

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

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STAFF LIST



FROM THE DESK OF SECRETARY GENERAL AND CEO

The year began with the challenge to overcome the backlog of actual conservation related works that had piled up in the field, the entire area of our operation, because of the COVID-related restrictions that were in place throughout the previous year.

So, first thing we as a team did was to underscore the focus areas to start with the ground work to complete the unfinished works from the previous years so as to impart renewed vigour to the planning and

execution of all programmes and projects with unprecedented steam in the year (2021-22) that has already set in.

Obviously, it was an unprecedentedly challenging and action-filled year in the hitherto 33 years long conservation efforts of Aaranyak since its inception on September 9, 1989 in tune with the mission 'conserve nature to secure our future'. The word FUTURE is the prime mover behind all nature and its biodiversity conservation efforts to secure all life forms on this planet Earth.

It was time to create synergy amongst all stakeholders who are key to sustenance of biodiversity conservation efforts and for that we had to try reaching out to as many as of them through our limited manpower and other resources to strike collaboration, coordination in our unrelenting conservation efforts. Our efforts during the year spread out to new areas in Northeast and Eastern India through new collaborations with different stakeholders including government departments, various academic and research institutions and security forces. We remained focused on complementing efforts of government departments and agencies to conserve and further enrich biodiversity and devising innovative ways to add steam to collaborations so that fruit of the efforts could be reaped without much delay.

Amongst all the stakeholders, the common people on the ground have remained our priority for eliciting support for all our conservation related programmes and we have done everything possible with our resources to engage the fringe community living around national parks and wildlife sanctuaries more intricately with many of our programmes on the ground. Such endeavours of ours have started bearing fruits in important landscapes of Manas and Kaziranga, South Kamrup in Assam where the grassroots communities have become proactive partners in our programmes/project implementations. This could be achieved through meticulous planning and execution of the projects/programmes. We firmly believe that when the community on the ground in the fringe of biodiversity-rich areas is empowered economically through sharing of knowledge and support, they could do wonders to conservation efforts. Community support has been a key element in all our programmes and projects aimed at prevention/mitigation of human-animal interface and habitat restoration.

We have made an all out effort to complement the efforts of various government agencies/departments and police/security forces deployed in this frontier NE India region to check burgeoning wildlife crime. Our team have tried to raise the awareness level as well as create synergy among border-guarding and other men in uniform about the alarming wildlife crime graph that has posed a tough challenge to conservation of biodiversity in the region. We have provided essential field gear, equipment and vehicles to forest, police, VDOs engaged in protection of biodiversity in various protected landscapes of the region based on the need. There were efforts with renewed vigour to help the affected communities to face the challenge of interface with wild animals raiding their villages/hamlets through awareness campaigns, erection of solar fencing, distribution of solar lights etc. Efforts to create a mutually beneficial situation to sustain conservation has reached a greater dimension this year compensating for the ground lost during the pandemic-stricken last year. The overwhelming support we have received from our members spread over the entire Northeast landscape has

been a major source of strength. The support from our donor agencies within and outside the country have been most instrumental in keeping the flag of conservation flying high in the regions/landscapes where our works have gained a deep-rooted foothold.

Team Aaranyak reiterates the avowed commitment to secure potable water and pure oxygen that are lifeline for the entire animal kingdom by contributing towards conservation of green cover, wildlife habitat and human well-being through sustained efforts.

Unless the future of forests, wetlands and other habitats are secured, getting uninterrupted supply of potable water and oxygen to secure our progeny would be an arduous task in the highly sensitive Eastern Himalayan region.

We have tried our best to create budding professionals within the organization with diverse expertise and skills for the entire team to scale newer heights and break new grounds for the overall growth. In order to add more steam to the 33-year-long team efforts we have set in a thought process for restructuring through creation of synergy among all the divisions, wings and programmes of the organization in the near future.

Our researchers and conservationists have once again made us proud by securing national and international recognition by accomplishing challenging conservation initiatives under the banner of Aaranyak which we want to excel to such a level that it becomes the melting pot of committed conservation workers, researchers, scientists, communication professionals, administrators, financial, managers, logistics experts from all over the region to boost our journey towards securing the future of nature for our progeny overcoming challenges of varied nature.

Some of the key activities during the period includes plantation drives with Income Tax Department of Guwahati in six sites around Guwahati, assisting Assam Government in reconciliation of existing trophies and animal articles being kept in different government treasuries of Assam.

We remain committed to take the people at large in our every stride while approaching our avowed goal. Support from the common people has remained our major source of strength.

(Bibhab Kumar Talukdar, PhD)

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ACKNOWLEDGEMENTS

INSTITUTIONS

- Artis Zoo
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- Assam State Legal Service Authority (ASLSA)
- Assam Forest Department
- Assam Science Technology and Environment Council (ASTEC), Guwahati, Assam
- All India Radio Guwahati
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- CCMB, Hyderabad
- Center for Global Field Study, University of Washington
- Central Industrial Security Force
- Disney Conservation Fund (DCF)
- **Durrell Wildlife Conservation** Trust
- Department of Environment & Forests. Arunachal Pradesh
- Department of Textile and Apparel Design, Assam Agriculture University, Jorhat
- Department of Mathematical Sciences and Department of Energy, Tezpur University
- Department of Life Science and Biotechnology, Assam University, Diphu Campus
- Department of Environment Forest & Climate Change, Govt. of Nagaland
- Department of Science and Technology, Government of Assam
- Department of Science and Technology, Government of India

- Department of Environmental Biology and Wildlife Sciences of **Cotton University**
- EcoSystems-India
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- Forest Department, BTC
- Forest Department, KAAC
- Forests & Environment Department, Govt. of Meghalaya
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- **IUCN PSG Section on Small Apes** (SSA)
- **IUCN Primates Section of Small** Apes
- Indian Medical Association, Sivasagar Branch
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- Ministry of Science and Technology, Govt. of India
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- Panthera, USA
- Pobitora Eco-tourism Development Society (PETDS)
- People for Nature and Peace
- Re:Wild
- Rain Forest Research Institute (RFRI), Jorhat, Assam
 - RuTAG, IIT, Guwahati, Assam

- Rhino Recovery Fund, Wildlife Conservation Network, USA
- Railway Protection Force, Airports Authority of India
- Regional Agricultural Research Station (RARS), Diphu, Assam
- Regional Agricultural Research Station (RARS), Nagaon, Assam
- Soil Conservation (Hills) Department, Karbi Anglong,
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- WildLandscape International
- Wildlife Crime Control Bureau (WCCB)

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- · Dr. Pritam Kumar Borthakur

















































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BACKGROUND

Aaranyak is a non-profit, non-government organisation which has been in existence since 1989, when a group of passionate young environment enthusiasts came together and vowed to protect the region's rich biodiversity. We at Aaranyak strives to contribute towards biodiversity conservation and ensure human well-being through applied research, conservation education, legal and policy advocacy, community conservation, and capacity building.

We work on a range of wildlife species and their habitats, and environmental issues and climate change, with local communities and Government agencies to design appropriate conservation strategies and aid in informed conservation decisions. Aaranyak's work is primarily carried out under 14 divisions and one programme: Avifauna Research and Conservation Division, Conservation Livelihood Division, Elephant Research and Conservation Division, Environment Education and Capacity Building Division, Gangetic Dolphin Research and Conservation Division, Geo-spatial Technology Application Division, Herpetofauna Research and Conservation Division, Legal and Advocacy Division, Media Production and Communications Division, Primate Research and Conservation Division, Rhino Research and Conservation Division, Tiger Research and Conservation Division, Water Climate and Hazard Division, Wildlife Genetics Division and Threatened Species Recovery Programme.

Over the last 33 years, Aaranyak has grown in stature and has carved a niche in the field of biodiversity conservation. We are a close-knit team of environmental scientists, researchers, community workers, educators and environmental legal specialists. Our efforts towards bridging the gap between research and adaptive management of wildlife and forests have won us many accolades from around the globe. Of these, the noteworthy accolodaes are- Receiving the RBS 'Earth Guardian Award 2011', 'Indira Gandhi Paryavaran Purashkar' in 2021 by the Ministry of Environment, Forests and Climate Change, Govt. of India, and the 'Institutional Award in the field of Science and Technology' in 2017, by Government of Assam.

MISSION: To foster conservation in Northeast India through research, environmental education, capacity building and advocacy for legal and policy reform to usher a new era of ecological security.

AARANYAK'S EXECUTIVE COMMITTEE 2021-23



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Jimut Prasad Sarma Finance Secretary



Alolika SinhaPublicity Secretary



Dilip ChetryVice President



Bibhuti Prasad Lahkar Program Secretary



Udayan Borthakur Executive Member



Bibhab Kr. Talukdar Secretary General



Ashok Dey
Organizing Secretary



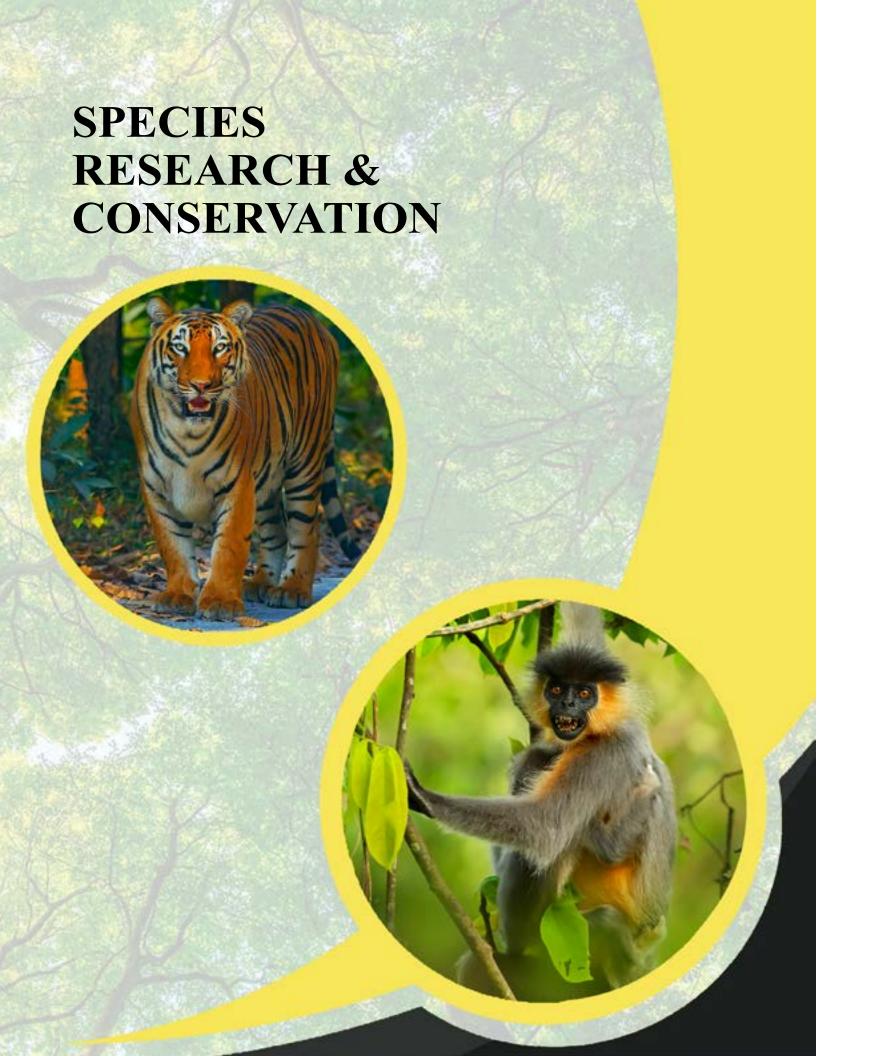
Koushik Boruah Executive Member



Partha Jyoti Das Executive Member



Bijay Sankar Bora Executive Member



The burgeoning human population, competition for resources such as space, human-induced threats, developmental activities, and various other drivers have pushed many species closer to extinction. With loss of biodiversity, and ecosystem degradation, the humans are exposed to novel threats such as the spillover of zoonotic diseases. In an effort to counteract this, we must conserve wildlife and ecosystems, that eventually safeguard people's wellbeing.

The species conservation programmes of Aaranyak are targeted towards building scientific evidences to aid in their conservation. Our species conservation work broadly spans across ecological research using both cutting-edge tools and traditional scientific methods, viz., use of advanced technology such as GIS and remote sensing, conservation genetics and wildlife DNA forensics, conservation breeding and subsequent reintroduction of species, and habitat restoration. For aiding species conservation, our research works are supplemented by community-based conservation approaches, supporting the law and enforcement efforts of the competent authorities, supplementing livelihoods of the local communities of high-value conservation areas and conservation education.

MONITORING LARGE CARNIVORES
AND THEIR PREY SPECIES



Researcher setting up a camera trap

Building science-based evidences is essential to aid the conservation of species and their habitats. One of our long-term programmes is monitoring large carnivores and their prey base in northeast India. This year, camera trapping surveys were applied to study the large carnivores and other terrestrial mammals to generate their population status and associated conservation threats.

We surveyed ~850 km² in Meghalaya and ~400 km² in Raimona National Park (RNP), and ~500 km² in Manas National Park of Assam. Our camera trap efforts in Assam resulted in the first photo-capture of tiger (Panthera

tigris) in RNP. To assess the abundance and density of predators and prey which couldn't be identified individually, unlike animals with patterns (for instance- tigers) we conducted Random Encounter Modelling (REM) based sampling across RNP and its adjacent forested areas. Furthermore, we conducted line transect sampling covering ~1800 km² in Manas Tiger Reserve to estimate ungulate population. The study also focused on informed conservation actions by evaluating the presence and distribution of conservation threats across RNP.

ASIAN ELEPHANTS

The Asian elephant is a flagship species that occurs in both protected and non-protected areas. A study focusing on Asian elephants' distribution, habitat use, and factors that determine its occupancy in the state of Meghalaya was undertaken following occupancy framework. This will help in generating baseline to monitor future changes as well.

Elephant-human interactions, which are mostly negative in the form of crop and property damages, loss of human lives, and retaliatory killings of elephants, have increased in Assam. To address this, people use illegal electric fences, to restrict elephant movement, which often



A herd of wild Elephants

are lethal. We conducted state-wide survey around the elephant habitats in Assam to identify the occurrence pattern of the lethal electric fences used to ward off elephants. This study helped us identify and prioritize the areas that need immediate attention to mitigate the threat, and assist

in protecting the elephants and enhance human well-being.

HERPETOFAUNA

Amphibians and reptiles, together termed as herpetofauna are one of the most imperiled group of animals globally. The northeast India is one of the hotspots of herpetofauna, which harbours many rare, threatened and endemic species. During our recent survey in Namdapha National Park, Arunachal Pradesh we found a new locality record for Microhyla eos or commonly known as rice frogs or narrow-mouthed frogs. Our surveys in the biodiversity-rich Kohora River Basin of Assam reported the presence of the Critically Endangered Asian Brown Tortoise (Manouria emys) in the area.



USE OF GENETIC TOOLS TO STUDY LARGE HERBIVORES

The DNA samples were extracted from the rhino dung to generate genetic profiles (DNA fingerprints) of individual rhinos. The genetic profile database on rhinos would be beneficial in population monitoring and forensic DNA investigations. During the investigation, the wild pedigree between the individuals of the Greater one-horned rhino population was generated using the same genetic database.

A landscape level genetic assessment of Asian elephants in northeast India was conducted to identify various source populations and distribution of genetic diversity in the landscape. This study will help understand how different populations and sub-populations of elephants are connected to each other both genetically and demographically, thereby understanding population history and identifying the Conservation Significant Units (CSUs), which will eventually help prioritizing conservation actions and management, and mitigation of human elephant conflicts. The samples were collected from the Tenga Valley of Arunachal Pradesh, including Eaglenest Wildlife Sanctuary, and Garo Hills of Meghalaya. Genetic analysis using various DNA markers to obtain DNA sequences as well microsatellite allelic data are carried out in the laboratory.

PYGMY HOGS

To safeguard the Pygmy hogs, an Endangered suid, we have adopted multi-pronged approach of conservation breeding, monitoring of its wild and reintroduced population, and habitat management. We conducted sign surveys between January to March 2022 in Manas National Park (MNP), using a 30x30 m grids based monitoring framework. During the survey we recorded 72 burnt nests and 144 pellets locations covering 14.5 km² area in MNP. In addition, to monitor the population of Pygmy hogs we installed 85 camera traps in 90x90 m grid for 45 days in western range of MNP. Pygmy hogs were photo-captured in



Leptobrachium smithi from Kohora River Basin

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A mother Pygmy Hog with its piglet in grassland habitat

seven camera traps, along with other threatened mammals such as the Hispid hare, Hog deer, Elephant, Small Indian civet, Chinese Pangolin etc. Along with pygmy hogs, information on other habitat-specialist species such as the Critically Endangered Bengal florican (Houbaropsis bengalensis) were generated, including its leeke identification and habitat variables. While during sign survey in Orang National Park, we recorded 57 burned nest and 39 pellets in an area of 2.7 km².

To build sustainable Pygmy hog population, 12 (5M, 7F) pygmy hogs were released in three batches during 2021 in MNP following standard reintroduction protocol. The released hogs dispersed in the grassland habitat, as indicated by camera traps surveys conducted at the baiting sites in grasslands.

The two Pygmy hog captive breeding centers in Assam (Basistha, Guwahati, and Potasali, Sonitpur), now hold 83 hogs. A total of 11 litters with 39 hogs were born in the breeding centers, of which ~77% (N=30) of the young were reared beyond the age of three months.

COMBATING WILDLIFE CRIME

Wildlife crime not only threatens the rich wildlife of the region, but impinges on national security as well. We have been working proactively to collate information on wildlife crime, and sensitizing enforcement agencies through specially designed workshops and meetings. We conducted questionnaire surveys to understand species presence, and collected information on wildlife products for Operation WILDNET IV conducted by WCCB. In addition, scoping research was undertaken to understand the illegal trade routes of Pangolins from NE India to Southeast Asia.

The Greater one-horned rhinos (Rhinoceros unicornis) face primary threat in form of poaching; we have been sourcing data to determine the link between the arrests and conviction ratio for rhinos in Assam, which will eventually contribute to conservation of rhinos.

APPLYING GIS TOOLS TO AID CONSERVATION

The rhinos of South and southeast Asia are highly threatened, and precise information on their distribution pattern can guide conservation actions. With the use of Geospatial technology, the current status of their habitat and extent of habitat degradation can be identified, as well as we can predict the future changes, help in identification of target areas for conservation and restoration. With this aim, we mapped the past distribution of three Asian rhino species, and overlaid on their present distribution range to demarcate change in their habitat occupancy. Such a thematic depictions can help in conservation by identifying priority areas.

OTHER SPECIES

The Western Hoolock Gibbon (Hoolock hoolock) is India's only ape species listed as one of the Endangered primates in the world, are known to occur in northeastern states of India. A rapid assessment of Western Hoolock Gibbons was conducted in Bherjan-Borajan-Padumoni Wildlife Sanctuary, Barikuri area and Dibru-Saikhowa National Park of Assam to understand their current status.

Assam is rich in bird diversity and attracts a large number of migratory birds that take shelter

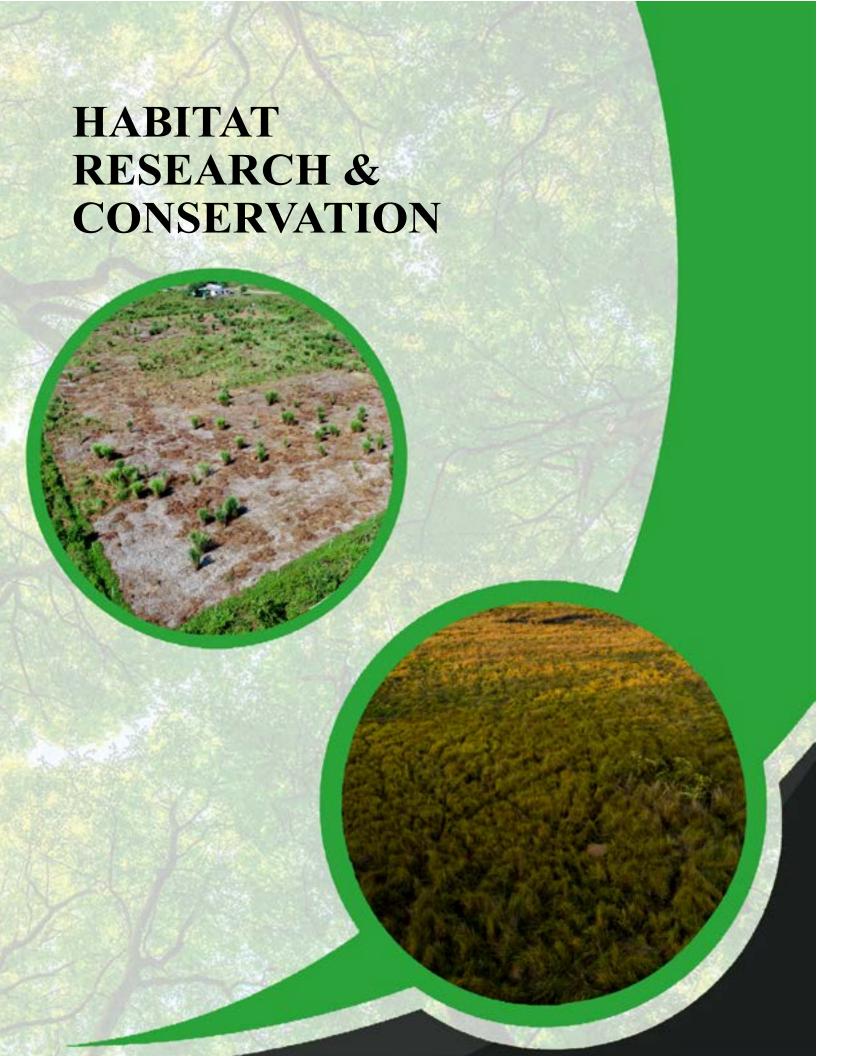


in the wetlands of the state. We have been engaged in long-term waterbird monitoring and documentation.

In Pobitora Wildlife Sanctuary, we have been coordinating Annual Water bird Census for last four years. This year in collaboration with Guwahati Wildlife Division we successfully conducted the survey with active participation from our members, colleagues and birdwatchers. The initiative aims to build the database of bird population which are excellent indicators of ecosystem health and monitor the change over the years. Moreover, we participated in the annual Waterfowl census at Kaziranga National Park.

While our surveys in the Kohora River Basin of Karbi Anglong in 2021-22 recorded a total of 109 species of plants, 155 bird species and 90 species of butterfly.

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Habitat loss and degradation is one of the primary drivers of plummeting species abundance, and human-wildlife conflict that impacts the wellbeing of human beings as well. The burgeoning human population, demand for land resources, and developmental activities are further endangering the natural habitats, more so in northeast India. We are working with multi-stakeholders such as the local communities and the Government line departments to revive and restore natural habitats. This year, we primarily focused on recovery of native grassland ecosystems and forested areas that harbour multitude of threatened faunal species, and provide excellent ecosystem services.

REVIVING THE SUB-HIMALAYAN GRASSLAND HABITAT

The grasslands are excellent habitats to multiple threatened species, and provide important ecosystem services. Studies pertaining to grassland ecology to inform conservation decisions are limited. Therefore, we initiated long-term research in Manas National Park. A gridbased vegetation survey of 30m x30m dimension covering 114 gird cells was conducted to assess the habitat status in three prime habitat areas in MNP. Besides, two short term studies on the effects of cattle grazing on vegetation structure and soil



Local communities engaged during habitat revival

compaction, and climate risk assessment of sub-Himalayan grasslands were undertaken in MNP.

Three experimental plots were set up in MNP to understand the impact of different management methods. Prescribed fire treatments, such as early burning and late burning (in March) were conducted in all the three experimental plots. Before the intervention, data on species richness, composition and biomass in each of the plots were collected. To assess the soil quality and soil seed bank, a study was initiated wherein, 27 soil samples were collected from each experimental plot and was analysed. These experimental plots are regularly monitored and maintained. Clipping exercise was carried out and excessive biomass were removed from the plots, besides, maintenance of the power fence installed surrounding the plots. Another power-fence along the southern boundary of MNP, corresponding to an important habitat area of Kuribeel is maintained regularly, repairing damaged sites, and regular monitoring of power surges.

The grasslands in MNP are conservation-dependent and, we have been complementing the efforts of Forest Department to revive degraded grassland habitat by managing Invasive Alien Plants (IAPs). Using the tried and tested methods of manually uprooting

the IAPs, primarily (*Chromolaena odorata*), we aided in grassland recovery of around 64 hectares. The uprooted biomass was brought back and disposed properly.

The woody plant encroachment in grasslands is gradually grasping the habitat leading to shrinkage of grassland habitats. To control the spread of woody species in grasslands, we targeted primarily (Bombax ceiba), and (Butea monosperma). Tree girdling technique was applied to retard plants' growth and arrest its spread in the grassland habitat in MNP. Trees with CBH ≥ 40 cm were debarked: whereas, trees with less than 40 cm CBH were mulched and saplings were uprooted. A total of 1688 trees were debarked, and 2468 trees were mulched during the reporting period. Of these, around 30 % of the trees died in first year, whereas, the rest are alive, but has shown signs of retarded growth. The girdling technique was found to be effective in addressing woody plant encroachment. We have developed a girdling manual, which will be adopted for training of frontline forest staff for habitat management.

In Orang National Park (ONP), which boasts of pygmy hog population along with other threatened grasslands obligate species, we have carried out different habitat management interventions in Pygmy hog reintroduction sites. We conducted cyclic cutting treat-



Bombax ceiba trees were girdled to arrest woody plant encroachment



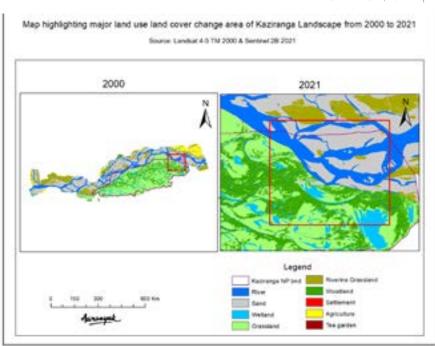
EDC members engaged for removal of Chromolaena in Manas

ment of IAPs in an area of around 8 hectares across two blocks. Moreover, we conducted habitat surveys in an area of around 15.03 hectare for further habitat management intervention. To capacitate frontline forest staff, a habitat management training for 35 staffs of ONP was conducted, focusing on controlled burning, IAP management and control of woody species succession.

HABITAT EXPANSION AND RESTORATION

A long-term initiative on habitat expansion and restoration to boost the wildlife that occurs in Hollongapar Gibbon Wildlife Sanctuary in Jorhat district of Assam has been planned. As the first step of this initiative, we have undertaken field documentation of biodiversity, and working towards awareness generation on importance of habitat conservation to gather support from locals as well as global community. We developed different visual communication materials for the same. Efforts have also been made to procure private lands adjacent to the forest to undertake restoration activities that will contribute to habitat expansion.

While in western Assam's Raimona National Park we have conducted preliminary surveys around the park to identify potential areas for forest restoration.



Land use land cover map of Kaziranga Landscape

Whereas, we have contributed in advancing knowledge on another newly declared national parkthe Dehing Patkai National Park in eastern Assam by reevaluating the land use land cover to prepare baseline map for the same.

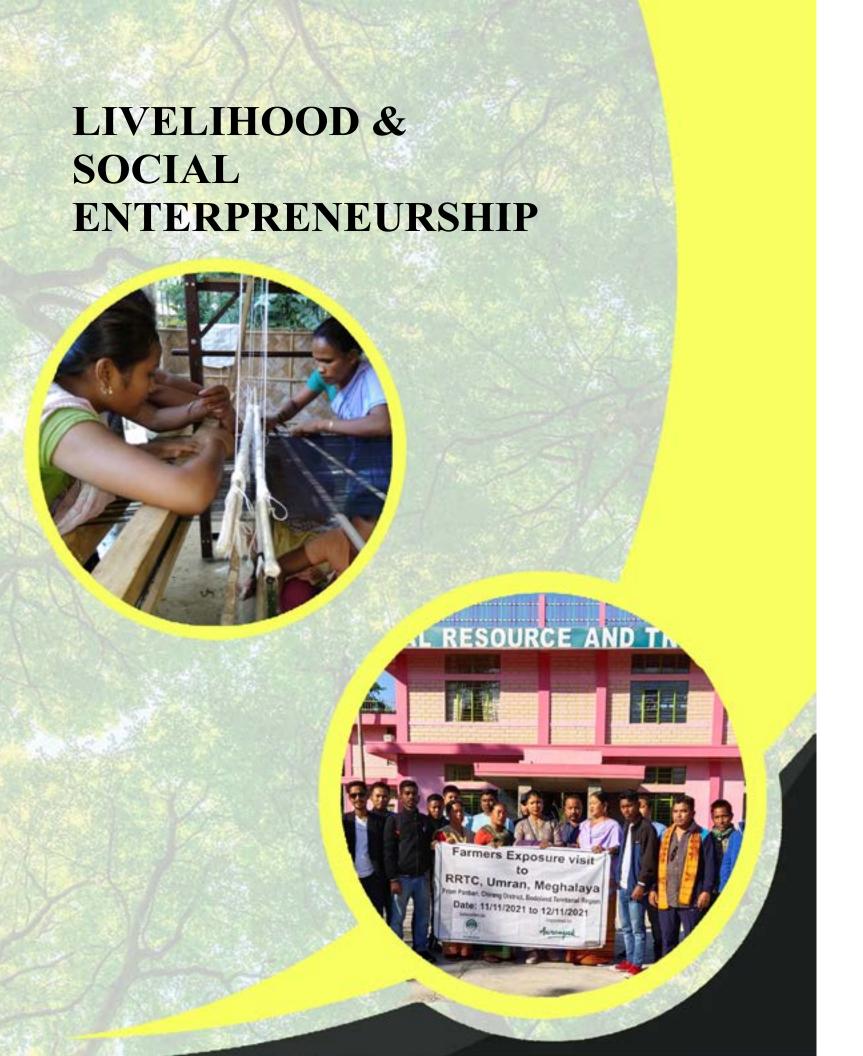
USE OF GIS TOOL TO DELINEATE HABITAT

Thematic maps of Sonitpur West Division including LULC change for the division and RFs within the division was prepared to understand the status of the wildlife habitats. To gain an insight on the status of Amguri and Kanchanjuri wildlife corridors that connect Kaziranga Tiger Reserve and the Karbi hills, we carried out Land use/cover change pattern analysis.

In addition, we assisted the

Assam Forest Department and prepared a map showcasing the proposed addition of the Orang National Park. We prepared a database on villages that lie inside the eco-sensitive zone of three Protected Areas (PAs)-namely Balpakram National Park, Narpuh and Nongkhyllem Wildlife Sanctuaries in Meghalaya.

For undertaking on ground implementation developing baselines are crucial. We prepared thematic maps for water sampling sites in Guwahati Municipal Corporation Area to further study on wetlands of Guwahati. To understand the change in Majuli landmass, a land use land cover (LULC) was prepared.





Mushroom Cultivation by one of Aaranyak-supported benificiaries

The local communities are the custodians of the rich biodiversity that this region harbours. Engaging communities and garnering their support lead to long-term conservation and sustainable use of our natural resources. Recognizing the vital role that communities play in conservation, we have been cohesively working with them since our inception. With an aim to reduce dependency of local communities on biodiversity and promote ecosystem health as well as to ensure their livelihood and nutrition security, we have adopted many community-based initiatives to supplement their livelihood, build their capacity through skill development and promote sustainable use.

ORGANIC FARMING FOR HEALTHY ECOSYSTEM AND PEOPLE

We encourage organic farming in the fringes of wildlife protection areas that can ensure long-term benefits to the communities and ecosystem health. In a bid to promote organic farming, we have organized hands-on trainings for farmers. This year a training on organic farming for 40 farmers at Kokilabari near Manas National Park were organised.

While more than 70 % of the farmers from the fringes of rhino-bearing areas such as Kaziranga, Orang and Pobitora who were trained on vermicomposting the previous years, are

practicing vermicompost in their backyards for using them in their own agricultural lands, as well as sell the surplus quantity. Aaranyak supported these farmers by providing them with vermicompost tanks and indigenous earthworm species to promote organic farming in their vicinity. Keeping in view the importance of the Koklabari Seed farm along the North Western part of Manas National Park as a prime habitat for the highly threatened Bengal Floricans, Aaranyak conducted six awareness meetings with the local farmers to promote and practice organic farming in Seed farm.



The participantes and well wishers during community tailoring workshop

HANDLOOM AND TAILORING FOR CONSERVATION

A sizeable population in Assam, mostly the women, are skilled weavers, who hand spun and weave traditional clothes for daily use. Making use of this skill, we have supported the local communities from the fringes of the wildlife-rich areas to weave clothes with motifs of wildlife as well as traditional items to promote conservation. In this attempt, we organized two tendays training programmes on handloom (Jacquard) at Majrabari village near eastern range of Manas National Park (MNP) to hone their skills. Another training event was organized for 28 weavers in Kokilabari near MNP. Under the PMKVY 2.0 initiative of Government of India, one training programme was conducted on modern jacquard looms for thirty selected weavers from Majrabari and Bhuyanpara around MNP.

Trainings on cutting & tailoring targeting women who are interested in learning the skill, was conducted. Two 4-days training was held at Majrabari village for a women self-help group, and other artisans. Whereas, a community tailoring center for skill development of women in Kohora River Basin was established, and women and girls were trained

in batches. In the first batch, a total of 14 candidates were trained. The successful completion of the first batch training encouraged other women too to register for tailoring training.

TRAINING ON NATURAL DYE

Extracting dye from vegetables and fruits to dye merchandise can help boost economic conditions of the fringe villagers. As such, one advanced training on natural dye was organized for the women SHG members who showed their interest in the same. Ten other Illegal Natural Resource Extractors (INREs) from the villages were trained on natural dyeing of threads, to supplement their livelihood and reduce dependence on forest produce. Eleven women from Garumara village were trained specially in weaving and production of different handloom items. In Bansbari cluster (near Manas National Park), INREs were supported with roadside tea stalls.

CAPACITY BUILDING AND SUPPORT PROVIDED FOR ALTERNATIVE LIVELIHOOD

To supplement the livelihood opportunities for local communities, and reduce their dependence on forests for subsistence, we provide trainings and support based on the interest of the villagers. This year we conducted many



A bee cultivator



A local farmer during vermicomposting training

such training programmes on cultivation of mushroom, both summer and winter varieties, followed by different other skill development training programs for the women groups in Kohora River Basin. These women belong to the indigenous Karbi community. While, for the local communities that live in the fringes of Manas Tiger Reserve, we conducted four capacity building workshops on mushroom cultivation. Two such trainings were conducted at Kokilabari, and one each at Subankhata and Bhuyanpara.

Whereas, the farmers, a total of 30 who expressed their interest for homestead farming were supported with high quality vegetable seeds. Further, another 25 progressive farmers from the villages near the western range of Manas National Park were taken to Rural Resource and Training Centre (RRTC) of Umran, Meghalaya for a two days' exposure visit to receive orientation on Integrated Farming, Bee Keeping, Mushroom cultivation, Poultry, Dairy, Piggery, Vermicomposting and Pisciculture. A total of 76 Illegal Natural Resource Extractors from the fringes of MNP were supported with both farm-based and non-farmbased livelihood opportunities to uplift their income generation.

To capacitate local people, we organised nine awareness meetings in Golaghat district- one of the high human-elephant



Aaranyak's conservationist during a sensitization programme

conflict areas in Assam to educate them on how to tap different Government sponsored schemes on livehood generation.

In areas such as Karbi Anglong which have high ecotourism potential, we are working with indigenous Karbi community to promote community-based eco-cultural tourism by empowering and facilitating two self-help groups, Langkiri SHG and Kindu Langso SHG in Kohora River Basin. For the youth from this area and Diffolu River Basin we conducted training programme under social entrepreneurship for 23 youths, between age-group 16-20yrs.

BUILDING BASELINES

In order to gain an understanding on the culture and customs, perceptions and attitude of local communities, and use that knowledge in garnering conservation support we must develop baseline. In such an attempt, we conducted a series of workshops and focused group discussions (FGD) among the village-level community stakeholders of Meghalaya. Furthermore, we conducted prioritized village-level social assessment in the state. We are working with the communities around Manas National Park which is home to many highly threatened and rare species, to reduce their dependency on the forest. We collected market data to understand the demand of Non-Timber Forest Produce, which are collected from inside the forest. Besides, an analytic report on the anthropogenic pressure was prepared for the park. Consultations with the 18 identified beneficiaries was held and household data were collected for further analysis. Further, data on drivers of anthropogenic pressure were collected and Knowledge Attitude Perception (KAP) study post piggery training was conducted.

We conducted consultations with the newly-formed Eco-development Committee (EDC) near MNP to conduct the institutional building training. The micro plans developed for the EDC was handed over to them. Consultation meetings were held to understand the



One of our benificiaries harvesting product from her vegetable garden

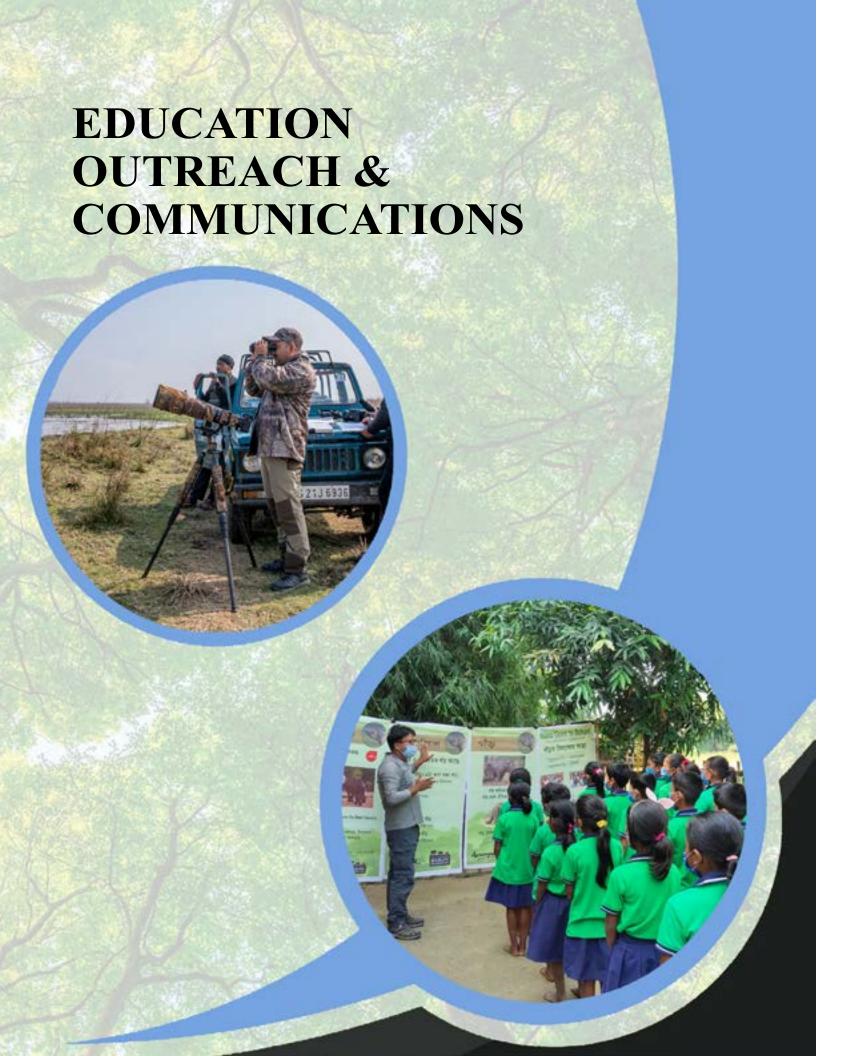
pros and cons of System of Rice Intensification and Alternate Livelihood sources and a report was prepared on the same. With objective to improve sanitation and hygiene practices for animal husbandry, we organized trainings for two EDCs on piggery and for one EDC on goatery. The consultant expert made door-to-door visit of the trainees and provided on site advice on improvement of their husbandry practices. In the Hatimura village near Pobitora Wildlife Sanctuary of Assam a participatory action research was initiated to document local biodiversity and related practices. Students as well as local villagers were actively involved during the exercise.



Indigenous Bodo women using traditional grinder, "Chakki"

to- Aaranı

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Students during Orang Nature Camp 2022

Under this broad thrust area, we have been proactively involved in promoting conservation of the rich biodiversity through conservation education, outreach and communication tools. We have reached out to different stakeholders effectively using multiple approaches, tools and techniques to address different prioritized ecological, environmental and socio-environmental issues. We primarily work with students, local communities, government line departments, officials of law enforcement agencies, media, and policy makers to engender a conservation-sensitive behaviour and garner their support.

JOURNEY FOR LEARNING

A unique education initiative, named "Journey for Learning" (J4L) is a community-based eco-cultural tourism model, focused on nature, wildlife, ecosystems, and people. This education module is designed for graduate/post-graduate students, and nature enthusiasts, and tailored according to the target group

with the aim of imparting socio-ecological and socio-cultural knowledge by living with the indigenous communities, facilitated by subject experts. This year students from the Indian Institute of Forest Management (IIFM), Bhopal visited us, and spent a few weeks learning about local wildlife and the ecosystems they live in, conservation ethos of the indigenous communities, and sustainable eco-tourism models. The Kindulangso and Langkiri SHGs from Karbi Anglong, Assam facilitated the group comprising of 25 students.

NATURE CAMPS FOR STUDENTS TO INCULCATE CONSERVATION VALUES

A more holistic approach of educating children on conservation, a three-day event known as "Nature Orientation Initiative" was organized. This event has been successfully organized since 2007, wherein the efforts are made to groom the children for taking up conservation efforts in their vicinity and beyond. During this camp they interact with experts, fellow participants, learn about nature through environmental games,

and visits to the wildlife-rich areas. This year marked the 15th Nature Orientation Initiative (NOI) organized near the famed Kaziranga National Park. A total of 35 students from fringe areas of five ranges under Kaziranga National Park (KNP) participated in the NOI that was themed "Building foundation and awareness for kids towards conservation".

Orang Nature Camp for the students of the fringe area with the theme "Connecting kids towards nature conservation" was organized for the first time in Orang National Park and Tiger Reserve in Assam. Twenty-seven students from four schools participated in the programme that was remarkable in respect of connecting with young minds regarding conservation of nature.

We started an initiative for stu-

dents called "Aamar Bagisa" (Netum Abiri in local Karbi language) in Chandrasing Rongpi Memorial School in Kohora, Karbi Anglong, where students are encouraged to understand biological science through practices of gardening. Our target group was students from 7th and 8th standards of the school, and a total of 64 students participated in this programme

OUTREACH PROGRAMMES FOR LOCAL COMMUNITIES

We have been working with local communities to generate awareness on wildlife conservation and protection of wildlife straying out of Protacted Areas (PAs). Animals often stray out to the human habitation in areas like Kaziranga National Park, which is inundated during the annual monsoon floods. Through

our outreach initiatives around KNP on flood preparedness, human-wildlife conflict and providing safe passage to the strayed animals we had reached out to around 750 people including village heads, members of Village Defence Parties (VDP) and Eco Development Committee (EDC) through focused group discussions, power-point presentations and interactions. We reached out to around 10,000 people living on Brahmaputra River isles on northern part of the KNP through awareness campaigns using wildlife documentaries, shows, interactions, group discussions, and distribution of leaflet to sensitize people on wildlife conservation.

On another occasion, a five-day exposure trip for the local communities of the Karbi villages of Kohora River Basin (KRB) was organized.



An open air outreach campaing on wildlife conservation



A group of youth during a nature trail programme

We organised an interactive programme for the village communities on the theme 'Sustainable management of natural resources and its benefits' at Ashalu village under Mahur block of Dima Hasao district. The programme was focused on how simple and easy steps can help sustainable management of the natural resources that are available to them. Dima Hasao is a biodiversity-rich district, inhabited by indigenous communities. Limited conservation initiatives are in place for this district. We, through this outreach event, reached out to 30 villagers where both the village headman and Secretary of the village committee were present. An awareness campaign was organized in collaboration with grassroot organisations- Irab-Kirab and Jokai Prabhabh Gosthi in eastern Assam to highlight the importance of conservation of natural habitats such as forests, wetlands and grasslands in order to ensure potable water. An informal format known as "Poribekh Adda" was held at Jokai Tangia Village of Dibrugarh District to promote the idea of conservation of local biodiversity.

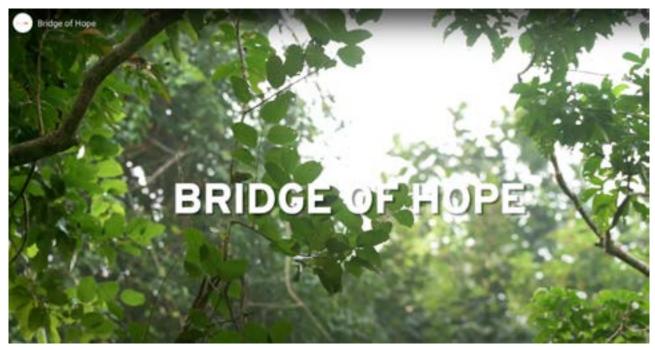
MASS OUTREACH USING MEDIA

We conducted 15 programmes on different subjects such as ecosystem restoration, combating wildlife crime, use of science and technology for sustainable future which were broadcasted through All India Radio Delhi and Guwahati stations, aligning with the objectives of Prasar Bharati. Through this radio programmes

we reached out to more than one lakh people. The online magazine cum digital platform for biodiversity and environmental issues of northeast India, ecoNE (www.econe.in), which publishes articles in various formats such as text, photo and video stories, multimedia stories, talks and interviews, infographics etc. published a total of 23 articles during this reporting period.

A video documentary titled "Bridge of Hope" was released showcasing Aaranyak's conservation efforts in connecting Western Hoolock gibbons of two different forests compartments in Hollongapar Gibbon Wildlife Sanctuary, which remained separated by a railway track for the past 134 years. In another attempt, we made four documentary films

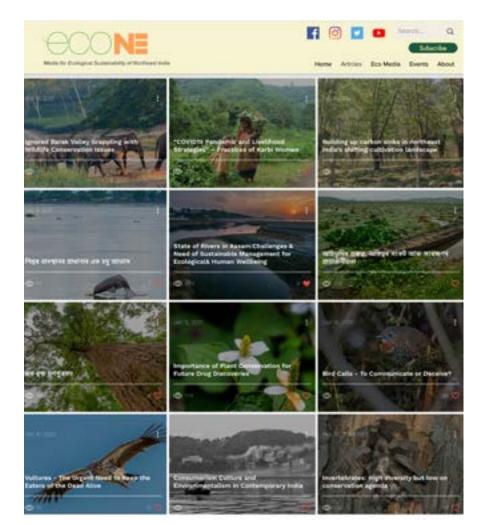
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A documentary on Aaranyak's efforts on Hoolock Gibbon conservation

focusing our efforts in mitigating human-elephant conflict and promoting coexistence, revival of grassland ecosystem by managing IAPs, and released these on Aaranyak's official YouTube channel. Besides, a video and photo documentation on Dora Beel and Urpad Beel was conducted for our digital publication, "ecoNE".

An online workshop titled "Tracking Climate Change by Observing Trees" in collaboration with "Season Watch" was conducted to make people aware about impact of climate change on trees. Two other online sessions on biodiversity conservation were conducted targeting high-school and higher secondary students who were former winners of the National Children Science Congress. The students were given assignments as well to document biodiver-



A gist of Econe publications



Students attending a awarness meet

sity in and around their locality.

On the occasion of the World Environment Day, 2021 we organised a brain-storming webinar with the theme 'Freshwater ecosystems of Assam and their resources: Need of protection, conservation, restoration and sustainable management'. A participatory panel discussion was held with eminent experts on the field, wherein crucial aspects regarding the resources, biological diversity and values of the freshwater ecosystems in context of rivers and wetlands of Assam, freshwater ecosystem conservation and restoration were discussed. The webinar was attended by researchers, environmentalists, social activists, students and garssroots communities.



Young minds getting educated on biodiversity documentation

Another webinar titled 'Endangered Rivers of Assam: A Youth Narrative' was organized on the occasion of World Rivers Day, 2021. The session started with the keynote speech delivered by Er. P.P. Changkakati, Former Secretary of Water Resources and the

Member (Tech) Assam Administrative Tribunal, Assam. Through this webinar around 40 young river champions presented their story on the respective rivers they were documenting under a special initiative of Aaranyak. Besides, an essay writing competition was

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organized for the school children from high and higher secondary to mark the day. The objective to organise the competition was to encourage the young students to understand how the wetlands are important to protect our biodiversity and human wellbeing.

A webinar was conducted targeting the members of Aaranyak on 'General Understanding of GIS Applications in wildlife research' to highlight the application of this technology on wildlife and environment conservation.

Periodically, we created several illustrations and infographics on different issues of wildlife conservation and published in relevant places with an aim to create awareness among people. Posters were installed in local languages, Bodo and Assamese at Panbari, Mainobazar, Lakhibazar and Subankhata area of Manas Tiger Reserve.

CAMPAIGNS TO ADDRESS SNAKEBITE

Snakebite envenoming is one of the neglected tropical diseases as per World Health Organisation. We have been putting efforts to address snakebite for well-being of society. Over 30,000 people were reached through a range of awareness activities such as what should one do immediately when bitten by snake, advocacy to make drugs available at health care centres etc. at stra-



A workshop on Snakebite management

tegic locations in Assam. The outreach events included talks by physicians, and dissemination of information involving media.

EDUCATING PEOPLE ON THREATENED SPECIES

Conservation education is an important tool to promote conservation, and when targeted towards children it can help build a conservation-sensitive mindset from the young-age. With the motto of catching them young for conservation, we initiated a long-term education series called "Rhino Goes to School". Through this series we aim to educate school students, mostly from the fringes of rhino-bearing areas in Assam and aware them on rhino ecology and conservation need, their threats and the role that students can play to protect them. The aware-

ness module consists of expert talks using audio-visual presentations, environmental education game and open quiz. This year we organised 29 events in this series reaching out to around 4000 students. Drawing competitions on Rhino portrait were also encouraged during this event. With the aim of generating awareness on the conservation need of the Endangered Greater Adjutant Storks (GAS), which occurs around human-use areas, we conducted outreach programmes in Morigaon district for school children and local communities through environmental games, and distribution of education materials. We in collaboration with "Hargila Army"- a local women group working towards the conservation of GAS observed the Adjutant Stork Day during 67th Wildlife Week by conducting outreach event at



A conservation education campaign with school children

the Assam State Zoo cum Botanical Garden, with the support of Assam Forest Department. An exhibition of handloom products with motifs of the GAS, created by the women of hargila army was held. While during Diwali, a roadshow was conducted to promote green Diwali and showcase the handcrafted traditional items in and around Guwahati. A notable initiative targeting kids, titled "Rewilding Kids Programme" was launched by the team to inculcate a conservation-sensitive behaviour among the children. During this environmental education programme, different activities such as art workshops, storytelling etc. were organized to promote conservation of wild species and their habitat, rewilding, and the web of life. In collaboration with IIT- Guwahati in open air camp on "Nature Conservation with Special Reference to Greater/ Lesser Adjutant Stork" was organised in connection with the 50th session of IIT-G perspective. A host of resource persons from Aaranyak spoke on Aaranyak's efforts in biodiversity conservation, importance of nature conservation, and the success story of GAS conservation Assam is a stronghold of a highly threatened grassland bird, the Bengal Florican. A sizeable population of this birds are known to occur in Kokilabari seed farm adjacent to the Manas National Park, which is extensively used by the farmers for paddy cultivation. An outreach event was held for the farmers and the artisans living in the vicinity of this seed farm, on conservation importance of the Bengal Florican, and the role

that these farmers and villagers can play to protect this magnificent bird species. In order to raise awareness on the state bird of Assam, the White-winged wood duck which is a highly threatened species, two awareness campaigns using media such as stone-painting, jungle-trail walks and distribution of leaflets were conducted for the students with an aim to share with them conservation needs of the bird. The jungle-trail walks were organized at Hahkhati Reserve Forest, and Saikhowa Ghat in two respective days. The entire awareness programmes were facilitated by Aaranyak's members. The northeast India is an abode for primates, harbouring ten species, including the only ape the Western Hoolock Gibbons found in India. Nagaland is one of the potential states that harbours the



Our education expert is guiding the younger generation on nature study

gibbon population and its habitat. We with an aim to promote gibbon conservation and build capacity of the frontline forest staff, collaborated with the Nagaland Forest Department. Over a period of one year, we conducted several training programmes for the frontline staff of Nagaland Forest Department. Two residential trainings on Hoolock gibbon conservation were conducted in Nagaland, whereas, another two field trips were conducted in gibbon-abode of the Hollongapar Gibbon Wildlife Sanctuary in Jorhat, Assam. Besides, two legal workshops were conducted too. A popular talk on 'Primate Diversity of North East Indian and its conservation' was delivered at Kendriya Vidyalaya, Khanapara. A series of outreach events was conducted around the Protected Areas that are known to be flooded during the monsoon season in Assam, as a result of which the animals stray out of their habitat towards higher areas. Aaranyak in collaboration with the Eastern Assam Wildlife Division and Nagaon Wildlife Division, organised 12 pre-flood awareness campaigns with the objective to

make fringe villagers aware on how the flood-affected wild animals stray out to human-use areas and their role in ensuring safe passage of these animals for safe survival during flood. Besides, to promote coexistence between elephants and humans, we conducted 20 outreach events during this reporting period that covered educating villagers about elephants, managing human-elephant conflict to protect people, property and elephants.

SENSITISATION TO CURB WILDLIFF CRIMF

Wildlife crime is a highly organised business that not only threatens the rich wildlife of the region, but impinges on national security as well. A multistakeholder and multi-pronged approach is needed to address wildlife crime and



Our GIS expert interacting during GIS day event

illegal trade. Given, a new initiative titled "DETERS", which stands for "Disrupt and End Trade of Endangered and Rare Species" was launched which is an umbrella for various objectives that would contribute to the greater goal of putting an end to wildlife trafficking and illegal trade routes of endangered and rare species. Under the initiative we collaborated with Forest Department and other relevant enforcement agencies for workshops, training and interventions to deter wildlife crime.

To address wildlife crime and generate awareness, we have collaborated with the Wildlife Crime Control Bureau (WCCB) for sensitizing and training the enforcement agencies such as different border gaurding forces, police, transport agencies like Central Industrial Security Force on detection, identification and processing of illegal wildlife products. We collaborated with the Directorate of Information and Public Relations as well to sensitise the media and hold media workshops in Assam and Manipur. With an aim to generate awareness for the students on wildlife conservation and crime we conducted online and physical workshops in schools of Assam. An online poster-making competition was held for the students of Sarala Birla Gyan Jyoti school in Guwahati with the theme of "Wildlife Conservation and Crime". For local communities living in the fringing eco-sensitive zones

in Assam and Meghalaya, we organized four workshops with the goal of sensitizing. In Assam, two workshops were held around the newly-notified Raimona National Park where reports of wildlife crimes and seizures were found to be on the higher side in the last two years. Meetings were held with village

council of Rupa, and community

leaders in Shergaon and Mandala

and trade in Arunachal Pradesh.

We produced posters targeting wet markets of Guwahati to raise awareness among sellers and buyers on different wildlife species and their products that are illegal to buy and sell. A pamphlet focusing on the trade of pangolins, which is the most traded mammal globally was developed and circulated.



A sensitization workshop with Police officials on reducing wildlife crime

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OUTREACH ACTIVITIES TO MARK THE "DAYS"

In order to reach out to public to generate awareness and help a change of behaviour towards conservation, we celebrated the days related to wildlife, biodiversity and environment conservation. The Wetland Day was celebrated by holding an exhibition on wetland ecosystem in Guru Teg Bahadur Academy, Tinsukia. Moreover, an interactive session was conducted using virtual platform to raise awareness on the importance of the wetlands. On the occasion of World Tiger Day on 29th July, Aaranyak in col-



Observing International Tiger Day

laboration with Nagaon Wildlife Division, Laokhowa-Burachapori Conservation Society and Wild Aid Assam (WAA) organised a bicycle

rally where people from 20 villages took part. This was followed by a group discussion and distribution of education materials. The 22nd September is observed as the World Rhino Day. On this occasion we organized an art workshop and competition on this day for the students in collaboration with Kaziranga National Park Authority and the Natundanga EDC at Burapahar Range of the park. Aaranyak joined hands with the Kaziranga National Park and Tiger Reserve Authority, Wildlife Institute of India, WWF-India, Wildlife Trust of India, The Corbett Foundation and Bhumi to observe the 67th Wildlife Week on Day 4 which was marked as Dolphin Day. The event comprising talks and interactive session, followed by a field trip was held in Kanyak Ashram Junior College, Silghat, in collaboration with Silghat Eco-development committee. World Environment Day was cel-



An outreach initiative on aquatic biodiversity conservation



A snapshot during annual water fowl census in Pobitora Wildlife Sanctuary

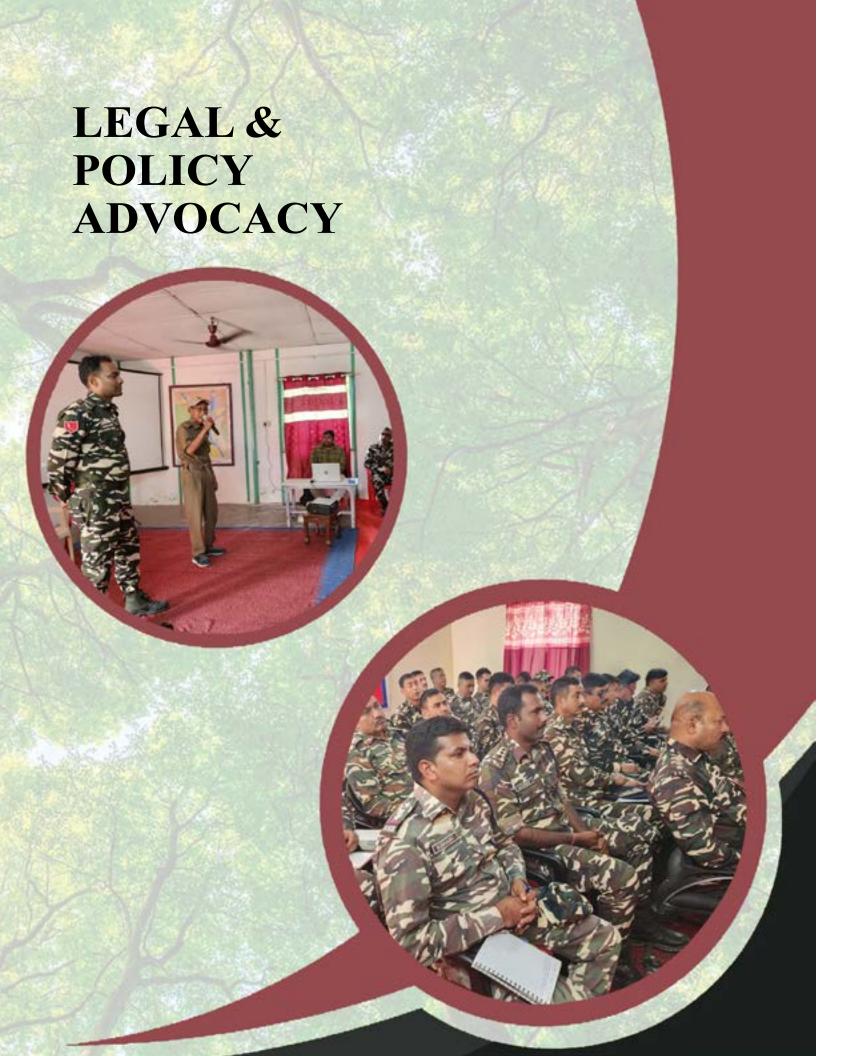
ebrated widely across the state by teams of Aaranyak. In Kaziranga-Karbi Anglong landscape, we celebrated the day at Kaziranga Chitrakala Vidyalaya, Kohora and Chandrasing Rangpi Village, Karbi Anglong with events that included online art competition, sapling plantation. Another virtual programme "Janu Aaha" (come, lets know) was organized where an expert speaker spoke about conservation. A plantation drive was undertaken at Vivekanada Kendra Vidyalaya (NEC) Baragolai, Margherita, which was followed by a popular talk on importance of tiger conservation to protect the environment. Furthermore, we celebrated the World Birds Day by bird watching, jointly with Dikhowmukh College,

Sivasagar, a field orientation was held for a group of selected local students in the Rupahimukh Kamargaon and Rupahimukh Missing Gaon on the World Sparrow Day. We organised Internation-

al Gibbon Day, and the Wildlife Day in collaboration with Prajanma at Kamargaon Regional Journalist Association office.



Students displaying their art organised during an outreach event



Conservation advocacy to protect wildlife, and the ecosystem can make a difference and aid in drawing attention of decision-makers. Aaranyak, since its early days have been successfully advocated for safeguarding regions' rich wildlife and their habitat by using multiple tools. One of our flagship initiatives in this regard is sensitizing the enforcement agencies, Government Line Departments and common people to curb wildlife crime and trade, and monitor behaviour of wildlife offenders so that the concerned agencies can use it in conjunction with their investigations. We examine the causes of wildlife crime to gain an understanding and build strategies to mitigate them. Moreover, we partner with local people, and indigenous communities to promote sustainability at policy levels and as well as ground levels.

Our understanding and work on mitigating wildlife crime and illegal trade has given valuable inputs, both in terms of information and intelligence on wildlife crime in the region in numerous meetings held at the Sectoral HQ, Sashastra Seema Bal (SSB) Rangia Campus.

Working closely with the SSB Sector Headquarters, Rangia we realized that the logo that they are currently using is of African Rhino. On proposing to use the one-horned rhino as their logo, of which Assam is an abode, they requested Aaranyak to design the



Sentizaion workshop on curbing wildlife crime in Karbi Anlong

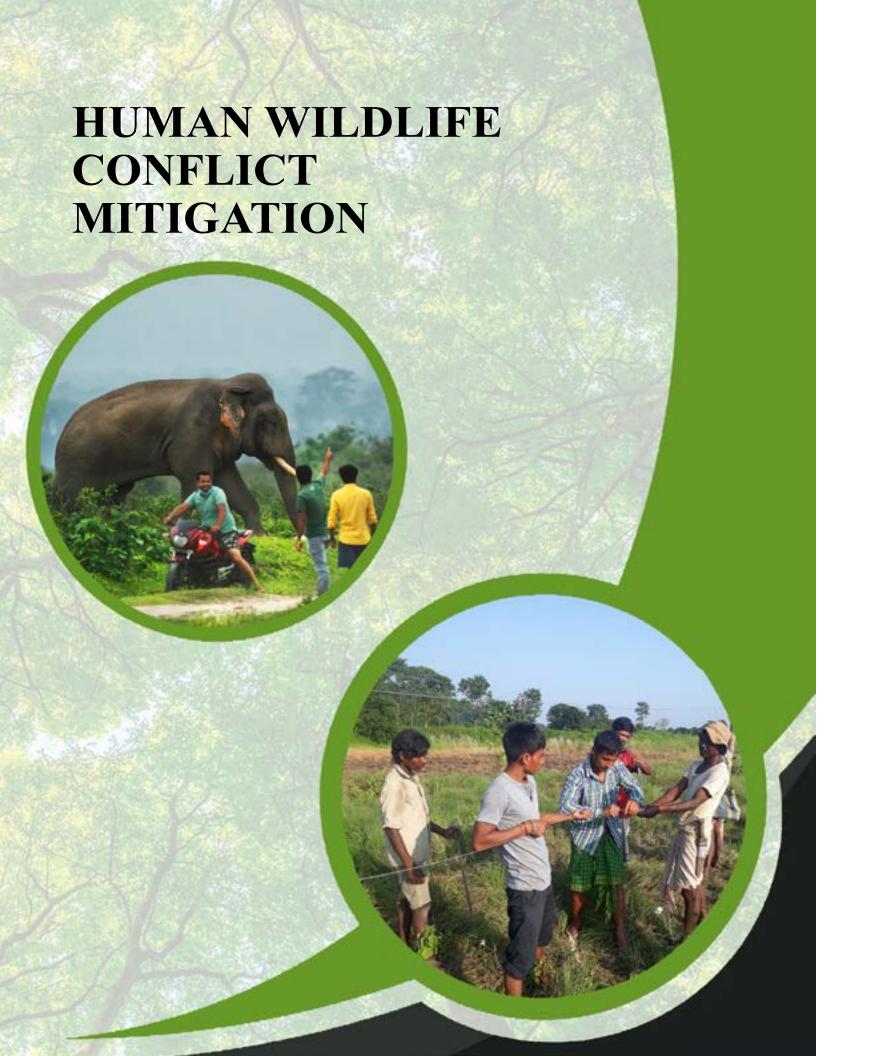
same. Thus, a new logo/formation sign has been proposed and submitted for approval to the SSB Sector Headquarters, Rangia, Assam.

Along with the Assam State Legal Services Authority and Manas National Park authority, a half day interactive programme on wildlife conservation issues with BTC officials at Bansbari, Manas National Park was convened. Further Aaranyak launched an initiative titled "DETERS", which stands for "Disrupt and End Trade of Endangered and Rare Species". The initiative will be an umbrella for various objectives which would contribute to the greater goal of putting an end to wildlife trafficking and illegal trade routes of endangered and rare species.

Roping in the proactive vigilance capabilities of officials of Central Industrial Security Force (CISF), Airport Authority and airlines engaged in survelliance through X-ray machines in Guwahati Airport has led to seizure of few wildlife and forest products.

We have been continuously lobbying for participatory natural resource-based management and sustainable livelihood policies focusing on Karbi Anglong and Dima Hasao in Assam to benefit people living in forest fringe villages and biodiversity in the long run.

We engage communities of the river isle and fringe villages close to the core rhino habitat around the Protected Areas of Kaziranga, Orang and Pobitora to safeguard the rhinos that stray out to garner support, and coordinate with forest and police personnel to ensure protection of the animals.





A scene of human wild elephant confrontation

Human Wildlife Conflict (HWC) undermines the efforts to safeguard the species involved and endangers human wellbeing as well. In Assam, a majority of the HWC comprise of human-elephant conflict (HEC) incidents. The main drivers of HEC are loss of elephant habitats and corridors, and increase in human population which led to increased pressure on limited resources such as space. In most cases the HEC affected people are from low economies in rural places of Assam, with limited access to mitigation tools. We, therefore have adopted a multistakeholder and multipronged approach to promote human elephant coexistence.

PREDATOR-PROOF CORRALS

To safeguard the livestock and poultry from predators, we have supported the villagers through construction of seven predator proof corrals, which reduced human-wild-life conflict in those villages.

PROMOTING HUMAN-ELPHANT COEXISTENCE

Human elephant conflict (HEC) in Assam is increasing, both in intensity and frequency in recent times. The districts of Goalpara, Baksa and Udalguri are considered as high HEC areas in Assam as evident from the number of people killed due to HEC every year, and retaliatory killings of

elephants. The HEC incidents impinges on safety of people and elephants alike, impacts food and nutrition security, and biodiversity conservation. To mitigate these we have engaged with local communities and supported them in installing approximately 27 km of community operated solar-powered electric fence to protect the lives and livelihoods of people, without obstructing the elephant movement. The solar-powered fences have been found to be effective mitigation tool that has directly benefitted the villagers by reducing crop and property damages by elephants.

Another effective community-based approach that has been found effective in mitigating HEC is "Elephant Conserva-



ECN team members after a sensitization programme

tion Network" (ECN). The ECN is volunteer group where villagers form a team to monitor elephant movement in their villages and act as early warning units by informing the villgers about elephant's whereabouts. The ECNs are formed in the high HEC districts of Goalpara, Baksa and Udalguri and have been trained by us on how to monitor elephants.

In order to facilitate human elephant coexistence, a total of 458 rechargeable torch lights were provided to the members of Anti Depredation Squads, Village Defence Party, local villagers and the Forest department in the districts of Kamrup (East), Nagaon, Jorhat, Tinsukia, Biswanath, Goalpara, Udalguri, Golaghat and Karbi Anglong as a mitigation



A glimpse of a community operated solar powered fence

tool. Moreover, 35 solar streetlights were provided in high HEC sites of Udalguri, Baksa, Golaghat and Goalpara districts of Assam.

The frontline forest officials, members of Village Defence Parties and Anti-Depredation Squads were provided with field gear such as raincoats, shoes, and winter wear to facilitate their work in mitigating HEC.

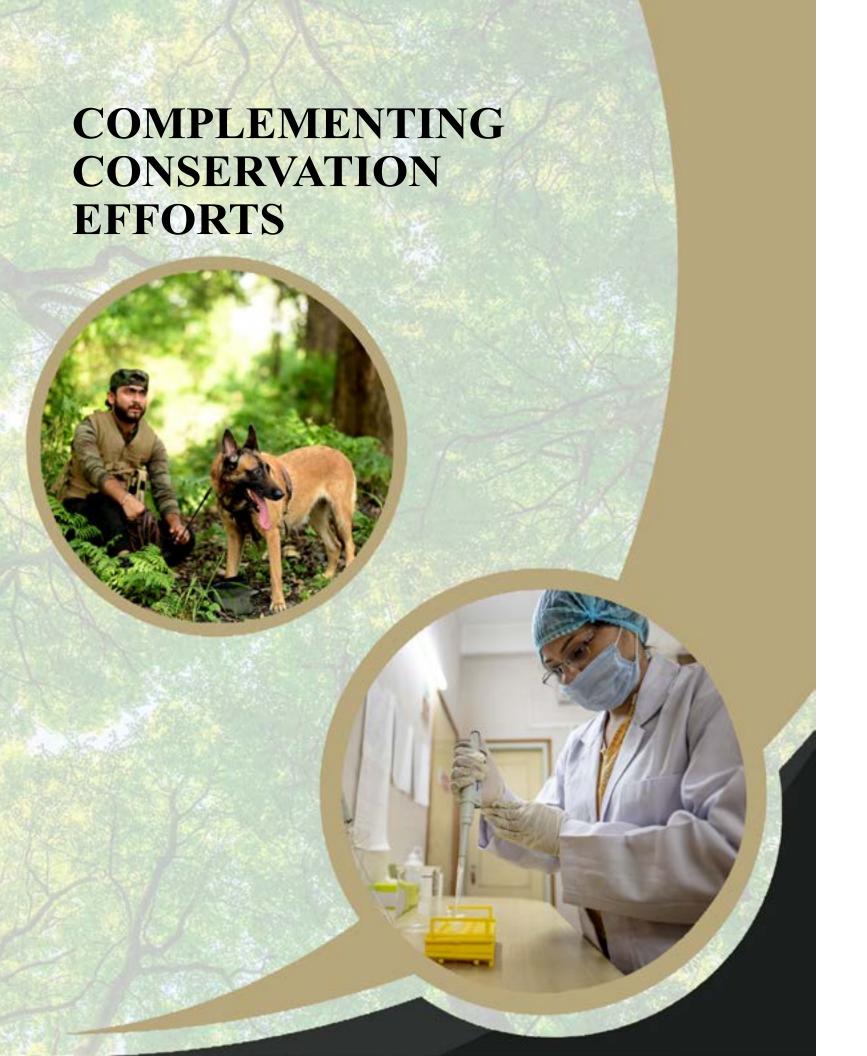
Moreover, for HEC mitigation and enabaling coexistence we are continuously monitoring HEC incidents by collecting data on ground and collating information from secondary sources. Besides, we have identified and prioritised areas where habitat improvement efforts should be undertaken as a longterm solution to reduce HEC.



Solar street light in a HEC affected area



The team assesing crop damage caused by wild elephants





Aaranyak's genetic experts conducting genetic sampling of rhino horns in Government repositories

SUPPORT PROVIDED TO GOVERN-MENT LINE DEPARTMENTS

Conservation of wildlife and its habitat, and ensuring people's wellbeing who are dependent on this biodiversity rich areas is a multistakeholder job. We have been working in tandem with Government line departments and local communities to complement the conservation actions.

One of the most remarkable contributions of Aaranyak is providing DNA forensic analysis support to the Forest Departments of northeast India for the last nine years. This year, as requested by the Chief Wildlife Warden of Assam, experts from Wildlife Genetics Laboratory took part in reverification and disposal of

wildlife trophies in Government repositories in Assam as a technical committee member (genetic expert) in collecting samples from more than 2500 rhino horns, prior to their disposal through burning. Furthermore, more than 2500 genetic samples were retained from these to aid in genetic study and forensic DNA analysis.

The Wildlife Genetics Laboratory (WGL), has been assigned by the Chief Wildlife Warden (CWLW), Assam as the authorized laboratory for DNA analysis-based profiling of exotic pet species in Assam. Moreover, genetic expert from Aaranyak was made a member of the committee formed by the office of PCCF (WL) and CWLW, Government of Assam to investigate a case of rhino carcass mis-

identification in Orang National Park. Further, we participated in the rhino census conducted in Pobitora Wildlife Sanctuary by Assam Forest Department.

This year we had assisted the Assam Forest Department to confirm species identity from confiscated meat, bone and skin by conducting forensic DNA analysis, in at least six such instances from Nalbari Range, Eastern Range of Kaziranga Tiger Reserve, Central Range, Kachugaon Wildlife Division, and Lakhimpur Division to aid in investigative support. Besides, forensic DNA analysis support was also provided to crime investigation in KTR, suspected to be of Leopard. In another case, individual identity of confiscated animal articles suspected to be of Greater one-horned rhino



During Cattle vaccination camp around Kaziranga

were resolved and matched to a rhino carcass recovered at the scene of crime using forensic DNA analysis. We assisted the Cachar Forest Division and performed parentage analysis of captive Asian elephant (mother-calf pair).

The tireless efforts of Assam Forest Department, the Police Department and the support of local communities have led to "Zero Rhino Killing in 2022". To complement their efforts, we have provided various basic, yet essential tools such as > 2000 face masks to Golaghat Police to help continue their duty during the trying times of COVID, and field gears for 30 police personnel of the Bokakhat sub-division.

The Village Defence Party (VDP)a government recognized entity comprising team of village youths to assist the local police in ensuring safety and security of their villages are instrumental to conservation as well. We supported 170 VDP members from fringe areas of the Kaziranga working under Bokakhat Police Station (PS) with charge lights and sweaters. Whereas, we provided 25 charge lights and 500 face masks to the VDP members under Jamuguri PS of Golaghat District.

We provided ex-gratia for the frontline forest staff of Kaziranga National Park and Tiger Reserve authority who died on duty. Moreover, to boost the patrolling in the reserve, we supported the authority with six motorcycles. Another 63-frontline staff from Jorhat Forest Division were supported with field gear containing backpack, cap, mask, Book and a poster on Hoolock gibbons.

We assisted the Kaziranga Na-

tional Park (KNP) authority through support as volunteers in effective management of traffic during floods in Kaziranga, and awareness drives to monitor wild animals as they stray out of the protected area during the annual floods. Moreover, a cleanliness drive was conducted to clear-off non-biodegradable wastes such as plastic bottles, polythene, etc. jointly with KNP Authority to avoid accidental consumption of these items by wild animals. The cleanliness drive was conducted under Burghapahar range at the stretch of 3-km in NH-37. Aaranyak provided assistance to the State Veterinary Department and Kaziranga National Park Authority during cattle vaccination in the fringe villages of the park. The team vaccinated 4475 cattle from 948 households in 25 villages around the Burhapahar range. While in Manas, Aaranyak

in collaboration with the National Park authority undertook cattle vaccination in ten Eco Development Committees around the park. The vaccination was administered by the personals of WAMUL and was assisted by community members. A total of 857 cattle were vaccinated.

Aaranyak collaborated with the Assam Forest Department in initiating the Project (Seuj Prahari) in order to document the heritage trees above 50 years of age in Assam and connect people for hand holding in a conservation effort.

A total of 50 volunteers working under Biswanath Wildlife Division were supported with 50 charge lights and raincoats, whereas 20 volunteers of Burapahar Range



Torch light as HEC mitigation tool provide to the villagers in Goalpara District

of Kaziranga were provided 20 charge lights and raincoats.

SUPPORT TO LOCAL COMMUNITIES

Besides the Government De-

partments, the local communities around high-conservation value landscape was supported with various gears. A total of 17 solar street lights were installed in seven villages under



Motorbikes provided by Aaranyak to frontline forest officals of kaziranga National Park

oto Aaran

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Villagers during a training on organic farming

lihood of local communities in or-

Burapahar Range, and 13 solar street lights in five villages under Agaratoli and Bokakhat Ranges of Kaziranga National Park.

In the Kohora River Basin, we installed 60 solar street lights in a phase-wise manner in six villages, which the villagers opined has enhanced their safety and reduced the chances of accidental encounter with wildlife during nighttime.

We supported 90 progressive farmers in the villages of Majrabari, Bhuyanpara and in Bansbari area, fringes of Manas National Park with winter seeds. While in Udalguri district, we supported the Shikaridanga Joint Forest Management Committee (JFMC) members with piglets to supplement their animal husbandry practice. It is worth mentioning that this JFMC has been instrumental in creating manmade forest. In our effort to supplement live-

der to reduce their dependency on forest, we constructed four toilet blocks for community-owned home stays in Majrabari, near Manas National Park. With an aim to encourage the local villagers to protect the Lesser Adjutant Storks (LAS), locally known as Bortokola, we felicitated a family in Satdola, Hajo for their immense efforts and contribution in protecting 15 nests and chicks of these storks, and the local communities at Thakurpara village of Chhaygaon, Assam under the title of "Bortokola Mitra" in collaboration with Assam Forest Department, support from Whitley Fund for Nature (WFN) and a local youth-group named "Dhodang". We joined hands with the Indian Medical Association, Guwahati Branch, and Hargila Army to conduct a much-needed free health check-up at Dadara Durga Mandir, Kamrup for the women community members of the Hargila army, who play a pivotal role in safeguarding these storks. We are in debt to all the physicians who for stepping forward to help these remarkable women.

RESCUE AND REHABILITATION

Assam is a vital breeding ground for the Endangered Greater Adjutant Storks (GAS), and currently holds the highest stork population. These storks nest in large and tall trees, and often the chicks fall from the nests, causing deaths. To safeguard the chicks from falling from the nests, we fitted nets under the nesting trees. On number of occasions, the chicks were rescued and handed over to the relevant authorities for rehabilitation. Two chicks were rescued from Dadara nesting colony in Assam by our team with the support of community members, and later handed them over to the Assam Forest Department for rehabilitation and release. Besides, the GAS we rescued a chick of a Lesser adjutant stork in Chhaygaon, Assam with the help of local youths.

PLANTATION DRIVES

To celebrate India's 75 years of

independence with the theme "Azadi ka Amrit Mahotsav", we joined hands with the Income Tax Department, Government of Assam and conducted a plantation drive at five sites across the districts of Kamrup. Around 1000 saplings were planted with the aim of "Pradushan Se Azadi" (which loosely translates to relief from pollution) at Assam Don Bosco University, Tepesia Campus, Scholar's Institute of Technology & Management, KKHSOU, Jan Sikshan Sansthan, Ministry of Skill Development and Amseng LP School, Satgaon. The plantation drive in Assam Don Bosco University was graced by-Padma Shri, Jadav Payeng who is known as the "Forest man of India" where he was felicitated for his immense contribution. A community plantation drive was undertaken jointly with the Krishna Kanta Handique State Open University, Guwahati in five villages of Azara and Rani area (Hanapara, Puran Sukurberia, Andherijuli Para, Ganapati and Matia

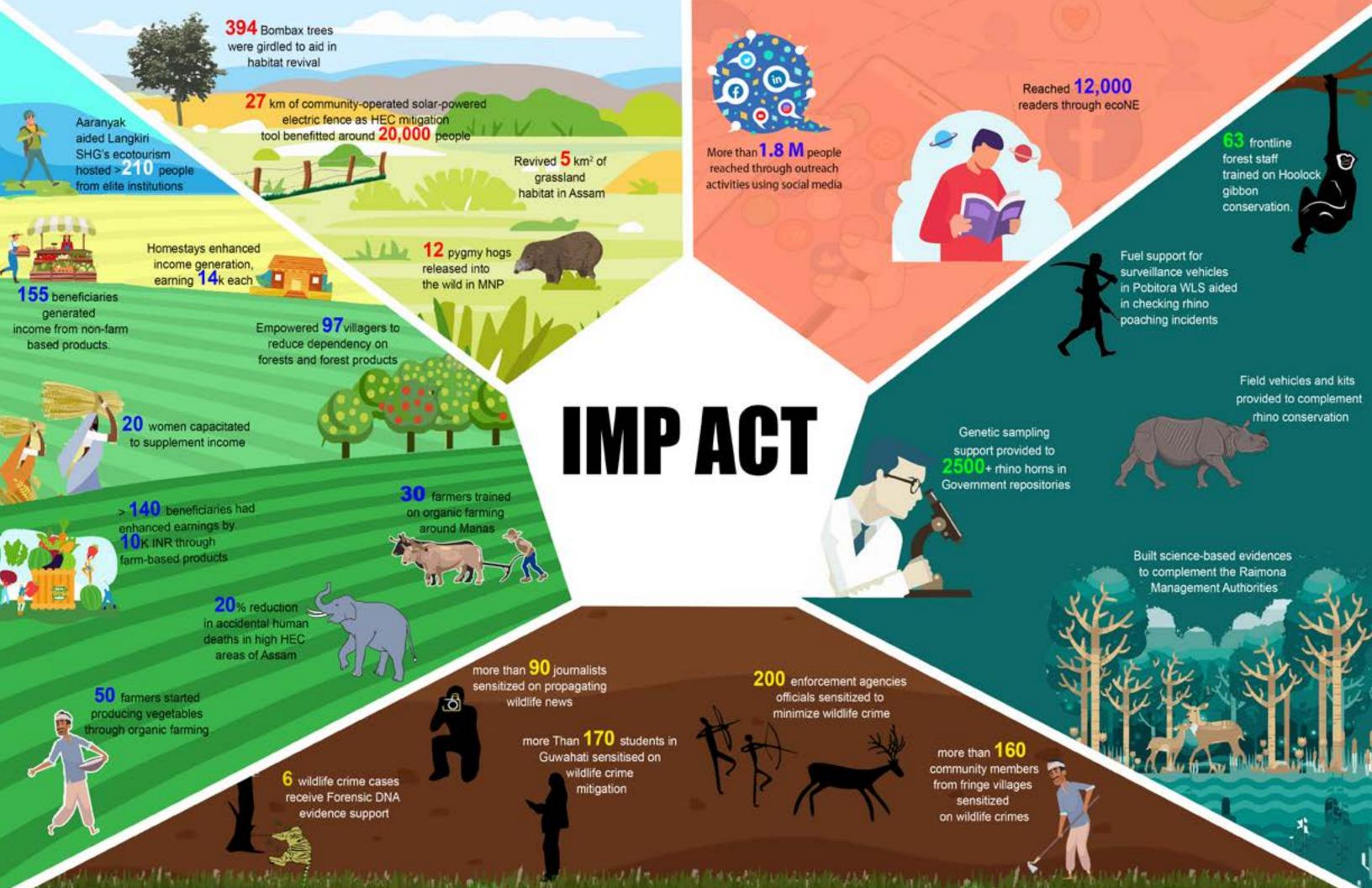


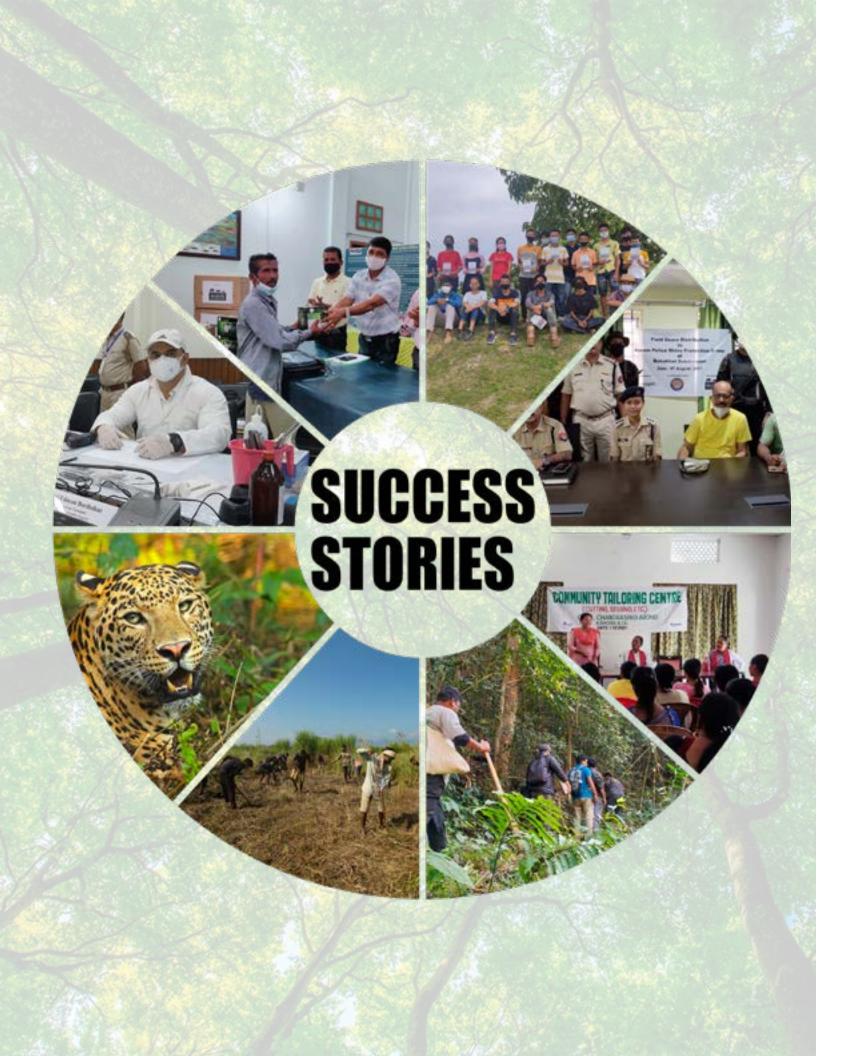
During a plantaion drive

Islampur), where 60 saplings of native fruit bearing trees were planted to mark the birth anniversary of our "Father of Nation", Mahatma Gandhi. With the objective to "greening" school campus we conducted plantation drives with the help of students, our members and school staff at the Bonkual High School and Bonkual Govt. ME School.

Aaranyak collaborated with Aie Valley Forest Division, Bongaigaon and the District Authority, and planted food plants of the Endangered Golden Langurs comprising Amlakhi (*Emblica officianalis*), Bohera (*Terminalia bellirica*), Jam (*Syzygium cumini*), Gamari (*Gmelina arborea*), Koroi (*Albizia procera*), Silikha (*Terminalia chebula*), Bhatghila (*Oroxylum indicum*), Poma (*Chukrasia tabularis*), Urium (*Bischofia javanica*) and other indegenoius species. Besides, around 350 saplings were planted alongside the embankment of the river Chaulkhowa in Barpeta District, of which 80% survived.

AARANYAK





REWILDING

We successfully raised pygmy hogs in captivity and released a total of 12 Pygmy hogs in three batches following standard reintroduction protocol. Released hogs were monitored through camera traps at the baiting site, radio telemetry and camera trapping at their ranging areas, indicated that > 90 % hogs survived in the wild.

FACILITATED IN NOTIFICATION OF RAIMONA NATIONAL PARK

Our primary systematic research findings on the large mammalian assemblages in the Ripu-Chirang forest complex, the western buffer of Manas Tiger Reserve, highlighted the urgency of immediate conservation interventions, which have contributed to the notification of Raimona National Park.

SENSITIZATION EFFORTS HELP SEIZURE

The sensitization workshops conducted for the Central Industrial Security Force, LGBI Airport (Guwahati) led to two backto-back seizures in the airport. One seizure was made on wild animal teeth artifact, while the other one was a vial of agar oil.



Pygmy Hog released in Manas National Park





Seizures of wildlife products-Snake Skin Purse and Pangolin Scales



Community operated solar powered fence as HEC mitigation tool

TETE-A-TETE

Mrs Dipa Basumatary, a resident of Thuribari Village from Kokilabari, near Manas National Park had a homestead garden, but no agricultural land. We identified her and reached out to supplement her livelihood. Earlier her annual family income was around 35,000 INR. She received training on pig rearing, and we provided piglets. She worked very hard and earned around 1,00,000 INR annually. We continued monitoring and hand-holding, which led her to earn between 1,50,000 to 1,80,000 INR currently. She is a proud owner of 40 pigs, continues to be a bread-winner for her family.

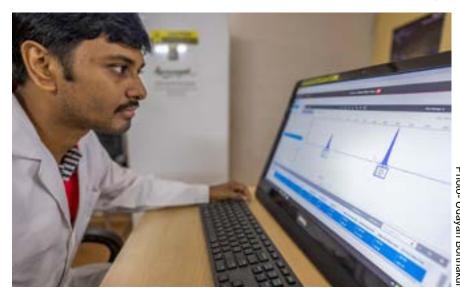
Dakurbhita village in Goalpara district was a hotspot of Human-elephant conflict, often making it difficult for villagers to sleep peacefully at night. The village inhabited mostly by the indigenous Rabha community; the women from the village used to take refuge in the nearby Pancharatna Railway Platforms because of elephants, while the men were out guarding their crops and properties. This had impacted their social lives, safety and security. We reached out to the villagers, interacted with them, and collected information on elephants movement pattern, and intensity of HEC incidents. With proactive community engagement we installed a solar-powered fence of 4 km length surrounding the villages, without obstructing elephant movements. This made a tangible impact, and now the villagers can stay in their homes. This also paved the way in securing economic and social benefits.

NORTHEAST'S FIRST DIGITAL PLATFORM FOR BIODIVERSITY CONSERVATION

Aaranyak's ecoNE stands as the first ever and only digital platform from northeast India dedicated to biodiversity and environmental issues. We have been supported with equipment from IdeaWild for documentation work which will contribute in biodiversity conservation area of Northeast India.

FORENSIC DNA ANALYSIS

Wildlife Genetics Laboratory through its 14 years of existence has been pioneering population genetic research in northeast India and acting as the sole wildlife forensic DNA investigation service provider to the forest department. In this continued effort, the laboratory during the reported period provided some crucial support to Assam Forest Department, both through expert manpower contribution and have been instrumental in wildlife crime mitigation through much needed scientific evidence required to establish crime in the court of law.



Reseracher analysing genetic data



Popular talk on snake bite management

SOLAR STREET LIGHTS PROVIDED

The solar street lights provided at various remote locations in Assam have reduced the accidental encounters with wildlife during night, which reduced the conflict substantially. More than 300 solar street lights were installed at strategic places to increase animal detection at night.

ORGANIC MANURE AIDS FARMERS

Ten farmers, who were trained on vermicomposting have produced over 20 quintals of organic manure and use those in their agriculture fields as well sell the surplus produce. Our efforts to promote organic farming among fringe area villagers have paid rich dividends given that targeted farmers from Japaripathar farmer group among

them could earn Rs 10,000 and the efforts ended up reducing use of chemical fertilizers in the area.

SNAKEBITE MANAGEMENT

The initiative of snakebite management has helped to sensitize community and health practitioner and inflow of snakebite patient coming to hospital has increased.



Conservation of biodiversity has become all the more important to ensure human well-being in the face of zoonotic disease, loss of biodiversity and climate change impact. Our work contributes tangibly in advancing the goal of "Kunming-Montreal Global Biodiversity Framework" (GBF) which aims at effective conservation and management of at least 30% of the world's lands, inland waters, coastal areas and oceans. Given, each year we develop a roadmap, which is a strategic plan that ensures desired outcome, and includes milestones necessary to achieve the goal of biodiversity conservation and people's wellbeing.

CONSERVATION OF THREATENED SPECIES, THEIR HABITAT AND LOCAL COMMUNITIES

For ensuring long-term conservation of the threatened species and their habitat we have adopted a multi-dimensional approach comprising monitoring of the species, habitat revival and engaging local communities.

For the year 2022-23 we have planned for reintroduction of 12 pygmy hogs, a rare suid in Manas

National Park (MNP) to supplement the existing population in the park. Therefore, we are working towards preparing the hogs for reintroduction in our pre-release centre, along with maintaining a population through conservation breeding. We aim to breed at least 12 hogs, to produce 30 hogs and maintain a population of 75 hogs in the captivity. We shall continue the monitoring of the wild pygmy hog population in MNP and the reintroduce-established population in Orang National Park (ONP) using sign surveys and camera trap surveys.

To replenish and conserve the pygmy hog habitat, we will continue our long-term research on different grassland management methods in MNP, in our established vegetation plots. We aim to intervene in at least 5 km² grassland habitat in MNP, and another 2 km² in ONP for the upcoming year. In addition, we shall continue monitoring of other grassland obligate species, such as the Critically Endangered Bengal Florican (*Houbaropsis bengelensis*) population in ONP.

To conserve the Asian elephants, its habitats as well as promote human elephant coexistence in north-



A birds eye view of a habitat patch fenced to protect from livestock grazing (on right) and without fence

east India we have developed an adaptive action plan, using Open Standards, and identified nine key areas to work on. Given, we will conduct ecological surveys and genetic studies to advance our knowledge on elephant population, and aid in landscape level planning for its conservation.

Our rhino conservation work entails consolidated research on understanding rhino behaviour and habitat use across various seasons, how rhino cops during annual flood, and improve identification criteria of individual rhinos based on body shape, physical structure and photo-



A rhino mother and calf in one of the rhino bearing areas of Assam



Golden Langur in its habitat

graphic tools to estimate height, length and width of individual rhinos. Further, we will work towards revival of rhino habitat by managing Invasive alien plants, aiding recovery of native grass species, and how flood helps or sometimes retards growth of native grass species in rhino areas.

The Golden Langur, one of the most threatened primates which is endemic to India and Bhutan is threatened by habitat fragmentation, linear infrastructure and electrocution. To aid in its conservation, we plan to map and identify the existing and potential corridors in its habitats, and conduct field surveys to understand the current sta-

tus in Kakoijana-Bamuni hills areas. We plan to undertake genetic studies of yet another threatened primate- the hoolock gibbons in northeast India to aid its conservation planning, Moreover, we shall provide support to the concerned agencies in Assam and Meghalaya to understand species occurrence and distribution covering 1200 km² of Protected Areas in Assam and 3000 km² in Meghalaya. Further we will initiate the India-Bangladesh transboundary cooperation for the conservation of species and habitats.

To advance knowledge on the region's herpetofauna, we aim to create a Digital library for amphibian acoustic characteristics and a phylogenetic database

for amphibians from NE India. We plan to establish a strong communication network and bonding with the local communities in Diffolu and Kohora River Basin in the Kaziranga-Karbi Anglong landscape. We will work towards creation of model-based eco-restoration framework by integrating traditional knowledge systems and cutting-edge technologies for the potential recovery of wildlife habitats in Assam and NE India. The Hollongapar Gibbon Wildlife Sanctuary is a wildlife haven surrounded by human-use lands; we plan to carry-out an expansion of the wildlife habitat and monitoring of the associated changes and documentation work in and around the sanctuary.

REDUCING WILDLIFE CRIME

Under the initiative of DETERS, in the upcoming year we plan to expand the interventions in the eastern Himalaya region to reduce the incidences of wildlife crime. Activities shall be expanded in states like Arunachal Pradesh and Manipur. We will continue our collaboration with national and international organizations to curb trade of wildlife products.

EDUCATION, OUTREACH AND COMMUNICATION

In order to garner support for biodiversity conservation and environmental protection we aim to work with different target groups such as students, youths,



Outreach activity for students in Kohora River Basin

and common citizens. For this we will initiate a crucial community-based biosecurity, where we will work with 100 households of Mishing community around Pygmy Hog Conservation Programme (PHCP) pre-release centre, located near Nameri National Park to ensure Pygmy Hog survival in captivity. We have targeted to initiate nature connection through working with the school children of 12 fringe schools around MNP. Further, as future custodians of our rich biodiversity, the students and the youths, we aim to reach out to around 3000 students, and 100 youths to help develop a deeper understanding on the need of biodiversity and environment conservation.

Our long-term aim of the outreach education and communication work is to entail a positive change in behaviour, and act responsibly towards use of natural resources. To aid this we will be developing Information Education Communication (IEC) materials on prioritised environmental issues of the state for generation of mass awareness as well, and work towards strengthening collaboration with different stakeholders to achieve our goal. We plan to develop a digital repository on IEC material, which will enable use of these materials by various stakeholders. Special participatory biodiversity media initiatives for kids are planned as well.







Local farmers supported with crops for cultivation

Besides, to empower local communities strengthen their approach to deal with HEC, we will conduct education, outreach and capacity building events and engage them in promoting coexistence.

CONSERVATION AND LIVELIHOOD

To supplement the livelihood of the local communities who are dependent on forest resources or affected by human elephant conflict around high-conservation value landscapes, we are working with indigenous communities, and other local communities across Assam and Meghalaya to build their capacity and facili-

tate their livelihood opportunities. To improve the socio-economic capacities these people we will initiate a micro-enterprise development programme that is projected to provide a sustainable income source. We will work to ensure that the capacity, production levels, and standards of living are improved. For the upcoming year we will be working with 10 EDCs and community volunteers in the fringe villages of MNP. Besides, we target to work with around 1000 beneficiaries, including HEC-affected households, self-help groups, farmers among others to supplement livelihood opportunities and empower them.



GIS training for frontline forest staff

COMPLEMENTING CONSERVATION EFFORTS AND CAPACITY BUILDING

We plan to continue providing wildlife forensic DNA analysis support to the state Forest Departments in Northeast India, as well as other law enforcement agencies for facilitating wildlife crime investigations. Further, we will build capacity of the local field officers in proper collection of forensic DNA evidences for aiding in wildlife crime investigations. capacitate frontline forest staff of northeast India to advance the conservationof Hoolock gibbons, and other threatened species we aim to conduct training workshops. To promote environmental media

communications through capacity building workshops for various stakeholders and human resource development in Northeast India through consultation workshops, motivational seminars, and hands-on training modules.

SEMINARS/WORKSHOP/ CONFERENCES

- Alolika Sinha presented a talk (virtually) on "Ecosystem Restoration" at the DCB Girl's College, Jorhat and for "State project Implementation Unit, Uttar Pradesh" respectively on occasion of Environment Day.
- Anjan Baruah participated in a webinar on "Identification of suitable decentralized renewable energy technologies for deployment in North East India" conducted by IORA Ecological solution.
- Anjan Baruah participated in a webinar on "Azadi Ka Amrit Mahotsav" conducted by Ministry of New & Renewable Energy, GOI.
- Abhijit Boruah and Rubul Tanti attended a meeting on assessment and evaluation of habitat at Landscape level with a view to assess carrying capacity as a part of elephant task force organised by Assam Forest Department.
- Bibhab Kumar Talukdar attended the IUCN World Conservation Congress at Marcelli, France representing Aaranyak.
- Bibhuti Prasad Lahkar attended a workshop on "Wildlife Acts and wildlife-related crimes" at Section Headquarters (SHQ) of SSB at Rangiya in Kamrup district.
- Bibhuti Prasad Lahkar delivered a talk on "Mitigation of Human-Wildlife Conflict in Assam" in a webinar on "Human-Wildlife Conflict and Its Mitigation" organised by Departments of Zoology, Sadiya College.

- Bibhuti Prasad Lahkar presented a talk on endangered species of Northeast India in a National Webinar organised on the occasion of Wildlife Week jointly organised by Envocare Nature Club and Nawegaon-Nagzira Tiger Reserve, Maharashtra.
- at a webinar on HEC mitigation: A
 Holistic approach" organised by Assam Forest department and Project
 Elephant, GOI.
- Dilip Chetry attended a webinar on Hunting, Wildlife Markets and Food security organised by American Society of Primatologist Conservation.
- Dilip Chetry attended the Economics of Biodiversity Organised by ASEAN Centre for Biodivesity.
- Dilip Chetry attended the State of the Ape: Killing, Capture and Trade organised by Arcus Foundation.
- Dilip Chetry attended the Animating the Carbon Cycle organised by Rewilding Global Alliance.
- Dilip Chetry attended the Covid-19
 Outbreak and health: Recent Trend,
 organised by Ambedkar College.
- Dilip Chetry attended the Nanobiotechnology and its Medicinal Applications organised by Department of Zoology, BN College & Department of Zoology, Gauhati University.

- Dilip Chetry attended the Climate Change: Lessons and actions organised by Department of Zoology, Marigaon College & Department of Zoology, Gauhati University.
- Dilip Chetry attended the "Wildlife studies and Management: Case Studies" Organised by by CNB College, Bokakhat & Zoological Society of Assam.
- Dilip Chetry attended Sociality and Health in Primates organised by Tatiana Murillo et al & International Primatological Society.
- Dilip Chetry attended Voices from the Field, organised by Jennifer Cramer et al. & International Primatological Society.
- Dilip Chetry attended the Titi monkey Ecology and Conservation Symposium Adrian Barnett et al. & International Primatological Society.
- Dilip Chetry attended the Language and Conservation Roundtable discussion organised by Karen Strier et al. & International Primatological Society.
- Dilip Chetry attended the Conservation on the ground: Nationnal &
 Grass root Experiences organised by
 IUCN section for Human Primates Interactions.
- Dilip Chetry attended the Ape, Biodiversity and Climate organised by Ape Alliance.
- Dilip Chetry attended the Human-Primate Coexistence organised
 by IUCN Primate Specialist Group,
 Section for Human-Primate Interactions.
- Dilip Chetry attended the Strengthening prevention of Forest Fire in Sebangau National Park through smart patrol Training.

- **Dilip Chetry** attended Primate in Anthropocene organised by IUCN PSG.
- Dilip Chetry attended the International Primatological Society Conference, Quito, Ecuador.
- **Dilip Chetry** delivered the keynotes address on "Budongo Conservation Field Station" by Prof. Vernon Reynolds.
- **Dilip Chetry** delivered keynotes address on Primate Conservation Across Globe: Space and Overtime: By Prof.Karen Stein.
- Dilip Chetry attended the Primate in Fragments: By Prof. Ramesh Boonoratna.
- Dilip Chetry presented a paper on
 "Western hoolock gibbon: Current
 status and Distribution in Doomdooma Forest Division in Assam,
 India during XXVIII International Primatological Society Congress, Quito,
 Equador. (Virtually)
- Dilip Chetry attended IUCNSSC Primate Specialist Group meeting.
- Dilip Chetry attended IUCNSSC Primate Specialist Group meeting.
- Dilip Chetry attended seminar on Nilgiri langur of Western Ghat by Prof, Mewa Singha organised by Sri Chamarajendra Zoological Gardens.
- Dilip Chetry attended a seminar on Mysore Slender Loris by Dr H. N. Kumara, organised by Sri Chamarajendra Zoological Gardens.

- Dilip Chetry participated in Covid-19 or the Pandemic of Abused Biodiversity organised by CMS Vatavaran.
- Dilip Chetry participated in Shaping young mind to build future biodiversity conservation leader: Challenges and Opportunity, Organised by Research Scholar Forum, Dept. Of Zoology, G.U & ZSA.
- Dilip Chetry participated "The many powerful pressure of Pollution", Organised by Dept. Of Zoology, G.U. & ZSA.
- Dilip Chetry participated the Do people matter in Conservation? Case study of Human –Elephant Conflicts in Assam, organised by Centre for Northeast studies and Policy Research, Jamia Millia University.
- Dilip Chetry participated "The Art of understanding Animal distribution",
 Organised by Research Scholar Forum, Dept. Of Zoology, Gauhati University & Zoological Society of Assam.
- Dilip Chetry participated the "World Nature Conservation Day" organised by JNV University, Jodhpur, Rajesthan.
- Dilip Chetry participated the "Their Survival in our Hands" organised by WWF, India.
- Dilip Chetry participated the "Preservation and Conservation of Endangered and rare species of Assam with special reference to Hoolock gibbon" organised NE Focus and Indian Tourism.

- Dilip Chetry participated the "Waiting for an equal World" Organised by N.E.Cell, Ramjas College, Delhi University.
- Dilip Chetry participated the biodiversity crisis; Do we have any rescue plan for nature Organised by Department of Zoology, Rangapara College.
- Dilip Chetry attended the "Conservation of Elephant- The national heritage of Animal.": Organised by Vivekananda Kendra Institute of Culture, Guwahati & Aaranyak.
- Dilip Chetry attended the Prospects
 of Agarwood cultivation and utilization in Northeast India organised by
 GB Pant Institute of Himalayan Environment, N. E. Centre India.
- Dilip Chetry attended the Biodiversity and Ecosystem functions in Human-modified tropical Forest Organised by Department of Environmental Biology & Wildlife Science, Cotton University.
- Dilip Chetry attended the Odontes in response to Baghjan Blowout near Maguri-Beel, Tinsukia, Assam organised by BNHS.
- Dilip Chetry attended the Behavior aspects of Dragon fly with special reference to the Dragon fly of Assam & NE, organised by WWF, Assam..

- Dilip Chetry attended the Odonates of Deepor Beel, Assam organised by WWF, Assam.
- Dilip Chetry attended the Pigtail macaque: Status & Conservation organised by Central Zoo authority, Govt. of India virtually as resource person.
- Dilip Chetry attended the Bengal slow loris organised by Central Zoo authority, Govt. of India..
- Dilip Chetry attended the Great

 Horn Bill organised by Central Zoo

 authority, Govt. of India.
- Dipankar Lahkar attended a panel discussion, "Status of North-East India Biodiversity", as one of the panellists organised by the Indian Institute of Science Education and Research.
- Dipankar Lahkar participated in the National Children Science Congress (NCSC 2021)-a state-level congress as a state academic member cum state-level evaluator, held in Nalbari, Assam.
- Gayatri Dutta and Ivy Farheen Hussain presented in Aaranyak's Annual Research Seminar (ARS) 2021.
- Gayatri Dutta presented a talk during Asia Park's congress, 2022 at Sabah, Malaysia.

- HRCD team attended introductory course on Molecular Phylogenetics, organised by Biologia Life Science LLP, Research foundation in Maharashtra.
- HRCD team attended the R&D Funding Opportunities by SERB- DST:
 Awareness Workshop for Researchers from North-East Institutions organised by Institute of Advanced Study in Science and Technology.
- Ivy Farheen Hussain presented a talk during Asia Park's congress, 2022 at Sabah, Malaysia.
- Jayanta Kumar Pathak attended a professional workshop on proposal writing.
- Jayanta Kumar Pathak attended a workshop on "Conservation Funding for Local Action and Impact" organised by IUCN under the initiative of Reverse the Red.
- Jayanta Kumar Pathak attended two virtual assembly of IUCN CEC.
- Jimmy Borah attended the Crime Convergence: Intelligent Approaches to Organised Crime, hosted by Wildlife Justice Commission.
- Jimmy Borah attended the Global Environmental Crime Tracker hosted by the Environmental Investigation Agency.
- Jimmy Borah attended the Community Based Tourism. The Future?
 hosted by TOFT Tigers India.
- Jimmy Borah attended A New Deal for Rangers: Reforms, Representation and Recognition, hosted by IUCN-WC-PA.

- Bibhab Kumar Talukdar presented on Shaping Young Minds to Build Future Biodiversity Conservation Leaders: Challenges and Opportunities.
- Jimmy Borah presented on Global wildlife crime perspective at Amity University on the occasion of Global Tiger Day.
- ing Trends and Opportunities in Wildlife and Forestry Sector organised by Amity University as part of the 4th edition of International Conference on Entrepreneurship, Innovation and Leadership (ICEIL 2022)
- Parag Jyoti Deka attended an e-workshop titled IUCN ASF workshop - Disease Risk Analysis to improve management of ASF among Wild Pig species in the Philippines, in the topic African Swine Fever Addressing New Threats to the Survival of the Pygmy Hog (Porcula salvania) organised by the IUCN Wild Pig Specialist Group and Conservation Planning Specialist Group.
- Parag Jyoti Deka attended the e-training on online short term training course on "Emerging, re-emerging and transboundary animal diseases in India: Recent advances in diagnosis and control strategies" in the topic on Assessment of disease risk on arrival of African Swine Fever in India and upgrading Bio-security in the Pygmy Hog (Porcula salvania) organised by IDP-NAHEP and DBT Star College Scheme at College of Veterinary Sciences & Animal Husbandry, Central Agricultural University, Aizawl, Mizoram.

- Parag Jyoti Deka attended the international e-conference on recent advances in reproductive technologies in wildlife conservation, in the topic How we breed pygmy hog in captivity organised by Laboratory for the Conservation of Endangered Species (LaCONES), CSIR-Centre for Cellular and Molecular Biology, Hyderabad.
- Parag Jyoti Deka attended the Azadi ka Amrit Mahotsav - calendar of 75 species of conservation significance, 175 Years with Pygmy Hog organised by Central Zoo Authority, Govt of India on online platform.
- Partha Jyoti Das, Pranab Goswami and Manjum Mahanta attended a Conclave and Techno-Fair, organized by NECTAR titled 'Transforming Meghalaya State through Science and Technology Interventions' held at State Convention Centre, Shillong. An exhibition stall was setup by Aaranyak.
- PRCD took part in Solution for Nature organised by USTM.
- Rubul Tanti participated in a workshop on "Climate change in Northeast India, Importance of Scientific understanding of the global and local context.
- Rubul Tanti participated in a webinar on Elephants and Leopards
 (Common Conservation Concerns)
 organized with WTI.

- Rubul Tanti presented in a webinar on research technique and its implementation on conservation of flora and fauna, Botany Department, Digboi College.
- Shilpa Rani Pathak attended an online training programme on Empowering women in Geospatial Information Technology by ICIMOD, Nepal.
- WATCH team participated and exhibited a stall in the conclave "Conclave on Transforming Meghalaya State through Science and Technology interventions" organised by NECTAR...

TRAININGS/WORKSHOPS/ ORGANISED

- NECTAR in association with Aaranyak organised a technical session on "Brainstorming on appropriate science, technology and innovation for mitigating flood and erosion risk in Assam" on 21st December, 2021 at Cotton University.
- Aaranyak organised an exposure visit for NEF college on 9 December wherein the students visited our office to learn about the conservation efforts of Aaranyak.
- Aaranyak provided technical support for a field trip to Pobitora Wildlife
 Sanctuary for the students of Arya
 Vidyapeeth College on 14th March,
 2022.
- Aaranyak as one of the co-organisers took part in a scientific symposium, "Meghna Knowledge Forum (MKF) 2021" organised by IUCN. Partha Jyoti Das facilitated a session on "Data and information on the Climate Change impacts in the Meghna River Basin".
- EECBD organised a live talk show at NEWS18 TV Channel on snakebite management.
- EECBD organised a workshop jointly with SSA, Baksa on Microforest for school teachers.
- **EECBD** organised a workshop on "Biodiversity, Climate and Village" organised at Morigaon, Assam.
- EECBD organised an Orientation workshop on snakebite management at the Manas Conservation Outreach Centre of Aaranyak near Manas National Park.

- EECBD organised workshop on snakebite management on April 12, 2021 at Cotton University.
- EECBD organised workshops on 'International Tiger Day".
- EECBD organised training workshop on biodiversity documentation at Hatimuria village, Morigaon district of Assam. A group of 19 youths have been trained.
- EECBD organised programme on aquatic biodiversity conservation focusing dolphin and combating wildlife crime near Pobitora Wildlife Sanctuary.
- EECBD organised training workshop on biodiversity documentation .
- EECBD organised webinar on "Combating wildlife crime: people's responsibility".
- EECBD organised sensitization programme on 'prevention of wildlife crime and duties of citizens'.
- EECBD organised sensitization programme on "Water-body, Wildlife and Human" was organised at Amtola L.P.
 School premises of Goalpara District, Assam.
- ERCD organised a series of online lectures/workshops for best performance project/coleaders of national congress of Children Science Congress 2019.
- ERCD and CLD collaboratively organised three outreach programmes in Golaghat district to raise awareness on human-elephant coexistence and distributed 40 rechargeable spotlights at four different human-elephant conflict prone areas.

- GACP in collaboration with IIT Guwahati organised a workshop "Nature Conservation with Special Reference to Greater/Lesser Adjutant Stork" at IIT Guwahati.
- GACP organised a workshop for women conservationists to complement their conservation efforts.
- LAD organised training on GPS utilities and navigation was held for frontline staff of various forest divisions in BTR.
- LAD organised workshop on wildlife crime and impacts on human health at station headquarters, SSB, Rangia.
- LAD organised workshop on wildlife crime investigation for frontline staff of BSF and ITBP, Guwahati frontier.
- LAD organised sensitising workshop for CISF and airline staff on wildlife crime and aviation sector.
- LAD organised training class on wildlife crime to frontline staff of SSB, Darranga.
- LAD organised Wildlife Crime Prevention Workshop at Kokrajhar for BTC forest officials in collaboration with BTD Forest Department and IRF.
- LAD organised an awareness programme on prevention of wildlife crime for Police administration at Charaideo Police station.
- LAD organised a sensitization workshop for media personnel on prevention of wildlife crime at Sibsagar Commerce College in collaboration with the Mass Comms department.

- LAD co-organised an awareness campaign at wet markets of Guwahati in collaboration with WCCB, to reduce sale of illegal wildlife products.
- PRCD organised Hoolock gibbon Conservation Training from 7th to 12th February, 2022 in collaboration with Nagaland Forest Department for the Forest guards of Nagaland.
- PRCD organised Hoolock gibbon Conservation Training in collaboration with Nagaland Forest Department for the Forest guards of Nagaland from 21 to 26 February, 2022.
- PRCD organised two field study tour to Hollongapar Gibbon Sanctuary for Forest Guards of Nagaland.
- TRCD organised Hands-on training on installation procedures of camera traps for the forest line forest staff of the Nongkhyllem Wildlife Sanctuary, Meghalaya.
- TRCD organised Hands-on training on the use of camera traps and GPS for the frontline forest staff of Raimona National Park, BTR, Assam.
- TRCD organised a workshop on planning and implementation of camera traps at the Daribokgre Forest IB, Nokrek National Park, Meghalaya.

- TRCD organised International Women's Day on 8 March 2022 at Kohora, Kaziranga.
- TRCD organised Provided hands-on training on the use of GPS for the frontline forest staff of Garbhanga Reserve Forest, Chakrashila Wildlife Sanctuary, Manas National Park, and Dhansiri Forest Division of Assam. About 40 forest officials were trained through this initiative.
- TRCD organised a meeting with the Raimona forest officials and key stakeholders at Central Range of Raimona National Park on the habitat restoration feasibility and future plans.
- TRCD organised the International
 Tiger Day-2021 in collaboration with
 the Directorate, Manas Tiger Reserve
 along with other key stakeholders at
 Bansbari Range of Manas National
 Park.
- TRCD conducted an interactive training on camera trapping at the Khuklung range under First Addition to Manas National Park.
- WATCH in partnership with India Water Partnership and Global Shapers
 Guwahati Hub organised 5 webinars
 on Youth Engagement in Water Governance in Assam.

MEMBERSHIP POSITIONS WITH OTHER ORGANIZATIONS

Dr. Alolika Sinha

Member, IUCN SSC Deer Specialist Group.

Arif Hussain

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

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 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. Bibhuti Prasad Lahkar

- •Member, IUCN SSC Asian Elephant Specialist Group.
- •Member, IUCN SSC Bustard Specialist Group.
- Member, IUCN SSC Invasive species specialist Group.
- Member, World Commission on Protected Area.
- •Member, Commission on Ecosystem Management.

Dr. Dilip Chetry

- •Vice Chair, IUCN, SSC Primate Specialist Group, South Asia Section.
- •Executive member, IUCN, SSC Small Ape Section.
- •Steering committee member, IUCN SSC PSG Section on Great Apes ARRC Task Force
- •Board of Director in Scholars Institute of Technology and Management, Guwahati, Assam.
- •Member, International Primatological Society, USA.
- •Member, American Primatological Society, USA.
- •Member, Vijna Bharati Northeast/Northeast Science Movements.
- Member, Nepal Biodiversity Research Society.
- Member, Gauhati University Ethics Committee.
- Member, Zoological Society of Assam.

Dr. Dipankar Lahkar

- •Member, IUCN-SSC
- Member, IUCN (CEC)
- Editorial Board member of "Newsletter for Birdwatchers"
- •Executive Member, Assam State Academic Committee, NCSC, Dept. of Science and Technology, Govt. of India.

Jayanta Kumar Pathak

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

Udayan Borthakur

- •Member, IUCN SSC Asian Rhino Specialist Group.
- Member, IUCN SSC Heron Specialist Group.
- •Member (genetic expert), technical committee formed by Assam Forest dept. for re-verification and disposal of wildlife trophies in Govt. repositories in Assam, vide office order no. 227 dated 7th August 2021.
- •Member, committee formed by the O/o PCCF (WL) and CWLW, Govt. of Assam to investigate a rhino carcass misidentification case at Orang National Park, vide letter dated 3rd September 2021.
- Member, Nikon Professional Services (NPS).
- •Official Wildlife Photography Mentor, Nikon School, India.

Dr. M Firoz Ahmed

- Member, IUCN-SSC.
- •Member, Society for Conservation Biology (SCB).
- Advisor, WildLandscape, USA.

Dr. Parag Jyoti Deka

•Member, IUCN/SSC Wild Pig Specialist Group.

Dr. Purnima Devi Barman

- •Member, Women in Nature Network India Chapter.
- •Member, IUCN Stork, Spoon bill, Ibis group.

Dr. Partha Jyoti Das

- •Member of the State REDD+ Cell, Government of Assam.
- •BRIDGE-GBM-CSO Network (Building River Dialogue and Governance for Civil Society Organisations in the Ganga-Brahmaputra-Meghna River Basins) constituted by the IUCN.

LAD

•Member, International champion of 'Global Initiative to End Wildlife Crime'

PUBLICATIONS

PEER REVIEWED ARTICLE

- 1. Chetry D., M. Phukan, S. Chetry, B. Baruah, J.R. Deka, A.K. Das, R. Chetry and P.C. Bhattacharjee. 2021. The Eastern Hoolock Gibbon *Hoolock leuconedys* Population in Assam, India, is on the Verge of Extinction. Primate Conservation (35):1-7pp.
- 2. Chetry R and D., Chetry.2021. Golden langur: A beautiful Animal in Danger. CHEETAL: The Journal of Wildlife Preservation Society. 58(2):8-18.
- 3. Purohit D., S. Manu, M.S. Ram, S. Sharma, H.C. Patnaik, P.J. Deka, G. Narayan and G. Umapathy. 2021. Genetic effects of long-term captive breeding on the endangered pygmy hog. PeerJ 9: e12212 http://doi. org/10.7717/peerj.12212.
- 4. Kumar V., S. Buragohain, P.J. Deka, G. Narayan and G. Umapathy. 2021. Non-Invasive Reproductive Hormone Monitoring in the Endangered Pygmy Hog (*Porcula salvania*). Animals, 11, 1324. https://doi.org/10.3390/ani11051324.
- Khan A, K. Patel, H. Shukla, A. Viswanathan, T. van der Valk, U. Borthakur, P. Nigam, A. Zachariah, Y.V. Jhala, M. Kardos and U. Ramakrishnan. Genomic evidence for inbreeding depression and purging of deleterious genetic variation in Indian tigers. Proceedings of the National Academy of Sciences Dec2021, 118 (49). e2023018118; DOI:10.1073/pnas.2023018118.
- 6. Nijhawan S., J.K. Roy, I. Mitapo, G. Miwu, J. Pulu and M.F. Ahmed. 2021. First distribution record of the Asiatic Toad *Bufo gargarizans* Cantor, 1842 from India -Dibang Valley in Arunachal Pradesh. Journal of Threatened Taxa, 13(5): 18319.
- 7. Sinha A, A. Nath, B.P. Lahkar, N. Brahma, H.K. Sarma and A. Swargowari. 2022. Understanding the efficacy of different techniques to manage *Chromolaena odorata L.*, an Invasive Alien Plant in the sub-Himalayan tall grasslands: Toward grassland recovery. Ecological Engineering, 179 (2022) 106618.
- 8. Gray T, J. Borah, C. Coudrat, Y. Ghimirey, A. Giordano, E. Greenspan, S. Mohamad, P. Wyatt, S. Rostro-Garcia, W.M. Wong. (2021) Mainland clouded leopard: IUCN Red List status update. CATnews

BOOK CHAPTERS

- Pathak J. K. 2021.Water. An article about judicial use of water and conservation of its sources. Amar Bigyan, the mouthpiece of National Children Science Congress Assam. Pp 42-44.
- Pradhan N., D. Chetry, F. Momberg, L. Shrestha, Thant, Nawmay Lay., H.N. Zhipang, Chettri and Y. Shaoliang. 2021. Primate of far Eastern Himalaya. Pp.136. Published by ICIMOD, Kathmandu, Nepal.
- 3. Roy J.K., R.H. Begum and M.F. Ahmed. 2022. Review on understanding stream morphology and its effect on amphibian species distribution. Recent Trend in Biological Research, Chapter 5: 56-66. Published by PDUAM, Behali. ISBN: 978-9393114-00-6.

TECHNICAL REPORTS

- 1. Ahmed M.F and D. Lahkar. 2022. Strengthening Conservation of tigers, prey animals, and habitats in the Ripu-Chirang-Phibsoo Forest Complex within the Transboundary Manas Conservation Area (TraMCA) in India and Bhutan. Report submitted to USFWS. TRCD: 14/2022. 43pp.
- 2. Ahmed, M.F., D. Lahkar, U. Tshering, C. Zara, L. Chaida, S. Dendup, M. Sarma, B.P. Lahkar and H.K. Sarma. 2019. Transboundary Tiger Conservation in Indo-Bhutan Barnadi-Jomotshangkha Forest Complex. Aaranyak. Report submitted to Wild Cats Conservation Alliance, ZSL, London, UK. 52 pp.
- 3. Forensic DNA Analysis of Turtle Samples for Confirmation of Species Identity. 2021. Wildlife Genetics Laboratory, Aaranyak. Report submitted to Office of the Range Forest Officer, Eastern Range, Kaziranga National Park and Tiger Reserve, Gamiri, BiswanathChariali, Assam. 7 pp.
- 4. Forensic DNA Analysis of Confiscated Biological Samples for Confirmation of Species Identity & Wild Origin. 2021. Wildlife Genetics Laboratory, Aaranyak. Report submitted to Office of the Divisional Forest Officer, Lakhimpur Division, North Lakhimpur, Aaasm. 10 pp.

- Forensic DNA Analysis of Confiscated Biological Samples for Confirmation of Species Identity.
 2021. Wildlife Genetics Laboratory, Aaranyak.
 Report submitted to Office of the Forest Range Officer, Crime Investigation Range, BiswanathChariali, Assam. 7 pp.
- 6. Forensic DNA Analysis of Suspected Greater One-horned Rhino (Rhinoceros unicornis) Samples for Determining Species Identity and Individual Matching. 2021. Wildlife Genetics Laboratory, Aaranyak. Report submitted to Office of the Range Forest Officer, Eastern Range, Kaziranga National Park and Tiger Reserve, Gamiri, BiswanathChariali, Assam. 14 pp.
- Parentage Analysis of Asian Elephant (Elephas maximus) from Cachar Division, Silchar. 2022.
 Wildlife Genetics Laboratory, Aaranyak. Report submitted to Divisional Forest Officer, Cachar Division, Silchar, Assam. 5 pp.
- 8. Lahkar B.P., J.P. Das, A. Sinha, A. Boruah, R. Tanti, N. Bhuyan, A. Baruah, B. Das, and J. Chetri. 2021. Action Based Conservation Approach to Prevent Electrocution of Asian Elephants in Assam. Submitted to USFWS.
- 9. Lahkar B.P., A. Saha, A. Sinha, R. Saha, and A. Das. 2021. Ecology of Gaur (*Bos gaurus*) in North Bengal including population dynamics, distribution, habitat use pattern, protected area wise carrying capacity estimation and Human Gaur conflict. Submitted to West Bengal Forest Department.
- Lahkar B.P., A. Sinha, A. Boruah, A. Baruah, R. Tanti, N. Bhuyan, and J. Chetri. 2021. Helping communities coexist with Asian elephants in Assam, India Submitted to USFWS.

NON-PEER REVIEWED ARTICLE

- 1. Deka P.J., G. Narayan and D. Das. 2021.Pygmy Hog Conservation Programme- Saving Pygmy Hog from Extinction. Ex-situ Vol2 (1), 35-37
- 2. Kalita, J, K. Rajbongshi and D. Das. 2022. The Bengal Florican: The Spokeperson for the grassland of Manas. Cheetal Vol 59 No. 1 (2022). ISSN: 0528-9122.

POPULAR ARTICLE

- 1.Boruah M. 2021. Into Eaglenest- The Treasure Trove of Nature
- 2.Boruah M. 2021. Keeping Counts of Winter Guests in Pobitora
- 3.Borah J and I.F. Hussain. 2021. WORDS FOR WILDLIFE-How wildlife Journalism can deter wildlife crime. Special Edition of Assam Press Correspondent's Union "Abirat Xatra" Nov 16, 2021.
- 4.Chetia R. 2022. Journey for Learning: Combining unplugging escapes with firsthand lessons on coexistence of communities and wildlife in Kaziranga-Karbi Anglong landscape. Published in NEZINE.
- 5.Dipankar Lahkar has published an article on tigers of Manas in ecoNE (https://bit.ly/3nQ3hCV)
- 6.Pathak J.K. 2022. Water. A leaflet on water conservation. Pp 06.
- 7.Pathak J.K. 2022. Published a leaflet on combating wildlife crime.
- 8.Pathak J.K and A. Boruah. 2022. Deohanh. An article on white-wing wood duck published in'Prantik', a fortnightly magazine.
- 9.Pathak J.K. 2022. Dehorning. An article published at DNews.
- 10.Pathak J.K. 2022. Snakebites management. An article on snakebite management published at Aamar Asom, an Assamese daily.
- 11.Pathak J.K. 2022. Snakebites management (https://online.fliphtml5.com/ofldj/xdqh/?1646019994480#p=1
- 12.Rava B. 2022. Ingnam Kengkam- an adventurous journey into the deep woods of Karbi hills for learning

about the human-nature relationships. Published in NEZINE.

13.Hussain, I. F. 2021. Female Aegis of the Forest. Newsletter, International Ranger Federation.

OTHER PUBLICATIONS

- 1.Pocket sized handbook on GPS has been published in Aaranyak's website for popular use.
- 2.Report published on "Community resilience to water induced disasters and climate change: a study and documentation of good practices in selected river islands of the brahmaputra river basin, Assam". Authorsare Partha J Das, Bedika Borah, Wahid Hussain, Navajyoti Deuri, Anuradha Braua and Arup Das.
- 3.https://lib.icimod.org/record/3540 8?fbclid=IwAR3bHvCLISI4eBT9Ayny-O1KtqO3DEaFtteiPhght3fs_KDypzuRT0qieQI

Awards/Felicitations/Citations

Arif Hussain received State Level Award (Certificate of Appreciation) by Assam Forest Department.

Bibhab Kumar Talukdar re-appointed as Chair of IUCN SSC Asian Rhino Specialist Group for 2021-2025 Quadranium.

Purnima Devi Barman was conferred with the Juba Byabasayi Bota (Youth Entrepreneurship Award) in Assam.

FIND US CONTACT DETAILS OF THE SENIOR SCIENTISTS AND MANAGERS

Avifauna Research and Conservation Division (ARCD)

Dr. Purnima Devi Barman

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Manas Bhattacharjya

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Dr. Alolika Sinha

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Environment Education & Capacity Building Division (EECBD)

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Senior Manager, EECBD

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aaranyak.jkp@gmail.com Phone: +91-9864320915

Gangetic Dolphin Research & Conservation Division (GDRCD)

Dr. Abdul Wakid,

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Geo-Spatial Technology & Application Division (GTAD)

Arup Kumar Das

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Madhumita Borthakur

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Media Production & Communications Division (MPCD)

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Primate Research & Conservation Division (PRCD)

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Rhino Research and Conservation Division (RRCD)

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Arif Hussain

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Tiger Research & Conservation Division (TRCD)

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Head, TRCD

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gmail.com

Ph: +91 9435017652

Dr. Dipankar Lahkar

Senior Manager, TRCD

Email: dipankar@aaranyak.org, dipankar.lahkar@gmail.com

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Threatened Species Recovery Programme (TSRP)

Dr. Parag Jyoti Deka

Project Director, PHCP and Project Manager, TSRP Email: parag@aaranyak.org,

parag.deka@durrell.org,

Phone: +91 9435016246, +91 8638569163

Water, Climate and Hazard (WATCH) Division

Dr. Partha J Das

Head, WATCH, Division

Email: partha@aaranyak.org, parthajdas@gmail.

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Wildlife Genetics Division (WGD)

Udayan Borthakur

Head, WGD

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Dr. Pranjal Kumar Das

Manager, WGD

Email: pranjal@aaranyak.org Phone: +91 9864477597

CONTACT DETAILS OF ZONAL COORDINATORS

Western Assam Zone

Dr. Ashoke Kumar Das

Coordinator

Mob. No.: +91 8472027788 / 9864478595 Email ID: das.ashoke2016@gmail.com

Central Assam Zone

Md. Arif Hussain

Coordinator

Mob No.: +91 7002357371 / +91 9854797419 Email ID: arif@aaranyak.org / arif.aaranyak@gmail.

com

Eastern Assam Zone

Hiren Dutta

Coordinator

Mob No.: +91 8638871216 Email ID: hirenduttan@gmail.com

OUR OFFICES AND BASE CAMPS

Registered Office

Aaranyak, 13, Tayab Ali Byelane,

Bishnu Rabha Path,

Beltola Tiniali,

Bhetapara Link Road,

P.O. Beltola, Guwahati, India - 781028

Email: info@aaranyak.org Tel/Fax: +91-361-2230250

Research Office

12, Kanaklata Path, Byelane 3, Ajanta Path, Beltola Survey Guwahati, India - 781028

Manas Landscape

Manas Conservation and Outreach Centre

Near Bhuyanpara Range,

Manas National Park

Baksa, Assam

Majrabari Field Station

Bhuyanpara Range, Manas National Park

Bansbari Field Station,

C/o Gangarani Sarkar, Gyati Gaon,

Bansbari - 781315, Manas National Park,

Kaziranga Landscape

Aaranyak, C/o M. Firoz Ahmed, Pilkhana, Kohora - 785609

Gibbon Wildlife Sanctuary and Jorhat District

Aaranyak,C/o Dilip Chetry Gibbon Conservation Centre, Gibbon Wildlife Sanctuary P.O. Mariani PIN - 785634 Mobile: +91-9435043892



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FORM NO. 10B [See rule 17B]

Audit report under section 12A(b) of the Income-tax Act, 1961, in the case of charitable or religious trusts or institutions



Acknowledgement Number -549613890270922

We have examined the balance sheet of AARANYAK AAAAA3181F [name of the trust or institution] as at 31st March 2022 and the Profit and loss account for the year ended on that date which are in agreement with the books of account maintained by the said Trust or institution

We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purposes of the audit. Inour opinion, proper books of account have been kept by the head office and the branches of the abovenamed Institution visited by us so far as appears from our examination of the books, and proper Returns adequate for the purposes of audit have been received from branches not visited by us, subject to the comments given below: --

In our opinion and to the best of our information, and according to information given to us, the said accounts give a true and fair view-

(i) in the case of the balance sheet, of the state of affairs of the above named Institution as at 31st March 2022 and

(ii) in the case of the profit and loss account, of the profit or loss of its accounting year ending on 31st March

The prescribed particulars are annexed hereto.

Name

Membership Number

Firm Registration Number

Date of Audit Report

Place

riace

Date

BISWAJIT BARUAH

063538

013617C

25-Sep-2022

49.37.104.142

27-Sep-2022

AARANYAK -

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

CONSOLIDATED RECEIPTS PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2022

RECEIPTS	AMOUNT(')	PAYMENTS	AMOUNT(')
To OPENING BALANCE Cash in hand	5,040.53	By Project Expenses against Foreign Contribution	8,16,50,560.15
To <u>INVESTMENTS</u> Fixed Deposits with BOB 2,34,96,008.66		By Advance for Project Expenses	77,916.49
Fixed Deposit with NESF Bank 20,00,000.00 Fixed Deposit with YES Bank 1,10,00,000.00 Fixed Deposit 25,66,664.42		By Bank Charge	1,67,843.13
Fixed Deposit with VES Bank 7,00,000.00 Fixed Deposit at NESF Bank 10,96,606.33		By Professional and Consultancy fees	1,00,000.00
UTI 54,00,000.00	4,62,59,279.41	By Audit fees	1,18,000.00
		By Admin Salary	17,24,151.00
To BANK ACCOUNTS	1,72,41,335.16	By Interest Charges on Late Fees of Legal Payment	38,035.00
To Contribution Received	8,99,99,964.60	By IUCN Membership Fees	562.00
Salata de la composition della		By Additional project Expenses	88,826.95
To Recovery of Project Advances	3,75,288.29	0.000	
Recovery from Dwijen Chandra Das	30,313.00		35,443.00
To Incidental Receipts Miscellaneous receipt 1,67,938.00 Recovery from project product 13,365.00		By Dawson Christopher Fund for WATCH	12,906.44
Receipt for EECSD services 8,000.00 Internalsip fees 24,000.00		By Fixed asset purchased from general fund By Security Deposit to Kamakhya Energy Point	36,497.00
Receipt for GIS Mapping Services 59,000.00 Receipt from Indusind Bank Emple 79,100.00		By TDS Payable	81,649.00
Receipt for TRCD services 20,000.00 Receipt for Winter Camp 41,000.00	4,12,403.00	By Advance to Assem Professional Tax paid	12,394.00
To Bank Interest	7,50,685.42	By Advance to Indian Oil Corporation	11,290.40
To Interest on Fixed Deposit	12,55,803.00	By Advance ESIC paid	813.00
To Membership Fees	28,483.00	By Advance Provident Fund paid	17,300.00
To Donation U/S 80G	1,07,700.00	By TDS 1943	18,708.80
To Interest received from TDS refund	56,277.00	By BANK GUARANTEE FOR FUND	6,21,979.09
To TDS 194 C	2,504.40	By RECEIVABLE FROM LIVELIHOOD 2	70,000.00
To TAX DEDUCTED AT SOURCE	2,59,763.70	Cash in hand	1,116.53
To Payable to Livelihood 2	70,000.00	The second secon	0.000000
		INVESTMENTS Fixed Deposits with 8OB 11,48,166.66 Fixed Deposit with NESF Bank 94,67,625.33 Fixed Deposit with YES Bank 1,76,16,334.12	
		Fixed Deposit with UNION Bank 7,65,728.00 UTI 54,00,000.00	3,43,97,854.11
		By BANK ACCOUNTS	3,75,51,012.42
TOTAL	15,68,54,860.51	TOTAL	15,68,54,860.51

Place: Gowahati Date: 25/09/2022 For & Behalf of AARANYAK

(CR. BIBHAB KR. TALLIKDAR) SECRETARY GENERAL

Auranynk

As per our report of even date FOR DHAWAN FANDEY & ASSOCIATES DHARTERED ACCOUNTANTS

> (CA. BOSWAJIT BARUAH) PARTNER M.No.063538 FRN.013617C UDIN 22063538AURTOL9933

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

CONSOLIDATED BALANCE SHEET AS ON 31ST MARCH 2022

LIABILITIES	AMOUNT(')	ASSETS	AMOUNT(')
FUND ACCOUNT General Fund Opening Bulance Add : Surplus of income over expenditure Less: Over expenditure of Project adjusted with General Fund Capital Fund out of Project Expenses Opening Bulance Add: Additions during the year Unutilised Project Funds Jane Macdonald (Greater Adjatant Stork) Less: Expenditure incurred during the year Dawson Christopher (Road) Less: Expenditure incurred during the year 12,906-44 12,906-44	80,29,596.34 2,80,38,823.00 7,44,73,527.61 8,300.30	Fixed Assets Corrent Assets TCS Tax Deducted at Source Advance for Project Expenses Advance for statutory due Advance to Indian Oil Corporation SETA receivable Loan to Employee Interest on Income Tax receivable	3,65,56,867.00 13,737.00 15,87,053.05 77,916.49 22,572.60 6,512.06 18,322.00 15,000.00 25,181.00
Outstanding Liabilities Earnest Money payable 20,000.00 TUS payable 3,40,905.10 Green Audit Expenses Payable 4,165.00 Payable to D.Des for payment of Statutory 30,313.00		Securby Deposit to Kamakhya Energy Point, Advance to Assam Professional Tax paid Advance ESIC paid Advance Provident Fund paid	20,000.00 12,394.00 013.00 17,300.00
		BANK GUARANTEE FOR FUND CLOSING BALANCE Cash is hand INVESTMENTS Fixed Deposits with BOB Fixed Deposit with NESF Bank Fixed Deposit with YES Bank Fixed Deposit with UNION Bank UTI	6,21,979.09 1116.5 11,48,166.66 94,62,625.31 1,76,16,334.12 7,65,728.00 54,00,000.00
TOTAL	11,09,45,630.35	BANK ACCOUNTS TOTAL	3,75,51,012.4

Place: Guwahati Date: 25/09/2022

For & Behalf of AARANYAK

(DR. BIBHAS KR. TALUKDAR) SECRETARY GENERAL Secretary General As per our report of even date FOR DHAWAN PANDEY & ASSOCIATES

PARTNER

M.No.053538 FRN.013617C UDIN 22063538AUXTOL9933

AARANYAK

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

CONSOLIDATED INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2022

EXPENDITURE	AMOUNT(')	INCOME		AMOUNT(')
To Bank Charge	1,67,843.13	By Incidental Receipts Miscellaneous receipt	1,67,938.00	
To Professional and Consultancy fees	1,00,000.00	By Recovery from project product Receipt for EECBD services	13,365.00 8,000.00	
To Audit fees	1,18,000.00	By Internship fees Receipt for GIS Mapping Services	24,000.00 59,000.00	
To Admin Salary	17,24,151.00	By Receipt from Indusind Bank Emplo Receipt for TRCD services	79,100.00 20,000.00	
To Interest Charges	38,035.00	By Receipt for Winter Camp	41,000.00	4,12,403.00
To IUCN Membership Fees	562.00	By Bank interest		7,50,685.42
To Additional project Expenses	88,828.95	By Interest on Fixed Deposit		12,55,803.00
To Surplus of income over expenditure	3,73,931.34	By Membership Fees		28,483.00
		By Donation U/S 80G		1,07,700.00
		By Interest received from TDS refund		56,277.00
TOTAL	26,11,351.42	TOTAL		26,11,351.42

Place: Guwahati Date: 25/09/2022 For & Behalf of AARANYAK

(DR. BIBHAB KR. TALUKDAR) SECRETARY GENERAL

Secretary General

As per our report of even date. FOR DHAWAN PANDEY & ASSOCIATES CHARTERER ACCOUNTANTS

> (CA. BISWAJIT BARJIAH) PARTNER

M.No.063538 FRN.013617C UDIN 22063538AUXTOL9933

STAFF LIST

(1ST APRIL 2021 TO 31ST MARCH 2022)

ADMIN & ACCOUNTS DIVISION

Dr. Bibhab Kumar Talukdar. Scientist G, SG & CEO

Mrs. Bobby Nath Manager, Administration

Mr. Upamanyu Hazarika Manager, Finance

Mr. Bhaskar Sarkar Manager, Accounts

Md. Zakir Islam Bora Manager to the Office of SG & CEO

Mr. Tapash Mahanta Accountant

Mr. Pranab Goswami Organising officer

Ms. Bijoyinee Sarma Executive (Administration)

Mr. Jayanta Gogoi Accounts Officer

Mr. Nripen Kumar Nath Office Executive (Operation)

Mr. Gunajit Mazumdar PR Executive

Mr. Hriday Jyoti Ojha

Accounts Associate Mr. Gouranga Mandal

Office Assistant

Mr. Krishnamoni Das Office Supporting Assistant

Mr. Rajghar Kalita, Office Supporting Assistant

Mr. Dhiren Sarma

Office Supporting Assistant

Mr. Moni Kumar Haloi Field Assistant cum Watchman

Mr. Arun Basfor Office Cleaner

AVIFAUNA RESEARCH & CONSERVATION DIVISION (ARCD)

Ms. Purnima Devi Barman Project Manager, GASCP

CONSERVATION & LIVELIHOOD DIVISION (CLD)

Bibhuti Prasad Lahkar Scientist E & Head

Manager (Governmentconvergence, Planning & Development)

Mr. Manas Kumar Bhattacharjya

Mr. Bipul Das Manager

Mr. Swapan Kr. Das **Project Coordinator**

Rabiva Daimari Field Coordinator

Mr. Bijay Basumatary **Project Assistant**

Mr. Kunja Brahma Community Mobilizer

Mr. Songsar Basumatary Field Assistant

Mr. Udang Basumatary Field Assistant

Mr. Amit Dewry Office Assistant

Mr. Pankai Das Field Assistant

ELEPHANT RESEARCH & CONSERVATION DIVISION (ERCD)

Dr. Bibhuti Prasad Lahkar Scientist E. Head ERCD & Landscape Administrator, Manas Landscape

Ms. Alolika Sinha **Deputy Manager**

Mr. Abhijit Boruah **Project Coordinator**

Mr. Anjan Chandra Baruah **Program Coordinator**

Mr. Manzum Mahanta **Documentation Officer**

Mr. Rubul Tanti **Project Officer**

Mr. Jiban Kumar Chetry **Project Assistant**

Mr. Niranjan Bhuyan Field Coordinator

Mr. Avijan Saha Field Assistant

Mr. Ripunjoy Kumar Nath Filed Assistant

Mr. Rupam Goyari Driver cum Field Assistant Mr. Pradeep Barman

Driver Mr. Bijoy Kalita

Driver

ENVIRONMENT EDUCATION & CAPACITY BUILDING DIVISION (EECBD)

Mr. Jayanta Kumar Pathak Manager

GANGETIC DOLPHIN RESEARCH & CONSERVATION DIVISION (GDRCD)

Dr. Abdul Wakid Head (

Mr. Nurjamal Houque **Project Assistant**

Mr. Gobardhan Mallah **Boat Driver**

Mr. Kedar Mallah **Boat Driver**

Mr. Binod Borgohain **Boat Assistant**

Md. Noor Islam Driver cum Field Assistant

GEOSPATIAL TECHNOLOGY & APPLICATION DIVISION (GTAD)

Mr. Arup Kumar Das Manager

Ms. Madhumita Borthakur Spatial Database Officer

Mr. Avishek Sarkar **GIS Assistant**

HERPETOFAUNA RESEARCH & **CONSERVATION DIVISION (HRCD)**

Dr. Firoz Ahmed Scientist F, Head

Mr. Jayanta Kumar Roy Manager

Mr. Souray Gupta

Project Officer, Research and Monitorina

Mr. Arijit Dutta **Project Officer**

LEGAL & ADVOCACY DIVISION (LAD)

Dr. Bibhab Kumar Talukdar Scientist G, Head

Dr. Jimmy Borah Senior Manager

Mr. Biswajit Tiwari Intelligence Assistant

Mr. Anil Kumar Das Coordinator

Mr. Goura Baidya **Deputy Coordinator**

Mr. Nirmal Kalita **Assistant Coordinator**

Mr. Sanatan Mali Senior Dog Handler

Mr. Rahul Das Dog Handler

Mr. Lakhi Ram Boro Driver cum Field Assistant

Mr. Mrigen Das Junior Dog Handler

Mr. Bhiraj Deka Junior Dog Handler

Mr. Dhurajyoti Thakuria Junior Dog Handler

Mr. Rupak Das Junior Dog Handler

MEDIA PUBLICATION & COMMUNICATIONS DIVISION

Mr. Udayan Borthakur Scientist E, Head Ms. Munmita Baruah

Manager

Mr. Kukil Gogoi

Documentation & Production Officer

PRIMATE RESEARCH & CONSERVATION **DIVISION (PRCD)**

Dr. Dilip Chetry Scientist E, Head

RHINO RESEARCH & CONSERVATION **DIVISION (RRCD)**

Dr. Bibhab Kumar Talukdar Scientist G. Head

Md. Arif Hussain Manager

Mr. Montu Boro **Animal Keeper**

THREATENED SPECIES RECOVERY PROGRAMME (TSRP)

Dr. Parag Jyoti Deka Programme Manager

Dr. Saljagringrang R. Marak Project Officer

Mr. Jonmani Kalita Jr. Field Biologist

Mr. Kaoushik Rajbongshi Assistant Field Biologist, (Grade I)

Mr. Dwipendra Narayan Dev Sr. Field Assistant

Mr. Ajay Kumar Das Logistic Coordinator

Mr. Bhaben Hazarika Site Coordinator

Mr. Kishur Payeng Site Maintenance Assistant

Mr. Raju Mili Site Maintenance Assistant

Mr. Amal Deka Community Facilitator

Ms. Monora Begum **Animal Keeper**

Mr. Raju Das Field Assistant

Niranjan Barman

Site maintenance Assistant (Grade I)

Mr. Tulshi Nath Animal Keeper

Lutar Ch. Marak Animal Keeper (Grade II)

Mr. Grikseng Chandra Marak Site Maintenance Assistant

Mr. Rudra Gogoi

Assistant Animal Keeper

Mr. Dhon Chetry

Assistant Animal Keeper (Grade 1)

Dr. Leons Mathew Abraham Captive Breeding Manager

TIGER RESEARCH & CONSERVATION **DIVISION (TRCD)**

Dr. Firoz Ahmed Scientist F. Head

Mr. Dipankar Lahkar Manager

Ms. Binita Baruwati Sr. Project Officer - Analyst

Mr. Prosenjit Sheel Sr. Project Officer - Law Enforcement

Ms. Aprajita Singh Project Officer, Research & Monitoring

Mr. Sarlongion Teron Project Officer, NRM

Mr. Pranion Daimari Project Officer, Law Enforcement

Mr. Pronit Basumatary Asst. Project Officer - Law Enforcement

Mr. Nibir Medhi Project Officer, Research & Monitorina

Mr. Binod Dewry

Asst. Project officer- logistics

Mr. Mukesh Kherkatary Asst. Project Officer- Law Enforcement

Mr. Birdutta Baro

Field Assistant- Law Enforcement

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Mr. Ajay Basumatary

Field Assistant- Law Enforcement

Mr. Bijeet Baro

Field Assistant, Law Enforcement

Md. Majammil Haque

Office Assistant

Ms. Devi Das

Field Assistant, Law Enforcement

Ms. Sajati Das

Field Assistant

Mr. Ratul Das

Field Assistant, NRM

Mr. Rowel Ingti

Field Assistant- NRM

Nitul Kalita

Project Officer Research &

Monitoring

Manoranjan Deka

Asst. Project Officer

Gayatri Dutta

Project Officer

Ivy Farheen Hussain

Project Officer -LE

Mr. Mizing Boro

Assistant Project Officer- Law Enforcement

Ms. Bhargavee Rava

Project Officer-NRM

Mr. Randeep Chetia

Project Officer-NRM

WATER CLIMATE & HAZARDS DIVISION (WATCH)

Dr. Partha Jyoti Das,

Scientist E, Head, Water Climate and Hazard Division

Rakesh Choudhury

Project Associate

Mr. Dipmoni Nath

Driver cum Technical Field

Assistant

WILDLIFE GENETICS DIVISION (WGD)

Mr. Udayan Borthakur

Scientist E, Head

Dr. Pranjal Kumar Das

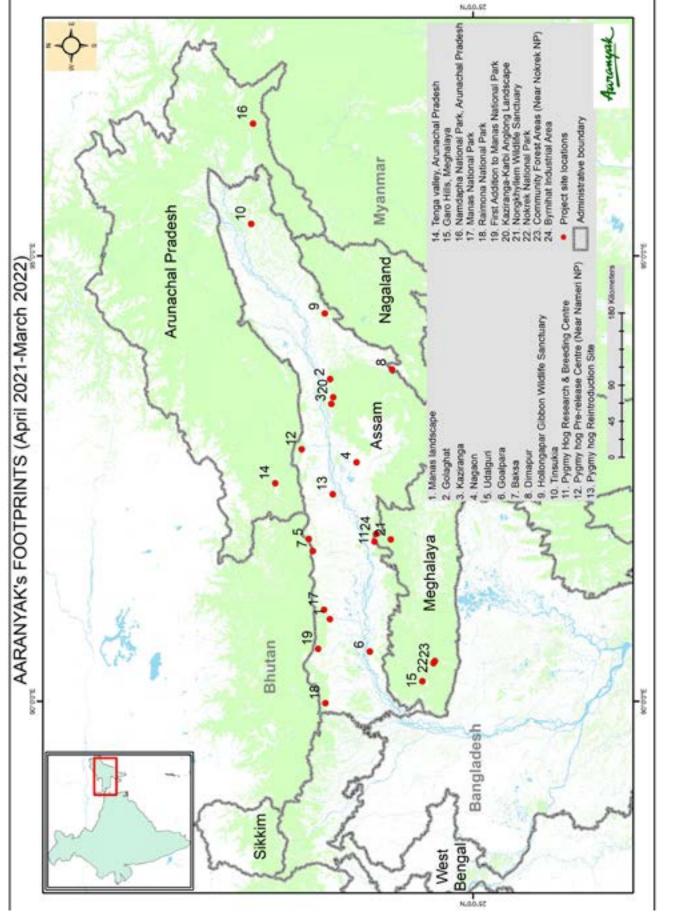
Manager

ADDITONAL PHOTO CREDIT

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Mr. Udayan Borthakur



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Mr. Anirudh N

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Mr. Momin UI Haque



NOURISHING NATURE TO SECURE OUR FUTURE

We strive to protect nature and its resources ranging from wildlife and the ecosystems they live in, as we believe that welfare of our communities is intricately linked to pristine nature. We work to secure our future for all the species and the ecosystems that are under threat. We bank on research, law, advocacy, community engagement, education and much more, in our endeavour to protect land, water, and climate that are vital for survival of all animal and plant species. Now into the 33rd year of our existence we are tirelessly working towards safegurding our natural resources, addressing climate crises and ensuring people's wellbeing.

Administrative Office

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