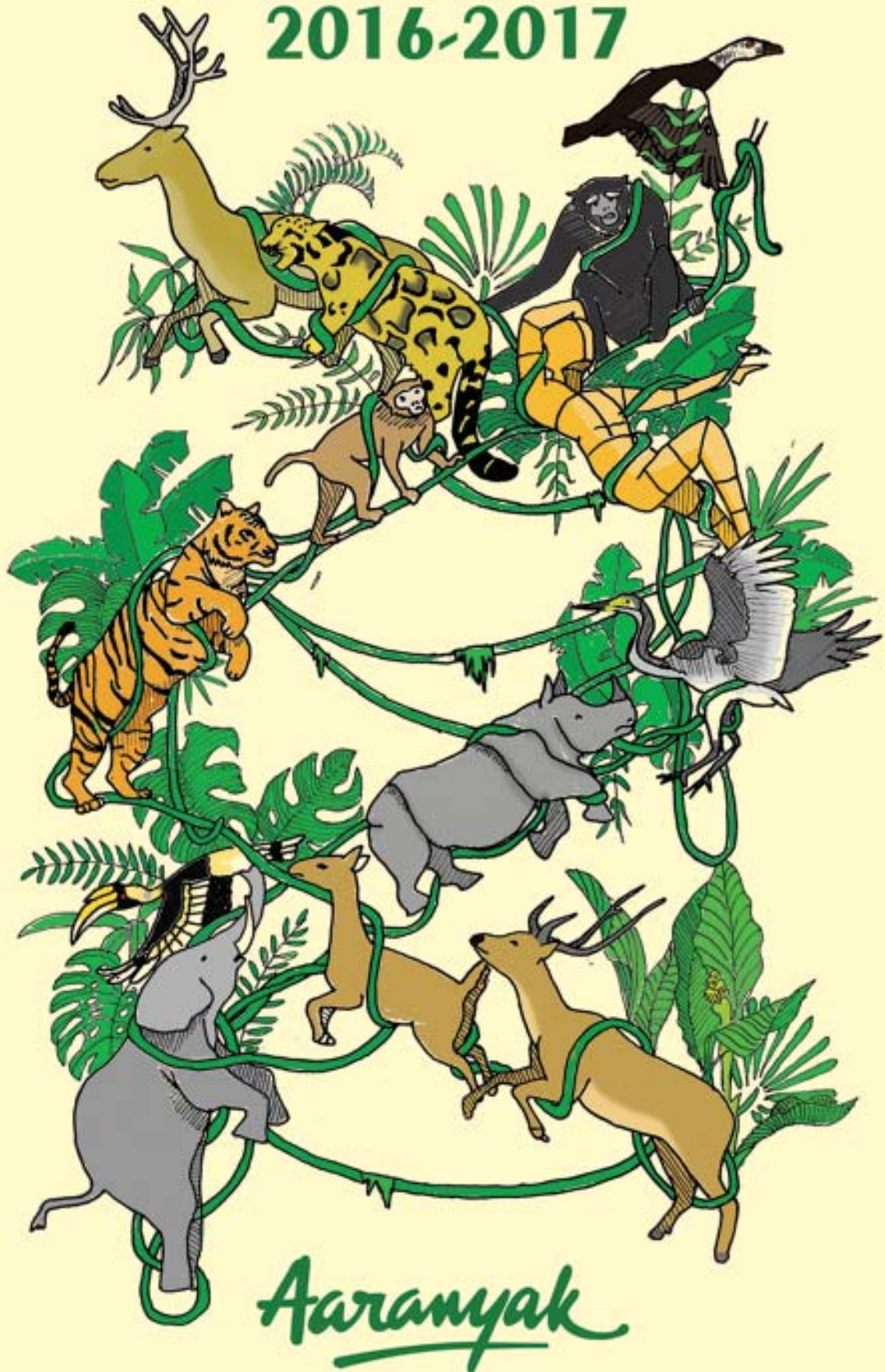


ANNUAL REPORT

2016-2017



ACHIEVEMENTS

Provided over
250 units
of field gear
to forest staff

Enhanced
the livelihood of
424
poor
households

Education
and public
outreach
activities
reached over
15000
people

Provided analysis assistance to
Assam Forest Department
in 9 wildlife
DNA forensic cases

Education
& awareness
programme on
**Golden
Langur**
reaches to
4500
students

Elephant
conservation
awareness
campaign reached
12000
students
& 40 schools

Benefitted
4000
people in
22 villages
from receiving early warning of
floods

Developed
12
self-help groups
named

Hargila
Conservation
Family

**40 'Rhino
Goes to School'**
activity in various
parts of Assam, covers
12000
students

Oreolalax sp.
(a Chinese Genus)
has been recorded
for the first time
in India

Introduction of
K9 dog squad
in Manas National Park
to strengthen
anti-poaching patrol

Aaranyak

Aaranyak's MISSION

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

Editorial Team:

Udayan Borthakur and Munmita Boruah

Cover illustration:

Thejavitso Gwizantsu Chase

Design and Layout:

**Hirakjyoti Baruah
Bharati Advertising & Media**

Aaranyak is a registered society working towards nature conservation in North East India, since 1989. Our strength lies in applied research in biological and social fields and our thrust area of work 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 at www.aaranyak.org you can also follow us on Facebook and Twitter

Aaranyak's 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.

C | O | N | T | E | N | T | S

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FROM THE DESK OF SECRETARY GENERAL & CEO

Aaranyak has crossed another year of its service in the field of research and conservation of nature and natural resources and monitoring the changing climatic scenarios in North East India. The region is a land of undulating hills and plains with luxuriant green cover and a wide variety of threatened and exotic flora and fauna that provides ample opportunity for young researchers and conservationists to explore, unearth the hidden knowledge of nature and culture to contribute towards conservation of nature and natural resources.

During 2016-17, Assam Government has awarded Aaranyak on 28th February 2017 as the Best Scientific Institution in Assam on the occasion of the National Science Day. This recognition from Assam Government has further enhanced our combined zeal of Team Aaranyak to contribute further. We need to set renewed strategic direction and objectives to engage young generation in conservation under the guidance of our existing team and uphold and develop the reputation of Aaranyak with budding conservationists of diverse background. Aaranyak do offer unique opportunity to work in an environment that has a local presence and international reach and encourage young students, researchers and conservationists from diverse background to join the crusade of conserving our rich natural and cultural heritage of North East region of India.

The strengths of Aaranyak lies with our whole team at every level. Aaranyak has over the year given opportunities to its working colleague to excel with expertise in both personal and organisational front. Their hard work over the years made Aaranyak what it is today. We with utmost sincerity would like to acknowledge the support being provided by various officers of government agencies and also from donor agencies and well-wishers. Aaranyak is committed to deliver its best to ensure the dream of green and clean environment. We need blessings and support from all.

A handwritten signature in blue ink, appearing to read 'Bibhab Kumar Talukdar'. The signature is fluid and cursive.

(Dr. Bibhab Kumar Talukdar)

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GOVERNMENT DEPARTMENTS

Arunachal Forest Department
 Bodoland Territorial Council;
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 Mariani Range;
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ORGANIZATIONS/INSTITUTES

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 Awely;
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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 bio-diversity of the region, Aaranyak, which was 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. Unearthing new findings on North East region's incredibly rich flora and fauna was the first step towards building such 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 co-operation 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 Dibru-Saikhowa National Park in Assam. The Dibru Saikhowa NP is one of the potential conservation sites of critically 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 Dibru Saikhowa NP. 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 organization. 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 Wildlife Genetics Research.
- 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 27 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 closely 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 combined 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 13 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 ParyavaranPurashkar, by the Ministry of Environment, Forests and Climate Change, Govt. of India, Best Scientific Institution award in 2017 by Govt. of Assam.

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
2016 - 2017**



MR. RANJAN BHUYAN
President

DR. DILIP CHETRY
Vice- President

DR. BIBHAB KUMAR TALUKDAR
Secretary General & CEO

MR. JIMUT PRASAD SARMA
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DR. BIBHUTI PRASAD LAHKAR
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Executive Member

DR. M FIROZ AHMED
Executive Member

MR. SHYAMAL DUTTA
Executive Member

MR. RAJIB RUDRA TARIANG
Executive Member



Photo: Anupam Nath

AVIFAUNA RESEARCH & CONSERVATION DIVISION (ARCD)

Avifauna Research and Conservation Division

Presently this division focuses on conservation and population monitoring of globally threatened species - Greater Adjutant Stork in Brahmaputra Valley

Greater Adjutant Stork Project

INTRODUCTION

The Endangered Greater Adjutant (*Leptopotilosdubius*) has a global population of less than 1200, which is distributed in Assam and Bihar in India and in Cambodia. Concerned over the rapid decline in its global population, Aaranyak initiated a community-based conservation project in 2007 to protect the population of this stork species. Currently Assam harbours about 700-800 individuals of this bird which is about 80% of its global population. Greater Adjutant makes nesting colonies in privately owned trees in thickly populated villages. So, support of the nest tree owners and local villagers is crucial for conservation of this bird. Much scientific investigations are required to develop a conservation strategy for the species.



Weaving by women self-help group members from Dadara's Hargila Army. Photo: Anupam Nath

MAJOR ACHIEVEMENTS

- Project Investigator Purnima Devi Barman was conferred the prestigious Royal Bank of Scotland (RBS) Earth Heroes Award 2016 for her effort to save the highly endangered Greater Adjutant Stork.
- On the occasion of Women's Day 2017, Purnima Devi Barman was facilitated by Bharat Sanchar Nigam Limited (BSNL) Assam Circle with the prestigious Bharat Sanchar Samman—'The Roll of Honour 2017' for her outstanding contribution towards the environment.
- Purnima Devi Barman was conferred with Balipara foundation "Green Guru Award" in December 2016
- Purnima Devi Barman Was conferred with FIICI FLO Northeast Women's' Achiever Award '2017
- Honoured as "Asomore ananya" from Dy 365 on Women's Day 2017.

STRATEGIC ACTIONS

- The Division distributed essential weaving

items and tools to women self- help group members from Dadara’s “Hargila Army”, with support from SIRD. The women were provided with 28 handlooms along with yarns etc. on 24 August 2016, at Dadara.

- The Division is working to empower a group of women through conservation classes and livelihood trainings which took place on 8th March, 2017. It was held with support from Kamrup District Administration, BNHS, Kamrup police, local villagers, CLP, SankardevSishu Niketan, Dadara and Women in Nature Network.
- The Division conducted the Assam population and status survey of Greater Adjutant Storks, 2016-17.
- The Division rescued and released several chicks in Kamrup District, with support from Kamrup District Administration, local police, local villagers, Assam State Zoo, and Hajo Forest Range Office. The rescued chicks were named after schools kids and toddlers of Dadara village.
- The Division is engaged in continuous studying of different behavioral parameters and monitoring nests by constructing bamboo platforms near habitat areas of the Greater Adjutant Stork.



“Hargila” finding its acceptance in the local community and their culture. Photo: Anupam Nath

SUMMARY OF IMPACT

The Division's unceasing efforts in educating the local communities since 2009 has borne fruit as they are developing ownership for the Hargilain their villages. Locals now offer regular rituals for Greater Adjutants in religious festivals. Women of Dadara area have developed 12 self-help groups (Hargila Conservation Family) and are now working for the conservation of this rare bird on their own. Local youths are regularly monitoring nests and they rescue the birds that fallout from the nests. The local school has also sustained the campaign and the students have become the guardian of the species in these villages. Local police has become the key stakeholder for conservation of the species. The Colony has now become globally famous. The number of nests has steadily increased in the colony. Since the year 2010, not a single nesting tree has been cut which is a tremendous success. Very recently the Division organized a "Hargila Mitra Campaign" in the Nagaon district of Assam. Nagaon used to harbour about 100 nests till 15 years backs, but is now reduced to only couple of nests due to cutting down of nesting trees. The Division hopes to create a similar impact in this nesting colony in the coming years and ensure flourishing of the stork in this nesting colony too.

ROAD AHEAD

- Creating a Community Conservation area of the nesting colonies with the aid of government initiatives.
- Launching of Plantation and "Save Wetland, Save Greater Adjutant" Campaign.
- Initiating a unique concept of 'Hargila Restaurant', in which an exclusive, common space created by dumping dead animals, butcher house wastes, etc. in a common spot in urban areas, rather than dumping such wastes in many places.
- Creation of artificial nests in nesting sites across Assam.

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Protecting Greater Adjutant chicks fallen from the nests. Photo: Anupam Nath



Photo: Aaranyak

CONSERVATION & LIVELIHOOD DIVISION (CLD)

INTRODUCTION

Poverty, lack of sustainable alternative livelihoods and absence of financial/social incentives, along with lack of integration of biodiversity and livelihood concerns in the developmental planning around biodiversity-rich areas, have been identified as some of the root causes of threats to biodiversity. Manas Tiger Reserve (MTR) is one of oldest Tiger Reserves in the country; however a decade long civil unrest in the eighties, had destroyed the Reserve. In recent years, MTR is in the process of revival, through community engagement by various civil societies including Aaranyak.

Under this division, two projects are going on in the Manas Landscape- the first one is to support the livelihood of 650 families of conservation volunteers belonging to 15 community based grass root level NGOs working for protection of MTR, and second one is to support 261 women from fringe villages of Manas National Park on weaving traditional dresses. These conservation volunteers and women are economically deprived and educationally backward from any developmental opportunities.

In addition to above, CLD and TRCD, jointly implementing livelihood component of Manas Tiger Conservation Programme (MTCP) to minimize human footprint in Manas National Park. The main focus of the conservation and livelihood component is to empowering the people on alternative livelihood based on assets available with them and making an effort to change the outlook of the people about conservation. Currently working with 1401 households located at fringe of Manas National Park with following criteria-i. Women headed marginal HH, ii. Landless HH, iii. Agricultural landless HH, iv. Marginal farmer (< 2 Bigha of land) and v. Wage earner (solely depend on the Park).



Farmer's meet at Saraibil, Kokrajhar. Photo: Aaranyak



Improved cooking stove at Kahitema
Photo: Aaranyak

MAJOR ACHIEVEMENTS:

Tata Trust Strengthening Community Engagement project

- A total of 123 conservation volunteers' family members were supported by establishing a piggery (2 piglets per individual) unit till September, 2017.
- A total of 106 conservation volunteers' family members were supported by a dairy unit (1 crossbreed cow per individual) till September, 2017.
- One Piggery shed at Kahitema and four Dairy shed viz. Nonoi Dairy shed in Udalguri, Barnadi Dairy Shed in Udalguri, Kuklung Dairy Shed in Chirang, Raimona Dairy Shed and Jambuguri Dairy Shed in Kokrajhar District, have been constructed to date.

- Eight groups of 10 beneficiaries were skilled-up through piggery farming training in various Government and Non-Government institutions.
- Seven groups of 10 beneficiaries were skilled-up through dairy farming training in collaboration with various Government and Non-Government institutions.
- 48 Sows have given birth to a total of 384 piglets to date.
- 7 cows have given birth to a calf to date. Rests are in pregnant condition.

SFURTI PROGRAMME / MANAS TRADITIONAL DRESS CLUSTER (MTDC)

- Completed 5 Awareness and Motivation programmes at Bormajra, Madanguri and Bhuyanpara villages, all falling under the Manas Landscape.
- Completed the Skill Development and Capacity Building Programme on Dyeing of Yarns, Skill Development and Capacity Building Programme on Modern Jacquard Looms and Skill Development and Capacity Building Programme on Product Development.
- Sonali SHG of Madanguri under MTDC sells few of their products at the Indian Institute of Entrepreneurship.
- Four artisans completed 30 days advanced training on Modern Jacquard Looms at Indian Institute of Entrepreneurship, Lalmati, Guwahati.

MANAS TIGER CONSERVATION PROGRAMME (MTCP)

- A total of 1401 household are supported through different livelihood interventions in four clusters in Chirang and Baksa district.
- A total of 765 household were trained in scientific pig rearing out of which 627



Mushroom cultivation. Photo: Aaranyak

household was supported with one piglet in each household.

- 635 household were trained on scientific goat rearing out of which 602 household were supported one goat per household.
- Growing of vegetables in their own home garden was promoted through training and seed support from the project, 245 families were supported in both the district.
- Training of oyster mushroom production was provided to 121 families and supported with spawn and other material from the project.
- Areca nut nurseries were raised in individual household beneficiaries of 28 household and currently having a stock of 31100 no areca nut saplings.
- Lemon cutting were raised in 71 individual beneficiary household.
- 23 no individual fishery owner were trained on scientific fishery management and supported with fingerlings and feed to the beneficiary in

Bhuyapara and Kokilabari cluster of Baksa district.

- 158 household were trained and supported with potato seed for cultivation with an area of one bigha per beneficiary. Thus 25 ton of seeds were supported to the beneficiary and expected to harvest a quantity of 250-300 ton in current year.
- Two community nurseries were developed, one in Panbari and other in Majrabari to raised seedling of firewood and other multipurpose saplings. The seedlings were distributed to communities, project beneficiaries, schools and other institution for plantation and community and private land both in Chirang and Baksa district.
- 7 Barefoot veterinary workers were developed through training and exposures in both the district and their services are availing by the project community.
- One master trained weaving unit is developed in Thuribari village with 4 weaving set to produce Silk Products and Traditional Products.

The product will be sale by the group with the own initiatives.

- 6 weaving groups is being developed for traditional weaving products and supported with two weaving set with looms in 6 villages in Chirang and Baksa district.

STRATEGIC ACTIONS:

Tata Trust Strengthening Community Engagement project. This project has two components- namely income generation and food security. The project was implemented using three rural livelihood sectors viz. Dairy, Piggery and Fishery.

Following actions were carried out for all the sectoral project activation and execution.

1. Training needs assessment on cluster management and activity management.
2. Preparatory arrangement eg. Pig sty and cow shed construction, arrangement of piglets and cross breed cows.
3. Linking insurance coverage
4. Medical care arrangement
5. Develop monitoring mechanism tools.
6. Impact study.

SFURTI PROGRAMME / MANAS TRADITIONAL DRESS CLUSTER (MTDC)

- Arranged field-level training programmes at the Manas Landscape; follow up of all events until successful completion.
- Monitoring the artisans, their activities, problems, provide support and market linkage to sell their products.
- Completed the tendering process for the construction of a Common Facility Centre, Looms, Sewing Machines, Wrapping Drums, Calendaring Machine etc.

MANAS TIGER CONSERVATION PROGRAMME (MTCP)

- Activity of livelihood intervention designed through participatory consultation processes with the community and incorporating their views, needs and choices following the framework of access restriction under Indian legal provision in the case of Protected Area.
- Incorporating livelihood activities which have parity with local ecological settings and cultural systems.
- The intervention follows a family centric model where focus is given on strengthening the capacity and assets of the targeted groups to lead an alternative livelihood and reduce their dependency on PA.
- Phases involves in each livelihood activities- selection of beneficiaries, preparatory works, induction training, take off, activity review, review of production process, corrective measures (if any), marketing, progress on review and monitoring.
- The components of interventions are- Homestead garden development, Livestock farming, Mushroom farming, Fishery, Improve cooking stove and energy plantation, Skill development in certain trade and Tiny rural industries.

SUMMARY OF IMPACT:

TATA TRUST STRENGTHENING COMMUNITY ENGAGEMENT PROJECT:

It has enhanced the livelihood of 318 poor households through piggery and 106 households through dairy among 15 CBOs. The project activities facilitate technical support services to the farmers, by creating linkages with resource organizations, government departments and other agencies, by facilitating dissemination of information, practice and technology; also enhancement of productivity by motivating farmers

to adopt scientific methods of piggery and dairy, supporting in bringing the villagers and village together, to participate in the developmental activities with a spirit of solidarity, substantially minimizing the peoples' dependency on forests and forest products at the end of the project.

SFURTI PROGRAMME

- After implementation of the Project, there is seen an increase in the awareness among weavers regarding the value of their Traditional product.
- The artisans of MTDC are interested to spend time in developing various traditional products to establish themselves.

MANAS TIGER CONSERVATION PROGRAMME (MTCP)

- Themind set of fringe villagers of Manas National Park has changed through the continuous engagement of conservation intervention of MTCP. Now people are coming forward to support conservation of MNP.
- Demo fair helped local community to get exposure to different livelihood interventions opportunity to more than 2000 household beneficiaries and they are coming forward for different rural tiny industries.
- Incoming generation activities of project community through Piggery, Home gardening are start giving income to the communities and their house hold level income raising gradually.
- Illegal Natural Resource Extractor (INRE) are identified through protection team are supported with different livelihood interventions resulting gradually decreasing of anthropogenic pressure to MNP.
- Communities are coming forward for accepting different interventions of the project and ready to donate land and other resource available with community for betterment of the project and community as a whole.

ROAD AHEAD:

Through these projects, it is assumed that the economic benefit of the beneficiaries involved in the different livelihood sectors of our projects would be the double of their current economic status. At the end of three years of implementation of the projects, it is expected that the numbers of villagers' dependency on resources of the park will substantially be reduced. Linkage with existing government schemes would help to continue their livelihood interventions.

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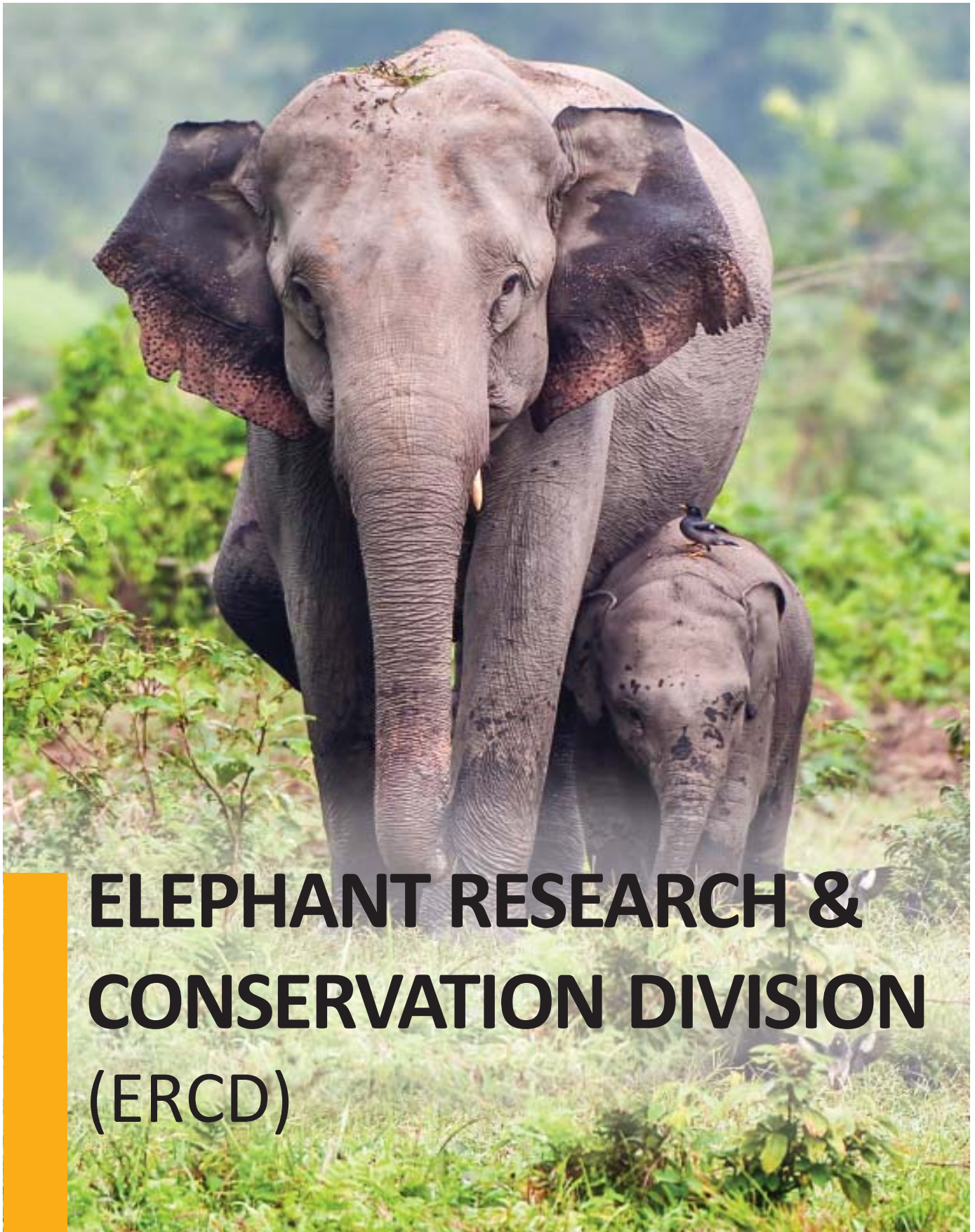
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ELEPHANT RESEARCH & CONSERVATION DIVISION (ERCD)

Photo: Udayan Borthakur



A crop raiding elephant in Golaghat District. Photo: Aaranyak

INTRODUCTION

Elephant Research & Conservation Division (ERCD) was formed in 2002 and since then, it is engaged in studying population ecology of elephants across different landscapes, understanding human-elephant interaction and finding ways to resolve them, engaging people from local communities with skill development programmes and providing alternate livelihood, outreach and policy making, to name a few. Over the years, ERCD has been the apt platform for transforming young enthusiastic researchers into conservation biologists and has led to the successful completion of two PhDs on elephant ecology and human-elephant conflict.

Under the same division, an independent project on grassland management and a project on grassland-dependent Mammal Hog Deer (*Axis porcinus*) were carried out in Manas National Park, under the ambit of ERCD. Another ecological study on the Indian Gaur (*Bos gaurus*) is being carried out in northern West Bengal.

MAJOR ACHIEVEMENTS:

- The Head of ERCD, Dr. Bibhuti P. Lahkar was awarded the IUCN World Heritage Hero Award for his path-breaking contribution towards conservation of Manas- a World Heritage Site. He is the first Asian to receive this award.
- Estimation of elephant population in Manas National Park after intervals of ten years using dung count methods.
- In the Grassland Management Project, the best method to control *Chromolaena odorata* (one of the major Invasive Alien Plant Species in the

grasslands of Manas), has been identified and an area of 1 hectare has been restored on an experimental basis. Given the success of the project, the team is planning to restore a relatively larger grassland area.

- Hog deer population estimation was done for Manas National Park, and its extent threats are identified.

STRATEGIC ACTIONS:

Under the ambit of ERCD, several projects on various aspects of elephant conservation has been taken up by the team mainly in Assam and northern

West Bengal. Activities of these projects are listed below:

ELEPHANT ECOLOGY PROJECT IN NORTH-BENGAL

- An ecological study on elephants in the duars region was initiated last year with the aim of developing a management plan on completion of the study.
- The study focusses on estimating elephant population and habitat use pattern, understanding movement pattern and behavior, identifying conflict patterns and intensity.

MANAS LANDSCAPE

- Population estimation of elephants using dung count method was carried out in Manas National Park after a period of ten years. The elephant population is found to be a stable one.
- Under the **Red Cap Project**, local youths worked with communities to resolve conflicts between humans and wildlife and to harmonize their cohabitation. Through the project, people were provided with in-kind support to mitigate conflict. The project wound-up in December 2016.

GOLAGHAT LANDSCAPE

- The team assisted the Forest department in Golaghat district to develop a micro-plan of the conflict prone areas.
- Micro-enterprise development training was provided to women self-help groups of the district, as part of empowering local communities.
- Outreach programmes were conducted in 40 schools and 12000 students were reached in the process, raising awareness on elephant conservation.

MONITORING AND CONTROL OF INVASIVE PLANT SPECIES IN GRASSLAND OF MANAS NATIONAL PARK

- Distribution and abundance of *Invasive alien plant species* (IAPS) was assessed in the park for the second year.
- Based on our experiments with different treatments, manual uprooting of invasive plant species is identified as the best method to control them.
- During the first phase, an area of 1 ha was restored following manual uprooting of IAPs for three consecutive years. Presently an area of 10 km² is targeted for restoration in the next phase of the study.

HOG DEER CONSERVATION

- Population estimation of Hog Deer using line transect method was carried out in Manas National Park. The factors affecting Hog Deer habitat use and threats to Hog Deer population in Manas are identified.
- Outreach programmes in different schools were conducted to raise awareness among the students, teachers by involving them in activities like environmental games, art competition and orientation tour to the park.

ECOLOGY OF INDIAN GAUR (*BOS GAURUS*)

- An ecological study on Gaur was initiated in duars region of northern West Bengal since last year. The main goal of the project is to develop a management plan based on scientific information on its population status, behavioural biology and underlying patterns of conflict in the region.

SUMMARY OF IMPACT:

- The Elephant population estimation carried out for Manas helped the authorities in developing relevant reports to project the Elephant and UNESCO World Heritage Site.



Field survey for elephant and gaur in North Bengal. Photo: Aaranyak

- Active involvement with the local communities through the Red Cap Project, has helped reduce conflict incidents in Manas.
- The self-help groups were exposed to the nitty-gritty of operations through the micro-enterprise development training. They are actively engaged in various activities like-fish farming, weaving etc.
- Our recommendation of manual uprooting of *Chromolaenaodorata* to control the spread of the species is adopted by the park authorities. This has helped in creation of suitable habitats for grassland-dependent mammals like Hog Deer(UNESCO report).
- Increased awareness on Hog Deer conservation has led to the reporting of many cases where it is hunted for its meat. In few cases, the guilty were also apprehended.

ROAD AHEAD:

ERCD aims for collaborative research on Elephant ecology, empowering local communities and advocacy, to mitigate human-elephant conflict and usher coexistence for both the species. The immediate goal of the division is to collate information from data deficient areas and initiate

action based activities for Elephant conservation. Habitat management is beneficial for multi-species conservation. In future, for the benefit of grassland-obligate species, restoration of degraded grassland habitats will be aimed at. Surveys on Hog Deer and grassland dependent species and its grassland habitat will be conducted in the northeast region and the potential threats to the species across the region will be identified. Based on scientific information and for long term conservation of Hog Deer, Conservation Translocation of the species is also being considered.

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Researcher observing elephant signs during field survey in North Bengal. Photo: Aaranyak





Photo: Aaranyak

ENVIRONMENT EDUCATION & CAPACITY BUILDING DIVISION (EECBD)

INTRODUCTION:

Environment Education is a dynamic and progressive exercise which allows people to explore environmental issues, solve problems and take action to improve environment through developing essential skills.

The Environment Education and Capacity Building Division (EECBD) is actively engaged in developing IEC (Information, education and communication) and Educational Resource (ER) materials on ecological issues, in awareness and public outreach activities, to increase knowledge and boost critical-thinking, to conserve the biodiversity of Assam. EECBD has also been engaged in capacity building of individuals through training and handholding to ensure conservation.

During the project period, EECBD worked closely with other divisions of Aaranyak specifically with TRCD, ERCD and RRCD to conduct various activities. Number of publications on ecosystem services and other environment related issues have also been developed and published.

MAJOR ACHIEVEMENTS:

- Successfully organized three strategic workshops on Conservation Education, involving different conservation and education agencies and individuals.
- Co-authored eight books published during the reporting period. Also published popular articles, book chapters and scientific articles on the topic of conservation education.

- Drafted a handbook for teachers titled, "Ecosystem Services and Manas"

STRATEGIC ACTIONS:

- The EECBD has organized various activities such as strategic workshop, campaigning, public outreach and awareness activities in different priority locations in Assam.
- During the reporting period, a perception study



Planning for education a moment at Manas. Photo: Nisha Bora

was among school children and fringe community carried out jointly with TRCD and ERCD at Manas landscape.

- The EECBD has studied the curriculums of elementary, high and higher secondary levels of school education, to understand the environmental as well as conservation issues that are focused on in text books. This study helps in designing educational activities for respective student groups.

Some other salient activities were:

STRATEGIC WORKSHOPS:

Three strategic workshops were organized during the reporting period. Prominent experts from the vicinity of environment education, from across India and abroad, had participated in these workshops. Representatives from different GOs and NGOs had also participated and contributed to make this initiative successful. Apart from Aaranyak, SCERT, SEBA, RMSA, SSA, CEE, Gauhati University, Green Future Foundation, SACON, Somaiya Centre for Experiential Learning, Zoo Outreach Organization, Wild Team, Bangladesh,

WWF-India, TERI, ATREE, etc. are few organizations from where experts had taken part in these workshops.

EDUCATION AND OUTREACH:

- Radio Talk: The division has continuously been utilizing radio as an effective communication tool to spread conservation messages among the masses. A live phone-in program was also organized jointly with TRCD to create mass awareness on tiger conservation. More than ten thousand listeners were reached through such activities.
- Several awareness programs were organized around Dibru-Saikhowa National Park, Kaziranga National Park, Manas National Park and Laokhowa Wildlife Sanctuary during this period. Over four thousand people were reached directly by these activities.
- “Yoga vs. Wildlife Conservation”- a presentation was made in Yoga Olympiad of Assam on 15th March, 2017 at Sankardeva Kalakshetra, Guwahati which was organized by State Council of Educational Research and



Nature and its services experiencing through outdoor activities. Photo: Aaranyak



Conservation conversations with children: kids can play vital role in conservation. Photo: Aaranyak

Training (SCERT), Government of Assam. 27 districts of Assam have been participated in the program.

CAPACITY BUILDING:

- A ten-day long training cum motivation program was organized at Baksa of BTAD, Assam. The program titled “**Conservation Conversations with Children: Naturalists of the Future**” was conducted from 18 to 28 December, 2016. Students from four schools had participated in the program.
- ‘**Nature Orientation Initiative**’ (NOI): A group of 44 enthusiastic students representing 19 fringe villages of Kaziranga Tiger Reserve actively participated in the program held at Kaziranga. The program provided the young generation with a wonderful opportunity to soak in the Kaziranga environs and also understand the problems that are being faced by the Park.

SUMMARY OF IMPACT:

- The strategic workshops benefited Aaranyak’s eco-educators a lot and it has also helped in designing the conservation education activities for the multiple target audiences.
- Over 15000 people were reached through various education and public outreach activities.

- Alumni participants of capacity building activities are helping in biodiversity conservation, particularly in Kaziranga within their capacity.

ROAD AHEAD:

- Continue academic support to the alumni participants of different EE activities organized by the division and also initiate need based training, for selected individuals.
- EECBD will organize ‘Green Reporting’ workshops to capacitate the local correspondents to strengthen the conservation of landscape biodiversity of Assam and environment protection as well.
- The division will involve different conservation agencies in priority areas of the State, in its research based approach of environment education.

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Photo: Udayan Borthakur

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 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 programs in India. Besides working on the Ganges River Dolphin of Brahmaputra river system, GDRCD has 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 for the project- 'Development of Conservation Action Plan for River Dolphins' for 2016-21. This project aims to:

- Developed a recovery plan for Gangetic dolphins and their habitats in India
- Engaged stakeholders in conservation of River Ecosystems in India. This Project will be carried out in the Ganges and Brahmaputra river system covering the states of Assam, West Bengal, Bihar, Uttar Pradesh and Madhya Pradesh. GDRCD-Aaranyak is collaborating for the project work in Assam.

- Trained 36 local community youths from 18 important Dolphin habitats across Assam and engaging them in protecting the Dolphin habitats, outside protected areas as well.

STRATEGIC ACTIONS:

As a part of this collaborative works with Wildlife Institute of India, GDRCD did following works in 2016-17.

- Organized a 4-days long training workshop for the Members of the Dolphin Conservation Network (DCN). A total of 36 DCN members from 18 DCN sites participated in this training programme. Training was given on how to monitor dolphins and their habitats; also,



Participants were trained on fishery impact assessment in dolphin habitats. Photo: Abdul Wakid

monitoring techniques for other associated aquatic animals.

- Conducted dolphin and habitat monitoring in a total of 18 important dolphin habitats across Assam with the help of these 36 trained community youths.

ROAD AHEAD:

- Assessment of population status and distribution pattern of Gangetic dolphins in Brahmaputra river system.

- Conduct community engagement and awareness activities for conservation of Gangetic dolphins and their habitats in Assam.

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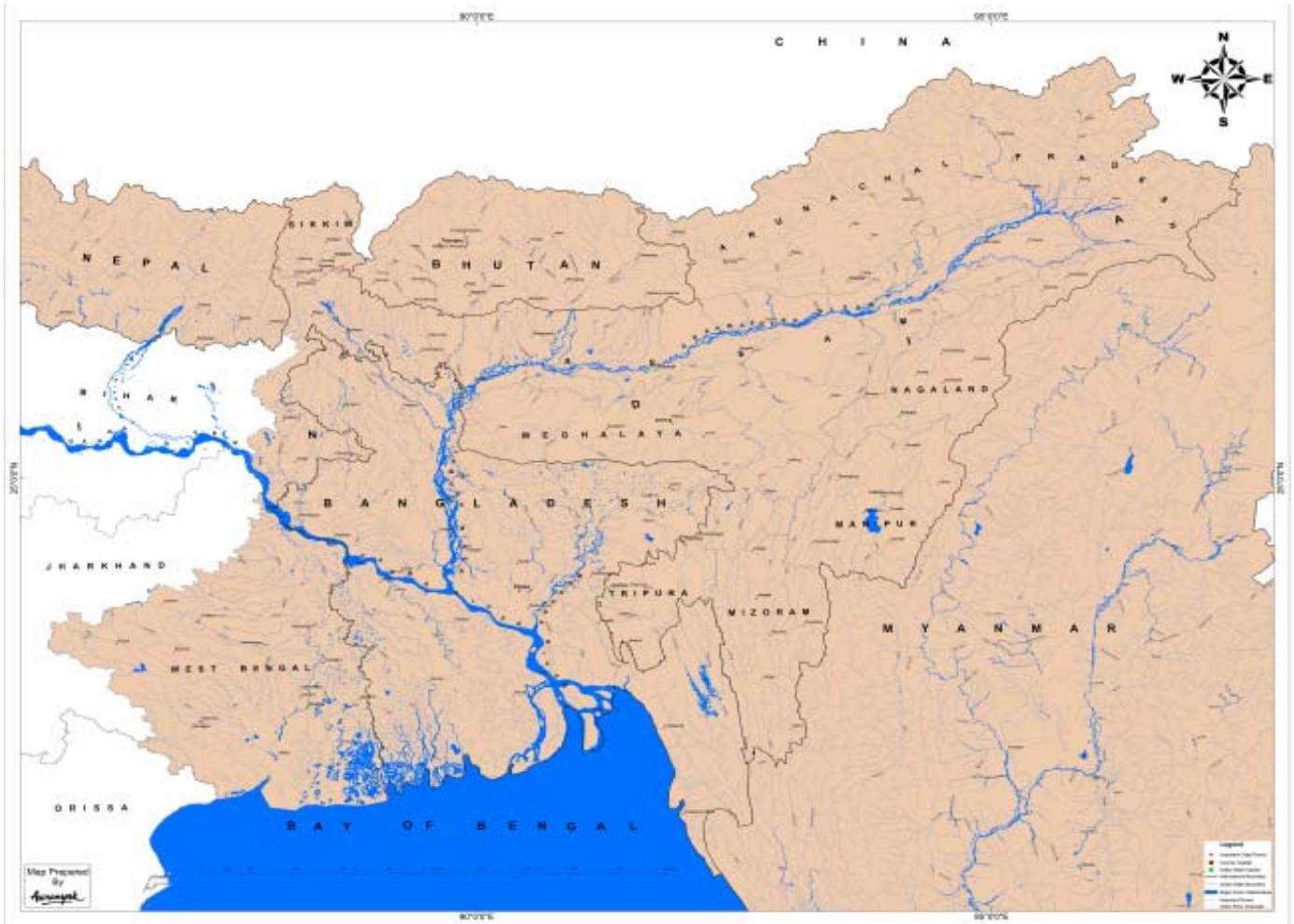
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DCN training participants were interacting with fishermen during the training. Photo: Abdul Wakid



GEO-SPATIAL TECHNOLOGY & APPLICATION DIVISION (GTAD)



Group photo of week-long crash course on remote sensing, GIS & GPS Applications. Photo: Aaranyak

INTRODUCTION:

Geo-Spatial Technology Application Division (GTAD) was established more than a decade ago with an aim to strengthen the inclusion of scientific and technological temperament in wildlife, and its habitat studies and outreach activities. The division has been tirelessly involved in Geospatial applications required by the concerned divisions of Aaranyak. Furthermore, it has provided continuous support to the State Environment and Forest Department, to Research scholars and other organizations and institutions working on similar concerns. The thrust areas of GTAD include multi-temporal analysis of River basins using Remote Sensing and GIS, Wetland mapping and analysis in different time periods, Mapping of Human-Wildlife conflict in selected areas of Assam, Google Earth based GIS database creation, popularizing the technology of Remote Sensing and GIS through training and capacity building among young conservationists, and imparting GPS hands-on training to the Front line staff of the State Forest Department.

MAJOR ACHIEVEMENTS:

- A map prepared by GTAD, showing the Rivers of South East Asia, was displayed at an international event organized by the Asian Confluence, India, East Asia Centre, Shillong, in collaboration with the Meghalaya Government and the Maulana Abdul Kalam Azad Institute of Asian Studies.
- A detailed database on Land-Cover of the Kaziranga Landscape has been generated in the GIS environment. Additionally, detailed GPS based boundary pillar information of the 6th addition to Kaziranga National Park had been undertaken by the GTAD and the information has been handed over to the Kaziranga National Park Authority.



Aaranyak GIS experts imparting GPS training to students. Photo: Aaranyak

STRATEGIC ACTIONS: TRAINING ON REMOTE SENSING, GIS & GPS:

GTAD organized a Week-Long Crash Course on Remote Sensing, GIS and GPS Applications in various fields. The participants were research scholars from different universities.

TECHNICAL SUPPORT TO ASSAM ENVIRONMENT AND FOREST DEPARTMENT:

- Undertaking of detailed GPS-based boundary survey of the 6th addition to Kaziranga National Park, and handing over the information to the Kaziranga National Park Authority.
- Providing GPS Hands-on Training to the Forest Staff of Dibru Saikhowa National Park during Elephant Census Programme. Compilation & preparation of Elephant Census data in GIS environment and preparation of wetland map of DSNP under the supervision of DSNP authority.
- Under the Primate Research and Conservation Division, Providing GPS Hands-on Training to the Forest Staff of Assam and Arunachal Pradesh, in Hoolongapar Gibbon Wildlife Sanctuary, Mariani.

TECHNICAL SUPPORT TO OTHER DIVISIONS OF AARANYAK:

- Base map preparation of Teesta River catchment area, under the WATCH Division of Aaranyak.
- Participated in Tiger Camera Trapping exercise in Dibru-Saikhowa National Park under TRCD, Aaranyak.
- Google Earth based micro level Analysis and Mapping on Land Use/ Land Cover of Kaziranga National Park and its additions in the year 2014.
- Analysis and preparation of Kaziranga National Park River Bank-line change from 2001 to 2016 at regular intervals.
- Mapping of Land Use/ Land Cover map of Dibru-Saikhowa National Park under TRCD & GTAD of Aaranyak.
- Preparation of maps for the major rivers and tributaries of South East Asian countries, for the NADI festival held by the Asian Confluence.
- Mapping of Invasive species (Grass) of Manas National Park, under ERCD of Aaranyak.

- Mapping of Human Wildlife Conflict in the fringe villages of Manas National Park for a project driven by Awely, in collaboration with the ERCD of Aaranyak.
- Analysis of Least Cost Distance for Greater One Horn Rhinos, among different protected areas under WGD of Aaranyak.
- Preparation of Distribution maps of different primate species in North East India and South East Asia, under the PRCD of Aaranyak.

SUMMARY OF IMPACT:

The division, through its technical expertise, is effectively supporting the Forest Departments working in Assam through field survey, data compilation, preparation of GIS database and mapping. In addition, the division is working collaboratively with other divisions of Aaranyak for Remote Sensing, GIS and GPS Applications.

ROAD AHEAD:

- To provide technical assistance and support to various divisions of Aaranyak and other Non-Governmental Organizations, Colleges/ universities students and concerned government departments of North East India.
- To organize customized training courses in Remote Sensing (RS), Geographical Information System (GIS) and Global Positioning System (GPS) for College/University students, researchers and young conservationists. The training will be focusing on open source GIS applications.
- To develop modelling based study in Remote Sensing and GIS environment.

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Aaranyak GIS expert with group of trainees from Forest Department. Photo: Aaranyak



Photo: Jayanta Kumar Roy

HERPETOFAUNA RESEARCH & CONSERVATION DIVISION (HRCDD)

INTRODUCTION:

The Division was established in 1997 to enhance herpetofauna conservation and research. The division has established itself as one of the very active research divisions on herpetofauna in the country or even globally. It has been scientifically contributing towards herpetofaunal inventory, taxonomy and ecology, and conservation research in ecosystems, varying from alluvial flood plains of the Brahmaputra River to the alpine forests of the Himalayas.

The division mandates to inventorise herpetofaunal diversity, describe new as well as poorly known species, study ecology of key species, assess and monitor ecosystems health, monitor habitats and anthropogenic vulnerability to species and ecosystems, maintain conservation network and create awareness among different target audiences. The division has made significant contribution towards research, conservation and management since its establishment.

MAJOR ACHIEVEMENTS:

- Successfully completed the project entitled “Status, distribution and Ecology of the Keeled Box Turtle, *Cuoramouhotii* in Dibang Valley, Arunachal Pradesh, India” and the technical report was submitted to Turtle Conservation Fund (TCF).
- Researcher Jayanta Kumar Roy has received Kurita Water and Environment Foundation (KWEF) Research Grant (2016) for studying “Stream channel morphology influencing amphibian distribution across Dibang river basin, Arunachal Pradesh, India.”
- Initiated a long term monitoring project on vulnerability of amphibian species to weather change and river valley development in Dibang River Basin, Arunachal Pradesh, India.

STRATEGIC ACTIONS:

- Extensive amphibian survey across the Dibang river basin, Arunachal Pradesh, India (asl 230-3500m).
- Identifying the pattern of amphibian species distribution across Dibang river basin, Arunachal Pradesh, India.

AMPHIBIANS OF DIBANG VALLEY



AMPHIBIANS OF DIBANG VALLEY



- Classifying the processes that influence amphibian species assemblages at local and landscape level.
- Measuring climate variables at micro level by establishing mini weather stations in Dibang River Basin.

SUMMARY OF IMPACT:

A preliminary checklist of amphibians with 39 species has been prepared based on work carried out in the Dibang River Basin. *Oreolalax sp.* (a Chinese Genus) has been recorded for the first time in India, while seven species are recorded for the first time from Arunachal Pradesh. The study has recorded amphibians in the river basin from 200m to 3300m altitude.

ROAD AHEAD:

- Identification of cryptic amphibians by using integrated approaches of taxonomy (molecular and morphological) to strengthen amphibian taxonomy in Northeast India and also for Indo-China amphibian species.
- Establish of long term weather monitoring stations to collect weather data at different elevation zones in Dibang River Basin, Arunachal Pradesh.
- Comparative study of species and habitat diversity in key River Basins to monitor ecological impact in Himalayan Rivers.

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Photo: Aaranyak

LEGAL & ADVOCACY DIVISION (LAD)

INTRODUCTION:

The primary goal of the Legal and Advocacy Division (LAD) has been to curtail hunting and illegal trade of wildlife parts, and its finished products. As the authority of law enforcement is bestowed with the governmental agencies, the division has therefore been persistently providing support to such agencies to accomplish their goals, particularly the Frontline Staff of the Departments of Forests & Police, Government of Assam. As wildlife crime occurs covertly, hence evaluating the scale of wildlife crime is incredibly intricate. Therefore the division considers it imperative to enhance the conviction rate of the illegal wildlife-traders and poachers in the Court. And it is done through legal-orientation workshops and development of info-legal material. In the legal-orientation workshops, the legal-trainers of the division impart training on Wildlife (Protection) Act 1972, the Indian Evidence Act 1872, the Criminal Procedure Code 1973, and the Assam Forest Regulation 1891, Indian Forest Act 1980, Biodiversity Act 2002 along with rules framed under such legislations and important Court verdicts. The trainers along with the main legislations also provide training on other allied criminal legislations, such as the Indian Penal Code 1860, the Probation of Offenders Act 1958, the Arms Act 1959, the Juvenile Justice (Care and Protection of Children) Act, 2015 and the Prevention of Cruelty to Animals Act, 1960. The workshops are conducted by a team of experienced lawyers of the Hon'ble Gauhati High Court, headed by Senior Lawyer Mr. Gautam Uzir.

The division also organizes orientation-seminars for the Lawyers as well as Judiciary to provide most up-to-date information gathered from various fields on the current state-of-affairs on wildlife crimes. The division also lodges most preferred Public Interest Litigations in the Courts in the interest of justice for Wildlife & Forest. The division also has been administering a Wildlife Crime Monitoring Project (WCMP) which has been incessantly conferring support to the law enforcement agencies in building an effective and operational intelligence-gathering network. The most important asset for the division has been the dog-squad comprising of two K-9 dogs along with its handlers, with generous support received from UK based organization, the David Shepherd Wildlife Foundation. The squad has been active in providing leads to enforcement agencies, to nab poachers contributing immensely to wildlife crime detection and its investigation.



Training of K-9 dogs. Photo: Aaranyak

MAJOR ACHIEVEMENTS:

The division provided legal training to more than 150 frontline staffs of the Forest and Police Department, Government of Assam in the months from April 2016 to March 2017. The frontline staffs included Forest Guards, Foresters, Deputy Rangers and Rangers of the Forests Department, and also Inspectors and Sub-Inspectors of the Police Department. The Indian Army personals were also part of the workshops as trainees. The division has been able to reach out to more than 200 college students along with teachers, as trainee participants.

STRATEGIC ACTIONS:**PRESENTATIONS MADE BY LAWYERS OF THE DIVISION AND LEGAL ORIENTATION WORKSHOPS**

- On the occasion of World Environment Day 2016 on 5th June 2016, a seminar titled “Zero Tolerance to Illegal Wildlife Trade” was organized by Aaranyak in collaboration with Digboi College, and Department of Police & Forest, Government of Assam, at premises of

Digboi College. Presentations were made by the lawyer of the Division on the various wildlife laws. The presentations also included, as to how the Forest and Police Department of Government of Assam and the India Army can liaise with each other, through legal procedures to reduce poaching and illegal wildlife trades.

- The lawyer of the division presented lectures on 24th June 2016 at 108th Orientation Programme of the Academic Staff College, Gauhati University, on the concern of rampant rhino poaching in Kaziranga National Park. The lawyers along with the trainee assistant professors and college teachers worked out a comprehensive mitigation plan to reduce the rampant rhino poaching in Kaziranga National Park. The plan comprising of several points was submitted to the Honorable Forest Minister of the State of Assam, through Administrative Staff College, Gauhati University. It was also seen that some of the suggestions were headed to by the Honorable Forest Minister.



Distribution of field gear to the frontline forest staff of Assam. Photo: Aaranyak

- The lawyer of the division presented lectures on Wildlife and Forest Laws in India at the premise of Barpeta District & Session Judge Court in a seminar organized by the District Legal Service Authority, Barpeta on 23rd Augusts 2016. The Hon'ble District & Session Judge Smti. Chaya Rani Goswami along with eminent lawyers of the Barpeta Bar Association, were also present on the occasion. The lawyer of the division highlighted the important role of Judiciary and Lawyers fraternity in reducing wildlife crime.
- The lawyer of the division presented lectures on 2nd October 2016 on "How to prepare wildlife crime cases for presentation in the Court?" to the trainees of Makum Forest School. The event was organized by AARANYAK and Department of Forest, Government of Assam, at Hollongapar Gibbon Wildlife Sanctuary, Assam. The trainee Frontline Staffs from Assam and Arunachal Pradesh were trained about various legal strategies, so that they can gather appropriate evidences from the crime scenes and thereafter efficiently bring convictions of the accused wildlife criminals in the Court.
- The lawyer of the division presented a lecture on 11th November, 2016, to the students of the Zoology Department of University Science Technology Meghalaya (USTM) on International Convention called Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). Resemblance and comparisons were also made on the species listed in Appendixes of the CITES and that with the Schedules of the Wildlife Protection Act 1972.
- The lawyer of the division presented a lecture on 8th December 2016 at Forest School, Jalukbari, Guwahati, on various important Environmental Legislations to Foresters and Rangers of Assam. The presentations included various Environmental Legislations such as the Environment Protection Act 1986, the Water (Prevention and Control of Pollution) Act 1974, the Air (Prevention and Control of Pollution) Act

1981, the Biological Diversity Act 2002, the Scheduled Tribes and Other Traditional Forest Dwellers (Recognition of Forest Rights) Act 2006, the Forest (Conservation) Act 1980 and the Indian Forest Act 1927.

SUMMARY OF IMPACT:

The recent year of 2016 has seen remarkable convictions in the Courts of the Wildlife Crime cases. It has resulted from the various legal-trainings so far conducted by the trainers and active legal support of the division to the enforcement agencies. The division has been able to bring all the law enforcement agencies to work together in mitigating hunting and illegal trade on wildlife parts. The K9 dog assisted forest and police officials have been giving vital clues from the scene of crime, enabling forest and police officers to nab culprits involved in rhino poaching in Kaziranga and tiger skin trade in Manas NP.

ROAD AHEAD:

- The division shall continue its efforts to assist and compliment all law enforcement agencies by developing info-legal materials and more legal-orientation workshops to the frontline staffs of Forest and Police Department, Government of Assam. The dog-squad shall have more numbers of K-9 dogs in the poaching prone protected areas.

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Distribution of motorbikes to the frontline forest staff of rhino bearing areas of Assam. Photo: Aaranyak



Photo: Dilip Chetry

PRIMATE RESEARCH & CONSERVATION DIVISION (PRCD)



Natures Guide Trainee in the fringe villages of H.Gibbon Wildlife Sanctuary. Photo: Lalit Saikia

INTRODUCTION:

Non-human primate represents one of the major components of the biodiversity of Northeast India. Northeast India has the highest primate diversity in the country with 12 species out of the total 26 species known in India. Therefore, aiming at spreading awareness, research, training and conservation of these primates of Northeast India, Aaranyak in the year 2002 launched Primate Research and Conservation Division (PRCD). PRCD mainly focuses on the conservation of the primates in particular, and biodiversity in general, in Northeast India.

MAJOR ACHIEVEMENTS:

- Completed the Golden Langur Survey in Chakrashila Wildlife Sanctuary, Assam, India.
- Conducted Training for Forest Guards of Arunachal Pradesh and Assam on Hoolock Gibbon Conservation at Gibbon Conservation Centre in Hollongapar Gibbon Wildlife Sanctuary, Assam.
- Bond Building among the Forest Guards from Arunachal Pradesh and Assam.
- Helping the Forest Department of Arunachal Pradesh and Assam in the capacity building of the Forest Guards for the conservation of Hoolock Gibbon.
- Supporting Jorhat Forest Division in Elephant Population Estimation Programme
- Organized Conservation Biology and Global Health Training course at Gibbon Conservation Centre in Hollongapar Gibbon Wildlife Sanctuary.
- Imparted training on Nature Guide.
- Carried out Education and Awareness Programme in the fringe areas of Chakrashila Wildlife Sanctuary, Assam.

STRATEGIC ACTIONS:**A. Golden Langur Conservation Programme in Chakrashila Wildlife Sanctuary, Assam, India.****i. Golden langur survey:**

The Golden Langur, *Trachypithecus geei*, is one of the top 25 endangered species of primate in the world and endemic to India and Bhutan. Its distribution is limited to a small forest belt in western Assam in Northeast India and foot hills of Bhutan, between the River Manas in the east, River Sankosh in the west and the Brahmaputra in the south. Chakrashila Wildlife Sanctuary straddling Kokrajhar and Dhubri districts of Assam, is the protected habitat of the Golden Langur in India. We carried out the survey of Golden Langur in the sanctuary. Data were collected using modified line transects and total counts.

ii. Education and Awareness Programme:

We conducted education and awareness programmes in 46 fringe area schools of the Chakrashila Wildlife Sanctuary where we highlighted the importance of the species and needs of conservation for its survival, through lectures cum slide show and wildlife films. We also distributed posters, stickers and books on Golden Langur among the teachers and students.

B. Forest Guards Training for the Conservation of Hoolock Gibbon of Arunachal Pradesh and Assam:

The prime goal of Hoolock Gibbon Conservation training was to ensure a long-term conservation of Hoolock gibbon and its habitats in Arunachal Pradesh and Assam by producing a group of trained, skilled and motivated Forest guards who can take up the conservation of Hoolock Gibbon as Gibbon Ambassadors by involving community. A Training Programme was designed to offer 7 days of intensive, fully residential course on all aspects of "Hoolock Gibbon Conservation". The basic principle of

this program was "LEARNING BY DOING". The course inputs were comprised of lectures, seminars, group discussions, individual and group assignments and field study in Gibbon Wildlife Sanctuary, Assam. The books on Hoolock Gibbon: 'Hoolock :The Ape of India' and 'Ammar Halou', Gibbon posters & stickers with conservation messages concerning Gibbon were supplied as education materials to the trainee forest guards.

C. Field Course in Conservation Biology and Global Health:

Field course provided an introduction of Conservation Biology and Global Health at the Human-Environment Interface. A wide range of related topic areas were covered including field study methods, management and conservation strategies, wildlife conservation in Assam, primate behavior and ecology, the human-environment interface, and translational research. This course had provided participants with an initial understanding of the basic principles of Conservation Biology, experience with the methods and techniques used in field research, an appreciation of the need for population and ecosystem management and conservation, and an appreciation of the complex relationship between environmental health and global health- at the human-environment interface. The course consisted of daily lectures, field exercises, and community outreach education.

The lectures focused on a variety of topics relating to Conservation Biology including field study methods, population assessment, primate behavior and ecology, management and conservation strategies, tiger conservation, vulture conservation, avian influenza, human-primate interaction, emerging infectious diseases, conservation medicine, and biodiversity of Assam. Several field exercises were conducted during the course which focus on field observation techniques, equipment and technology (e.g., use of GPS, radio telemetry,

traps cameras, etc.), behavioral sampling methods, line-transect sampling, biological sample collection techniques, etc.

SUMMARY OF IMPACT

- We counted 558 Golden Langurs in 72 troops in the Chakrashila Wildlife sanctuary through direct sightings. Additionally we encountered 481 individuals of Rhesus Macaque in 40 groups during the survey. Encroachment, and illegal felling were found to be the major threats to Golden Langur in this protected habitat
- Our education and awareness programme on Golden Langur reached to 4500 students from fringe areas of Chakrashila Wildlife Sanctuary.
- We have trained 37 Forest Guards from Arunachal Pradesh and Assam at Gibbon Conservation Centre, Hollongapar Gibbon Wildlife Sanctuary, Assam, India.
- Total 19 trainees had participated in the field training on Conservation Biology and Global Health at Gibbon Conservation Centre, Hollongapar Gibbon Wildlife Sanctuary, Assam, India.
- 15 fringe area youths of H. Gibbon Wildlife Sanctuary were trained on Natures Guide.

ROAD AHEAD:

A. TRAINING:

Our vision will be to expand Hoolock gibbon Conservation training programme in other states of northeast India for ensuring better protection towards gibbons and their habitats in particular and other primates in general.

B. RESEARCH:

- To explore the unexplored areas of Northeast India to know the different species of primates.
- To focus on the reassessment on distribution

and current status of Hoolock Gibbon along its distribution range.

- Ecological studies on the Eastern Hoolock Gibbon.
- Genetical and Parasitological studies on primates of India in collaboration with Wildlife Genetic Division of Aaranyak
- Identification of potential habitat for conservation of Primates of Northeast India.
- Publication of book on different Primates of Northeast India.

C. EDUCATION & AWARENESS:

- To conduct education and awareness Programmes on Hoolock Gibbon conservation.

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First Batch of Forest Guard Trainee of Hoolock gibbon Conservation Training from Assam & Arunachal Pradesh
Photo: Lalit Saikia



Trainee of 7th Field course in Conservation Biology and Global Health and student of primary school after the outreach programme. Photo: Lalit Saikia



Dr. Dilip Chetry giving field instruction to Forest Guard Trainee of Hoolock gibbon Conservation
Photo: Lalit Saikia



Photo: Bibhab Kumar Talukdar

RHINO RESEARCH & CONSERVATION DIVISION (RRC D)

INTRODUCTION:

The Rhino Research and Conservation Division (RRCD) has been assisting rhino conservation in Assam for the past two decades supporting rhino bearing areas of Assam with field equipments ranging from 4 wheel drive vehicles, motorbikes, wireless communication equipments, solar panels and field gears for frontline forest staffs working for rhino bearing areas in Assam. The division constantly monitors the challenges the rhinos are facing and the need assessment of field necessity to enable frontline forest guards deliver their best to secure the future of rhinos. Based on discussion with management authorities of rhino bearing areas in Assam, RRCD mobilises resources to compliment and support the effort of Assam government to protect rhinos.



Forest Minister of Assam Ms. Pramila Rani Brahma at field gear distribution ceremony in Pabitora Wildlife Sanctuary. Photo: Aaranyak

MAJOR ACHIEVEMENTS:

- Support to Pabitora WLS, that harbours highest density of greater one horned rhinos, in March 2017, by providing field gear to all the Frontline Forest Staff in collaboration with Germany based NABU International. The field gear included- raincoat, wind cheater, field shoes, torch lights and a backpack.
- Provided rain coats, field shoes and torch lights to members of Village Defense Patrol (VDPs)

working around Kaziranga National Park on 18th June at Baguri Range of Kaziranga and on 21st August 2016, at Bokakhat Police Station in presence of the Forest Department officials, Police and VDP officials.

STRATEGIC ACTIONS:

- Conducted about 40 'Rhino Goes to School' activity in various parts of Assam, covering about 12000 students

- Provided over 250 units of field gear to members of Village Defence Patrol around Kaziranga National Park.
- In collaboration with Coconut Board of India, provided over 3000 coconut seedlings to fringe villagers of Kaziranga NP and Pabitora WLS to create goodwill among the local communities towards rhino conservation. Around the western part of Kaziranga National Park, the beneficiaries covered Rangolu, Sikonipathar, Natundanga, Amguribagan and Amgurichang village, while around central and eastern part of Kaziranga, the beneficiaries from Kohora, Japoripothar and Dhanshrimukh areas were covered.
- 3000 coconut seedlings were distributed among beneficiaries around Kaziranga NP and Pabitora NP to secure their support for rhino conservation.

ROAD AHEAD:

RRCD shall continue its efforts to compliment the rhino conservation initiatives taken by government of Assam to ensure the future of greater one horned rhino. RRCD shall also plan to expand its activities in rhino-bearing areas of West Bengal in consultation with Forest officials of West Bengal in the near future.

SUMMARY OF IMPACT

- 12000 school students were reached through the 'Rhino Goes to School' activity in Assam in 2016-17
- About 250 VDP members working around Kaziranga NP received field gear to boost their morale.

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Forest Department staff of Pabitora Wildlife Sanctuary with field gear supported by Aaranyak
Photo: Aaranyak



Photo: Aaranyak

TIGER RESEARCH & CONSERVATION DIVISION (TRCD)

INTRODUCTION:

The Tiger Research and Conservation Division (TRCD) was established in 2005 and become proclaimed as one of the flagship divisions of Aaranyak.

Since its inception, TRCD has been meticulously engaged in research and conservation of tigers, co-predators, their prey animals and habitat through multiple approaches. These include applied research, assisting in enhancing field based patrolling through modern combat measures, assisting concerned government machinery with legal and information networking, conservation education and capacity development, alternative livelihood support to tiger bearing fringe villages and active community engagements.



Researchers installing camera traps in the field. Photo: Aaranyak



Forest Department staff of Bhutan installing camera traps in Royal Manas National Park. Photo: Aaranyak

THE MAJOR OBJECTIVES OF THE DIVISION ARE:

- a) To generate long term ecological data on tigers, co-predators and their prey animals for comprehensive understanding through fine scale ecological research.
- b) To create a geo-spatial database, habitat connectivity corridors along the tiger bearing forests.
- c) To build capacity of local biologists, conservationists and forest staff.
- d) To promote community-led tiger and habitat conservation through awareness, capacity building and alternative livelihoods.

TRCD has been engaged in annual population monitoring of tigers, co-predators and their prey animals in Kaziranga, Manas, and Orang National Park since 2009. In addition to that, TRCD has expanded its research thrust to Namdapha Tiger Reserve (2012), Dibru-Saikhowa National Park (2016), Barnadi Wildlife Sanctuary and Khalingduwar Reserve Forest (2017). TRCD has given priority to landscape based conservation of tigers in NE India and already setup a milestone at Kaziranga-Orang Riverine Landscape (since 2009), Trans-boundary Manas Conservation Area (TraMCA)

(since 2010), and Jomotsangkha Wildlife Sanctuary in the Bhutan (started in 2017)

MAJOR ACHIEVEMENTS:

- For a third consecutive years we have successfully carried out trans-boundary joint monitoring of tigers in the TraMCA (Transboundary Manas Conservation Area) landscape for the session of 2015-16.
- For a second time, after a gap of over 4 years, we have covered the entire Manas National Park area (500 sq km) by camera trapping to estimate tiger population of the park.
- Comprehensive camera trapping and sign survey was carried out in Dibru Saikhowa National Park- to assess potential of tiger conservation and the distribution pattern of different species of animals.
- Inception of trans-boundary monitoring of tigers, co-predators and their prey population in the unexplored areas of eastern TraMCA, the Barnadi-Jomotsangkha transboundary areas that has high potential to be core tiger habitats for the landscape.

- Supporting park authority in successful implementation of Advanced GPS patrol in Bhuyapara Range of the Manas National Park.
- Joint initiative with Conservation Livelihood Division in implementing a landscape-level alternative livelihood program to minimize human footprint in Manas National Park. Details have been described under CLD.
- Understanding potential of Dibru-Saikhowa and nearby forest complexes in Assam and Arunachal Pradesh in future tiger conservation and bring the landscape into spotlight to enhance support from stakeholders.
- Assisting Manas National Park with supply of essential anti-poaching camp equipments to enhance the work efficiency of forest officials (in collaboration with Wildlife Conservation Trust of India).

STRATEGIC ACTIONS:

- Generating a long term database on the population of tigers, co-predators and their prey animals, in selected tiger reserves of NE India to understand demography and population viability.
- Understanding the dynamics of interactions to facilitate large sympatric carnivores in spatio-temporal dimension in Manas National Park.
- Estimation of the density of ungulates in the Manas National Park, by using Distance sampling.
- Providing technical and logistic support in terms of camera traps and other necessary supplies, along with hands-on trainings to initiate estimation of tigers in Jomotsangkha Wildlife Sanctuary, Bhutan.
- Introduction of K9 dog squad of Aaranyak in Manas National Park to strengthen anti-poaching patrol.

SUMMARY OF IMPACT:

- Long term continuous monitoring of tigers in Manas National Park with the help of systematic camera trapping has helped to understand the population dynamics and demography in the park for better management interventions. Inclination of tiger density in the park has attracted international attention and as a resultant, the National Tiger Conservation Authority is likely to increase its grant support to the Tiger Reserve.
- Joint continuous monitoring between Bhutan and India in the TramCA landscape has helped to understand the population matrix of tigers and also in keeping a track of tigers. This helps

A melanistic leopard captured by camera traps in Manas National Park
Photo: Aaranyak



us to understand the ecology of tigers in TraMCA.

- Added the eastern part of the TraMCA- the Barnadi-Jomotsangkha transboundary area under camera trap monitoring area that has strong potential to be another core tiger habitat for the landscape. The present initiative would significantly assist managers of the protected areas and government of the two countries, to strengthen tiger and habitat conservation in areas beyond the MNP-RMNP core of the TraMCA.
- Continuation of joint monitoring of tigers in eastern part of the TraMCA, the Barnadi-Jomotsangkha transboundary area.
- Explore Karbi Anglong Landscape in Assam to initiate community based conservation models that sustain people, habitats and wildlife in harmony.

ROAD AHEAD:

The TRCD would focus on the following during next year

- Understanding potential of Dibru-Saikhowa and nearby forest complexes in Assam and Arunachal Pradesh in future conservation of tigers and other animals and bring the landscape into spotlight to enhance support from stakeholders.
- Continuation of the joint monitoring of tigers in the TraMCA, to generate long term population

data for demographic analysis.

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A Sambar captured by camera traps in Manas National Park.

Photo: Aaranyak





Photo: Udayan Borthakur

WATER, CLIMATE & HAZARD DIVISION (WATCH)



Group Photo of the participants, resource persons and organisers of the 'Training workshop on sustainable management of the Brahmaputra River System, India in a changing climate for water security and disaster resilience' organised by Aaranyak during November 15–18 November 2016 at Hotel Sunview, Six Miles, Guwahati. Photo: Dipmoni Nath

INTRODUCTION:

The Water, Climate & Hazard Division (WATCH) Division has evolved over the last 16 years (2001 onwards) by responding to the pressing needs, pertaining to water, disaster and climate change issues, of the Northeastern region of India. The Division addresses issues in water resources (local water management practices, water governance, water conflict, impact of hydropower and river dams, environmental flow, transboundary waters, water quality), climate change (hydrometeorology, impacts, vulnerability, adaptation and resilience), water and climate induced disasters (flood, river bank erosion, disaster risk mitigation, flood early warning), wetland ecosystems, water based livelihoods, environmental migration, ecosystem services, natural resources management and sustainable development goals. The activities are carried out in both programme and project mode through interdisciplinary research, action research, field intervention, education/awareness, capacity building and policy advocacy. The WATCH Division works in close collaboration with local communities, civil society partners, government agencies, research institutions and national and international donors. Most of its research work has been done in the Brahmaputra River Basin in India covering the states of Assam, Arunachal Pradesh, Meghalaya, West Bengal (North Bengal area) and Sikkim. Recently some field research has also been done in the Brahmaputra (Jamuna) River Basin in Bangladesh.

MAJOR ACHIEVEMENTS:

- Provided early warning of floods in the Ranganadi catchment in collaboration with the District Disaster Management Authority of Lakhimpur District and received appreciation from community.

Based Flood Risk Management through provision of flood early warning and flexible flood management planning in Lakhimpur and Dhemaji Districts of Assam, India, during 2015-2017. This project was funded by 'Give to Asia', USA.

STRATEGIC ACTIONS:

- Successfully completed the project 'Community-

- Successfully completed the project 'Implementation of the Community-Based Flood

Early Warning System in the Ranganadi Catchment of Lakhimpur District, Assam' during 2015-2016. The District Disaster Management Authority of Lakhimpur, sponsored the project.

- Launched the project 'Developing capacity of community to improve resilience to disaster risk by promoting best practices, appropriate policies and regional cooperation in the Lower Brahmaputra River Basin in India and Bangladesh' in July 2016. The project has been funded by 'The Asia Foundation'-New Delhi.
- A programme on 'Urban Water, Climate and Hazard' (U-WATCH) has been started to study the problems of water management, climate change impacts and hazard mitigation in urban and peri-urban areas. A study on the degradation of the Kolong River and its rejuvenation has been started in the Nagaon Township, Nagaon District.
- A programme on 'Water, Sanitation, Health and Hygiene (WASH) Management for disaster reduction and climate resilience has been launched. A status report on WASH situation in post flood period in Assam is under preparation.
- A study on 'water-energy-climate nexus in NE India' has been initiated.
- Dr. Partha J Das delivered a presentation on 'Climate Change Impact in NE India: Challenges and Opportunities for Sustainable Development' as an invited speaker on June 22, 2016 in the '3-Day Training on Sustainable Development', which was organised by the Directorate of

Training, Assam Administrative Staff College, Guwahati.

- Dr. Partha J Das delivered a presentation on 'Flood & Erosion Problem of Assam: Causes, Effect and Mitigation' as an invited Resource person in the '108th Orientation Programme for College Teachers' organised by and in the Academic Staff College, Gauhati University on June 24, 2016.

SUMMARY OF IMPACT:

About 4000 people in 22 villages of the Ranganadi catchment benefitted from receiving early warning of floods by way of being able to prepare in advance for facing floods with lead time of about 2 hours.

ROAD AHEAD:

- The report of the 'Training workshop on sustainable management of the Brahmaputra River System, India in a changing climate for water security and disaster resilience' organised by the WATCH Division in November 2016 will be published in October 2017.
- A compendium on 'Local practices for mitigating risk of water induced disaster and climate change in the Brahmaputra river basin, Assam, India' will be published in November 2017 in English and Assamese.
- A 'Resource Book on Disaster Risk Reduction and Climate Change Adaptation for communities and civil society organisations of the Brahmaputra Valley, Assam, India, will be published in November 2017.

A country boat was donated by Aaranyak to the Bharalua Village of Naoboisa Development Block, Lakhimpur District especially for the use of school students on June 16, 2016. Photo: ParthaJyoti Das





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Installation work of the Community Based Flood Early Warning System(CB-FEWS) in progress in DijuChapori on the bank of the river Ranganadi, Lakhimpur District on July 19, 2016. Photo: Partha Jyoti Das



Photo 12: Focus Group Discussion (FGD) conducted by WATCH researchers with farmers at Bejartari village, Kamrup District on December 30, 2016. Photo: Jintu Kalita



Photo: Udayan Borthakur

WILDLIFE GENETICS DIVISION (WGD)

INTRODUCTION:

The Wildlife Genetics Division(WGD), since its inception in 2008, has the principle mandate of undertaking conservation genetics research in India. The Division has been contributing to this field through Wildlife Genetics Laboratory (WGL)- a state of the art in-house molecular biology laboratory situated at Guwahati. The salient objectives of the Division are to:

- a) Build a reference genetic database of the rich biodiversity of North East India,
- b) Standardize DNA based techniques for species, gender and individual identification from various wildlife samples, and
- c) Undertake population genetic research to answer pressing wildlife management questions.

WGD has been offering support in genetic monitoring of various threatened species such as tiger, greater one-horned rhino etc., to various state forest departments in India. WGL is a recognized facility for wildlife genetics and forensic DNA analysis in the state of Assam. Apart from its work in India, WGD has been offering consultancy and technical support to Conservation Genetic Projects undertaken internationally, also including countries like Indonesia and Bhutan.

MAJOR ACHIEVEMENTS:

- Successful in assisting Assam Forest Department in wildlife forensic DNA analysis in several cases.
- Optimization of genetic markers for macaque phylogeny analysis in Northeast India.

- Optimization of genetic markers for DNA based population monitoring of Asian elephants.

STRATEGIC ACTIONS:

- Reconstructing the phylogeny of a newly reported primate species of India- the white-cheeked



Search for presence of white-cheeked macaque in Eastern Arunachal Pradesh. Photo: Udayan Borthakur

macaque (*Macacaleucogenys*) from Eastern Arunachal Pradesh; especially to that of the same reported from China and the other sympatric macaque species found in the region. The genetic markers required for this work have already been optimized, and the generation of DNA sequencing data from field collected samples of macaques in Eastern Arunachal Pradesh is in progress.

- Survey on presence and distribution of white-cheeked macaque in Eastern Arunachal Pradesh has been conducted.
- Forensic DNA analysis support to Assam Forest Department in several wildlife crime investigation cases has been provided, such as:
 - a. Verification of authentic rhino horn using DNA sequencing based markers.
 - b. DNA fingerprinting based matching of confiscated rhino horn to that of carcass from the crime scene.
 - c. Elephant DNA parentage test at the time of registration of a new-born calf in captivity
 - d. Identifying confiscated meat and bone samples seized by the Forest Department, using DNA based species identification analysis etc.
- Optimization of dung DNA analysis based population monitoring of Asian elephants. This technology will enable estimation of population size of Asian elephants in the wild, as well as molecular-tracking of conflicting individual elephants, in areas prone to human elephant conflict.
- Genetic assessment of Critically Endangered White-bellied Heron in Bhutan, using multilocus microsatellite genotyping and DNA sequencing of mitochondrial DNA markers, is in progress, with results being expected on the in situ population genetic structure of the species.

SUMMARY OF IMPACT:

- WGL, the only dedicated wildlife forensic DNA analysis laboratory based in North East India, has successfully helped Government agencies in obtaining crucial evidences in wildlife crime cases of Assam. During the period 2016-2017, the laboratory has provided analysis assistance in 9 forensic cases.

ROAD AHEAD:

- The future focus areas of WGL is development of forensic DNA analysis facility, in terms of high throughput equipment as well as more trained manpower, in order to provide rapid support in wildlife crime investigation.
- The Division is implementing two multi-year projects in North Bengal, one on ecology of tigers and the other on ecology of leopards in the landscape, which will assess the population status of these two top predators and also assist the West Bengal Forest Department in developing a management plan for these species in situ.



Macaque skull from local tribal hunter in Eastern Arunachal Pradesh provides valuable genetic material for understanding species distribution.

Photo: Udayan Borthakur



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Researcher at Wildlife Genetics Laboratory undertaking genetic analysis of faecal samples.

Photo: Udayan Borthakur

CONFERENCES AND SEMINARS ATTENDED BY AARANYAK STAFF

- **Dr. M Firoz Ahmed** attended “3rd Asia Ministerial Conference on Tiger Conservation” during 12th to 14th April, 2016 at New Delhi.
- **Ms. Purnima Devi Barman** attended “Women for wildlife symposium” at Buenos Aires, Argentina in May 2016.
- **Dr. Bibhab Kumar Talukdar** attended “World Conservation Congress at Hawaii, USA” organized by International Union for Conservation of Nature and Natural Resources (IUCN) from 1st to 10th September 2016 at Hawaii, USA.
- **Dr. Bibhuti P Lahkar** attended a conference on “World Conservation Congress 2016” organized by IUCN from 1st to 10th September 2016 at Convention Center, Hawaii.
- **Dr. M Firoz Ahmed** attended “World Conservation Congress” at Hawaii, USA from 1st to 10th September 2016 and presented on “The elements needed to develop and implement flagship species recovery, the tigers tale”.
- **Dr. Dilip Chetry** attended “5th Asian Primate Symposium” organized by Primate Research Institute Kyoto University, Japan & University of Sri Jayewardenepura, Sri Lanka from 18th to 20th October, 2016 at Mount Lavinia Hotel - Colombo, Sri Lanka and Presented a paper on “Gibbon: Flagship species for the conservation of Biodiversity in Northeast India”.
- **Mr. Jayanta Kr. Roy** attended “6th International Symposium on Asian Vertebrate Species Diversity (AVIS 6)” organized by Museum Zoologicum Bogoriense, RCB-LIPI from 24th to 28th October, 2016 at Indonesian Institute of Sciences (LIPI), Bogor, West Java, Indonesia.
- **Dr. Partha Jyoti Das** attended the “1st Joint Consultation on ‘Sustainable Development of Inland Waterways Transport and Fish Biodiversity Conservation’” organized by IUCN-Bangkok during 2nd and 3rd November, 2016 at Platinum Suites, Dhaka, Bangladesh.
- **Mr. Udayan Borthakur** attended the “15th International Elephant and Rhino Research and Conservation Symposium” organized by International Elephant Foundation and International Rhino Foundation during 14th to 18th November 2016 at Singapore Zoo and presented on ‘Conservation genetics of Greater One-horned Rhinos in India – from identifying individuals to determining conservation priorities’.
- **Dr. Jyoti P. Das** attended “15th International Elephant and Rhino Conservation and Research Symposium, Singapore Zoo” organized by International Elephant Foundation from 14th to 18th November, 2016 at Singapore Zoo and presented on ‘Population Modelling of Asian elephant in a rainforest’.
- **Dr. Partha Jyoti Das** attended “Brahmaputra Knowledge Exchange Programme: Transnational Policy Dialogue for Improved Water Governance of the Brahmaputra River” organized by SaciWATERS (South Asia Consortium for Interdisciplinary Water Resources Study). Hyderabad from 20th to 22nd November 2016 at Hotel Donyi Polo Ashok, Itanagar, Arunachal Pradesh and delivered presentation on “Upstream-Downstream Interaction in the context of shared water regime of NE India: Arunachal, Assam’ on November 21, 2016”.
- **Ms. Alolika Sinha** attended an international Conference on “Biodiversity, Climate Change Assessment and Impacts on Livelihood” organized by Central Department of Botany, Tribhuban University in association with AFU (Nepal), City University of New York, USA, IPM Innovation Lab, USA, MoPE, GoN, MoST, GoN, MoAD, GoN, MoFSC, GoN from 10th to 12th

January, 2017 at Kathmandu, Nepal and presented on "Invasive plants in Manas National Park, India: a threat to its grassland and fauna".

- **Dr. Bibhab Kumar** Talukdar attended Seminar on Global, Regional and Local Perspective of Illegal Wildlife Trade organized by Office of Commissioner of Customs (Preventive), North East Regional office on 27 January 2017 at NEDFi Conference hall, Guwahati.
- **Dr. Partha Jyoti Das** attended "Global Forum on Disaster preparedness and the power of local leadership" organized by Give 2 Asia (USA) and International Institute of Rural Reconstruction (IIRR) during 5th to 11th March 2017 at International Institute of Rural Reconstruction (IIRR), Silang, Cavite, Philippines and Conference Centre, Asian Institute of Management, Makati, Manila, Philippines.
- **Dr. Dilip Chetry** attended "International Primatological Society Congress XXVI, 2016" held in Chicago, USA and presented a paper on "Lodging site selection by western hoolock gibbon (Hoolock hoolock)".

TRAININGS AND WORKSHOPS ATTENDED BY AARANYAK STAFF

- **Mr. Arup Kumar Das** attended a training program on “Database Management” organized by MTCP, Aaranyak from 8th April to 9th April, 2016 at Conference Hall, Aaranyak, Guwahati and presented on “Microsoft Access”.
- **Ms. Madhumita Borthakur** attended a training program on “Basic course on Remote Sensing and GIS-Technology and Application” organized by North Eastern Space Application Centre, Department of Space, Govt. of India, Umiam, Meghalaya from 18th to 29th April 2016 at North Eastern Space Application Centre Campus.
- **Mr. Udayan Borthakur** attended workshop on “The Role of Parks and Sanctuaries in Protecting India’s Biodiversity” organized by Wildlife Institute of India and the University of Chicago from 10th to 13th May, 2016 at University of Chicago Centre, New Delhi and presented on ‘Biodiversity significance and conservation challenges in Assam and Hoollongapar’.
- **Dr. Partha Jyoti Das** attended “IUCN Workshop on Climate Change Adaptation and DRR in SAARC Region” organized by IUCN on 26th and 27th May, 2016 at Hotel Himalaya, Kathmandu, Nepal and presented on “Climate Change in India: Lessons learnt from subnational experiences in the Brahmaputra River Basin on May 26, 2016”.
- **Dr. Bibhab Kumar Talukdar** attended “ZSI Centenary Celebration Function” organized by Zoological Survey of India, Kolkata from 30th June to 2nd July 2016 at Kolkata and presented on Faunal diversity of North East India.
- **Dr. Partha Jyoti Das** attended “NADI Festival-2016” organized by Asian Confluence on 15-16 July 2016 at Pine Hotel, Shillong presented on ‘Climate change impact on the river systems of the Ganga-Brahmaputra-Meghna Basin’.
- **Dr. Partha Jyoti Das** attended a Workshop on “100 days agenda of the Government of Assam” organized by Water Resources Department, Government of Assam at Conference Hall, Assam Water Research and Management Institute, Vasishtha, Guwahati during 30th to 31st July 2016 and presented on “River Kolong: A case for rejuvenating a dying river”.
- **Dr. Partha Jyoti Das** attended a Stakeholders’ Workshop on “Flood Early Warning System” organized by Assam State Disaster Management Authority (ASDMA), Government of Assam on 1st August 2016 at Assam Secretariat, Dispur.
- **Mr. Dipankar Lahkar** attended “Use of software for estimation of tigers, co-predators and prey species” organized by National Tiger Conservation Authority (NTCA) at Tezpur University from 17th to 19th August, 2016.
- **Mr. Arup Kumar Das** attended a workshop on “Use of Google Earth for basic GIS Operations” organized by Dept. of Civil Engineering School of Technology at Assam Don Bosco University on 21st September, 2016 and presented on ‘Google Earth & GIS’.
- **Ms. Madhumita Borthakur** attended a workshop on “UAV Remote Sensing, Technological Advances & Applications” organized by North Eastern Space Application Centre, Department of Space, Govt. of India, Umiam, Meghalaya at North Eastern Space Application Centre Campus from 17th to 28th October 2016.
- **Dr. Partha Jyoti Das** attended a Meeting on “Expanding Tradable Benefits of Trans-boundary Water: Promoting Navigational Usage of Inland Waterways in Ganga and Brahmaputra Basins” organized by CUTS International, Jaipur on 24th October, 2016 at The Lily Hotel, Guwahati, India and presented on “CSF project on cooperation

- on disaster risk reduction and climate change adaptation in the Lower Brahmaputra River Basin”.
- **Dr. Partha Jyoti Das** attended a Workshop on “Transboundary Policy Dialogue for Improved Water Governance in YarlungTsangpo-Brahmaputra-Jamuna River Basin” organized by SaciWATERS(South Asia Consortium for Interdisciplinary Water Resources Study) Hyderabad on 27th October 2016 at Nanyang Executive Centre (NEC), National Technical University (NTU), Singapore.
 - **Dr. Bibhuti P Lahkar** attended “8thIUCN SSC Asian Elephant Specialist Group meeting” organized by IUCN, Wildlife Trust of India and Elephant Family from 9th to 12th November 2016 at Taj Vivanta Hotel, Guwahati, Assam, India.
 - **Dr. Partha Jyoti Das** attended “Annual HICAP Partners Workshop: Outcome, Synthesis and Outlook” organized by International Centre for Integrated Mountain Development (ICIMOD) from 28th to 30th November 2016 at Hotel Himalaya, Kathmandu.
 - **Mr. Dipankar Lahkar** attended “Use of software for estimation of tigers, co-predators and prey species for some of the tiger reserves of Eastern Zone” organized by National Tiger Conservation Authority (NTCA) from 20th to 23rd November, 2016 at Manas National Park.
 - **Dr. Partha Jyoti Das** attended 1st Annual Partners’ Meeting of “Civil Society Fund, South Asia Water Governance Program” organized by The Asia Foundation on December 12-13, 2016 at Gokarna Forest Resort, Kathmandu, Nepal.
 - **Dr. Partha Jyoti Das** attended a workshop on “Freshwater biodiversity and cultural and spiritual heritage of the Brahmaputra River in the context of transboundary water governance” organized by International Rivers-South Asia from 26th to 28th January, 2017 at Hotel Brahmaputra Ashoka, Guwahati.
 - **Dr. Dilip Chetry** attended “Environment conditions and Biodiversity in the new millennium” organized by Department of Zoology, B.N.College, Dhubri, Assam, India & CEE, Northeast on 28th & 29th January, 2017 at B.N.Collge, Dhubri, Assam.
 - **Dr. Partha Jyoti Das** attended DPG Roundtable on advancing BBIN sub-regional cooperation on “Cooperation in water management in the Bangladesh-Bhutan-India-Nepal region of South Asia” organized by the Delhi Policy Group on 30th to 31st January 2017 at The Lily Hotel, Khanapara, Guwahati.
 - **Mr. Jayanta Kr. Roy** attended a workshop on “Molecular phylogenetics” organized by University of Science and Technology (USTM), Meghalaya in their campus from 30th January to 1st February, 2017.
 - **Mr. Arup Kumar Das** attended a training program on “Hoolock Gibbon Conservation Training Programme” organized by Gibbon Conservation Centre, Assam Forest Department & Aaranyak at Gibbon Conservation Centre from 22nd to 28th February, 2017 and gave training on ‘Basics of GPS and hands on training”
 - **Mr. Arup Kumar Das** attended a training program on “Some Modern Techniques in Animal Sciences” Organized by: Dept. Of. Zoology and Institutional Biotech Hub, Karimganj College from 15th to 20th March, 2017 and conducted training session on “Remote Sensing, GIS and GPS”.
 - **Dr. Dilip Chetry** attended a workshop on “Integrated Approach in Zoological Research” organized by Department of Zoology, Gauhati University and Zoological Society of Assam on 30th & 31st March, 2017 at Gauhati University.

CONFERENCES, WORKSHOPS AND TRAININGS ORGANIZED BY AARANYAK DURING 2016-17

- WATCH Division organized a conference title “Expert Consultation on the Proposed Wetland (Conservation & Management), Rules-2016 of MoEFCC, Gol” on 2nd June, 2016.
- WATCH Division organized a training workshop on “Sustainable management of the Brahmaputra River System, India in a changing climate for water security and disaster resilience’: For researchers, practitioners and media personnel of Assam” from 15th to 18th November, 2016.
- PRCD organized a training title “Natures Guide Training” from Distribution of field gear to the frontline forest staff of Assam. Photo: Aaranyak 3rd and 4th December, 2016.
- PRCD organized a training title ‘Field Course in Conservation Biology and Global Health’ from 5th to 9th December, 2016.
- EECBD organized a consultation workshop title “Educational Handbook Development for teachers” on 18th January, 2017.
- PRCD organized a training title “Hoolock gibbon Conservation Training for the Forest Guards of Arunachal Pradesh & Assam” from 22nd to 28th February, 2017.
- EECBD organized a Stakeholders Workshop title “Understanding ongoing practices of Environment Education in the Manas Landscape” on 12th May, 2017.
- EECBD organized a training title “Participatory planning on Conservation Education for Manas Landscape” on 23rd to 30th June, 2017.
- GTAD organized a training title “Week-Long Crash Course on Remote Sensing, GIS and GPS Applications in Various Fields” from 25th July to 31st July 2017.

MEMBERSHIP/POSITION WITH OTHER ORGANIZATION

DR. BIBHAB KUMAR TALUKDAR

1. State Board of Wildlife, Govt. of Assam
2. Chair: IUCN/SSC; Asian Rhino Specialist Group
3. Member: IUCN/SSC; African Rhino Specialist Group
4. Member: IUCN Commission on Ecosystems
5. Member: IUCN World Commission on Protected Areas
6. Member: Editorial Board of Pachyderm Journal

DR. BIBHUTI PRASAD LAHKAR

1. Commission Member IUCN SSC Asian Elephant Specialist Group 2017- 2020
2. Commission Member of IUCN Commission on Ecosystem Management 2008-2020
3. Commission Member IUCN WCPA South Asia Region 2017-2020
4. Commission Member IUCN WCPASSC Biodiversity and Protected Areas Task Force 2017-2020

DR. DILIP CHETRY

1. Honorary Wildlife Warden, Govt. of Assam
2. Member, State Wildlife Board of Assam, Govt. of Assam.
3. Vice Chair, IUCN, SSC Primate Specialist Group, South Asia Section.
4. Executive member, IUCN, SSC Small Ape Section.
5. Member, International Primatological Society
6. Member, American Primatological Society
7. Member, Gauhati University Ethics Committee.
8. Board of Director in Scholars Institute of Technology and Management, Guwahati, Assam.

DIPANKAR LAHKAR

1. Guest faculty at University of Science and Technology, Maghalaya

DR. M FIROZ AHMED

1. Guest faculty at University of Science and Technology, Maghalaya
2. IUCN - The World Conservation Union (SSC).
3. IUCN SSC - Declining Amphibian population Task Force.

JAYANTA KUMAR PATHAK

1. Editorial Board Member, 'BIJNAN JEUTI', a bi-monthly science magazine published by Assam Science Society. (ISSN No. 2319-3085)

PURNIMA DEVI BARMAN

1. Women in Nature Network

DR. PARTHA J DAS

1. Member of the Steering Committee of the 'Forum for Policy Dialogue on Water Conflicts in India', the best known water think tank of India based in Pune, India
2. Life member of 'Indian Society for Ecological Economics' (INSEE), Bangalore
3. Life Member of India Water Partnership, New Delhi (Country chapter of World Water Partnership)
4. Life member of Aaranyak
5. Member of Expert Committee constituted by the Government of Assam for Rejuvenation of River Kolong

UDAYAN BORTHAKUR

1. Member, IUCN SSC Asian Rhino Specialist Group
2. Member, IUCN SSC White-bellied Heron Working Group
3. Member, Nikon Professional Services, India
4. Wildlife Photography Mentor, Nikon School India

PUBLICATIONS

BOOKS:

1. Kakati, M., Kalita, P.K., Pathak, J.K., Bezbaruah, U., Sharma, T.K., Baniya, P., Nath, K. K. 2016. Sikar Ananda Utshav: Sishu Samarohar Hatputhi. A Handbook for Children Festival. Gyan Vigyan Samiti Assam, Pp 96. (Local language - Assamese)
2. Pathak, J.K., Mishra, M., Saikiya, J., Baruah, J. 2016. Saf-Sikunota. A book on personal & environmental Hygiene. State Resource Centre, Dispur, Pp 16. (Local language - Assamese)
3. Pathak, J.K., Mishra, M., Saikiya, J., Baruah, J. 2016. Nirmol Axom Gorho. A book on personal & environmental Hygiene. State Resource Centre, Dispur, Pp 16. (Local language- Assamese)
4. Pathak, J.K., Mishra, M., Saikiya, J., Baruah, J. 2016. Gandhijir Sopun. A book on personal & environmental Hygiene. State Resource Centre, Dispur, Pp 16. (Local language- Assamese)
5. Dutta, H, Singha, H, Dutta, B, K, Deb, P, Das, A.K, (2016) " Human-Wildlife Conflict in the Forest Fringe Villages of Barak Valley, Assam, India". Journal of Human Ecology, Vol.55 (1, 2), PP. 104-110, July, August 2016.
6. Changes and Livelihood Impacts in the Maguri-Motapung Wetlands of Assam, India. LAND. Volume: 5 Issue: 2, Article Number: 15, DOI: 10.3390/land5020015, Published: JUNE 2016.
7. Petra Tschakert, ParthaJyoti Das, NeeraShresth Pradhan, Mario Machado, Armando Lamadrid, MandiraBuragohain, MasfiqueAlam Hazarika (2016). Micropolitics in collective learning spaces for adaptive decision-making. Global Environmental Change 40 (September, 2016) 182–194.
8. Sengupta, S., A. Das and M. F. Ahmed. 2017. Distribution of Rhacophorus burmanus (ANDERSSON, 1939), with notes on its natural history. HERPETOZOA 29(3/4): 194-198.

BOOK CHAPTER:

1. Pathak, J.K. 2017. Paani. In Marukaran: Prithivir Sankat. A book on desertification and related issues. Editor Chutiya, L. L. Pp 131-136. Published by Aryabhatta Science Centre, Dhemaji, Assam. (Local language- Assamese)
2. Water. 2017. Desertification, published by Aryabhatta Science Centre, Dhemaji, Assam. Pp 131-136.
3. Soumyadeep Banerjee, Dominic Kniveton, Richard Black, Suman Bisht, ParthaJyoti, BidhubhusanMahapatra, SabarneeTuladhar (2017) Do Financial Remittances Build Household-Level Adaptive Capacity? A Case Study of Flood-Affected Households in India'. KNOMAD Working Paper 18, Global Knowledge Partnership on Migration and Development (KNOMAD).

BOOKLETS

1. Jayanta Kumar Pathak, Dipankar Lahkar, Binita Baruwati & Dr. Firoz Ahmed. 2016. Fishing Cat (Mecheka), published by TRCD, Aaranyak .

PEER REVIEWED PUBLICATIONS

2. Bhatta, LD; Chaudhary, S; Pandit, A; Baral, H; Das, PJ; Stork, NE (2016). Ecosystem Service

NON PEER REVIEWED PUBLICATIONS

1. Chetry D & Chetry R. 2017. Eastern Hoolock gibbon (Hoolock leuconedys) in Sadiya Assam. Lauhitya, Pp.91-93.
2. Das, P.J. (2016). Our common rivers: What we should know about them and why? Souvenir, Nadi-2016, Shillong, India, July 15-16, 2016.

3. Das, PJ (2016). 'Need of an integrated flood and management policy for Assam'. 'Souvenir' of the 'Workshop on the Thrust Areas of 100 days Agenda of Honourable Chief Minister, Assam' Water Resources Department, Government of Assam, July 30-31, 2016.
4. Nimesh Ved, Jayanta Pathak, M. Firoz Ahmed and Bibhuti Lahkar. 2016. Conservation Education: Planning to Educate, Educating to Plan. Education for Change. CEE.
5. Partha J Das and Anup K Mitra (2016). Sustainable management of the Brahmaputra River System in a changing climate for water security and disaster resilience in South Asia. In: Ravindra Kumar, Venkatesh Dutta, Jagdish Mohan, Dinesh Kumar Dudeja, RanbirChanderSopti Edited Healthy Rivers: Ecosystem and Prosperity, pp.269-275. Proceedings of National Seminar on Healthy Rivers- Ecosystem benefits and Prosperity. Organised by Indian Water Resources Society, Lucknow Centre. Venue: Hotel Renaissance, Gomtinagar, Lucknow, September 19-20, 2016
4. Bibhuti P. Lahkar, Sinha, Alolika and Nath, Anukul. 2017: Monitoring and control of Invasive species in the grassland of Manas National Park. Final Report submitted to Rhino and Tiger Conservation Fund, US Fish and Wildlife Service, USA. Aaranyak Technical Report 04 -2017.
5. Das, J.,P.,A. Boruah, R. Goyari, B.P. Lahkar (2017). Population estimate and trans-boundary collaboration for Asian elephant in Manas National Park, India. Technical Report, ERCI (01). 2017.
6. Das, J.P., N. Bhuyan, M. Kunwar, A. Momin, B.P. Lahkar (2017). Conflict to coexistence: Enhancing Community-Managed Conservation of Asian elephants in Golaghat, Assam. Technical Report, ERCD (02), 2017.
7. Emslie. R.H , Milliken, T. Talukdar, B.K., Ellis.S, Adcock, K., and Knight, M.H. 2016. African and Asian Rhinoceroses – Status, Conservation and Trade A report from the IUCN Species Survival Commission (IUCN SSC) African and Asian Rhino Specialist Groups and TRAFFIC to the CITES Secretariat pursuant to Resolution Conf. 9.14 (Rev. CoP15)

TECHNICAL REPORTS

1. Ahmed, M F and J K Roy. 2016. Status, distribution and Ecology of the Keeled Box Turtle, Cuoramouhoti in Dibang Valley, Arunachal Pradesh, India. Technical Report. Aaranyak, HRCDC: 09/2016. Pp 18.
2. Ahmed, M. F., S. Wangmo, D. Lahkar, P.Chakraborty, A. Sarmah, J. Borah, D. Wangchuk, T. Nidup T. Wangchuk, H. K. Choudhury, A. Harihar and R. Pickles. 2016. Tigers of Transboundary Manas Conservation Area. Technical Report. Pp 50.
3. Alolika Sinha, Krishna Kanta Rabha and Rupam Gayary. 2017. Combining research and education for conservation of the endangered hog deer in Assam, India. Final Report submitted to Auckland Zoo, New Zealand. Aaranyak.
8. Sarma, J.K., N. Brahma, J. K. Pathak, B. Das, E. Gross, B. P. Lahkar and M. F. Ahmed. 2015. Summary Report of the Socio-economic Assessment of the Fringe Villages of Manas National Park. Technical Report, Aaranyak, TRCD: 08/2015.30p
9. Ved, Nimesh., N. Bora, D. Godinho, J.K. Pathak, and M.F. Ahmed. 2016. Report of Participatory Planning Workshop for Conservation Education in Manas Landscape. Aaranyak.46p.

ABSTRACT

1. Alolika Sinha and Bibhuti P. Lahkar. 2017. Invasive Plants in Manas National Park, India: a threat to the grasslands and its fauna. Abstract in Proceedings of International conference on Biodiversity, Climate Change Assessment and Impacts on livelihood. Kathmandu, Nepal. Pp-61.
2. Chetry,Dilip; Chetry.R; Das.D; Saikia.U; Medhi.N; Choudhury.B; Das.A, and Bhattacharjee.P.C.2017.Status and diversity of non-human primate in Pakke Tiger Reserve in Arunachal Pradesh ,India, Abstract volume Pp.09 of national seminar on Environment conditions and Biodiversity in the new millennium, B.N.College, Dhubri, Assam, India.
3. Chetry,Dilip; Chetry. R. and Bhattacharjee, P.C. 2017.Diversity of primate in Mouling National Park in the state of Arunachal Pradesh, India.Abstract volume, Pp.38, of national seminar on Science and Technology for Human Welfare, Institute of Advance Study in Science and Technology (IASST),Guwahati,Assam, India.
4. Chetry.R. Chetry,Dilip; and Bhattacharjee,P.C. 2017. Behaviour response of Golden langur in three different habitats in Assam,India.Abstract volume, Pp.24,of National seminar on Integrated Approach in Zoological Research, Department of Zoology, Gauhati University ,Assam, India.
5. Chetry, Dilip. Chetry.R. and Bhattacharjee,P.C. 2016. Gibbon: Flagship species for the conservation of Biodiversity in Northeast India. Proceeding of 5th Asian Primates Symposium. Columbo, Sri Lanka.
6. Chetry,R. Sharma Baruah,J.P. and Chetry,Dilip.2016. Role of NGO in protection and conservation of environment: A successful case study in Gibbon Wildlife Sanctuary, Assam,India..Abstract volume, Pp.94, of national seminar on Issues and strategies of environment and development in India..B.P.Chaliha College, Kamrup, Assam,India.

FINANCIAL REPORT 2016-2017

DHAWAN PANDEY & ASSOCIATESChartered 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, 2017 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, 2017, 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, 2017

The prescribed particulars are annexed hereto.

Place: Guwahati
Date: 22.09.2017



For, DHAWAN PANDEY & ASSOCIATES
Chartered Accountants

Biswajit Baruah

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

FINANCIAL REPORTS

AARANYAK

50 SAMANWOY PATH, SURVEY, BELTOLA, GUWAHATI-781028, DIST. KAMRUP, ASSAM.
RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2017

RECEIPTS	AMOUNT(Rs.)	PAYMENTS	AMOUNT(Rs.)
To Opening Balance		By Project Expenses against Contribution	66,304,829.65
CASH IN HAND	4,053.00	By Advance for Project Expenses	1,004,964.44
INVESTMENTS		By Indian Oil Corporation	25,663.24
Fixed Deposits with Bank of Baroda, Dispur Branch	53,527,257.00	By Tax Deducted at Source	446,148.00
Fixed Deposit with Bank of Baroda, Six mile	1,156,644.00	By Receivable from project	130,879.00
LICI	1,048,811.00	By Accounting charge	55,200.00
UTI	600,000.00	By Bank Charge	79,911.39
	56,332,712.00	By Admin Salary	2,454,491.00
BANK ACCOUNTS		By Miscellaneous Expenses (TTMP)	172,907.00
Bank of Baroda, Dispur Branch	1,936,108.91	By Closing Balance	
State Bank of India, Beltola (TRCI)	5,766.83	CASH IN HAND	6,178.00
HDFC, Bangagarih Branch (ERICI-1)	97,800.27	INVESTMENTS	
HDFC, Bangagarih Branch (ERICI-2)	337.95	Fixed Deposits with Bank of Baroda, Dispur Branch	29,400,299.00
HDFC, Bangagarih Branch (ERICI-3)	20,507.05	Fixed Deposit with Bank of Baroda, Six mile	79,744.00
HDFC, Bangagarih Branch (GDRCI)	1,002.39	Fixed Deposit with Union Bank of India, Basistha Road branch	1,259,631.00
HDFC, Bangagarih Branch (LIVELIHOOD)	40,814.85	UTI	1,100,000.00
HDFC, Bangagarih Branch (PRCI)	523.17		31,839,674.00
HDFC, Bangagarih Branch (PRCI)	31,318.59	By BANK ACCOUNTS	
Yes Bank (RRCI)	9,321.16	HDFC, Bangagarih Branch (ERICI-1)	3,615.64
Parjib National Bank, Beltola Branch	150,463.44	HDFC, Bangagarih Branch (ERICI-2)	3,998.45
HDFC, Bangagarih Branch (ARCI)	3,050.00	HDFC, Bangagarih Branch (ERICI-3)	3,016.55
HDFC, Bangagarih Branch (WGP)	371.53	HDFC, Bangagarih Branch (GDRCI)	2,107.96
State Bank of India, Beltola (TRCI 2)	57,811.60	HDFC, Bangagarih Branch (ARCI)	45,978.00
State Bank of India, Beltola (TRCI 2 S/A)	1,000.00	HDFC, Bangagarih Branch (WGP)	1,293.42
IDBI, Beltola Branch	1,640.00	HDFC, Bangagarih Branch (LIVELIHOOD)	512.35
State Bank of India, Dispur	7,930.44	HDFC, Bangagarih Branch (PRCI)	82,169.67
HDFC, Bangagarih Branch (LIVELIHOOD-2)	504.34	HDFC, Bangagarih Branch (RRCI)	12,913.21
Indusind Bank, Bangagarih Branch	30,033.16	YES BANK (RRCI)	65,604.81
Union Bank of India, Basistha Road Branch	735,105.30	State Bank of India, Beltola (TRCI-2)	215,820.23
HDFC, Bangagarih Branch (WATCH)	54.72	State Bank of India, Beltola (Trci-2S/A)	451.00
Bank of Baroda (TTMP)	612,765.00	State Bank of India, Beltola (TRCI)	358,360.13
HDFC, Bangagarih Branch (TTMP)	957.46	IDBI, Beltola Branch (WATCH)	50,914.00
Parjib National Bank, Fancy Bazar Branch (MTDC)	1,000,000.00	Bank of Baroda, Dispur Branch	4,117,662.44
	4,825,188.16	Parjib National Bank, Beltola Branch	95,412.65
To Contribution Received	42,269,545.03	Union Bank of India, Basistha Road Branch (PRCI)	180,000.00
To Recovery of Project Advances	1,157,358.94	State Bank of India, Dispur Branch	1,417.44
To Provident Fund payable	10,078.00	HDFC, Bangagarih Branch (LIVELIHOOD-2)	1.00
To Bank Interest	292,451.64	Indusind bank, Bangagarih Branch	157,662.97
To Interest on Bank Fixed Deposits	3,470,563.00	Union Bank of India, Basistha Road Branch	706,911.30
To Award from Government of Assam	100,000.00	HDFC, Bangagarih Branch (WATCH)	45.79
To Membership fees	24,250.00	Bank of Baroda (TTMP)	560,566.50
To Donation received	434,707.00	HDFC, Bangagarih Branch (TTMP)	2,086.54
To Surplus from LIC matured	395,989.00	Parjib National Bank, Fancy Bazar Branch (MTDC)	509,886.00
To Sale of Gypsy	82,000.00	Yes Bank, (WGD-2)	5,000.00
To Sale of Sano Grand	210,000.00		7,183,408.05
To Reliance General Insurance received	66,278.00		
To Summer camp	29,000.00		
	109,704,253.77		109,704,253.77

Place: Guwahati
 Date: 22/09/2017

For & Behalf of
 AARANYAK

Secretary General
 (DR. BIBHAB KR. TALUKDAR)
 SECRETARY GENERAL



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

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

AARANYAK

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

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31ST MARCH 2017

EXPENDITURE	AMOUNT(Rs.)	INCOME	AMOUNT(Rs.)
To Professional charges	55,200.00	By Bank Interest	292,451.64
To Bank Charge	79,911.39	By Interest on Bank Fixed Deposits	3,470,563.00
To Salary for Administrative Staff	2,454,491.00	By Award from Government of Assam	100,000.00
To Miscellaneous Expenses (TTMP)	172,907.00	By Membership fees during the year	24,250.00
		By Donation received during the year	434,787.00
		By Surplus from LIC matured	395,989.00
To Surplus of Income over Expenditure	2,342,809.25	By Capital receipt on sale of vehicle	292,000.00
		By Reliance General Insurance received	66,278.00
		By Summer camp	29,000.00
TOTAL	5,105,318.64	TOTAL	5,105,318.64

Place: Guwahati
Date: 22/09/2017

For & Behalf of
AARANYAK



(DR. BIBHAB KR. TALUKDAR)
SECRETARY GENERAL

Secretary General



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



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

AARANYAK

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

BALANCE SHEET AS ON 31ST MARCH 2017

LIABILITIES	AMOUNT(Rs.)	ASSETS	AMOUNT(Rs.)
FUND ACCOUNT			
General Fund		Fixed Assets	27,582,785.00
Opening Balance	17,445,741.04		
Add:Net surplus during the year	2,342,809.25	Current Assets	
	19,788,550.29	Tax Deducted at Source	1,454,853.00
Current Liabilities		LOAN AND ADVANCES	
Capital Fund out of Project Expenses:		Advance for Project Expenses	1,004,964.44
Opening Balance	16,021,834.00		
Add:Additions during the year	3,485,604.00	Advance in India Oil Corporation	48,665.22
	19,507,438.00	Loan to Employee	15,000.00
Unutilised Project Funds	29,960,340.42	Receivable from project	130,879.00
Providend Fund payable	10,078.00	Cash in hand	6,178.00
		INVESTMENTS	
		Fixed Deposits with Bank of Baroda, Dispur Branch	29,400,299.00
		Fixed Deposit with Bank of Baroda, Six mile	79,744.00
		Fixed Deposit with Union Bank of India,Basistha Road branch	1,259,631.00
		Deposit with UTI	1,100,000.00
			31,839,674.00
		BANK ACCOUNTS	
		HDFC, Bangagarh Branch(ERCI-1)	3,615.64
		HDFC, Bangagarh Branch(ERCI-2)	3,998.45
		HDFC, Bangagarh Branch (ERCI-3)	3,016.55
		HDFC, Bangagarh Branch(GDRCI)	2,107.96
		HDFC, Bangagarh Branch (ARCI)	45,978.00
		HDFC, Bangagarh Branch (WGP)	1,293.42
		HDFC, Bangagarh Branch (LIVELIHOOD)	512.35
		HDFC, Bangagarh Branch (PRCI)	82,169.67
		HDFC, Bangagarh Branch (RRCI)HDFC	12,913.21
		YES BANK(RRCI)	65,604.81
		State Bank of India (TRCI-2)	215,820.23
		State Bank of India(Trci-25/A)	451.00
		State Bank of India(TRCI)	358,360.13
		IDBI, Beltola Branch(WATCH)	50,914.00
		Bank of Baroda, Dispur Branch	4,117,662.44
		Punjab National Bank, Beltola Branch	95,412.65
		Union Bank of India (PRCI)	180,000.00
		State Bank of India, Dispur Branch	1,417.44
		HDFC, Bangagarh Branch(LIVELIHOOD-2)	1.00
		Indusind Bank, Bangagarh Branch	157,662.97
		Union Bank of India, Basistha Road Branch	706,911.30
		HDFC, Bangagarh Branch(WATCH)	45.79
		Bank of Baroda (TTMP)	560,566.50
		HDFC, Bangagarh Branch (TTMP)	2,086.54
		Punjab National Bank,Fancy Bazar Branch(MTDC)	509,886.00
		Yes Bank (WGD-2)	5,000.00
			7,183,408.05
TOTAL	69,266,406.71	TOTAL	69,266,406.71

Place: Guwahati
Date: 22/09/2017For & Behalf of
AARANYAK(DR. BIBHAB KR. TALUKDAR)
SECRETARY GENERAL

Secretary General

Aaranyak

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

FIND AARANYAK

■ **REGISTERED ADDRESS:**

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

■ **ADMINISTRATIVE OFFICE:**

Aaranyak, 13 Tayab Ali Lane, BishnuRabha Path
BeltolaTiniali, Bhetapara Link Road, P.O. Beltola
Guwahati, India – 781028
E-mail: Info@aaranyak.org
Tel: +91-361-2230250. Fax: +91-361-2228418

■ **RESEARCH DIVISION OFFICE:**

Aaranyak, 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
Barpeta Road

■ **KAZIRANGA LANDSCAPE:**

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

■ **GOLAGHAT LANDSCAPE:**

Aaranyak, C/O GirishLahon, Near LIC Office
Bokakhat - 785612

■ **EASTERN ASSAM LANDSCAPE:**

Aaranyak, C/o: Bipin Chandra Datta
Itabhata, Near Digboi College, Digboi – 786171

■ **GIBBON WILDLIFE SANCTUARY AND JORHAT DISTRICT:**

Aaranyak, C/o DilipChetry, Gibbon Conservation Centre,
Gibbon Wildlife Sanctuary
PO: Mariani PIN: 785634. Mobile: +91 9435043892

■ **DHEMAJI LANDSCAPE:**

Aaranyak,
C/O-Prafulla Saikia, Near BRO Gate
Village-Nagaon PO- Gogamukh
Dist-Dhemaji, PIN: 787034, Assam

STAFF LIST

(1st April of 2016 to 31 March 2017)

ADMINISTRATIVE AND ACCOUNTS DIVISION

- Dr. Bibhab Kumar Talukdar, SG & CEO & Head, (RRCD& LAD)
 - Mr. Manas Kumar Bhattacharjya , Manager (Operations)
 - Mr. Ranjan Jyoti Khound, Manager (Finance)
 - Mr. Bhaskar Sarkar, Manager (Accounts)
 - Md. Zakir Islam Bora, Assistant Manager to Office of SG & CEO.
 - Ms. Binita Subba, Accounts Assistant
 - Mr. Rajib Das, Accounts Assistant
 - Mr. Gauri Sankar Borah, Accounts Assistant
 - Manash Protim Buragohain, Conservation Officer
 - Ms. Kongseng Konwar, Office Executive
 - Ms. Bijoyinee Sarma, Office Executive.
 - Mr. Nripen Kumar Nath, Assistant Office Executive
 - Mr. Gouranga Mandal, Office Assistant.
 - Mr. Rajesh Das, Office Supporting Assistant
 - Mr. Tridip Saikia, Watchman cum office Assistant.
 - Mr. Moni Kumar Haloi, Field Assistant cum Watchman.
 - Mr. Arun Basfor, Office Cleaner
 - Mrs. Kabita Bezbaruah, Office Supporting Assistant
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- Ms. Purnima Devi Barman, Project Officer (GASCP)

CONSERVATION AND LIVELIHOOD DIVISION (CLD)

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- Mr. Shyamal Datta, Project Manager.
- Dr. Animesh Talukdar, Veterinary officer.
- Mr. Bipul Das, Assistant Project Manager.
- Mr. Kumar Brahma, Field Assistant.
- Mr. Silash Basumatary, Project Coordinator.
- Mr. Ananta Bagh, Field Assistant.
- Mr. Bijay Basumatary, Assistant project Officer.
- Mr. Monjit Basumatary, Project Officer.
- Mr. Sanjib Daimary, Senior Project Officer.
- Mr. Pradeep Barman, Driver
- Mr. Bijoy Kalita, Driver
- Mr. Jack Karjee, Field Assistant
- Swapan Kumar Das, Cluster Development Executive

ELEPHANT RESEARCH AND CONSERVATION DIVISION (ERCD)

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- Dr. Jyoti Prasad Das, Manager
- Ms. Alolika Sinha, Research Scholar.
- Mr. Abhijit Baruah, Research Scholar.
- Mr. Monjit Konwar, Project Assistant.
- Mr. Sandhi Mitra, Research Scholar.
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- Mr. Jayanta Kumar Pathak, Manager.

GANGETIC DOLPHIN RESEARCH AND CONSERVATION DIVISION (GDRCD)

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- Ms. Anumitra Phukan, Senior Research Fellow.
- Ms. Sunny Deuri, Senior Research Fellow.
- Mr. Gobardhan Mallah, Boat Pilot.
- Mr. Kedar Mallah, Boat Driver.
- Mr. Gopal Bin, Boat man.
- Md. Nur Islam, Driver.
- Mr. Ishwarprasanna Saikia, Boat Assistant.

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- Ms. Madhumita Borthakur, Spatial Database Officer.

LEGAL AND ADVOCACY DIVISION (LAD)

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PRIMATE RESEARCH AND CONSERVATION DIVISION (PRCD)

- Dr. Dilip Chetry, Head, PRCD.

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- Mr. Anil kumar Das, K-9 Dog squad handler cum field and Office Assistant.
- Mr. Goura Baidya, K-9 Dog squad handler cum field and Office Assistant.
- Md. Arif Hussain, Senior Project Officer (Conservation).

- Mr. Nirmal Kalita, K-9 dog squad assistant handler cum field and office Assistant.

- Mr. Montu Boro, Animal Keeper

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- Mr. Jayanta Kumar Roy, Wildlife Researcher.
- Mr. Ratul Das, Field Assistant.
- Mr. Debashis Buragohain, Project Coordinator, Conservation & Protection.
- Mr. Detsung Basumatary, Project Officer.
- Mr. Kamal Kumar Machary, Project Officer.
- Ms. Nisha Bora, Senior project Officer, Communication.
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- Dr. SudipKanta Basistha, Deputy Project Manager.
- Mr. Sushanta Kashyap Borthakur, Trainee Project Officer.
- Ms. Binita Baruwati, Project Officer, Protection.
- Mr. Tapash Mahanta, Accounts Assistant.
- Dr. Sushil Ekka, Field Veterinarian.
- Mr. Konmani Boro, Assistant Project Officer-Logistics
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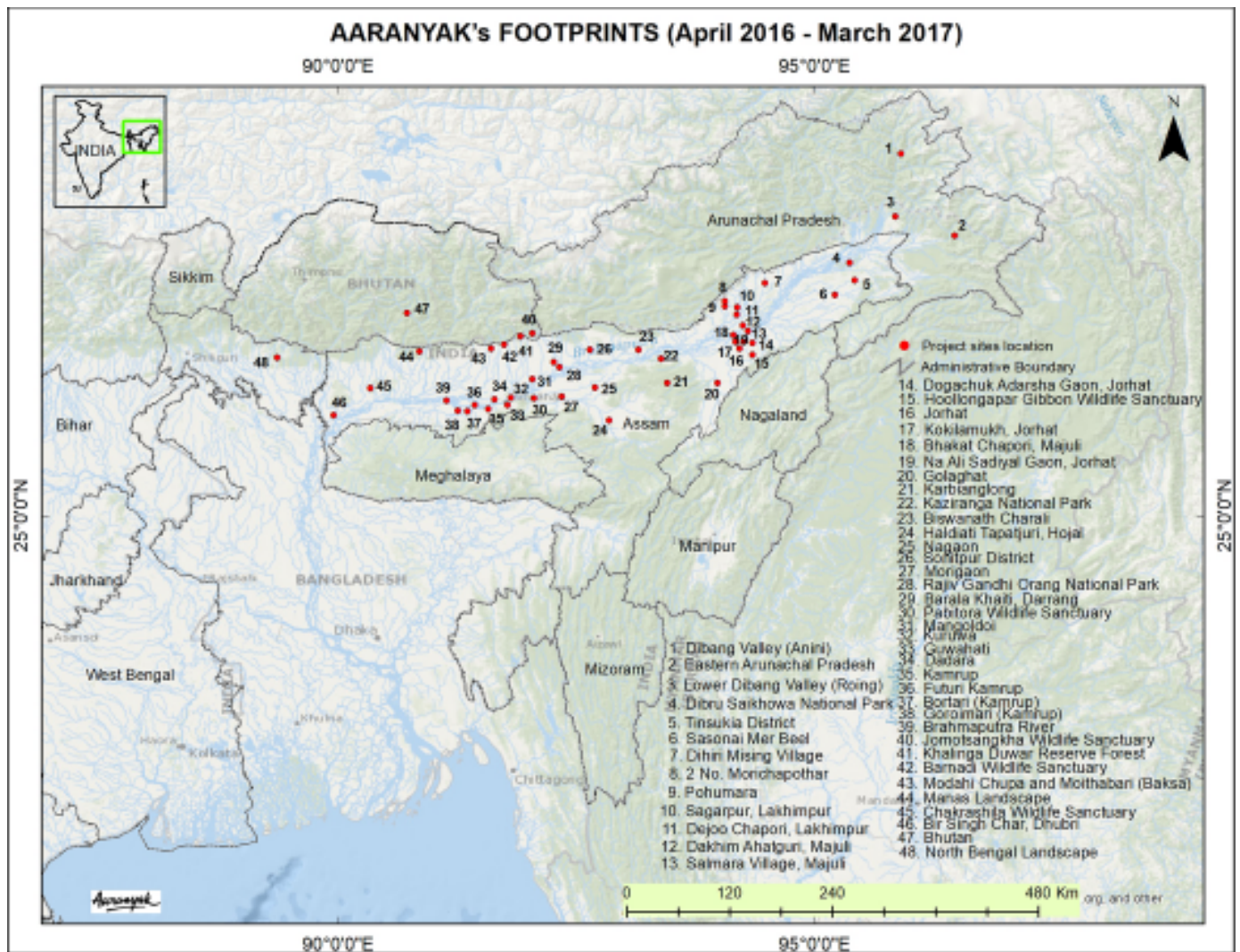
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Secretary General of Aaranyak as Member
Secretary of RAB



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 27th 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.



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