

Nourishing Nature to Secure our Future

Aaranyak

**ANNUAL
REPORT
2019-20**



A C H I E V E M E N T S

LIVELIHOODS OF
400
FAMILIES HAVE CHANGED TO
OCCUPATIONS THAT PROMOTE
CONSERVATION THROUGH WOMEN
JOINING THE
HARGILA ARMY

A TOTAL OF
121 FARMERS
WERE **TRAINED** ON
USES OF
INDIGENOUS MICRO-ORGANISM,
ORGANIC PESTICIDES,
CUTTING AND GRAFTING

CONVERTED
16 KM
ILLEGAL ELECTRIC FENCE INTO
PROPER
SOLAR POWERED FENCE
TO MITIGATE
HUMAN-ELEPHANT
CONFLICT
IN BAKSA DISTRICT, ASSAM

COMPLETED
15 YEARS
OF MONITORING THE
POPULATION OF
GANGETIC DOLPHINS
IN BRAHMAPUTRA RIVER SYSTEM
FROM 2005 TO 2020

DEVELOPMENT OF
EcoNE
AN ONLINE MAGAZINE
AND MEDIA PLATFORM
FOR BIODIVERSITY AND
ENVIRONMENTAL ISSUES OF
NORTHEAST INDIA

ORGANIZED THE
7TH
ASIAN PRIMATE SYMPOSIUM
2020
FROM 8TH TO 10TH
FEBRUARY 2020

ORGANIZED
RHINO GOES TO SCHOOL
ACTIVITIES
IN SCHOOLS AROUND
KAZIRANGA, ORANG AND
MANAS NATIONAL PARKS
AND POBITORA WILDLIFE
SANCTUARY

FOR THE FIRST TIME,
A
SCIENTIFIC EXPLORATION
OF THE
POORLY KNOWN
NAMDAPHA FLYING SQUIRREL
IN THE
NAMDAPHA NATIONAL PARK
WAS INITIATED

APPROXIMATELY
6.8 THOUSAND
PEOPLE HAVE BEEN DIRECTLY
REACHED-OUT
WITH EFFECTIVE CONSERVATION
MESSAGES THROUGH
AWARENESS AND
SENSITISATION ACTIVITIES

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.

Editorial Team:

Editor:

Alolika Sinha

Team Members:

Kallol Deka

Manjum Mahanta

Kongseng Konwar

Parthajyoti Das

Pranjit Borah

Cover Photograph:

Udayan Borthakur

Design and Layout:

Media Production & Communications

Division, Aaranyak

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

You can also follow us on Facebook, Instagram and Twitter

Aaranyak Society Registration No -
3096 of 1989-90

Donations made to Aaranyak in India carry tax exemption under section 80G of the Income Tax Act 1961. Registration under the Foreign Contribution Regulation Act 1976 entitles Aaranyak to receive foreign contribution to work in the field of biodiversity research and conservation.

The logo for Aaranyak features the word "Aaranyak" in a large, flowing, green cursive script font. A horizontal green line starts from the bottom left, goes up to the right, then down to the right, and then up again to the right, ending under the letter "y".

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FROM THE DESK OF SECRETARY GENERAL AND CEO

During its 31 years long journey so far since September 9, 1989 with the avowed mission to 'nourish nature to secure our future', Aaranyak has grown considerably in stature, expertise and in respect of the area of operation as a science-driven conservation organisation. The enriching experience has taught us a very important aspect of progressive wildlife and nature conservation initiative – take the community into confidence and work in tandem with concerned government agencies to achieve the desired common goal.

The tremendous support we have received from our members spread over the entire Northeast landscape has been a major source of strength. But for our valued members' goodwill and active/morale support, we could have hardly achieved what we have done so far in tune with our mission and objective.

We have realised the growing need to engage with our esteemed members who has come forward with zeal to strengthen the organisation. We have organised a few fruitful interactions with our members in the atmosphere of nature camps so that we can elicit valued suggestions from our members to steam up our journey further. Such a camp organised for members in February, 2020 in the vicinity of Pabitora Wildlife sanctuary was one of the highpoints of our year-long calendar. We look forward to more such engagements with members with more frequency in days to come for mutual benefits.

Obviously, we are now focused on implementing all our conservation initiatives under various divisions and programmes with engagement of local stakeholders especially the community besides complementing sustained efforts of the official agencies involved in conservation and protection of nature and its resources. All the species that need intensive conservation support, can't be protected unless we continue to garner cooperation and support from local communities towards conservation efforts.

We have flagged the urgent need to secure potable water and pure oxygen that are lifeline for the entire lifeforms by contributing towards conservation of wildlife and human well-being through sustained efforts. If forests, wetlands and other habitats are not conserved, securing potable water and pure oxygen to breath would be very challenging in the Eastern Himalayas. It will be very prudent on part of the people of the region to get proactive in conservation of natural resource base, specially the water and air so as to facilitate a clean and green environment for all of us besides enabling other lifeforms to thrive for the sake of maintaining the ecological balance.

Today, over 100 of our dedicated staff including project heads, researchers, field scientists have been working in different parts of eastern Himalayas in a systematic way addressing diverse conservation challenges that the region has been facing. Unrelenting support and cooperation from our well-wishers, patrons and government agencies towards our initiatives have been instrumental in facilitating our tireless efforts in the field. The high-degree of commitment and dedication exhibited by the Team Aaranyak has been of prime importance for us and I am sure the trend will continue in the years to come.

We have ensured that a competitive professional environment prevails in our organisation to help all our team members to keep their skills upgraded and honed in every passing year. We carry out periodic assessment of all our research and conservation activities, do need-based reshaping of ongoing activities while striving to chart out unique research-based conservation initiatives to shape the future roadmap that we as an organisation remain vibrant, dynamic and always ready to take on the challenges that crop up on our way.

The fruits are there for all to see -- our researchers and conservationists have made us proud by securing national and international recognitions by accomplishing challenging conservation initiatives under the banner of Aaranyak which over the years has completed over 400 projects in different parts of India as well as South and South East Asia.

We humbly want to share that during the past 31 years we have been successful in creating a pool of a select group of highly skilled, enthusiastic youth of North East India capable of taking up the responsibility of field-based research and conservation work. Our human development efforts have lured many dedicated conservation workers who have contributed immensely over the years to make the organisation robust and effective in living up to varied conservation challenges.

A handwritten signature in black ink, appearing to read 'Bibhab Kumar Talukdar'.

(Dr. Bibhab Kumar Talukdar)

ACKNOWLEDGEMENTS

GOVERNMENT DEPARTMENTS

Assam State Disaster Management Authority (ASDMA);
 Department of Environment & Forest, Government of Assam;
 Department of Environment & Forest, Government of Arunachal Pradesh;
 Department of Environment & Forest, Government of Nagaland;
 Department of Environment & Forest, Government of West Bengal;
 Department of Forests and Park Services, Ministry of Agriculture and Forests, Royal Government of Bhutan;
 Department of Science & Technology Government of Assam;
 Department of Soil Conservation, KAAC;
 Directorate of Museums, Govt. of Assam;
 District Administration, Majuli District;
 District Veterinary Department, Baska & Chirang;
 Forest Department, BTC;
 Forest Department, KAAC;
 Golaghat Police;
 Golaghat West Development Block, Golaghat;
 Guwahati Wildlife Division;
 Hajo Block, Kamrup;
 Kamrup District Administration;
 Kamrup Police;
 Kupati Gaon Panchayat, Darrang;
 Ministry of Environment, Forest & Climate Changes - Government of India;
 NC Hills Autonomous Council;
 Sibsagar Police;
 SSA, Barpeta District;
 Tinsukia Wildlife Division, Tinsukia;

ORGANIZATIONS/INSTITUTES/PEOPLE

Dr. Abhijit Das, WII;
 Action Research Organisation of North East India, Chirang;
 All India Radio, Guwahati;
 Aryabhatta Science Centre, Nalbari;
 Assam Agriculture University;
 Assam State Zoo cum Botanical Garden, Government of Assam;

Assam University, Diphu Campus;
 Atree;
 ASTER GDEM;
 Baska Press Club;
 Ban Bannyaprani Suraksha Samiti;
 Bhuban;
 Bhumi;
 Bodoland University;
 Bornadi Wildlife Sanctuary;
 Center for Global Field Study;
 Centre for Public Affairs and Critical Theory (C-PACT) of Shiv Nadar University, UP;
 Centre For Cellular & Molecular Biology (CCMB), Hyderabad;
 Chandra Sing Rongpi Memorial High School;
 College of Veterinary Science, Khanapara;
 Copernicus;
 Cornell University, USA;
 Cotton State University;
 Coventry University, UK;
 Cultural Journalist Association;
 Dalgaon Ban Bannyaprani Suraksha Samiti, Darrang;
 Department of Ecology & Environmental Science, Assam University;
 Department of Geography, D.C.B College, Jorhat;
 Department of Geoinformatics, Bangalore University;
 Department of Geoinformatics, North Odisha University;
 Department of History, Dibrugarh University;
 Department of Mass Communication & Journalism, Tezpur University;
 Department of Peace and Conflict Studies and Management, Sikkim University, Gangtok;
 Director, Assam Forest School, Jalukbari, Assam;
 Don Bosco University, Azara, Guwahati, Assam;
 Durrell Wildlife Conservation Trust;
 Dr. Robert John's Terrestrial Ecology Lab, IISER Kolkata;
 Earth Explorer;
 Environment Education and Conservation Global, USA;
 EcoSystems-India;
 Folklore Department, Gauhati University;
 Forest Research Institute;
 Forum for policy Dialogue on Water Conflicts in India;
 Gethsemane JFMC, Udaguri, BTAD;
 Global Wildlife Conservation;
 Gibbon Conservation Centre;
 Google Earth Pro;
 Grameen Development Services (GDS), Lucknow, UP;
 Green Forest Conservation;
 Green Forest NGO;
 Gyan Vigyan Samiti Assam;
 Dr. Hillol Jyoti Singha;
 IUCN/SSC Wild Pig Specialist Group;
 Jan Shikshan Sansthan, Kamrup;
 Jawaharlal Nehru College, Boko, Kamrup District;
 Kollol Sanskritik Gosthi, Nagaon;
 Kohora River Basin Natural Resource Management Committee;
 Krishi Vigyan Kendra, Chirang;
 Laboratory for the Conservation of Endangered Species (LaCONES), CCMB;
 Manas National Park;
 Manas Chowki Ecotourism Society;
 Manthan Adhyayan Kendra, Pune;
 Martin Luther Christian University, Nongrah, Shillong;
 Members of Print & Electronic Media;
 Montana State University, USA;
 National Centre for Biological Sciences (NCBS), Bangalore;
 North Eastern Space Application Centre, Umiam, Meghlaya;
 Northeast Research and Social Work Networking (NERSWN), Kokrajhar;
 Nowgong Girls' College, Nagaon;
 Orang National Park;
 Pacific Unit, Mangaldai, Darrang;
 PAD;
 Pilgrimage, Dibrugarh;

Primate Action Fund, Conservation International;
 Pobitora Eco-tourism Development Society, Morigaon;
 RuTag IIT Guwahati;
 Royal Society for Protection of Nature (RSPN), Bhutan;
 Sanchipat (Majuli);
 Satpuda Foundation;
 SRTM DEM;
 Shubham, Barpeta;
 Survey of India;
 Tata Institute of Social Science, Guwahati camps;
 Tinsukia Zilla Parishad, Tinsukia;
 UNESCO Category 2 Centre, World Natural Heritage Management and Training for Asia and the Pacific Region;
 University of Washington, Seattle;
 UNICEF;
 Village Level Natural Resource Management Committees of Kohora River Basin;
 Viva Vani;
 Water Resources Management Group of Wageningen University, Netherlands;
 Western Transportation Institute;
 Wildlife Institute of India;
 Wildlife Conservation Trust;
 Wild Tripura Foundation, Tripura;
 WWF-India;
 Wild Wings;
 Youth Association for Development and Empowerment, Dima Hasao;

Department of Science and Technology, Gov. of India;
 Disney Worldwide Conservation Fund;
 Directorate of Forest Education, Dehradun;
 Elephant Family Foundation India;
 Environment Education and Conservation Global, USA;
 Forest Department - Govt. of Assam;
 Field Entertainment Inc & Ringling Bros. and Barnum & Bailey's Center for Elephant Conservation;
 Global Wildlife Conservation;
 ICMOD;
 IIE;
 India Tourism;
 India Water Partnership;
 Internews' Earth Journalism Network;
 International Rhino Foundation;
 IUCN-KFW;
 Jane Macdonald Support;
 LEA Associates Asia Pvt. Ltd.;
 Ministry of Environment, Forest & Climate Changes - Govt. of India;
 Montana University, USA;
 MSME, Government of India;
 NABARD;
 NABU International Foundation For Nature;
 National Council for Science;
 One Earth Institute;
 Ocean Park Conservation Fund, Hong Kong;
 Oxfam India;
 Panthera;
 Primate Conservation Inc.;
 Royal Society for Protection of Nature (RSPN), Bhutan;
 Science and Engineering Research Board (SERB);
 Stoppoaching-Now;
 Tata Capital;
 The Habitats Trust;
 The New Zealand High Commission;
 Wildlife Institute of India;
 Wild Cats Conservation Alliance;
 Whitley Fund For Nature;
 Women in Nature Network;
 West Bengal Forest Department;
 West Bengal Forest and Biodiversity Conservation project (WBFBCP);
 U.S Fish and Wildlife Services;
 University of Washington;



DONORS

Assam Science Technology & Environment Council;
 Assam State Biodiversity Board (ASBB);
 Artis Zoo;
 Awely - wildlife & people;
 Born Free Foundation;
 Conservation Leadership Programme;
 Centre for Large Landscape Conservation;
 Centre for Sustainable Development Goals, Government of Assam;
 Central Institute of State Forest Service, Burnihat;
 Clarkson Jersey Trust;
 Colt 2016 Trust;
 David Shepherd Wildlife Foundation;

BACKGROUND

Aaranyak's nature conservation efforts can be traced back to 1989, when a passionate group of young environment enthusiasts, gave shape to a green concept and named it 'Aaranyak'. Deeply motivated towards protecting the rich biodiversity of the region, Aaranyak, which is based in Guwahati, Assam, embarked on an unrelenting voyage that so far has overcome uncountable barriers. Over a quarter century of work has brought major changes in the nature conservation field of North East India. Aaranyak's beginning was humble, but the mission was as strong as it is today and the vision vibrant with dreams of ushering in a new era of environmental consciousness among the masses. Uearing new findings on North East region's incredibly rich flora and fauna was the first step towards building much needed awareness among the common people of the region. Aaranyak then and now believes that effective conservation of wildlife and ecology is conceivable only through cooperation from the masses. Aaranyak's initial goal was to generate mass awareness on the wildlife heritage of Assam and the critical need for its conservation. The turning point came in 1989, when Aaranyak filed a Public Interest Litigation in the Gauhati High Court, challenging the decision of the Assam Government to lease out fisheries inside the Dibrugarh Saikhowa National Park in Assam. The Dibrugarh Saikhowa NP is one of the potential conservation sites of Endangered White-winged Wood Duck, the 'State Bird of Assam', and also Aaranyak's symbol encrypted in our logo. The battle was akin to David versus Goliath, and David won! The court ruled in favour of Aaranyak and the Government had to withdraw the destructive lease permits, giving a fresh breath of life to the wildlife and habitats of Dibrugarh-Saikhowa. Steadily progressing, Aaranyak soon became involved in bird-watching that brought together young students from all across Assam and created an emerging group of avid birders. Meanwhile, Aaranyak extended its activities to key conservation aspects, which soon became the major work areas of the organisation. At present, the primary thrust areas of Aaranyak are:

- To conduct quality research on biodiversity, water resources, hydrology, climate, sustainable development, natural disasters and environmental impact assessment in North East India, *viz.* floods, erosion, revival of traditional water harvesting systems, water shed management, climate variability, deforestation and climate change, rainfall-runoff modeling, application of remote sensing and GIS in environmental research and research on wildlife genetics.
- To create awareness among the people about the need for biodiversity conservation through environmental education and capacity building.
- To curtail and eliminate wildlife trade in the region

- To explore and access the legal and judiciary provisions for protection of biodiversity
- To complement and support Government agencies working for protection of the rich biodiversity of the region
- To assist the fringe communities of protected areas to diversify their livelihood options and minimize dependence on forest resources
- To foster scientific applied research in the field of biodiversity and environment that would provide new avenues for sustainable livelihood generation.

Through 31 years of hard work and commitment, Aaranyak has carved a niche for itself, in the field of biodiversity conservation, not just in India, but also globally. It has established itself as a prominent figure in the global network of institutions involved in nature conservation. Aaranyak is a close-knit team of environmental scientists, researchers, community workers, educators and environmental legal specialists. With great focus on facilitation team spirit, Aaranyak provides space for each individual to emerge as resilient

leaders. Aaranyak's foundation of research and development is augmented by untiring fieldwork by our team members. The team is on a mission to contribute towards protection of nature by providing key inputs to biodiversity management based on quality research on ecosystems, environmental education, capacity building, legal and policy research. Aaranyak at present has 14 Divisions which form the core of our conservation strategy. Together, these blend science and technology resources with involvement of stakeholders to rediscover the traditional peaceful co-existence of man and wildlife in North East India. Aaranyak's efforts towards bridging the gap between research and adaptive management of wildlife and forests have won us many accolades from around the globe. In 2011, Aaranyak received the prestigious RBS 'Earth Guardian Award 2011' conferred by the Royal Bank of Scotland. Aaranyak was bestowed with the 2012 Indira Gandhi Paryavaran Purashkar, by the Ministry of Environment, Forests and Climate Change, Govt. of India. Government of Assam also conferred the "Institutional Award in the field of Science and Technology" to Aaranyak in 2017. Aaranyak has been

building a network of symbiotic alliances with frontline institutions and universities to consolidate research and conservation activities. The formidable pool of database on various ecological aspects of North East India that has been created by Aaranyak is openly available to experts and nature enthusiasts but more importantly also to the common people. Ensuring ecological security across North East India is Aaranyak's goal, and therefore we are keen to encourage and establish a chain of committed to sustaining multiple conservation initiatives, address diverse ecological issues, sustainable development and climate change.

AARANYAK'S EXECUTIVE COMMITTEE



Ranjan Bhuyan,
President



Dilip Chetry,
Vice President



Bibhab Kr. Talukdar,
Secretary General



Jimut Prasad Sarma,
Finance Secretary



Bibhuti Prasad Lahkar,
Program Secretary



Partha Jyoti Das,
Organizing Secretary



Udayan Borthakur,
Publicity Secretary (Until October, 2019)



Alolika Sinha,
Current Publicity Secretary



Koushik Boruah,
Executive Member



Ashok Dey,
Executive Member



Jayanta Kr. Sarma,
Executive Member



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

Greater Adjutant Conservation Project (GACP)

INTRODUCTION

Brahmaputra valley of Assam (India) is considered as the last stronghold for Endangered Greater Adjutant Stork (locally known as Hargila). Dr. Purnima Devi Barman began the Greater Adjutant Conservation Project (GACP) in 2009 and has been successful in building ownership among tree owners and is closely working with 10,000 people. She and her team have also been diligently working with the Kamrup District Administration. By forming an all-women army nest protectors' group of over 400 women called the Hargila Army, a massive woman led voice was raised for the cause, for the cause of the bird as well as the 50 wetlands in the area. Purnima has been reaching out to thousands of women till date in her hitherto successful efforts for creating conservationists out of women folk of the area.

MAJOR ACHIEVEMENTS

- The GACP and The Assam State Zoo has jointly attained a landmark achievement by successfully hatching a pair of Greater Adjutant chicks in an artificial platform within the zoo enclosure, in the first-ever experiment of its kind during the last and first weeks of November and December 2019. Two bamboo platforms of ten feet were constructed as artificial platforms.
- The subject of Greater Adjutant Stork and its conservation was included in the syllabus of many schools in India for the first time. School Books published by Harper Collins books and many other Assamese books now feature the Hargila prominently.
- Creation of Hargila Army, a cooperative unit that has



Dr. Purnima Devi Barman with the women-folk.

Photo - Smita Sharma



Dr. Barman explaining about the importance of Hargila Conservation to school children

Photo - Carla Rhodes

provided training to over 10,000 rural indigenous Indian women to create conservation communities throughout Assam. Traditional handloom and yarn have been made available to the members after they have undergone the training. These members have been steadily creating handloom products with conservation motifs. The products have been gaining popularity among buyers for their excellent quality and unique designs.

These women have now become the guardians of this bird and prevent people from cutting down the trees. They have also banned the bursting of crackers in various ceremonies and the practice has significantly declined.

- Livelihoods of 400 families have changed to occupations that promote conservation through women joining the Hargila Army.
- Nurturing 10,000 children as future guardians of nature by providing training on nature conservation and ecology.
- Restoration of Dadara-Pachariya-Singimari as the largest breeding colony of Greater Adjutants in the world and increase in the number of nests by eight times in 12 years.

RECOGNITION

- Purnima Devi Barman was awarded the degree of Ph.D. by Gauhati University for her Thesis on “Foraging ecology, breeding success and genetic status of Greater Adjutant stork *Leptoptilos dubius* (Gmelin) in Kamrup District, Assam”.
- Nominated for the Indianapolis Prize 2020 Award for her inspiring work to save the Greater Adjutant Storks, the most endangered stork species.
- Kamrup District Administration declared the Stork as mascot of road safety for the District.
- The prestigious USA-based Audubon magazine's spring



Photo - Smita Sharma

Dr. Barman interacting with school children to create awareness

- issue highlighted the Hargila Army's work, especially focusing on the Greater Adjutant Baby Shower.
- Thendral, a well-known Tamil magazine published in the USA has carried a special feature article about Dr. Purnima Devi Barman and the Hargila conservation movement of Assam.
- On the occasion of International Women's Day, March 8, 2020 a special video interview of Dr. Purnima Devi Barman on the Greater Adjutant Conservation work in Assam was shared by the US State Department.
- On 10th August 2019, Dr. Purnima Devi Barman was felicitated by the Nodal tourism body of the State; i.e. Tour Operation Association of Assam (TOAA).
- Dr. Barman was nominated by Assam Forest Department to attend Conference of the Parties to the Convention on Migratory Species (COP13) from 15th-22nd February, 2020

to represent Assam and her efforts in conservation of the Greater Adjutant Stork.

- A children's book in Marathi Language titled “Hargila Baideo: Purnima Devi Barman” by esteemed Marathi writer Ms. Kavita Mahajan was released on 27th September 2019 in Mumbai, Maharashtra by Indrani Sahitya Prakashan.
- A documentary film made by Cornell University, USA, on the work of Dr. Purnima Devi Barman and the Hargila Army was officially released by the Honorable Chief Minister of Assam, Sri Sarbananda Sonowal at Janata Bhawan on October 22nd 2019.

STRATEGIC ACTIONS

- International Earth Day was celebrated by the community members on 22nd April 2019.
- 100 new nets fitted under Hargila nesting trees in Dadara, Kamrup District to reduce chick deaths due to fall from nesting trees.



Photo - Carla Rhodes

Awareness Campaign on World Wildlife Day, 2020

- International Day of Biological Diversity was celebrated with a group of students at Panbari High School, Chandrapur. Meritorious students who secured Distinction in High School Leaving Examination were felicitated by Dr. Purnima Devi Barman.
- The first artificial bamboo platform nest-bred stork chick, flew off to the wild as a young adult in May 2019.
- The GACP work was highlighted in a coffee table book documenting the events and activities that took place in Raj Bhavan by the present Governor Prof. Jagadish Mukhi.
- A plantation drive was undertaken by the GACP team and Hargila Army on June 1, 2019, along with an awareness programme in Dadara-Pachariya village.
- With the support from New Zealand High Commission, 280 women from the 'Hargila

Army' came together and 80 sewing machines were distributed among them on July 16th. This was a part of the awareness campaign launched on 27th June 2019.

- The school students from Dadara learnt to make *Hargila* figurines from clay and *Hargila* rangoli.
- A creative craft workshop

was organized for children of the Hargila Army, at Dadara on 7th July. The students of Assam Engineering College guided the children in making colourful Hargila-themed crafts. The AEC students are working as interns of with the programme.

- A Free Health Camp was held at Dadara, organised by the Hargila Army and Aaranyak in collaboration with GNRC and SAPTARSHI.
- Tezpur University procured 100 locally made gamosas woven by members of Hargila Army during August 2019.
- Pre-breeding season survey and monitoring were carried out in Dadara-Pachariya-Singimari area by the project team and volunteers.
- At Dadara, 10 bamboo platforms/machans were constructed. One of the machan was constructed inside the Assam State Zoo as well. More such breeding



Photo - Carla Rhodes

Hargila Army weaving beautiful gamosa with Hargila motifs



Photo - Carla Rhodes

Hargila Art Competition to create awareness

platforms are also being constructed in habitat areas across Dadara area.

- Dr. Barman was invited as a special guest to meet with the Hon'ble Deputy High Commissioner of UK, Mr. Bruce Bucknell on 26th September 2019.
- An awareness rally was organised at Dadara on 27th October 2019 to spread cognizance on avoiding loud crackers and urging the people to celebrate green Diwali. The local people supported the cause, wearing Hargila masks and helped spread the message.
- A *Hargila Panchamrit* Ceremony (Baby Shower) was celebrated with great joy and huge participation from the Hargila Army women at Dadara on 31st October, 2019. This ceremony is celebrated every year to pray for a successful breeding of the Hargila chicks.
- At Dadara, environmental education classes were held for school students at the Dadara Higher Secondary School, on November 3rd.
- A birdwatching cum nature trail and a motivational awareness event was held on 12th November 2019, for 70 students from different universities and college to pay tribute to the Bird-man of India Mr. Salim Ali. The event was held at the the Assam State Zoo cum Botanical Garden, Guwahati which was attended by host of eminent personalities.
- The foundation stone for "Hargila Nature Education Centre" was laid on 27th November, 2019 at the Kushal Konwar High School, Dadara to facilitate awareness campaigns on nature conservation among women, children, and other members of local communities as well as for research and documentation purposes.
- A training was provided to the 65th batch of Assam forest guards from Assam Forest Guard School, Makum on December 9th, 2019. At Assam Forest School, Jalukbaria workshop on "community conservation" was conducted that included interaction with communities, local schools, and field training at Dadara-Pachariya villages.
- Members of the Hargila Army were taken for a bird watching and exposure trip to Malayabari, Pobitora, Mayong and Bogoribari on 28th December 2019.
- Dr. Purnima Devi Barman was interviewed by Manas Pratim Sharma on conservation journey of the Greater Adjutant Storks, which was aired Live on 29th December at the All India Radio.
- On the occasion of Saraswati Puja, an art competition was organized at Dadara by the team members of GACP.
- The hatching of the storks was celebrated on January 8th, 2020, by GACP team which was attended by the Honourable Forest Minister of Assam Sri Parimal Suklabaidya at Assam State Zoo premises.
- Dr. Purnima Devi Barman conducted a session for the students of Higher Secondary first year of the Dadara Higher Secondary School on "How to do an Environmental Project", where she explained the theory and taught them the ways of making an environmental project. The

session was attended by 60 students.

- The GACP team celebrated the World Wildlife Day at the Sankardev Sishu Niketan, Bongshor, Kamrup District by organizing an art competition with the theme "Love and Care is Our Colour", and rangoli competition among children. A 'Web of Life' demonstration was also undertaken.
- A cricket tournament was organized by the Dadara Boys Club on 7th and 8th March 2020, with support from GACP team to create awareness among the youths. It was a very successful event with 13 teams of youths from different districts participating in it.

SUMMARY OF IMPACT

Due to consistent efforts by the GACP team, not a single nesting tree was cut down since 2010, in the nesting colony of Kamrup District. The number of Greater Adjutant nests in Assam has increased from 28 (2007) to 171 (2014) and at present, the average nest number is 208. For the first time, Greater Adjutant Stork chick was hatched in an artificial nesting platform in Assam State Zoo thus paving the way to securing the habitat of this species. The Hargila bird has reached a mass awareness level with local communities now worshipping the bird instead of considering it an evil omen. More and more rural women, youths and community



Photo - Smita Sharma

Hargila Art Competition at Dadara to create awareness among school children

members are taking the conservation pledge and joining the Hargila Army. There has been widespread media interest due to the project thus giving a boost to the whole movement with increased visibility and concern for the otherwise mostly unknown bird. The conservation effort of Hargila Army has inspired school children not only in India but in other countries as well. Dr. Barman met with a young child in UK who had travelled to London to meet her and discuss her work about Greater Adjutant Conservation.

ROAD AHEAD

- Raise international awareness for Hargila Conservation work in Assam.
- Completion of the Centre for Greater Adjutant Stork awareness education which will be first of its kind in the world.

- Create expanded habitat and tackle deforestation for Hargila during breeding season with artificial nesting platforms.
- Conducting more local awareness programmes among local communities and school children.
- Networking with markets/ platforms for increasing demand of handloom products created by the weavers of Hargila Army.
- Continued skill development trainings of Hargila Army and expanding the activities.
- Livelihood, community programmes and trainings in the pipeline.

CONTACT

Purnima Devi Barman, PhD
Project Head, GACP
Email: purnima@aaranyak.org
Phone: +91 8876429654



Photo - CLD, Aaranyak

INTRODUCTION

The Conservation and Livelihood Division (CLD) was established in 2004, and has been working with forest dependent communities in order to improve their livelihood options. The concept of community-based conservation was sought in order to reduce anthropogenic pressure on Protected Areas by local communities, and garner support of local communities for conservation. There has been an increasing trend in India in involving local communities for conservation by implementing community-based conservation methods basically due to interest shown by international and local organisations.

Currently CLD is implementing projects in the fringe villages of Manas Tiger Reserve (MTR) in Bodoland Territorial Council to provide sustainable livelihood opportunities for the local communities. CLD has been working in other landscapes of Assam such as around Kaziranga Tiger Reserve and Pobitora Wildlife Sanctuary, in collaboration with other divisions especially RRCD, TRCD, complementing the conservation efforts.

MAJOR ACHIEVEMENTS

- Engaged 100 marginalised families using farm and non-farm-based activities for livelihood options in Bansbari, Bhuyanpara and Kokilabari areas around MTR.
- A community-based nursery has been developed to promote organic vegetables



Photo - CLD, Aaranyak

Cultivation of tomatoes by our beneficiary Ghega Narzary in his farm land, Kushratty Village, Bhuyanpara.

in Chirang District. Vegetable saplings were provided to the farmers of four villages. A total of 121 farmers were trained on uses of indigenous micro-organism, organic pesticides, cutting and grafting. A vermicomposting is exhibited in the nursery for demonstration purpose.

- Three poly-domes developed for rain water harvesting in

No. 2 Chourang Village as a model.

- Through micro enterprise development, the division supported tea stalls, carpentry materials, hair cutting, saloon, grocery shop in tricycles, meat shop to selected beneficiaries who are dependent upon natural resources of Manas National Park.



Photo - CLD, Aaranyak

Polydome based rain water harvesting system installed at 2 No. Chourang Village, Panbari

- A common facility centre equipped with looms, sewing machines, drums, calendaring machines etc., was constructed in the Mazrabari village.
- “Manah Community Merchandise” an online platform has been created to provide marketing linkage of products that are produced and cultivated by local communities such as turmeric, red lentils, jelly, pickles and handicrafts. A product brand “MANAH” has been developed for marketing purpose.

STRATEGIC ACTIONS

- Regular monitoring and handholding of beneficiaries for successful implementation of livelihood activities, performances and problems.
- A total of 121 beneficiary households of Chirang District were provided with vegetable seeds, sapling of both



Photo - CLD, Aaranyak

A common facility centre equipped with looms, sewing machines, drums, calendaring machines was constructed in the Mazrabari village.

summer and winter vegetables and lemon grafting to encourage organic cultivation in the area. Five training programme were organised for these households on organic cultivation focusing on indigenous micro-organism (IMO) serum development, soil health management,

composting and rainwater harvesting in fringe villages of Manas under Chirang District.

- 100 marginalised families from Kokilabari, Bhuyanpara and Bansbari cluster were supported with farm and non-farm alternative livelihood options using the principle of skilling, supporting, hand holding and monitoring. The farm-based livelihood includes agro-forestry based homestead gardening, and seasonal vegetable farming. The non-farm alternative livelihood opportunities include Tea-stalls, supporting vegetable vendors with bicycle/tri-cycle, facilitating barbers, carpenters, pan-shops, meat-shops, selling of handloom products, cattle-shed constructions.
- Linking beneficiaries to government livelihood schemes and financial institutions for sustainability.



Photo - CLD, Aaranyak

Bee keeping training

SUMMARY OF IMPACT

The CLD works for strengthening SHGs, which were formed earlier. The division has reached over 2000 households and 20 SHGs in Baksa and Chirang Districts. A SHG from Kokilabari, is working on production of natural dye and has successfully made dye from *Chromolaena odorata* plant, which is an alien invasive plant. They have been able to earn Rs. 18000 per year selling the threads coloured with natural dye. Another SHG from Kokilabari use these naturally-dyed threads to weave cloth-material for making value-added products. This group has also able to earn Rs. 40000 per year. A SHG from Bhuyanpara, who have expertise in weaving, weave traditional cloth material as such as Dokhna, Aronai, Gamosa and other varieties of value-added products, which helped them Rs 7000 to 8000 per month.

Beneficiaries practicing agriculture have been able to earn surplus money from their homestead gardens, horticulture, vegetable garden, ravi crops. This helped reduce their forest-dependency



Photo - CLD, Aaranyak

SHG members selling handloom products

with earning a steady income ranging between Rs 2000- 3000 per week.

Creating micro enterprise among youths and marginalised families for engaging them and constant follow-ups, handholding by the team have made majority of villagers understood that they can sustain easily without being dependent on forest.

- Value chain development of various agricultural and horticultural crops, for creation of local market hub.
- Entrepreneurship development among local boys and girls.
- Rural tourism development through skill building across Manas landscape.
- Local unemployed youth to be absorbed in micro enterprise.

ROAD AHEAD

- Establishment of market and financial linkages for better price and sustainability of interventions.



Photo - CLD, Aaranyak

A snapshot from beekeeping training

CONTACT

Bibhuti P Lahkar, PhD
Head, CLD
Email: bplahkar@gmail.com
bibhuti@aaranyak.org
Phone: +91 9435017687

Mr. Bipul Das
Deputy Manager, CLD
Email: bipulassam@gmail.com
Phone: +91 9957287921

Mr. Swapan Das
Assistant Manager, CLD
Email: swapankrdas88@gmail.com
Phone: +91 9101092758

Elephant Research & Conservation Division (ERCD)

Photo - Avijan Saha



Photo - ERCD, Aaranyak



INTRODUCTION

The conservation crisis of the Asian elephants in Northeast India led to the formation of the Elephant Research and Conservation Division at Aaranyak in 2002. With rapid loss of habitats, alteration of land uses, poaching, development of linear infrastructures and increased human-elephant conflict (HEC) has created serious concern regarding conservation of elephants in Northeast India. ERCD has been working on understanding elephant ecology, its habitat, mitigation of HEC and facilitating coexistence with human beings in order to address the current threats to Asian elephants. The Division has spread out its work across the state of Assam and Northern West Bengal.

MAJOR ACHIEVEMENTS

- Survey of illegal electrocution of elephants and sagging of power supply wire covering 18 districts of Assam.



An illegal fence installed by local communities

- Tested the efficacy of five species of plants namely, Citronella, Lemon grass, Wild turmeric (*Curcuma aromaticata*), *Homaloma aromaticata* and King Chilli as elephant deterrent crops to aid in HEC mitigation.
- Converted 16 km illegal electric fence into proper solar powered fences in Baksa district of Assam.
- More than 400 searchlights were provided to local

communities, members of Village Defense Party (VDP) and Forest Department in various HEC affected areas of Assam.

- Developed a handbook for summer school camp for the team members of the best performing project of the National Children Science Congress (NCSC) on application of science and technology in biodiversity conservation and management.



Installation of solar-powered fence

Photo - ERCD, Aaranyak

- Identification of movement pattern of Asian Elephants in North Bengal Landscape.
- Naam Kamakhya L.P. School of Silghat in Nagaon district has been completely secured by installing solar powered fences surrounding the school premise, which was damaged 18 times by wild elephants.
- Identification of hotspots of road kills of the animals on National highway 37 within the stretch from Kukurakata to Bokakhat.

Photo - ERCD, Aaranyak



Photo - MPCD, Aaranyak

Torch light distribution at Nagrijuli

Monitoring and mitigation of HEC

- Set-up a surveillance system to monitor illegal electrocution of elephants in Assam.
- Converting illegal electric fences into community based solar powered fences.
- Involve VDP in mitigation of HEC as they are the primary government machinery to address different issues at village level.

STRATEGIC ACTIONS

Elephant Ecology and Population monitoring

- As a part of a three-year ecological study on Asian elephants in northern West Bengal, ERCD investigated the population and habitat ecology and the human-elephant conflict pattern in the landscape. Based on our findings we drafted a management plan for elephants.
- In Manas Tiger Reserve we surveyed the landscape to identify the transboundary movement routes of elephants, besides monitoring the elephant population.

Designing mitigation measures for wildlife-vehicle collision

- In the Kaziranga landscape, we have undertaken a survey along the NH-37, stretching from Kukurakata to Bokakhat to identify the hotspots of



Photo - ERCD, Aaranyak

Field survey to estimate elephant population using dung-count method

animal crossing to facilitate the development of 'animal-friendly' linear infrastructure in near future.

Restoration of elephant habitat

- ERCD has been working with Park Directorate of Manas National Park for restoration of invaded grassland. Currently the restoration is focused on two prime grassland habitats in the central and eastern ranges of Manas National Park.

- Dialogue with the government to declare HEC as a natural disaster and insulation of electric power supply wire specially in elephant bearing areas of Assam.

Awareness and sensitisation

- To appreciate the conservation value of elephants and increase tolerance level of different stakeholders ERCD has carried out awareness programmes with various stakeholders.



ROAD AHEAD

- Fill up the gap on population estimation, demography and movement ecology of Asian Elephant in Northeast India in the coming years.
- Mitigation of HEC to facilitate human elephant coexistence through community participation.
- Replenishment and restoration of elephant habitats.

Photo - ERCD, Aaranyak

Explaining about Solar powered fence at Namkamakhya

SUMMARY OF IMPACT

- Last year the proactive efforts of the Division have saved the lives of more than 30 elephants from illegal electrocution in different parts of Assam through setting up a surveillance system.
- Installation of solar powered fences in Baksa have benefitted more than 10, 000 people by protecting human lives, properties and providing food security. This at the same time also benefitted around 200 elephants.
- The result of testing the efficacy of elephant deterrent crops has helped us to transfer knowledge from the field to farmers, which will help them in mitigating HEC and earn livelihood as cultivation of these crops as alternative crops. It is worth mentioning that in high HEC areas, farmers have stopped cultivating traditional crops such as paddy.
- Playing a crucial role as catalyst between government machinery and villagers in Baksa, Golaghat and Sibsagar districts.



Photo - Avijan Saha

A lone tusker

CONTACT

Bibhuti P Lahkar, PhD
Head, ERCD
Email: bplahkar@gmail.com
Phone: +91 9435017687

Jyoti Prasad Das, PhD
Manager, ERCD
Email: jyoti@aaranyak.org, elephant.jyoti@gmail.com
Phone: +91 9435121752

Alolika Sinha
Assistant Manager, ERCD
Email: alolika@aaranyak.org, sinha.alolika@gmail.com
Phone: +91 9435021312

Environment Education & Capacity Building Division (EECBD)



Photo - EECBD, Aaranyak

INTRODUCTION

Environment Education (EE) is a dynamic and progressive exercise which enables people to explore environment issues, solve problems and take action to improve environment through developing essential skills and capacity. Environment Education and Capacity Building Division (EECBD) is presently working with multiple target groups across the state of Assam, India and South & Southeast Asia as well, through effective use of EE tools and techniques to address environment and conservation issues on priority basis.

Currently the division is working to achieve the following objectives:

- To work on ecosystem services focusing water, air and soil for human well-being.
- To work for wildlife conservation and environment protection by sensitising and engaging community.
- To capacitate strategic stakeholders to address different ecological issues through training and handholding.



Photo - Jayanta Pathak

A moment of teachers training organized jointly with UNESCO C2C at Manas World Heritage Site focusing “Safeguarding Natural Heritage through education, awareness and network building among teachers and students”

- To develop effective EE resource materials for conservation.
- To develop scientific temperament among younger generation for conservation as well as research on wildlife and environment.

āru Jivan”. Besides, EECBD published thirteen popular articles on different ecological issues.

- Capacitated 23 teachers, and sensitised over 600 PRI members on climate change. Around 6.8 thousand people have been directly reached-out with effective conservation messages through awareness and sensitisation activities.
- Successfully conducted 10 orientation workshops, 1 residential training of four days, five sensitisation programmes, 13 awareness programmes, three radio discussions, two strategic plantation programmes along with other activities.

MAJOR ACHIEVEMENTS

- The division has published a book, “Weather Climate and Life” and also published the second revised edition of the book, “Batar Jalabāyu



Photo - EECBD, Aaranyak

A moment of ‘In dialogue: Nature, Heritage & NE India’ program

STRATEGIC ACTIONS

EECBD has conducted various workshops, trainings, public outreach and awareness activities in different priority locations in Assam. The division has also supervised works of interns from different academic institutions.

The division shared its expertise on different invited platforms as resources persons. During the reporting period, Aaranyak had signed a MoU with the Directorate of Museums, Government of Assam. Some salient activities of the reporting period are mentioned below.

- Under the joint initiative, 'In dialogue: Nature, Heritage & NE India', of Aaranyak and Directorate of Museums, Government of Assam, EECBD had conducted two brilliant panel discussions on 'Amphibian: diversity, conservation policy and research potentiality in Northeast India' and 'Fishes of NE India: conservation and research potential'. The purpose of this initiative is to help conserve the natural heritage of Northeast India through sensitising public and inculcating research and conservation interest among different stakeholders of this region.
- Ten orientation workshops on climate change (CC) were



Photo - EECBD, Aaranyak

A moment of an orientation workshop on climate change held at Udaguri district of BTAD, Assam

organized in 13 districts to sensitise Panchayati Raj Insinuation / VCDC members and village community leaders about the adverse impacts of climate change on human and natural systems and on CC adaptation and its mitigations.

- EECBD has been working with the fringe communities of Amchang Wildlife Sanctuary to enable human elephant coexistence. So far, three community engagement programmes and an awareness activity to promote coexistence was conducted.
- EECBD under its 'Trees are our Friends' initiative aims to plant and nurture trees. Two plantation drives were carried out wheremore than 90% saplings had survived when monitored after a year. Besides, the division has offered letter of appreciation to the successful institution that have taken care the saplings planted in their premises. EECBD also presented saplings to the over 250 artists of the state.
- A residential teachers' training was organized jointly with UNESCO Category 2 Centre based at Wildlife Institute of India from 22nd to 25th February 2020 where 21 teachers from Baksa and Chirang district of BTAD, Assam participated. The aim of the training was safeguarding natural heritage by capacitating teachers. The training emphasized on the outstanding universal values and its significance for the sustainable and long-term conservation of Manas heritage sites and communities surrounding.



Photo - Yugal Krishna, Assam State Museum

A moment of 'In dialogue: Nature, Heritage & NE India' program



ROAD AHEAD

- A popular book on snakebite management for the common public to be published by 2021.
- Initiative to generate 100 Conservation Educators within 4 years from NE region.
- Establish two resource schools by 2023.
- Reach out to 5000 students each year to develop a deeper understanding of the impacts of current practices on the ecosystem services and encourage a shift towards conservation friendly behaviour.
- To strengthen the rapport amongst grassroots conservation agencies/ organisations within the state and beyond to achieve the conservation goal.

Photo - EECBD, Aaranyak

Radio is an effective tool to reach right target audiences with apt environment protection related messages.

Some moment of recording a discussion

SUMMARY OF IMPACT

- EECBD's intervention has motivated people for coexistence with elephants in its project site.
- The need of a common platform for the budding researchers, conservationist and experts has been fulfilled by the initiative of 'In dialogue: Nature, Heritage & NE India'.
- Over 90% saplings planted in the reporting period under "Trees are our friends" initiative had survived.

- Observed various self-motivated initiatives among the participants of CC orientation workshops such as meeting on CC adaption and mitigations, conservation of wetland in their respective localities.
- A functional network among different environment related grassroots organisation and key individuals has established through the implementation of various EE activities of EECBD.



Photo - EECBD, Aaranyak

Release of a popular book, "Weather Climate and Life" at Haflong, Dima Hasao during an orientation workshop on climate change organized jointly with NC Hills Autonomous Council, YADEM and Aaranyak

CONTACT

Jayanta Kumar Pathak
 Manager, EECBD
 Email: aaranyak.jkp@gmail.com,
jayantapathak@aaranyak.org
 Phone: +91 9864320915



Gangetic Dolphin Research & Conservation Division (GDRCD)



INTRODUCTION

Gangetic Dolphin Research and Conservation Division (GDRCD) was established in 2005 with an aim to undertake long term conservation activities on the Gangetic dolphins (*Platanista gangetica*) of the Brahmaputra river system in association with all concerned stakeholders. With a dedicated survey boat, manpower, equipment and community support, GDRCD is one of the best recognized Dolphin conservation programmes in India. Besides, working on the Ganges River Dolphin of Brahmaputra river system, GDRCD also worked on other dolphin species, mainly the Irrawaddy Dolphin and Indo-Pacific Humpback Dolphins of the Indian Sundarbans of West Bengal.

MAJOR ACHIEVEMENTS

GDRCD - Aaranyak collaborated with the Wildlife Institute of India (Dehradun) for the project “Development of Conservation Action Plan for River Dolphins” for 2016-21. Under this project and within the reported period, GDRCD received following achievements-

- Completed 15 years of monitoring the population of Gangetic dolphins in Brahmaputra river system from 2005 to 2020.
- Maintained its community-based Dolphin Conservation Network (DCN) for the last 12 years, from 2008 to 2020.
- Maintained its dedicated dolphin research vessel SB

Kahua, which is first of its kind in India for Gangetic dolphin research and conservation, for the last 10 years.

- Enhanced the ecological understanding of Gangetic dolphins in selected river stretches of Brahmaputra.

STRATEGIC ACTIONS

GDRCD - Aaranyak in collaboration with the Wildlife Institute of India (Dehradun) conducted the following activities during this reported period:

- Completed dolphin survey in Brahmaputra river system including Brahmaputra mainstream (Assam-Arunachal Pradesh border to India-Bangladesh border), Kulsu River and Subansiri



Dolphin survey in Brahmaputra during Feb-Mar, 2020

Photo - Abdul Wakid



Brahmaputra River near Assam-Arunachal Pradesh border

Photo - Abdul Wakid

River during February-March, 2020.

- Conducted summer season dolphin survey in Pahumara-Kadiya River of Barpeta district. This is the second time monitoring survey of this seasonally distributed dolphin population. During this survey, a total of 30 dolphins were recorded with an encounter rate of 0.54 dolphins/km.
- Maximum group size was observed at Pohumara-Kaldiya river confluence and Nakhanda-Beki river confluence.
- Conducted upstream distribution surveys of dolphins in total 33 tributaries of Brahmaputra. This survey indicated summer distribution of dolphins in 15 tributaries of the river, namely in the Dibrus, Burhidihing, Disang, Dikhow, Jhanji, Dhansiri, Sarikoria, Jiaborli, Kolong, Pahumara, Manas, Beki, Gaurang, Tipkai and Gadadhar.
- Land-based dolphin and habitat monitoring were conducted by 40 trained members of Dolphin Conservation Network (DCN) in 20 important dolphin habitats across Assam during the period.

SUMMARY OF IMPACT

Residential dolphin populations occurred in most of the major tributaries of the Brahmaputra at least three to four decades ago. However, due to increased anthropogenic pressures, these residential dolphin populations were wiped out from these tributaries. Now, they are again coming back to these tributaries during summer season. This is because of the consistent efforts by GDRCD through its long-term community engagement and awareness activities in key dolphin habitats, for which there is a significant increase of dolphin population in the Brahmaputra mainstream and these dolphins started moving towards these tributaries during summer season.



Photo - Abdul Wakid

Brahmaputra River near Dibrugarh

ROAD AHEAD

GDRCD will emphasize more on community engagement and awareness activities for conservation key dolphin habitats across Assam in coming days.

For this the already existing and highly-active and efficient Dolphin Conservation Network (DCN) and boat based 'Dolphin Yatra' will be strengthened. Alongwith

that dolphins in the tributaries of Brahmaputra will be emphasized, where threats are more intense.

CONTACT

Abdul Wakid, PhD
Honorary Head, GDRCD
Email: wakid.abdul@gmail.com
Phone: +91 7002398460



Geo-Spatial Technology & Application Division (GTAD)

INTRODUCTION

Geo-spatial technology helps us to acquire data in the form of satellite imageries and ground survey data corresponding to earth's surface and associated attributes to use in analysis, query, modelling, prediction, measurements and visualisation. Geo-spatial technology helps stakeholders in policy and decision-making process. With this broader aim, Aaranyak had established a separate division for Geo-spatial and Application (GTAD) in the year 2004 with a GIS lab setup at Aaranyak's research office. Since its establishment, the division has primarily carried out remote sensing, GIS and GPS based analysis and field work of in-house divisions of Aaranyak at various geographical areas in general, and the protected areas of North East India in particular. Apart from lab work, GTAD is actively involved in imparting short-term training, teaching at various academic institutions, including the training of front-line forest division staffs.



Photo - Assam Forest School, Jalukbari

Arup K. Das at Assam Forest School

MAJOR ACHIEVEMENTS

- The division has reached out to about 750 individuals through various regular activities, including students from academic institutions, researchers and in-service forest department officials (DFOs, ACFs, FROs, Foresters and Forest Guards) from various states of India.

- Supported the Assam Forest Department by preparing different thematic maps of Manas Tiger Reserve (MTR) and shared them to the office of the Field Director, Manas National Park; different thematic maps of Amchang Wildlife Sanctuary and Pobitora Wildlife Sanctuary were shared with the office of DFO, Guwahati Wildlife Division. Moreover, a GIS-based buffer map of fire stations of Guwahati city was handed over to the office of Add. DGP fire service, Guwahati.
- Two staff members of GTAD successfully attended 21 days of free training on the Applications of open-source GIS software in different fields including Level 1 and Level 2, supported by Natural Resource Data Management System, Department of Science and Technology, Government of India, New Delhi.



Photo - Deepjyoti Bonia

Arup K. das at Central Academy for State Forest Service



Photo - Assam Forest School, Jalukbari

Kongseng Konwar at Assam Forest School

STRATEGIC ACTIONS

- The GTAD team worked as guest faculty for 3rd semester students from the Department of Ecology, Environment and Sustainable Development, Tata Institute of Social Sciences, Guwahati campus and took theory and practical classes on remote sensing, GIS and GPS.
- Carried out intensive fieldwork for ground verification, GPS based data collection and preparation of LULC maps and analysis of Kobo chapor, Chalakura, Majuli and Doomdoma Forest division, Kaziranga, Jammu, and Dehradun.
- Arup Kumar Das visited the Wildlife Institute of India (WII) from 12th to 19th February 2020 for amphibian's microhabitat study and mapping and support to Dr. Abhijit Das, Scientist D, WII. Arup Das visited the field sites

i.e. Benog WLS in Deradun, Mansar and Surinsar Lake in Jammu, and interacted with the researchers conducting the study.

- GTAD has prepared different thematic maps for various divisions and initiatives of Aaranyak, using satellite imageries of different time periods along with ground information. These maps include landmass change and

bankline shifting over decades of Majuli and Kobo chapor, land cover change of Manas National Park and Chakrashila WLS. In-addition, thematic maps of North Bengal Landscape and Brahmaputra riverine landscape of Eastern Assam was developed, wildlife roadkill on national highway along Kaziranga National Park has been mapped and different base maps of urban periphery of Guwahati city, maps of South East Asia showing possible tiger corridors and present habitats, Doomdoma forest division areas' land use/land cover changes were developed.

SUMMARY OF IMPACT

- The staff of GTAD has imparted classes on remote sensing and GIS to 32 trainee Range Forest Officers (FROs) 2019-2020 batch, at Central Academy of State Forest Service Burnihat. The understanding of RS/ GIS will help the officers to



Photo - Assam Forest School, Jalukbari

Madhumita Borthakur at Assam Forest School

use these applications for the conservation of forest and wildlife in the states of Telengana and Maharashtra.

- Maps provided to various Divisions and Projects of Aaranyak and are being

used for a number of applications such as research, conservation, resource planning and decision making for project management and project technical report development.



Photo - GTAD, Aaranyak

The GTAD team along with the students and Faculty (Dr. Namita Brahma) of TISS Guwahati during a hands-on training on GPS in Assam State Zoo Guwahati



Photo - Dipmoni Nath

Jyotish Deka and Dr. Partha Jyoti Deka at Kobo Chapor during participatory GIS



Photo - Madhumita Borthakur

Kongseng Konwar and Minakshi Dutta reaching out to students on GIS Day Celebration in the premises of Assam State Zoo cum Botanical Garden

ROAD AHEAD

- To develop understanding and application of synthetic-aperture radar images mainly Sentinel 1 to study pre and post monsoon flood inundation in Brahmaputra flood plain.
- To impart teaching and practical hands-on training on remote sensing, GIS and GPS application in various educational institutes, organisations and government departments.
- Implementing in-house capacity building activities on the use of open-source GIS and support to other divisions and initiatives of Aaranyak and other end user agencies.

CONTACT

Partha Jyoti Das, PhD
Head (In-Charge), GTAD
(Till March 2020)
Email: partha@aaranyak.org, parthajdas@gmail.com
Phone: +91 9435116558, 9957189404

Arup Kumar Das, M.Phil
Manager, GTAD
Email: arup@aaranyak.org, arup.aaranyak@gmail.com
Phone: +91 7577836104

Herpetofauna Research & Conservation Division (HRCD)



Photo - Jayanta Kr. Roy

INTRODUCTION

The Division started working in the field in 1997 to strengthen herpetofauna research and conservation (HRCD) in the Eastern Himalayas and NE India by contributing towards inventory, taxonomy, ecological and conservation research from the Brahmaputra flood plains to alpine forests of the Himalayas. The division maintains a strong research and conservation network among researchers, scientists and institutions within India and abroad.

The prime objectives of the division are to assess and monitor herpetological diversity and distribution, assess vulnerability to species due to anthropogenic impacts, maintain a strong research and conservation network to strengthen herpetofauna conservation, understand and resolve taxonomic problems associated with herpetofauna using integrated taxonomic approaches, create awareness about the importance of herpetofauna in the environment and the need for their conservation.



Xenophrys sp.

Photo - Jayanta Kr. Roy

MAJOR ACHIEVEMENTS

- Gathered two sessions of field data during May 2019 to February 2020 across the Dibang River Basin (DRB), a challenging field site in the Eastern Himalayas.
- Weather monitoring stations established across altitudes in the Dibang River Basin at strategic locations generating data since 2019.
- Highest average annual rainfall during July (400-3500 mm) across the Dibang River Basin. Areas at altitude 2500 m asl (Mayodia Pass) received highest rainfall
- Observed an oscillation in the monthly average temperature $\pm(1-2^{\circ}\text{C})$ at different elevational zones in Dibang River Basin that may have an impact on breeding of amphibians.
- Established and operationalised a platform for interaction among young researchers, Forest Department and Idu Mishmi communities of DRB to share updates of research and understanding of communities.

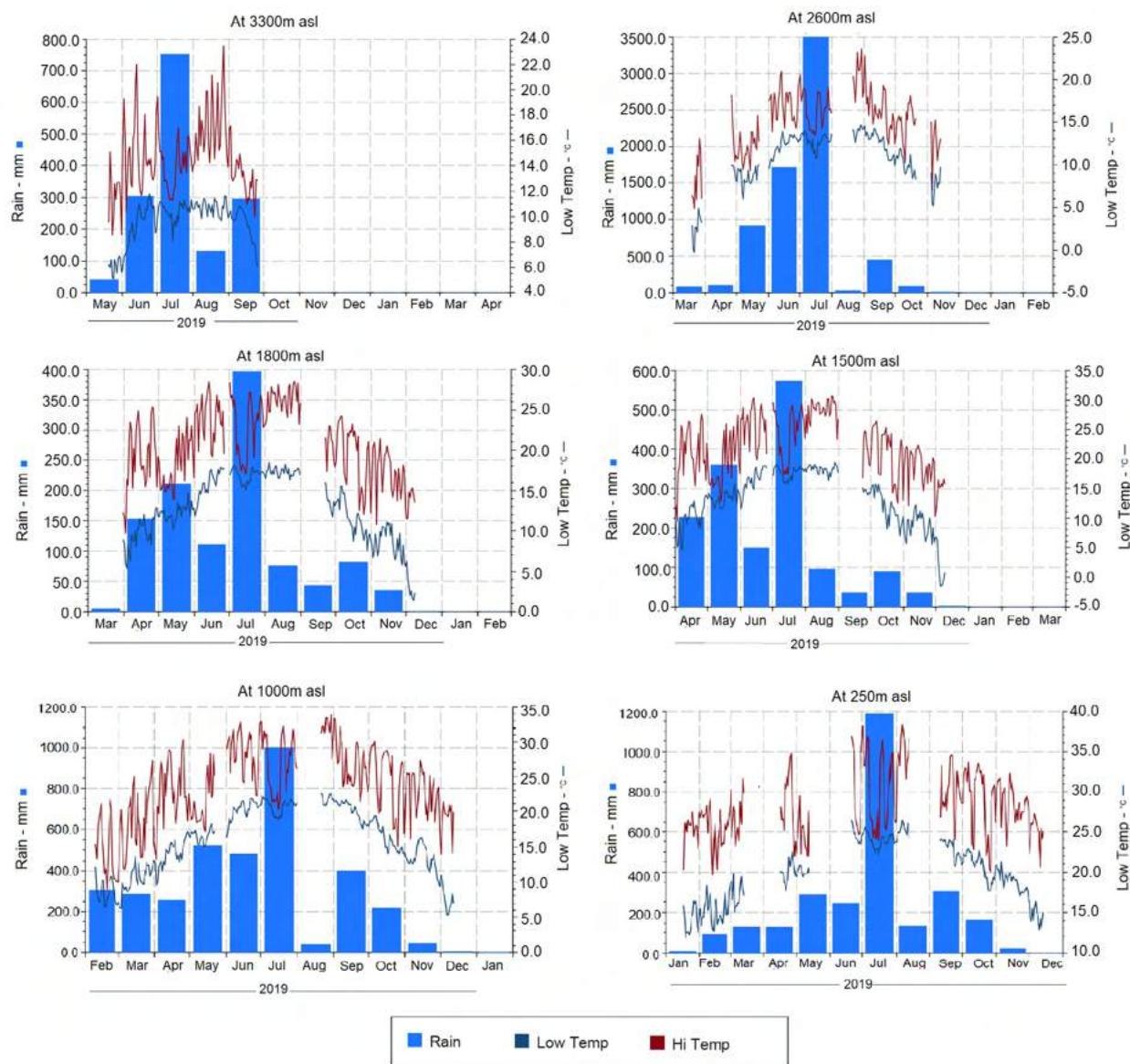
RECOGNITIONS

- Jayanta Kr. Roy, researcher from HRCD was awarded his PhD degree from the Department of Life Science and Bioinformatics, Assam University, Diphu Campus. His doctoral thesis focuses on research on amphibians, “Elevational and local influence on amphibian distribution along an altitudinal gradient in Dibang Valley, Eastern Himalayan, India”



Philautus sp.

Photo - Jayanta Kr. Roy



Monthly precipitation and temperature (high and low) from altitude 250-3300 asl in the Dibang River Basin in 2019, Arunachal Pradesh, India

STRATEGIC ACTIONS

- Preliminary acoustic survey for six amphibian species: *Nasutixalus jerdonii*, *Philautus sp1*, *Philautus sp2*, *Rhacophorus bipunctatus*, *Xenophrys sp* and *Zhangixalus smaragdinus* across Dibang River Basin.
- Derived predicted distribution models of all known amphibian species recorded



Interaction with Idu Mishmi community people during Dibang Valley Research Seminar at Anini

Photo - HRCD, Aaranyak

across the elevational zones in the Dibang River Basin.

- Continued to contribute to amphibian taxonomy and understanding their phylogeography in Northeast Hills-Eastern Himalayas-Indo-China region.

SUMMARY OF IMPACT

- Our research helped in understanding the change in weather conditions and its effect on distribution and abundances of amphibians in a Himalayan River Basin with high altitudinal gradients.
- Multi-year research findings from the Dibang River Basin helped in evaluating potential impacts of developmental projects on herpetofauna in the Dibang Valley, Arunachal Pradesh, India.



Photo - HRCD, Aaranyak

Field activity during amphibia acoustic survey in Dibang River Basin



Photo - HRCD, Aaranyak



Zhangixalus smaragdinus

Photo - Jayanta Kr. Roy

ROAD AHEAD

- Understand the role of weather on the distribution patterns of amphibian species in the Himalayan River Basin.
- Address taxonomic problems of amphibians and reptiles in the region using an integrated taxonomic approach.
- Share results of in-depth research in the Dibang River Basin among peers, policy makers and managers through scientific publications and popular articles.

CONTACT

M Firoz Ahmed, PhD
Head, HRCD
Email: mfa.aaranyak@gmail.com
Phone: +91 9435017652

Jayanta Kr. Roy, PhD
Senior Researcher, HRCD
Email: roy.jayantakumar47@gmail.com
Phone: +91 9613332400



Photo - LAD, Aaranyak

INTRODUCTION

This division is one of the proactive action-oriented divisions of Aaranyak for the past two decades. LAD is primarily focused on facilitating efficient enforcement of various provisions of Wildlife (Protection) Act, 1972 and allied laws so as to increase conviction rate and ensure stringent punishment for perpetrators of wildlife crimes.

The LAD conducts legal and advocacy workshops for enforcement agencies and judicial officials to increase conviction rate for wildlife offences. It also provides inputs towards policy formulation/reform to bolster conservation and protection of wildlife and its habitats.

A key component of the division has been the K-9 dog-squad along with its highly efficient team of handlers.

MAJOR ACHIEVEMENTS

- Four legal workshops were organised – three of them for district-level police officials and one with the BSF at its Frontier Headquarter in Guwahati.
- Four advocacy interactions were organised with villagers and Village Defense Parties' members of rhino-bearing areas in Assam.
- A workshop was organised for judicial officers on wildlife crime and trade in Golaghat in association with Assam State Legal Service Authority. Hon'ble Mr. Justice N. Kotiswar Singh, Hon'ble Mr.



Wildlife Law Orientation Workshop at BSF NE Frontier Office in Patgaon Guwahati



Legal Workshop for Darrang Police

Justice A.M. Bujarbarua from Gauhati High Court addressed the workshop. About 42 judicial officers from seven districts of eastern Assam participated in the workshop.

- The division provided legal orientation to over 150 frontline forest officials of Assam.

Orang National Park and Pobitora Wildlife Sanctuary during the year. The squad of dogs has been trained to track and detect wildlife parts such as rhino horns, tiger and leopard skin and bones, bear bile, ivory and others including weapons.

- The Division in association with Darrang District Police, Mangaldoi Wildlife Division gifted rain coats, field shoes and torch lights to VDPs working in and around Orang National Park to boost their morale and efficiency. A total

STRATEGIC ACTIONS

- Five K-9 sniffer Dog squad were deployed to support anti-poaching operations in Kaziranga National Park,

Photo - LAD, Aaranyak

Photo - LAD, Aaranyak



Judicial officers attending the Legal Orientation Workshop at Golaghat

Photo - MPCD, Aaranyak

of 101 rain coats, 101 pairs of field shoes and torch lights were provided to 52 VDPs from the area.

- The Division in coordination with Golaghat District Police installed a few signboards by the NH37 near Kaziranga National Park (KNP) to alert vehicle drivers to reduce speed to save wild animals crossing the highway during the flood as part of advocacy for wildlife protection.
- The Division gifted two motor bikes to Darrang District Police for facilitating efficient police patrolling around Orang National Park.
- The Division gifted 30 torch lights to Numaligarh Forest Beat office.
- LAD gifted 250 pairs of field boots, 250 caps and six binoculars to the frontline forest staff at Orang National Park.



Wildlife Law Orientation Workshop at BSF NE Frontier Office in Patgaon Guwahati

Photo - LAD, Aaranyak

SUMMARY OF IMPACT

The LAD's efforts have contributed towards enhanced rate of convictions in the wildlife crime cases and speedy disposals of such cases because of proactive role played by enforcement agencies and investigating officers who were sensitised in our workshops.

- A total of 170 BSF personnel and nearly 400 police personnel took part in these workshops.
- A workshop on "Importance of Biodiversity and Role of Law Professionals" was organized at Bishnu Ram Medhi Government Law College in Guwahati by the LAD in

association with EECBD of Aaranyak to build future environmental lawyers to cater the need of forest, wildlife and environment protection.

ROAD AHEAD

- To hold legal workshops for police officials in different districts.
- To develop structured info-legal materials and reach out to more law enforcement agencies.
- The K-9 squad's deployment will be expanded based on the requirement of protected areas in combating designs of wildlife hunters.
- Build a pool of new generation lawyers sensitive to wildlife crimes and overall burning biodiversity conservation issues pertaining to the region.



Workshop for Judicial officers at Golaghat

Photo - LAD, Aaranyak



Legal Orientation Workshop for Judicial officers held at Golaghat

Photo - LAD, Aaranyak

CONTACT

Bibhab Kumar Talukdar, PhD
 CEO & Head, LAD
 Email: bibhab@aaranyak.org, ceo.aaranyak@gmail.com
 Phone: +91 9435113139

Manas Kr. Bhattacharjya
 Manager, LAD
 E-mail: manaskrb9@gmail.com
 Phone: +91 9435017153

Mr. Bijay Shankar Bora
 Consultant Documentation
 E-mail: bijayrrcd@gmail.com
 Phone: +91 8638229772



Media Production & Communications Division (MPCD)



Photo - Udayan Borthakur

INTRODUCTION

Media Production and Communications Division (MPCD) since its inception in 2018 has been undertaking multimedia tool-based documentation, production and publication on pertinent issues of biodiversity and the environment in Northeast India. MPCD works in tandem with other divisions of Aaranyak as well as other Government and non-government organisations for effective use of multimedia tools for mass communication, to promote biodiversity conservation and environmental protection in the region. The major areas of functioning of MPCD are research-based media production and publications on pertinent issues of biodiversity conservation and environment protection, support to public relations activities of Aaranyak, manpower and in-house facility development for media productions and establish relevant collaborations with organisations and individuals and work jointly towards the use of multimedia tools for mass communication.



Photo - Kukil Gogoi

Dr. Bibhuti P. Lahkar providing orientation to the journalism students of Cotton University at Manas National Park during field visit.

MAJOR ACHIEVEMENTS

- Promotion of environmental journalism in Assam through training to journalism students of various Universities.
- Publication of “Legends of Hollongapar”, a first ever coffee-table book on Hollongapar Gibbon Wildlife Sanctuary, Assam.
- Development and maintenance of website for Asian Primate Symposium 2020 (www.aps2020.org).

- Production of several short films on threatened species and the habitat of northeast India.
- Development of ecoNE (www.econe.in), an online magazine and media platform for biodiversity and environmental issues of northeast India, which is scheduled to be launched in May 2020.

STRATEGIC ACTIONS

- Implementation of project for the promotion of environmental journalism in Assam with support from Internew's Earth Journalism Network (EJN). Activities under this project include training of journalism students of Cotton University, Guwahati, Tezpur University, Tezpur and Assam School of Journalism, Guwahati. In addition to this, the project supported the work of six paid interns for durations of 3 to 6 months, providing multiple story grants to



Photo - Udayan Borthakur

Participants of training for journalism students of Cotton University



Photo - Udayan Borthakur

Journalism students of Tezpur University during a field orientation trip to Nameri National Park

young journalists for the development of original stories on environmental issues of northeast India and in-house capacity building of the media unit of MPCD. The project also supported the development of an online magazine and media platform website for highlighting the issues of biodiversity and the environment of northeast India.

- A coffee-table book on the biodiversity significance of Hollongapar Gibbon Wildlife Sanctuary titled “Legends of Hollongapar” was published and released in September 2019. The printing of the book was supported by the Assam State Biodiversity Board.
- MPCD media unit contributed to the production of several short documentary films for RoundGlass Sustain, on threatened species and their habitat such as Western hoolock gibbon, stump-tailed macaque, capped langur, Greater Adjutant Stork, and

Hollongapar Gibbon Wildlife Sanctuary.

- Editing and designing of Aaranyak’s publications such as Aaranyak Annual Report 2018-19, Biannual newsletter Biolink (June 2019 issue), quarterly newsletter Naturole (April-June 2019; July-Sept. 2019).
- An in-house layout and web designing facility was developed in Aaranyak.

- Photography and video documentation of several organisational events and project activities of other divisions of Aaranyak.

SUMMARY OF IMPACT

- Three trainings were provided for the promotion of environmental journalism to the students pursuing journalism in Assam. Developed capacity of 82 students in three Universities, which included 49 female and 64 male participants respectively, belonging to indigenous communities.
- Development of online networking with 659 members that included students as well as environmental writers and nature enthusiasts in general.
- Several short films that were produced by MPCD helped generate awareness on species and habitat conservation through various media websites as well as social media.



Photo - Udayan Borthakur

Journalism students of Assam School of Journalism during an orientation trip to Pygmy Hog Conservation Breeding Centre at Basistha, Guwahati.

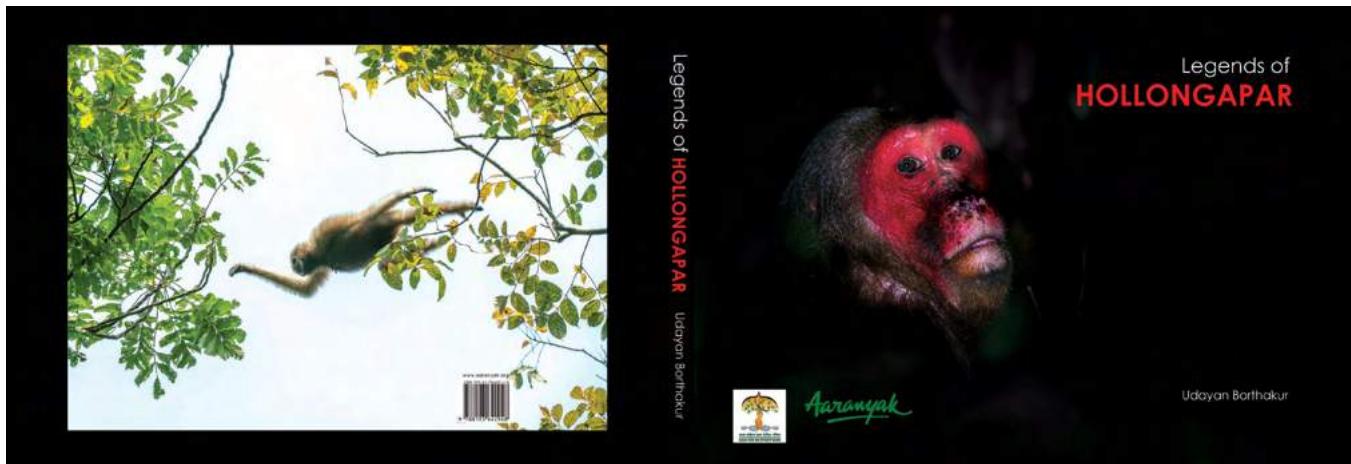


Photo - MPCD, Aaranyak

"Legends of Hollongapar" a coffee-table book on Hollongapar Gibbon Wildlife Sanctuary.

ROAD AHEAD

- To continue promotion of environmental journalism in northeast India through training and capacity building of journalism students and young journalists, providing online media platforms to publish relevant issues, provide direct support to young journalists to develop original environmental stories.
- Production of films and publications on biodiversity and environmental issues of northeast India.



Photo - Munmita Boruah

Udayan Borthakur delivering Director's note during screening of the film "Legends of Hollongapar" at Green Hub Film Festival, Tezpur.



Photo - Munmita Boruah

Waterbird census exercise at Pobitora Wildlife Sanctuary

CONTACT

Udayan Borthakur
Head, MPCD
Email: udayan@aaranyak.org, udayan.borthakur@gmail.com
Phone: +91 9435728717

Munmita Boruah
Manager, MPCD
Email: munmita@aaranyak.org,
Phone: +91 8011539865



Photo - PRCD, Aaranyak

INTRODUCTION

Primate Research and Conservation Division (PRCD), Aaranyak was launched in the year 2002, aiming at spreading awareness, research, training and conservation of the non-human primates of Northeast India. Non-human primate represents one of the major components of the biodiversity of Northeast India. This region has the highest primate diversity in the country with 12 species out of the total 27 species known in India. PRCD works in close collaboration with partner organisations, government agencies, academic institutions, local communities for the conservation of primates in Northeast India. PRCD mainly focuses on the conservation of the primates in particular and biodiversity in general in Northeast India.

MAJOR ACHIEVEMENTS

- Successfully conducted Hoolock gibbon survey in Doomdooma Forest Division, Assam, India.
- Conducted the 10th field course on Conservation Biology and Global Health at Gibbon Conservation Centre in Hollongapar Gibbon Sanctuary, Assam, India. This is a week-long programme conducted annually.
- The World Environment Day was observed in collaboration with Digboi branch of Assam Science Society and Doomdooma Forest Department.
- International Gibbon Day was celebrated in two educational institutions.
- A three-day training programme, "APS 2020 Pre-training" was organized from 5th to 7th February, 2020 in collaboration with Gauhati University and PRC Northeast, at Scholar's Institute of Technology and Management, Guwahati, Assam, India.
- Organized the 7th Asian Primate Symposium 2020 from 8th to 10th February 2020 in collaboration with Gauhati University and PRC Northeast at GUIST, Gauhati University, Assam, India.

STRATEGIC ACTIONS

- Surveyed Hoolock gibbon in Doomdooma Forest Division, Assam, India covering 20 Reserve Forests.
- During the 10th Field Course on Conservation



Pre Symposium Training for 7th Asian Primate Symposium 2020



Photo - PRCD, Aaranyak

During Field Course in Conservation Biology & Global Health

Biology and Global Health a wide range of topics were covered, such as field study methods, management and conservation strategies, wildlife conservation in Assam, primate behaviour and ecology, the human-environment interface, and translational research with the help of daily lectures, field exercises, and community outreach education.

- An awareness programme on Hoolock gibbon conservation was organized to motivate the students and teachers at Borhapjan Hindi M.E.School and Guru Teg Bahadur Academy as a part of International Gibbon Day, 2019. Painting competition was held among the students.
- On the occasion of World Environment Day, a painting competition among the students was organized at Makhyaswar Baruah L.P. School, 2 no. Tokowpathar, Pengeri, in Tinsukia district of Assam, India.

- In the pre symposium training of 7th Asian Primate Symposium 2020 from 5th to 7th February, a wide variety of topics related with the primatology and field works in primate study was covered.
- Organized seven plenary talks, nine oral presentation sessions and one poster presentation session as well as competition during the symposium. There was also a session of primate photography competition.



Photo - PRCD, Aaranyak

During Field Course in Conservation Biology & Global Health



Photo - PRCD, Aaranyak

During Field Course in Conservation Biology & Global Health



Photo - MPCD, Aaranyak

7th Asian Primate Symposium 2020

SUMMARY OF IMPACT

- We recorded Western Hoolock Gibbons in nine Reserve Forests of Doomdooma Forest Division and Eastern Hoolock Gibbons in three Reserve Forests of Sadiya range.
- A total of 16 participants from different parts of India were trained during the 10th Field Course on Conservation Biology and Global Health.
- 150 students were reached during the awareness programme conducted on the occasion of International Gibbon Day.
- We interacted with 78 students on the occasion of World Environment Day.
- 20 trainees from South Korea, Myanmar, Nepal and India attended the pre symposium Training.
- In the 7th Asian Primate Symposium 20 countries participated. A total of 71 oral and 38 posters were

presented along with seven plenary talks. A proceeding comprising the abstracts of the presentation was published.

ROAD AHEAD

- Extension of hoolock gibbon conservation training programme to other states of Northeast India.
- Exploration of trans-boundary areas for primate conservation.
- Re-assessment on distribution and current status of Hoolock gibbon along its distribution range.
- To formulate Hoolock gibbon action plan in Northeast India.
- Initiation of the study of Man-primate interaction.
- To conduct education and awareness programme on primates conservation.
- Publication of book on different primates of Northeast India.

CONTACT

Dilip Chetry, Ph.D
Head, PRCD
Email: dilip@aaranyak.org, dilip.aaranyak@gmail.com
Phone: +91 9435043892



Photo - RRCD, Aaranyak

INTRODUCTION

The Rhino Research and Conservation Division (RRCD) has been in operation in Aaranyak since 1994. The division has been contributing substantially towards securing the future of Greater One Horned Rhino in Assam and other rhino-bearing areas in India. From its inception the team has worked in tandem with the Forest Department and other stakeholders in pursuing its avowed goal of protection of the rhino and its habitats.

The RRCD team has been successful in setting up working coordination with the key stakeholders in the conservation efforts such as Forest Department,

Assam Police, fringe villagers and members of Village Defense Party (VDP) under Village Defense Organisations of Assam.

MAJOR ACHIEVEMENTS

- The RRCD has devised and successfully implemented innovative “Friends of Rhino” programme for high school students from the fringe of rhino-bearing areas in Assam with the objective of endearing the rhino to the next generation besides creating a young pool of rhino conservation workers/volunteers. Student participants were taken on Jeep Safari inside the

national parks as part of the programme.

- The division carried out 40 Rhino Goes to School (RGS) activities in schools around Kaziranga, Orang and Manas National Parks and Pobitora Wildlife Sanctuary (PWLS) in coordination with local Forest offices, civil administration and many eminent persons.

RECOGNITIONS

- Assam Government through a notification issued on 29th August 2019 has nominated Dr. Bibhab Kumar Talukdar, CEO of Aaranyak as a member of newly constituted State Board of Wildlife.



Greater One-horned Rhino in Pobitora Wildlife Sanctuary

STRATEGIC ACTIONS

- Dr. Bibhab Talukdar, Head, RRCD took proactive part in capture of two rhinos in Kaziranga National Park on 29th February 2020 and translocated and released in Manas NP on 1st March 2020 as part of Indian Rhino Vision 2020 team. Dr. Talukdar was also invited by West Bengal Forest Department in September 2019 to attend planning meeting on rhino capture and translocation within West Bengal at Jaldapara National Park.
- Two representatives from our constant supporter David Shepherd Wildlife Foundation (DSWF), Emily Lamb and Matt Armstrong actively participated in two RGS programmes around Kaziranga National Park in early March 2020.
- A Summer Camp for students from fringe areas of Orang

National Park (ONP) was organized in which 15-day coaching was facilitated for about 60 students of Class X with key intention to engage them in studies and seek their support for rhino conservation.

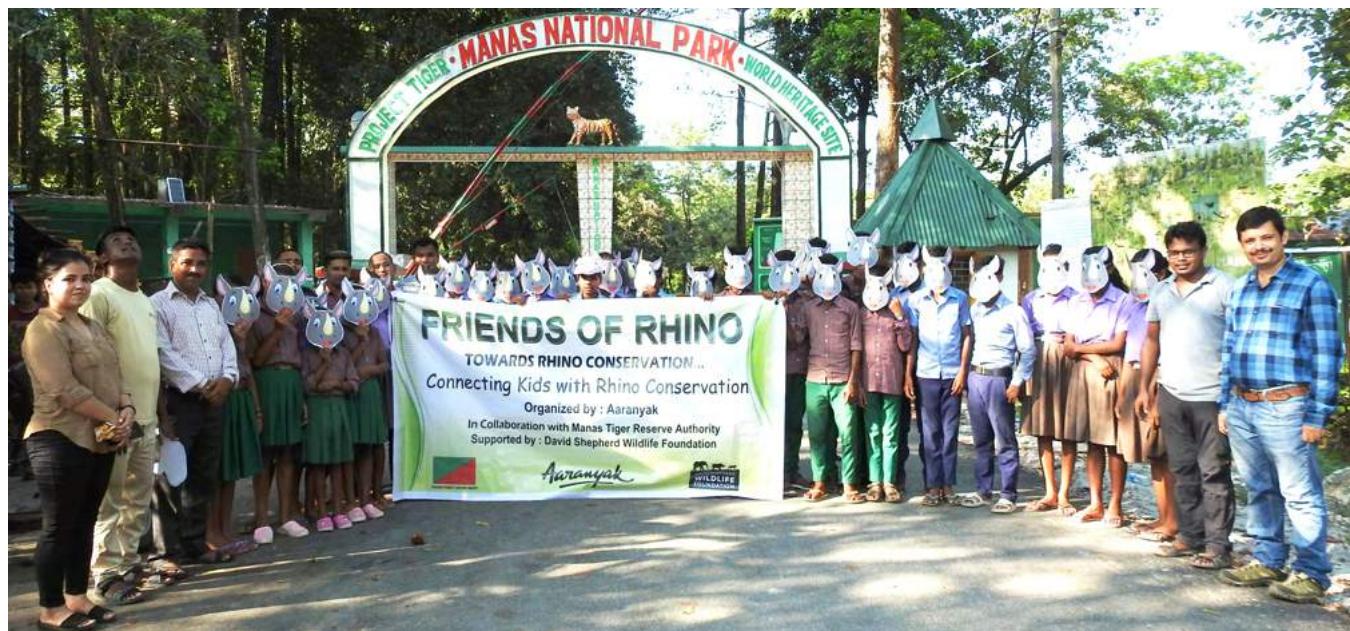
• RRCD organised a pre-flood awareness campaign with KNP authority in Buraphahar

Range on June 13, 2019, with a focus to bring everyone on a common platform to work together for safety of wildlife during a probable flood situation. The meeting addressed members of Village Defense Parties (VDPs), Eco Development Committees (EDCs) and local people from Buraphahar to Silghat region.



Head of RRCD during rhino capture in Kaziranga NP

Photo - RRCD, Aaranyak



Participants attending Friends of Rhino Programme

Photo - RRCD, Aaranyak



Photo - RRCD, Aaranyak

Pre-flood awareness by RRCD Team around Kaziranga

SUMMARY OF IMPACT

- In 2019-2020, about 4371 students from fringe villages of KNP, ONP, MNP and PWLS participated in a series of “Rhino Goes to School” and “Friends of Rhino” programmes. Numerous requests are being received from various school authorities for holding these programmes for their students.
- Sustained support to rhino bearing areas in Assam are being provided by the RRCD to increase the morale of frontline forest staffs in their tireless efforts to secure future of the rhinos in the wild.
- RRCD have been able to engage local villagers, prominent social leaders and members of VDP strategically, garnering their support for rhino conservation.

ROAD AHEAD

- Initiate applied research to control invasive plant species in rhino bearing areas.
- Continue efforts through Rhino Goes to School and Friends of Rhinos initiatives to garner support for rhino conservation.
- In collaboration with Aaranyak’s GIS Division RRCD shall monitor flood inundated areas in rhino bearing protected areas in Assam.

CONTACT

**Bibhab Kumar Talukdar,
Ph.D**
CEO & Head, RRCD
Email: bibhab@aaranyak.org,
ceo.aaranyak@gmail.com
Phone: +91 9435113139

Arif Hussain
Manager, RRCD
Email: arif.aaranyak@gmail.com
Phone: +91 9854797419

Bijay Shankar Bora
Consultant Documentation
Email: bijayrrcd@gmail.com
Phone: +91 8638229772



Tiger Research & Conservation Division (TRCD)



Photo - TRCD, Aaranyak

INTRODUCTION

Since the inception in 2005, Tiger Research and Conservation Division (TRCD) has been working on ecological research using cutting-edge scientific investigations, community-based conservation by applying natural resource management practices, promoting environment education, providing technical support to strengthen law enforcement and generate decision-making tools to protect tigers, co-predators, their prey animals and their habitats in the conservation-dependent Protected Areas (PAs) of NE India. In 2019-2020, TRCD has conducted extensive camera trapping and other on-ground ecological and social research activities mainly in the Brahmaputra Valley and Indo-Bhutan Transboundary Manas Conservation Area (TraMCA) to generate long term data on prey and predator's ecology to support Forest Department and conservation agencies implement science-based conservation



Photo - TRCD, Aaranyak

Dr. M Firoz Ahmed, HoD, TRCD, interacting with the forest officials and NGO delegates of India and Bhutan

management practices and also positively impact the forest-dependent people living in the fringe areas of PAs. TRCD has successfully collaborated with other conservation agencies and government stakeholders in NE India to address vital conservation issues related to strengthening law enforcement, assessment of connectivity of PAs, policy intervention, and mitigating social issues through environmental education and skill development of forest fringe communities in focused areas.

MAJOR ACHIEVEMENTS

- The decade-long annual camera trapping surveys (2010-2020) in Manas National Park (MNP) has revealed the recovery of tigers in MNP in the aftermath of ethnopolitical conflict.
- Our assessment of wild ungulates (42.66 ungulates/km²) in MNP has revealed that the status of the prey animals is optimum to support the current tiger population, but existing anthropogenic disturbances likely have a negative impact on ungulate guilds.
- Findings of the first ever extensive camera trapping in the upper Brahmaputra valleys of Assam and Arunachal Pradesh has been submitted to Forest Departments for planning and management interventions.
- Continued support to MNP authority and its mobile Law Enforcement teams at Bhuyanpara and Bansbari Ranges to strengthen



Photo - TRCD, Aaranyak

Participants of the phase IV training at Bansbari range, Manas National Park



Photo - TRCD, Aaranyak

Breifing to the participants during phase IV training in Bansbari range of Manas National Park

- science-based patrol planning and implementation of law enforcement modules.
- Established Natural Resource-Based and Community-led Sustainable Forest Conservation Initiative in the Kohora River Basin of Kaziranga-Karbi Anglong Landscape.
- For the first time, we have initiated a scientific exploration of the poorly known Namdapha Flying Squirrel in the Namdapha National Park to spot and study the species.

Prof., Dept. of Life Science and Bioinformatics, Assam University (Diphu Campus) and Dr. M. Firoz Ahmed, Scientist-F, Aaranyak.

STRATEGIC ACTIONS

- The first-ever extensive systematic camera trapping survey was conducted in the Ripu-Chirang forest complex located within the Manas Tiger Reserve (MTR).

- Conducted training for the frontline forest staff and other conservation NGOs of the MTR on camera trapping technique and Phase IV monitoring protocol.
- Ungulate survey using DISTANCE sampling has been executed on a greater scale covering the entire MTR which comprise of approximately 2600 km² area to estimate wild ungulate density and distribution.
- Engaged with Community Institutions in four Karbi villages in Kohora River Basin to promote sustainable natural resource management for livelihood and food security.
- Published our study findings in peer-reviewed journals and presented our works at national and international conferences to reach wider audiences.

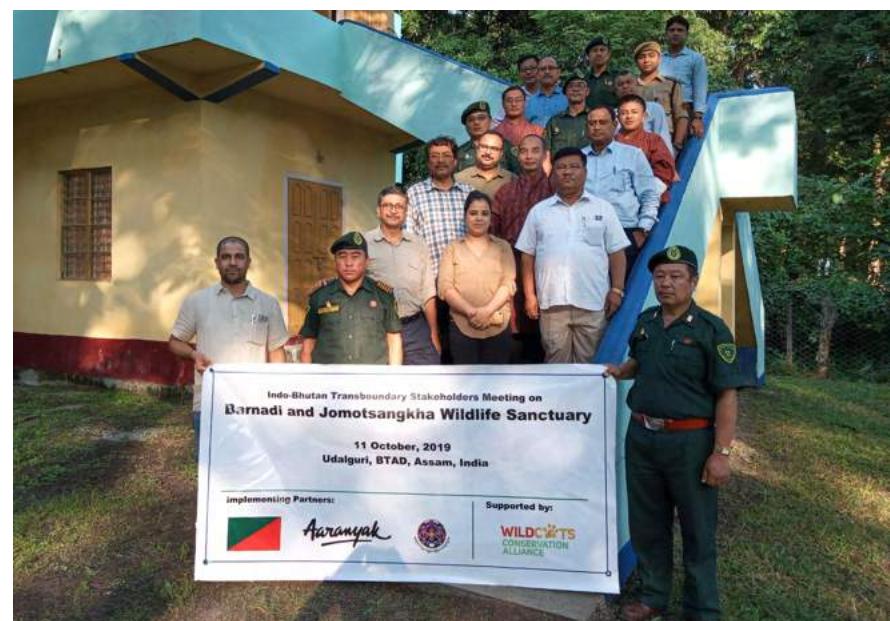


Photo - TRCD, Aaranyak

Participants of the Indo-Bhutan meeting held at Kalingduar RF



Photo - TRCD, Aaranyak

Ingnam Kengkam (*meaning Walking in the Forest*) An ecoturism initiative to explore and learn from nature.

SUMMARY OF IMPACT

- Extensively contributed to the annual phase IV tiger monitoring exercise in MNP over an area of ~340 km² during 2019-20. The team led in data collating, processing, and analysis for a larger field team.
- Apprised senior managers on the impact of human disturbance on ungulates and predators to strengthen strategic conservation and management approaches.
- Explored potential tiger recovery sites within MTR through scientific ecological investigations.
- Undertaken multi-scale landscape-level research in MTR to examine ecological neighborhoods for prey and predators.
- Sensitised communities on participatory natural resource management and implemented sustainable

- forest-friendly alternative livelihood models (Eco-cultural tourism and homestead agroforestry) in four Karbi villages in Kohora River Basin.
- Completed annual monitoring of river water quality and discharge as well as vegetation sampling in the Kohora River Basin to create impact monitoring benchmarks.
- Conducted an eco-guide workshop for the Kaziranga Jeep Safari Association tour guides to build their capacity and improve the experience of the tourists visiting the park.

ROAD AHEAD

- Assessment of animal population, threat, habitat, and connectivity across the Indo-Bhutan Ripu-Chirang-Phibsoo transboundary forest complex.
- Investigation of the ecological and environmental variables that influence the occupancy

of prey and predators in NE India.

- Detailed ecological investigation on the Fishing Cat in the floodplain landscape of the Brahmaputra.
- Understand the impacts of policies on community-based natural resource management in Karbi Anglong.
- Spot the Namdapha Flying Squirrel and study its ecology to strengthen its conservation and management.

CONTACT

M Firoz Ahmed, PhD
Head, TRCD
Email: mfa.aaranyak@gmail.com
Phone: +91 9435017652

Dipankar Lahkar, PhD
Manager, TRCD
Email: dipankar.lahkar@gmail.com
Phone: +91 7896427559

Photo - Jonmani Kalita



Photo - Parag Deka



INTRODUCTION

The Pygmy Hog Conservation Programme (PHCP) is a flagship programme of the TSRP. PHCP is a long term partnership programme of Durrell Wildlife Conservation Trust and is currently being implemented in Assam with Aaranyak as a key partner. Till 2018, the programme was guided by the IUCN Species Action Plan (SAP) 1993, prepared by the Wild Pig Specialist Group. The revised SAP has been enacted with a long term vision till 2030. The PHCP is guided by Durrell's Rewild our World Strategy and two associated plans which map out the programme until 2025. One of the plans is for field and community activities in Manas and the second for the pygmy hog captive breeding and reintroduction programme.

MAJOR ACHIEVEMENTS

- To achieve the programme's vision of restoring pygmy hog population in the wild and protecting their grassland habitat for the benefit of all threatened species and local communities, detailed programme plans have been developed. The Manas Plan renewed the focus of PHCP on the recovery of grasslands and grassland obligate species. The Pygmy Hog Plan envisions establishing pygmy hog population in the entire sub-Himalayan grassland to ensure their long term survival.
- A trial of different grassland management practices in



Camera Trapping at Sidajhar Grassland



Interacting with local communities

Manas National Park (MNP) has been initiated to design an efficient model for the same.

- An impact assessment study on effectiveness of livelihood interventions in the fringe of MNP has been concluded.
- Community actions in the

fringe villages of MNP have been initiated to identify the drivers of anthropogenic pressure on grassland habitat and to reduce the same by designing targeted and sustainable livelihood interventions.



Photo - Jommani Kalita

Experimental plot setup

STRATEGIC ACTIONS

- Conservation Breeding:** A total of five pygmy hogs were born in captivity. Fourteen captive hogs were taken to pre-release for preparation and reintroduction.
- Population Monitoring:** Fifty camera traps were deployed in the Sidhajar and Rupohi area of MNP to confirm the presence of wild pygmy hog populations. A sign survey was also conducted across MNP to find evidence of pygmy hogs.
- Grassland Management:** Experimental plots were established for trial of different grassland management practices. The Control of the encroachment of woody species by manual ring-barking was trialed in the demonstration plot in Kuribee. Climate data was collected by an automated weather station installed at MNP.
- Community Intervention:** Community engagement has been initiated in consultations with local

stakeholders including the Eco Development Committees in Bansbari range of MNP. A study on the anthropogenic pressures, extraction of NTFP and the market linkages of the same was undertaken along with another study to understand the skill set of the local population.

- Training:** Formal and hands-on trainings on grassland habitat management and monitoring of grassland species with a special emphasis on pygmy hogs were given to the frontline forest staff of the MNP and trainees of the Forest school of Assam.

SUMMARY OF IMPACT

Captive breeding programme maintains two populations of 70 pygmy hogs, in Assam. Two individuals held for educational purposes are on display in the Assam State Zoo. A wild population of 400 pygmy hogs, of which 200 are found in MNP and the other population in Orang, which has grown from an original 50 reintroduced animals to approximately 200 individuals.



Photo - Jommani Kalita

Installation of Weather Station at Manas



Pygmy hog sign survey in Manas

Population monitoring in MNP confirmed the presence of pygmy hogs in Sidhajar area and Panbari range, absence in Rupohi area and likelihood of non-existence in Kuribeele area. With a renewed focus on the recovery of grassland habitat, five sets of habitat management trials in 81 nested plots located in three different trial plots in MNP generated essential information which will be used to design best practice guidelines.

In an attempt to reduce the grassland habitat succession, interventions have been initiated in 1 sq. km. demonstration plot in MNP which will corroborate effectiveness of the practice in future. Essential climate data collected regularly at MNP will also supplement this goal. Additional data will be generated through community monitoring which will help us to understand the anthropogenic pressures in MNP, determining its drivers and impacts.

The study to assess the effectiveness of livelihood interventions undertaken by different civil societies and conservation organizations in the past to decrease the livelihood dependency on MNP also generated valuable information. These will be used to design long-term community engagement plan to reduce the pressure on the grassland.

ROAD AHEAD

- Reintroduction of pygmy hogs in Rupohi area in MNP.
- Conservation breeding and preparation of hogs in pre-release for future reintroduction.
- Monitoring of wild pygmy hog population in MNP and reintroduce-established population in ONP through sign survey and camera trapping.

- Grassland habitat management research and demonstration in MNP.
- Community interventions through working with EDC and community volunteers in the fringe villages of MNP.



An adult female pygmy hog

Photo - Parag Deka

CONTACT

Parag Jyoti Deka, BVSc

Project Director, PHCP

Project Manager, TSRP

Email: paragdeka@gmail.com,

parag.deka@durrell.org

Phone: +91 9435016246,

+91 8638569163

Saljagringrang R. Marak, BVSc

Project Officer, TSRP

Email: friangchi@gmail.com

Phone: +91 8729963573



Water, Climate and Hazard (WATCH) Division

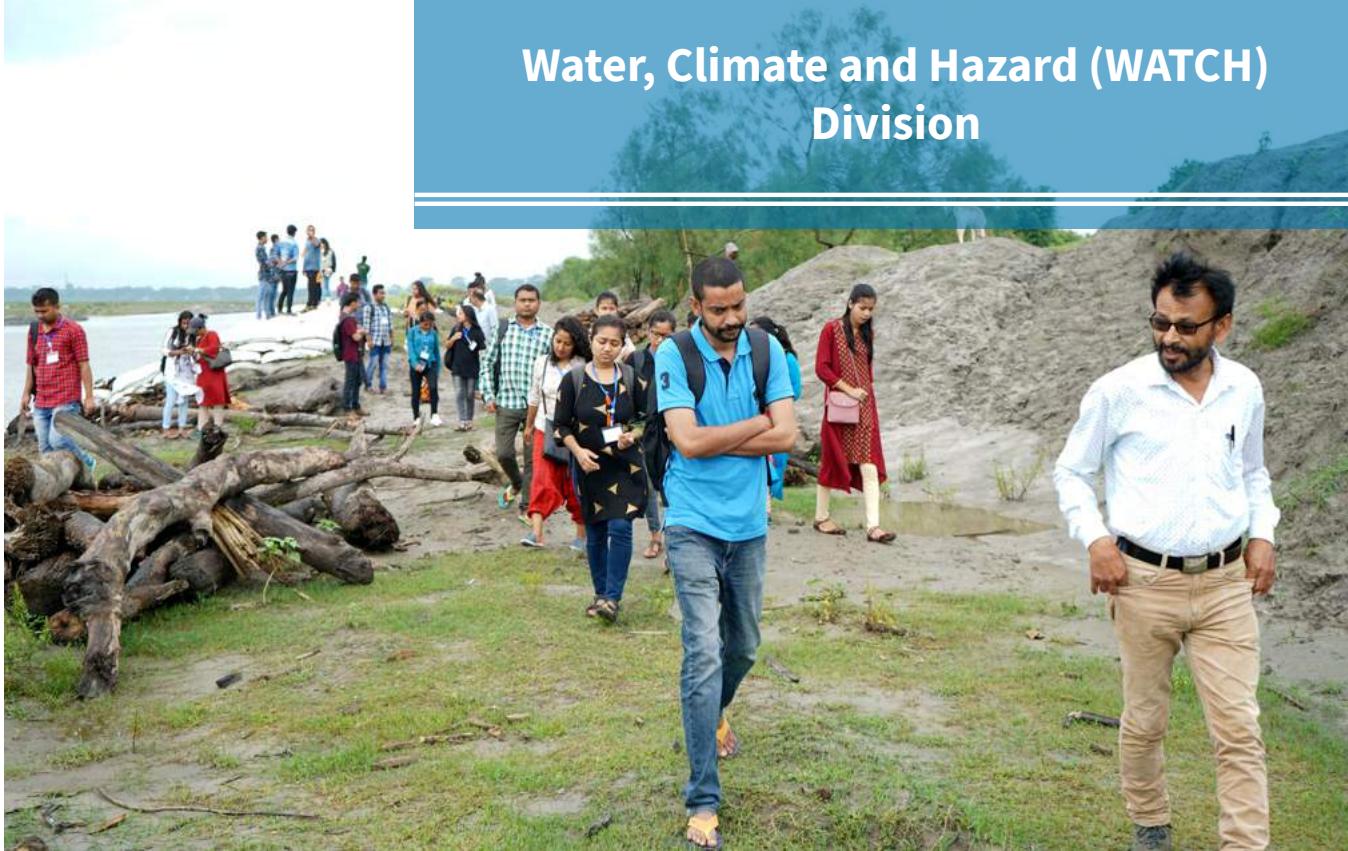


Photo - WATCH, Aaranyak

INTRODUCTION

Established in 2001, the Water, Climate and Hazard Division(WATCH) has evolved with several names and thematic mandates over the last 19 years. It addresses issues in water resources (water governance, river management, wetland management, aquatic ecosystems, water management practices, water conflict, water quality, transboundary waters, gender and water, water and culture); climate change (hydrometeorology, impact, vulnerability, mitigation, adaptation and resilience, renewable energy); disaster (hydrometeorological, tectonic and biological disaster; disaster risk management); environmental governance (law, institution, policy, EIA); water based livelihoods, environmental migration, natural resources management and sustainable development goals. The geographical area of interest of this Division is the Ganga-Brahmaputra-Meghna basin in South Asia.



Photo - MPCD, Aaranyak

MAJOR ACHIEVEMENTS

We created three networks for promoting water governance with three specific groups of stakeholders *viz.*

- 'Gender Network on Water Governance for the Brahmaputra River Basin, Assam' (GEN-WAGNET)
- CSO network on water governance for Central

Brahmaputra River Basin, Assam (CSO WAGNET)

- Youth Network on Water Governance (Youth WAGNET) in Brahmaputra River Basin-Assam (BRBA).

Besides, Dr. Partha J. Das guided two students of the Department of Policy Studies, TERI School of Advanced Studies, New Delhi in carrying out their minor projects and one of them in her major project in partial fulfillment of MA Degree in sustainable development practice.



Photo - MPCD, Aaranyak

Inaugural session of the consultation on 'Mainstreaming gender in water governance'

STRATEGIC ACTIONS

- Completed the assigned modules of the project 'Transboundary Rivers of South Asia (TROSA) - India country project' funded by Oxfam India
- Completed the project 'Community resilience to water induced disasters and climate change: A study and documentation of good



Photo - WATCH, Aaranyak

An environmental game going on in the 'Consultative Workshop on Empowering youth action for good water governance in the Brahmaputra River Basin in Assam, India' on June 25 - 27, 2019 at Majuli, Assam

practices in selected river islands of the Brahmaputra River Basin, Assam' funded by the Global Water Partnership-South Asia.

- Completed an assignment on 'citizen science-based approach' to assessing water quality as part of the project 'Low-cost Innovative
- Technology for water quality monitoring and water resources management for Urban and rural water Systems in India' (LOTUS) funded by European Union and DST, Gol, as a partner to IIT Guwahati.
- Continued implementing an in-house project on 'Research

and Documentation of issues (vulnerability, risk, impact, adaptation, resilience, governance) of rivers, water, riverine people and aquatic ecosystems in the Eastern Himalayan and Northeast Indian landscape' (in Program Mode) extending work to Bihpuria Circle, Lakhimpur District and Majuli District

- Dr. Partha J Das was featured in a video film directed by Mr. Nachiket Pangare of Bangkok, Thailand in which Dr. Das spoke about his experience of working on various transboundary aspects of the Brahmaputra River as part of the Brahmaputra Dialogue process led by IIT Guwahati.

SUMMARY OF IMPACT

About 2000 people gained information and knowledge on various aspects of water



Photo - WATCH, Aaranyak

Participants pose for a group photo during the "Consultation on capacity building and networking of CSOs in the Central Brahmaputra River Basin, Assam around water governance", organised by Aaranyak in association with Oxfam India and Nowgong Girls' College at the Conference Hall of Nowgong Girls' College, Nagaon, Assam on May 15 and 16, 2019



Focus Group Discussion with a section of villagers in the Chalakura Char, Dhubri District in August 2019

governance by participating in our events, programmes, projects and campaigns. Out of these beneficiaries, about 1050 were women and 950 were men. We helped 25 CSOs from different districts of Assam in addressing local water governance issues. We trained staff of two NGOs in designing and implementing field methods on water governance. Moreover, 20 officials of Government of Assam were sensitized about policy gaps and recommendations in the field of water governance in Assam. The youth network on water formed in Majuli is working actively on information dissemination.

ROAD AHEAD

- Initiate a study on ecological health of selected degraded rivers of Assam.
- Launch a comprehensive study on cause-impact-management (CIM) of flood, flash floods and bank erosion in the Brahmaputra River Basin, Assam.
- Carry out an updated assessment of climate change scenario in the context of water induced disasters in NE India.

Photo -WATCH, Aaranyak



Participatory mapping in Majuli in June 2019

Photo -WATCH, Aaranyak

CONTACT

Partha Jyoti Das, Ph.D.

Head, WATCH Division

Email: partha@aaranyak.org,

parthajdas@gmail.com

Mobile: +91 9435116558,

+91 9957189404



INTRODUCTION

The Wildlife Genetics Division (WGD) since its establishment in 2008 has been undertaking research activities in the field of conservation genetics and Wildlife DNA Forensics in India and abroad. The Wildlife Genetics Laboratory (WGL) which is core to the functioning of WGD is one of a kind molecular biology facility in Northeast India working dedicatedly to address pressing issues of wildlife conservation through genetic studies. The WGD has worked to genetically monitor populations of threatened species such as tiger, leopard, greater one-horned rhino, elephant, snow leopard, white-cheeked macaque, White-bellied Heron and also providing DNA forensic analysis support to the Assam Forest Department.

MAJOR ACHIEVEMENTS

- Assistance to Assam Forest Department in Wildlife DNA Forensic cases involving species identification and forensic matching of evidence with crime scene through DNA fingerprinting.
- Hands on training of frontline staff of Forest Department on collection of biological samples for DNA forensic analysis.
- Ecological and genetic monitoring of leopards in Northern districts of West Bengal covering seven protected areas as well as landscapes dominated by human being.
- Genetic status of Critically Endangered bird White-

bellied Heron in Bhutan was assessed in a collaborative study with Royal Society for Protection of Nature (RSPN), Bhutan.

STRATEGIC ACTIONS

- Forensic DNA analysis support was given to the Assam Forest Department in cases related to wildlife crime. These include,
 1. Establishment of crime through matching rhino horn and other body parts seized from suspected offenders using DNA fingerprinting.
 2. Identification of species of morphologically indistinguishable samples such as processed meat, nails, bones, egg shell



White-cheeked macaque, one of the study species of primate phylogeny work in Arunachal Pradesh undertaken at WGL.

Photo - WGD, Aaranyak



Photo - WGD, Aaranyak

WGD researcher conducting questionnaire survey for assessment of human-leopard conflict situation in North Bengal

etc., seized by the Forest Department.

- Study on assessment of genetic status of the Critically Endangered White-bellied Heron in Bhutan was completed in collaboration with RSPN, Bhutan.
- Second phase of a study on leopard ecology is in progress in the North Bengal. The phase II of the project aims to estimate the population size of leopard, its association with prey and formulate policy guidelines and management suggestions to conserve the leopard population of North Bengal and address increased human-leopard conflict



Photo - WGD, Aaranyak

WGD researcher conducting questionnaire survey for assessment of human-leopard conflict situation in North Bengal



Photo - WGD, Aaranyak

WGD team conducting sign survey in Senchal National Park,
West Bengal

situations in North Bengal
effectively.

- Phylogenetic relationship of macaques with special reference to white-cheeked macaque found in Arunachal Pradesh is under investigation.
- The continued forensic DNA analysis support provided by WGD has helped Forest Department and other law enforcement agencies in wildlife crime investigations

SUMMARY OF IMPACT

through establishing link between offenders to the scene of crime. Our support has assisted the agencies in various cases pertaining to species such as tiger, leopard, elephant, greater one-horned rhino, and deer species in Assam.

- The study involving White-bellied Heron in Bhutan carried out by WGD in collaboration with RSPN is first ever study to assess the genetic status of this Critically Endangered species as no genetic data was previously available on the species.



Photo - WGD, Aaranyak

WGD team conducting sign survey in Jaladapara National Park,
West Bengal

CONTACT

Udayan Borthakur
Scientist E
Head, WGD
Email: udayan@aaranyak.org, udayan.borthakur@gmail.com
Tel: +91 9435728717

Pranjal Kumar Das
Manager, WGD
Email: pranjal@aaranyak.org, kdpranjal@gmail.com
Tel: +91 9435704611

Photo - Avijan Saha

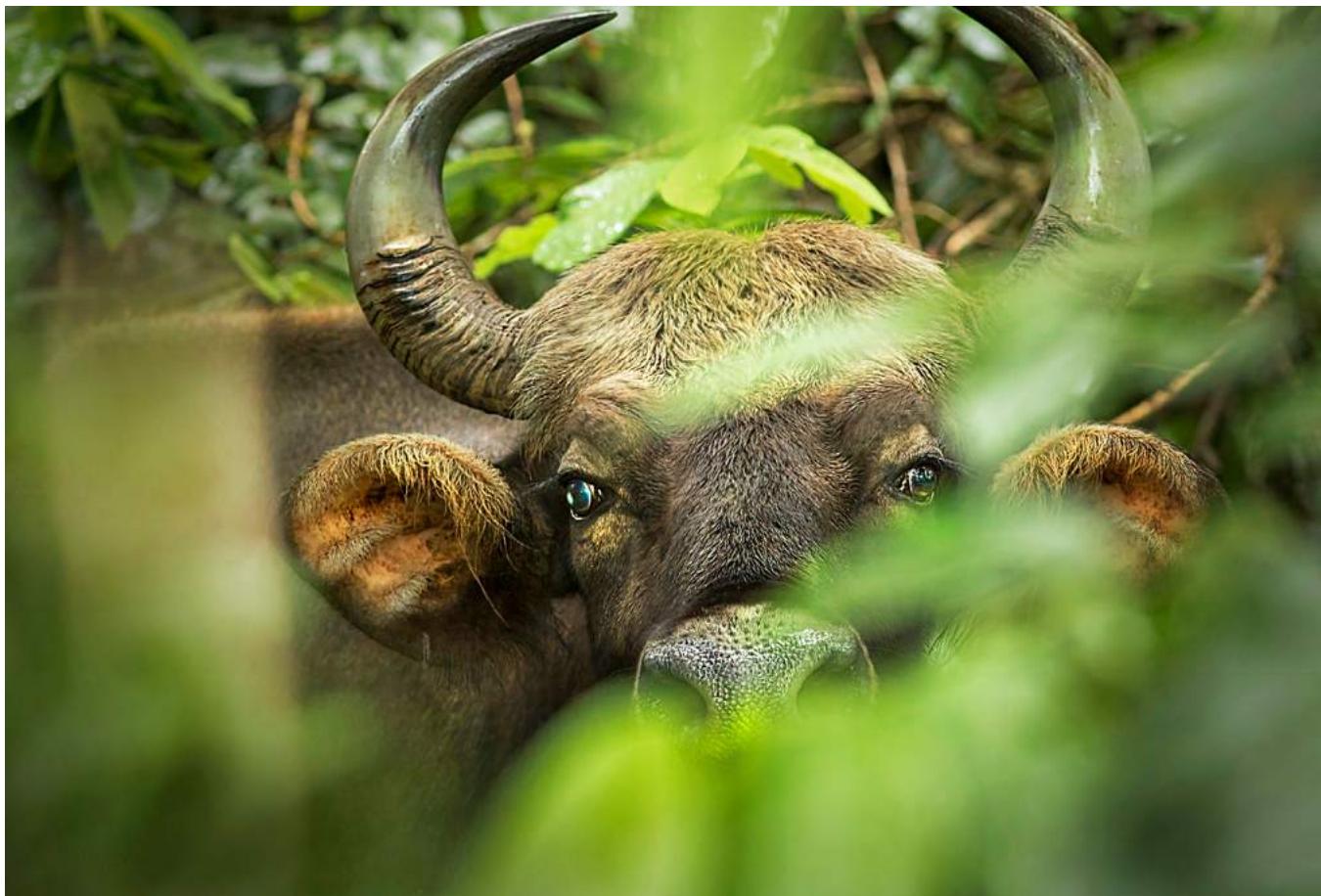
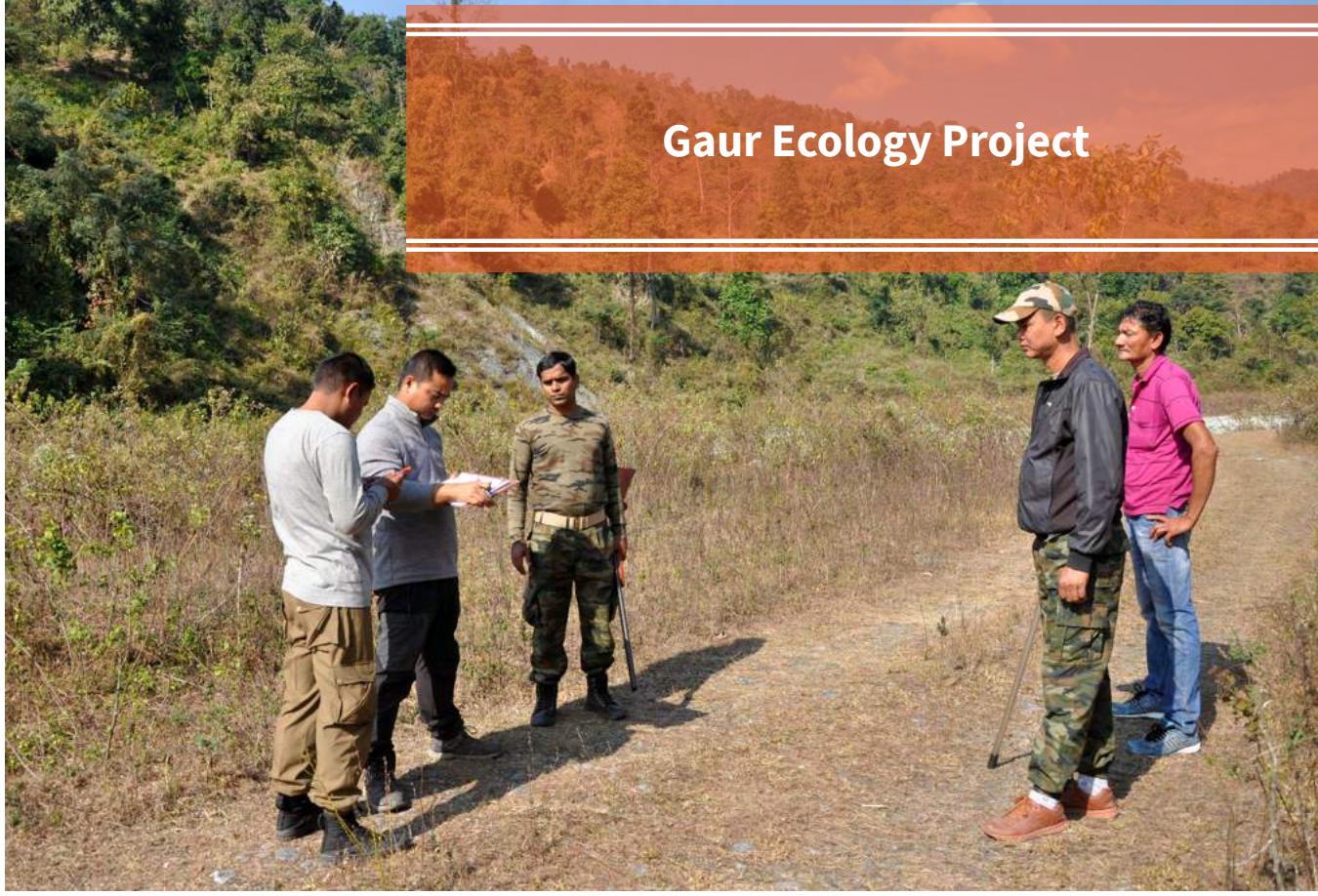


Photo - GEP, Aaranyak



INTRODUCTION

The Gaur *Bos gaurus* is distributed across India, in four major geographic areas. The northeast India population is distributed along the Himalayan foothills from Narayani river through north Bengal to all the northeastern states. We focused on the gaur subpopulation of the northern West Bengal, as a part of the West Bengal Forest and Biodiversity Conservation Project funded to investigate the distribution pattern, population dynamics, resource utilization and human-gaur conflict pattern in the landscape. The primary goal of the project was to gather ecological information so as to aid in drafting a pragmatic management plan for the species.

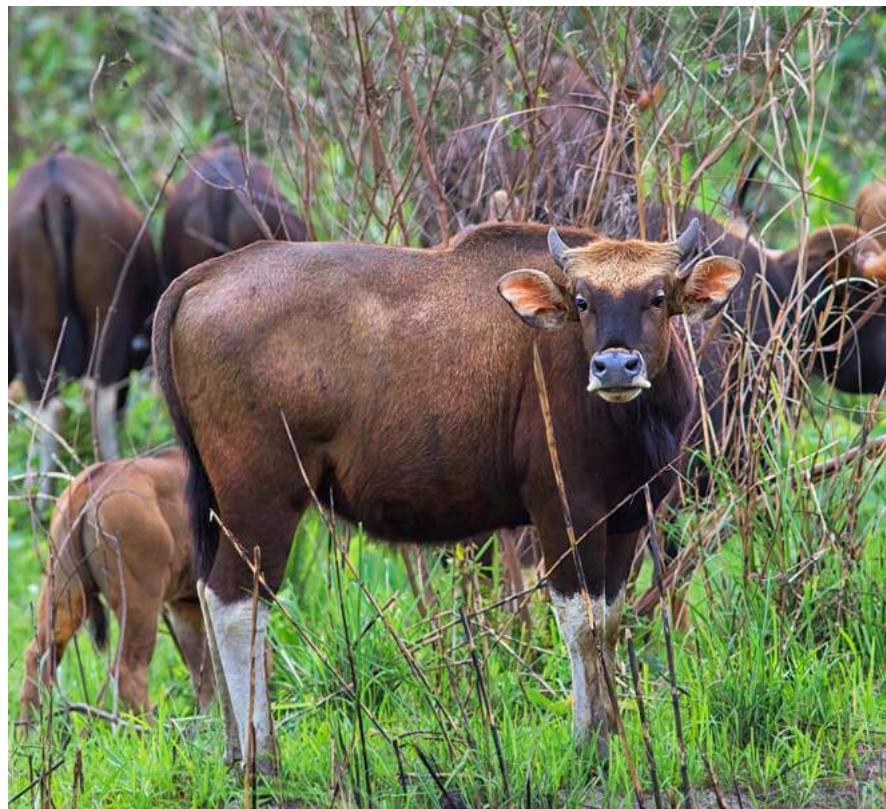


Photo - Avijan Saha

A sub-adult gaur



Photo - GEP, Aaranyak

During vegetation sampling in northern West Bengal forests



A herd of Indian Gaur

Photo - GEP, Aaranyak

MAJOR ACHIEVEMENTS

- An assessment of population abundance of gaurs using DISTANCE sampling method indicated a population size of approximately 3962 ± 680 gaurs (\pm SE) across the landscape. Further, protected area-wise assessment reported that Buxa Tiger Reserve has the highest population, 1421 ± 221.4 (\pm SE).
- The gaurs have a preference for semievergreen forests among all the habitat types, using this habitat type more than its availability.
- Human-gaur conflict across the landscape comprised



During a field survey in the forests of northern West Bengal

Photo - GEP, Aaranyak

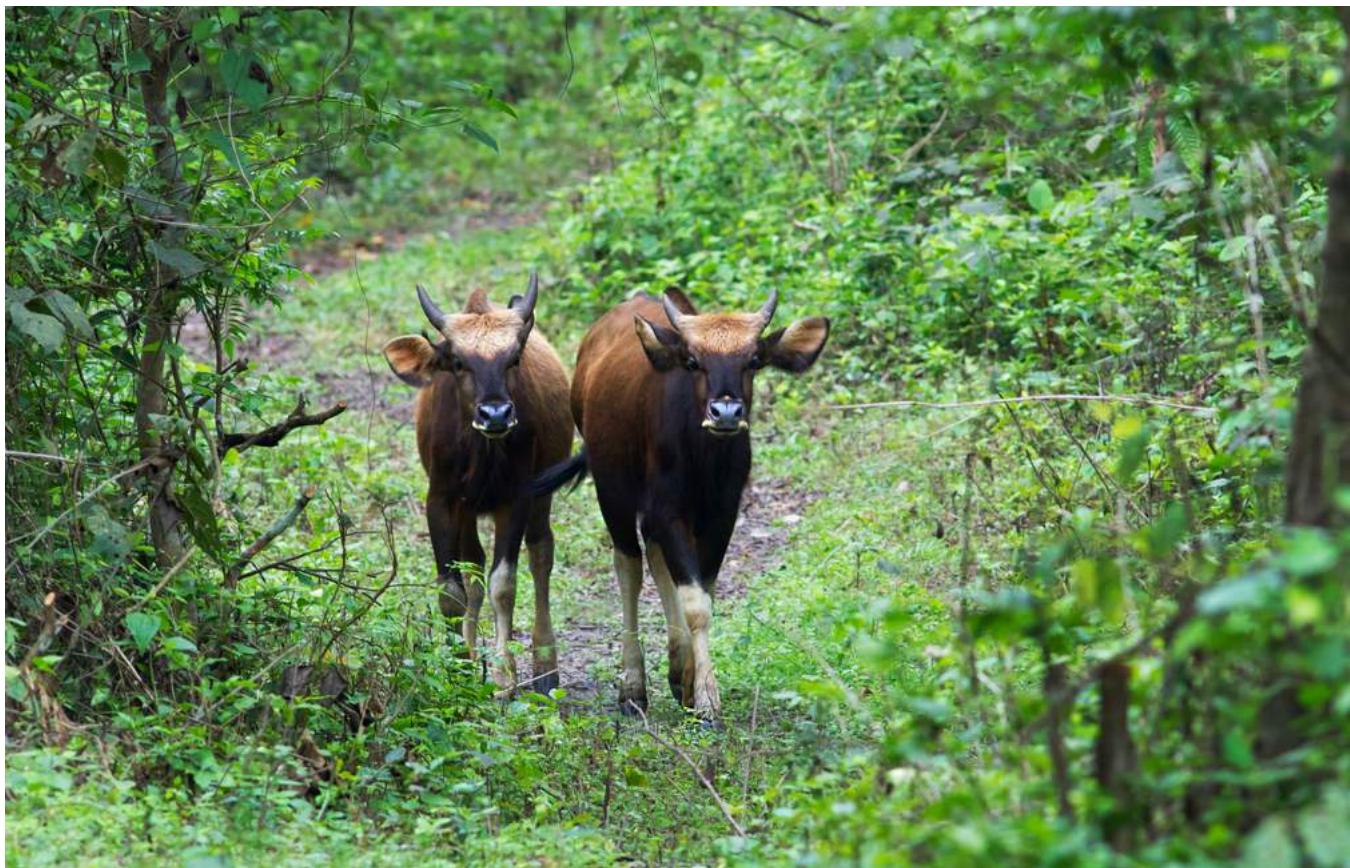


Photo - Avijan Saha

Two young gaurs in the forest of northern West Bengal

mostly in the form of gaur straying-out from forested areas to human-use lands, and crop damages. Few incidents of human injuries and human deaths were also reported.

STRATEGIC ACTIONS

Ecological studies on gaurs were limited from northern West Bengal landscape, which harbours a healthy gaur population. As a result, site-specific conservation strategies to safeguard the species were lacking. This work, on generating ecological information was taken-up to inform the managers based on scientific studies. This project has generated protected area wise population estimates, and

at broader scale the habitat use pattern by gaur in the landscape. The human-gaur conflict pattern has also been investigated to gain an understanding on the interaction. The landscape is human-dominated, with small and fragmented forested areas. This study has helped understand the current status of gaur in the landscape, which will be useful in drafting the management plan for the species for the landscape.

SUMMARY OF IMPACT

This project was conducted with the sole aim of drafting a pragmatic management plan for the species in the landscape based on scientific information. We have finished the data collection and analysis and

currently concentrating on drafting the final report. The study findings will be used in preparing the management plan.

ROAD AHEAD

This was a three-year project, which ended this year. As of now, we do not have any plans to continue the work.

CONTACT

**Bibhuti Prasad Lahkar,
PhD**
Head, ERCD
Email: bplahkar@gmail.com,
bibhuti@aaranyak.org
Phone: +91 9435017687



Photo - HDCP, Aaranyak

INTRODUCTION

The hog deer is an Endangered species, that occurs in South and Southeast Asia. Primarily, due to habitat loss and hunting the hog deer population are on the global decline. Nonetheless, currently, Assam is one of the strongholds of hog deer population in South Asia where most of the populations are concentrated in the protected areas. But there is a lack of information on the species' distribution and site-specific extant threats, from northeast India, particularly from the non-protected areas. Through the hog deer conservation project, we aim at understanding the species-habitat relationship and identify the extant site-specific threats by conducting surveys, community engagement, and networking.



Photo - HDCP, Aaranyak

A researcher during line transect sampling from elephant back in the grassland habitat of Manas National Park.

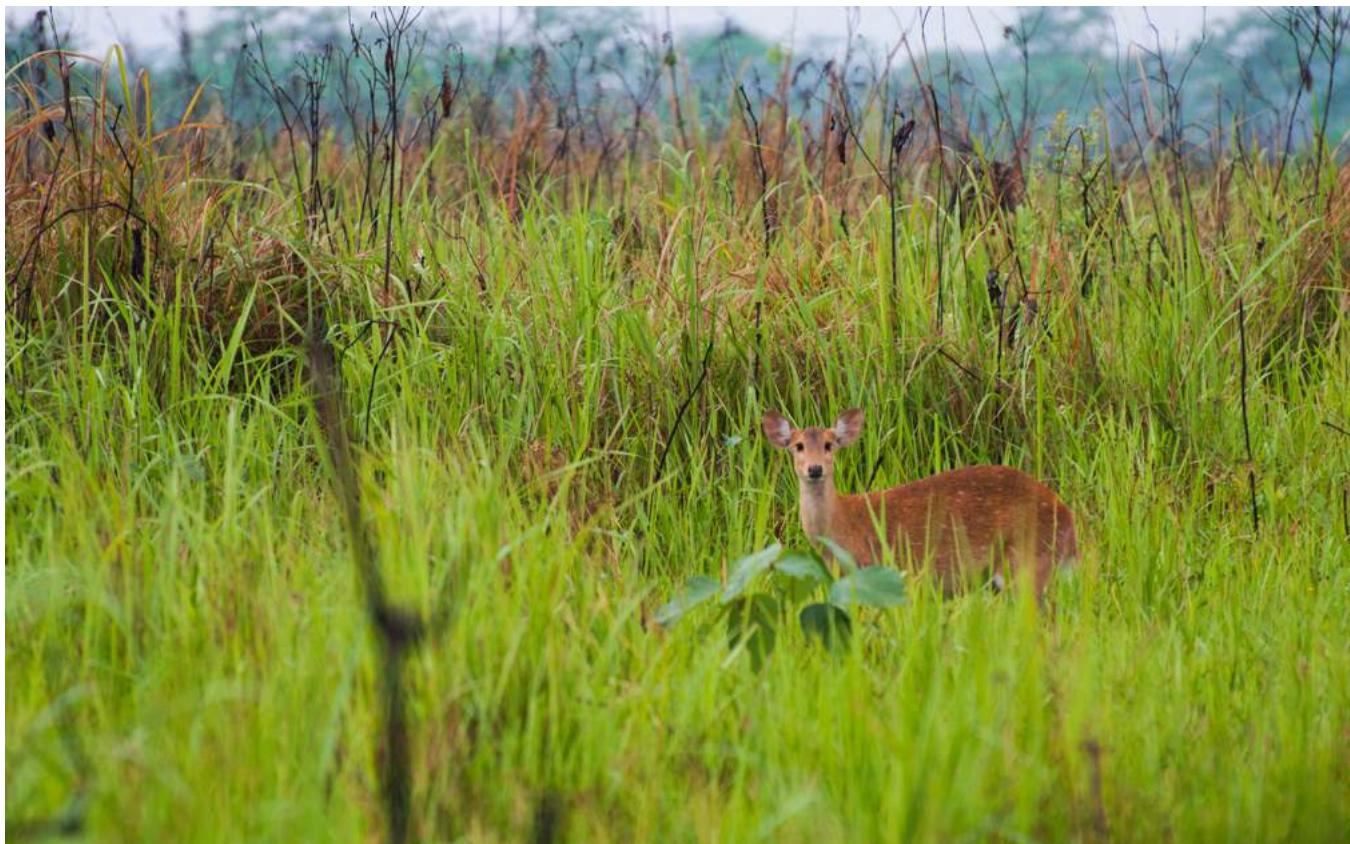


Photo - Aloinka Sinha

A hog deer in its grassland habitat



During a social survey in Tripura

Photo - HDCP, Aaranyak

MAJOR ACHIEVEMENTS

- Research studies on hog deer indicated that it needs undisturbed habitats with a mosaic of tall and short grasslands for their survival.
- In protected areas such as Manas, for long-term conservation of hog deer, proper habitat management by controlling alien invasive plants, implementing a systematic fire regime and reducing human disturbances are essential.
- The threats in the non-protected areas include rampant hunting, and loss of habitats.

STRATEGIC ACTIONS

The landscape-wide surveys undertaken in Assam and Tripura helped in identifying the hog-deer bearing areas. In the Protected Areas such as Manas National Park, habitat degradation is the main threat. Habitat enrichment activities were undertaken to secure habitat-specialist species such as the hog deer and other grassland dependent species. Given, that a sizeable population of hog deer occurs beyond the Protected Areas of Assam, a volunteer network is planned to be formed to aid in collecting information and undertaking on-ground action-based tasks to

protect the species. Moreover, networking with specialist groups to disseminate information were undertaken.

SUMMARY OF IMPACT

The information generated through the projects were shared with IUCN SSC group to augment the existing information on the species on the Red List. Population abundance estimation exercise using robust scientific methods generated the baseline information on hog deer in Manas National Park, which will aid in making informed conservation decision. A scientific article was published in a peer reviewed journal for wider reach.



Photo - HDCP, Aaranyak

A researcher during survey in eastern part of Manas Tiger Reserve

ROAD AHEAD

- Ensuring the long -term persistence of hog deer in the region through action-based conservation intervention and community participation.
- Form a volunteer network to monitor the hog deer population in non-protected areas.
- Develop a site-specific action plan for hog deer conservation in Manas National Park in collaboration with Threatened Species Recovery Programme and Elephant Research and Conservation Division.

CONTACT

Alolika Sinha

Principal Investigator, Hog Deer Project
Email: alolika@aaranyak.org, sinha.alolika@gmail.com
Phone: +91 9435021312

SEMINARS AND CONFERENCES ATTENDED BY AARANYAK STAFF

- **Alolika Sinha** attended the 29th “International Congress for Conservation Biology (ICCB), 2019” organised by Society for Conservation Biology from 21st to 25th July 2019 at Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia and presented “Conserving the endangered hog deer (*Axis porcinus*) in Manas National Park, India”.
- **Aparajita Singh** attended “Student Conference on Conservation Science (SCCS), Bengaluru” organised by Foundation for Ecological Security (FES), Indian Institute of Science (IISc), National Centre for Biological Sciences (NCBS) and Nature Conservation Foundation (NCF) India from 15th to 18th October 2019 at Indian Institute of Science, Bangalore and presented “Understanding mammalian diversity and their response to anthropogenic threats in Indo-Bhutan Barnadi-Jomotsangkha Forest Complex”.
- **Arup Kumar Das** attended “Regional Research Conference for North Eastern States” organised by Rain forest research institute Jorhat, Assam on 4th November 2019 at NEDFI Centre, Guwahati.
- **Dr. Dipankar Lahkar** attended 29th “International Conference on Conservation Biology (ICCB) 2019 organised by Society for Conservation Biology from 21st to 25th July 2019 at Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia and presented “Tiger recovery in the aftermath of ethno-political conflict in Manas, India”.
- **Dr. Dilip Chetry** attended “International Workshop on Conservation of flagship species and their habitats in Hindu Kush Himalaya region” organised by ICIMOD & Chengdu Institute of Biology, Chinese Academy of Sciences from 28th to 31st August 2019 at Brilliance Garden Hotel, Chengdu, China and presented on “Status of Gibbon Conservation in India”.
- **Dr. Jayanta Kr. Roy** and **Mr. Sourav Gupta** attended “Dibang Research Seminar: Initiating dialogue between Idu Mishmi and Research Scholars” organised by Humanities and Social Sciences, IIT Gandhinagar, Gujarat from 10th to 12th December 2019 at Anini Circuit House, Dibang Valley, Arunachal Pradesh and presented “Interaction between researcher and Idu Mishmi local community members”.
- **Kongseng Konwar** and **Mr. Bankim Baruah** attended “National seminar on Science, Society and Sustainable Development (SSS-19)” organised by Science departments under DBT star

college scheme and advance level biotech hub, Jawaharlal Nehru College, Boko, Kamrup, Assam on 3rd and 4th May 2019 at Jawaharlal Nehru College, Boko, Kamrup, Assam and presented “A study of urban sprawl in Guwahati city and consequent changes in the landscape using Remote sensing and GIS”.

- **Madhumita Borthakur** attended “A Consultation on Women and Water” organised by Aaranyak, Oxfam, in association with NERSWN, Kokrajhar, Assam; PAD, Lakhimpur, Assam and GDS, Lucknow, Uttar Pradesh on 29th and 30th April 2019 at Indian Institute of Bank Management, Khanapara, Guwahati.
- **Dr. M Firoz Ahmed** attended 29th “International Conference on Conservation Biology (ICCB) 2019” organised by Society for Conservation Biology from 21st to 25th July 2019 at Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia.
- **Dr. M Firoz Ahmed** and **Dr. J. K. Sarma** attended a National Conference on “River of The People, River Against the People: Conceptualizing Livelihood, Identity & Society of Assam Through the Brahmaputra” organised by Centre for North East Studies and Policy Research, JMI on 23rd and 24th September

2019 at Jamia Millia Islamia University, New Delhi.

- **Minakshi Dutta** attended a pre symposium on “SAR Data (Microwave) Processing & Application” organised by North Eastern Space Application center (NESAC), Department of Space, Government of India, Umium, Shillong, Meghalaya on 18th and 19th 2019 at NESAC, Umium, Shillong.
- **Minakshi Dutta** and **Kongseng Konwar** attended “Role of Geospatial Technologies in the Development of North Eastern Region of India” organised by Association of Geospatial Industries (AGI) and North-East Hill University (NEHU) on 27th and 28th November 2019 at Multi-Use Convention hall, North-Eastern Hill University NEHU, Shillong, Meghalaya and presented “Land use/ land cover change analysis in selected areas of North East India”.
- **Dr. Partha J Das** attended a “Seminar on Working together at the intersection of energy and development in climate vulnerable areas” organised by World Resources Institute India on 2nd May 2019 at Hotel Gateway Grandeur, Guwahati, India.
- **Dr. Partha J Das** attended “Inclusive Water Governance: TROSA Annual Learning Forum (ALF)” organised by Oxfam India from 21st to 23rd August 2019 at TERI School of Advanced Studies, New Delhi and the Grand Vasantkunj, New Delhi and presented on “Community Action Network around Water Governance (CAN-WAG): A TROSA Initiative in India”
- **Dr. Partha J Das** attended “Water Talk Series 2019: The Discourse of Flood and Drought in India – The Question of Life, Livelihood and Environment” organised by Students and Alumni of ‘Centre for Water Policy, Regulation and Governance’ in partnership with the RRA network on 7th September 2019 at Tata Institute of Social Sciences, Mumbai and presented on “Floods in Northeast India: A case in the Brahmaputra River Basin, India Assam: An Overview- Cause, consequence and response”.
- **Dr. Partha J Das** attended “National conference on ‘River of the People, River against the People: Conceptualizing livelihood, identity & society of Assam through the Brahmaputra” organised by Centre for North East Studies and Policy Research, Jamia Millia Islamia, New Delhi on 23rd and 24th September 2019 at Centre for North East Studies and Policy Research, Jamia Millia Islamia, New Delhi and presented “Adapting to Water and Climate induced hazards in the Brahmaputra

River basin, Assam: Need to improve policy regime".

- **Dr. Partha J Das** attended "6th India Water Week-2019: Panel Discussion-7 on 'Re-orienting the Water Education to Address the Water-Related Challenges" organised by Department of Jal Shakti, Government of India on 24th September 2019 at Vigyan Bhawan, New Delhi and presented on "Need of holistic water education for sustainable development: Perspectives from the North-Eastern Region of India".
- **Dr. Partha J Das** attended "National Conference Towards Water Federalism 2.0 - Perspectives from the Ganga and Brahmaputra river basins" organised by Hanns Seidel-Stiftung India & Asian Confluence on 27th September 2019 at India International Centre, New Delhi and presented on "Water federalism: Issues in the Brahmaputra river basin in India".
- **Dr. Partha J Das** was invited by Panthataru Sanrakhyani, Nagaon for a talk on 13th October 2019 organised at Jasingfa Aquatourism Centre, Mahrol, Dimoruguri, Nagaon and presented "Towards a citizens' charter on rejuvenation and sustainable management of River Kolong"
- **Dr. Partha J Das** attended "12th All India Conference on Chinese Studies" organised by Institute of Chinese Studies and OP Jindal Global University from 8th to 10th November 2019 at OP Jindal Global University, Sonipat, Haryana and presented on "Brahmaputra River in South Asia: Need of adaptive hydro diplomacy for effective trans boundary water cooperation".
- **Prosenjit Sheel** attended "World Ranger Congress 2019" organised by International Ranger Federation and Government of Nepal from 11th to 17th November 2019 at Chitwa, Nepal and presented "Improving Security and Protection in Bhuyanpara Range, Manas National Park by Manas Tigers- a Mobile Patrolling Team".
- **Dr. Purnima Devi Barman** attended the 29th "International Congress for Conservation Biology (ICCB) 2019" organised by Society for Conservation Biology from 21st to 25th July 2019 at Kuala Lumpur Convention Centre, Kuala Lumpur, Malaysia and presented talks on "How to grow your project impact, measure it, and still do what you love" and "Diversity of Science". This side events were organised by Whitley Fund for Nature at the ICCB 2019.
- **Dr. Purnima Devi Barman** attended "Eastern Himalayan Natureconomics Forum" organised by Balipara Foundation on 5th November 2019 where a film by Cornell University on Greater Adjutant Stork was screened, "Methods to bring together communities to safeguard the wildlife of Eastern Himalayas".
- **Rubul Tanti** attended "Student Conference for Conservation Science 2019" organised by jointly by Foundation for Ecological Security (FES), Indian Institute of Science (IISc), National Centre for Biological Sciences (NCBS) and Nature Conservation Foundation (NCF)-India from 15th to 18th October 2019 at Indian Institute of Science, Bangalore and presented "People's perception on Elephant corridor and Conservation in eastern Assam".
- **Sarlongjon Teron** attended "7th India Biodiversity meet 2019" organised by Agricultural and Ecological Research Unit, Indian Statistical Institute, Kolkata from 19th to 21st November 2019 at ISI, Kolkata and presented on "Non-timber forest product (NTFP) for livelihood security of forest-dependent community - A case study of Kohora river basin, Karbi Anglong, Assam".

TRAININGS AND WORKSHOPS ATTENDED BY AARANYAK STAFF

- **Arup Kumar Das** attended “Refresher course for in-service DFOs and ACFs of various Indian states organised by Central Academy for State Forest Service, Directorate of Forest Education, Ministry of Environment, Forest and Climate Change, Government of India on 27th June 2019 at Central Academy for State Forest Service, Burnihat and presented “Application of Geospatial Technology in forestry and wildlife research and conservation”.
- **Arup Kumar Das** attended a workshop, “Augmenting writing skill for Articulating Research” organised by Gauhati University on 9th July 2019 at Phanidhar Dutta Seminar Hall, administrative Complex, Gauhati University.
- **Arup Kumar Das** attended a workshop, “Workshop on Geospatial Technology for Faculty Members” organised by Martin Luther Christian University, Nongrah, Shillong, Meghalaya on 8th August 2019 at Seminar hall, Martin Luther Christian University, Nongrah, Shillong and presented “Geographic indicator and community knowledge”.
- **Arup Kumar Das** attended “Refresher course for in-service DFOs, ACFs & FROs of various Indian states” organised by Central Academy for State Forest Service, Directorate of Forest Education, Ministry of Environment, Forest and Climate Change, Government of India on 13th August 2019 at Central Academy for State Forest Service, Burnihat and presented “Application of Geospatial Technology in forestry and wildlife research and conservation”.
- **Arup Kumar Das and Jyotish Ranjan Deka** attended “Consultation Workshop” organised by Ashoka Trust for Research in Ecology and the Environment and Aaranyak on 16th October 2019 at NEDFI centre Guwahati and presented “Brahmaputra Flood Plain (BFP) of Assam”.
- **Arup Kumar Das** attended a brainstorming conclave on “Transforming North East India through Science and Technology interventions” organised by North East Centre for Technology Application and Reach (NECTAR), Department of Science and Technology, Government of India on 20th November 2019 at Assam Administrative Staff College, Guwahati, Assam.
- **Arup Kumar Das** attended “Advanced winter school in Geospatial Technologies focus on Biodiversity Conservation and Management” organised by Institute of Environment Education and Research, Bharati Vidyapeeth University, Pune Supported by Department of Science

and Technology, Government of India, New Delhi from 9th to 29th December 2019 at Institute of Environment Education and Research, Bharati Vidyapeeth University.

- **Arup Kumar Das, Madhumita Borthakur, Kongseng Konwar and Minakshi Dutta** attended a stakeholder's workshop on "Community Resilience to Water Induced Disasters and Climate Change" organised by WATCH Division Aaranyak, Guwahati, Assam on 9th January 2020 at Indian Institute of Bank Management, Khanapara, Guwahati and presented "A study in selected river islands of the Brahmaputra River Basin, Assam using remote sensing and GIS".
- **Arup Kumar Das** attended "Refresher Course for Range Forest Officers" organised by Assam Forest School Jalukbari, Guwahati, Assam on 30th January 2020 at Assam Forest School Jalukbari, Guwahati, Assam and presented "Practical application of geospatial technology in biodiversity conservation with emphasis on different case studies".
- **Arup Kumar Das and Kongseng Konwar** attended "Refresher Course for Deputy Range Forest Officers and Forester 1" organised by Assam Forest School Jalukbari, Guwahati, Assam on 11th February 2020

at Assam Forest School Jalukbari, Guwahati, Assam and presented "Application of Open-source GIS and GPS".

- **Dr. Bibhab Kumar Talukdar** attended meeting of 1st Advisory Board for Sumatran Rhino Husbandry organised by IUCN SSC and Ministry of Environment and Forestry, Republic of Indonesia from 27th to 31st July 2019 in Jakarta, Indonesia.
- **Dr. Bibhab Kumar Talukdar** attended "4th IUCN SSC Leaders' meeting" organised by IUCN SSC from 6th to 9th October 2019 in Abu Dhabi.
- **Dr. Bibhuti Prasad Lahkar** attended a training, "2nd Rural Dialogue" on Entrepreneurship and Innovation organised by AIILGS, Innovior and CRT-IIT Guwahati on 20th and 21st January 2020 at IIT Guwahati, India.
- **Dr. Bibhuti Prasad Lahkar** attended "IIITG Perspective Meet 47" on Our Winged Friends and Biodiversity organised by IIT Guwahati on 31st January 2020 at IIT Guwahati, India.
- **Dr. Bibhuti Prasad Lahkar** attended a workshop "7th Eastern Himalayan Naturenomics Forum" on Conservation Beyond Border organised by Balipara Foundation on 5th and 6th November 2019 at Hotel Palacio, Guwahati, India.
- **Dr. Bibhuti Prasad Lahkar** attended a transboundary stakeholder dialogue, "A Stakeholder Dialogue on Exploring Options for Transboundary Cooperation Towards Resilience Building in the Eastern Himalayas" organised by ICIMOD, UN Environment and Ministry of Agriculture and Forest, Royal Government of Bhutan on 29th and 30th August 2019 at TermaLinca Resort & Spa, Thimphu, Bhutan.
- **Dr. Bibhuti Prasad Lahkar** attended a brainstorming workshop "Brainstorming workshop for preparation of activity guide book for National Children's Science Congress 2020-2021" organised by Kerala State Council for Science, Technology and Environment from 8th to 10th August at Kerala Forest Research Institute, Peechi, Thrissur.
- **Dr. Bibhuti Prasad Lahkar** attended "10th Meeting of the IUCN SSC Asian Elephant Specialist Group Members" organised by IUCN SSC Asian Elephant Specialist Group from 4th to 6th December 2019 at Shangri-La's Tanjung Aru Resort & Spa, Kota Kinabalu, Sabah, Malaysia.
- **Binita Baruwati and Prosenjit Sheel** attended a workshop "Legal Workshop on Wildlife Crimes" organised by WWF-India and Forest Department of Assam on 22nd

September 2019 at Manas Kanya Dhaba, Howly, Barpeta District, Assam.

- **Bipul Das** attended “ITHCP Training workshop for human-wildlife conflict management and coexistence” organised by ITHCP, IUCN from 19th to 22nd November 2019 in Bangkok, Thailand.
- **Dr. Dipankar Lahkar** attended National Children Science Congress (NCSC) organised by National Council for Science and Technology Communication, Department of Science and Technology, Government of India from 27th to 31st December 2019 at Mar Ivanios Vidya Nagar, Thiruvananthapuram, Kerala, India.
- **Dr. Dipankar Lahkar** attended “Certificate in Remote Sensing with Google Earth Engine” organised by Institute for Biodiversity Conservation and Training (IBCT), Bengaluru, India from 17th to 19th May 2019 at The United Theological College, Bangalore, India.
- **Dr. Dipankar Lahkar** attended “National Conference on Green, Sustainable, and Evolving Sciences (GSES- 2019) & 64th Annual Technical Session of Assam Science Society” organised by Cotton University, Assam, India on 28th and 29th June 2019 at Cotton University.
- **Dr. Dipankar Lahkar, Aprajita Singh, and Nibir Medhi** attended a training on “Camera Trap Data Management and Analysis” organised by Aaranyak and Panthera from 22nd to 25th November 2019 at Conference Hall, Aaranyak.
- **Kongseng Konwar** attended “DST summer school on Geospatial Technologies (Level-1)” organised by Department of Earth Science, University of Science and Technology, Meghalaya supported by Natural Resource Data Management System, Department of Science and Technology, Government of India, New Delhi from 8th to 28th July 2019 at Department of Earth Science, University of Science and Technology, Meghalaya.
- **Kongseng Konwar** attended “Refresher course for Foresters and Forest guards” organised by Assam Forest School Jalukbari, Guwahati, Assam on 10th January 2020 at Assam Forest School Jalukbari, Guwahati, Assam and took a class on “Practical application on Open-source GIS and GPS”.
- **Madhumita Borthakur** attended “Refresher Course for Deputy Range Forest Officers and Forester 1” organised by Assam Forest School Jalukbari, Guwahati, Assam on 12th February 2020 at Assam Forest School Jalukbari, Guwahati, Assam and presented “Application of Open-source GIS and GPS”.
- **Dr. M. Firoz Ahmed and Dr. Jayanta Kr. Roy** attended “In Dialogue-Nature, Heritage & NE India” organised by Directorate of Museums, Govt. of Assam and Aaranyak on 28th January 2020 at Assam State Museum, Guwahati and interacted on amphibians.
- **Dr. Parag Jyoti Deka** attended a workshop titled “Western Visayas Conservation Workshop” on multispecies conservation strategy for five key species in Western Visayas, Philippines organised by IUCN SSC Conservation Planning Specialist Group (CPSG) & Talarak Foundation Inc. (TFI) from 24th to 27th June 2019 at Sugarland Hotel in Bacolod City, Negros Occidental, Philippines.
- **Dr. Partha J Das and Ms. Neelakshi Dutta** attended “Meeting of TROSA project staff with Microware, software developers” on development of software on information management for water governance organised by Oxfam India on 15th and 16th April 2019 at Office of Oxfam, Lucknow, India.
- **Dr. Partha J Das** attended a workshop “Understanding biodiversity & environmental issues for better reportage” organised by Media Production and Communication Division, Aaranyak and Department of Mass Communication, Journalism & Media Studies, Cotton University on 17th June 2019 at Conference Hall of Cotton University and presented a talk on “Global climate crisis & the northeast scenario”.
- **Dr. Partha J Das** attended “Annual Review and Planning

Meeting of TROSA Project" organised by Oxfam India from 25th to 27th July 2019 at Hotel Cygnet Inn, Guwahati, Assam.

- **Dr. Partha J Das** attended "High-level policy dialogue on Conflict, Climate and Resilience" organised by International Committee of the Red Cross (ICRC), the Red Cross Red Crescent Climate Center (RCCC), the Overseas Development Institute (ODI) and the Philippine Red Cross Society (PRC) on 1st August 2019 at Makati Diamond Residences, 118 Legazpi Street, Legazpi Village, Makati City, Philippines.
- **Dr. Partha J Das** attended "Consultation on the Draft Scientific Social Responsibility Policy, 2019" organised by Indian Institute of Technology (IIT)-Guwahati on 18th September 2019 at IIT-Guwahati.
- **Dr. Partha J Das** attended "India CSR Summit & Exhibition 2019" organised by NGO Box and CSR Box on 23rd and 24th September 2019 at Pullman and Novotel, Aerocity, New Delhi.
- **Dr. Partha J Das** attended "Co-creation workshops on 'Water distribution network and groundwater management for Guwahati city" organised by IIT-Guwahati, European Union and the Department of Science and Technology, Government of India on 29th and 30th November 2019 at Conference room, Guest house, Indian Institute of Technology Guwahati and presented "Water federalism: Issues in the Brahmaputra river basin in India".
- **Dr. Partha J Das** attended "Brain Storming Conclave on Transforming NE region through Science and Technology Interventions" organised by North East Centre for Technology Application and Reach (NECTAR), Department of Science and Technology, Government of India on 20th November 2019 at Assam Administrative Staff College, Guwahati and presented "Reducing risk of Water and Climate Induced Disasters (flood and erosion) in Assam: Potential of application of appropriate technology".
- **Dr. Partha J Das** attended "Brain Storming Workshop on River-research to Evolve Sustainable-projects for People with Eco-friendly Climate-resilient Technology (RESPECT)" organised by IIT Guwahati and Office of the Principal Scientific adviser to the Govt. of India on 15th November 2019 at IIT Guwahati and presented "Contribution of Aaranyak to research on the Brahmaputra River and its Basin"
- **Dr. Partha J Das** attended "North East Water Talk" organised by Parivartan, Dhemaji and NEADS, Jorhat on 4th and 5th December 2019 at Don Bosco Reach Out, Ulubari, Guwahati and presented "Water and the Northeast India: Tale of an endangered hydroscape"
- **Dr. Partha J Das** attended "India Energy For All Summit 2020: Panel discussion on the 'Energy Access for Climate Vulnerable Areas" organised by World Resources Institute-India and CLEAN on 5th February 2020 at India Habitat Centre, New Delhi and presented "Role of energy in developing climate resilience for vulnerable communities of NE India".
- **Dr. Partha J Das** attended "Consultation workshop on preparation of Assam DRR roadmap" organised by DDMA, Kamrup District on 20th February 2020 at Deputy Commissioner's Office, Kamrup District, Amingaon.
- **Dr. Partha J Das** attended "National Science Day-2020" organised by Botanical Society of Assam and Nowgong College on 28th February 2020 at Conference room of the Botany Department, Nowgong College, Nagaon and presented "Climate change and Northeast India: Science, impact and Policy"
- **Prosenjit Sheel** attended "Eastern Regional Workshop on Standardization of frontline staff training curriculum" organised by Global Tiger Forum (GTF), WWF-India, TRAFFIC-India, Forest Department of Assam on 11th and 12th December 2019 at IIBM, Guwahati, Assam.

WORKSHOPS AND TRAININGS ORGANISED BY AARANYAK

CONSERVATION AND LIVELIHOOD DIVISION (CLD)

- **CLD** in collaboration with Indian Institute of Entrepreneurship, Guwahati organised a workshop “Skilling and Capacity Building on Modern Loom” on 21st and 22nd August 2019 at the Common Facility Center-Mazrabari, Bhuyanpara, Baksa District, Assam.
- **CLD** in collaboration with Krishi Vigyan Kendra, Chirang District organised a “Training on Plant Cutting And Layering Technique” from 1st to 3rd July 2019 at No 1 Chourang Village, Panbari, Chirang District, Assam.
- **CLD** in collaboration with Krishi Vigyan Kendra, Chirang District organised a “Training on Natural Farming and Horticulture Cropping” from 3rd to 5th July 2019 at No 1 Chourang Village, Panbari, Chirang District, Assam.
- **CLD** organised a workshop on “Capacity Building Workshop for Implementing Livelihood Project” from 16th to 19th May 2019 at Aranya Lodge, Jaladpara National Park, West Bengal.

ELEPHANT RESEARCH AND CONSERVATION DIVISION (ERCD)

- **ERCD** in collaboration with Department of Environment and Forest, Government of Assam, WWF-India, WTI and Bodoland Territorial Council organised a workshop “Habitat Management Workshop” on grassland management in Manas National Park on 29th and 30th January 2020 at Bansbari Range office premises.
- **ERCD** in collaboration with EECBD of Aaranyak, UNESCO Category 2 Centre, World Natural Heritage Management and Training for Asia and the Pacific Region, and Wildlife Institute of India organised a training for teachers, “Safeguarding natural heritage through education, awareness and network building among teachers and students” from 22nd to 25th February 2020 at Smiling Tusker, Bansbari, Manas National Park.
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” on 14th November 2019 at Morangi Development Block, Golaghat.
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” on 25th November 2019 at Gorokhia Dol, Sivasagar
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” on 26th November 2019 at Sorogua Community Hall, Sivasagar.
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” on 4th December 2019 at Bogijan Police Station, Golaghat.
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” and distributed torch lights at Numaligarh Police Station on 5th December 2019.
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” on 3rd January 2019 at Dapala High School, Sivasagar.
- **ERCD** organised a workshop on “Human Elephant Conflict Mitigation” on 19th January 2019 at Salmari Samarajan LP school, Sivasagar.

ENVIRONMENT EDUCATION & CAPACITY BUILDING DIVISION (EECBD)

- **EECBD** in collaboration with Aryabhatta Science Centre, Nalbari, Aaranyak Science Club (VP-AS0017) & ASTEC organised “Orientation workshop on Climate Change” on 10th April 2019 at Barbhag College, Kalag, Nalbari, Assam.
- **EECBD** in collaboration with Shubham & ASTEC organised “Orientation workshop on Climate Change” on 13th May 2019 at Government Pensioner Bhawan, Barpeta, Assam.
- **EECBD** in collaboration with Gethsemane JFMC & ASTEC organised “Orientation workshop on Climate Change” on 21st May 2019 at Gethsemane JFMC, Udaguri, BTAD, Assam.
- **EECBD** in collaboration with Action Research Organisation of North East India & ASTEC organised “Orientation workshop on Climate Change” on 28th May 2019 at Panbari High School, Chirang, BTAD, Assam.
- **EECBD** in collaboration with Baska Press Club, Barama & ASTEC organised “Orientation workshop on Climate Change” on 30th May 2019 at Baska press club, Barama, Baksa, BTAD, Assam.
- **EECBD** in collaboration with Pacific Unit & ASTEC organised “Orientation workshop on Climate Change” on 5th June 2019 at Uttar Mangaldai High School, Darrang, Assam.
- **EECBD** in collaboration with Tinsukia Zilla Parishad, Tinsukia Wildlife Division & ASTEC organised “Orientation workshop on Climate Change” on 7th June 2019 at Conference Hall, Guijan Range Office, Tinsukia Wildlife Division, Tinsukia, Assam.
- **EECBD** in collaboration with Pilgrimage organised “Orientation workshop on Climate Change” on 17th June 2019 at Tinthengia Industrial High School, Tinthengia, Dibrugarh, Assam.
- **EECBD** in collaboration with NC Hills Autonomous Council, Youth Association for Development and

Empowerment & ASTEC organised “Orientation workshop on Climate Change” on 22nd June 2019 at Cultural Hall, Haflong, Dima Hasao, Assam.

- **EECBD** in collaboration with Jan Shikshan Sansthan, Kamrup, Gyan Vigyan Samiti Assam, Hajo Block, ASTEC organised “Orientation workshop on Climate Change” on 30th June 2019 at Ramdia Higher Secondary School, Hajo, Kamrup, Assam.
- **EECBD** in collaboration with Directorate of Museums, Government of Assam organised an awareness series titled “Nature Heritage and NE India” and presented on “Amphibian: diversity, conservation policy and research potentiality in Northeast India” on 28th January 2020 at Assam State Muséum.
- **EECBD** in collaboration with UNESCO Category 2 Centre, Smiling Tusker Elephant Camp organised a workshop for teachers titled, “Safeguarding Natural Heritage through education, awareness and network building among teachers and students” from 22nd to 25th February 2020 at Smiling Tusker Elephant Camp, Manas.
- **EECBD** in collaboration with Directorate of Museums, Government of Assam organised an awareness series titled “Nature Heritage and NE India” and presented on “Fishes of NE India: conservation and research potential” on 29th February 2020 at Assam State Muséum.

GEO-SPATIAL TECHNOLOGY & APPLICATION DIVISION (GTAD)

- **GTAD** in collaboration with Assam State Zoo cum Botanical Garden, Government of Assam organised “GIS Day Celebration” on 13th November 2019 at Assam State Zoo cum Botanical Garden and showcased GIS based thematic maps of North East India.

MEDIA PRODUCTION AND COMMUNICATIONS DIVISION (MPCD)

- **MPCD** in collaboration with Department of Mass Communication, Journalism & Media Studies, Cotton University, Guwahati organised a workshop on “Understanding Biodiversity and Environmental Issues for Better Reportage” from 17th to 19th June 2019 at Department of Mass Communication, Journalism & Media Studies, Cotton University, Guwahati.
- **MPCD** in collaboration with Department of Mass Communication & Journalism, Tezpur University, Tezpur organised a workshop on “Understanding Biodiversity and Environmental Issues for Better Reportage” on 12th and 13th November 2019 at Department of Mass Communication & Journalism, Tezpur University, Tezpur.
- **MPCD** in collaboration with Assam School of Journalism, Guwahati organised a workshop on “Understanding Biodiversity and Environmental Issues for Better Reportage” on 6th and 7th March 2020 at Assam School of Journalism, Guwahati.

PRIMATE RESEARCH & CONSERVATION DIVISION (PRCD)

- **PRCD** in collaboration with Centre for Global Field Study at University of Washington, One Earth Institute and Jorhat Forest Department organised “10th Field Course in Conservation Biology” from 7th to 12th December 2019 at Gibbon Conservation Centre, Hollangapar Wildlife Sanctuary, Jorhat, Assam.
- **PRCD** in collaboration with Department of Zoology, Gauhati University, Primate Research Centre, Northeast and Scholar’s Institute of Technology and Management (SITM) organised “Pre-symposium Training on Field Methods on Primate Conservation Biology” from 5th to 7th February 2020 at SITM, Guwahati, Assam.
- **PRCD** in collaboration with Department of Zoology, Gauhati University, and Primate Research Centre, Northeast organised “7th

Asian Primate Symposium & 1st International Conference on Human-Primate Interface” from 8th to 10th February 2020 at GUIST, Gauhati University, Assam.

TIGER RESEARCH & CONSERVATION DIVISION (TRCD)

- **TRCD** in collaboration with WWF-India organised a workshop on “Camera Trapping Data Interpretation and Analysis” from 5th to 9th June 2019 at Conference Hall, Aaranyak.
- **TRCD** in collaboration with Assam Forest Department and Department of Forests and Park Services, Ministry of Agriculture and Forests Royal Government of Bhutan organised a workshop on “Indo-Bhutan Transboundary Stakeholders Meeting on Barnadi and Jomotsangkha Wildlife Sanctuary” on 11th October 2019 at Khalingaduar Reserve Forest, Udaguri, Assam, India.
- **TRCD** in collaboration with Assam Forest Department organised a training on “Training on Phase-IV tiger Monitoring in Manas National Park” on 8th and 9th December 2019 at Bansbari Range, Manas National Park, Assam, India.
- **TRCD** in collaboration with B COY 1st BN NDRF and Forest Department of Assam organised a training “Boat Training cum Disaster Management Workshop for Frontline staff, Bansbari Range, Manas National Park on 22nd June 2019 at Elephant Research & Treatment Centre, Bansbari Range Office and Beki River.

WATER, CLIMATE & HAZARDS DIVISION (WATCH)

- **WATCH** in collaboration with Oxfam India, Northeast Research and Social Work Networking (NERSWN), Kokrajhar, People’s Action for Development (PAD), Lakhimpur, and Grameen Development Services (GDS), Lucknow, UP organised a workshop on gender dimensions of water governance, titled “Mainstreaming gender in water governance in the Brahmaputra River Basin, Assam: A Consultation on Women and

Water" on 29th and 30th April 2019 at Indian Institute of Bank Management (IIBM), Khanapara, Jawahar Nagar Guwahati.

- **WATCH** in collaboration with Jawaharlal Nehru College (Main organiser), Boko, Kamrup District organised a seminar on "Science, Society and Sustainability" on 3rd and 4th May 2019 at Jawaharlal Nehru College, Boko, Kamrup District.
- **WATCH** in collaboration with Oxfam India, and Nowgong Girls' College, Nagaon organised a workshop "Consultation on capacity building and networking of CSOs in the Central Brahmaputra River Basin, Assam around water governance" on 15th and 16th May 2019 at Conference Hall, Nowgong Girls' College, Haibargaon, Nagaon.
- **WATCH** in collaboration with Sanchipat, Kamalabari, Majuli organised a seminar "Celebration of International Day for Biological Diversity" on 22nd May 2019 at Chamuguri Satra Raonapar Model H.S. School in Raonapar, Majuli.
- **WATCH** in collaboration with Oxfam-India and Northeast Research and Social Work Networking (NERSWN) (main organisers), People's Action for Development (PAD) organised "Consultation on Trans-Boundary Cooperation for Effective Management of Water Risks, Bhutan-India" on 20th and 21st June 2019 at Hotel Gaurang Valley, Kokrajhar.
- **WATCH** in collaboration with Oxfam-India, District Administration, Majuli District and Sanchipaat, Majuli organised "Consultative Workshop on 'Empowering youth action for good water governance in the Brahmaputra River Basin in Assam, India" from 25th to 27th June 2019 at Prashanti Lodge, Kamalabari, Majuli District.
- **WATCH** in collaboration with India Water Partnership, Gurugram, Haryana, Sanchipaat, Majuli organised "Discussion Forum on 'Sustainable management of the Brahmaputra River and the future of Majuli" on 26th June 2019 at Prashanti Lodge, Kamalabari, Majuli District.

- **WATCH** in collaboration with Department of History, Dibrugarh University organised a discussion programme, "Emerging issues of environmental water management in the Brahmaputra River Basin, India" on 1st October 2019 at Conference Hall, Department of History, Dibrugarh University.
- **WATCH** in collaboration with Ashoka Trust for Research in Ecology and the Environment (ATREE), Bengaluru (Main organiser); Department of Science & Technology, Government of India organised "Policy Consultation on Flood Plain Wetlands" on 16th October 2019 at NEDFi House, Conference Hall, Guwahati.
- **WATCH** in collaboration with Kollo Sanskritik Gosthi, Nagaon organised a seminar on "বিষয় বন্ধনপুত্র: আসমৰ সাহিত্য, সংস্কৃতি, সমাজ আৰু বিজ্ঞান চৰ্চাত বন্ধনপুত্রৰ গুৰুত্ব" on 23rd December 2019 at Nehru Bali, Nagaon (Premise of the Nagaon Book Fair- 2019).
- **WATCH** in collaboration with India Water Partnership, Gurugram, Haryana organised a stakeholder workshop, "Community resilience to water induced disasters and climate change: Vulnerability and Adaptation in selected river islands in the Brahmaputra River Basin" on 9th January 2020 at Indian Institute of Bank Management, Khanapara, Guwahati.

MEMBERSHIP POSITION WITH OTHER ORGANISATIONS

Alolika Sinha

- Member, IUCN SSC Deer Specialist Group
- Member, Society for Conservation Biology

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
- Commission Member - IUCN CEESP Asia 2017-2020
- Commission Member - IUCN CEESP Theme on Environment and Peace 2017-2020
- Commission Member - IUCN CEESP Theme on Human Wellbeing and Sustainable Livelihoods 2017-2020
- Commission Member - IUCN CEESP Working Group - Natural Resource Governance Framework 2017-2020
- Commission Member - IUCN CEM Biosphere Reserves 2017-2020
- Commission Member - IUCN CEM Ecosystem Restoration 2017-2020
- Commission Member - IUCN CEM Ecosystems and Invasive Species 2017-2020
- Commission Member - IUCN CEM Forest Ecosystems 2017-2020
- Commission Member - IUCN CEM South Asia 2017-2020
- Commission Member - IUCN CEM Sustainable Use and Management of Ecosystems 2017-2020
- Commission Member - IUCN CEM Wetland Ecosystems 2017-2020
- Commission Member - IUCN SSC African Rhino Specialist Group 2017-2020
- Commission Member - IUCN SSC Chairs 2017-2020
- Commission Member - IUCN SSC Conservation Planning Specialist Group 2017-2020
- Commission Member - IUCN WCPA Capacity Development: Network 2017-2020
- Commission Member - IUCN WCPA Climate Change: Network 2017-2020

- Commission Member - IUCN WCPA Connectivity Conservation: Network 2017-2020
- Commission Member - IUCN WCPA Governance of Protected and Conserved Areas: Network 2017-2020
- Commission Member - IUCN WCPA Management Effectiveness: Network 2017-2020
- Commission Member - IUCN WCPA South Asia Region 2017-2020
- Commission Member - IUCN WCPA Tourism and Protected Areas: Network 2017-2020
- Commission Member - IUCN WCPA Transboundary Conservation: Network 2017-2020
- Commission Member - IUCN WCPA World Heritage: Network 2017-2020
- Commission Member - IUCN WCPA-SSC Biodiversity and Protected Areas: Network 2017-2020
- Commission Member - WI-IUCN SSC Threatened Waterfowl Specialist Group 2017-2020
- Member: European Association of Zoos and Aquarium (EAZA)- Rhino Taxonomic Advisory Group (TAG)
- Commission Member - IUCN CEM Cultural Practices and Ecosystem Management Thematic Group 2017-2020
- Commission Member - IUCN CEM Dryland Ecosystems Specialist Group 2017-2020
- Commission Member - IUCN CEM Ecosystem Restoration Thematic Group 2017-2020
- Commission Member - IUCN CEM Ecosystems and Invasive Species Thematic Group 2017-2020
- Commission Member - IUCN CEM Nature Based Solutions Thematic Group 2017-2020
- Commission Member - IUCN CEM Sustainable Use and Management of Ecosystems Thematic Group 2017-2020
- Independent Expert Member, Management Effective Evaluation of National Park and Wildlife Sanctuary, Ministry of Environment, Forest and Climate Change, Govt. of India

Dr. Bibhuti Prasad Lahkar

- Commission Member - IUCN SSC Asian Elephant Specialist Group
- Commission Member - SSC IUCN Invasive Species Specialist Group
- Commission Member - IUCN WCPA Capacity Development: Network 2017-2020
- Commission Member - IUCN WCPA Transboundary Conservation: Network 2017-2020
- Commission Member - IUCN WCPA World Heritage: Network 2017-2020
- Commission Member - IUCN WCPA Biodiversity and Protected Areas: Network 2017-2020
- Commission Member - IUCN WCPA South Asia Region 2017-2020

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, Vijnana Bharati Northeast/Northeast Science Movements
- Member, Nepal Biodiversity Research Society
- Member, Gauhati University Ethics Committee
- Member, Zoological Society of Assam

Dr. Dipankar Lahkar

- Member, Society for Conservation Biology (SCB)
- Member of the Editorial Board, Newsletter for Birdwatchers (A bi-monthly newsletter on Ornithology)
- District Level Project Evaluator, National Children Science Congress (NCSC), Assam—a program of the National Council for Science and Technology Communication, Department of Science and Technology, Govt. of India
- State Academic Coordinator, Assam, National Children Science Congress (NCSC-2019)

Jayanta Kumar Pathak

- Member of North American Association for Environmental Education
- Member of Editorial Board, 'Bigyan Jeuti', a science periodical published since 1961 by Assam Science Society

Dr. Jyoti Prasad Das

- Member, IUCN WCPA Trans-boundary Conservation
- Member, IUCN WCPA Management Effectiveness
- Member, IUCN WCPA Connectivity Conservation
- Member, IUCN WCPA Capacity Development

Kongseng Konwar

- Member of the Global group, Women in Nature Network (WINN).

Dr. M Firoz Ahmed

- Member, IUCN-SSC
- Member, Society for Conservation Biology (SCB)
- Advisor, WildLandscapes, USA

Dr. Purnima Devi Barman

- Director, Women in Nature Network, India Chapter
- Member, IUCN SSC Stork, Spoon bill, Ibis group

Dr. Parag Jyoti Deka

- IUCN/SSC Wild Pig Specialist Group

Udayan Borthakur

- Member, IUCN SSC Asian Rhino Specialist Group
- Member, IUSC SSC Heron Specialist Group
- Member, Nikon Professional Services, India
- Official Wildlife Photography Mentor, Nikon School India

PUBLICATIONS

ABSTRACT

- Chetry, D., M., Phukan, R., Chetry and P.C., Bhattacharjee. 2020. Current status of eastern hoolock gibbon (*Hoolock leuconedys*) in Assam, India. 7th Asian Primate Symposium & 1st International conference on Human-Primate Interface, 8 - 10 February 2020, Guwahati, India.
- Chetry, D., M., Phukan, R., Chetry and P.C., Bhattacharjee. 2020. Primates Conservation in Chakrashila Wildlife Sanctuary, Assam, India. 7th Asian Primate Symposium & 1st International conference on Human-Primate Interface, 8-10 February 2020, Guwahati, India. 17pp.
- Chetry, D., J., Biswas, U., Borthakur, M., Phukan, R., Chetry, A.K., Das, P., Sarkar and P.C., Bhattacharjee. 2020. Primate Distribution and Conservation Status in Far Eastern Himalayan Landscape in India. 7th Asian Primate Symposium & 1st International conference on Human-Primate Interface, 8-10 February 2020, Guwahati, India. 115pp.
- Lahkar, D., M.F., Ahmed, R.H., Begum, H.K., Sarma and A., Harihar. 2019. Tiger recovery in the aftermath of ethno-political conflict in Manas National Park, India. International Conference on Conservation Biology (ICCB), Malaysia.
- Phukan, M., D., Chetry, R., Chetry and P.C., Bhattacharjee. 2020. Education and awareness programme for the conservation of golden langur in Chakrashila Wildlife Sanctuary, Assam, India. 7th Asian Primate Symposium & 1st International conference on Human-Primate Interface, 8-10 February 2020, Guwahati, India. 113pp.
- Singh, A., M.F., Ahmed, D., Lahkar, U., Tshering, L., Chaten, L., Chaida, S., Dendup, M., Sarma, B.P., Lahkar, H.K., Sarma. 2019. Understanding mammalian diversity and their response to anthropogenic threats in Indo-Bhutan Barnadi-Jomotsangkha forest complex. Student Conference on Conservation Science (SCCS), Bengaluru, India.

BOOKS

- Borthakur, U. 2019. Legends of Hollongapar. A coffee-table book on Hollongapar Gibbon Wildlife Sanctuary, Assam. Pp. 62. Published by Aaranyak.
- Pathak, J.K., J.K., Sarma, P., Barman and D., Deka. 2019. Weather Climate and Life - A book on climate change. Aaranyak, Pp 44. ISBN 978-81-936429-3-1

NON - PEER REVIEWED ARTICLES

- Chakraborty, H., H., Singha, B.K., Dutta and A.K. Das. 2019. The Avian Diversity in the Largest Freshwater Lake in Northeast India and its Conservation.
- Das, A.K., M., Das, M., Borthakur, D., Chetry, B.K., Talukdar, A., Nath and P.K., Sharma. 2019. Land use/ land cover change in Hollongapar Gibbon Wildlife Sanctuary and buffer areas using Geo-spatial technology. Biolink. Vol 01 Issue 02, July 2019. 30-34 pp.
- Partha J. Das. 2019. Adapting to climate change in Assam: Need of appropriate policies for vulnerable communities. Thought Process: Points to Ponder; Special Edition(Volume-I), April, 2019. State Innovation and Transformation Ayog(SITA), Government of Assam.
- Partha J. Das. 2019. Integrated long-term policy and action plan is the key to reduce flood and erosion risk in Assam' an article published in NEZINE.COM on July 20, 2019.

PEER REVIEWED ARTICLE

- Borthakur, U in E., Armstrong, A., Khan, R.W., Taylor, A., Gouy, G., Greenbaum and A., Thiéry, *et al.* Recent evolutionary history of tiger highlights contrasting roles of genetic drift and selection. bioRxiv. 2019:696146. <https://doi.org/10.1101/696146>.
- Chetry, D., R., Chetry and P.C., Bhattacharjee. 2019. Golden langur, *Trachypithecus geei* Khajuria, 1956. In C. Schwitzer, R.A. Mittermeier, A.B. Rylands, G.Chiozza, E.A.Williamson D. Byler, S. Wich, T. Humle, C. Johnson, H. Mynott and G. McCabe (eds), *Primates in Peril: The World's 25 most endangered Primates 2016-2018*. IUCN SSC Primates Specialist Group (PSG), International Primatological Society (IPS), Global Wildlife Conservation and Bristol Zoological Society, Arlington, VA.65-67.
- Deka, A., B.J., Das and P.J., Deka. 2019. Light microscopic studies on spleen, lung and kidney of pygmy hog (*Porcula salvania*). Journal of Entomology and Zoology Studies. 7(5), 450-452.

- Gross, E.M., B.P., Lahkar, N., Subedi, V.R., Nyirenda, L.L. Lichtenfeld, O. Jakob. 2019. Does traditional and advanced guarding reduce crop losses due to wildlife? A comparative analysis from Africa and Asia, Journal for Nature Conservation, <https://doi.org/10.1016/j.jnc.2019.125712>.
- Lahkar, D., M.F., Ahmed, R.H., Begum, S.K., Das and A., Harihar. 2020. Responses of a wild ungulate assemblage to anthropogenic influences in Manas National Park, India. Biological Conservation. 243: 108425, <https://doi.org/10.1016/j.biocon.2020.108425>.
- Mahood, S.P., R.R.S., Jha, A.R., Rahmani, J., Thakuri, H. Chamnan, B.P., Lahkar, N. Brahma, S.S., Narwade, N., Pandey, K., Gore, D., Gadhvi, S., Virak and S.T. Garnett. 2019. A systematic expert-based assessment of progress and priorities for conservation of the Bengal Florican *Houbaropsis bengalensis*, Conservation Science and Practice, DOI: 10.1111/csp2.121 <https://conbio.onlinelibrary.wiley.com/doi/epdf/10.1111/csp2.121>)
- Nath, A., H., Singha, M., Haque and B.P., Lahkar. 2019. Sparrows in urban complexity: macro and micro-scale habitat use of sympatric sparrows in Guwahati City, India, Urban Ecosystems, <https://doi.org/10.1007/s11252-019-00876-4>
- Sinha, A., B.P., Lahkar and S.A., Hussain. 2019. Current population status of the endangered hog deer *Axis porcinus* (Mammalia, Cetartiodactyla, Cervidae) in the Terai Terai grasslands: a study following political unrest in Manas National Park, India. Journal of Threatened Taxa 11 (13), 14655-14662.

TECHNICAL REPORTS

- 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.
- Ahmed, M.F., D., Lahkar, A.K., Das and K., Dutta. 2019. Assisting Conservation and Protection of

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FINANCIAL REPORT

2019-20

DHAWAN PANDEY & ASSOCIATES
Chartered Accountants

92, Dilip Huzuri Path, Sarumotria, Dispur, Guwahati-06.
 Ph. No: - 94350-17438, E-mail:cabiswajitbaruah7@gmail.com

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

I/We have examined the balance sheet of AARANYAK as at 31st day of March, 2020 and the income and expenditure account for the year ended on that date which are in agreement with the books of account maintained by the said trust or institution.

I/We have obtained all the information and explanations, which to the best of my/our knowledge and belief were necessary for the purposes of the audit. In my/our opinion, proper books of account have been kept by the head office and the branches of the above-named trust/institution visited by me/us so far as appears from my/our examination of the books, and proper returns adequate for the purposes of audit have been received from branches not visited by me/us, subject to the comments given below:

In my/our opinion and to the best of my/our information, and according to information given to me/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 trust/institution as at 31st day of March, 2020, and
- (ii) in the case of income and expenditure account, of the excess of Income over Expenditure of its accounting year ending on 31st day of March, 2020

The prescribed particulars are annexed hereto.

For, DHAWAN PANDEY & ASSOCIATES
 Chartered Accountants

Place: Guwahati
 Date: 28.12.2020



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

RECEIPTS PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2020

RECEIPTS	AMOUNT (Rs)	PAYMENTS	AMOUNT (Rs)
To OPENING BALANCE			
Cash in hand	4,875.57	By Project Expenses against Foreign Contribution	7,75,69,351.02
By INVESTMENTS		By Advance for Project Expenses	13,73,836.42
Fixed Deposits with Bank of Baroda, Dispur Branch	5,23,70,531.06		
Fixed Deposit with Union Bank of India, Basistha Road branch	9,09,637.00	By Furniture and Fixture	6,200.00
UTI	54,00,000.00	By TCS	13,737.00
By BANK ACCOUNTS	5,86,80,168.06	By TCS	6,94,106.10
HDFC, Bangaigarh Branch(ERCI-1)	9,140.98	By Jane Macdonald Expenses	4,09,505.70
HDFC, Bangaigarh Branch(ERCI-2)	3,652.45	By Administrative Staff Salary	53,66,469.12
HDFC, Bangaigarh Branch(ERCI-3)	697.07	By Income Tax Consultant	85,500.00
HDFC, Bangaigarh Branch(GRCI)	1,332.61	By Municipality Tax	1,645.51
HDFC, Bangaigarh Branch(ARCI)	3,38,212.50	By Bank Charge	1,40,355.63
HDFC, Bangaigarh Branch(WGP)	4,860.71	By Administrative Expenses	2,932.00
HDFC, Bangaigarh Branch(LIVELIHO	437.64	By CLOSING BALANCE	
HDFC, Bangaigarh Branch(ERCI)	1,171.67	Cash in hand	20,568.53
HDFC, Bangaigarh Branch(RRCI)	4,698.97	By INVESTMENTS	
YES BANK(RRCI)	1,76,010.60	Fixed Deposits with Bank of Baroda, Dispur Branch	4,49,21,380.66
State Bank of India, Beltola(ERCI-2)	36,720.67	Fixed Deposit with Union Bank of India, Basistha Road branch	31,78,997.90
TRCI-4	36,695.67	UTI	54,00,000.00
State Bank of India, Beltola(ERCI)	45,495.97	By BANK ACCOUNTS	5,35,00,378.56
TSRP	6,382.00	HDFC, Bangaigarh Branch(ERCI-1)	19,465.08
IDBI, Beltola Branch(WATCH)	39,925.02	HDFC, Bangaigarh Branch(ERCI-2)	3,696.45
Bank of Baroda, Dispur Branch	40,20,187.22	HDFC, Bangaigarh Branch(ERCI-3)	2,806.10
Punjab National Bank, Beltola Branch	1,81,771.37	HDFC, Bangaigarh Branch(GRCI)	1,043.81
Union Bank of India, Basistha Road Branch(ERCI)	1,139.27	HDFC, Bangaigarh Branch(ARCI)	1,02,383.60
State Bank of India, Dispur	89,928.94	HDFC, Bangaigarh Branch(WGP)	4,854.51
AARANYAK LIVELIHOOD-2	19,902.17	HDFC, Bangaigarh Branch(LIVELIHO	588.64
INDUSLAND BANK	4,36,230.47	HDFC, Bangaigarh Branch(ERCI)	69,371.67
Union Bank of India	4,53,655.34	HDFC, Bangaigarh Branch(RRCI)	49,058.28
AARANYAK HDFC (WATCH)	45.79	YES BANK(ERCI)	406.78
AARANYAK (TRCI-3)	32,526.19	State Bank of India, Beltola(ERCI-2)	3,188.40
YES BANK(AARANYAK)	8,41,345.04	State Bank of India, Beltola(ERCI)	1,38,322.68
Bank of Baroda (TTMP)	9,956.35	TSRP	2,08,455.67
HDFC (TTMP)	228.54	IDBI, Beltola Branch(WATCH)	246.67
Manas Traditional Dress cluster (PNB)	10,67,867.50	Bank of Baroda, Dispur Branch	1,55,52,026.27
Yes Bank Ltd (WGD-2)	1,757.62	Union Bank of India, Basistha Road Branch(ERCI)	73,524.71
To Foreign Contribution Received	9,48,37,075.03	State Bank of India, Dispur	20,05,249.94
To Recovery of Project Advances	8,25,830.01	AARANYAK LIVELIHOOD-2	10,845.17
To Indian Oil Corporation	5,201.58	INDUSLAND BANK	6,04,016.47
To TDS Refund	8,11,560.00	Union Bank of India	87,30,882.78
To Interest on TDS Refund	79,110.00	AARANYAK HDFC (WATCH)	160.20
To Bank Interest	6,50,279.89	AARANYAK (TRCI-3)	31,393.39
To Interest on Bank Fixed Deposits	24,84,988.00	YES BANK(AARANYAK)	2,52,019.04
To IOCL Bonus Receipt	216.80	Bank of Baroda (TTMP)	9,956.35
To DONATION	347,652.00	HDFC (TTMP)	228.54
To Internship fees	31000.00	Manas Traditional Dress cluster (PNB)	2,84,503.50
		Yes Bank Ltd (WGD-2)	47,809.99
		YES BANK (LIVELIHOOD)	70,000.00
			2,82,56,524.69

To MEMBERSHIP FEES RECEIVED	8600.00	
To 7TH APS REGISTRATION FEE FUND	4,53,097.00	
To Receipt from use of vehicle	71,000.00	
To MCOC EARNEST MONEY RECEIVED	20,000.00	
To Receipt for Gibbon Training Program	3,000.00	
To RECEIVED FROM JMK COMPUTERS	8,000.00	
To Selling of Gypsy	20,000.00	
To Selling of Inverter	3,500.00	
To Recovery from project products	41,670.00	
To Selling of Vehicle	1,50,000.00	
TOTAL	16,74,41,110.28	TOTAL
		16,74,41,110.28

Place: Guwahati
Date: 28/12/2020

For & Behalf of
AARANYAK

(DR. BIBHAB KR. TALUKDAR)
SECRETARY GENERAL

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

(CA. BISWAJIT BARUAH)
PARTNER
M.No.063538
FRN.013617C
UDIN : 20063538AAABK1919

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

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2020

EXPENDITURE	AMOUNT (Rs)	INCOME	AMOUNT (Rs)
To Administrative Staff Salary	53,66,469.12	By Interest on TDS Refund	79,110.00
To Legal charges	85,500.00	By Bank Interest	6,50,279.89
To Municipality Tax	1,645.51	By Interest on Bank Fixed Deposits	24,84,988.00
To Bank Charge	1,40,355.63	By DONATION	3,47,852.00
To Administrative Expenses	2,932.00	By MEMBERSHIP FEES RECEIVED	8,600.00
		By IOCL Bonus Receipt (incidental)	216.80
		By Internship fees (incidental)	31,000.00
		By Receipt from 7TH APS REGISTRATION (incidental)	4,53,097.00
		By Receipt from use of vehicle (incidental)	71,000.00
		By Receipt fc: Gibbon Training Program (incidental)	3,000.00
		By Discount from JMK computers (incidental)	8,000.00
		By Recovery of salvage value of Gypsy from Project (Incidental)	20,000.00
		By Recovery of salvage value of Inverter (Incidental)	3,500.00
		By Recovery of salvage value of Vehicle (Incidental)	1,50,000.00
		By Recovery from project products (incidental)	41,670.00
		By Deficit of Income over Expenditure	12,44,588.57
TOTAL	55,96,902.26	TOTAL	55,96,902.26

Place: Guwahati
Date: 28/12/2020

For & Behalf of
AARANYAK

(DR. BIBHAB KR. TALUKDAR)
SECRETARY GENERAL

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

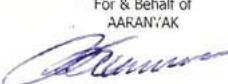
(CA. BISWAJIT BARUAH)
PARTNER
M.No.063538
FRN.013617C

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

BALANCE SHEET AS ON 31ST MARCH 2020

LIABILITIES	AMOUNT (Rs)	ASSETS	AMOUNT (Rs)
FUND ACCOUNT			
General Fund		Fixed Assets	3,38,74,755.00
Opening Balance	1,82,91,446.95		
Less: Net deficit during the year	12,44,588.57		
General Fund Utilised in Project	8,26,038.00		
Capital Fund out of Project Expenses		Current Assets	
Opening Balance	2,60,74,842.00	TCS	13,737.00
Add: During the year	(6,81,634.00)	Tax Deducted at Source	16,55,594.10
	2,53,93,208.00	Advance for Project Expenses	13,73,836.42
Unutilised Project Funds	7,47,09,278.27	Indian Oil Corporation	(12,950.91)
Funds from Individual for Specific Purpose		Loan to Employee	15,000.00
Jane Macdonald (Greater Adjutant Stork)	10,98,660.00	CLOSING BALANCE	
Less: Expenditure incurred during the year	4,09,505.70	Cash in hand	20,568.53
MCOC EARNEST MONEY RECEIVED	6,89,154.30	INVESTMENTS	
Dawson Christopher (Boat)	12,906.44	Fixed Deposits with Bank of Baroda, Dispur Branch	4,49,21,380.66
	20,000.00	Fixed Deposit with Union Bank of India, Basistha Road branch	31,78,997.90
		UTI	54,00,000.00
		BANK ACCOUNTS	
		HDFC, Bangaghar Branch (ERCI-1)	19,465.08
		HDFC, Bangaghar Branch (ERCI-2)	3,696.45
		HDFC, Bangaghar Branch (ERCI-3)	2,806.10
		HDFC, Bangaghar Branch (GDRCI)	1,043.81
		HDFC, Bangaghar Branch (ARCI)	1,02,383.60
		HDFC, Bangaghar Branch (WGP)	4,864.51
		HDFC, Bangaghar Branch (LIVELIHOOD)	588.64
		HDFC, Bangaghar Branch (PRCI)	69,371.67
		HDFC, Bangaghar Branch (RRCI)	49,058.28
		YES BANK (RRCI)	406.78
		State Bank of India, Beltola (TRCI-2)	3,188.40
		State Bank of India, Beltola (TRCI)	1,38,322.68
		TSRP	2,08,455.67
		IDBI, Beltla Branch (WATCH)	246.67
		Bank of Baroda, Dispur Branch	1,55,52,026.27
		Union Bank of India, Basistha Road Branch (PRCI)	73,524.71
		State Bank of India, Dispur	20,05,249.94
		AARANYAK LIVELIHOOD-2	10,845.17
		INDUSLAND BANK	6,04,016.47
		Union Bank of India	87,30,882.78
		AARANYAK HDFC (WATCH)	160.20
		AARANYAK (TRCI-3)	31,393.39
		YES BANK (AARANYAK)	2,32,019.04
		Bank of Baroda (TTMP)	9,956.35
		HDFC (TTMP)	238.54
		Manas Traditional Dress cluster (PNB)	2,84,503.50
		Yes Bank Ltd (WGd-2)	47,809.99
		YES BANK (LIVELIHOOD)	70,000.00
TOTAL	11,86,97,443.39	TOTAL	11,86,97,443.39

Place: Guwahati
 Date: 28/12/2020

For & Behalf of
AARANYAK

 (DR. BIBHAB KR. TALUKDAR)
 SECRETARY GENERAL



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

 (CA. BISWAJIT BARUAH)
 PARTNER
 M.No.063538
 FRN.013617C
 UDIN 20063538AAAABK1919

FIND AARANYAK

Registered address:

50, Samannoy Path,
Beltola Survey, Guwahati,
India - 781028

Administrative 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: +91-361-2230250
Fax: +91-361-2228418

Research Division Office:

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

Field Stations:

Manas Landscape:

Aaranyak, C/o Biraj Das, Chandrapur, Ward No. 7
 Aaranyak, C/o Utpal Das, Chandrapur, Ward No. 7
 Barpeta Road

- Panbari Field Station, Panbari Range, Manas National Park
- Majratabari Field Station, Bhuyanpara Range, Manas National Park
- Bansbari Field Station, Manas National Park, Baksa
C/o Gangarani Sarkar, Gyati Gaon, Bansbari - 781315
Mobile: +91-7896508018
- Manas Nest, Bhuyanpara, Manas National Park, Baksa.
C/o Bhuyanpara Ecotourism Society
Bhuyanpara - 781318
Contact Person - Baburam Basumatary
Mobile: +91-9435763149

Kaziranga Landscape:

Aaranyak, C/o M. Firoz Ahmed, Pilkhana, Kohora - 785609
 Contact - Arif Hussain, Mobile: +91-9854797419

Golaghat Landscape:

Aaranyak, C/o Girish Lahon, Near LIC Office
 Bokakhat, PIN - 785612

Eastern Assam Landscape:

Aaranyak, C/o Bipin Chandra Datta
 Itabhatta, Near Digboi College, Digboi - 786171

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

North Bengal Field Station

*C/o Utpal Mazumdar, Near Netaji School, Lechutala
 Alipurduar Junction, PIN - 736121*

Roing Field Station

*T. Meya Complex, Mayu, Roing
 PIN - 792110, District: Lower Dibang Valley (Arunachal Pradesh)
 Land mark: Near Government Secondary School, Mayu*

STAFF LIST

(1st April 2019 to 31st March 2020)

ADMIN & ACCOUNTS DIVISION

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

Mrs. Bobby Nath,
Manager, Administration

Mr. Ranjan Jyoti Khound,
Manager, Finance

Mr. Bhaskar Sarkar,
Manager, Accounts

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

Ms. Binita Subba,
Accountant

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. Jyotirmoy Nath,
Accounts Assistant

Mr. Gouranga Mandal,
Office Assistant

Mr. Rajesh Das,
Office Supporting 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

Ms. Ferdausi M choudhury,
Program Associate, GASCP

CONSERVATION & LIVELIHOOD DIVISION (CLD)

Mr. Bipul Das,
Deputy Manager

Ms. Manoshi Goswami,
Communication Officer, Manas
Landscape

Mr. Silash Basumatary,
Project Coordinator

Mr. Kuldeep Das,
Project Coordinator, Manas
Landscape

Mr. Detsung Basumatary,
Project Associate, Manas
Landscape

Mr. Manzum Mahanta,
Documentation Officer

Mr. Swapan Kumar Das,
Project Coordinator - Livelihood

Mr. Kunja Brahma,
Project Assistant - Livelihood

Mr. Bijay Basumatary,
Project Assistant - Livelihood

Mr. Songsar Basumatary,
Field Assistant - Livelihood

Mr. Amit Dewry,
Office Assistant, Manas
Landscape

Mr. Pankaj Das,
Field Assistant, Livelihood

Mr. Bijoy Kalita,
Driver, Manas Landscape

ELEPHANT RESEARCH & CONSERVATION DIVISION (ERCD)

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

Dr. Jyoti Prasad Das,
Manager

Ms. Alolika Sinha,
Assistant Manager

Mr. Abhijit Boruah,
Project Coordinator

Mr. Anjan Chandra Baruah,
Program Coordinator

Mr. Rubul Tanti,
Junior Research Scholar

Mr. Animekh Hazarika,
Research Scholar

Mr. Niranjan Bhuyan,
Field Coordinator

Mr. Monjit Konwar,
Project Assistant

Mr. Jiban Chetry,
Project Assistant

Mr. Rupam Goyari,
Field Assistant

Mr. Porash Moni Hazarika,
Field Assistant

Mr. Ankur Nahok,
Field Assistant

Mr. Pradeep Barman,
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 Pilot

Mr. Kedar Mallah,
Boat Driver

Mr. Pranjit Das,
Assistant Boat Pilot

Md. Noor Islam,
Driver cum Field Assistant

GEOSPATIAL TECHNOLOGY & APPLICATION DIVISION (GTAD)

Mr. Arup Kumar Das,
Manager

Ms. Madhumita Borthakur,
Spatial Database Officer

Ms. Kongseng Konwar,
Database Officer

Mr. Bankim Baruah,
Project Coordinator

Mr. Jyotish Ranjan Deka,
GIS Assistant

Ms. Minakshi Dutta,
GIS Analyst

HERPETOFAUNA RESEARCH & CONSERVATION DIVISION (HRCD)

Dr. Firoz Ahmed,
Scientist F, Head

Mr. Jayanta Kumar Roy,
Senior Researcher

Mr. Sourav Gupta,
Project Officer, Research and Monitoring

Late Salina Sultana,
Project Officer, Research and Monitoring

Mr. Sibam Sarkar,
Trainee

LEGAL & ADVOCACY DIVISION (LAD)

Dr. Bibhab Kumar Talukdar,
Scientist G, Head

Mr. Manas Kumar Bhattacharjya,
Manager

Mr. Ajoy Kr. Das,
Associate Lawyer

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. Minkul Sarma,
Assistant Dog Handler

Mr. Bitumoni Lahkar,
Junior Dog Handler

Mr. Mrigen Das,
Junior Dog Handler

Mr. Bhiraj Deka,
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, Programme Head

Mr. Mridupaban Phukan,
Field Manager

Mr. Bishwa Jivan Chakma,
Field Manager

RHINO RESEARCH & CONSERVATION DIVISION (RRCD)

Dr. Bibhab Kumar Talukdar,
Scientist G, Head

Md. Arif Hussain,
Acting Manager, Community Liaison

Mr. Bijay Sankar Bora,
Consultant

Mr. Yadav Chandra Mandal,
Coordinator - Field Investigation - Wildlife Crime Monitoring

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. Ajay Kumar Das,
Site Coordinator

Mr. Bhaben Hazarika,
Site Coordinator

Ms. Sewali Rabha,
Site Assistant

Ms. Mamata Mondal,
Site Assistant

Mr. Sarat Hazarika,
Site Assistant

Mr. Dwipendra Dev,
Senior Field Assistant

Mr. Kishur Payeng,
Field Assistant

Mr. Rajib Boro,
Jr. Field Assistant

Mr. Raju Mili,
Field Assistant

Mr. Amal Deka,
Field Assistant

Mr. Mahanta Das,
Field Assistant

Md. Chand Miyan,
Sr. Animal Caretaker

Ms. Monora Begum,
Animal Caretaker

Mr. Tulshi Nath,
Animal Caretaker

Mr. Dinesh Kalita,
Junior Animal Caretaker

Mr. Dibyeswar Barman,
Jr. Animal Caretaker

Mr. Golap Hazarika,
Jr. Animal Caretaker

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. Sarlongjon Teron,
Project Officer, NRM

Mr. Pranjon Daimari,
Project Officer, Law Enforcement

Mr. Pronit Basumatary,
Asst. Project Officer - Law Enforcement

Mr. Nibir Medhi,
Project Officer, Research & Monitoring

Mr. Mizing Boro,
Asst. Project Officer- Law Enforcement

Mr. Binod Dewry,
Asst. Project Officer - logistics

Mr. Mukesh Kherketary,
Asst. Project Officer - Law Enforcement

Mr. Phwjwngsar Narzary,
Consultant, Law Enforcement

Mr. Birdutta Baro,
Field Assistant - Law Enforcement

Mr. Ajay Basumatary,
Field Assistant - NRM

Mr. Bijeeet 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

Mr. Sanehuma Narzary,
Field Assistant - Research and Monitoring

WATER CLIMATE & HAZARDS DIVISION (WATCH)

Dr. Partha Jyoti Das,
Scientist E, Head, Water Climate and Hazard Division

Mr. Tonmoy Baruah,
Project Coordinator

Ms. Neelakshi Dutta,
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

Ms. Rumana Maheen,
Researcher

Mr. Mitrajit Deb,
Project Manager

REGIONAL COORDINATORS

EASTERN ZONE

Mr. Tikendrajit Gogoi,
Coordinator

Mr. Sailendra M. Das,
Assistant Coordinator

Mr. Sanjay Das,
Assistant Coordinator

CENTRAL ZONE

Mr. Arif Hussain,
Coordinator

Mr. Niranjan Bhuyan,
Assistant Coordinator

WESTERN ZONE

Dr. Ashoke Kr. Das
Coordinator

Dr. Kushal Choudhury
Assistant Coordinator

Mr. Ankur Barman
Assistant Coordinator

LEGAL ADVISORS

Mr. Gautam Uzir,
Advocate - Gauhati High Court

Mr. Bhaben Narzary,
Advocate - Gauhati High Court

RESEARCH ADVISORY BOARD

Prof. Alak Kr. Buragohain

Dr. Annwaruddin Choudhury,
D.Sc.

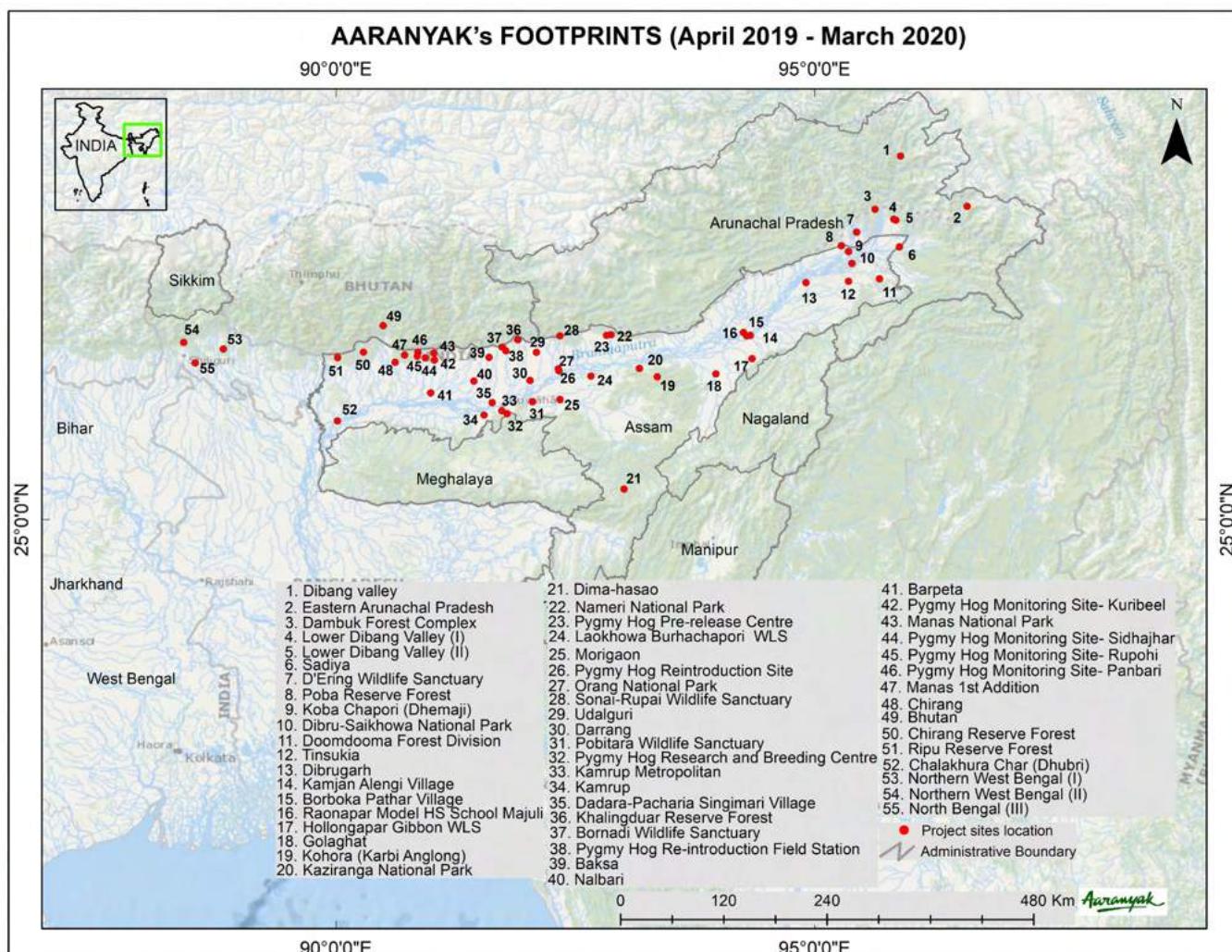
Prof. Qamar Qureshi

Prof. S. K. Dutta

Chief Wildlife Warden of Assam

Secretary General of Aaranyak
as Member Secretary of RAB

AARANYAK'S FOOTPRINT



NOURISHING NATURE TO SECURE OUR FUTURE

We strive to protect nature and its resources ranging from animal and plant species, forests, various water bodies, mountains, as we believe that welfare of our communities is intricately linked to pristine nature. We work to secure a future for all species that are under any sort of threat. We bank on scientific means, 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. The efforts to leave behind a vibrant nature face a range of national and worldwide threats to biodiversity that include overpopulation, climate change and man's quest for rapid development. Now into the 31st year of our mission, we try hard for continued expansion, creativity, and unrestrained action for protection of most endangered species, rivers and water bodies, mitigating impact of changing climate in North East India.



Administrative Office

Aaranyak, 13, Tayab Ali
Byelane,
Bishnu Rabha Path,
Beltola Tiniali-Bhetapara
Link Road,
P.O. Beltola, Guwahati,
India - 781028

Research Division Office

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

Registered address

50, Samannoy Path,
Beltola Survey,
P.O. Beltola, Guwahati,
India - 781028