included meetings with village heads, Village Council Development Committee (VCDC) members, secretaries, and student union representatives, as well as key informant interviews, data collection sheets, and resource mapping. Information gathered covered village demographics, land ownership, livelihoods, community perspectives from Free, Prior and Informed Consent (FPIC) discussions, as well as field measurements such as Diameter at Breast Height (DBH) and vegetation types across Land Use and Land Cover (LULC) classes, including forests, grazing lands, and barren areas.

While in the Eastern Assam landscape, to gain in-depth knowledge on the socio-economic status of the villagers, we have conducted a Household Socio-economic survey in all five project villages in Dibrugarh district. During this exercise, we conducted interviews with 25 households in ModhupurDeori Gaon and 36 households in four project villages in the Jeypore region. Building on this, we implemented a structured Participatory Rural Appraisal (PRA) in the same five Dibrugarh villages, which were affected by human–elephant conflict (HEC). Activities included: Assessing socio-economic status, documenting HEC history and patterns, evaluating current mitigation measures, community-led resource mapping, and identification of elephant entry/exit routes. In total, 177 villagers took part in these PRA sessions (99 men, 78 women).

To further tailor intervention strategies, a willingness survey was conducted to capture baseline information from prospective beneficiaries of lemon-based biofencing and vermicomposting programs. The survey assessed land availability, potential time commitment, existing skill sets, motivation, and understanding of possible risks. A total of 31 individuals across four villages in the Jeypore region participated in this assessment.

In parallel, after all the planned interventions were made, 20 village-level project evaluation meetings were organized across Eastern Assam and Meghalaya to reflect on the year’s project activities and gather community feedback. These sessions successfully engaged 861 community members, comprising 363 men and 498 women.

### **Imparting training and supporting livelihoods**

#### *Integrated livelihood development in the project districts of Western Assam:*

- 7 Training programmes were conducted to promote alternative cropping systems among farmers in Udalguri, Tamulpur, and Baksa districts. These sessions were organised in collaboration with Krishi Vigyan Kendras and the Tamulpur District Agriculture Department. In-house experts conducted some additional sessions.
- Furthermore, a total of 12,055 saplings, 144 kg of seeds, and 1,450 kg of rhizomes were distributed to 163 individuals and one community group across the three districts to promote sustainable agricultural practices.
- To support alternative livelihoods, 56 bee boxes with bee colonies were distributed to individuals and groups in Udalguri and Baksa. Recipients were also given hands-on training in beekeeping techniques.

#### *Catalyzing Community Growth in West Garo Hills:*

In West Garo Hills, Meghalaya, the following livelihood initiatives were carried out during the reporting period:

- Weaving training was provided to 22 women, accompanied by the distribution of 85 kg of yarn to support their new skills.
- Areca nut plantation support reached 24 households, each receiving 150 saplings to establish or expand their crops.
- Assam lemon cultivation assistance was extended to 14 households, with each supplied with 300 lemon saplings.
- Mushroom cultivation training benefited 25 participants, who were also supplied with a total of 18 kg of oyster mushroom spawn to start their cultivation journey.
- Carpentry tools have also been provided to 3 beneficiaries.
- Seven people chose to start a small business and were supported with supplies worth Rs. 10,000/- each in West Garo Hills in Meghalaya.

*Strengthening rural livelihoods in Eastern Assam:*

- *Weaving:* In eastern Assam, we held 6 training sessions for 102 weavers to expand their handloom production. Additionally, 21 previously trained participants received 5 kg of yarn each in Jeypore (5) in Dibrugarh district, Haldhibari (5) in Majuli district, Sagunpara (10), and one in Hatisal in Jorhat. Notably, a Haldhibari participant chose to weave Eri silk and was supported with 1.5 kg of locally sourced yarn.
- *Providing crops and saplings:* In Tinsukia and Jorhat districts, 46 households were supported with 1950 kg of potatoes. 52 households from Tinsukia, Majuli, Dibrugarh, and Jorhat were supported with winter crops.

Additionally, 6 participants from Hatisal village in Jorhat district received 1100 lemon saplings, and two from Dibrugarh were supported in setting up small businesses. In elephant-human conflict (HEC)-prone areas, lemon trees serve as living biofences, helping protect crops by naturally deterring elephants through the plants' scent and thorniness.

- *Setting up vermicomposting units:* We established a fully operational vermicomposting unit on a 0.15-acre site in Abhoypur Gaon, Dibrugarh. A 40 × 24 ft bamboo hut now serves as both a production and training facility. Six local women manage six composting beds, while three beneficiaries in Chamorajan village were trained and equipped with vermicompost units. 2 Key trainings in Dibrugarh were hosted, a day-long session with an expert from Krishi Sakhi, Kachari Pathar, covering topics like composting methods, equipment needs, and market opportunities. Six women participated in this. In another instance, an expert from KVK Dibrugarh conducted a detailed technical training on vermicompost production, attended by 31 participants (30 women and one man).
- *Promoting Biofencing and Sustainable Livelihoods:* To promote eco-friendly farming practices that mitigate human–elephant conflict (HEC) and enhance rural livelihoods, 4 Stakeholders' Consultation Workshops were conducted across project villages. These sessions focused on the implementation of lemon-based biofencing as a natural deterrent for elephants and explored the potential of vermicomposting units as a sustainable income source for villagers.

For successful implementation, two training workshops were held in ModhupurDeori Gaon and Konwabam and Kamargaon villages, with 35 participants (9 men, 26 women) and 38 participants (17 men, 21 women) respectively. Two additional meetings were held in Lebankula Gaon and Abhoypur Gaon, with a total of 43 participants across both sessions.

As a practical extension of these discussions, Aaranyak, in collaboration with KVK Dibrugarh, organized a hands-on lemon cultivation training in Konwabam village. The training equipped 26

participants (2 men and 24 women) with skills in sustainable lemon farming, which not only serves as a biofencing method but also contributes to community-based livelihood development.

### 3. Education, Outreach, and Communication

#### Awareness and Outreach



- We executed a total of 26 *school outreach programs* across the districts of Udalguri, Baksa, and Tamulpur throughout the year, which included interactive sessions using IEC materials, presentations on Elephants and biodiversity conservation, documentary shows, art and quiz competitions, conservation rallies, and more. Another student outreach program on Human-Elephant Coexistence was held at Kamar Gaon M.E. School in Dibrugarh, engaging students from both the M.E. and High School. Elephant-themed masks were distributed as interactive learning tools, sparking enthusiastic participation. A dedicated art activity for lower primary students further encouraged creative expression around coexistence themes. The event successfully raised awareness about elephant conservation, with 63 students and 5 teachers taking part.
- We organized more than 35 *community outreach programs* across villages in Udalguri, Baksa, Tamulpur, and Nalbari, aimed at raising awareness about the importance of coexisting with elephants. Additionally, around 84 other outreach programs were conducted in Eastern Assam and Meghalaya, reaching a total of 4,167 people (M: 921, F: 915), including 2,331 students.

These sessions included interactive discussions, the use of IEC materials, and the screening of relevant documentaries to engage the local community. For students, focus is given to biodiversity conservation, nature conservation, species interdependence, engaging the students in nature games, and conservation-themed drawing workshops. Additionally, we conducted several village-level meetings across all project districts to promote community-based approaches to mitigating human-elephant conflict (HEC). These meetings encouraged active involvement of local groups, such as Elephant Conservation Networks (ECNs) and solar fencing committees, including demonstrations of the Haati App to support monitoring and coordination efforts.

- A dedicated event at the Bhairabkunda restoration site focused on addressing flood-related damage to planted saplings. Twenty participants, including officials from the Forest Department, members of the Joint Forest Management Committee (JFMC), and local residents, attended the event, which also featured collaborative discussions on sapling monitoring and strategy.
- The “*Gajah Kotha*” campaign (translated as "Elephant Stories", or *Mongma Golpo* in Garo) was launched to raise awareness among local communities and students about elephant conservation and human-elephant coexistence. The campaign was conducted in two phases: Phase I focused on elephant ecology, their cultural significance, and their conservation status, while Phase II addressed the causes of human-elephant conflict (HEC), shared proven mitigation strategies, and promoted peaceful coexistence with elephants. During the reporting period, a total of 46 sessions were held, directly engaging 1,963 individuals — including 730 men, 691 women, and 542 students.
- *Street play* training sessions were held at Shripanshami Himali High School in Baksa, where 23 students participated in a comprehensive three-day theatre workshop. Following this, we conducted three street drama plays, one at the same school and the others at a weekly market and the Indo-Bhutan Friendship Mela, all of which collectively attracted over 800 individuals to public gatherings.

### Radio Outreach

Radio is an important means of communication in rural Assam. Several radio broadcasts were done during this reporting period.

- A radio discussion with our experts, featuring topics such as HEC, Van Mahotsav, and ecosystem restoration, aired on All India Radio in July 2024 and reached an estimated 5,000 listeners.
- Another radio show aired on 3rd June 2024 discussed solar-powered fencing and nature-based HEC solutions.
- On June 1, 2024, Aaranyak participated in a live call-in radio program that reached a broad audience across Assam. The wide listenership was reflected in the diverse range of calls received from different parts of the state, with listeners asking questions related to human-elephant conflict (HEC) mitigation.
- On 10th February, the All India Radio Dibrugarh team visited the project site in Majuli, Eastern Assam, and recorded the stories and experiences of community members where Aaranyak is working to promote human-elephant coexistence through multiple approaches.
- On 3rd March 2025, the All India Radio Dibrugarh team visited the project area to record stories that aired in two separate half-hour segments, featuring community experiences with HEC and the effectiveness of our projects in mitigating it.

### Media Engagement and Journalism Workshop

- During the reporting period, we conducted a media workshop on human-elephant conflict (HEC) mitigation for journalists in Dibrugarh District, in collaboration with the Dibrugarh Press Club, the Greater Dibrugarh Press Club, and the Naharkatia Press Club. A total of 15 journalists participated in the session, resulting in the publication of several articles promoting the importance of positive storytelling around HEC in their respective media outlets.
- Additionally, a media roundtable organised by the ClimateRISE Alliance focused on key issues in human-wildlife interactions. The discussion was attended by over 20 journalists from regional and national media outlets, including Doordarshan Kendra, News18 Assam & NE, Dainik Janambhumi, NE Live, TV9, Asian News International, and the Central Bureau of Communication.

### Observation of key Environmental days and important events

- We commemorated major environmental events in the project districts of Assam and Meghalaya, such as the International Day for Biological Diversity (IDBD), Earth Day (ED), World Environment Day (WED), World Elephant Day, World Wetland Day, World Migratory Bird Day, and Wildlife Week, through a variety of collaborative initiatives. These activities included restoration site events, native seed collection drives involving students and local communities, awareness seminars, plantation drives, and outreach programs focused on HEC mitigation.
- As part of Wildlife Week, we also organized community engagement activities, such as football matches. We partnered with forest departments and disaster management authorities for joint football matches in the Baksa and Udalguri districts of Assam. Another remarkable event is the 2nd elephant football cup in Goalpara district, jointly organised by the Assam and Meghalaya state forest departments. This event continues to be celebrated on the 12th of August, World Elephant Day, to improve the interstate cooperation for elephant conservation. Similarly, football matches were held in collaboration with the Dibrugarh Forest Department and Lebangkula Yuva Sangha in Dibrugarh district.
- We also conducted specific community-organised programmes like Children's Day, Bhugali Utsav, and Hasti Puja in Eastern Assam and Meghalaya, involving students and the local community.

### Capacity Building Programmes

- *Disaster Preparedness Training:* In collaboration with the Civil Defence Department, a total of 10 practical first-aid training sessions were conducted for 515 villagers, with women comprising 62% of the participants in the project villages of Eastern Assam and West Garo Hills, Meghalaya. The initiative was acknowledged by the Assam Chief Minister's Office and featured on their official Twitter (X) account.

Similarly, in Western Assam, during this reporting period, 10 first-aid training sessions were conducted in Baksa, Tamulpur, and Udalguri for local community members and Elephant Conservation Network (ECN) groups to enhance preparedness and reduce risks during HEC events in collaboration with the District Disaster Management Authority (DDMA) of Baksa and Udalguri.

- *Capacitating the ERCD project teams:* We conducted a 2-day in-house capacity-building event in Bhairabkunda, Udalguri, on May 9th & 10th, 2024, for project team members, focusing on project planning and implementation, proper documentation of project activities, and monitoring & evaluation processes.

Apart from that, to further capacitate the project team, a three-day educational exposure visit was organized from October 25 to 27, 2024, for three team members at the Nature Information Centre of the Hollemathi Foundation in Hanur, Karnataka. The purpose of this visit was to enhance the team's capabilities in educational initiatives and facilitate the exchange of ideas on the execution of successful educational campaigns.

ERCD team in eastern Assam participated in a day-long training on 'Data Management' conducted by the Centre of Management Studies, Dibrugarh University, aimed at learning data compilation and interpretation.

Additionally, the ERCD team attended a two-day refresher workshop on 'Applied Environment Education' on 11th and 12th July 2024 at Extension Education Institute NE region, Assam Agricultural University, Guwahati.

- *Strengthening the local groups:* Two capacity-building training sessions were held for Village Defense Party (VDP) members under Paneri Police Station in Udalguri and Barbari Police Station in Baksa, with a total attendance of 126 participants.

Elephant behavior and conflict mitigation training were provided to Anti-Depredation Squad (ADS) members from the Kumarikata Range and ECN members in Bongurum, Udalguri. The sessions focused on understanding elephant behavior, recognizing early warning signs, learning conflict avoidance methods, and essential dos and don'ts during elephant encounters. Participants also received live demonstrations of the HaatiApp, our mobile tool for reporting and tracking elephant movements. Information on ex-gratia compensation schemes, including application procedures and documentation, was also shared.

In February 2025, a three-day exposure visit was organized for 24 stakeholders, including members of ECNs, ADS teams, the Forest Department, the Manas Chowki Ecotourism Society, and Aaranyak staff. The group visited the Jaldapara and Kurseong Forest Divisions, where they observed HEC mitigation practices from other regions.

The training of Village Champions (VCs) was completed in this reporting period. Additionally, several online meetings and consultations were conducted multiple times during this reporting period. On 22nd June 2024, a meeting was held in Photamati, West Garo Hills, where Nokmas and village champions from four project villages, namely Borogobal, Jamdamgre, Photamati cluster, and Darenchigre-

Bondukmali cluster, were present. The Eastern Assam field team visited and interacted with them, discussing their role & responsibilities, as well as the challenges they faced while working with the community in four project villages.

From 4th April to 7th April, we also arranged a capacity-building exposure trip to the Kaziranga–Karbi Anglong region for 11 village champions from eastern Assam and West Garo Hills, alongside the Aaranyak team. They interacted with the Karbi community and local entrepreneurs to explore eco-tourism, agroforestry, sericulture, and handicrafts. The experience deepened their understanding of how community-led initiatives can support both biodiversity conservation and sustainable livelihoods.

During this reporting period, two Village Fencing Committee (VFC) trainings were conducted on 24th and 25th September in two villages of Jorhat district, training a total of 124 villagers, 62 in each village.

- *Training and Forming Elephant Conservation Networks (ECNs):* Three ECN training events and five ECN strengthening events were held during the reporting period. In these events, cost-effective HEC mitigation measures were discussed, elephant movement routes were mapped out, and feedbacks were shared. Field gear, including torchlights, caps, T-shirts, and raincoats, was also distributed during these events.

A new ECN group named ‘KumarikataAnchalik ECN’ was formed with representatives from Segunbari, Palashbari, Hatiduba, Kalajhar, and NC Angrakata villages of Baksa. The program witnessed the participation of 22 individuals, marking an important step towards building grassroots conservation networks across the region for the conservation of the gentle giants. Another ECN was formed in January at Bongurum, Udalguri, comprising 35 members from 13 villages.

#### Developed Information, Education, and Communications ( IEC) materials

- The existing IEC material on HEC mitigation, initially developed in Assamese, was translated into the Bodo language to enhance accessibility among local communities.
- A video documentary was produced to raise awareness about the Gajah Kotha campaign further. Additionally, a leaflet combining content from the IEC series ‘Gajah Kotha’ and ‘Hati aru Ami’ was designed and printed for distribution.
- For school outreach, a ruler (measuring scale) featuring educational information about elephants was created in both Assamese and Bodo, along with accompanying leaflets in Assamese.
- As part of the awareness efforts during this period, a booklet and an audio-visual version of the Gajah Kotha IEC material were developed. Additionally, a handbook on solar-powered fencing was published in the local language as a key IEC resource.
- A documentary titled “Harvesting Hopes- The Biofence Initiative” was published with support from Dusty Foot Productions.

## **4. Human Wildlife Conflict Mitigation**

### HaatiApp



A grand Inaugural ceremony for the launch of the HaatiApp was held on 10th August 2024. It was graced by the presence of Hon'ble Cabinet Minister for Power, Sports & Youth Welfare, ITFC (Archaeology), and Co-operation, Smt. Nandita Gorlosa.

Further, our team is continuously demonstrating the app to forest officials, frontline staff, and local community members across key human-elephant conflict zones to ensure its effective adoption and use in the field.

### Community-based HEC mitigation tools

#### *Different kinds of HEC mitigation tool installations:*

- We installed *solar-powered electric fences* in 4 schools of Udalguri District, viz. Nunaipara L.P. School, No.2 BholatarDarachuba L.P. School, Bhumi L.P. School, and Thalungjhar L.P. School to secure it and avoid damage by wild elephants with a total length of approximately 800 metres.
- We installed another 30.1 km of solar fences, which helped protect 1937 acres of paddy fields in Jorhat. In Sibsagar, a 13 km solar fence was installed to protect 97.5 acres of paddy. Two solar fence installations of 2 and 2.1 km in Tinsukia protected 130 bighas of fields. The solar fences of 13.1 km in Majuli, Sadiya, and Borogobol (West Garo hills) were reinstalled during this reporting period.

A 19.3 km *biofence*, utilizing Assam lemon, has been installed in Sivasagar, Majuli, and Tinsukia districts as a farm-based deterrent to elephants, thereby mitigating crop depredation.

- A total of 40 *solar street lights* were installed in strategic locations across Baksa, Tamulpur, and Udalguri. 318 torchlights and 24 LED blinking lights were also distributed across these districts.
- A total of 40 *road signages* were installed across Baksa, Udalguri, and Tamulpur to create awareness and as a precautionary measure to avoid negative interactions with elephants in locations where elephants cross roads.
- Eighteen *watchtowers* were supported and constructed across Baksa, Tamulpur, and Udalguri.

#### *Trained local groups mitigating HEC in Eastern Assam and Meghalaya:*

In Eastern Assam and West Garo Hills (Meghalaya), 10 Rapid Response Unit (RRU) members and 20 village champions (VCs) actively monitor elephant movement and human-elephant conflict (HEC) across 20 project villages, engaging a total of 398 village residents.

Information received from these local groups during this reporting period:

- Forty-seven crop damage incidents affected 23.31 acres of land within project villages, with 5 additional cases outside the project villages.
- Eighteen property damage incidents were reported in project villages, attributed to repeated elephant incidents in a single day; 11 more were recorded outside the project villages.
- One person was injured in Dehing Patkai National Park during an encounter with a wild elephant.
- RRUs issued 123 alerts via WhatsApp to warn communities.
- VCs, alongside the project team, made 114+ visits to monitor mitigation efforts and advise on safer practices.

## **5. Complementing Conservation Efforts**

### Logistic support to the Forest Department

- Fuel support of ₹50,000 each was provided to Tamulpur and Nunai Forest Ranges to strengthen monitoring efforts and facilitate timely support for elephant-related interventions in village areas.
- We extended logistical support to community and forest stakeholders by distributing over 347 torchlights, 250 raincoats, 72 jackets, 117 sweaters, and 129 pairs of field boots to members of ECN, EPC, ADS, MSKETS, local volunteers, and frontline staff across Kumarikata and Dhamdhama regions of Baksa.
- We distributed 79 pairs of shoes to the forest staff of the Baghmara division, South Garo Hills, Meghalaya.
- 4 bicycles were handed over to the Lakhipur Forest Range to be used by the beat staff under the Lakhipur Range for smooth communication during duty.

### Logistic support to the Police

- On 11th April 2024, we provided the Majuli Police with 24 torchlights.

### Logistic support to the community practitioners

- To boost morale and to aid in monitoring elephants in their vicinity, we provided RRU members of eastern Assam and Meghalaya with a field kit each. In eastern Assam, the RRUs received 292 raincoats, 280 T-shirts, 285 caps, and 295 field shoes this year. While in West Garo Hills, a total of 24 t-shirts, shoes, caps, and raincoats were provided.

## **5. IMPACTS**

- During the reporting period, our initiatives in Western Assam directly reached over 10,000 individuals through 61 Outreach Programs, with an additional 5,000 people engaged via radio broadcasts. These efforts have significantly enhanced public awareness and community preparedness around human-elephant coexistence (HEC).
- The 30 capacity-building events that we organised involved line departments from various districts, including Udalguri, Tamulpur, Goalpara, and Baksa. These events provided a valuable platform for fostering convergence in addressing Human-Elephant Conflict (HEC) issues. They have also been instrumental in streamlining processes related to ex gratia payments.
- Our efforts to equip villagers in HEC-affected project areas of Assam and Meghalaya with expert training to handle disasters and injuries resulting from elephant encounters were well recognized by the Assam Chief Minister's Office and highlighted on their official Twitter (X) account.
- The solar-powered streetlights and multilingual warning signages installed at strategic locations across Udalguri, Baksa, and Tamulpur have markedly improved night-time visibility along high-risk elephant corridors, earning strong appreciation from local communities and reducing potential human-elephant conflict.
- The HaatiApp, now available on the Google Play Store, is steadily gaining users. The app facilitates real-time HEC reporting and provides step-by-step guidance on accessing ex gratia compensation, making institutional support more accessible for affected communities.
- The 18 concrete watchtowers constructed to bolster community-based deterrence and crop protection in Tamulpur, Baksa, and Udalguri are successfully offering a durable and safer alternative to traditional bamboo platforms while preserving the spirit of collective vigilance and traditional knowledge systems.
- In Eastern Assam, 46 sessions of our flagship awareness campaign "Gaja Kotha" engaged 1,963 participants (including 730 men, 691 women, and 542 students). Evaluations conducted over 22 sessions revealed a 7.4% improvement in knowledge retention, as indicated by an increase in the number of questions attempted after each session.
- Further, the dedicated monitoring and upkeep of 47.1 km of seasonal solar fences by our team, in collaboration with Village Committees, played a crucial role in safeguarding agricultural livelihoods. These fences helped prevent elephant incursions, protecting paddy worth INR 9.66 crore and other crops worth INR 2.06 crore across project villages in Eastern Assam. Notably, all fences installed last year were successfully reinstalled this season in both Eastern Assam and the Garo Hills, reaffirming their reliability and community trust. Before these installations, up to 2.5 bighas of cropland (approximately 750 kg of paddy) were lost to elephant foraging.
- During the 2024–2025 reporting period, secondary sources recorded 53 elephant deaths and 76 human fatalities—slightly lower than the previous period in 2023–2024, which reported 56 elephant and 90 human deaths. Although the reduction in mortality is minimal, it signals a positive trend and reinforces the need for continued and improved interventions.

## 7. **SUCCESS STORY**

- Our solar-powered fencing initiative to secure schools in elephant-prone areas was recognised as a best practice and featured at NITI Aayog's first regional workshop on improving education KPIs in Aspirational Districts, held in Itanagar.
- On November 18, 2024, we successfully radio-collared a 25–30-year-old tusker in the Baksa Forest Division—the first of its kind in Assam. Later, on January 6, 2025, we collared a 30-year-old adult female, likely from the same herd, in Daranga Reserve Forest. The initiative was acknowledged by the Assam Chief Minister's Office and featured on their official Twitter (X) account.

- Dr. Bibhuti Prasad Lahkar, Head of the Elephant Research and Conservation Division of Aaranyak, who has been relentlessly working for the conservation of Asian elephants and the well-being of HEC-affected people, was conferred the 2024-2025 Neville Shulman Award by Earth Watch Europe. He is the only Indian to receive this honour.

## 8. **ENVIRONMENTAL RESEARCH & INTERVENTION**

To understand how HEC, crop raiding by wild elephants, impacts the nutritional intake and dietary patterns of women, we conducted a study in conflict-affected villages of Jorhat in collaboration with the Assam Agricultural University, Jorhat. The data is being analysed.

## 9. **INTERNSHIPS/VOLUNTEERS**

- Jonmani Rabha, a Master's student from the Tata Institute of Social Sciences, Guwahati, was engaged as an intern from 15th May to 30th June 2024. Her nature of engagement during the internship period involved assisting in daily field activities and supporting the study on the effectiveness of solar fencing installed in schools in Udalguri.
- Nine students from ANVESHAN, an experiential learning and unlearning centre in Auroville, visited Eastern Assam for a two-day field visit from 9th to 11th May 2024. They visited Dehing Patkai National Park to explore the rainforest and its biodiversity. After that, they visited UjaniMajuli, where they explored the Mising Community and participated in one of the student outreach activities in Jabor Chuk Kathoni, Majuli.
- 5 interns (Arindam Saikia, Aaltaf Sheikh, Bhaskar Das, Manjusha Choudhury, and Subhrajit Borah), and 1 volunteer (Nitesh Biswas) joined the APFBC project. They were tasked with assisting the field biologists with data collection in the field and data entry. All the candidates are from recognised colleges under Gauhati University.
- Lakshya Raj Sonowal and Rahul Ranjan Rajput, two students from the Tata Institute of Social Sciences, Guwahati, were engaged as interns from 31st December 2024 to 25th January 2025. Their work was to study a topic entitled “ Solar Fencing as a Mitigation Tool and Livelihood Enhancer in Human-Elephant Conflict Zones of Tinsukia and Majuli District.
- Mausam Mahanta, an intern from the Tata Institute of Social Sciences, Guwahati, was engaged as an intern from 20th May to 05th July, 2024. His study was to assess the impact of Solar street lights in human-elephant conflict areas.

## 10. **QUOTABLE QUOTES**

### Community Voices & Quotes of Appreciation

Durga Magar, farmer, Onthaibari, Tamulpur: "In 2022, elephants destroyed our crops entirely. But last year, a simple yet well-placed watchtower supported by Aaranyak helped save our harvest. It has made a real difference. This year, I feel more hopeful. We now have a better way to protect our crops."

Rajesh Shaha, resident of Sonmuni, Tamulpur: "We always feared the elephants would break our bamboo towers. Now, with stronger, safer structures, we can guard our fields without fear. It's a huge relief for us."

Manual Mardi, community member, Sonmuni, Tamulpur: "Thanks to Aaranyak and the SBI Foundation, our community has now better-equipped watchtowers, torchlights; everything has helped us protect nearly 150 bighas of paddy. We are deeply grateful."

Gautam Kumar Nath, Head Master, Nonaipara LP School: "The solar fencing provided by Aaranyak has strengthened our school's protection and maintenance. Earlier, wild elephants would often damage the premises. Now, we feel safe and thankful for this much-needed support."

## 11. ROADMAP TO THE FUTURE

- Enhance the use of tools like Radio collars, AI-based cameras for understanding elephant ecology in human-dominated landscapes, for the mitigation of HEC.
- To understand the impact of HEC on the stress and nutrition of both humans and elephants.
- Continue to actively engage Govt machinery in HEC mitigation.
- More documentation/PR and publications.
- Enhance the capacity of the ERCD team by developing their skills and expertise to become more proficient and impactful researchers.

## 12. PUBLICATIONS

### Peer-Reviewed:

Saikia, A., et al. (2023). Conservation of Asian elephants and addressing human-elephant conflict in North East India. *Env Vul.* Special Issue of the GUINEIS Journal, Vol XI, 122-139 ISSN: 2347-2669

Lahkar, B., Saikia, A., Abedin, I., & Bora, B. (2024). Community-centric HEC mitigation efforts in Assam & Meghalaya. *Trumpet* Vol. IV. Issue 2 (2024). A quarterly newsletter of the Project Elephant, MoEF&CC, Government of India. [https://moef.gov.in/uploads/pdf/Quarterly\\_Journal\\_Vol-4-Issue-2.pdf](https://moef.gov.in/uploads/pdf/Quarterly_Journal_Vol-4-Issue-2.pdf)

### Technical reports:

Saikia, A., Sarkar, A., Borthakur, U., Abedin, I., Das, A. K., Boruah, A., Gogoi, N. K., Das, P. K., Das, B. J., Gayary, R., & Lahkar, B. P. (2025). Understanding the landscape-level corridor connectivity of Asian elephants in Meghalaya (Technical report, 70 pp.). Submitted to Meghalaya Basin Development Authority.

### Non-peer-reviewed

#### Popular Articles

Anushka Saikia's Assamese article "*Bhutan-OxomXimantorhaatiarugaaonbur*," which translates to "*Elephants and villages of Bhutan-Assam transboundary landscape*," was published in Aaranyak's Biolink (December 2024)

**Rabiya Daimari's** article "*Wild elephants and farmers of Udalguri, Baksa, Tamulpur districts of Assam-strategies to reduce elephant crop raiding behaviour*" was published in Aaranyak's Biolink Volume 04, Issue 02 (December 2024)

## 13. CONFERENCES/WORKSHOPS/TRAININGS/TALKS

#### A. Attended/Presented

- At the Students Conference on Conservation Science (SCCS) in Bangalore, our team members Abhijit Saikia and Rabiya Daimari presented a poster on alternative crop support, titled "Mitigating Crop Raids by Elephants: The Impact of Adopting Resilient Cropping Systems" in October 2024.
- Rubul Tanti, Bidisha Borah, and Rimpee Moran attended the Student Conference on Conservation Science (SCCS) in Bangalore in October 2024, and presented a poster titled 'A community-based early warning system to manage HEC-alerts in human-animal conflict-affected districts in Northeast India.'
- Dr. Bibhuti Prasad Lahkar and Dr. Alolika Sinha presented their respective papers on grassland recovery in Pobitora Wildlife Sanctuary and Manas National Park, respectively, at the Indian Wildlife and Ecology Conference (IWEC) in Bangalore in June 2024.
- Anushka Saikia presented a poster titled "Understanding landscape-level Asian elephant distribution in Meghalaya" at the Indian Wildlife and Ecology Conference (IWEC) in Bangalore in June 2024.
- Anjan Baruah and Rubul Tanti participated in an International Conference on Human-Elephant Conflict Management, organized by the Karnataka Forest Department in Bengaluru as a part of the World Elephant Day celebrations.
- Anushka Saikia presented a paper titled "Understanding landscape-level Asian elephant population in Meghalaya" at the ARS 2024 and was awarded the second-best oral presentation.
- Rimpee Moran presented a poster of the paper "Human Elephant Conflict and adjusting memories of PuronaHaladhibari" at the ARS 2024.
- Rubul Tanti presented a paper on the topic "A community-based early warning system to manage HEC-alerts in human-elephant conflict-affected districts in northeast India" at the ARS 2024.
- Dr. Bibhuti Prasad Lahkar attended a conference on Biological invasion and stakeholder engagement in India, held from 21 to 22 February at the Azim Premji University, Bhopal campus. He presented ERCD's habitat restoration and invasive management work at the conference.
- On 23<sup>rd</sup> March, Rubul Tanti was featured in a programme by The Wildlife Academy and Gaja Conservation Trust, which included a talk, a discussion, and a Q&A session on "Ecological and Community-based approaches to Mitigate Human Elephant Conflict in eastern Assam.
- Rubul Tanti and Dr. Alolika Sinha presented their work at webinars conducted by Friends of Elephants, The Wildlife Academy, and Gaja Conservation Trust.
- Rabiya Daimari attended a two-day workshop on 'Ethical and effective community engagement' held by Ethical Conservation Alliance in Nameri on 23<sup>rd</sup> & 24<sup>th</sup> January 2025.

14. Our Footprints: Manas Landscape (Protected area and villages located in the buffer), Eastern Assam (Majuli, Tinsukia, Dibrugarh, Sibsagar, Jorhat), Goalpara, Baksa, Udalguri, Tamulpur, four Elephant Reserves of Assam (Dehing-Patkai, Dhunsiri-Lumding, Chirang-Ripu, Kaziranga-Karbi Anglong), Garo hills of Meghalaya, and the PAs of Meghalaya.

#### 15. Acknowledgements

Asian Elephant Conservation Fund-US Fish and Wildlife Services (USFWS), British Asian Trust (BAT), Darwin Initiative, Elephant Family, Meghalaya Basin Development Authority (MBDA), Assam Project on Forests and Biodiversity Conservation (APFBC), Brahmaputra Crackers and Polymer Limited BCPL, SBI Foundation, LIC Housing Finance, The Nature Conservancy India Limited

## **Gangetic Dolphin Research and Conservation Division (GDRCD)**

The Gangetic Dolphin Research and Conservation Division (GDRCD) was established by Dr. Abdul Wakid in 2005 to ensure the long-term conservation of the Endangered Ganges River Dolphin and associated species in the Brahmaputra River system of Assam, through collaboration with key stakeholders. Since its inception, GDRCD has significantly contributed to dolphin conservation through scientific research, community engagement, and awareness initiatives. Presently, the Division, in association with the CAMPA-Dolphin Project and Project Dolphin of the Wildlife Institute of India, continues to implement long-term research and conservation programmes focused on protecting and sustaining Assam's river dolphin populations.



### **1. RESEARCH AND CONSERVATION**

#### **A. Species Research & Conservation**

The report “*Population Status of River Dolphin in India*” was released by the Hon’ble Prime Minister of India in March 2025. It is based on the first-ever All India River Dolphin Survey conducted under Project Dolphin during 2021–23 by the Wildlife Institute of India in collaboration with State Forest Departments and partner environmental organizations. Aaranyak served as the partner for Assam. This Report highlighted the presence of 635 Ganges River Dolphins in Assam, underscoring the state’s critical importance for the species’ survival and the effectiveness of ongoing conservation efforts in the Brahmaputra River system.

## **2. Education, Outreach and Communications**



In association with the Wildlife Institute of India's CAMPA-Dolphin Project, GDRCD conducted (a) total 20 river-side schools programs, where 2068 students and 164 teachers participated, (b) 4 forest staff programs, where 55 forest officials from 4 Divisional Forest Officer, and (c) 1 community leaders meet, where 29 community leaders participated. All these activities were conducted its Dolphin Yatra initiative, which aims to conduct extensive community engaging and awareness activities for long term dolphin conservation in Assam.

### 3. **Impacts**

2068 students, 164 teachers, 55 forest officials and 29 community leaders participated in boat based Dolphin Yatra in Brahmaputra for conserving dolphins.

#### 4. Memberships

IUCN Cetacean Specialist Group

#### 5. Contact Address/ Personnel

Dr. Abdul Wakid

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#### 6. Acknowledgements (*Please provide high-quality logos as well*)

Wildlife Institute of India, Dehradun

**Geo-Spatial Technology & Application Division (GTAD)**



## **1. RESEARCH AND CONSERVATION**

### **A. Species Conservation**

Gibbon and V3. Species Distribution Model has been run Species Distribution Model to predict the areas suitable for the presence of Western Hoolock Gibbon across the North-East India landscape using Primary and Secondary occurrence data has been prepared using MaXent model.

### **B. Habitat Conservation**

Doloni Beel GIS analysis (2023–2025) included water quality mapping and Sentinel-2 delineation. Under the APFBC project, functional characteristics and LULC change maps (2001–2024) for PAMP areas, Elephant Reserves, and PAs were prepared using GEE, ArcGIS, and rainfall interpolation. In BTAD, land degradation assessment, reforestation modeling, elephant conflict density, vegetation trend analysis, biomass sampling strategies, and village prioritization were completed. For the THT project, forest canopy density analysis (1988–2024) for Assam, Manipur, and Mizoram was completed, while Tripura mapping and Gibbon survey are underway. In Garo

Hills, elephant corridor modeling and spatial genetics analysis were completed. Rhino ranging, habitat, and density maps were prepared.

## **2. Education, Outreach and Communications**

- A. On National Space Day 2024, Dr. Bibhab Kumar Talukdar delivered a talk on space science applications in conservation at Guwahati, highlighting GIS and Remote Sensing, with Aaranyak's Geospatial team joining eminent speakers, scientists, and students. Organised by ISRO, NESAC, DST & Government of Assam,
- B. On GIS Day 2024, Avishek Sarkar addressed students at Goalpara College and International Public School, Guwahati, while Shivani Khalote enlightened Geography students of South Field College, Darjeeling on GIS, Remote Sensing, and their applications.
- C. World Environment Day 2024 was celebrated at B. Baruah College, Guwahati, with Pollution Control Board, while World Ozone Day highlighted by Aaranyak's Madhumita Borthakur at Gurukul Grammar School on 13th September.



## **3. Complementing Conservation Efforts**

- A. Arup Kumar Das, Senior Manager, GTAD, Aaranyak had been worked as a member for up-gradation of the Management plan of DSNP & DSBR 2025-2034. The management plan was submitted before the Principal Chief Conservator of Forests, (Wildlife) & Chief Wildlife Warden, Assam.
- B. A 6 days GIS training module had been developed for Refresher course at Assam Forest School, Jalukbari.
- C. Asian water bird census of Pobitora WLS on 18th January 2025 participated by Avishek Sarkar and Shivani Khalote

#### **4. Impacts**

The GPS and basic GIS training programmes conducted by the Geospatial Technology and Application Division (GTAD), Aaranyak, from April 2024 to February 2025 were attended by approximately 600 participants, including college students, grassroots leaders, research scholars, and frontline forest officials across Assam and neighboring states.

#### **5. Internships / Volunteers**

- A. Ms. Evangel Lyngdoh from Shillong has joined GTAD Aaranyak as paid intern from April 2024 to 2nd Oct 2024.
- B. Ms. Dipanita Haloi has joined GTAD Aaranyak as paid intern from 17<sup>th</sup> May to 14<sup>th</sup> August 2024.
- C. Ms. Anusuya Gogoi has joined GTAD Aaranyak as paid intern from 17<sup>th</sup> May 2024 to 14<sup>th</sup> August.
- D. Ms. Nayantika Rajbangsi pursuing Master in Ecology, Environment and Sustainable Development from TISS has joined GTAD Aaranyak as intern as part of her course from 15<sup>th</sup> May 2024 to 30<sup>th</sup> June 2024.
- E. Ms. Bornali Chakraborty, had joined as GIS trainee in GTAD from October to December, 2024.

#### **6. Quotable quotes**

“The Park Manager cum Divisional Forest Officer of Tinsukia Wildlife Division and Chairman cum Member-Secretary of the committee extends special thanks and credit to Arup Kumar Das for the entire exercise and effort provided for updating of Management Plan of Dibru-Saikhowa National Park and Biosphere Reserve”

#### **7. Future roadmap**

The GIS Division envisions strengthening its role in conservation science and applied research through the following initiatives:

- Short Courses on GIS – Organize specialized training programs on Remote Sensing and GIS applications for diverse thematic areas such as land use/land cover mapping, habitat modeling, climate change impact assessment, and landscape connectivity analysis.
- Upgradation of GIS Laboratory – Enhance infrastructure with advanced computing systems, licensed geospatial software, cloud-based processing platforms, and high-resolution satellite datasets to support cutting-edge spatial analysis.
- Collaborative Project Development – Strengthen interdisciplinary collaboration with the Wildlife Species and Genetics Divisions to integrate spatial data with ecological and genetic information for holistic biodiversity conservation planning. In addition, assisting the forest department by supporting technical expertise, training and capacity building.

#### **8. Publications**

##### Book Chapters

- A. Sarkar, A., Borthakur, M., Das, A. K., Talukdar, B. K., (2024). Book Chapter published in Springer titled “A geo-spatial approach to water spread prediction across selected rhino bearing protected areas of Assam, India.”

##### Abstract

1. Madhumita Borthakur, M., Sarkar, A., Das, A. K., Talukdar, B. K., Supporting informed decision making for Forest Conservation and Management using Space Technology, Aaranyak Biannual Research Seminar 2024.
2. Sarkar, A., Das, A. K., Borthakur, M., Talukdar, B. K., Goswami, P., Das, P. Geospatial Modelling for Identification of Potential Corridors along the protected area network Brahmaputra Riverine landscape around Orang Tiger Reserve. Aaranyak Biannual Research Seminar 2024.
3. Deka, P., Das, A. K., Sinha, A., Choudhury, P., Bayan, U., Lahkar, B, P. Aliens in the grasslands: building evidence and replenishing habitats in a rhino-abode in Assam, Aaranyak Biannual Research Seminar 2024.

#### Technical reports

- B. Das, A. K, Sarkar, A., Borthakur, M., Das, P., Goswami, P., Talukdar, B.K. 2024. Strengthening conservation of wildlife corridors within Brahmaputra riverine landscape of Orang Tiger Reserve and surrounding areas. PP. 1-45.

#### Popular Articles

- C. A Popular Article titled “Leveraging Remote Sensing, GIS & GPS Technology for efficient forest management, conservation.” Writer by Madhumita Borthakur Published in Biolink.Volumn - 04, Issue - 01, June-November 2024.

### **9. Conference / workshops / training / talks**

#### Training Attended

- A. Avishek Sarkar and Shivani Khalote Participated in a training programme on Introduction to Biostatistics on 2nd to 5th January 2025, organized by Aaranyak.

#### Training provided

- A. On 1<sup>st</sup> April 2024, Arup Kumar Das, Senior Manager, GTAD had took theory and hands on GPS training to newly recruited foresters of Assam Forest department at Assam Forest School, Jalukbari, Guwahati. On 18<sup>th</sup> April 2024, Avishek Sarkar, GIS Analyst had imparted training on basics of QGIS to the foresters.
- B. Arup Kumar Das, Senior Manager, GTAD imparted GPS hands on training from 23<sup>rd</sup> to 24<sup>th</sup> April 2024, to the forest front line staff at Gibbon Conservation Centre. The training was organized by the PRCD division of Aaranyak from 22<sup>nd</sup> April to 28<sup>th</sup> April 2024.
- C. Avishek Sarkar Provided hands on GPS Training to Front line forest staff of Assam Forest Dept. at Gibbon Wildlife Sanctuary on 21<sup>st</sup> and 22<sup>nd</sup> May 2024, organized by the PRCD division of Aaranyak.
- D. Two Days Training on uses of GIS for grass-root Leaders for implementing of seventh operational phase of GEE small Grants provided by Arup Kumar Dason 27th and 28th June 2024 at the community centre, Chandrasing Rongpi Memorial High School, Chandrasing Rongpi of Kaziranga and Karbi Anglong Landscape organized by Aaranyak.
- E. Two days training on QGIS provided to trainees of Professional Conservation Biology in Kohora Field Station on 27th and 28th June 2024 by Madhumita Borthakur. The training was organized by TRCD Aaranyak.
- F. Induction of one trainee in one month personalized online training on basics of Remote Sensing and GIS using open-source software during September 2024 by GTAD.

- G. Two Days Training on basics of RG & GIS provided to DFO and Range Officer, Social Forestry Division, Department of Forest & Environment, Meghalaya by Intern Evangel Bonnie Lyngdoh on behalf of GTAD.
- H. One-week basics of RS/GIS training provided to two research Scholars of Assam Down Town University during last week of July 2024, by GTAD Aaranyak.
- I. Arup Kumar Das, Senior Manager of GTAD, Aaranyak was the resource person for imparting GPS training to the forest frontline staff in Hollongapar Gibbon Sanctuary on 16<sup>th</sup> September 2024. The training was organized by PRCD.
- J. Arup Kumar Das, Madhumita Borthakur and Avishek Sarkar imparted basics of GIS training to the students of Civil Engineering, SITM, Guwahati from 18<sup>th</sup> to 24<sup>th</sup> September 2024.
- K. Representing Aaranyak, Senior Manager in its' Geospatial Technology and Application Division (GTAD) Arup Kumar Das took a session on GPS as a resource person in the 5-Day Tour Guide Training Program on October 21 at Maguri Eco-Camp, Tinsukia, Assam organised by Nature Conservation Society (NCS). Mr Das demonstrated on how Geo-Spatial technology helps in tourism specially PAs and wildlife of Assam and use of mobile GPS in wildlife and its habitats. This training initiated on October 17 aimed to equip participants with skills in Wildlife Tourism, cultural and heritage guiding, River Tourism, Hotel Management, and safety protocols to promote sustainable tourism practices and empower local communities in the region. About 25 individuals from Dhemaji and Lakhimpur district of Assam received the training.
- L. On 22<sup>nd</sup> October, Sr. Manager GTAD, Arup Kumar Das imparted hands on GPS training conducted by PRCD for Forest Frontline Staff for the Conservation of Hoolock Gibbon in Assam."
- M. On 25<sup>th</sup> and 26<sup>th</sup> October 2024, Sr. Manager GTAD, Arup Kumar Das had taken GPS and GIS classes in the department of Zoology, North Lakhimpur College for the degree and Post Graduate degree students followed by filed visit. About 100 students took part in the program along with current and retired faculty members of the department.
- N. On 30<sup>th</sup> October, 2024, Arup Kumar Das, Senior Manager in Geospatial Technology and Application Division of Aaranyak highlighted the application of Global Positioning System GPS in wildlife research. Hands on GPS training. 51 participants from the Namdapha National Park & Tiger Reserve attended the program. The program was organized by PRCD Aaranyak.
- O. Provided training on Handling GPS Device for collecting field-based GPS data to frontline staff of Assam Forest Department organized by PRCD on 13th November 2024 at Gibbon Conservation Centre, Mariani.
- P. Three days training on Global Positioning System (GPS) and Geographical Information System (GIS) was organised on 26th to 28th November 2024 for the representative of 23 numbers of grassroots level NGO's of Assam and Meghalaya. The training was organized in collaboration with GEFSmall Grants Programme, The Energy and Resources Institute (TERI) and UNDP. The training was carried out at the conference hall of Extension Education Institute (NE Region), Ministry of Agriculture & Farmer's Welfare, Government of India, Assam Agricultural University (AAU), Khanapara, Guwahati – 781022. Shri. Arup Kumar Das, Senior Manager, GTAD, Aaranyak coordinated the overall training with Support from Ms. Madhumita Borthakur, Assistant Manager, Shri. Avishek Sarkar and Ms. Shivani Khalote, GIS Analyst. Ms. Sounika Karmakar, Regional Coordinator, North-East, SGP-OP7, TERI actively coordinated and participated in the training.
- Q. Imparted Training of Research Scholar from Rajiv Gandhi University, Arunachal Pradesh, on Basics of GIS and Handling open GIS software.
- R. Imparted GIS Training to the forest staff in Jalukbari Forest School from 3rd to 9th January by Arup Kumar Das, Madhumita Borthakur, Avishek Sarkar and Shivani Khalote.
- S. On 24th January 2025, Avishek Sarkar, Senior Project Officer, GTAD has imparted hands on GPS training to frontline forest officials during the weeklong residential training program organized by HoD, PRCD at Gibbon Conservation Center.

- T. Madhumita Borthakur and Shivani Khalote provided training on GPS and GIS using GPS devices, mobile phones and open-source software was provided to the around 30 students and faculty from Dept. of Geography of Dimakuchi College. The training included Introduction to GIS & GPS, focusing on biodiversity studies, Harnessing smartphones for mapping and geospatial applications, Outdoor demonstration for real-world application with handheld GPS device and commitment to provide further hands-on experience in LULC (Land Use Land Cover) mapping and village mapping for interested participants. This workshop was conducted on 5th February 2025 under the UNDP GEF SG program implemented by TERI, with the cooperation of Geospatial Technology & Application Division (GTAD), Elephant Research and Conservation Division (ERCD) and Environment Education and Capacity Building Division (EECBD) of Aaranyak.
- U. On 7<sup>th</sup> February 2025, Avishek Sarkar, Senior Project Officer, GTAD has imparted hands on GPS training to frontline forest officials during the weeklong residential training program organized by HoD, PRCD at Gibbon Conservation Center.

### Workshop Attended

- A. Avishek Sarkar, GIS Analyst from GTAD had attended 3-day hands-on workshop on Wildlife monitoring using R and bioacoustics organized by The Assam Royal Global University from 08/04/2023-10/04/2023.
- B. Arup Kumar Das had attended a workshop from 21<sup>th</sup> to 25<sup>th</sup> August 2024 along with other officials of Aaranyak at North Bengal on “Feasibility of reforestation in private fallow cropland, degraded forest, and tea gardens within the Doar’s Landscape of North Bengal and Bodoland Territorial Region of Assam, India”.
- C. Avishek Sarkar, Sr. GIS Analyst of GTAD Aaranyak had Attended 2nd User Interaction Meet on 5<sup>th</sup> September 2024, organized by NESAC at Umiam, Meghalaya.
- D. Aaranyak’s Senior Manager in Geospatial Technology and Application Division (GTAD) Arup Kumar Das attended a two-day workshop on “Collaborative Approaches to Inclusive Energy Planning.” organised by World Resources Institute India WRI India recently. During the workshop, Mr. Das delivered an overview on key activities carrying out by GTAD, Aaranyak in Northeast India. The event explored the role of geospatial data and analytical tools in energy planning, covering use cases for Energy Access Explorer (EAE), WRI India’s flagship Open Source geospatial platform that provides critical data to inform energy planning activities. The event also featured roundtable discussions on the role of data in energy planning, the significance of partnerships and the potential of open-source solutions. Some of the learnings that emerged from the discussion include the need for improved collaboration and data-sharing to enhance data reliability, differences between open-source and open-access solutions, and the role geospatial data can play in various planning scenarios. The workshop brought together stakeholders from the states of Jharkhand, Assam, Nagaland and Mizoram, as well as international participants from Nepal, Kenya, Uganda and Ethiopia. The participants represented government and civil society, working across energy planning, GIS, disaster management, wildlife conservation and clean cooking. They shared their experiences with using EAE for different use cases and offered feedback to enhance the platform's usability and capabilities.
- E. Madhumita Borthakur and Avishek Sarkar actively participated in an organizational workshop entitled “Igniting Leadership Skills – A Strategic Approach to Enhancing Organizational Goals” on November 14, 2024.
- F. On 10<sup>th</sup> December 2024, Arup Kumar Das attended Disaster Management Workshop at Guwahati.
- G. On 7<sup>th</sup> February, 2025, Arup Kumar Das and Shivani Khalote had attended a workshop on “Understanding and Mitigating Disaster Risks in the Kaziranga National Park and Tiger Reserve” organized by WTI.
- H. Madhumita Borthakur participated in a session of Advantage Assam 2.0 under the theme 'Space and Geospatial' on the topic 'Advancing Geospatial Industry for Socio-Economic Development of Assam' in Khanapara Veterinary Field on 26th February 2025.

### Conference Attended

- A. Arup Kumar Das as Convenor of Aaranyak Biannual Research Seminar 2024 attended along with Ms. Madhumita Borthakur and Mr. Avishek Sarkar presented two papers during the seminar on 27<sup>th</sup> and 28<sup>th</sup> September 2024.
- B. Avishek Sarkar presented a paper entitled “Study on Ecosystem Service Valuation (ESV) dynamics using geospatial technology across the urban sprawl of Guwahati city, Assam, India” co-authored by Barnali Chakraborty, Madhumita Borthakur and Bibhab Kumar Talukdar at National Seminar on "Cultivating alternatives for our common future: Prospects and Challenges from Local to Global" organized by Dhanjit Medhi Foundation, Sonapur College and sponsored by ICSSR from 7th-9th November 2024.
- C. Avishek Sarkar presented a research paper entitled “Impact of forest canopy density on invasive alien plants spread across the vulnerable ecosystem of Amchang Wildlife Sanctuary, Assam” co-authored by Arup Kr. Das, Madhumita Borthakur and Bibhab Kr. Talukdar at the Biological Invasion and Stakeholder Engagement in India organized by Azim Premji University, Bhopal campus on 21<sup>st</sup>-22<sup>nd</sup> February 2025. He also engaged actively with the experts and researchers during roundtables sessions.
- D. Avishek Sarkar presented a research paper entitled “Urban leopards of Guwahati city: Understanding conflict hotspots using geospatial technology” at 3rd International Conference on Biodiversity: Exploration, Exploitation and Conservation for Sustainable Development organized by PDUAM-Behali at the college campus on 6th-7th March 2025

#### Co-Organised

- A. Madhumita Borthakur, Avishek Sarkar & Evangel Bonnie Lyndoh provided training on Basic of GIS & Remote sensing using open source QGIS to a total number of 20 forest officials on 16<sup>th</sup> May 2024 in Goalpara DFO Office. The training programme was coordinated by Arup Kumar Das, Senior Manager GTAD on request of DFO Goalpara.
- B. 6 days Refresher Course on Open-Source GIS training for Forester-I started on 3<sup>rd</sup> January 2025 and will end on 9<sup>th</sup> January 2025. The training has been organized by the Assam Forest School, Jalukbari, Guwahati in collaboration with Geo-Spatial Technology and Application Division of Aaranyak. The inaugural session was graced by Shri. MuanthangTungnung, IFS, Chief Conservator of Forests Research and Working Plan Division, Assam, Dr. Bibhab Kumar Talukdar, CEO and Secretary General of Aaranyak and Smt. Dimpi Bora, IFS, Director Assam Forest School along with forest officials. A total of 28 participants from different forest divisions from all over Assam are attending the training program. Shri. Arup Kumar Das, Sr. Manager and Smt. Madhumita Borthakur from GTAD Aaranyak imparted the first day training on Application of GPS, Hands on GPS and Mobile GPS App in field & field data preparation using excel.

#### Organised/Co-organised

- A. Aaranyak Biannual Research Seminar 2024:As per the Management Group Meeting for Aaranyak Biannual Research Seminar 2024, Arup Kumar Das nominated as Convenor of the research Seminar. Dr. Bibhuti P. Lahkar and Dr. Parag Kumar Deka were Advisors of the seminar along with Dr. Banasree Sarma and Mr. Genous Teron were committee members. The BRS organized during 27<sup>th</sup> and 28<sup>th</sup> of September 2024 at the venue, College of Veterinary Science, AUU, Khanapara, Guwahati, Assam. Altogether 31 numbers of Abstracts were accepted for the Seminar. All the members associated with the seminar invested significant time and energy for the Seminar apart from the regular project works for the successful completion of the seminar.

#### **10. Memberships**

Arup Kumar Das

The IUCN Species Survival Commission Asian Rhino Specialist Group (AsRSG)  
The IUCN Commission on Ecosystem Management (CEM)  
Aaranyak (Life member)  
Avishek Sarkar  
The IUCN Commission on Ecosystem Management (CEM)  
Section Coordinator (Services), Indian Forum on Invasion Biology

**11. Contact Address/ Personnel**

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**12. Acknowledgements (*Please provide high-quality logos as well*)**

Social Forestry Division, Department of Forest & Environment, Meghalaya  
Assam Down Town University  
Civil Engineering, SITM, Guwahati

Nature Conservation Society (NCS), Tinsukia

Department of Zoology, North Lakhimpur College

Dept. of Geography of Dimakuchi College

NESAC at Umiam, Meghalaya.

World Resources Institute India WRI India

Kaziranga National Park and Tiger Reserve

Sonapur College

Azim Premji University, Bhopal

PDUAM-Behali

Assam Forest School, Jalukbari

Goalpara Forest Division

College of Veterinary Science, AUU, Khanapara, Guwahati, Assam

The Nature Conservancy

The Habitats Trust

Indian Space Research Organization

Survey of India

Google Earth

ESRI India

USGS

## **Herpetofauna Research and Conservation Division (HRCD)**

### Herpetofauna Research and Conservation Division (HRCD)

Since 1997, the Division started working to strengthen herpetofauna research and conservation in the Eastern Himalayas and NE India by contributing towards inventory, taxonomy, ecological and conservation research from the Brahmaputra flood plains to alpine forests of the Himalayas. The prime objectives of the division are to assess and monitor herpetological diversity and distribution, assess vulnerability to species due to anthropogenic impacts, maintain a strong research and conservation network to strengthen herpetofauna conservation, understand and resolve taxonomic problems associated with herpetofauna using integrated taxonomic approaches, create awareness about the importance of herpetofauna in the environment and the need for their conservation.



## **1. RESEARCH AND CONSERVATION**

### **A. Species Research & Conservation**

1. Completed field survey has been conducted in Nongkhylllem, Siju, Nokrek, and Tura from Meghalaya.
2. During our field survey in Meghalaya the rate of encountering venomous snakes was low. To enhance venom collection efforts, we have engaged with local volunteers in different parts of Meghalaya to generate information about venomous snakes.
3. Dr. Jayanta Kr Roy and Mr. Rupankar Bhattacharya participated in the snake handling and snake venom collection training at Mizoram University, 27 to 28 Sept 2024.
4. Completed the field survey and nest monitoring for Assam roofed turtle under the APFBC project in the Kaziranga National Park and Tiger Reserve. Rare information on nesting habitat, threats and conservation status of the species has been documented during the survey period.
5. Coordinated and completed herpetofauna survey in the Kazirnga National Park during 14-17 June and 10-11 November in 2024.



## 2. Education, Outreach and Communications

- *Contributed in developing a leaflet featuring 17 freshwater turtles and tortoises in the Kaziranga National Park & Tiger Reserve (KNPTR) in collaboration with the park authority and other organization*

English:

<https://kazirangasafari.in/storage/literature//yr7Lld2ptGmj5qWwi46Z80JAPizsee8Y9uZeV3om.pdf>

Assamese:

<https://kazirangasafari.in/storage/literature//scB6icdxFeopvcp7KIRzVLXt9zUrVMvcO0YhXHTH.pdf>

## 3. IMPACTS

With the continuation of field research on the Assam roofed turtle in Kaziranga National Park and Tiger Reserve, the park authority has released a leaflet featuring 17 freshwater turtles and tortoises. The leaflet was developed with contributions from Dr. Jayanta K. Roy and Ms. Nibedita Talukdar of HRCDC, Aaranyak, and is available in both English and Assamese.

## 4. SUCCESS STORY

- A summary report on “Rapid survey on herpetofauna species in the Kaziranga National Park and Tiger Reserve, 14-17 June 2024” has been published by the Kaziranga National Park & Tiger Reserve Authority web portal*

Link:

<https://kazirangasafari.in/storage/literature//YQqCabxXPjg9JhdWeIrlZnSCNzS0gvpRcFakuP2j.pdf>

## 5. ROADMAP TO FUTURE

- i) DNA analysis and Amphibian Species description from Dibang Valley
- ii) Develop project proposal for herpetofauna research in some remote and unexplored places in the Northeast India.
- iii) Complete the draft of Assam roofed turtle species Management Plan (2025 to 2034) for longterm conservation of the species.

## 6. PUBLICATIONS

### Technical reports

i) Roy, J.K and Mandal, J. (2024). Rapid survey on herpetofauna species in the Kaziranga National Park and Tiger Reserve. 24 June

Link: <https://kazirangasafari.in/storage/literature//YQqCabxXPjg9JhdWeIrlZnSCNzS0gvpRcFakuP2j.pdf>

## 7. CONFERENCES/WORKSHOPS/TRAININGS/TALKS

### A. Attended/Presented

- Participated in the snake handling and snake venom collection training at Mizoram University, 27 to 28 Sept 2024.

### B. Organised/Co-organised

- Co-organised nine orientation camps cum training programs on Assam roofed turtle identification and its conservation to the ground forest staff of Kaziranga National Park and Tiger Reserve during 10 to 28 April 2024.

## 8. ADDITIONAL INFORMATION

1. Highlight awards/ felicitations/citations received by the team
2. Memberships

### **Dr. M Firoz Ahmed**

IUCN Species Survival Commission (SSC), 2021-2025

IUCN Amphibian Specialist Group (ASG) 2021-2025

IUCN SSC Small Mammals Specialist Group 2021-2025

Member, Society for Conservation Biology (SCB)

Board member, Environment Education and Conservation Global, USA

Advisor, WildLandscape, USA

### **Dr. Jaynata Kr. Roy**

IUCN Species Survival Commission (SSC), 2021-2025

IUCN Amphibian Specialist Group (ASG) 2021-2025

3. Our Footprints (Please provide GPS coordinates)
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4. Contact Address/ Personnel

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9. Acknowledgements



## Legal and Advocacy Division (LAD)

The Legal & Advocacy Division (LAD) of Aaranyak works at the intersection of conservation, law, and policy to combat wildlife crime and strengthen environmental governance. Over the past year, LAD has focused on enhancing enforcement capacity, supporting judiciary sensitization, K9 sniffer dogs deployed in all the rhino bearing areas in Assam to assist monitoring to prevent wildlife crime and pioneering

community-based surveillance through CSMTs in Arunachal Pradesh and Mizoram. The division conducted multi-agency trainings, mapped illegal wildlife trade hotspots, monitored online trafficking, and collaborated with law enforcement, judiciary, and community institutions. LAD's initiatives bridge legal advocacy with grassroots vigilance, building deterrence frameworks against transboundary wildlife trafficking while complementing broader conservation and livelihood strategies in Northeast India.



## 1. **RESEARCH AND CONSERVATION**

### A. **Species Research & Conservation**

LAD compiled and analyzed over 150 wildlife crime cases from Northeast India, focusing on rhinos, tigers, pangolins, and exotic species. Illegal Wildlife Trade (IWT) hotspots were geo-referenced along the Indo-Bhutan, as well as central Assam transit routes. A detailed survey of pet shops in Guwahati revealed more than 30 establishments trading in exotic and CITES-listed species, highlighting urban wildlife trade threats. Intelligence inputs supported enforcement agencies, including a major bust in Chirang, Assam. These efforts contributed directly to diverse species conservation by strengthening intelligence, monitoring, and proactive deterrence of trafficking

networks. Support to generate patrol data (335 patrols covering >12,500 km) further strengthened monitoring of key wildlife landscapes.

## **B. Habitat Research & Conservation**

Indirect coverage of ~5,000 sq. km through patrols, CSMTs, and intelligence-based monitoring in Raimona NP, D'Ering WLS, and Mizoram–Myanmar border. LAD assisted in technical analysis of patrolling information to flag the gaps in patrol to further help patrolling group to improve the efficacies for enhance detection of intruders or sign of possible nature crime. Patrols data (335 patrols covering 1,641 km on foot, 10,901 km by vehicle) bolstered habitat protection by detecting poaching risks, timber smuggling, and trafficking routes. By integrating community surveillance along with Forest Department actions, LAD helped reduce poaching incidents in D'Ering Memorial Wildlife Sanctuary (DEMWS) and strengthened ecological integrity of critical transboundary habitats.

### **2. Livelihood and Social Entrepreneurship**

Although livelihood generation was not the project's primary mandate, LAD's interventions indirectly supported community resilience and social entrepreneurship by strengthening grassroots surveillance systems. Community Surveillance and Monitoring Teams (CSMTs) in Arunachal Pradesh were equipped with essential gear such as GPS units, uniforms, torches, gumboots, and solar lights, enhancing their mobility and confidence. Exploratory dialogues with insurance providers like ICICI were initiated to design risk coverage for CSMT, ensuring safety nets for the team members. By empowering communities with tools, knowledge, and institutional backing, the initiative fostered local ownership, trust, and long-term participation in conservation-linked monitoring and enforcement.

### **3. Education, Outreach and Communications**

LAD prioritized education and outreach by conducting six awareness programs with Panchayati Raj Institution (PRI) members, school students, and local leaders across Assam, Arunachal Pradesh, and Mizoram. These initiatives highlighted the impacts of illegal wildlife trade on biodiversity, social security, and community well-being.

To strengthen communication, the division developed Standard Operating Protocol (SOPs), species identification guides, and translated training materials for frontline staff and communities. More than 15+ media stories in published in various print and digital media highlighting the impacts of illegal wildlife trade and initiatives of the division. Such outreach not only built public awareness but also fostered stronger support for law enforcement and community vigilance against wildlife crime.



#### 4. Legal & Policy Advocacy

LAD advanced legal and policy advocacy by organizing judicial orientation workshops in Mizoram and Manipur, engaging 40+ judicial officers, prosecutors, and Hon'ble judges from Supreme Court, Gauhati High Court and Manipur High Court. These sessions emphasized the application of the Wildlife Protection Act, Prevention of Money Laundering Act (PMLA) 2002, and related laws to improve conviction rates in wildlife crime cases.

Training programs for Central Industrial Security Force (CISF), airline staff, District Transport Officer (DTO) officials, forest officers, and police- enhanceskills to detect, document, and prosecute trafficking offences. Resolutions from these dialogues included exploring fast-tracking of wildlife trials, establishing special courts, and revising SOPs for case handling, bridging critical gaps between investigation, prosecution, and judicial processes.



## 5. **Complementing Conservation Efforts (This section will include all the direct support that we provide to enhance conservation efforts)**

LAD complemented conservation efforts by launching and supporting Community Surveillance and Monitoring Teams (CSMTs) in Arunachal Pradesh and initiating similar groundwork in Mizoram. Over 40 community members were mobilized and equipped with Geographic Position System (GPS) devices, uniforms, torches, gumboots, raincoats, and solar lights to enhance field operations. These teams logged more than 120 patrol hours in collaboration with the Forest Department, strengthening site-level vigilance and early detection of wildlife crime. By integrating grassroots efforts with formal enforcement structures, the initiative provided needed support to ongoing conservation strategies, ensuring stronger protection for threatened species across sensitive landscapes. Integrated K9 Sniffer dog units into site protection in Kaziranga, Manas, Orang, Pobitora, and Burhachapori WLS, further supporting enforcement efficacies.

## 6. **IMPACTS**

LAD activities significantly enhanced deterrence of wildlife crime in Northeast India. Over 3,000 community members were sensitized, creating a cadre of first responders who now see conservation as collective responsibility.

A total of 540+ personnel were trained, including 200+ forest and police officers, 42 judicial officers, 50+ Sashastra Seema Bal (SSB) soldiers, and 60+ transport and airport officials.

17 workshops and meetings were organized across Assam, Arunachal Pradesh, and Mizoram. 2 Indo–Bhutan transboundary workshops were held with SSB and Bhutanese forestry observers.

Community engagement mobilized 40+ CSMT members, who logged 120+ patrol hours and received essential field gear. The initiative indirectly impacted over 5,000 sq. km of critical landscapes, while media outreach generated 15+ published stories, amplifying conservation messages.

7+ K9 units deployed; credited with multiple arrests and tracking successes, including seizures in rhino-bearing areas.

In effect, these numbers reflect more than outputs — they represent a systemic shift in capacity, vigilance, and ownership. Wildlife protection is no longer solely an agency-led effort but a shared mission among communities, law enforcement, and judiciary, creating a durable framework to deter illegal wildlife trade across the Eastern Himalayas.

## 7. **SUCCESS STORY**

The Community Surveillance & Monitoring Team (CSMT) in Pasighat emerged as an effective grassroots conservation vigil group. In September 2024, CSMTs detected poaching attempts in DEMWS and alerted Forest officials, leading to seizures of wildlife meat. In October 2024, joint patrols intercepted 155 illegal timber logs floating down the Siang River. The Government of India invited CSMT member Mr. MaksamTayeng to the Republic Day 2025 event in New Delhi — a milestone that inspired communities and validated the community model.

## 8. **ENVIRONMENTAL RESEARCH & INTERVENTION**

LAD advanced critical research to strengthen evidence-based enforcement and policy advocacy. A comprehensive **geo-referenced mapping of Illegal Wildlife Trade (IWT) hotspots** was undertaken

across Assam, Arunachal Pradesh, and Mizoram, identifying trafficking corridors along the Indo–Bhutan and Indo–Myanmar borders, as well as central Assam transit routes.

Parallely, **judicial pendency studies** assessed the bottlenecks in wildlife crime prosecutions, highlighting delays, gaps in charge framing, and low conviction rates. Findings are being used to push for procedural reforms and potential fast-tracking of wildlife crime cases.

LAD also conducted **systematic monitoring of online wildlife trade**, tracking the illegal sale of protected species and wildlife by-products across digital platforms.

In addition, a **pet shop survey in Guwahati** revealed over **30 establishments trading exotic reptiles, birds, and mammals**, with several linked to Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES) violations. This study shed light on urban demand driving illegal wildlife trade and informed the need for stricter local enforcement and awareness campaigns.

Together, these interventions not only expanded the knowledge base on trafficking trends but also directly informed **on-ground patrolling, enforcement planning, and policy advocacy**, ensuring that interventions were rooted in solid data and field realities.

## 9. INTERNSHIPS/VOLUNTEERS

Internship: LAD hosted three student interns who contributed meaningfully to ongoing wildlife crime research and documentation efforts. Two postgraduate students from Gauhati University undertook a detailed pet trade survey across Guwahati city, documenting species composition, legality under the Wildlife (Protection) Act, and CITES listings. Their work generated valuable insights into the prevalence of exotic species and market trends in urban wildlife trade.

In addition, a law student intern carried out a short research assignment examining pending wildlife crime cases in Northeast India’s courts, identifying procedural gaps and challenges affecting conviction rates. The findings from this study are being integrated into LAD’s broader legal advocacy initiatives to strengthen prosecution effectiveness.

Overall, these internships contributed directly to LAD’s evidence-based approach linking field research, legal analysis, and community awareness in combating wildlife crime.

## 10. QUOTABLE QUOTES

- a. **Justice Ujjal Bhuyan, Supreme Court of India (Mizoram Judicial Workshop, April 2024):**  
*“The Prevention of Money Laundering Act is crucial in dealing with wildlife crimes, as these offences are deeply linked with organized trafficking networks and national security.”*
- b. **Senior Forest Officer, Arunachal Pradesh (Pasighat, Arunachal Pradesh):**  
*“The Community Surveillance & Monitoring Teams (CSMTs) model is a grassroots innovation that bridges the gap between communities and enforcement agencies. It gives local people the tools and confidence to protect their forests.”*
- c. **Commandant, Sashastra Seema Bal (Indo–Bhutan workshop, October 2024):**  
*“Workshops with enforcement and border security forces organized by Aaranyak have directly strengthened our ability to intercept wildlife contraband and protect sensitive border areas from traffickers.”*

- d. **Government of India Invitation (Republic Day 2025):**  
*“The invitation of CSMT member Mr. MaksamTayeng to attend Republic Day in New Delhi is an encouragement reflecting the credibility and impact of community-led conservation in Arunachal Pradesh.”*
- e. **Partner NGO Representative (Awareness campaign, Assam–Arunachal border, June 2024):**  
*“By linking community, law, and technology, Aaranyak’s Legal & Advocacy Division is setting a benchmark for tackling organized wildlife crime in the Eastern Himalayas.”*

## **11. ROADMAP TO FUTURE**

Looking ahead, LAD aims to **consolidate gains and scale up interventions** that have proven effective in deterring wildlife crime. The immediate priority is to **expand and institutionalize Community Surveillance & Monitoring Teams (CSMTs) in Mizoram and other states**, while strengthening existing models in Arunachal Pradesh. This will embed communities as frontline conservation allies and ensure continuity be

yond project cycles.

At the enforcement level, LAD will **broaden skill enhancement modules to cover railway and courier networks**, addressing critical gaps in wildlife product trafficking routes. Cross-border cooperation will be deepened, with the Indo–Bhutan collaboration formalized into a sustained mechanism, while alternative enforcement pathways with Assam Rifles and NGOs will be pursued along the Indo–Myanmar frontier despite ongoing instability.

Legal and policy advocacy will remain a cornerstone, with efforts to **push for fast-tracking of wildlife crime cases, establishment of special courts, and updated SOPs** to strengthen prosecutions. Building on judicial engagement, LAD will advocate for the wider application of financial crime laws such as PMLA to wildlife offences, positioning them within the broader national security framework.

Scale K9 operations: Our vision is to build a network of 12+ K9 units by 2030, creating a formidable frontline that strengthens enforcement, deters trafficking, and safeguards endangered species across Northeast India.

Finally, LAD will **scale up innovative tools**—including predictive analytics, digital surveillance of online wildlife trade, and financial tracking of trafficking syndicates—to move from reactive to proactive enforcement.

By integrating community action, legal empowerment, and technology-driven intelligence, LAD envisions a **durable, multi-layered deterrence framework** capable of dismantling organized wildlife crime networks and securing the future of endangered species across the Eastern Himalayas.

## **12. PUBLICATIONS**

### Book Chapters

- Vigne, L., 't Sas-Rolfes, M., Milliken, T., Rademeyer, J., **Talukdar, B.** (2025). The Impact of Rhino Horn Trafficking on Conservation. In: Melletti, M., Talukdar, B., Balfour, D. (eds) Rhinos of the World. Fascinating Life Sciences. Springer, Cham. [https://doi.org/10.1007/978-3-031-67169-2\\_16](https://doi.org/10.1007/978-3-031-67169-2_16)
- 't Sas-Rolfes, M., Rademeyer, J., Vigne, L., Emslie, R., Knight, M., Gaymer, J., **Talukdar, B.** (2025). The Impact of Poaching on Rhino Conservation. In: Melletti, M., Talukdar, B., Balfour, D. (eds) Rhinos of the World. Fascinating Life Sciences. Springer, Cham. [https://doi.org/10.1007/978-3-031-67169-2\\_15](https://doi.org/10.1007/978-3-031-67169-2_15)

#### Technical reports

- Ferreira, S. M., Baruch-Mordo, S., Laidler, G., Stoppoloni, R., Sangalakula, L., **Talukdar, B.**, & Balfour, D. (2025). African and Asian rhinoceroses – Status, conservation and trade (CoP20 Doc. 84 Annex 3). Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

### **13. CONFERENCES/WORKSHOPS/TRAININGS/TALKS**

#### C. Attended/Presented

- Private-public partnerships (PPPs) countering cybercrime at the national and regional levels
- Awareness program on Illegal Wildlife Trade (IWT) and species in IWT with special relevance to Karbi Anglong, Assam
- Virtual workshop on Pan-Regional Cybercrime Consultation organized by UNODC Civil Society Unit
- Attended panel discussion on "Building resilience support for those working on environmental crime"
- Participated in a two-day long Conservation Education workshop at MCOC
- Darwin Initiative Capability & Capacity Webinar
- Reimagining Conservation in Asia conference by IUCN in Bangkok
- Two days' workshop for (IDWH) Developing species recovery plan for greater one-horned Rhino, Wild Buffalo, and Barasingha in Dehradun
- Attended as a resource person for the Rhino Day Celebration in Kaziranga
- Workshop on 'New Frontiers in the Fight Against Environmental and Wildlife Crimes' organized by the Global Initiative Against Transnational Organized Crime (GI-TOC)
- Regional Consultations for AGM 2024 organized by Global Initiative Network of Experts
- GI-TOC Annual General Meeting
- Wildlife Forensics: Conservation, Crime & Prevention at School of Science, JAIN University, Bangalore
- Geo-tourism prospects organized by NESAC, Shillong
- Attended a day long discussion on Exotic Pet Trade in India held in Bangalore.

#### D. Organised/Co-organised

- Workshop on "Deterring wildlife crime: Challenges & Opportunities" in collaboration with Mizoram State Legal Services Authority at Aizawl, Mizoram
- Training Sikkim Forest department on functions of camera traps for surveillance purposes
- Legal aspect session during the Hoolock gibbon conservation training at Jorhat

- d. Co-hosted a workshop on Resilience Dialogues on Nature Crime, hosted and sponsored by Global Initiative against Transnational Organized Crime
- e. Awareness program for VDPs in Majuli, Assam
- f. Awareness program for CSMT in Pasighat, Arunachal Pradesh
- g. Conducted two PRI sensitization meetings at Simla (Baksa) and Pobitora (Morigaon) on Wildlife Crime Prevention with WCCB.
- h. Organised and conducted one awareness meeting at Raimona Central Range IB for the forest staff and EDC members on Snake Bite Prevention, Treatment and Health Measures with the National Park Authority of Raimona NP
- i. Conducted two sensitization workshops for SSB's transboundary BoP's at Phebsu and Moinaguri.
- j. Conducted awareness meetings with 3 different villages at Mizoram for CSMT formation
- k. Workshop to enhance the legal proficiency of forest personnel in tackling wildlife-related crimes, Majuli, Assam
- l. Workshop on Wildlife crime and illegal wildlife trade at SSB 27 Howly
- m. Workshop on Prevention of Wildlife Crime and Role of Transport Agencies was organized in collaboration with DTO, Biswanath Chariali
- n. Workshop on legal aspects of Wildlife (protection) Act, 1972 was organized for BSF frontline staffs at Garo Hills
- o. Sensitization program on wildlife crime prevention for PRI members at Orang Tiger Reserve in collaboration with WCCB
- p. Sensitization program on wildlife crime prevention for PRI members at Raimona NP in collaboration with WCCB
- q. Workshop on preventing wildlife crime and illegal wildlife trade for border guards, SSB at Darranga

#### **14. ADDITIONAL INFORMATION**

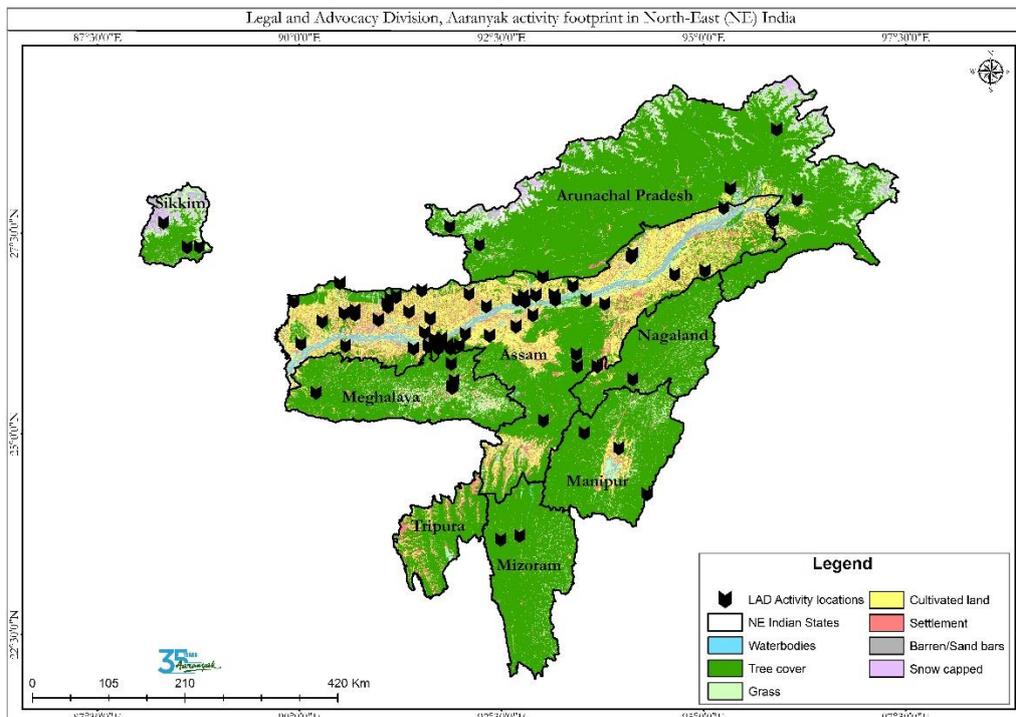
##### **1. Memberships**

- Dr. Bibhab Kumar Talukdar
  - Member of Governing Council of Assam Science, Technology and Environment Council, Assam.
  - Member State Board of Wildlife, Govt. of Assam.
  - Member, Editorial Board of Pachyderm Journal.
  - Chair: IUCN/SSC, Asian Rhino Specialist Group.
  - Member, IUCN Climate Crisis Commission.
  - Member, IUCN CEESP Asia 2021-2025.
  - Member, IUCN CEM South Asia 2021-2025.
  - Member, IUCN WCPA-South Asia 2021-2025.
  - Member, IUCN SSC Conservation Planning Specialist Group 2021-2025.
  - Member, IUCN SSC African Rhino Specialist Group 2021-2025.
  - Member, IUCN SSC Threatened Waterfowl Specialist Group 2021-2025.
  - Chair, IUCN SSC Asian Rhino Specialist Group 2021-2025.
  - Member: European Association of Zoos and Aquarium (EAZA)- Rhino Taxonomic Advisory Group (TAG) .
  - Independent Expert Member Assam State Biodiversity Board.
  - Member CEESP Asia 2021-2025.
  - Member, IUCN CEESP Climate Network 2021-2025.
  - Member, IUCN CEESP Environmental Law and Social Justice Network 2021-2025.

- Member, IUCN CEESP Governance, Equity and Rights Network 2021-2025.
  - Member, IUCN CEESP Human Wellbeing and Livelihood Network 2021-2025.
  - Member, IUCN CEESP Biosphere Reserve Thematic Group 2021-2025.
  - Member, IUCN CEM Ecosystem restoration Thematic Group 2021-2025.
  - Member, IUCN CEM Ecosystem Service Thematic Group 2021-2025.
  - Member, IUCN CEM Red List of Ecosystems Thematic Group 2021-2025.
  - Member, IUCN CEM South Asia 2021-2025.
  - Member, IUCN WCPA Biodiversity and Protected areas: Network 2021-2025.
  - Member, IUCN WCPA Capacity Development: Network 2021-2025.
  - Member, IUCN WCPA Climate Change: Network 2021-2025.
  - Member, IUCN WCPA Connectivity Conservation: Network 2021-2025.
  - Member, IUCN WCPA Governance Thematic GROUP 2021-2025.
  - Member, IUCN WCPA Governance, Equity and Rights Network 2021-2025.
- Dr. Jimmy Borah
    - Wildlife Crime Network Expert, Global Initiative Against Transnational Organized Crime.
    - IUCN Clouded Leopard Red List Assessment Group
    - IUCN Connectivity Conservation Specialist Group
    - IUCN WCPA Transboundary Conservation Specialist Group
    - Member, Fishing Cat Specialist Group
- Ivy Farheen Hussain
    - IUCN WCPA Young Professionals: Network 2021-2025
    - IUCN WCPA Climate Change: Network 2021-2025
    - IUCN WCPA Transboundary Conservation: Network 2021-2025
    - IUCN WCPA Biodiversity and Protected Areas: Network 2021-2025
    - IUCN WCPA Capacity Development: Network 2021-2025
    - IUCN WCPA Indigenous People and Protected Areas: Network 2021-2025
    - IUCN WCPA South Asia 2021-2025
    - IUCN WCPA South Asia Young Professionals 2021-2025

## 2. Our Footprints

The project activities were conducted in the states of Assam (26.2006° N, 92.9376° E), Arunachal Pradesh (28.2180° N, 94.7278° E), Manipur (24.6637° N, 93.9063° E), Nagaland (26.1584° N, 94.5624° E), Mizoram (23.1645° N, 92.9376° E), Sikkim (27.3516° N, 88.3239° E) and Meghalaya (25.4670° N, 91.3662° E).



### 3. Contact Address/ Personnel

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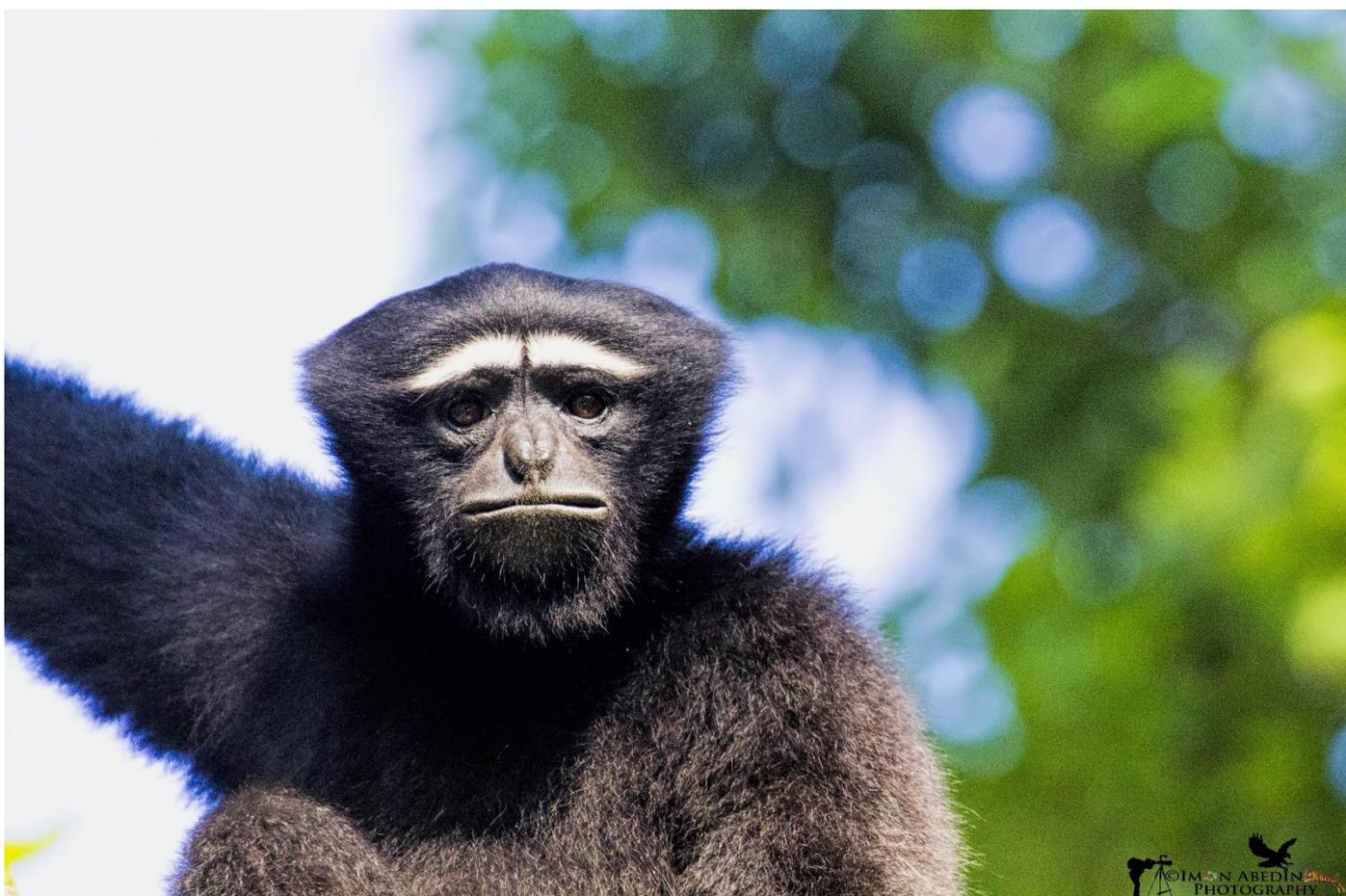
### 4. Acknowledgements

Our Partners and Supporters:  
 Assam Forest Department | Meghalaya Forest Department | Mizoram Forest Department | Manipur Forest Department | Sikkim Forest Department | Assam Police | Assam State Legal Services Authority (ASLSA) | State Legal Services Authority (SLSA) of Mizoram, Manipur and Meghalaya | Sashastra Seema Bal (SSB) | Border Security Force (BSF) | Central Industrial Security Force (CISF) | Wildlife Crime Control Bureau (WCCB).

Donors and Collaborating Agencies:  
 International Rhino Foundation (IRF) | David Shepherd Wildlife Foundation (DSWF) | NABU (Nature and Biodiversity Conservation Union) | People for Nature (PfnP) | Global Initiative (GI) | U.S. Fish and Wildlife Service (USFWS)

## Primate Research and Conservation Division (PRCD)

The **Primate Research and Conservation Division (PRCD)** of Aaranyak was established in 2002 with the objective of promoting awareness, research, training, and conservation of non-human primates in Northeast India. This region harbors the country's richest primate diversity, with 13 of the 24 species found in India. Recognizing the ecological significance of these species, PRCD works in close collaboration with government agencies, national and international partner organizations, academic institutions, and local communities to conserve primates and their habitats. While its core focus is on primate conservation, PRCD also contributes to the broader goal of biodiversity conservation in Northeast India.



### 1. RESEARCH AND CONSERVATION

#### A. Species Research & Conservation

The **Western Hoolock Gibbon** (*Hoolock hoolock*), the only ape species found in India, is currently classified as *Endangered* by the IUCN Red List of Threatened Species. It is also listed under

**Appendix I** of the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), and under **Schedule I** of the Wildlife (Protection) Amendment Act, 2022, indicating the highest level of legal protection. It has figured in the list of 25 “primates in peril” in 2025. Conservation of this species has been a key concern for Primate Research and Conservation Division for which initiatives like **capacity building of frontline forest staff**, raising awareness among **students**, teachers, and local communities, and promoting community involvement in conservation activities are being implemented in collaboration with Forest Departments of Assam and Arunachal Pradesh.



Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme. This training course was week long and residential. A wide range of related topic areas were covered including, Biodiversity in Northeast India and conservation, Primates Conservation in Northeast India with special reference to Hoolock gibbon, Gibbon Census or Population estimation, Gibbon Data collection, maintaining & reporting, Techniques of Floristic study, Gibbon habitat characteristic and Restoration, Population and Habitat Monitoring, Gibbon rescue and rehabilitation, Global Positioning System & use in field, and Legal Orientation (Wildlife Laws and its application). This course had provided participants with an initial understanding of the basic principles of Primatology, experience with the methods and techniques used in field research. The course consists of daily lectures and field exercises. During the period from April, 2024 to March, 2025, A total of 188 forest staff were trained out of which 3

were from Arunachal Pradesh and remaining 185 were from Assam. Batch wise total number of trainees and Forest Divisions is given below:

<b>S.No</b>	<b>Batch</b>	<b>Total number of trainees</b>	<b>Forest Divisions</b>
1	22 <sup>nd</sup> to 28 <sup>th</sup> April, 2024	22	Cachar , Dima HasaoEast, DimaHasaoWest, Doomdooma, Golaghat, Hailakandi , Karbi AnglongEast ,KarbiAnglong West, Nagaon South, Sivasagar, Karimganj
2	20 <sup>th</sup> to 26 <sup>th</sup> May, 2024	26	Cachar , Dima HasaoEast , Dima Hasao West, Doomdooma, Golaghat, Hailakandi ,Karbi Anglong West, Nagaon South ,Sivasagar , Karimganj
3	16 <sup>th</sup> to 22 <sup>nd</sup> Sept, 2024	21	Cachar , Dima HasaoEast ,DimaHasaoWest ,Doomdooma, Hamren ,Hailakandi , Karbi AnglongWest , Nagaon South ,Sivasagar
4	21 <sup>st</sup> to 27 <sup>th</sup> Oct, 2024	22	Cachar , Dima HasaoEast , Dima HasaoWest ,Golaghat ,Hamren ,Hailakandi , Karbi Anglong (East) , Karbi AnglongWest , Nagaon South ,Sivasagar , Karimganj
5	12 <sup>th</sup> to 18 <sup>th</sup> Nov, 2024	23	Cachar ,DimaHasaoEast , Dima HasaoWest ,Golaghat ,Hamren ,Hailakandi , Karbi Anglong( East), KarbiAnglongWest , Nagaon South ,Sivasagar , Karimganj
6	17 <sup>th</sup> to 23 <sup>rd</sup> Dec, 2024	22	Cachar , Dima HasaoEast , Dima HasaoWest ,Golaghat ,Hailakandi , Karbi AnglongWest , Nagaon South ,Sivasagar , Karimganj
7	23 <sup>rd</sup> to 29th January, 2025	13	Dibrugarh ,Digboi ,Doomdooma ,Jorhat ,Sivasagar , Tinsukia
8	7 <sup>th</sup> to 13 <sup>th</sup> February, 2025	20	Dibrugarh ,Digboi ,Doomdooma ,Jorhat ,Sivasagar, Tinsukia (Wildlife) ,Kamlang( Arunachal Pradesh) ,Mehao (Arunachal Pradesh)
9	16 <sup>th</sup> to 22 <sup>nd</sup> March, 2025	19	Dibrugarh, Digboi, Doomdooma, Golaghat Jorhat, Nagaon South, Sivasagar , Tinsukia (Wildlife)

## **Hoolock Gibbon Conservation Training at Namdapha National Park and Tiger Reserve**

A two-day *Hoolock Gibbon Conservation Training* was held on 30–31 October 2024 at the Interpretation Centre of Namdapha Tiger Reserve, Miao, Changlang district, Arunachal Pradesh. The program aimed to build the capacity of forest staff by enhancing their knowledge of the Hoolock gibbon (*Hoolock hoolock*)—India’s only ape species—and equipping them with practical field skills. A total of **56 frontline** staff participated in hands-on sessions using equipment such as compasses, GPS devices, and range finders. The workshop was inaugurated by Mr. Mito Rumi, Deputy Conservator of Forests and Assistant Field Director of Namdapha Tiger Reserve, who emphasized the importance of applying conservation knowledge in the field and highlighted the gibbon’s status as the state animal of Arunachal Pradesh. Expert sessions were led by Dr. Dilip Chetry (Aaranyak), who discussed the species’ conservation status, threats, and its role as a flagship for biodiversity, and Mr. Arup Kumar Das (Aaranyak), who provided training on GPS applications in wildlife research, supported by Aaranyak team members. This initiative, the second such program in Arunachal Pradesh, reinforced the role of community-oriented and science-based training in strengthening conservation efforts for the endangered Western Hoolock Gibbon.

Hoolock gibbon surveys: Surveys were conducted for primate/gibbon estimation.

- During Gibbon population estimation survey at Hollongapar Gibbon Sanctuary conducted from 25<sup>th</sup> April to 5<sup>th</sup> May, 2024 21 groups and 78 individuals of Western Hoolock Gibbon were encountered.
- Hoolock Gibbon survey was conducted Namdapha National Park from 3<sup>rd</sup> November, 2024 to 3<sup>rd</sup> February, 2025. A total of 14 (fourteen) Groups comprising of 52 (fifty two) individuals of Western Hoolock Gibbons were identified through direct sighting. 57 ( fifty) seven Groups were identified through call count method.
- During Gibbon survey at Garbhanga Wildlife Sanctuary ( proposed)/Reserve Forest conducted from 8<sup>th</sup> to 13<sup>th</sup> March, 2025. 8 (eight) groups of Western Hoolock Gibbon were identified through call count method and 1 (one) group was encountered through direct sighting.
- During Gibbon survey at Dibru-Saikhowa National Park conducted from 16<sup>th</sup> to 27<sup>th</sup> March, 2025. One group of Western Hoolock Gibbon comprising of One adult male, one adult female, one unidentified juvenile was encountered through direct sighting.

## **2. Education, outreach and communication:**

### **Hoolock gibbon conservation education Program in fringe of Namdapha National Park and Tiger Reserve:**

During the summer and monsoon seasons, we conducted 24 educational awareness programs on Hoolock gibbon conservation across schools ranging from primary to higher secondary levels (Class I to XII) in the fringe area of Namdapha Tiger Reserve in the state of Arunachal Pradesh, India. These educational awareness programmes were conducted amongst students of Class VI&VII in sixteen

Upper primary schools (Table 1), in class VIII to X in four Secondary school (Table 2) and Class XI & XII in four Higher secondary schools (Table3). These sessions included lectures and slide presentations focused on primates, with a special emphasis on the Hoolock gibbon, its threats, and conservation efforts. Each program began with an introduction to the primates of Arunachal Pradesh. Educational materials—such as Gibbon books, posters with conservation messages, and stickers—were freely distributed to school administrations, teachers, students, and local communities. Total 2210 students and 122 teachers were directly benefitted from these programs



### i. Primate Watch 1.0:

Prime Watch, the first of its kind in Assam was conducted at Hollongapar Gibbon Sanctuary on 16<sup>th</sup> March, 2025 as a part of celebration of International Macaque Day. This was conducted in collaboration with Jorhat Forest Division. This was conducted primarily with the objective of creating awareness about primates amongst the public. 20 wildlife enthusiasts including practicing veterinary practitioner apart from Divisional Forest Officer, Jorhat Forest Division and staff of Primate Research and Conservation Division, Aaranyak took part in the event. The participants were thrilled to enter the forest and to get the glimpse of the jungle gymnast: Western Hoolock Gibbon in action. The event became vibrant with an interactive session and awarding of certificate of participation with a pledge to take forward the message of conservation of nature in general and Western Hoolock Gibbon in particular.

### ii. Awareness Programme for the conservation of Primates of Northeast India.:

- An engaging audio-video interactive session titled "Primate Planet Protectors: Exploring our furry friends and their environmental impact" was successfully conducted at New Guwahati Adarsha High School on 5<sup>th</sup> June, 2024 on the occasion of World Environment Day involving participation of over 110 students.
- Awareness event including plantation programme was organized in Mahadev Agarwala H.S School, Mariani as a part of observation of World Environment Day on 5<sup>th</sup> June, 2024. Total 128 students participated in the event.
- Talk on "Primates of Assam and their conservation threats" was on 1<sup>st</sup> September, 2024 on the occasion of International Primate Day delivered at Parijat Academy, Garbhanga, Guwahati with a participation of 62 numbers of students.
- Talk on "Primates of Assam and their distribution and conservation threats" was on 2<sup>nd</sup> September, 2024 at Pragjyotishpur College, Guwahati with a participation of 130 numbers of students.
- Celebration of International Gibbon Day on 24<sup>th</sup> October, 2024.
- As a part of observation of International Gibbon Day on 24<sup>th</sup> October, an awareness programme was conducted in MelengSaiding LP School, Mariani, Jorhat. After a brief talk on Hoolock Gibbon, an art competition was held amongst the students and three best participants were selected by trainees of Hoolock Gibbon Conservation Training at Hollongapar Gibbon Sanctuary. Total 50 students and 22 trainees, 10 local forest and teachers participated in the event
- Observation of International Gibbon Day on 24<sup>th</sup> October 2024 was held at Nakachari College where Dr. Kumud Ghosh highlighted the importance of Hoolock gibbon in culture and ecosystem where around 200 student of the college participated the programs.

- Celebration of International Gibbon Day on 24<sup>th</sup> October, 2024 was held at Mariani College where Dr. Horen Gowala, principal of the college chaired the session where Dr. Dilip Chetry act as resource person of the day and highlighted the state of Ape in India among 500 students and teachers of the college.
- At Handique Girls' College:- Talk on "Gibbon habitat and its conservation" was delivered at Handique Girls' College on International Gibbon Day on 24<sup>th</sup> October, 2024 by researcher Mr. Simanta Medhi where 140 student attended the program.

### **3. Complementing Conservation Efforts**

- i. Trained **188** frontline staff for a week-long residential training on hoolock gibbon conservation in particular and biodiversity in general.
- ii. **56** frontline staff were trained at Namdapha National Park and Tiger reserve.

### **4. Impacts:**

- i. 56 Frontline staff trained from Namdapha National Park and Tiger Reserve in Arunachal Pradesh on Hoolock gibbon conservation with special reference to GPS & GIS, Remote sensing use.
- ii. 188 frontline staff trained in 9 batches from Assam and Arunachal Pradesh on Hoolock gibbon conservation.
- iii. 24 education programs in different schools were covered for education & awareness Program on Hoolock gibbon Conservation where 2210 students and 122 teacher were in the fringe of Namdapha National Park & Tiger Reserve.
- iv. 3500 educational materials distributed among the students and community on Hoolock gibbon conservation in the fringe of Namdapha National Park & Tiger Reserve.
- v. 1350 student were benefitted from 8 awareness programs on Primates conservation.
- vi. A total of 14 Groups of Hoolock gibbon comprising of 52 individuals of Western Hoolock Gibbons were identified through direct sighting. And 57 (fifty) seven Groups were identified through call count method in Namdapha National Park and Tiger Reserve.
- vii. 21 groups with 78 individuals of Western Hoolock Gibbon were encountered at Hollongapar Gibbon Sanctuary.
- viii. At Garbhanga Wildlife Sanctuary (proposed)/ 8 (eight) groups of Western Hoolock Gibbon were identified through call count method and 1 (one) group was directly encountered.

#### **4. PUBLICATIONS**

##### **Abstract:-International:-**

- i. Chetry,D., Upadhyaya, A.K. and Phukan, M. 2024. Education for Conservation of Western Hoolock gibbon in Kamlang Tiger Reserve in India. Abstract volume. 9thAsian Primate Symposium, November 23<sup>rd</sup> to 27<sup>th</sup>, 2024. Sumatran Island in Medan, Indonesia.
- ii. Chetry, D., Chetry,R. and Bhattacharjee, P. C. 2024. Traditional, Culture and conservation of Western Hoolock gibbon in India. Abstract volume. 9thAsian Primate Symposium, November 23<sup>rd</sup> to 27<sup>th</sup>, 2024. Sumatran Island in Medan, Indonesia.

##### **Abstract:-National:-**

- i. Upadhyaya Akshay Kumar and Chetry Dilip.2024. Understanding the Human-Monkey Interaction in and around BasisthaTemple in Guwahati, Assam, India. Annual Research Seminar. Aaranyak. Guwahti, Assam.
- ii. Gore P.J, Medhi, S and Upadhyaya. A. K. Chetry, D.2024. Igniting Young Minds towards Hoolock Gibbon Conservation through Education and Awareness. Annual Research Seminar. Aaranyak. Guwahti, Assam.
- iii. Medhi, S, Sarkar, P and Chetry, D.2024. Current Distribution, and Population trend of Western Hoolock Gibbon (Hoolock hoolock) in Assam, India. Annual Research Seminar. Aaranyak. Guwahti, Assam.

#### **5. Conference/workshops/training/talks**

##### **E. Attended and Presented:-**

##### **International:-**

- i. Attended and presented at Global Gibbon Network meeting, 2<sup>nd</sup> September,2024, Bangkok, Thailand.
- ii. Attended and presented at the 8th IUCN Asia Regional Conservation Forum (RCF) from 3–5 September 2024 in Bangkok, Thailand
- iii. Attended and presented two papers at 9<sup>th</sup>Asian Primate Symposium, November 23<sup>rd</sup> to 27<sup>th</sup>, 2024. Sumatran Island in Medan, Indonesia.
- iv. Attended and presented at Gibbon Action Plan Workshop for Bangladesh at Dhaka from 10<sup>th</sup> to 12<sup>th</sup> December,2024. Bangladesh.

##### **National:**

- i. Act as Guest of Honour in the celebration of the International Day of Forest on 21<sup>st</sup> February,2025 in the Department of Zoology, Manipur University, Imphal and also delivered talk Aaranyak role in the conservation of Biodiversity in Northeast India.
- ii. 17<sup>th</sup> Febraury,2025. Delevered talk on Hoolock gibbon conservation in India with special reference to Tripura at Training workshop of frontline staff of Tripura at Tripura University, Agartala.
- iii. Talk delivered at Mariani college on 24<sup>th</sup> October2024 under the title halou-Ape conservation in India.”

- iv. Talk delivered at Mariani college on 24<sup>th</sup> October 2024 under the title halou-Ape conservation in India
- v. Talk delivered at Nakachari College on 24<sup>th</sup> October 2024 under the title Hoolock in our culture and tradition in Assam
- vi. Talk delivered at Handique Girls College on 24<sup>th</sup> October 2024 under the title Hoolock gibbon habitats and its conservation in Assam

**F. Organised in collaboration with Assam Forest Department-**

- i. Hoolock gibbon Conservation Training for the staff of Namdapha National Park & Tiger Reserve in Arunachal Pradesh. Hoolock gibbon Conservation Training was organised at interpretation centre of Kamlang Tiger Reserve at Miao at the headquarter of the park in the district of Changlang in Arunachal Pradesh on **30th and 31st October, 2024** in collaboration with Namdapha Tiger Reserve Authority where 49 staff were trained.
- ii. Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department. This training course was 22<sup>nd</sup> to 28<sup>th</sup> April, 2025 at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam
- iii. From 22<sup>nd</sup> to 28<sup>th</sup> April 2025 the Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam.
- iv. Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department. This training course was 16<sup>th</sup> to 22<sup>nd</sup> September, 2025. at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam
- v. From 21<sup>nd</sup> to 27<sup>th</sup> October 2025 the Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam.
- vi. Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department. This training course was 12<sup>th</sup> to 18<sup>th</sup> November, 2025. at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam
- vii. From 17<sup>th</sup> to 23<sup>th</sup> December, 2025 the Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam.
- viii. Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department. This training course was 23<sup>rd</sup> to 29<sup>th</sup> January, 2025. at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam
- ix. From 7<sup>th</sup> to 13<sup>th</sup> February, 2025 the Hoolock gibbon Conservation Training for Assam Forest and Arunachal Pradesh Frontline staff: Aaranyak in collaboration with Assam Forest Department with

- support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam.
- x. Hoolock gibbon Conservation Training for Assam Forest Frontline staff: Aaranyak in collaboration with Assam Forest Department with support from The Habitat Trust carried out the training programme for the frontline staff of Assam Forest Department. This training course was 16<sup>th</sup> to 22<sup>nd</sup> March, 2025. at Gibbon Conservation Centre at Hollongapar Wildlife Sanctuary, Assam.
  - xi. Prime Watch, the first of its kind in Assam was conducted at Hollongapar Gibbon Sanctuary on 16<sup>th</sup> March, 2025 as a part of celebration of International Macaque Day. This was conducted in collaboration with Jorhat Forest Division. This was conducted primarily with the objective of creating awareness about primates amongst the public. 20 wildlife enthusiasts including practicing veterinary practitioner apart from Divisional Forest Officer, Jorhat Forest Division and staff of Primate Research and Conservation Division, Aaranyak took part in the event. The participants were thrilled to enter the forest and to get the glimpse of the jungle gymnast: Western Hoolock Gibbon in action. The event became vibrant with an interactive session and awarding of certificate of participation with a pledge to take forward the message of conservation of nature in general and Western Hoolock Gibbon in particular.

## **6. Memberships**

1. Vice Chair, IUCN, SSC Primate Specialist Group, South Asia Section.
2. Executive member, IUCN, SSC Small Ape Section.
3. Steering committee member, IUCN SSC PSG Section on Great Apes ARRC Task Force
4. Steering committee member and founding partners of Global gibbon Network,
5. Board of Director in Scholars Institute of Technology and Management, Guwahati, Assam.
6. Member, IUCN, SSC Primate Specialist Group Section on Human-Primate Interactions (SHPI)
7. Member, International Primatological Society, USA.
8. Member, American Primatological Society, USA.
9. Member, Vijnana Bharati Northeast/Northeast Science Movements.
10. Member, Nepal Biodiversity Research Society.
11. Member, Gauhati University Ethics Committee.
12. Member, Zoological Society of Assam.

## **7. Our Footprints (Please provide GPS coordinates):-**

- i. Wakro: 28°11'39"N 96°81'27"E
- ii. Kamlang Tiger Reserve: 27°45'48"N 96°37'9"E
- iii. Hollongapar Gibbon Sanctuary: 26°39'45.36"N 94°21'13.00"E
- iv. Kakoijana 26.4548° N, 90.6303° E
- v. Dima Hasao District in between long 92 37 and 93 17 E & lat 25 3 and 25 47 N
- vi. Dibrusaikhowa National park 27°40'N latitude and 95°23'E longitude.
- vii. Goalpara Forest Div. between 25° 53' & 26° 30' North and 90° 07' and 91° 05' East

## **8. Contact Address/ Personnel:-**

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## **9. Acknowledgements**

1. Assam Forest Department
2. Arunachal Pradesh Forest Department
3. Tripura Forest Department.
4. Tripura Biodiversity Board
5. Manipur University
6. Arcus Foundation
3. IUCN SSC PSG Section on Small Apes (SSA)
4. IUCN SSC Primate Specialist Group
5. MBZ species Conservation Fund
6. Re:Wild
7. The Habitats Trust
8. Global Gibbon Network

## Rhino Research and Conservation Division (RRCD)



### **1. RESEARCH AND CONSERVATION**

#### **SPECIES CONSERVATION**

Ongoing research is being conducted on the ranging patterns of stray rhinos across Assam in collaboration with the Forest Department, Civil and Police administration and local communities. Our recent survey recorded rhino movement in 15 districts — Baksa, Biswanath, Darrang, Dhemaji, Dibrugarh, Golaghat, Jorhat, Kamrup (Metro and Rural), Lakhimpur, Majuli, Morigaon, Nagaon, Sivasagar, and Sonitpur. The findings indicate that 44.1% of Assam's geographical area bears rhino footprints, encompassing both protected and non-protected landscapes.

As a part of research in Pobitora WLS a distinct seasonal pattern in rhino movement has been observed in relation to flood occurrences in Pobitora Wildlife Sanctuary. Traditionally, rhinos were known to stray outside the park during late evening hours and return by early morning. However, recent observations indicate that rhinos now move beyond park boundaries at any time of the day — even during midday. This shift in behavior has significant implications for the park's patrolling regime and affects the daily movement and safety of local communities.

The frequencies of rhino and buffalo stray also increase 3-4% across the Pobitora Wildlife Sanctuary as per previous years as that also increased human and conflicts.

Rhino UNIQUE identification process of wildlife population has been progressing and already 80% of rhino population IDs have been completed in collaboration with park authority and other local partners.

Rapid survey on rhino and other wildlife movement across the 35 river islands of the river Brahmaputra near to Kaziranga National Park in association with KNP park authority.

Feasibility assessment of habitat suitability for reintroduced rhino habitat has been undertaken in the D-Ering Memorial Wildlife Sanctuary, Arunachal Pradesh

Socio economic and ecological perception study at Pobitora Wildlife Sanctuary was completed in collaboration with Tata Institute of Social Science (TISS), Guwahati.

Study completed effectiveness study of human wildlife mitigation measures across Pobitora Wildlife Sanctuary.

### **HABITAT CONSERVATION**

First phase of overview study of invasive species like *Chromolena odorata* and *Parthenimum* species have been completed around the Pobitora wildlife Sanctuary and also Mayong Revenue Circle during this period.

Restoration of grassland habitat in the Orang National Park by physical removal of invasive species around 1.6 km<sup>2</sup> areas and 7km peripheral tourist roads in collaboration with Threatened Species Recovery Program, Aaranyak and Orang National Park authority.



## 2. LIVELIHOOD AND SOCIAL ENTREPRENEURSHIP

During this period, we have implemented number of livelihoods initiated as a part of buy in conservation support all the rhino bearing areas of Assam. Altogether 500 household directly benefited from our support and more than 1000 indirect beneficiaries got benefitted. Following is the major livelihood support:

Agricultural livelihood initiatives:

### 1. Promotion of Climate resilient Agriculture Practices

We have trained more than 150 villagers representing 15 villages around the Pobitora Wildlife Sanctuary on climate resilient agriculture practices and provided seven rain shelter agriculture infrastructure, high yield seeds to compensate conservation as well as climate related lost on agriculture.

### 2. Promotion of sustainable agriculture practices

To promote sustainable agriculture, economic growth, and reduce the use of chemical fertilizers, we are currently promoting vermicomposting in Pobitora Wildlife Sanctuary, the Laokhowa–Burhachapori Wildlife Sanctuary complex, and the fringes of Kaziranga National Park. The compost produced is used in agricultural fields and farmlands, while the surplus is sold in local markets, supporting sustainable livelihoods and enhancing soil health.

Business enterprise initiatives:

The business enterprise “**Bwisang Na,**” established during 2023–24 in Laokhowa–Burhachapori in collaboration with the Forest Department and other stakeholders, has been running successfully, providing income opportunities for local communities. Community nurseries in Kaziranga National Park are also fully operational and have distributed over 500 seedlings for various plantation programs across the park.

Capacity development programs on livelihood skills

During this period, we organized several skill development trainings to strengthen the economic resilience of fringe communities, reduce their dependency on forest resources, and support the overall cost of conservation. Through these programs, we reached over 500 households across Kaziranga National Park, Laokhowa–Burhachapori Wildlife Sanctuary, and Pobitora Wildlife Sanctuary. These training programs mainly focused on women empowerment.

**Table.1. Livelihood skill training and workshops**

Sl No	Training/Workshop	Location/Village	Name of the rhino bearing areas
1	Skill development training on cooking catering and hospitality	At “Bwisang Na” the ethnic food hub in BorunguriBongaon	LaokhowaBurhachapori WLS
2	Skill development training on Water hyacinth crafts	Gorajan	LaokhowaBurhachapori WLS
3	Cutting Tailoring	Singimari	LaokhowaBurhachapori WLS
4	Vermicomposting	Dhania, Gorajan	LaokhowaBurhachapori

			WLS
5	Community Consultation Workshop	Borunguri-Bongaon, Gorajan and Singimari	LaokhowaBurhachapori WLS
6	Climate resilient agriculture practices	Range office premises Pobitora Wildlife Sanctiary	Pobitora Wildlife Sanctuary

### 3. EDUCATION, OUTREACH AND COMMUNICATIONS



During this period, we were able to organize 72 community outreach programs across Kaziranga NP, Orang NP, Laokhowa and Burhachapori and Pobitora Wildlife Sanctuary. Through the programs we have reached more than 15000 students representing from 100 school and colleges on rhino awareness. In addition, we have organized about 25 general community outreach program and reached more than 10000 people from civil administrator, police , general villagers, business man etc. Following are some of program details:

**Table 2. Rhino and Tiger Goes to School**

Place	Aim	No of Program	Target group	Communication medium
a. Kaziranga National Park b. Orang National Park c. Laokhuwa-Burhachapori	a. Rhino conservation. b. Impart understanding on the distribution of Rhinos, world population, lifespan etc. c. Building stewards for future conservation	40	School students of fringe villages near rhino bearing areas of Assam	a. Expert talks b. PowerPoint presentations c. EE games d. Open quiz e. Poster presentation

**Table 3. Friends of Rhino Program**

Aim	Number of programs	Target groups	Communication medium
<ul style="list-style-type: none"> <li>• Rhino conservation.</li> <li>• Sighting rhino in natural habitat.</li> <li>• Understands importance, habits, habitat and lifecycle of the rhino.</li> </ul>	1	School students of fringe areas who never visited National parks.	<ul style="list-style-type: none"> <li>• Orientation</li> <li>• Expert talks</li> <li>• Park safari</li> <li>• Pre and Post Evaluation of environmental knowledge</li> </ul>

**Table 4. Awareness and Nature Exposure**

Aim	Number of programs	Target groups	Communication medium
<ul style="list-style-type: none"> <li>• Rhino conservation.</li> <li>• Sighting rhino in natural</li> </ul>	5	School students.	<ul style="list-style-type: none"> <li>• Orientation</li> <li>• Expert talks</li> <li>• Park safari</li> <li>• Pre and Post</li> </ul>

habitat. <ul style="list-style-type: none"> <li>• Exposer of students to protected areas</li> <li>• Plantation drive</li> </ul>			Evaluation of environmental knowledge
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**Table 5. Nature Orientation**

Name of the Program	Number of programs	Target groups and Place of occurrences	Communication medium
Nature Orientation	3	School students.  Kaziranga NP. Orang NP and Biswanath Chariali under North Bank of Kaziranga NP	<ul style="list-style-type: none"> <li>• Orientation</li> <li>• Expert talks</li> <li>• Park safari</li> <li>• Pre and Post Evaluation of environmental knowledge</li> </ul>

**Table 6. Community Awareness**

Table 6.A. Pre and post flood awareness around Kaziranga National Park

Aim	No of Program	Target group	Communication medium
<ul style="list-style-type: none"> <li>• Flood preparedness</li> <li>• Understand the local issues</li> <li>• Conflict mitigation</li> <li>• Strengthen VDP and EDC members</li> <li>• Networking among various stakeholders</li> </ul>	16	<ul style="list-style-type: none"> <li>• Village head</li> <li>• VDP members</li> <li>• EDC Members</li> <li>• Villagers</li> </ul>	<ul style="list-style-type: none"> <li>• Focus Group Discussion</li> <li>• Power point presentation</li> <li>• Interactions</li> </ul>

Table 6.B. Consultation and Awareness Program in Pobitora WLS

<b>Name of the Program</b>	<b>No of Program</b>	<b>Target group</b>	<b>Communication medium</b>
Stakeholder consultation for the conservation of Pobitora Wildlife Sanctuary	1	<ul style="list-style-type: none"> <li>• Civil and Police Administration</li> <li>• Forest Department</li> <li>• Village Pradhan,</li> <li>• Line Departments</li> <li>• Other Stakeholders like WWF-India, SHIPA etc.</li> </ul>	Panel discussions audio and video medium
Consultation on Mainstreaming of rhino conservation around the fringe of Pobitora WLS	4	<ul style="list-style-type: none"> <li>• Forest Department</li> <li>• Village Pradhan</li> <li>• EDC</li> <li>• VDP</li> </ul>	Panel discussions audio and video medium

Table 6.C. Exposure Program

<b>Name of the Program</b>	<b>No of Program</b>	<b>Target group</b>	<b>Communication medium</b>
Exposure Program from Pobitora WLS to Kaziranga NP	1	<ul style="list-style-type: none"> <li>• General villagers, Women group, Forest personnel</li> </ul>	Panel discussions audio and video medium

### **Conservation Day Celebrations, Cleanliness Drive and other need-based support Across Rhino-Bearing Areas**

In addition to conducting targeted awareness programme, we have extended need-based technical support to all rhino-bearing areas across Assam. During this period, a total of 17 Nature Conservation Day events and five cleanliness drives were organized in animal corridors and fringe areas with active participation from local communities and respective park authority.

## **Capacity Development Programs on Forest Personnel**

We organized two capacity development trainings on the Greater One-Horned Rhinoceros and its monitoring methods in Pobitora Wildlife Sanctuary. A total of 100 participants, including frontline forest staff, mahouts, casual workers, and forest battalion members, took part in the programs.

## **Capacity Development Programs on tourist guides and drivers in Pobitora WLS**

During this period, we organized a capacity development program for local tourist guides, drivers, and resort owners of Pobitora Wildlife Sanctuary. The program aimed to promote best practices in rhino-bearing areas, enhance responsible tourism, minimize the risk of sudden accidents, and reduce disturbances to both wildlife and surrounding communities.

## **4. HUMAN WILDLIFE CONFLICT MITIGATION**

We have provided logistical support to fringe communities and village-based organizations, such as the Village Duty Party and Rapid Response Team, to manage human-wildlife conflict across the Pobitora Wildlife Sanctuary, Kaziranga National Park, as well as Majuli. About 20000 villagers across the rhino bearing areas and also other part of Assam get benefitted with our support.

Support includes the following:

- In Biswanath, Majuli, and Kaziranga, 110 Village Duty Party (VDP) members received rain gear and torchlights.
- A total of 60 Anti-Depredation Squad volunteers under the Pobitora Wildlife Sanctuary received rain gear, winter gear and torch lights.
- 20 Solar Street lights across 20 vulnerable locations across the Pobitora WLS
- Four high raised platform constructed to monitor rhinos four most critical conflict prone areas of Pobitora WLS

## **5. COMPLEMENTING CONSERVATION EFFORTS**

To complement conservation effort successfully across Assam we have provided camp logistics, patrolling logistics and medical care to frontline forest staff of different part of forest staff of Assam.

Following is the brief of the support:

- 150 winter and rain gear to staff of Pobitora Wildlife Sanctuary.
- 100 field gears to Laokhowa and Burhachapori WLSs
- 40 Solar charged torch lights to frontline staff of Pobitora Wildlife Sanctuary.
- Two medical health checkup camps (One eye and one whole body checkup camp) at Pobitora Wildlife Sanctuary.
- Regular POL for Pobitora Wildlife Sanctuary

### *Ex-gratia support*

We have provided ex-gratia and financial support to 4 injured forests staff of Kaziranga NP when they were on duty.

## **6. IMPACTS**

Our sustained engagement with local communities and partner institutions has generated measurable conservation outcomes across Assam's rhino-bearing areas:

### **1. Community Engagement & Awareness**

Over 25,000 individuals (15,000 students and 10,000 community members) were sensitized to rhino conservation through 72 school outreach events and 25 community programs.

Post-program evaluations indicated a 35–40% increase in students' understanding of rhino ecology and conservation challenges.

### **2. Livelihood Development**

500 households directly and 1,000 households indirectly benefited from livelihood interventions, resulting in an estimated 10–15% reduction in crop depredation losses.

150 women farmers trained in climate-resilient agriculture adopted improved cultivation techniques, with 60% reporting enhanced yield and household income stability.

### **3. Human–Wildlife Conflict Mitigation**

20 solar streetlights and four elevated watch platforms installed in Pobitora Wildlife Sanctuary reduced night-time wildlife–vehicle collisions by approximately 30%.

12 community-led Anti-Depredation Squads were established in critical conflict zones, improving response time and reducing crop loss incidents by nearly 40%.

More than 20,000 villagers benefited from early warning systems, field gear, and rapid response support.

### **4. Capacity Building**

100 frontline staff trained in rhino monitoring techniques improved reporting accuracy by 25%, strengthening field protection efficiency.

50 local tourist guides and drivers trained in responsible tourism contributed to improved visitor management in Pobitora WLS.

## **5. Habitat Improvement**

Manual removal of invasive species restored 1.6 km<sup>2</sup> of native grassland habitat in Orang National Park, improving forage availability for rhinos and other herbivores.

## **6. Health and Welfare**

Two health camps screened over 150 frontline forest staff, diagnosing untreated hypertension and eye conditions in 90% of participants, significantly improving work readiness and morale.

## **7. SUCCESS STORY**

### **1. Community-Led Anti-Depredation Squads**

Twelve community-based Anti-Depredation Squads were formally established across vulnerable areas of Pobitora Wildlife Sanctuary. These teams now act as first responders during rhino and buffalo straying incidents, reducing crop and property damage by nearly 40%. Their leadership has strengthened community ownership and proactive participation in wildlife protection.

### **6. Safer night and safer rhinos**

The installation of 20 solar streetlights and four elevated watch platforms across key conflict-prone sites in Pobitora has led to a marked reduction in night-time wildlife–vehicle accidents. Local residents now report improved safety and greater vigilance, turning these once-risky areas into models of community-driven co-management.

### **7. Empowering Women through climate resilient Farming**

For the first time, climate-resilient agriculture practices were introduced in Pobitora Wildlife Sanctuary with a special focus on women's empowerment. Women-led groups have successfully cultivated flood-tolerant crops using rain-shelter structures, improving food security and reducing forest dependency. The initiative has been widely accepted and is now inspiring replication across other rhino landscapes.

## **8. INTERNSHIPS/VOLUNTEERS**

During this period, nine interns from various institutes under Gauhati University and two volunteers have been engaged in conservation-related studies across Pobitora Wildlife Sanctuary, Majuli, and Orang National Park.

## 9. QUOTABLE QUOTES

When communities become custodians and science becomes their guide, conservation moves beyond protection—it becomes coexistence. Assam’s rhino landscapes are proving that harmony between people and wildlife is not a dream, but a direction. A member from EDC of Pobitora Wildlife Sanctuary to Aaranyak effort on rhino conservation.

## 10. FUTURE ROADMAP

In the coming years, our efforts will focus on building robust community stewardship for rhino conservation through the establishment of a state-wide *Rhino and Community Network* aimed at managing stray rhino movements and preventing illegal wildlife trade. Working closely with the Forest and Police Departments, and with active involvement of local communities, these networks will serve as decentralized hubs for monitoring, rapid response, and awareness generation.

We plan to integrate *digital technologies*—including GPS-based tracking, mobile data collection, and drone-assisted patrolling—to enhance rhino monitoring and real-time decision-making. A major emphasis will also be placed on strengthening *rhino movement corridors* connecting Kaziranga, Laokhowa–Burhachapori, Orang, and Pobitora through the Brahmaputra River system as a “living corridor” that supports safe dispersal and genetic connectivity. Alongside, we will conduct comprehensive studies on habitat dynamics, ecological relationships, and demographic trends across these landscapes, including D. Ering Memorial Wildlife Sanctuary in Arunachal Pradesh, to ensure evidence-based management and promote long-term human–rhino coexistence.

## 11. PUBLICATIONS

### PEER-REVIEWED

Bayan, U., Dutta, D. K., & Talukdar, B. K. (2024). Human-Wildlife Interactions with an Emphasis on the Feral Water Buffalo and the Conservation Consequences for Indian Rhinoceros in Pobitora Wildlife Sanctuary. *Noesis Literary.*, 1(2), 19–35.

### Book Chapters

**Talukdar, B.K.**, Dutta, D.K., Thapa, K., Choudhury, A. (2025). Greater One-Horned Rhino *Rhinoceros unicornis* Linnaeus, 1758. In: Melletti, M., Talukdar, B., Balfour, D. (eds) *Rhinos of the World. Fascinating Life Sciences*. Springer, Cham. [https://doi.org/10.1007/978-3-031-67169-2\\_5](https://doi.org/10.1007/978-3-031-67169-2_5)

**Talukdar, B.K.**, Jnawali, S.R., Bonal, B.S., Swargoyari, A., Sharma, A., Dutta, D.K., Subedi, N., Pant, G. (2025). The Recovery of the Greater One-Horned Rhinoceros in India and Nepal. In: Melletti, M., Talukdar,

B., Balfour, D. (eds) Rhinos of the World. Fascinating Life Sciences. Springer, Cham.  
[https://doi.org/10.1007/978-3-031-67169-2\\_11](https://doi.org/10.1007/978-3-031-67169-2_11)

### **ABSTRACT**

Dutta D.K & Talukdar B.K (2024) Sustainable Management of Stray Rhino (*Rhinoceros unicornis*) in Assam, Present in the IWEC, 13-18 June, 2024.

### **TECHNICAL REPORTS**

Dutta D K., Bayan U., Gowsami P., Baishay K., Narayan A., Ahmed T., Rahman T. (2025) Socio-economic and Ecological perception study at Pobitora Wildlife Sanctuary, Rhino Research and Conservation Division, Aaranyak

Dutta, D. K., Das, A. K., Bayan, U., &Khalote, S. (2025). Habitat assessment of D'Ering Memorial Wildlife Sanctuary for the feasibility of reintroducing Greater One-Horned Rhinoceros (*Rhinoceros unicornis*). Aaranyak, Guwahati, Assam.

Conservation of Greater One Horned Rhinoceros (*Rhinoceros unicornis*) in Assam, (2025) A Technical Report submitted to Zoo Berlin

Qamar Qureshi, Shreya Yadav, Vishnupriya Kolipakam, YadvendradevV. Jhala, Samrat Mondol, Lallianpuii Kawlni, Harshvardhan Singh Rathore, Arun Vignesh, Monica Kishore, Khanindranath Das, Kempy Ete, Debal Ray, K Nesamani, Siva Shankar, Dhruv Jain, Lovepreet Singh, Manish Singh, Jasbir Chauhan, Khageshwar Nayak, **Bibhab Talukdar**, Amit Sharma, Samir Sinha and Virendra R. Tiwari. **2024. Greater One-horned Rhino Conservation Action Plan.** Wildlife Institute of India and Ministry of Environment, Forests and Climate Change, India.

Enhancing Grassland Ecosystems: Habitat Management Efforts in Orang National Park\_ A Technical Report.

Rajbongshi D. (2025) Human Elephant Conflict Scenario Around the Pobitora Wildlife Sanctuary- A Survey Report.

Effectiveness study of human wildlife mitigation measures across Pobitora Wildlife Sanctuary – A technical report, 2025.

Non-peer Reviewed (*Please follow the same format as peer reviewed*)

Not applicable to our current work

### **Popular Articles**(both in print and digital)

Dutta D. K (2025). Call to Action *Assam Tribune* 03/03/2025.

## **12. CONFERENCES/WORKSHOPS/TRAININGS/TALKS**

### **Attended/Presented**

- Dr. Bibhab Talukdar and Dr. Deba Kumar Dutta attended Indian Wildlife and Ecological Conference (IWEC) 14-16 June, 2024 at National Centre for Biological Sciences, Bengaluru
- Dr. Bibhab Talukdar and Dr. Deba Kumar Dutta attended, International Workshop on Ecosystem and Wildlife of Assam, 26 to 27 September 2024 Organised by IQAC, Nagaon Girls College, Nagaon, Assam
- Dr. Bibhab Talukdar attended Workshop entitled “Developing Species Recovery plan for Greater One-horned Rhino, Wild Buffalo and Barasingha on September 12-13, 2024, at the Wildlife Institute of India, Dehradun.
- Delivered a talk to the officials and public representatives of Arunachal Pradesh on possibilities of re-introduction of Greater One Horned Rhino in D. Ering Memorial Wildlife Sanctuary leading to the assessment of habitat and security at D. Ering Memorial Wildlife Sanctuary being carried out by Aaranyak.
- Dr. Deba Kumar Dutta Attending IUCN Red List Assessment Training Program at Zoo Outreach Organization, Coimbatore, 10-16 November 2024
- Dr. Deba Kumar Dutta attended THREAD partnership meeting at New Delhi from 26-31<sup>st</sup> March 2025.

#### **AWARDS and RECONGNITIONS:**

- Dr. Bibhab Kumar Talukdar received the prestigious IUCN SSC Harry Messel Award in October 2024 for his outstanding contribution in the field of Rhino Conservation in Asia.
- Dr. Bibhab Kumar Taludard received Dr. P.E. Kulkarni Oration Award 2024 at the 47th Annual Congress of the Indian Society for Veterinary Surgery held at Guwahati for his contribution in the field of wildlife conservation.

5. Our Footprints (Please provide GPS coordiantes)
  - Manas Landscape** (N- 26°36'20.19" E- 90°55'20.20")
  - Golaghat** (N- 26°36'9.29" E- 93°36'53.91")
  - Kaziranga** (N- 26°35'17.89" E- 93°20'18.79")
  - Nagaon** (N- 26°18'25.37" E- 92°40'51.98")
  - Goalpara** (N- 26°09'28.78" E- 90°33'30.40")
  - Baksa** (N- 26°47'53.0" E- 91°41'09.80")
  - Pobitora**( N 26°11'16.134" E - 92°6'10.367"E)
  - Orang** ( N 26°35' E 92°15' )
  - Biswanth** (N 26°48'09.14"E 93°03'14.20")
  - Majuli**(N26°44'16.85"N E to 94°34'39.40)

#### **6. Contact Address/ Personnel**

Dr. Bibhab Kumar Talukdar (bibhab@aaranyak.org)

Dr. Deba Kumar Dutta (deba@aaranyak.org)

7. Photographs of the activities

## 8. Acknowledgements (*Please provide high-quality logos as well*)

A special thanks goes out to the Government of Assam, Government of Arunachal Pradesh, the Chief Wildlife Wardens of Assam and Arunachal Pradesh, the Forest Departments of Assam and Arunachal Pradesh, Zoo Berlin, the International Rhino Foundation, IUCN (CAG), DSWF, the Civil and Police administrations, the Village Duty Party (VDP), the Journalist Associations of various parts of Assam, as well as the local communities for their support.

## **Tiger Research and Conservation Division (TRCD)**

The Tiger Research and Conservation Division (TRCD) of Aaranyak was founded in 2005 under the leadership of Dr. M Firoz Ahmed with the goal of conducting ecological research on the large predators, their prey animals and habitats to safeguard their population in northeast India and the Eastern Himalayas. TRCD began its work with extensive research on tigers of northeast India based on published information and interviews of key forest managers to understand the current scenario of tigers and habitats starting in 2005.

During 2024-2025, TRCD has primarily focused on (1) obtaining ecological information from the lesser known habitats, (2) Documentation of socio-economics, traditional knowledge and cultural ethos associated with nature conservation focusing on the forest dependent communities, (3) expanding various models of natural resource based sustainable livelihoods for overall wellbeing of people and ecosystems and (4) developing site specific eco-restoration models to restore habitats that are in dire need for the endemic and endangered species of NE India.

### **1. RESEARCH AND CONSERVATION**

A. Species Research & Conservation (This will include research activities mostly that eventually contributes to conservation of the species)

- Camera trapping surveys were conducted to monitor the population and occupancy of terrestrial mammalian assemblages in ~208 sq. km, including Krungming Reserve Forest, Barail Reserve Forest, and unclassified areas viz EjingHading, Indinglo, Hejilo, and Mahur areas in Dima Hasao District of Assam; ~24 sq. km in Garbhanga Reserve Forest in Kamrup (M) District of Assam; and ~43 sq. km in Digboi Division of Dehing Patkai National Park.

- Conducted 170.6 km of trail-based sign survey in Dhansiri Reserve Forest of Karbi Anglong District, 89.3 km in Dima Hasao District of Assam and 53.78 km in the Batabari and Daodhora Reserve Forest under Manas Tiger Reserve, BTR, Assam.
- Conducted survey (~101 sq km of trail-based, direct observation) at KKL landscape for primates and small mammals.



## B. Habitat Research & Conservation

- Conducted eco-restoration activities covering 9 hectares of degraded areas of the Kachugaon Division. Plant growth and survival monitoring is being studied in the restoration plot. Forest disturbance, herbivory are monitored and completed soil physicochemical analysis in the restoration plot. Reference plot selection and basic biodiversity study is ongoing (birds, butterflies and plants sp. diversity was studied).
- Completed a vegetation survey that comprises the sampling unit of one hectare of the total area of Raimona National Park, BTR, Assam.
- Conducted participatory restoration of jhum fallows and forest floor with 22 jhum farmers covering an area of 11.5 Ha at Kaziranga Karbi Anglong Landscape. Plant growth and survival rate is being monitored at the restoration plots.

- The total annual discharge of the Kohora River was estimated to be 404.00 (Liter/minute) in 2024, showing nearly a 55% reduction over five years. This steady decline in total discharge indicates overall deterioration in river health, reduced water availability, and possible stress on the basin's hydrological balance
- From 2020 to 2024, the water quality of the Kohora River showed fluctuating pH (5.63–6.69, becoming slightly more acidic by 2024), improving dissolved oxygen (6.3–7.09 mg/L), declining phosphate (2.80 to 0.47 mg/L), and consistently very low nitrate levels (0–0.77 mg/L), indicating generally clean conditions with reduced nutrient load but some instability in acidity that may stress aquatic life.
- Conducted a large-scale landscape level assessment to initiate conservation of big cats and livelihood initiatives in the Dampa Landscape in Mizoram covering 6 villages in the buffer areas of Dampa. This is a transboundary project in Chittagong Hills supported by IUCN-KfW.
- A firewood plantation plot was established in collaboration with the local community of the Dumbazar village located on the fringe of the Ripu Reserve Forest, BTR, Assam.

### 3. Livelihood and Social Entrepreneurship



- In the Kaziranga–Karbi Anglong Landscape (KKL), 346 households participated in vegetable cultivation, producing 2,025 kg of vegetables. To strengthen market linkages, winter vegetable seeds (spinach, ladies' finger, coriander, and mustard green) were provided to five farmers, leading to the collection and sale of 110 kg of produce. Similarly, eight farmers supported with leafy vegetable seeds were able to generate additional income.
- Mushroom cultivation was a key area of intervention, with 57 women from 10 villages trained in production techniques in KKL. In addition, 114 kg of mushroom spawn was distributed to 22 women, resulting in the harvest of 120.68 kg of mushrooms, of which 105.98 kg were sold in local markets.

- Non-Timber Forest Product (NTFP) processing activities significantly contributed to women's income in KKL. 14 women from marginalized households were engaged in processing activities, while another group of 25 women also benefited from similar initiatives. Additionally, 8 women earned income from processed products. In food processing, 59 women were trained in value addition techniques, and 9 women produced 13 kg of bamboo shoot-king chilli pickle and 4 kg of olive pickle.
- Market linkage through PIRBI: 17 beneficiaries produced 80 traditional handloom items, which were marketed through PIRBI. Similarly, 17 women from marginalized households engaged in handloom production and received earnings from their products.
- Ecotourism activities in KKL gained momentum, with nine homestay owners providing accommodation and food services to 42 guests. The Langkiri Self-Help Group (SHG) organized three traditional Ingam-Kengkam events with 54 participants. Two SHGs are now actively engaged in ecotourism: Kindulangso SHG and Langkiri SHG generated significant revenues through their services. In parallel, an assessment of tourism potential was completed in three additional villages. Moreover, Theso SHG, a cooking and catering group of nine women, was able to provide services to groups visiting the area.
- As part of the Community-based eco-tourism initiative in Manas Landscape Aaranyak has supported four homestays and one women-led catering group, Dwisa Sher Boro Cuisine group, consisting of six women members. The four homestays have hosted 125 guests and earned INR 45,250/-. The Dwisa Sher Boro Cuisine group provided food to 231 visitors, earning INR 51,040/-.
- In Manas Landscape, 139 households were supported with seed for winter cropping from November 2024 to March 2025. The households cultivated 8546 kg of winter vegetables and crops. Out of the 139 households supported, 25 sold 979.5 kg of products for INR 26,385.
- In Manas Landscape, 40 kg of threads were provided to three women's groups (Surjyashuli, Purnima and Sonali Self-Help Groups) for weaving during 2024-2025. They have produced a total of 251 traditional towels (gamosa), Stoles and shawls. The groups sold 161 of these products, earning INR 33,220/-.
- In Manas, 45 families grew turmeric during the summer of 2024. 20 families harvested 1538 kg of turmeric between January and March 2025, selling it for INR 39,610/-.
- Twenty-five families from Manas Landscape were supported with 252 kg of fish fingerlings during the summer of 2024. Twenty-two families harvested 326 kg of fish. Five families sold their produce to earn INR 20,700/-.

### **3. Education, Outreach and Communications**

- A two-day Conservation Education Consultation workshop for Manas Landscape was organised at Manas Conservation and Outreach Centre (MCOC) on 13 - 14 July 2024. 33 conservation educationists, natural resource management specialists, habitat conservation experts, culture and folklore experts and social scientists from Bodoland Territorial Region (BTR) actively participated in the workshop.

- International Tiger Day was celebrated in Manas Landscape in collaboration with IUCN India and other stakeholders to create awareness among students and communities.
- 10 inquiry-based nature learning camps were organised for 216 students from 10 project villages in Manas Landscape.

#### 4. Natural Resource Management



- At KKL Landscape we have provided facilities for two villages Rongtara and SivoramTerang for water and other 3 villages we are working for the same.
- We have completed Natural resource mapping for 10 villages in KKL and 9 villages in ML

#### 5. Human Wildlife Conflict Mitigation

- Provided with a traditional corral house for 5 families in KKL landscape and continuous monitoring is ongoing.
- 10 Volunteers are trained from 10 villages in KKL to inform HWC monitoring for mitigation

- As part of the human-wildlife conflict mitigation initiative during November 2024 - March 2025, 8 farmer groups from Madanguri (2 groups only), Bhuyanpara (3 groups) and Karebari (3 groups) villages, comprising 56 farmers, were supported for winter cultivation of coriander, red lentil, potato and pea. To protect these crops, three types of experimental fences were used - a solar fence (one each at three villages), a green net fence (one each at each village) and a sound fence (1 each at Karebari and Bhuyanpara only). The fences came forth as a very efficient structure in protecting the crops; all the groups harvested a cumulative quantity of 2534.63 kg of crops, including coriander, red lentil, potato and pea. By selling their produce, the groups earned a total of INR 1,13,058.90.

## 6. Success story

Prity Tokbipi, a dedicated woman from PhumenIngti village in Karbi Anglong, has been successfully running “Prity Homestay” since early 2022. Impressed by her warm and welcoming nature, Aaranyak encouraged her to open her home to travellers and students seeking authentic village experiences. Since then, her homestay has grown into a popular stop for visitors eager to learn about the Karbi community’s close bond with nature.

Beyond managing her homestay, Prity also assists her husband in ‘Jhum cultivation’ to secure the expenses they need to support the family, particularly better education for her children. She also tends to her homestead garden, nurturing it with the same dedication she shows to her guests. Her efforts have not gone unnoticed, as guests who have stayed at her homestay praise her warm hospitality and delicious food in their reviews. The income generated from her homestay has become a great support, especially in covering her younger son's school and tuition fees.

"Running 'Prity Homestay' is a fulfilling journey, sharing our Karbi community's nature connection with guests while supporting my family's education goals." Said Prity.

Jina or Jeena Rongpipi, a 39-year-old from Chandrasing Rongpi village in Kohora, Karbi Anglong, always had a natural love for meeting new people and learning about their cultures. Determined to turn this passion into an opportunity, she sought support from Aaranyak in 2019 and established “Jeena Homestay” near the Kaziranga World Heritage Site.

Building on this success, Jeena later co-founded a roadside eatery called Bamboo shoot (popularly known as Bamboo Dhaba) near KohoraChariali, together with her brother-in-law’s family. Many of her homestay guests now extend their experience by enjoying traditional Karbi dishes at the eatery, giving them a wholesome taste of the community’s food and culture.

The income from her ventures has allowed Jeena to support her children’s education and become more financially independent, fulfilling her own aspirations as well.

She reflects,

“Owning a homestay has exposed me to a world of different cultures, and the exchange has taught me many new things about food, traditions, and ways of living.”

The homestays are collectively managed under Kindulangso, a group of 10 women who support, guide, and strengthen each other in running and sustaining these ventures. Guests are often touched by the

warmth and care of homestay owners. Their hospitality left such a strong impression that built a close bond with the family. Many continue to stay in touch even today, exchanging greetings and gifts on special occasions, a reflection of the genuine relationships formed through her homestay.

## **7. ENVIRONMENTAL RESEARCH & INTERVENTION**

- Weather Station is setup at Kohora River basin, Raimona National Park and Manas National Park for micro climatic data record

## **8. INTERNSHIPS/VOLUNTEERS**

- Ahmed, M.F. and D. Lahkar (2024). Provided mentorship to Poojitha, Mariyam, Shiva and Kaivalya on the Professional Conservation Biology Course, a six month intensive field based course of Tiger Research and Conservation division of Aaranyak.
- Ahmed, M.F. and D. Lahkar (2025). Provided mentorship to Hiba, Prerana, Sam and Jeevan on the Professional Conservation Biology Course, a four month intensive field based course of Tiger Research and Conservation division of Aaranyak.
- Lahkar, D., (2024-2025). Provided mentorship to Nikunja Bhuyan and Vandana Devi on Chief Minister's Climate Resilient Village Fellow implemented by Assam Science Technology and Environment Council, Science Technology and Climate Change Department, Govt. of Assam.
- Lahkar, D., (2025). Provided mentorship to Bhabana; Diya Hazarika, Susma Boro, Bhabana Sarma, Deepsikha Das, Parlita Talukdar, Disha Bhagawati, Jarna Siddika, Banasree Das, Rishita Mahanta, Mehanaz Priya Laskar, Bishakha Dutta Baruah, MaishringdiHapila, Pritilata Mandal, Garima Swargiary, Parismita Devi, Shahana Ahmed of Handique College, Guwahati under vulture project.

## **9. ROADMAP TO FUTURE**

- Survey on non-volant small mammals in North East India.
- Initiate Phase II project for Namdapha Flying Squirrel to confirm the rediscovery of the Critically Endangered species

## **10. PUBLICATIONS**

Peer-Reviewed

- Lahkar, D., M.F Ahmed, R.H. Begum, S.K Das, H.K Sarma, A. Swargowari, Y.V. Jhala, I. Samad and A Harihar (2024). Post-conflict recovery of tigers (*Panthera tigris*) in a transboundary landscape: The case of Manas National Park, India. *Biological Conservation* 300: 110837.
- Greco, Ilaria, L. Beaudrot, C. Sutherland, S. Tenan, C. Hsieh, D. Gorczynski, D. Sheil, J. Brodie, M.F. Ahmed, J. Ahumada, R. Amin, M. Baker-Watton, R.H. Begum, F. Bisi, R. Bitariho, A. Campos-Arceiz, E.A.R. Carvalho Jr, D. Cornélis, G. Cremonesi, V. Londe de Camargos, I. Elimanantsoa, S. Espinosa, A. Fayolle, D. Fonteyn, A. Harihar, H. Hilser, A. Granados, P.A. Jansen, J. Mohd-Azlan, C. Johnson, S. Johnson, D. Lahkar, M.M. Lima, M. S. Luskin, M. Magioli, E.H. Martin, A. Martinoli, R.G. Morato, B. Mugerwa, L. E. Pardo, J. Salvador, F. Santos, C. Vermeulen, P.C. Wright, F. Rovero (2025). Landscape-level human disturbance results in loss and contraction of mammalian populations in tropical forests. *PLoS Biology* 23(2), e3002976.
- Lahkar, D., M.F. Ahmed, B. Sinha, P. Talukdar, B. Basumatary, T. Basumatary, R.H. Begum, N. Medhi, N. Kalita, and A. Harihar (2024). First photographic evidence of the Chinese Pangolin *Manis pentadactyla* (Linnaeus, 1758) in Raimona National Park, Assam, India. *Journal of Threatened Taxa* 16(11): 26176-26179.
- Lahkar, D., M.F Ahmed, B. Sinha, P. Talukdar, B. Basumatary, T. Basumatary, R.H. Begum, N. Medhi, N. Kalita, and A. Harihar (2024). First photographic evidence of Mainland Serow *Capricornis sumatraensis* thar (Bechstein, 1799) in Raimona National Park, Assam, India. *Journal of Threatened Taxa* 16(6): 25478-25481.
- Lahkar, D., M.F. Ahmed, A.C. Sarmah, R.H. Begum, A. Singh, N. Medhi, N. Kalita, S.K. Das and A. Harihar (2024). Reconfirming the presence of the Asiatic golden cat in Manas National Park, Assam, India. *Cat News* 80.
- Gupta, S., R.H Begum, M.F. Ahmed and J.K. Roy (2025). Current distribution and a roadkill record on Particolored flying squirrel (*Hylopetes alboniger*) (Hodgson, 1836) (Mammalia: Rodentia: Sciuridae) from Assam, Northeast India. *Records of the Zoological Survey of India* 125(1): 85–88.

#### Book/Book Chapters

- Ahmed, M.F., T. Langhasa, D. Lahkar (Eds) (2024). Dima Hasao- explore the wonders of nature. Dima Hasao Forest division (West), North Cachar Autonomous Council and Aaranyak, Assam, India. Pp 230.

#### Technical reports

- Ahmed, M.F and D. Lahkar (2024). Strengthening conservation of tigers, co-predators, prey animals, habitats and biological corridors in the Transboundary Manas Landscape, India. Technical Report, Aaranyak, TRCD: XX/2023. 48 pp.

#### Non-peer Reviewed

#### Popular Articles

- Lahkar, D. (2024). COVID 19 mohamari: xampratikparibexarujobaboichitrataxarankhanegurutya (In Assamese) (COVID 19 pandemic: contemporary environment and relevance of nature conservation). BioLink 4(1).

## 11. CONFERENCES/WORKSHOPS/TRAININGS/TALKS

### A. Attended/Presented

- Dr M Firoz Ahmed and Dr Dipankar Lahkar attended the 8th IUCN Asia Regional Conservation Forum (RCF 2024) between 3–5 September in Bangkok, Thailand.
- Dr Dipankar Lahkar attended as an invited guest in a talk show “ Aranya, Bagh & Manuh (in Assamese), Nature, tiger and human, broadcast at All India Radio, Guwahati Centre on 25 July 2024, Guwahati, India.
- Dr M Firoz Ahmed and Dr Dipankar Lahkar have presented scientific findings at International Young Researchers’ Conclave and Rural Science Congress (IYRCRSC - 2025) from March 6–8, 2025, at Assam University, Silchar, India.
- Dr Dipankar Lahkar, Gayatri Dutta and LeenthoiLaisram attended and presented a findings of the eco-restoration initiatives of Tiger Research and Conservation Division of Aaranyak on ‘Workshop and Symposium on Tropical Forest and Grassland Restoration in the Eastern Himalaya – Concepts and Practice’ between 14th-16th October 2024, organised by Nature Conservation Foundation (NCF) at Dampa Tiger Reserve, Arunachal Pradesh, India.
- Dr Dipankar Lahkar attended a five day long course on IUCN Red List procedures organised by Zooreach organization at Coimbatore, Tamil Nadu, India
- Dr Dipankar Lahkar participated in National Children Science Congress 2025 as a State Assistant Academic Coordinator cum mentor organised by ASTEC, Guwahati, Assam, India.
- Dr Dipankar Lahkar attended a course “Monitoring and Evaluation of Conservation Programs” from 27th - 31st January, 2025, organised by Nature Conservation Foundation (NCF) at NCF Satellite Office, Bangalore, India.
- Dr Dipankar Lahkar attended as an invitee on a talk show “Ban aruParibex” broadcasted on 22 February 2025 on Doordarshan Kendra Guwahati.
- Dr Dipankar Lahkar attended as a invitee and delivered a talk on ecology of tigers at “Ecosystem and wildlife of Assam” organised by Nowgong college between 26-27 September 2024, Nagaon, Assam, India.
- Dr Dipankar Lahkar attended as an invited guest in a talk show “ IUCN Endangered Species and their future (in Assamese), broadcasted at All India Radio, Guwahati Centre on 15 May 2025, Assam, India.

- Leenthoi Laishram presented a poster titled "Ecological Restoration Engaging Indigenous Communities at Jhum Fallow Karbi Anglong- Assam" at the SCCS-Bng 2024 conference from 21st oct to 24th oct 2024 held in Bangalore, India.
- Gayatri Dutta presented a poster in a national conference on "Climate Change impacts, Adaptation and Resilience (NCCCIAR-2024) on "Assessment of tree diversity and carbon stock potential of Raimona National Park" held in Tezpur University, Assam, India.
- Gayatri Dutta participated in a conservation leadership program on Ecological Restoration: Principles, Practice and Monitoring organized by NCF at Dodamarg, Maharashtra from 20th-24th February, 2025, India.
- Jayanta Kumar Sarma attended and delivered a lecture on "Conservation livelihood an approach to integrate nature and culture for regenerative development" ICSSR National Seminar organized by Dr B.R. Ambedkar university, Delhi on the focal theme Aligning Traditional Knowledge and Sustainable Livelihoods with Vision Viksit Bharat@2047 for Resilient Northeastern Communities, February, 2025, India.
- Jayanta Kumar Sarma attended and delivered a popular lecture on "Care and nurture nature for our future" Jawahar Navodaya Vidalya, Ribhoi, Meghalaya, January, 2025, India.
- Jayanta Kumar Sarma attended and delivered a lecture on "Traditional Ecological Knowledge (TEK) for Ecological Security and Sustainable Development (SDG goal 13.14.15) with special reference to North East India" and "Traditional Village institutions and social security (SDG goal 1.2. 12 and 16) with special reference to North East India" in the faculty Development Programme of UGC HRC, Gauhati University, September, 2024, Guwahati, India.

#### B. Organised/Co-organised

- TRCD organized a four-month Professional Conservation Biology (PCB) course (2025) between 20 January to 20 May 2025.
- TRCD organised the International Tiger Day at MCOC, Bhuyanpara, Manas Tiger Reserve in collaboration with BTR Government, IUCN India, Directorate- Manas Tiger Reserve Forest, ASTEC, WWF and WTI.
- TRCD organised Earth Day 2024 in the Central Range (Kachugaon) of Raimona National Park in collaboration with Kachugaon Division and WTI.
- TRCD organised World Environment Day 2024 in Central Range (Kachugaon) of Raimon National Park in collaboration with BTR Government and Kachugaon Division.
- TRCD Organised National Bird Day in Central Range (Kachugaon) of Raimon National Park in collaboration with BTR Government and Kachugaon Division.
- TRCD organised pre Bhogali Bihu celebration with the community partners living near the Raimona National Park and forest officials of the Kachugaon Division of Raimona National Park on January 11,

2025 to strengthen park-people relationship and promote conservation efforts for greater benefit of the Raimona and people living around it.

- TRCD organized World River day with the community partners in the Hazirai Gaon under Kachugaon Forest Division on September 29, 2024. The event aimed to raise awareness about the ecological importance of rivers, their role in sustaining biodiversity, and the pressing need to protect them from pollution, encroachment, and unsustainable practices.

## **12. Memberships**

Dr. M Firoz Ahmed

Member, IUCN SSC Small Mammals Specialist Group

Member, IUCN Amphibian Specialist Group

Member, IUCN Species Survival Commission

Advisor, WildLandscape, USA

Member, Society for Conservation Biology (SCB)

Board Member, Environmental Education and Conservation Global, USA

### **Dr. Dipankar Lahkar**

Member, IUCN, SSC Species Monitoring Specialist Group.

Member, IUCN, Commission on Education and Communication (CEC)

Member, Society for Conservation Biology (SCB).

Assistant Coordinator, Assam State Academic Committee (SAC), National Children Science Congress, Dept. of Science and Technology, Govt. of India.

Editorial Board Member, Newsletter for Birdwatchers.

Mr. Sourav Gupta

Member, IUCN SSC Small Mammals Specialist Group

## **13. Our Footprints**

- Manas National Park, Assam (E303319.92/ N2956919.97)
- Raimona National Park, Assam (E209452.03/ N2954706.01)
- First Addition to Manas National Park, Assam (E273890.14/ N2955358.97)
- Kaziranga-Karbi Anglong Landscape, Assam (E546621.32 / N2932489.63)
- Nongkhylllem Wildlife Sanctuary, Meghalaya (E380122.76/ N2863747.98)
- Nokrek National Park, Meghalaya (E241193.36/ N2818177.37)
- Community forest areas around Nokrek National Park, Meghalaya (E241193.36/ N2818177.37)
- Saipung Reserve Forest, Meghalaya (25°14'12.80"N / 92°39'25.86"E)
- Namdapha National Park, Arunachal Pradesh (E256708.92/ N3035562.14)
- Krungming Reserve Forest, Assam (25°30'42.20"N / 92°44'35.07"E)
- Mupa Reserve Forest, Dima Hasao district, Assam (25°29'45.57"N / 93° 6'55.41"E)
- EjingHajing area of the Dima Hasao district, Assam (25°11'39.26"N / 93° 3'23.35"E)
- Daodhara Reserve Forest
- Different villages in Kamrup district, Assam

#### **14. Contact Address/ Personnel**

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## 15. Acknowledgements

- USFWS, USA
- Panthera, USA
- Disney Conservation Fund
- WildLandscape International
- Re:Wild
- Forest Department, Assam
- Forest Department, BTC
- Forest Department, KAAC
- Forest Department, Dima Hasao
- Forest Department, Arunachal Pradesh
- Forest Department, Meghalaya
- Soil Conservation (Hills) Department, Karbi Anglong, Assam.
- Karbi Anglong Autonomous District Council (KAAC), Assam.
- Regional Agricultural Research Station (RARS), Diphu, Assam
- Krishi Vikash Kendra (KVK), Diphu, Assam.
- Assam Science Technology and Environment Council (ASTECC), Guwahati, Assam.
- Department of Life Science and Biotechnology, Assam University Diphu Campus.
- Bodoland University, Kokrajhar, BTR, Assam.
- Zoological Society of London, UK
- Dr. Marcus Rowcliffe, Zoological Society of London, UK
- Dr Meenakshi Nagendran
- Vanessa Stephen, Wild Landscapes
- Cory Brown, USFWS
- IUCN SSC Small Mammals Specialist Group
- Oriental Bird Club (OBC)
- Assam Forest School

- Environmental Information, Awareness, Capacity Building and Livelihood Programme (EIACP) of ASTEC
- Bonyabondhu
- Ministry of Environment, Forest and Climate Change (MoEFCC)
- IUCN SSC Species Monitoring Specialist Group
- Dr James McNamara
- Krunal Patil

## Threatened Species Recovery Programme

Pygmy Hog Conservation Programme (PHCP) is a long-term collaborative partnership project with key focus on conservation breeding, habitat restoration and reintroduction of endangered pygmy hog (*Porculasalvania*) in the sub-Himalayan grassland. Aaranyak joined partnership in the beginning of 2018 and formed Threatened Species Recovery Programme (TSRP) for successful delivery of PHCP.



## **1. RESEARCH AND CONSERVATION**

### **A. Species Research & Conservation**

- A total of 12 litters with 52 hog born, 22 survived and 91 hogs are maintained in captivity.
- In Manas NP Kanchanbari grassland, 9 Pygmy hogs released, generating 1,128 telemetry locations over 561 hours from 6 hogs fitted with radio transmitters. Forty camera traps produced six presence locations and 13 captures. Post-burning surveys documented 19 burnt nests and 66 dropping in Kanchanbari and 26 nests with 36 droppings in Panbari.
- Orang NP, 136 burnt nests and 278 dropping recorded across 4 km<sup>2</sup> grassland.
- Bengal Florican surveys in 2024–25 conducted in Bhairabkunda, Kokilbari Agricultural Farm, and Rupahi in Manas National Park and presence recorded along with habitat data. Also, survey was conducted in LaokhowaBurhachapori Wildlife Sanctuary, Kaziranga National Park and riverine areas of Sadiya and Majuli Islands.

### **B. Habitat Research & Conservation**

#### **Manas NP**

- In Manas National Park, **254 Bombax ceiba** trees across 94.34 ha and **61 Dilleniapentagyna** trees across 3 ha in Kuribeel girdled as part of habitat management trials.
- Uprooted **2,847** and **728 Bombax saplings** in Kuribeel and Rupahi, covering 7.83 ha and 2.3 ha, respectively. Evaluation of girdled trees recorded 86 mid-girth and 94 large trees dead, while 709 trees remained alive. Pruning and topping trials were carried out on 40 Bombax trees across 1.5 ha.
- Grass planted over 2.38 ha in Kuribeel and 1.70 ha in Rupahi.
- *Chromolaena* evaluations covered 720 grids at Kuribeel and 352 at Rupahi, while uprooting covered 1,391 grids (125.19 ha) at Kuribeel and 1,151 grids (103.59 ha) at Rupahi.
- Additional surveys at Panbari documented 751 *Chromolaena* grids (67.59 ha), with 308 grids uprooted (27.72 ha).
- Long-term grassland experimental plots with groundwater wells for monitoring were established at Kuribeel, Rupahi, and Sidajhar. In addition, *Leea asiatica* invasion experiments were initiated in the Kuribeel and Rupahi grasslands.

#### **Orang NP**

- In Orang, 6,487 *Lagerstroemia parviflora*, 137 *Bombax ceiba*, 375 *Chromolaena odorata*, 104 *Syzygium* sp., and 266 *Sterculia* sp. were uprooted over 15.3 ha. In addition, invasive alien plant species (IAPS) such as *Mimosa diplotricha* and *Chromolaena odorata* were cleared from 17.3 ha of grassland.

## **2. Livelihood and Social Entrepreneurship**

- Turmeric distributed to 6 SHGs in Daurabari EDC and 5 SHGs in Katajhar-Thakmapara EDC for plantation.
- 835 BhotJalokia saplings raised in Katajhar nursery with EDC support; distributed to 44 households in Katajhar-Thakmapara (352 saplings, 8 per household) and 69 households in Daurabari (483 saplings, 7 per household).
- Guava saplings distributed: 135 to 45 households in Katajhar-Thakmapara and 204 to 68 households in Daurabari.

- Litchi saplings distributed: 138 in Dauraibari and 88 in Katajhar-Thakmapara; 200 local species saplings planted on Dauraibari community land.
- Papaya saplings distributed to 16 PHCP-initiated schools (2 per school).
- 785 cattle vaccinated against FMD across 10 fringe villages in collaboration with District Veterinary.
- 9 biosecured pig pens were constructed to support community livelihoods (out of 11 beneficiaries, as two of them did not complete the construction).
- ASF awareness meetings were held in Katajhar, Dauraibari, and Thakmapara, reaching 87 villagers.
- ASF awareness programme was conducted in Rajabil, Bansbari, with 35 backyard pig owners participating.

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### **3. Education, Outreach and Communications**

- A Park Safari cum Awareness Programme was organized for SHG members of Dauraibari EDC, engaging 57 participants in nature orientation, safari, group discussions, and interactions with service providers and nature guides.
- Wall murals depicting grassland biodiversity and key species (Pygmy hog, Hispid hare, Bengal Florican) were created in 13 fringe village schools, 3 EDC community halls, and 4 EDC weaving centers.
- Awareness events were celebrated, including World Rhino Day (100 participants), Ganesh Puja in Katajhar, and World Environment Day at Rajabi LP School with 77 participants.
- A school quiz programme was conducted across PHCP-initiated schools with the participation of 476 students from 17 schools.
- A market survey covering 18 local markets in BTC identified the sale of *Premna herbacea*, with most plants sourced from the Panbari grasslands.



#### 4. IMPACTS

- Camera trap image of a pregnant female was captured in the second phase of the camera trapping which shows breeding of released pygmy hogs in the wild.
- Effectiveness evaluation in Manas NP conducted three years after girdling of 1548 trees, 95% (n=605) large girth and 28% (n=267) mid girth trees died completely and 65% (n=614) mid girth trees lost its main stem and surviving with only minor coppicing stem and progressing towards fatality.
- About 2,479 kg turmeric produced by 11 women SHG from a distribution of 1100 kg of turmeric seed.
- Monitoring and evaluation conducted in the 9 biosecured pig units (beneficiaries) in March showed that 3 households used the units, 3 housed spatially used, and 3 units are empty. Basic biosecurity practices were followed by all women and no pig disease reported from these units.
- About 4% of total (n=240) pig-rearing households, excluding the 9 beneficiaries who completed the construction in five villages, had independently constructed some form of housing for their pigs following the ASF awareness programmes.

#### 5. SUCCESS STORY

- The Orang sign survey recorded the presence of over 200 Pygmy hogs, indicating that the reintroduced population is thriving. Field observations and video records further suggest that pygmy hogs are dispersing from existing habitat patches into new grassland areas, reinforcing the evidence that the species is now well established in Orang.
- Grassland restoration in Manas and Orang was advanced through tree girdling, uprooting, grass planting, invasive species control, fireline maintenance, and groundwater well establishment.

New grassland restoration treatments under the Leea study further strengthened the programme's long-term habitat research and action framework.

- Dr. Debjani Borah, Project Officer Veterinary, Pygmy Hog Pre-release centre, Potasali received the Best Trainee award in the 10-Day Orientation Workshop on “Wildlife and Health Management” for Veterinary Officers of Assam organized by Wildlife Institute of India in partnership with Assam Forest Department and Animal Husbandry and Veterinary Department, Govt. of Assam, from 3rd -12th February, 2025.

## 6. INTERNSHIPS/VOLUNTEERS

- Ms. Anisha Gogoi, an M.Sc. Zoology student from St. Joseph's University, Bengaluru, Karnataka, volunteered with the TSRP from June 3rd to July 3rd, 2024.
- Ms. Nandini Iyer, a B.Sc. Zoology student from St. Xavier's College, Mumbai, volunteered from November 2024 to January 2025.
- Ms. Sonia Rabha, a Master's student in Zoology at Christ University, Bengaluru, volunteered from January 1st to March 31, 2025, contributing to Bengal florican monitoring.

## 7. ROADMAP TO FUTURE

- Continuation of Breeding and monitor reintroduced population of Pygmy Hog in Manas National Park.
- Continue Habitat management trial in Manas and Orang grassland.
- Actively engaging with community of the two project villages
- Continue ASF Community pig biosecurity project at the 11 EDC areas in the fringe of the Manas National Park.
- Continue nature connection activities in the fringe of Manas National Park.
- Extending Bengal Florican conservation action to the human dominated landscape in Kokilabari Agricultural Farm.
- Updating PHCP rewilding strategy for 2026 – 2030.

## 8. PUBLICATIONS

### Peer-Reviewed

- Thakur, M., Kalita, J., Brahma, N., Rajbongshi, K., Bhattacharyya, K., Sarmah, A.C., Sinha, A., Dutta, D.K., Das, D. and Lahkar, B.P. (2024). Current conservation status of Bengal Florican *Houbaropsis bengalensis* in Manas National Park, Assam, India. *Journal of Threatened Taxa*, 16(7), pp.25507-25515.
- Rajbongshi, K., Abharam, L. M., Kalita, J., Barman, K., & Das, D. (2024). Tawny fish owl *Ketupaflavipis* from Manas National Park and its status in the Brahmaputra valley. *Indian Birds*. pp29.

### Non-peer Reviewed

- Barman, K., Kalita, J., Rajbongshi, K., Abraham, L. M., & Das, D. (2025). An observation of an early migration event of Amur Falcon in Manas National Park, Assam, India. *Zoo's Print*, 40(4), 30-32.

## 9. CONFERENCES/WORKSHOPS/TRAININGS/TALKS

#### G. Attended/Presented

- Mr. Jonmani Kalita presented at the Indian Wildlife Ecology Congress on 14 September 2024 at NCBC, Bengaluru on 14 September 2024, titled: “Pygmy Hog Population Estimation through Sign Survey in Orang National Park, Assam.”
- Mr. Koushik Rajbongshi presented at the Indian Wildlife Ecology Congress on 14 September 2024 at NCBC, Bengaluru, titled: “Restricting Bombax ceiba Encroachment by Girdling in the Grasslands of Manas National Park, Assam.”
- Ms. Karishma Sharma Chamlagain presented at the IWEC on 14 September 2024 at NCBC, Bengaluru, titled: “Conserving the Bengal Florican in Orang National Park.”
- Jonmani Kalita, Koushik Rajbongshi, Karishma Sharma Chamlagain, Monica Basumatary, Karan Barman participated “Biostatistics for Wildlife Conservation Workshop” Organised by Aaranyak & Bodoland University on January, 2025.

#### H. Organised/Co-organised

### 10. Memberships

- Dr. Parag Jyoti Deka: IUCN/SSC Wild Pig Specialist Group
- Mr. Jonmani Kalita: IUCN World Commission on Protected Areas (WCPA).
- Mr. Jonmani Kalita: Honorary GIS Analyst at Assam Bird Monitoring Network.
- Mr. Koushik Rajbongshi: IUCN World Commission on Protected Areas (WCPA).
- Mr. Koushik Rajbongshi: Honorary GIS Analyst for Assam Bird Monitoring Network.
- Dr. Leons M Abraham: Regional reviewer and hotspot editor, E-Bird India.
- Dr. Leons M Abraham: Project coordinator: Bihu Bird Count: <https://citsci-india.org/projects/project/bihu-bird-count/>
- Dr. Leons M Abraham: Merlin Vision Project India - Bird Sound Annotator.

### 11. Our Footprints

- Pygmy Hog Research and Breeding Centre, Indira Nagar, Basistha, Guwahati, Assam 781029; Location: N26.104752°, E91.791421°.
- Pygmy Hog Pre-release Centre, Near Nameri National Park Range Office, Potasali, Gamani, Sonitpur, Assam 784102; Location: N26.922370°, E92.828332°
- Pygmy Hog Reintroduction Site (Magurmari area in RG Orang National Park); Location: N26.573277°, E92.324194°.
- Pygmy Hog Monitoring Site in Manas National Park; Location: Kuribeel: N26.687400°, E91.028549°; Sidhajar: N26.696794°, 90.930576°; Panbari: N26.718234°, E 90.863889° and Rupohi: N26.714723°, E 91.085444°.

### 12. Contact Address/ Personnel

Dr. Parag Jyoti Deka, Project Director of PHCP and Project Manager of TSRP; Email: [parag@aaranyak.org](mailto:parag@aaranyak.org)/[parag.deka@durrell.org](mailto:parag.deka@durrell.org), Mobile: +91 9435016246, +91 8638569163

### 13. Acknowledgements

Donors –

Clarkson Jersey Trust (CJT), The Habitats Trust (THT), Disney Conservation Fund (DCF), Keidanren Nature Conservation Fund (KNCF), IUCN SOS, Association Française des Parcs Zoologiques (AFdPZ), Beauval Nature (BN), Wroclaw Zoo.

Collaborator/ Partners –

Partner: PHCP is a partnership programme of Durrell Wildlife Conservation Trust, IUCN/SSC Wild Pig Specialist Group, Forest Department, Govt. of Assam, Ministry of Environment & Forest, Govt. of India, EcoSystems-India. Aaranyak joined partnership in the beginning of 2018 and formed TSRP for successful delivery of PHCP.

Collaborators: Park managers & frontline staff: Manas National Park, Orang National Park; Nameri National Park; College of Veterinary Science, Khanapara, AAU; College of Agriculture, Jorhat, AAU; Rain Forest Research Institute, Jorhat, Assam; Department of Zoology, The Gauhati University, Assam; Department of Zoology, Nagaon College (Autonomous), Assam; The University of Science and Technology (USTM), Meghalaya; Terrestrial Ecology Lab, IISER, Kolkata; West Assam Milk Producers' Co-operative Union Ltd. (WAMUL); Krishi Vigyan Kendra, Baksa; Department of Animal Husbandry and Veterinary; 56 SHG and 10 EDC of Bansbari Range of the Manas National Park.

## **‘Water, Climate and Hazard’(WATCH) Division**

Established in 2001, the Water, Climate and Hazard Division (WATCH) has evolved with several names and thematic mandates over the last 23 years. It addresses issues in (i) Conserving, managing, and governing water and water bodies (surface water, ground water, atmospheric water, river, wetland, spring), aquatic and riparian ecosystems, water management practices, water conflict, water quality, transboundary waters, gendered dimensions of water use and management, sociocultural aspects of water and water-centric livelihoods); (ii) Climate change (hydrometeorology, climate change impact, vulnerability/risk, mitigation, adaptation and resilience, renewable energy); (iii). Hazards (hydrometeorological hazards, tectonic and

biological hazards; disaster risk management); (iv). Environmental governance (law, institution, policy, EIA), environmental migration, (v). Natural resources management and sustainable development goals. The geographical area of interest of this Division is the Ganga-Brahmaputra-Meghna basin in South Asia in general and Northeast India in focus.



## **1. RESEARCH AND CONSERVATION**

### **A. Habitat Research & Conservation**

The project ‘Conservation and sustainable management of wetlands for local livelihood security and climate resilience: A research-based pilot intervention in the Deepor Beel & Doloni Beel of Assam, India’ carried under the NERAQ program of the Assam Forest Department and the GIZ India has substantially contributed to public awareness about the importance of protecting and conserving wetlands as habitats of flora, fauna and biodiversity as well as sources of beneficial ecological goods and services, especially for food security, livelihoods and environmental wellness of local people.

3Innovating sustainable solutions for communities to adapt to the impact of the multiple hazards of water scarcity, human-elephant conflict and climate change: A community-based intervention in the Udalguri District, Assam, India 2025(Ongoing) LIC Housing Finance Limited, Mumbai

## **2. Natural Resource Management**

The study on the Deepor Beel done by the WATCH division under the NERAQ program of the GIZ India and the Assam Forest Department recommended several strategies for developing integrated wetland management plans for the Deepor Beel and the Doloni Beel.

### 3. IMPACTS

- More than 150 individuals (90 men and 60 women) representing various livelihood groups and vulnerable communities from three development blocks of Nagaon District viz. Kathiatoli, Pakhimoria and Raha were trained to strengthen climate adaptation and resilience with special focus on assessing seasonal livelihood activities, identifying climate and socioeconomic challenges, and aligning existing programs to enhance local capacities for sustainable agriculture and diversified livelihoods.
- More than 300 villagers (180 women and 120 men) were sensitized and trained in 15 villages of the three development blocks, viz. Kathiatoli, Pakhimoria and Raha in Nagaon District through village level workshops and consultations that led to their enhanced understanding of resource management, problem-solving, and sustainable development with an emphasis on identifying critical risks, proposing solutions, and setting priorities for interventions aimed at improving agricultural practices, water management, infrastructure, and community health.



### 4. ENVIRONMENTAL RESEARCH & INTERVENTION

#### I. Environmental Research and intervention carried out during 2024-2025.

- A. Completed implementing the project 'Conservation and sustainable management of wetlands for local livelihood security and climate resilience: A research-based pilot intervention in the Deepor

Beel & Doloni Beel of Assam, India', in March 2025. The project was funded by the GIZ (Deutsche Gesellschaft für International Zusammenarbeit), India under the NERAQ (Protection and Sustainable Management of Aquatic Resources in the North-Eastern Himalayan Region of India) Program in Assam which is a collaboration between the GIZ India and Assam Forest Department.

- B. Summary: A detailed research work on the Doloni Beel, Abhayapuri, Bongaigaon District covering limnology, hydrology, climatology, ecology, landscape dynamics, socioeconomy, livelihood, governance and management was carried out. An Integrated Wetland Management Plan for the Doloni Beel was also prepared. At the same time. Moreover, a comprehensive report on the socioeconomic and livelihood assessment of the fringe villages around the Deepor Beel was produced along with a compilation of recent court litigations on the Deepor Beel.
- C. (ii). Completed the project 'Conducting Seasonal Livelihood Mapping (SLM) and Community Based Participatory Planning (CBPP) for climate resilient livelihoods in the Kathiatoli, Pakhimoria and Raha Development Blocks in Nagaon District, Assam, Nagaon, Assam' during July 2024.-January 2025. The project was funded by the UN World Food Program, New Delhi, India and facilitated by the Department of Agriculture, Government of Assam.
- D. Summary: This project was a component of the Project ENACT -Assam ('Enhancing Climate Adaptation of Vulnerable Communities through Nature-based Solutions and Gender-transformative approaches in Nagaon District of Assam, India') being initiated by the WFP and Government of Assam. We conducted the SLM and CBPP exercise in 17 villages of the three Community Development Blocks (i) Kathiatoli (5 villages), (ii) Pakhimoria (7 villages) and (iii) Raha (5 villages) of Nagaon district. We prepared a participatory bottom-up village level plan for promoting climate resilient livelihood options among the communities of the selected development blocks.
- E. (iii). Started a new project 'Innovating sustainable solutions for communities to adapt to the impact of the multiple hazards of water scarcity, human-elephant conflict and climate change: A community-based intervention in the Udalguri District, Assam, India from January 2025. The project is funded by the LIC Housing Finance Limited, Mumbai. This is a collaborative initiative of the WATCH and the ERCD Division.
- F. Summary: The main purpose of the project is to work for innovative and sustainable solutions for communities of the selected villages in Udalguri District to enable them to reduce the risk of water scarcity, human-elephant conflict (HEC) and climate change. The project is being implemented in 29 villages of the Bhergaon, Udalguri, and Majbat Development Blocks of the Udalguri District, which is recognized as an Aspirational District of Assam. Other important objectives are to promote sustainable and climate resilient alternative livelihood sources specific to the study area with alignment to existing government schemes, subsidies and projects and strengthen current practices of communities to adapt better to climatic impacts through awareness, education and training

## 5. **INTERNSHIPS/VOLUNTEERS**

Name: Ms. Anouska Tamuli

Position: Pre-Doctoral Intern

Qualification: M.A. (Archaeology and Heritage Management), 2020

Delhi Institute of Heritage Research and Management

Guru Gobind Singh Indraprastha University, Delhi

Tenure: February 1 to June 30, 2024

Topic: ‘Culture, Environment and resilience: An Exploratory Study in selected ethnic Villages of Majuli District’.

## 6. PUBLICATIONS

### Technical reports

Das, P.J and Das, A.K. (2024). ‘Mapping riverbank erosion and assessing its impact on socio-economy and livelihood of people in selected villages in Lakhimpur and Majuli District, Assam: A case study for sustainable policy intervention to improve disaster and climate resilience of vulnerable communities’, Study Report on Riverbank Erosion, Published by People’s Action for Development (PAD), Gogamukh, Dhemaji District, Assam. p. 148.

Das, P.J. et al. (2024). ‘Dying rivers of Assam: A study on degradation of selected rivers and riverine ecosystems in the Brahmaputra Valley for developing a community-based action plan for their rejuvenation’ Technical Report, Phase-II submitted to the ‘State Innovation and Transformation Ayog (SITA)’, Government of Assam in October 2024. Link: [chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://sita.assam.gov.in/sites/default/files/swf\\_utility\\_folder/departments/sita\\_medhassu\\_in\\_oid\\_4/portlet/level\\_1/files/report\\_dying\\_rivers\\_of\\_assam.pdf](chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://sita.assam.gov.in/sites/default/files/swf_utility_folder/departments/sita_medhassu_in_oid_4/portlet/level_1/files/report_dying_rivers_of_assam.pdf).

### Seminar/Conference Proceedings

Das, P.J. and Koch, J. (2025). ‘Urban Flooding in Guwahati City, Assam: A bottom-up perspective’. Technical Volume cum Souvenir, Senior Engineers Forum-North East Region, Guwahati, published on the occasion of its 21st Foundation Day celebrated on February 20, 2025.

Das, P.J. and Mitra, A.K. (2025). Flash floods in the Brahmaputra River Basin in India: Genesis, characteristics and management. Technical Volume cum Souvenir, published by the Institutions of Engineer, Assam State Chapter on the occasion of the celebration of the World Water Day 2025 held at the Auditorium, Institutions of Engineer, Assam State Chapter, Panbazar.

### Popular Articles

অসমৰ পৰিবেশ সংৰক্ষণৰ প্ৰাথমিক কৰণীয়, দৈনিক দৈনিক অসম, ১ জানুৱাৰী ২০২৫

## 7. CONFERENCES/WORKSHOPS/TRAININGS/TALKS

### Attended/Presented

- Dr. Partha J Das attended a national conference on ‘Freshwater Ecosystem Conservation: Status, Needs and Future Actions’ held at the Fairfield by Marriott, New Town, Kolkata on 20-21 April 2024. The conference was organised by the Alliance for Conserving Freshwater Ecosystems) and IISER Kolkata. He made a presentation on ‘Degeneration of freshwater ecosystems and consequences for their socioecological characteristics: The case of Deepor Beel, Assam’ on April 20, 2024.
- Dr. Partha J Das attended the ‘One-Day Consultation on Riverbank erosion in Assam with special reference to a Technical Report published by PAD’ on 24th April 2024 at the Inspiration Building, Don Bosco Institute Kharghuli, Guwahati Assam. Dr. Das was the key note speaker in this program and he delivered two presentations: the first one on ‘Riverbank Erosion in Assam with special focus on the Brahmaputra River Valley: An Introduction’ and the second one on ‘Mapping riverbank erosion and assessing its impact on socio-economy and livelihood of people in selected villages in Lakhimpur and Majuli District, Assam: A case study for sustainable policy intervention to improve disaster and climate resilience of vulnerable communities’.

- On May 9, 2024, PJ Das delivered an invited talk on ‘Exploring the water-climate-hazard-nexus for sustainable development and human wellbeing: Aaranyak’s initiatives in the Brahmaputra River Basin, NE India’ at the FREMAA (Flood and River Erosion Management Agency, Assam), GoA before its senior officials, engineers, scientists and other professional staff.
- PJ Das participated in the ‘International Scientific Networking Workshop on Climate Change Adaptation in India: Emerging Perspectives, Practices and Ideas’ organised by GIZ-India at the Hotel Lalit, New Delhi on 16 – 17 May 2024. He delivered a presentation on ‘Water Management and Adaptation: Experiences from the Brahmaputra River Basin, Northeast India’ on the first day of the conference.
- Dr. Partha Jyoti Das participated in an Invited Lecture Programme held at the seminar room of the Department of Environmental Science, Gauhati University on 5th June 2024. The programme was organized jointly by the Department of Environmental Science and the Society for Environmental Protection, Education, and Research (SEPER) celebrating the World Environment Day. Dr. Das delivered an invited talk on the topic ‘Restoration of Degraded Landscapes for Present and Future Generations’.
- On June 5, 2024, Dr Partha J Das took part in a talk Show in Doordarshan Guwahati in the program called ‘Prekhyapat’ on the theme, weather and climatic anomalies and our rivers in Assam.
- Dr. Partha J Das attended the ‘Regional conference on NbS: A workshop on riverbank erosion management, embankment stabilization, flood risk reduction at Brahmaputra River and creating buffer space for wetlands’ 11-12 June 2024 at the Assam Water Centre, Guwahati. The conference was organised by the Water Resources Department, GoA; the Flood and River Erosion Management Agency, Assam (FREMAA) and Assam Agro-Forestry Development Board (AADB). Dr. Das delivered a presentation on ‘NbS approaches: Ecological, social, and economic benefits-Learning from case studies in India and Nepal.’
- Dr. Partha J Das participated in the ‘Northeast Water Talk Training, June 21-28, 2024, held at the Dibrugarh University on June 25-27, 2024. He delivered an invited talk on ‘Understanding the climate-hazard-development nexus in the context of NE India with special reference to Assam’ on 26th June 2023. The program was organised by the Northeast Water Talk and the Centre for Study on Social Work, Dibrugarh University at the Indira Miri Hall, DU.
- On July 05, 2024, Dr. Partha J Das delivered an invited talk on ‘Climate Change across NE India and its implications on urbanscapes /urbanization: The context of Extreme Events’ in the Conclave on Climate Change and Urbanization in the North East organised by Action Aid and NEADS on July 5-6, 2024. At the IIBM, Guwahati.
- On July 17, 2024, Dr. Partha Jyoti Das attended the ‘Stakeholder meeting for the YarlungZangbo-Brahmaputra Basin Network’ in online mode. The event was organised by ICIMOD, Nepal at Dhaka, Bangladesh in the Surma Hall, Pan Pacific Sonargaon Dhaka, Bangladesh. Dr. Das briefly spoke about various transboundary water cooperation issues in jet Indian part of the Brahmaputra basin.
- On July 25, 2024, Partha J Das attended a meeting organised by the Asom Jatiyatabadi Yuva Chatra Parishad (AJYCP) on the flood issue of Assam at the Madhav Dev Prekhyagriha of the SankardevKalakhetra, Guwahati. He delivered an invited talk on the ‘Challenges of managing flood and erosion in Assam’. Dr. Das highlighted the lacunae in estimation of loss and damage caused by flooding based on which compensations are sought from the Central Government. He stressed on preparing the outline and master plan for addressing the chronic flood and erosion problem of Assam. He also emphasised that since the Brahmaputra River has been declared as a National Water Way, the flood and erosion problems of Assam originating from the Brahmaputra River should also be considered as a national disaster.
- On July 16, 2024, Dr. Partha J Das participated in the recording of a discussion program on the topic ‘Rejuvenation of the River Kolong: Can it be a reality or will it remain a dream?’ in the Nagaon

Radio Centre (Akashvani Nagaon). The program was anchored by Sri Chidananda Goswami, former Centre Director, Akashvani Nagaon.

- On August 09, 2024, a team of 10 researchers from Aaranyak participated in the district level workshop on 'Seasonal Livelihood Mapping and Community-based Participatory Planning' at the conference hall of the Zila Parishad, Nagaon District on August 9, 2024. The workshop was organised jointly by the United Nations-World Food Programme (UN-WFP) and the Department of Agriculture, Government of Assam with support from the Nagaon District Administration.
- On August 19 2024 Partha J Das delivered a lecture online on the 'Basic characteristics of the Brahmaputra River, India' to students of the Dibrugarh University pursuing the inter disciplinary course on the Brahmaputra Studies.
- On September 6, 2024, Partha J Das delivered an invited talk at the Sonapur College, Kamrup Metropolitan District, where he delivered a talk on the 'Brahmaputra River: its natural and cultural heritage'. The program was organised by the Ank-A Creative Line in collaboration with the Sonapur College and Aaranyak as part of the BullungBhuthur International Theatre Festival.
- On September 7, 2024, Partha J Das delivered an invited talk at the J.N. College, Boko, Kamrup District, where he delivered a talk on the 'Brahmaputra River: its natural and cultural heritage'. The program was organised by the Ank-A Creative Line in collaboration with the Boko College and Aaranyak as part of the BullungBhuthur International Theatre Festival.
- On September 26, 2024, Partha J Das attended the 'International Conference on Ecosystem and Wildlives of Assam', 26 and 27 September 2024 organised by Nowgong Girls' College, at the Chinta Jroni Kaksha. Dr. Das delivered a presentation on 'Water governance in Assam: Issues, challenges and way forward'.
- On October 8, 2024, Dr. Partha J Das took part in the 'All Partners Meet' organised by the ZRS, AAU an. the WFP at the conference hall of the Zonal Research Station, of the Assam Agricultural University at Shillongoni, Nagaon. Dr. Das delivered a presentation on the progress of the project that Aaranyak was doing for the WFP.
- On November 20, 2024, Partha J Das delivered an invited talk in online mode on 'Understanding the climate-hazard-development nexus and its implications in the context of NE India' to the students and faculty members of the Special Centre for the Northeast India Research Cluster on Energy and Environment Jawaharlal Nehru University, New Delhi
- Partha J Das delivered a lecture in the Centre for Atmospheric Study, Dibrugarh University on 21 and 22.11.2024 on the topic 'Concepts of adaptation & Resilience to climate change: The context of the Brahmaputra River Valley, Assam'. The presentation was given in two parts in two days.
- Partha J Das participated in the Annual Meeting of the HKH DRR Hub on December 9-10, 2024, held at the ICIMOD, Kathmandu, on 'Building Safer HKH through Early Warnings. He delivered a presentation on Community-based monitoring and reporting of hazards: The case of CB-FEWS in the Brahmaputra River Basin, Assam (2010-2027)' in the Session-2 on 'Enhancing detection and monitoring of hazards through innovations in observations and forecasting' addressing the Pillar 2 'Detection, observations, monitoring, analysis and forecasting of hazards.
- Mr. Hemanta Phukan(Research Associate, WTCH Division) and Ms. Kakali Sarma(Program Associate), WATCH Division participated in the training program on 'Water Literacy – A Pertinent Issue' organised by the and at the North Eastern Regional Institute Of Water And Land Management, Tezpur sponsored by the National Water Mission, Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti during 4th-6th December 2024.
- Partha J Das delivered a lecture on 18-th December 2024 in the Refresher Course on 'Environmental Studies, Disaster Management and Emergency Response' Organised by and at the UGC-MMTTC, Gauhati University on the topic 'Hydroclimatic Hazards in NE India: Causes, consequences and management'.

- On January 21, 2025, Partha J Das took part in the Workshop for High School Students on ‘In the realm of digital technology: Climate Change and Disaster Awareness’, organised by the IEEE Kolkata Section and the department of Information Technology, Gauhati University at the GUIST (Gauhati University Institute of Science and Technology) Seminar Hall. He delivered the main lecture on the topic ‘In the realm of digital technology: Climate Change and Disaster Awareness.
- On February 1, 2025, Partha J Das spoke as a moderator in the webinar ‘At the Water’s Edge: How Weak Institutionalism Will Weaken Sustainable Futures of the Brahmaputra’ organised by the ‘Water Conflicts Forum’, Pune at 4.00-6.00 PM. Ms. Kakali Sarma and Mr. Hemanta Phukon of the WATCH Division also attended the meeting. (Link: <https://www.facebook.com/share/v/1DBoQG13iR/>)
- On February 6, 2025, Partha J Das attended the ‘20th Regional Co-ordination Committee (RCC) Meeting’ of the National Institute of Hydrology-North Eastern Regional Centre (NIH-NERC), Guwahati in the Conference Hall, Brahmaputra Board, Guwahati. He spoke on the topic ‘Need of information, data and capacity building the water sector for the civil society organizations in NE India’.
- On February 20, 2025, Partha J Das attended the program of celebration of the 21st Foundation Day of the Senior Engineers Forum where he delivered a presentation on ‘Urban Flooding in Guwahati City, Assam: A bottom-up perspective’ at the Institution of Engineers, Assam State Centre, Panbazar.
- On February 25, 2025, Partha J Das participated in the program ‘Global Green Gathering’ organised by the ACCMS (Assam Climate Change Management Society), Government of Assam as a part of the ‘Advantage Assam 2.0. The Global Investors Summit’. He delivered an invited to talk on ‘Community-led Water Management’.
- On February 27, 2025, Partha J Das attended a webinar on ‘Governance of hydroclimatic extremes in South Asia and Europe’ which was organised by the Demotape Project in collaboration with IIT Guwahati during 2.30-4.30 PM IST. Dr. Das presented his views on the importance of early warning of floods in the rivers of the Brahmaputra Basin.
- On March 19, 2025, Partha J Das delivered an invited lecture on ‘From Environmental Justice to Climate Justice: An Introduction’ in the Centre for Social Work Studies, Dibrugarh University.
- On March 20, 2025, Partha J Das delivered an invited lecture on ‘Chinese intervention on the Brahmaputra River: Science, geopolitics and transboundary water cooperation’ in the Department of Political Science, Dibrugarh University.
- On March 21, 2025, Partha J Das delivered an invited lecture on ‘Northeast India: Environment, Climate and Hazards’ in the Department of Sociology, Dibrugarh University.

#### Organised/Co-organised

- A ‘District Level Stakeholder Consultation on Integrated Management’ of the Doloni Beel was held on April 6, 2024, in the conference hall of the District Commissioner’s Office in Bongaigaon district of Assam. The meeting was convened jointly by the Bongaigaon District Administration, and Aaranyak. Bongaigaon District Commissioner Nabadeep Pathak, IAS chaired the meeting where Additional District Commissioner Apurba Nath, ACS was the Co-chair.

The purpose of the consultation meeting was to sensitize stakeholders about the salient findings of the assessment that Aaranyak has done on the Doloni Beel and share the major recommendations for the integrated wetland management plan (IWMP) that is under preparation.

- The WATCH Division co-organised the First Arun Roy Memorial Lecture on the theme ‘Riverine Navigation, Transport and Trade in North East India’ on July 07, 2024, in collaboration with the

Department of Humanities and Social Sciences, IIT Guwahati and the Northeast India Water Forum at the Conference Hall, Institution of Engineers, Assam State Centre, Panbazar, Guwahati.

The memorial lecture was delivered by Dr. Veena Vidyadharan, Fellow, CUTS Centre for International Trade, Economics & Environment (CUTS CITEE), Jaipur, Rajasthan on the Topic ‘Inland Water Transport: Challenges and Opportunities in the context of the Brahmaputra’

- On August 10 2024, we organised an ‘Orientation Program on Seasonal Livelihood Mapping (SLM) and Community-Based Participatory Planning (CBPP)’ under Project ENACT – Assam (‘Enhancing Climate Adaptation of Vulnerable Communities through Nature-based Solutions and Gender-transformative approaches) in Nagaon District of Assam, India’ in collaboration with the World Food Programme (WFP) at the Conference Hall, Hotel Bidisha, Sankardev Mandir Road, Nagaon-782001.
- On August 29, 2024, we organised a Block level workshop on ‘Seasonal Livelihood Mapping (SLM) and Community-Based Participatory Planning (CBPP) for the Kathiatoli Block’ at the meeting hall of the Nij Kathiatoli Panchayat office, Nagaon District in association with the World Food Programme (WFP), The Department of Agriculture, Government of Assam and the Office of the BDO, Kathiatoli Block.
- On August 30, 2024, we organised a Block level workshop on ‘Seasonal Livelihood Mapping (SLM) and Community-Based Participatory Planning (CBPP) for the Pakhimoria Block’ at the meeting hall of the Dighali Ati Panchayat office, Nagaon District in association with the World Food Programme (WFP), The Department of Agriculture, Government of Assam and the Office of the BDO, Pakhimoria Block.
- On September 2, 2024, we organised a Block level workshop on ‘Seasonal Livelihood Mapping (SLM) and Community-Based Participatory Planning (CBPP) for the Raha Block’ at the meeting hall of the Dighali Ati Panchayat office, Nagaon District in association with the World Food Programme (WFP), The Department of Agriculture, Government of Assam and the Office of the BDO, Raha Block.
- The WATCH Division, Aaranyak joined hands with the Department of Environmental Science, Gauhati University to celebrate and co-organise the World Meteorological Day (WMD) on March 23, 2024 at the Seminar Hall, GU. The event was inaugurated by the Chief Guest, Professor Nani Gopal Mahanta, Hon’ble Vice Chancellor of GU. Mr. K N Mohan, Head, Regional Meteorological Centre, India Meteorological Department (IMD), Government of India graced the occasion as the keynote speaker. A panel discussion was also held on the occasion on the topic ‘Importance of Promoting the Science of Meteorology for Societal Well-being in Northeast India’. The panelists who took part in the discussion were: (i) Prof. Dhrubajyoti Saharia, Dept. of Geography, Gauhati University; (ii) Dr. Bulbuli Khanikar, Assistant Professor, Dept. of Zoology, Gauhati University; (iii) Dr. Hirakjyoti Goswami, Assistant Professor, Dept. of Physics, Gauhati University; and (iv) Mr. K N Mohan, Scientist G and Head, Regional Meteorological Centre, India Meteorological Department, Ministry of Earth Sciences, Government of India. The panel was moderated by Dr. Partha J Das, Senior Environmental Scientist of Aaranyak.

## **Wildlife Genetics Division (WGD)**

In 2028, the Wildlife Genetics Laboratory of Aaranyak was established, which marked the beginning of WGD. The laboratory has been conducting significant conservation genetic research initiatives in India and abroad. This includes the generation of DNA databases for lesser-known species and population genetic research on a variety of threatened species to recommend the management of key populations. Moreover, the laboratory aids a variety of law enforcement agencies in the forensic DNA analysis of wildlife criminal cases, thereby contributing to a rise in the conviction rate in court.



## **1. Research & Conservation**

### **A. Species Research & Conservation**

Wildlife Genetics Laboratory undertook several population genetic research projects on Western hoolock gibbon and Asian elephant in northeast India, primarily to identify genetic source populations, understand genetic diversity and barriers to gene flow amongst populations.

Landscape genetic work on gibbons is an ongoing project, where fecal sampling of the species from various populations was undertaken and genetic in form of DNA sequences and microsatellite genotypes have been generated. DNA markers for identification of species, gender and individuals of the species from fecal samples have been developed and optimized. The laboratory is also investigating physiological stress in gibbons in various populations due to anthropogenic influence, through enzyme immunoassay-based analysis of stress hormones from the fecal samples.

A major project on landscape genetics of Asian elephants was completed during this period, that investigated the 5 major reported source populations in the northeast and found that the region primarily has 4 major source populations of elephants.

WGD, in collaboration with Elephant Research & Conservation Division and Geospatial Technology & Application Division of Aaranyak, undertook a rapid assessment of landscape level corridor connectivity of elephants in the state of Meghalaya and have identified various genetic source and sub-populations and the role of the corridors in providing genetic connectivity in the area.

The laboratory also worked on phylogenetic assessment of macaques in the Eastern Arunachal Pradesh as part of a Ph.D. research work and have made significant progress in the understanding of the evolution and population genetic structuring of various macaque species of the Sinica group in the region.

In addition to the above, the laboratory undertook several research studies to develop and optimize genetic markers useful in forensic DNA investigations of various wildlife species.

## **1. RESEARCH AND CONSERVATION**

### **B. Habitat Research & Conservation**

WGD as part of a major project titled “Conduct Multi-scale Approach to Adaptive Landscape Management and Conservation Planning in Assam” has been developing a Species Management Plan for Critically Endangered, White-bellied Heron (*Ardea insignis*) in Assam. As part of this work, WGD undertook studies on the species habitat in several parts of Assam and conducted surveys to understand peoples’ perception towards the species and its conservation.

## **2. Complementing Conservation Efforts**

Wildlife Genetics Laboratory provides forensic DNA analysis assistance to Assam Forest Department and Assam Police on the following wildlife cases:

- a. Wildlife Genetics Laboratory, Aaranyak provided support to the Divisional Forest Officer, Digboi Division, Assam in forensic DNA analysis-based parentage analysis of Elephant (*Elephas maximus*) samples.
- b. Wildlife Genetics Laboratory, Aaranyak provided support to the Divisional Forest Officer, Digboi Division, Assam in forensic DNA analysis-based identification of wildlife species from a suspected tiger sample.
- c. Wildlife Genetics Laboratory, Aaranyak provided support to the Office of Range Forest Officer, Pobitora Wildlife Sanctuary, Mayong, Morigaon in forensic DNA analysis-based confirmation of species identity of seized articles. (Report for two cases has been delivered during April 2024 to March 2025 for species ID)
- d. Wildlife Genetics Laboratory, Aaranyak provided support to the Raimona National Park authority in forensic DNA analysis-based identification of wildlife species from various seized articles. (Report for two cases has been delivered during April 2024 to March 2025 for species ID)
- e. Wildlife Genetics Laboratory, Aaranyak provided support to the Superintendent of Police, Baksa, Mushalpur, Assam, in forensic DNA analysis-based identification of a suspected Rhino (*Rhinoceros unicornis*) horn.

f. Wildlife Genetics Laboratory, Aaranyak provided support to the Range Forest Officer, Jorhat Range, Assam in forensic DNA analysis-based identification of turtle species (*Nilssoniahurum*) from seized wildlife article.



### 3. IMPACTS

a. The Wildlife Genetics Laboratory provided essential forensic DNA evidence in eight wildlife cases in Assam during the year, thereby aiding the Forest Department and the Police in improving the rate of conviction in court and assisting protected area managers in conservation planning.

3. SUCCESS STORY (Please provide information on success stories, which may be beyond project activities as well)

a. Wildlife Genetics Laboratory, acting as the sole service provider in wildlife DNA forensic analysis in northeast India, extending its assistance to Assam Forest Department and Assam Police, which is expected to be instrumental in wildlife crime mitigation in the state in the coming years.

b. Wildlife Genetics Laboratory was successful in identifying the major source populations and sub-populations of elephants in Meghalaya and thereby suggest management interventions for better management of corridors to maintain genetic and demographic connectivity in the state.

c. Wildlife Genetics Laboratory has successfully developed and optimized DNA markers for species, gender and individual identification of Western hoolock gibbons from fecal samples.

#### **4. INTERNSHIPS/VOLUNTEERS**

a. Manoranjan Khundrakpam, from Christ University, Bangalore, has completed his internship on the topic “Landscape approach to conservation of Asian Elephants in Northeast India”. pp 1-18.

#### **5. ROADMAP TO FUTURE**

a. To continue providing wildlife forensic DNA analysis support to the state Forest Departments in Northeast India as well as other law enforcement agencies and build capacity of local field officers in proper collection of forensic DNA evidence for aiding in wildlife crime investigations and develop Wildlife Genetics Laboratory as a state-of-the-art facility in northeast India for this purpose.

b. To aid in landscape level planning for conservation of threatened species such as Asian elephant and hoolock gibbon in northeast India through genetic studies.

c. To aid in landscape level identification, monitoring and restoration of genetic corridors for key wildlife species in northeast India.

#### **6. PUBLICATIONS**

##### Technical reports

a. Forensic Report. 2024. Forensic DNA analysis for determining biological relationship (parentage analysis) of Elephant from two blood samples. Wildlife Genetics Laboratory, Aaranyak. Report submitted to Divisional Forest Officer, Digboi Division, Digboi, Assam. 1-26 pp.

b. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a suspected Tiger (*Panthera tigris*) scat sample. Report submitted to Divisional Forest Officer, Digboi Division, Digboi, Assam. 1-6 pp.

c. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a hair and a tissue sample. Report submitted to Range Forest Officer, Pobitora Wildlife Sanctuary, Mayong, Morigaon, Assam. 1-7 pp.

d. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a jaw and two tissue samples. Report submitted to Range Forest Officer, Pobitora Wildlife Sanctuary, Mayong, Morigaon, Assam. 1-10 pp.

e. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a tissue sample, suspected as Spotted deer (*Axis axis*). Wildlife Genetics Laboratory, Aaranyak. Report submitted to Range Forest Officer, Sanfan Range, Kachugaon, Assam. 1-11 pp.

- f. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a tissue sample, suspected as Wild boar (*Sus scrofa*). Wildlife Genetics Laboratory, Aaranyak. Report submitted to the Range Forest Officer, Sanfan Range, Kachugaon, Assam. 1-12 pp.
- g. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a horn sample, suspected as Rhino (*Rhinoceros unicornis*) horn. Wildlife Genetics Laboratory, Aaranyak. Report submitted to the Superintendent of Police, Baksa, Mushalpur, Assam. 1-14 pp.
- h. Forensic Report. 2024. Forensic DNA analysis for confirmation of species identity of a Turtle species (*Nilssoniahurum*). Wildlife Genetics Laboratory, Aaranyak. Report submitted to the Range Forest Officer, Jorhat Range, Jorhat, Assam. pp 1-7.

## **7. Memberships**

Udayan Borthakur

- a. Member, IUCN SSC Asian Rhino Specialist Group
- b. Member, IUCN SSC Heron Specialist Group
- c. Member, Nikon Professional Services

## **3. Our Footprints**

- a. Balpakram National Park, Meghalaya
- b. Nongkhyllem WLS, Meghalaya
- c. Garbhanga RF, Assam
- d. Goalpara, Assam
- e. Kaziranga National Park, Assam
- f. Manas National Park, Assam
- g. Raimona national Park, Assam
- h. Pobitora Wildlife Sanctuary
- i. Jorhat, Assam
- j. Digboi Division, Assam

## **8. Contact Address/ Personnel**

Udayan Borthakur

Head, Wildlife Genetics Division

Email: udayan@aaranyak.org, udayan.borthakur@gmail.com

Phone: +91 9435728717

## 9. Acknowledgements

- a. Ministry of Environment, Forests & Climate Change, Govt. of India
- b. Assam Forest Department
- c. Arunachal Pradesh Forest Department
- d. Meghalaya Forest Department
- e. Assam Police
- f. US Fish & Wildlife Service
- g. The Habitat Trust
- h. Assam Project on Forest and Biodiversity Conservation

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# STAFFLIST

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(1<sup>ST</sup> APRIL 2024 TO 31<sup>ST</sup> MARCH 2025)

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### **Admin & Accounts Division**

- Dr. Bibhab Kumar Talukdar

Scientist G, Secretary General & CEO

Mrs. Mridusmrita Devi

Head of Operations

Mrs. Bobby Nath

Senior Manager-Administration

Mr. Bhaskar Sarkar

Senior Manager, Accounts

Mr. Tapash Mahanta

Deputy Manager

Mr. Suranjan Sarma

Executive Coordinator

Mr. Pranab Goswami

Organising officer

Mr. Jayanta Gogoi

Assistant Accounts Manager

Mr. Nripen Kumar Nath

Senior Office Executive (Operation)

Mr. Gunajit Mazumdar

PR Executive

Mr. Hriday Jyoti Ojha

Accounts Associate

Mr. Akash Kakati

Office Executive-Administration

Mr. Anupam Sarma

Accountant

Mr. Pritom Kalita

Junior Accounts Assistant

Mrs. Lalita Hazarika

Office Assistant

Mr. Nayanmani Sarma

Office Assistant

Mr. Siva Sarkar

Office Assistant

Mr. Sudarshan Chakraborty

Office Assistant

Anurag Bora

Office Assistant

Mr. Jitu Daimary

Field Assistant-Logistics

Mr. Moni Kumar Haloi

Field Assistant cum Watchman

Mrs. Devi Das

Field Assistant-Logistics

Mrs. Sajati Das

Field Assistant-Logistics

### **Avifauna Research & Conservation Division (ARCD)**

Dr. Purnima Devi Barman, Senior Project Manager, GASCP

Ms. Karishma Das

Project Officer

Ms. Barasha Rani Das

Project Officer

### **Conservation & Livelihood Division (CLD)**

Dr. Bibhuti Prasad Lahkar

Scientist E & Head

Mr. Manas Kumar Bhattacharjya

Senior Manager

Mr. Swapan Kumar Das

Project Coordinator

Mr. Bijay Basumatary

Community Coordinator

Mr. Sangsar Basumatary

Community Coordinator

Ms. Bornali Baro

Community Coordinator

Mr. Pankaj Das

Field Assistant

### **Elephant Research and Conservation Division (ERCD)**

Dr. Bibhuti Prasad Lahkar

Scientist E & Head

Mr. Hiten Baishya

Deputy Head

Dr. Alolika Sinha

Senior Manager

Md. Zakir Islam Bora

Assistant Manager

Mr. Abhijit Boruah

Project Coordinator

Mr. Anjan Chandra Baruah

Program Coordinator

Mr. Rubul Tanti

Project Officer

Mr. Niranjan Bhuyan

Field Coordinator

Ms. Rabiya Daimari

Field Coordinator

Ms. Anushka Saikia

Field Biologist

Mr. Imon Abedin

Biologist

Mr. Jyotibrata Mahanta

Biologist

Ms. Rimpee Moran

Project Officer

Ms. Bidisha Borah

Project Officer

Mr. Nipul Chakma

Project Officer

Mr. Jiban Kumar Chetry

Project Assistant

Mr. Pranjal Deka

Project Assistant

Mr. Pranjit Borah

Project Assistant

Mr. Tibrajyoti Gogoi

Project Assistant

Mr. Ejaj Ahmed

Project Assistant

Mr. Abhijit Saikia

Project Assistant

Mr. Mondeep Basumatary

Project Assistant

Ms. Abhilasha Boruah

Assistant Project Officer

Mr. Sumit Dey

Accounts Assistant

Mr. Monjit Das

Senior Field Assistant

Mr. Ripunjoy Kumar Nath

Field Assistant

Mr. Dibakar Nayak

Field Assistant

Ms. Tonmoi Priya Gogoi

Field Assistant

Mr. Dhantu Gogoi

Field Assistant

Mr. Chiranjib Kalita

Field Assistant

Mr. Ananta Dutta

Field Assistant

Mr. Jonak Boruah

Field Assistant

Mr. LakhinathTaid

Field Assistant

Mr. Subhashchandra Rabha

Field Assistant

Mr. Didom Daimari

Field Coordinator

Mr. Debojit Gogoi

Field Assistant

Mr. Bikash Tossa

Field Assistant

Mr. Jaugashar Basumatary

Field Assistant

Mr. Deepjyoti Buragohain

Field Assistant

Mr. Digonta Saikia

Field Assistant

Rahit Chandra Nath

Field Assistant

Mr. Bineswar Daimari

Nursery Caretaker

Mr. Pradeep Barman

Driver

Mr. Bijoy Kalita

Driver

Mr. Rupam Goyari, Driver cum Field Assistant

Mr. Jiaur Rahman

Driver cum Field Assistant

**Environment Education & Capacity Building Division (EECBD)**

Mr. Jayanta Kumar Pathak

Senior Manager

Mrs. Banasree Sharma

Assistant Manager

Ms. Wasima Begum

Environmental Facilitator

Mr. Tikendrajit Gogoi

Project Officer

Mr. Dipankar Haloi

Project Officer

Mr. Haben Moshahary

Field Assistant

**Gangetic Dolphin Research & Conservation Division (GDRCD)**

Dr. Abdul Wakid

Honorary Head

Mr. Manoj Kumar Das

Project Officer

Mr. Binod Borgohain

Engine Man

Md. Noor Islam,

Driver cum Field Assistant

Mr. Dilip Majhi

Helmsman

### **Geospatial Technology & Application Division (GTAD)**

Mr. Arup Kumar Das, Senior Manager

Ms. Madhumita Borthakur

Assistant Manager

Mr. Avishek Sarkar

GIS Analyst

Ms. Shivani Khalote

Project Officer

### **Herpetofauna Research & Conservation Division (HRCD)**

Dr. Firoz Ahmed

Scientist F, Head

Dr. Jayanta Kumar Roy

Manager

- Ms. Nibedita Talukdar

Project Officer (Trainee)

- Mr. Rupankar Bhattacharjee

Assistant Project Officer cum Office Assistant

**Legal and Advocacy Division (LAD)**

- Dr. Bibhab Kumar Talukdar

Scientist G, Head

- Dr. Jimmy Borah

Senior Manager

- Ms. Binita Baruwati

Deputy Manager

- Ms. Ivy Farheen Hussain

Senior Project Officer

- Mr. Rounak Emmanuel Dean

Senior Project Officer Analyst

- Mr. Mukesh Kherkatary

Project Officer

- Mr. Bijet Baro, Assistant Project Officer

- Mr. Mizing Boro, Assistant Project Officer

Mr. Kartik Thevar

Senior Coordinator

Mr. Anil Kumar Das

Coordinator

Mr. Goura Baidya

Deputy Coordinator

Mr. Nirmal Kalita

Assistant Coordinator

Mr. Biswajit Tiwari

Intelligence Assistant

Mr. Sanatan Mali

Senior Dog Handler

Mr. Rahul Das

Dog Handler

Mr. Rupak Jyoti Bora

Dog Handler

Mr. Mrigen Das

Junior Dog Handler

Mr. Bhiraj Deka

Junior Dog Handler

Mr. DhurajyotiThakuria

Junior Dog Handler

Mr. Rupak Das

Junior Dog Handler

Mr. Shailendra Daimary

Dog Handler (Trainee)

Mr. Jayanta Kalita

Assistant Dog Handler

Mr. Lalvohbika

Field Assistant

Mr. Lakhi Ram Boro

Driver cum Field Assistant

Mr. Dhananjoy Mashahary

Field Assistant

### **Media Publication and Communication Division**

Mr. Udyan Borthakur

Scientist E, Head

Ms. Munmita Baruah

Manager

Mr. Chinmoy Swargiary

Documentation & Production Officer

**Primate Research and Conservation Division (PRCD)**

Dr. Dilip Chetry

Scientist E, Head

Mr. Akshay Kumar Upadhyaya

Research Fellow

Mr. Simanta Medhi

Project Assistant

Mr. Pitam Jyoti Gore

Project Assistant

Mr. Ranjit Saikia

Field Assistant

Mr. Jibon Chandra Bora

Field Assistant

Mr. Lalit Saikia

Field Assistant

Mr. Jiten Gogoi

Field Assistant

Mr. Probin Bhuyan

Site Assistant

**Rhino Research and Conservation Division (RRCD)**

Dr. Bibhab Kumar Talukdar

Scientist G, Head

Dr. Deba Kumar Dutta

Senior Manager

Md. Arif Hussain

Manager

Ms. Kakali Baishya

Researcher

Mr. Ujjal Bayan

Researcher

Mr. Dulal Das

Driver cum Field Assistant

Mr. Mantu Boro

Animal Keeper

**Threatened Species Recovery Programme (TSRP)**

Dr. Parag Jyoti Deka

Programme Manager

Dr. Leons Mathew Abraham

Captive Breeding Manager

Mr. Jonmani Kalita, Jr. Field Biologist

Mr. Koushik Rajbongshi, Junior Field Biologist

Dr. Debjani Borah

Community Biosecurity Project Officer

Genius Teron

Program Coordinator

Mr. Ajay Kumar Das, Logistic coordinator

Mr. Arunava Gupta

Community Co-ordinator

Ms. Monica Basumatary

Assistant Community Coordinator

Ms. Karishma Sharma Chamlagain

Junior Field Biologist

Mr. Hirak Jyoti Das

Junior Research Assistant

Mr. Karan Barman

Research Assistant

Mr. Dwipendra Narayan Dev

Sr. Field Assistant

Mr. Bhaben Hazarika

Site Coordinator (Grade I)

Mr. Kishur Payeng

Site Assistant

Mr. Raju Mili

Site Assistant

Mr. Amal Deka

Community Facilitator

Ms. Monora Begum

Animal Keeper

Mr. Raju Das

Field Assistant

Mr. Nirranjan Barman

Junior Field Assistant

Mr. Tulshi Nath

Senior Animal keeper

Mr. Lutar Ch. Marak

Animal Keeper

- Mr. Grikseng Chandra Marak

Animal Keeper

- Mr. Nipen Kro

Assistant Animal Keeper

- Mr. Kalpajyoti Barman

Assistant Animal Keeper

- Mr. Santosh Basumatary

Assistant Animal Keeper

- Mr. Dhon Chetry

Junior Animal Keeper

- Mr. Rudra Gogoi

Junior Animal Keeper

### **Tiger Research and Conservation Division (TRCD)**

- Dr. M Firoz Ahmed

Scientist F, Head

- Mr. Jayanta Kumar Sarma

Senior Program Associate, NRMP

- Dr. Dipankar Lahkar

Senior Manager

Dr. Partha Sarathi Ghose

Project Coordinator

Mr. Sarlongjon Teron

Senior Project Officer, NRM

Mr. Sourav Gupta

Senior Project Officer

Mr. Uttarn Dutta

Assistant Manager

Ms. Gayatri Dutta

Project Officer

Mr. Nitul Kalita

Project Officer

Mr. Bhaskor Barukial

Project Officer -Logistics and Accounts

Mr. Binod Dewry, Project Officer- logistics

Ms. Leenthoi Laishram

Project Officer

Ms. Joshna Terangpi

Project Officer

Ms. Barnali Chakraborty

Project Officer (Trainee)

Ms. Momita Narzary

Project Officer

Ms. Karishma Saikia

Project Officer

Mr. Stephen Basumatary

Project Officer (Trainee)

Mr. Birdutta Baro,

Assistant Project Officer-Logistics

Mr. RangsinaPhangcho

Assistant Project Officer

Ms. Moromi Nath

Assistant Project Officer

Ms. Monisha Deb

Assistant Project Officer

Ms. Sushmita Baruah

Assistant Project Officer

Mr. Ratul Das, Assistant Project Officer

Ms. L Ria Rani Devi

Assistant Project Officer, Accounts

Mr. Saikhong Basumatary

Assistant Project Officer

Mr. Sunny Paul

Assistant Project Officer, (Trainee)

Mr. PurnoSingnar

Assistant Project Officer (Trainee)

Mr. Sarlongki Teron

Assistant Project Officer (Trainee)

Md. Majammil Haque,

Assistant project Officer cum Driver

Mr. Rahul Bey

Field Assistant

Mr. Prakash Ingti

Field Assistant

Mr. Rowel Engti, Field Assistant

Mr. Biswajit Basumatary

Field Assistant

Mr. MongalsingRangfar

Field Assistant

Mrs. Jonali Patra

Office Assistant

### **Water Climate and Hazards Division (WATCH)**

Dr. Partha Jyoti Das, Scientist E, Head

Mr. Hemanta Phukon

Project Officer

Ms. Kakali Sarma

Program Associate

Mr. Bistirna Burhagohain

Project Assistant

Mr. Ankur Barman

Field Assistant

Mr. Dipmoni Nath,

Driver cum Technical Field Assistant

### **Wildlife Genetics Division (WGD)**

Mr. Udayan Borthakur, Scientist E, Head

Mr. Nipan Kumar Gogoi

Assistant Manager

Ms. Rashmi Rani Boro

Senior Researcher

Mr. Partha Pratim Das

Biologist

Ms. Chandramika Nath

Project Assistant

Mr. Shohidul Islam

Driver cum Field Assistant

## **Financial report (2024-2025)**

# DHAWAN PANDEY & ASSOCIATES

## Chartered Accountants

House No. 50, 2<sup>nd</sup> Floor, Basistha Road, Survey, Beltola, Guwahati-781028.

Ph. No: - 94350-17438, E-mail: cabiswajitbaruah7@gmail.com

### AUDITOR'S REPORT

1. We have audited the attached Balance Sheet of AARANYAK, HOUSE NO 13, TAYEB ALI BYE LANE, BELTOLA TINIALI, BHETAPARA LINK ROAD, BELTOLA SO, GUWAHATI, KAMRUP METRO, 781028, ASSAM, as at 31<sup>st</sup> March 2025 and the Income & Expenditure Account and Receipts & Payments Account for the year ended on that date. These financial Statements are the responsibility of the management. Our responsibility is to express an opinion on these financial statements based on our audit.
2. We have conducted our audit in accordance with auditing and accounting standards generally accepted in India. These standards required that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of materials misstatements. An audit includes examining on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimate made by the institute, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinion.

Further we report that:

- a. We have obtained all the information and explanations, which to the best of our Knowledge and belief were necessary for the purpose of our audit.
- b. The Balance Sheet, Income & Expenditure & Receipts & Payments are in agreement with the Books of Account.
- c. In our opinion and to the best of our information and according to the explanations given to us, the said Balance Sheet, Income & Expenditure and Receipts & Payments account together with the Notes thereon give a true and fair view of the state of affairs of the Institute as on 31<sup>st</sup> March 2025.

For,

Dhawan Pandey & Associates  
Chartered Accountants



*Biswajit Baruah*

CA. Biswajit Baruah  
Partner

Membership No 063538  
FRN: 013617C

UDIN: 25063538BMNQLU9329

Place: Guwahati  
Date: 26.09.2025

**AARANYAK**  
**SAMANWOY PATH,SURVEY,BELTOLA,GUWAHATI-781028,DIST.KAMRUP,ASSAM.**

**CONSOLIDATED BALANCE SHEET AS ON 31ST MARCH 2025**

LIABILITIES	AMOUNT (₹)	ASSETS	AMOUNT (₹)	AMOUNT (₹)
<b>FUND ACCOUNT</b>				
<b>General Fund</b>		<b>Fixed Assets</b>		
Opening Balance	1,38,88,267.19	(As per annexure B)		5,09,70,731.01
Add: Surplus of Income over expenditure	1,88,40,594.09			
Less: Expenses incurred in projects out of Internal accruals subject to recovery	10,80,164.15	<b>Current Assets</b>		
Add: Expenses incurred out of Internal accruals in projects now recovered	11,87,988.15	<b>BANGCHIARY FUEL STATION ADVANCE</b>		<b>30,000.00</b>
		<b>SITA RECEIVABLE</b>		<b>54,965.00</b>
<b>Capital Fund out of Project Expenses</b>		<b>TDS &amp; TCS</b>		
Opening Balance	4,17,72,715.01	Tax deducted at Source	5,83,571.85	
Add: Additions during the year	14,48,613.00	TDS on Contract Receivable	519.00	
Less: Deduction during the year	11,68,641.00	Tax Deducted at Source Receivable	33,74,891.99	
		TDS on Rent Receivable	3,954.00	
		TCS Receivable	61,231.99	
<b>Unutilised Project Funds</b>		Tax Collected at Source	25,100.00	
(As per annexure A)				
		Less: Refunded AY 22-23 and 23-24	40,49,268.83	
<b>Loans and Advances:</b>			11,93,221.00	<b>28,56,047.83</b>
MCOE Earnest Money	20,000.00			
<b>Outstanding Liabilities:</b>		<b>Loans and Advances</b>		
<b>Provident Fund Employers' Contribution)</b>		Advance for Project Expenses		435356.44
O.B	59,696.00	(As per annexure C)		
Less: Paid during the year	59,696.00	Loan to Employee		15,000.00
		Advance to BPCL Fleet Card		4,67,732.00
Add: During the year	70,117.00	Advance to Kamakhya Energy Point		20,000.00
50% of 70117	70,117.00	Excess payment of Assam Professional Tax		7,204.20
		<b>Receivable</b>		
<b>ESIC payable (Employers' Contribution)</b>		Interest on Income Tax receivable		25,181.00
O.B	(3,561.00)	Project fund receivable		33,320.00
Add: Adjusted against this year's liability	2,600.00	Tata Motors Receivable		39,200.00
	(961.00)			
Add: Payable during the year	16,081.00	<b>INVESTMENTS</b>		
Balance	15,120.00	Fixed Deposits with BOB		11,88,166.66
Employer's part		Fixed Deposits with BOB		10,62,19,973.00
		Fixed Deposit with NESF Bank		4,30,047.00
<b>Green Audit Expenses Payable</b>		Fixed Deposit with YES Bank		76,79,503.50
		Fixed Deposit at BOB		2,00,00,000.00
<b>Indian Oil Corporation</b>		Fixed Deposit at HDFC		10,00,000.00
O.B.	29,317.34	Fixed Deposit at Indian Bank		1,00,00,000.00
Less: Net receivable during the year	3,629.49	Fixed Deposit at Ujjivan Bank		40,00,000.00
		Fixed Deposit		25,68,418.42
<b>Outstanding Administrative Expenses</b>		FD at Axis Bank Survey branch		35,00,000.00
During the year	16,000.00	FIXED DEPOSIT AT AXIS SURVEY		33,32,451.00
<b>Outstanding Salary</b>		FIXED DEPOSIT AT NESF BANK		12,94,739.33
During the year	30,54,913.00	FIXED DEPOSIT AT SBI DISPUR		56,91,591.94
<b>Outstanding PRD THT Project Expenses</b>		FIXED DEPOSIT AT UJJAVIN SMALL FINANCE BANK		1,59,039.00
During the year	6,56,361.00	Fixed Deposit with Indian Bank-Guwahati		1,16,884.00
		FIXED DEPOSIT WITH UNION BANK		10,25,413.00
<b>OTHER PAYABLES</b>		FIXED DEPOSIT WITH YES BANK		2,26,072.30
TDS Payable		UTI		54,00,000.00
192B TDS on Salary	73,369.00			
TDS 194J (Consultancy)	1,22,518.20	<b>Cash in hand</b>		92.00
TDS on Contract 194C	18,543.00			
TDS on Rent 194I	34,185.00	<b>Closing Bank Balance</b>		44923593.07
PF deducted from employees	35,058.50	(As Per Anneure-D)		
Amount reimbursible to D.C.Das	2,43,402.00			
ESIC Payable (Employees' part)	2,835.00			
<b>TOTAL</b>	<b>27,37,10,721.70</b>	<b>TOTAL</b>		<b>27,37,10,721.70</b>

Place: Guwahati  
Date: 26.09.2025

For & Behalf of  
AARANYAK  
  
(DR. BIBHAB KR. TALUKDAR)  
SECRETARY GENERAL  
Secretary General  
Aaranyak

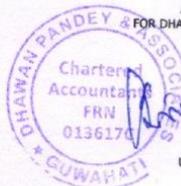
As per our report of even date  
FOR DHAWAN PANDEY & ASSOCIATES  
CHARTERED ACCOUNTANTS  
  
(CA. BISWAJIT BARUAH)  
Partner  
M.No.063538  
FRN.013617C  
UDIN: 25063538BMNQLU9329

**AARANYAK**  
**SAMANWOY PATH, SURVEY, BELTOLA, GUWAHATI-781028, DIST. KAMRUP, ASSAM.**  
**CONSOLIDATED INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025**

EXPENDITURE	AMOUNT (Rs)	INCOME	AMOUNT (Rs)
To MCOC expenses	5,13,920.00	By DONATION UNDER 80G	6,99,600.00
To Bank Charges	15,892.74	By MEMBERSHIP FEES RECEIVED	36,145.00
To Admin Expenses	13,39,231.00	By TRCD TRAINING FUND	22,400.00
To Expenses for Sale of Bolero	1,06,070.00	By BIOSTATIC TRAINING FEE	5,930.00
To Reactivation of Dormant Account	500.00	By PROFESSIONAL BIOLOGY CONSERVATION TRAIN	1,60,000.00
To Bank Charge	1,09,961.38	By INCIDENTAL RECEIPTS	61,729.00
To Admin Expenses	8,182.00	By INTEREST FUND S.B Interest IC	4,53,006.00
To RSPN Project Expenses	2,545.00	By INTEREST ON BANK GUARANTEE	77,281.91
To WGD ORG Expenses	1,84,842.00	By INTEREST ON FIXED DEPOSIT	10,69,859.00
To Admin Expenses	-	By INTERNSHIP FEE RECEIVED	14,300.00
To Charges Against Late Payment	1,844.00	By OTHER MISC RECEIPT	5,602.63
To Expenses Karad Projects & Motor Limited CSR Fund	2,51,496.00	By RECEIPT FROM WGD SERVICES	47,160.00
		By RECEIPTS FROM J4L PROGRAM	12,440.00
Surplus of Income Over Expenditure	1,88,40,594.09	By RECEIVED FROM SALE OF BOLERO (AS01AM6671)	1,43,500.00
		By RECEIVED FROM SALE OF HONEY	400.00
		By RECEIVED FROM SALE OF OLD MOTORCYCLE AT ADMIN	20,000.00
		By TRAINING AND WORKSHOP AT MCOC	7,50,026.00
		By TRAINING FEE FOR EECBD	7,500.00
		By TRAINING FEE FROM TERI	31,118.00
		By Bank Interest SB Interest FC	10,75,053.00
		By Misc Receipt	557.67
		By Interest on Bank Fixed Deposits	1,43,53,394.00
		By BCPL Bonus Receipt	2,748.00
		By Sale of Book	9,738.00
		By Sale of Bolero Car	2,40,001.00
		By Account Verification Receipt	2.00
		By Insurance of Bipul Das (Previous Year Adj)	45,286.00
		By Insurance Fund (Previous Year adjustment)	8,023.00
		By Rent paid out of project expenses refunded	1,20,000.00
		By Vehicle Insurance Receipt	86,327.00
		By Karad Projects & motor Ltd CSR fund 10BD	17,20,000.00
		By Tata Motors Pilot Project	40,000.00
		By Interest on IT refund	37,980.00
		By ICICI Lombard Refund (Project Expenses)	17,971.00
TOTAL	2,13,75,078.21	TOTAL	2,13,75,078.21

Place: Guwahati  
Date: 26.09.2025

For & Behalf of  
AARANYAK  
  
(DR. BIBHAB KR. TALUKDAR)  
SECRETARY GENERAL  
Secretary General  
Aaranyak



As per our report of even date  
FOR DHAWAN PANDEY & ASSOCIATES  
CHARTERED ACCOUNTANTS  
BISWAJIT BARUAH  
PARTNER  
M.No.063538  
FRN.013617C  
UDIN: 25063538BMNQLU9329

**AARANYAK**  
**SAMANWOY PATH,SURVEY,BELTOLA,GUWAHATI-781028,DIST.KAMRUP,ASSAM.**  
**CONSOLIDATED RECEIPTS PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2025**

RECEIPTS	AMOUNT(Rs)	PAYMENTS	AMOUNT(Rs)
<b>To OPENING BALANCE</b>			
Cash in hand	1,116.53	By Project Expenses against Foreign Contribution (As per annexure A)	18,01,07,699.18
<b>To INVESTMENTS</b>		By Advance for Project Expenses (As per annexure C)	4,35,356.44
Fixed Deposit 25,68,418.42		By MCOC expenses	5,13,920.00
Fixed Deposit with UNION Bank 9,51,834.00		By Bank Charges	15,892.74
Fixed Deposit at NESF Bank 25,38,836.33		By Admin Expenses	13,39,231.00
Fixed Deposit with YES Bank 2,26,072.30		By Expenses for Sale of Bolero	1,06,070.00
Fixed Deposit at Ujjavin Small Finance bank 20,01,858.00		By Reactivation of Dormant Account	500.00
UTI 54,00,000.00		By By tax collected at source	14,990.00
Fixed Deposit with SBI Dispur 40,80,447.94		By Tata Motors fund receivable	39,200.00
Fixed Deposits with BOB 11,88,166.66		By Statutory Advance	37,706.00
Fixed Deposits with BOB 10,84,08,658.00		By Tax deducted at source	7,81,887.00
Fixed Deposit with NESF Bank 24,30,047.00		By Project fund Receivable	33,320.00
Fixed Deposit with YES Bank 71,95,832.70	13,69,90,171.35	By Bank Charge	1,09,961.38
		By BCPL Fleet Card E Collection A/c	4,52,792.55
<b>To BANK ACCOUNTS ( ANNEXURE-D )</b>	3,89,65,814.26	By Over Expenditure of fund adjusted from Capital Fund	3,34,318.00
<b>To Contribution Received (As per annexure A)</b>	19,92,71,397.99	By Tax Deducted at Source	7,39,688.09
<b>To Recovery of Project Advances (As per annexure C)</b>	3,15,450.44	By Charges Against Late payment	1,844.00
<b>To DIRECT INCOME</b>		By Admin Expenses	8,182.00
DONATION UNDER 80G 6,99,600.00		By RSPN Project Expenses	2,545.00
MEMBERSHIP FEES RECEIVED 36,145.00		By WGD ORG Expenses	1,84,842.00
TRCD TRAINING FUND 22,400.00		By Expenses Karad Projects & Motor Limited CSR Fund	2,51,496.00
<b>To INDIRECT INCOME</b>			
BIOSTATIC TRAINING FEE 5,930.00		By <b>CLOSING BALANCE</b>	
PROFESSIONAL BIOLOGY 1,60,000.00		By Cash in hand	92.00
CONSERVATION TRAINING FEE 61,729.00		By <b>INVESTMENTS</b>	
INCIDENTAL RECEIPTS 15,28,059.00		Fixed Deposits with BOB 11,88,166.66	
BANK INTEREST RECEIVED 77,281.91		Fixed Deposits with BOB 10,62,19,973.00	
INTEREST ON BANK GUARANTEE 1,54,23,253.00		Fixed Deposit with NESF Bank 4,30,047.00	
INTEREST ON FIXED DEPOSIT 14,300.00		Fixed Deposit with YES Bank 76,79,503.50	
INTERNSHIP FEE RECEIVED 5,602.63		Fixed Deposit at BOB 2,00,00,000.00	
OTHER MISC RECEIPT 47,160.00		Fixed Deposit at HDFC 10,00,000.00	
RECEIPT FROM WGD SERVICES 12,440.00		Fixed Deposit at Indian Bank 1,00,00,000.00	
RECEIPTS FROM J4L PROGRAM 1,43,500.00		Fixed Deposit at Ujjavin Bank 40,00,000.00	
RECEIVED FROM SALE OF BOLERO(AS01AM6671) 400.00		Fixed Deposit 25,68,418.42	
RECEIVED FROM SALE OF OLD MOTORCYCLE AT ADMIN 20,000.00		FD at Axis Bank Survey branch 35,00,000.00	
TRAINING AND WORKSHOP AT MCOC 7,50,026.00		FIXED DEPOSIT AT AXIS SURVEY 33,32,451.00	
TRAINING FEE FOR EECBD 7,500.00		FIXED DEPOSIT AT NESF BANK 12,94,739.33	
TRAINING FEE FROM TERI 31,118.00		FIXED DEPOSIT AT SBI DISPUR 56,91,591.94	
SALE OF BOLERO 2,40,001.00		FIXED DEPOSIT AT UJJAVIN SMALL FINANCE BANK 1,59,039.00	
<b>To OVER EXPENSES ADJUSTED FROM GENERAL FUND</b>	15,22,306.15	Fixed Deposit with Indian Bank-Guwahati 1,16,884.00	
<b>To RECEIVED FROM ICICI LOMBARD</b>	17,971.00	FIXED DEPOSIT WITH UNION BANK 10,25,413.00	
<b>To INSURANCE FUND</b>	86,327.00	FIXED DEPOSIT WITH YES BANK 2,26,072.30	
<b>To INCOME TAX REFUND FOR THE F.Y 2023-24</b>	9,49,540.00	UTI 54,00,000.00	17,38,32,299.15
<b>To INCOME TAX REFUND FOR THE F.Y 2021-22</b>	2,43,681.00		
<b>To HABEN MACHAHARI MARCH 25 SALARY</b>	-	By Closing Bank Balance Annexure-D	4,49,23,593.07
<b>To BANK GUARANTEE FOR FUND</b>	6,21,979.09		
<b>CURRENT LIABILITIES</b>			
<b>To 192B TDS on Salary</b>	52,650.00		
<b>To 194 TDS on Contract</b>	25,299.00		
<b>To 194J - TDS ON CONSULTANCY</b>	50,876.00		
<b>To TDS 194 I RENT</b>	59,575.00		
<b>To ASSAM PROFESSIONAL PAYABLE</b>	5,750.00		
<b>To ESIC PAYABLE</b>	2,894.00		
<b>To PROVIDENT FUND PAYABLE</b>	32,921.00		
<b>To STATUTORY DEDUCTIONS</b>	2,20,661.00		
<b>To SALARY PAYABLE</b>	30,54,913.00		
<b>To KARAD PROJECTS &amp; MOTORS LIMITED CSR FUND</b>	17,20,000.00		
<b>To PRCD THT GIBBON EXP PAYABLE</b>	6,56,361.00		
<b>To TATA MOTORS FUND</b>	40,000.00		
<b>To Misc Receipt</b>	557.67		
<b>To BCPL Bonus Receipt</b>	2,748.00		

Secretary General  
Aaranyak