

PROGRESS & IMPACT REPORT

April 2019 - March 2020

BALIPARA FOUNDATION

Assam • India

Naturenomics™ : Building Rural Futures

IN GRATITUDE

2019-20 has been another phenomenal year for Balipara Foundation. As we enter our 2020 vision and as we reflect on the year gone by, we are humbled by the broadened engagement with our local communities in the Eastern Himalayas with the principles of Naturenomics™ and Rural Futures, the journey has been of constantly seeking to explore innovative conservation models towards uplifting socio-economic mobility and creating natural assets in the forest-fringe communities of the Eastern Himalayas.

From restoring habitats to guiding the pathway towards shaping sustainable livelihoods, we have collaborated with the best in the field – our community tribes, Adivasi, Assamese, Bengali, Bodo, Bihari, Garo, Mishing, Nepali, Nyishi and Rajbongshi who are the stalwarts of the Foundation's vision and endeavours.

We are extremely proud of the decade of experimentation in various aspects of conservation which has led to the following in 2019-20 - increase in community participation, employment through ecosystem-based services, development of stewardship behavior within the forest-fringe communities and further propagation of indigenous knowledge.

Our efforts are brought to fruition with the unstinting support of our Naturenomics™ partners - Assam Investment Advisory Society, Amalgamated Plantations, APPL Foundation, Axis Bank Foundation, Centre for Microfinance & Livelihood, Globally Managed Services, Hemendra Kothari Foundation, Hindustan Unilever Ltd., H. T. Parekh Foundation, IndianOil, North Eastern Council, State Bank of India, State Bank of India Foundation, Tata Global Beverages Limited, Tata Motors Finance, Tata Steel, Tata Trusts, Wildlife Conservation Trust, World Wildlife Fund - India and JFMCs & Baligaon leaderships - 134 Ecological Task Force, Aaranyak, Green Guard Organization, Harupeswar Foundation, Khasi Hills Community, Mahila Shakti Kendra (MASK), Pakke Paga Festival Committee; Knowledge Partners - Department of Environment & Forests - Govt. of Assam, Annapurna Seed Library, Ashoka Trust for Research in Ecology & Environment, Bangladesh Environment and Development Society, Conservation International, Current Conservation, Club of Rome – India, Guwahati University, Earth Day Network, Indian Council of Forestry Research & Education, Indraprastha College for Women, Japan Environmental Education Forum, Kaziranga University, Kunming Institute of Botany, Kokugakuin University, Missouri Botanical Garden, Mountain Partnership, North Bengal University, Rain Forest Research Institute, Sanctuary Asia, Sanctuary Nature Foundation, Tezpur University and Wildlife Trust of India.

The journey and the milestones achieved couldn't have been possible without the dedication of Balipara Foundation team members who have passionately contributed to the growth of this Foundation since 2007.

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FOREWORD

Interdisciplinary Thought Leadership for the Naturenomics™ Civilization

Through the ages we have used nature's capital to surge economic growth. The first wave of natural capital use gave us agriculture, however the next wave which gave us the industrial revolution led to an overexploitation of resources. Beginning in the 19th century, cheap energy sourced through the consumption of fossil fuels, delivered the stimulus needed to grow the global economy to the size it is today. Today, the digital revolution continues this trend, relying on cheap energy and cheap rare metals and materials to build the hardware and power the systems that constitute the vital fabric of our world.

This use, overuse, and misuse of nature have eventually put both of "us"; the "consumers" and the "resources" on the verge of destruction. Recent projections by the International Centre for Integrated Mountain Development's (ICIMOD) for the next century reveals a dire picture for the Eastern Himalayas: bare rock instead of snowcapped peaks, desert instead of rich forests and seasonal streams in place of roaring, mighty rivers. The most recent pandemic sweeping countries – COVID-19 – is another, with scientists hypothesizing a new link between the loss of biodiversity and habitats and the rise of pandemics today. As forests disappear and ecosystems shrink, wildlife is increasingly forced into contact with people, accelerating the incidence of animal-spread pathogens ranging from Ebola to the HIV virus, and, most recently speculated – COVID-19.

The destruction we face, it seems, is no longer purely that of the loss of natural resources, but the unpredictable and lethal consequences of upsetting finely-tuned systems of balance between people and nature.

Naturenomics™ was born, twelve years ago in 2007, out of the realization that economy and ecology are intimately interdependent and cannot continue to be treated as discrete entities. Instead, the interdependence between economy and ecology needs to be restored, to achieve the balance needed for healthy communities and a healthy planet.

Over the years our thinking has evolved to become more

interdisciplinary: we need more than just the narrow perspectives offered by one field or the other. We need science, but science itself is embedded in the social and cultural sphere. We need society and culture, but society and culture are built around the pillars of the norms of our economy – and our economy in turn is governed by policy, politics and our rich intertwining histories.

Our Rural Futures dream for the Eastern Himalayas and beyond stems from this evolution in our thinking, towards the need for integrated, interdependent solutions for both conservation and economy. With forest-fringe communities leading the way, livelihoods through regenerative habitat restoration is the key to unlocking a natural capital based economy. This natural capital based economy has the power to deliver essential universal basic assets such as healthcare and education, creating resilience, self-sufficiency and interdependence among these forest-fringe communities: paving the way for the Naturenomics™ Civilization.

Putting ecology back in economy is only the first step, but if we must create the context-specific and responsive solutions to rebuild our natural capital we need perspectives from every single discipline. We need the A to Zs of our global systems of knowledges to redesign the Anthropocene at its most fundamental levels –

Astrophysics

– for a world systems understanding of our planet, the depth and breadth of anthropogenic changes to our planet, an understanding of the limits of life and the limits we need to impose on our consumption oriented economy for our future survival

Anthropology

– for an understanding of our cultural relationships with the natural world and how we can begin to heal these fracture relationships



Botany

– for understanding our natural capital and effectively, scientifically restoring ecosystems in the least disruptive ways

Diplomacy

– for building the global relationships and collaborations needed to build Rural Futures on a global level and develop management systems for our borderless, shared natural capital

Engineering

– for innovating technological solutions for delivering universal basic assets, creating natural assets and building a Naturenomics™ Civilization

Finance

– to mainstream and incorporate the invisible value flows of natural capital and natural asset values through our economy, to effectively invest in them for our future

Geology

– to understand the trends and effects of anthropogenic activity on our planet over the centuries culminating in the Anthropocene, as well as geological processes and activity that changes our climactic context but which exist beyond our control

Hydrogeology

– to understand our planet's water systems in relationship to the earth's natural processes, as well as the effects of anthropogenic changes, to protect our water for our future generations

Law

– to create the best protections and rights for managing our natural capital, particularly in empowering local communities to be effective stewards of our natural assets

Media

– to amplify voices and perspectives from the frontlines – our forest-fringe communities – document alternative models of economy and broaden the landscape of our global imaginary, to visualize paths to new and unimagined futures

Traditional Ecological Knowledge

– for a deep and intimate understanding of ecologies, their histories and simple, sustainable strategies for action, building resilience and enriching natural capital in partnership with indigenous and local communities

Zoology

– to understand our remaining species and protect our biodiversity, to protect the survival of ecosystems and natural capital



Our journey over the past few years has been towards consolidating our focus by centering habitats as the most critical site of action for the Eastern Himalayas. At the same time, we have deepened our human-centric, social perspective on conservation, ecology and natural capital. This year, with our vision honed in on habitat restoration, we opened the door on a new chapter, of interlinking and coordinating all our verticals to drive our habitat restoration efforts towards Rural Futures in Assam and beyond.

Through biodiversity assessments and audits, we have enhanced our understanding of forest dynamics and relationships, strengthening our capacity to scientifically restore habitats across our project sites. Ethnobotanic research across communities in Balipara has given us a vital window into the intimate relationships between people, plants and a rich body of cultural knowledge. Coupled with fungal biodiversity research, we have not only identified new species and potential bioresources for sustainable natural capital-based livelihoods, but were able to use our knowledge to create and pilot two evidence-based programmes – the Ghar Bari (food forest) project and a mushroom livelihoods project in Baligaon.

Our first regional Eastern Himalayan Naturenomics™ Forum marks a new phase in the forum's growth, fostering critical dialogues on habitats, community-driven conservation and livelihoods at a grassroots level. Held in Sikkim and Bhutan, this series of forums will expand to reach all states and countries in the Eastern Himalayas with a view to catalyzing new action on community-led habitat restoration for Rural Futures.

Our Annual Eastern Himalayan Naturenomics™ Forum, hosted in Guwahati, in the meanwhile, expanded to bring in 650 participants across 17 countries for in-depth discussions on the next steps for Rural Futures – using natural capital to deliver access to universal basic assets such as healthcare and education. These conversations birthed with outcomes of developing framework on Nature Capital based financial economy for Eastern Himalayas, documentation of indigenous knowledge on Ethnoastronomy, Mushrooms & medicinal plants as well as creating awareness on importance of ground-up education in building sustainable conservation plans. Alongside our workshops, conducted both in Guwahati and through our Naturenomics™ School, we sparked thought-provoking exchanges on sustainability, environmental awareness and the vital importance of habitats for our future, reaching out to over 3680 people.

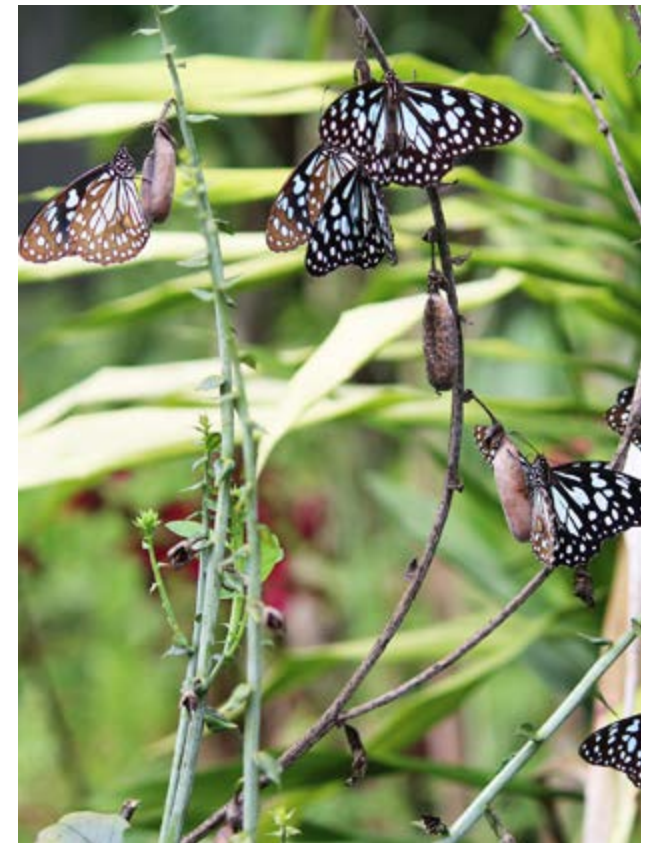
And at the heart of all our activities this year, we continued to deepen and expand our habitat restoration programmes, launching a new site in Balipara Reserve Forest. On our 12th anniversary, we ran CommuniTree, a plantation drive that planted over 285,000 saplings

in 30 minutes, but more importantly showed us the incredible power of communities and multiple organizations coming together to achieve a single common goal. With 1.2 million natural assets, planted in partnership with communities, we now see the first fruits of transformation: communities saw a nearly 100% increase in their incomes through participation in restoration activities and in our team detected a young mother elephant and her calf in the still young forest at Udalguri.

We have come far since our early beginnings in 2007, but we have a long way to go in harnessing the unique insights afforded by the interdisciplinary Naturenomics™ framework to propel our Rural Futures dream forwards. Now, more than ever, the world is waking up to the critical need for restoring our precious ecosystems – our rich natural assets.

Despite the grim global outlook, there is hope for the future, beginning with grassroots transformation: a Naturenomics™ civilization that supports all, starting with our most vulnerable communities through Rural Futures among our villages, especially among forest-fringe communities on the frontlines of the fight to preserve our natural capital. Working with communities across the Eastern Himalayas and organizations from a local to an international level, our journey to 10 million natural assets for resilient communities by 2023 will be an exciting one.

Balipara Foundation invites you to join our journey.



13 GLORIOUS YEARS

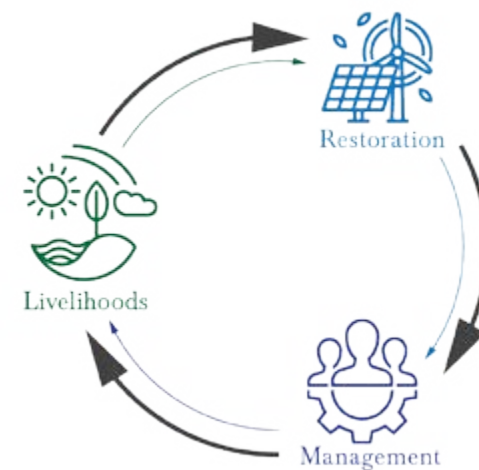
Launched in 2007, the Balipara Foundation takes a community based approach to conservation through a proprietary concept Naturenomics™ (Nature + Economics), to equip Eastern Himalayan communities to be stewards of their natural assets through enhancing their social & economic mobility.

The Foundation's multidisciplinary team of over 50 people passionately collaborate with local communities in the Eastern Himalayas to develop Rural Futures: a human-centric approach to environmental conservation using levers such as afforestation, clean water access, sustainable housing, education, healthcare, connectivity, etc.

OUR VISION:

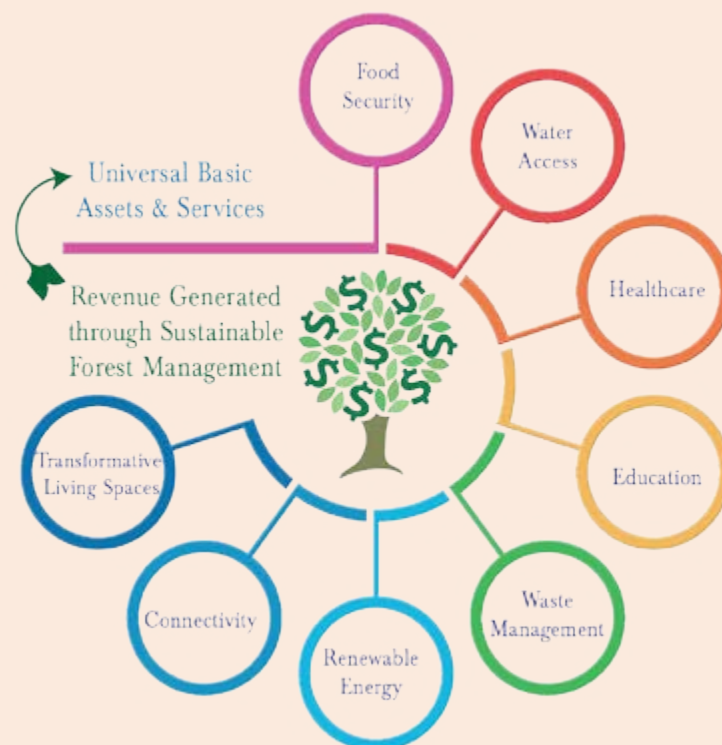
1 Rural Futures

A scalable, localized action framework for natural capital regeneration, driven by habitat restoration & management, which creates sustainable incomes and businesses for forest-fringe communities.



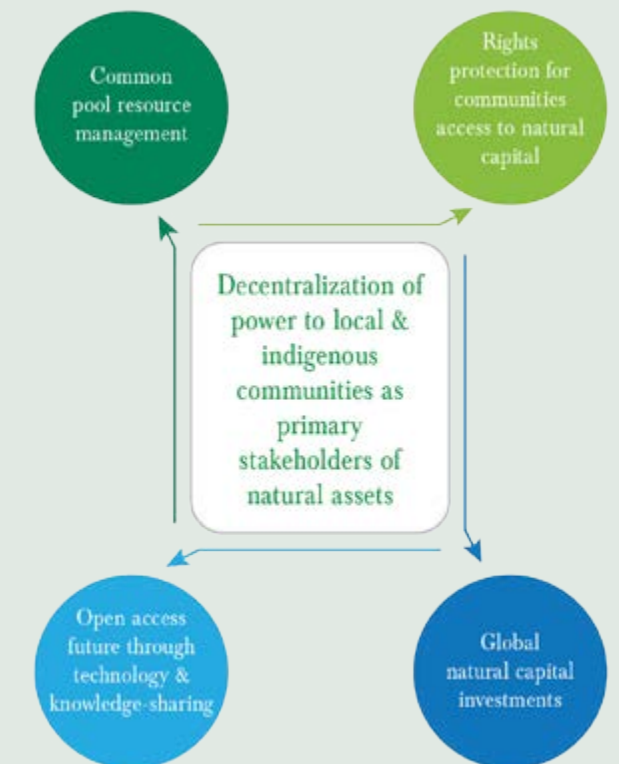
2 Universal Basic Assets

Through Rural Futures, communities achieve socioeconomic mobility & accrue enough value through natural capital to become self-sufficient, accessing and delivering universal basic assets & services needed to secure basic human needs for improved quality of life and income.



3 Building The Naturenomics™ Civilization

Transitioning from the localized focus of Rural Futures calls for concerted cooperation across stakeholders at a national and international level. With this framework of tools and skills, forest-fringe communities will be empowered to manage their own natural capital and natural assets, paving the way for greater community autonomy and self-sufficiency for the Naturenomics™ Civilization.

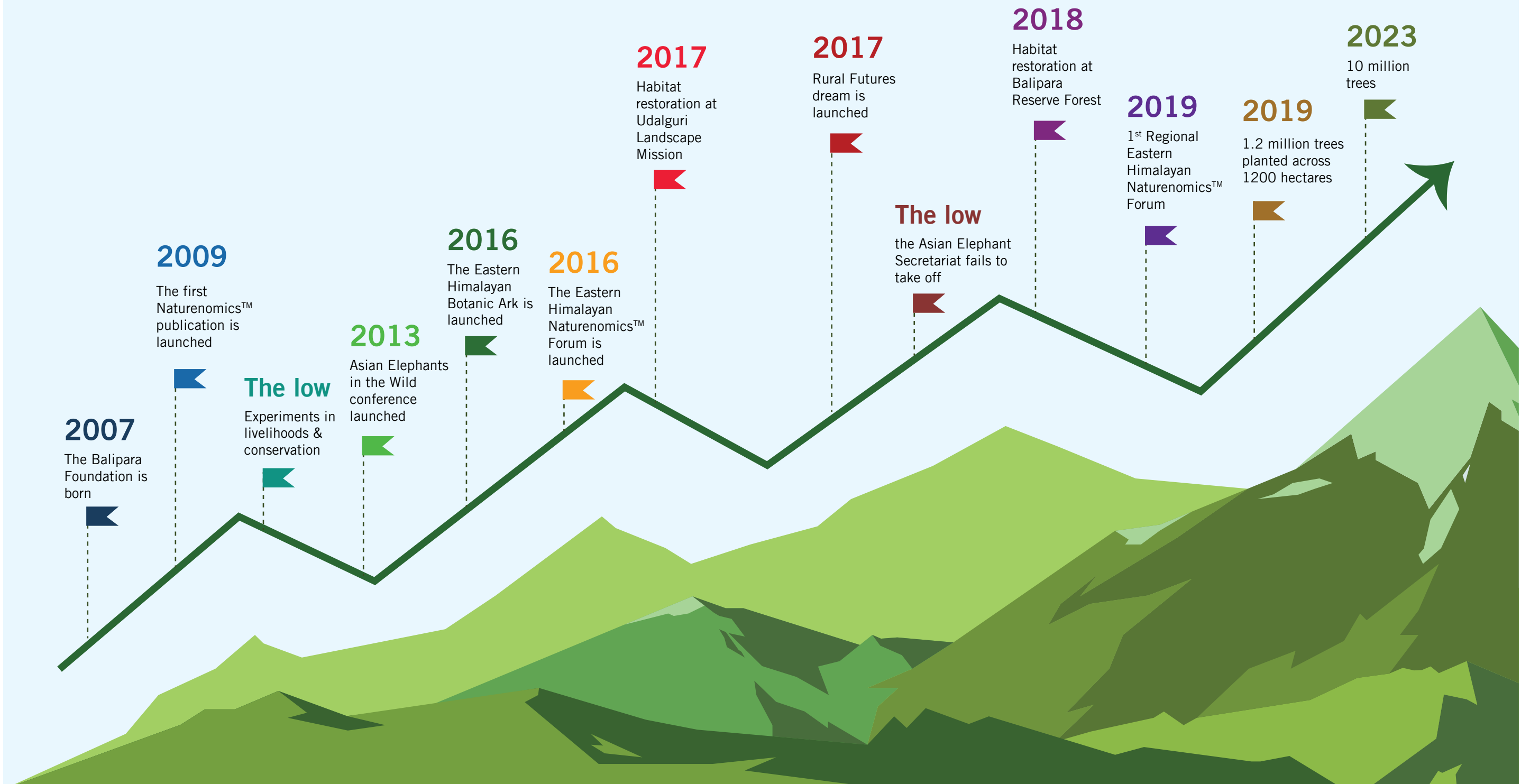


4 The Naturenomics™ Civilization

An international vision for a future in which natural capital forms the central core of a global biome with humans, wildlife and industry in thriving symbiotic coexistence. In this future, we visualize self-sufficient, autonomous networked communities sustainably liquidating natural capital for sustainable livelihoods & independently delivering access to universal basic assets in a regenerative, cooperative natural capital-based economy.

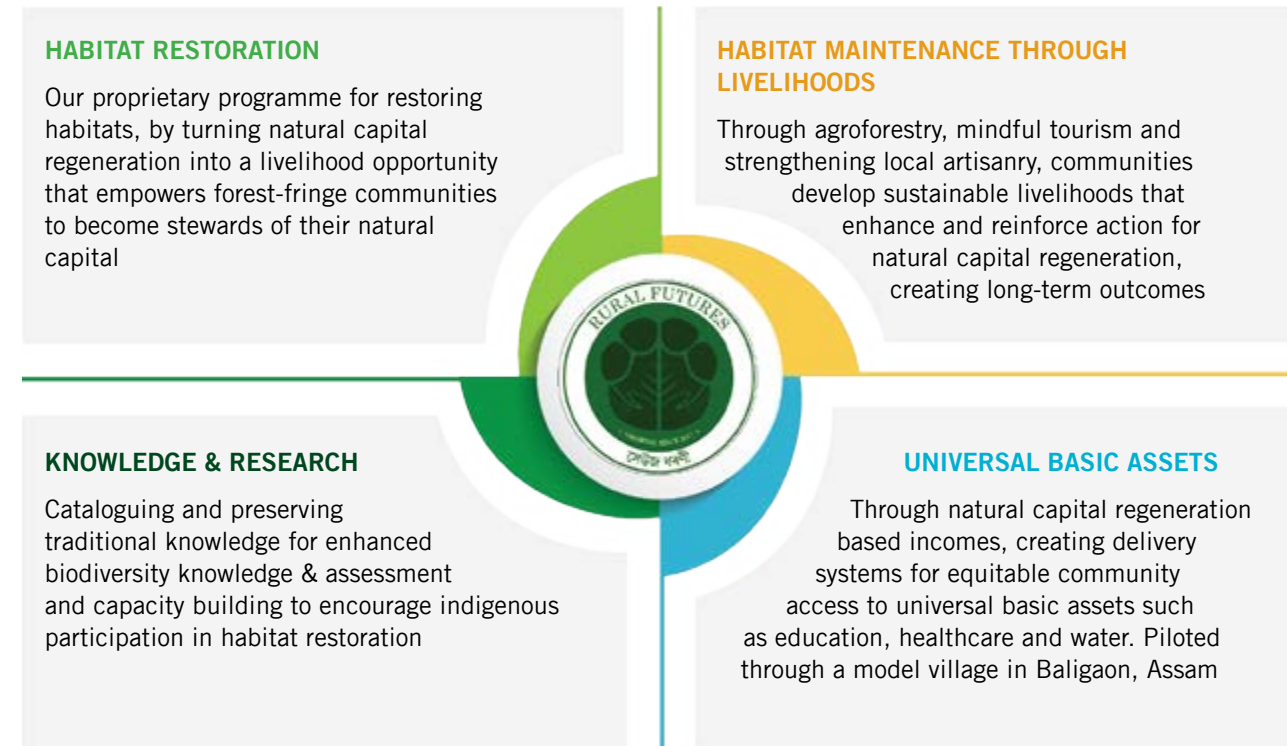


OUR JOURNEY



OUR ENDEAVOURS

- Towards Naturenomics™ Civilization



EASTERN HIMALAYAN NATURENOMICS™ FORUM
Guwahati, Assam, India

THE EASTERN HIMALAYAN NATURENOMICS™ FORUM
An international multidisciplinary platform bringing together conservationists, academics, communities and businesses to foster partnerships and knowledge sharing, for collaborations on community-driven conservation

THE REGIONAL NATURENOMICS™ FORUM
Regional forums conducted across the Eastern Himalayas, to debate regional concerns and issues, led by local communities, business, academia, government representatives and the social sector

THE BALIPARA FOUNDATION SOCIAL RECOGNITION AWARDS
Celebrating grassroots innovators & disruptors in the areas of conservation and sustainability across the Eastern Himalayas

NATURENOMICS™ WORKSHOPS
Awareness programs to create a sense of ecological activism and community development

EASTERN HIMALAYAN BOTANIC ARK
Assam | India
Growing since 2005

BIODIVERSITY RESEARCH
A mix of scientific field research and ethnographic research to assess the prevalence, status and use of bioresources across communities in Assam

THE NATURENOMICS™ SCHOOL
A hub of nature learning to build the next generation of eco-leaders, through knowledge partnerships with local & international universities

THE EASTERN HIMALAYAN NURSERY
Ex-situ conservation & seed and sapling propagation for effective conservation, habitat restoration and landscape management. Currently conserving 300+ plant, 75+ bird & 72+ butterfly species

OUR SOCIAL ENTERPRISES

WILD MAHSEER
Wild Mahseer in Your Mouth

MINDFUL TOURISM AT WILD MAHSEER
A social restoration initiative creating sustainable incomes in mindful tourism at Wild Mahseer, a restored colonial era heritage bungalow nestled in a tea garden in the Eastern Himalayas
Community homestays to enhance indigenous, cultural and traditional practices of our communities

ELEPHANT COUNTRY
Initiated by BALIPARA FOUNDATION

ORGANIC PRODUCTS AT ELEPHANT COUNTRY
An organic brand creating sustainable incomes for artisan communities in Assam, while raising awareness & support for the plight of Asian Elephants and conservation efforts for this species

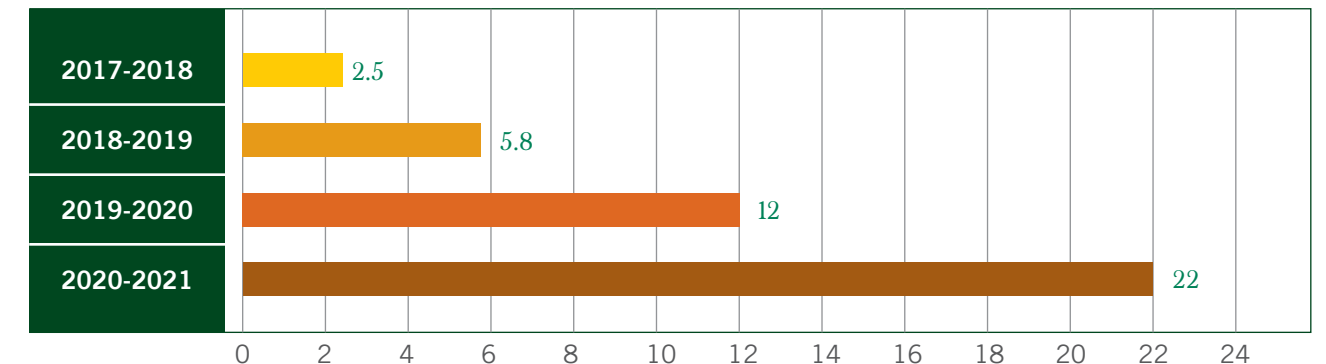
OUR CONSERVATION STRATEGY



SECURING FUTURES: GROWTH IN IMPACTS

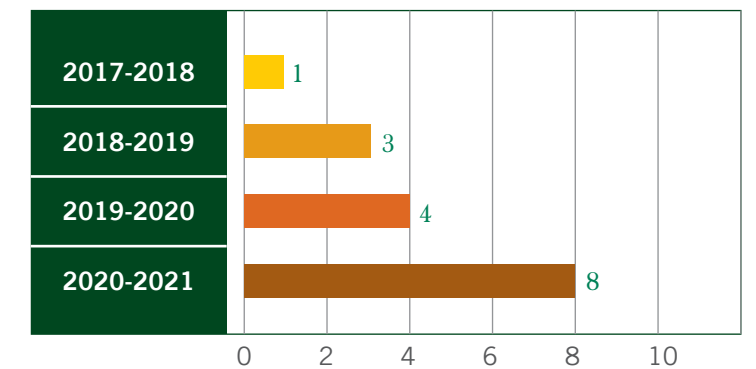
Natural Assets (# of trees; lakhs)

Creating natural assets for habitat-mediated livelihoods among communities



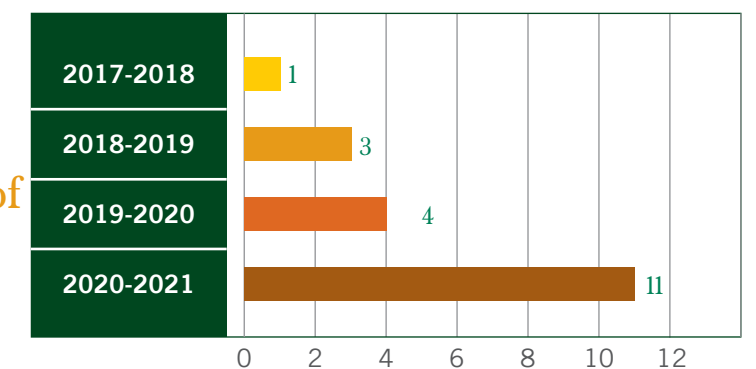
Research (# of research projects)

Indigenous knowledge preservation & optimisation of Rural Futures habitats



Participatory Action (# of community programmes)

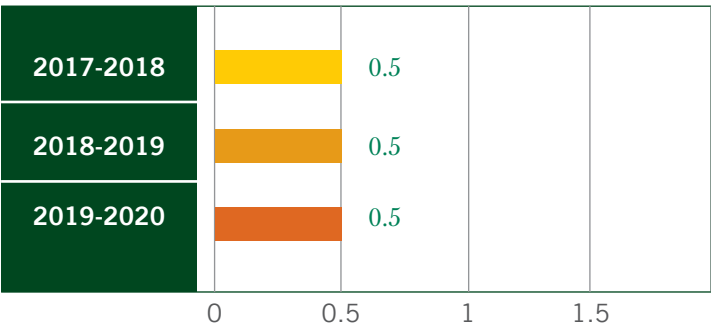
Communities become the stalwarts & guardians of their knowledge and help propagate the importance of this knowledge; Indigenous voices for Eastern Himalayan Naturenomics™ Forum



Universal Basic Assets Delivery

Estimated revenue per annum (# of revenue projection in INR Lakhs)

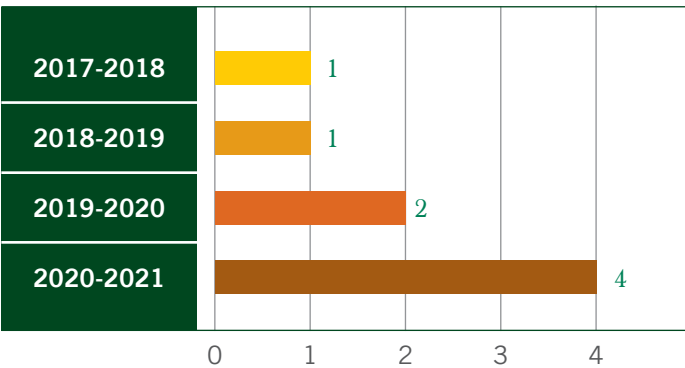
Communities showcase the ability of natural capital to generate revenue for Universal Basic Assets



Naturenomics™ Workshops

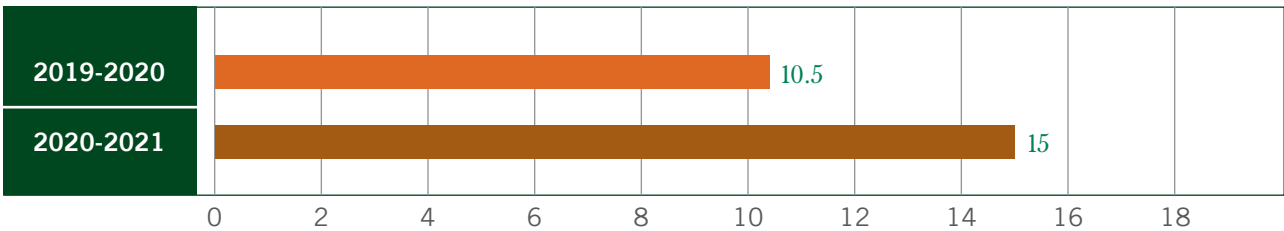
(# of workshops)

Engagement with children in enhancing their ecological knowledge, engage in an alternate means of nature-based education



Elephant Country: Community Income (in INR Lakh)

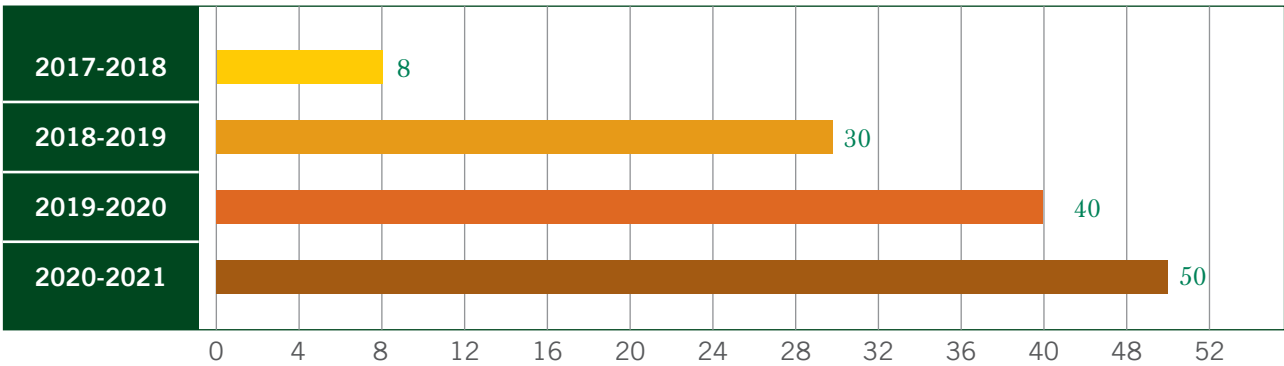
Empowering artisans through innovative and market linked products



Naturenomics™ School & Earth Day Network

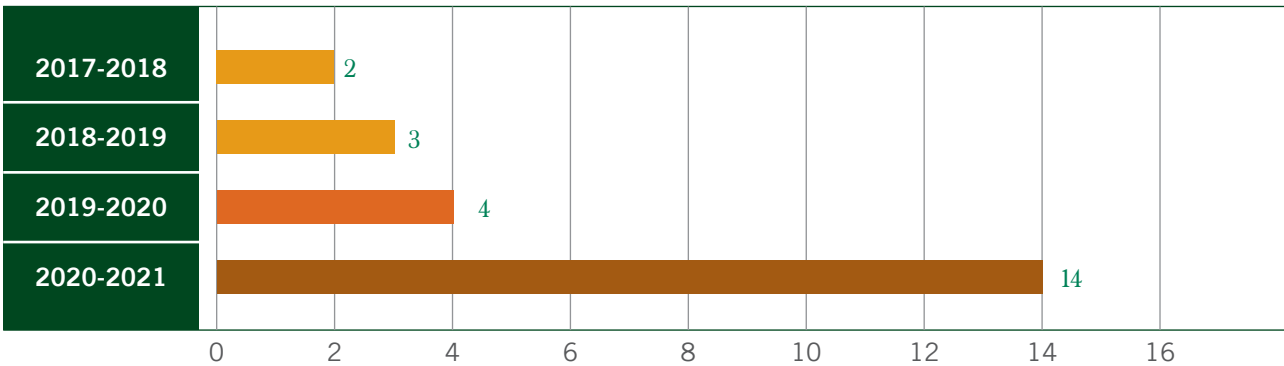
(# of workshops)

Engagement of the youth, awareness programs to create a sense of ecological activism and community development



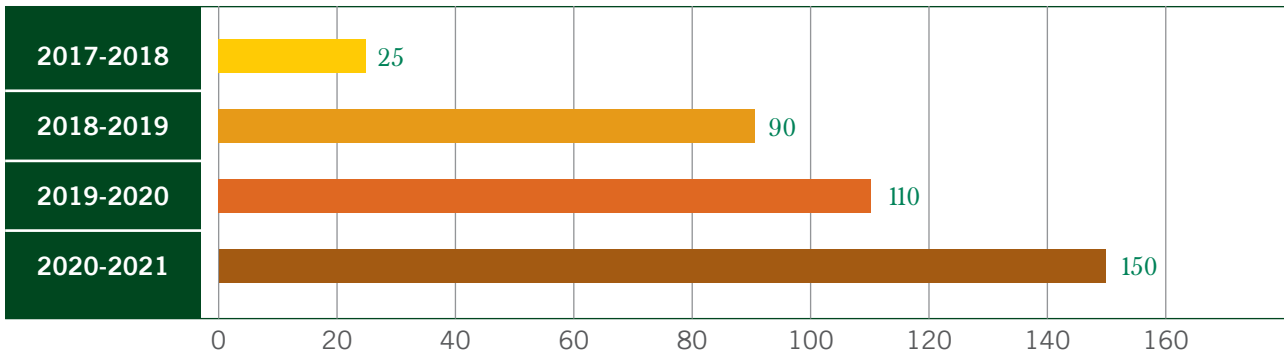
Flagship & Regional Eastern Himalayan Naturenomics™ Forums (# of Forums)

Enhancing community-led habitat restoration in the Eastern Himalayan region & identifying community-voices for customised solutions



Internship program (# of interns)

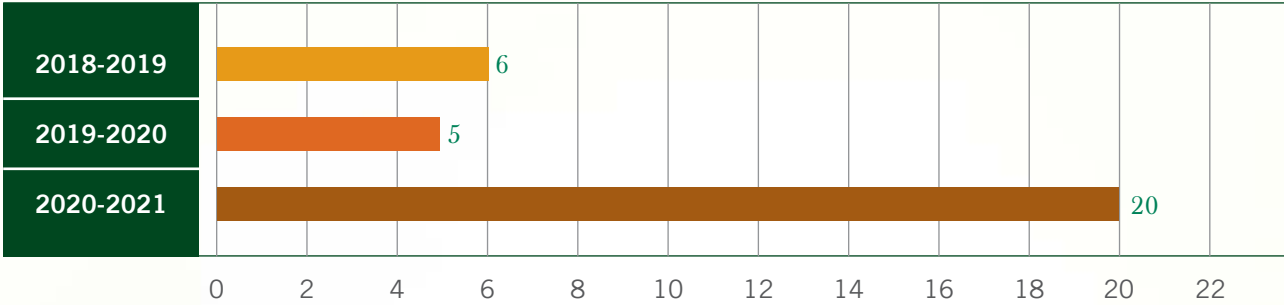
Strengthen our networking base, impart the concept of Naturenomics™ and Rural Futures, Expand our academic reach with each intern, Inclusion of new ideas and knowledge base



Publications

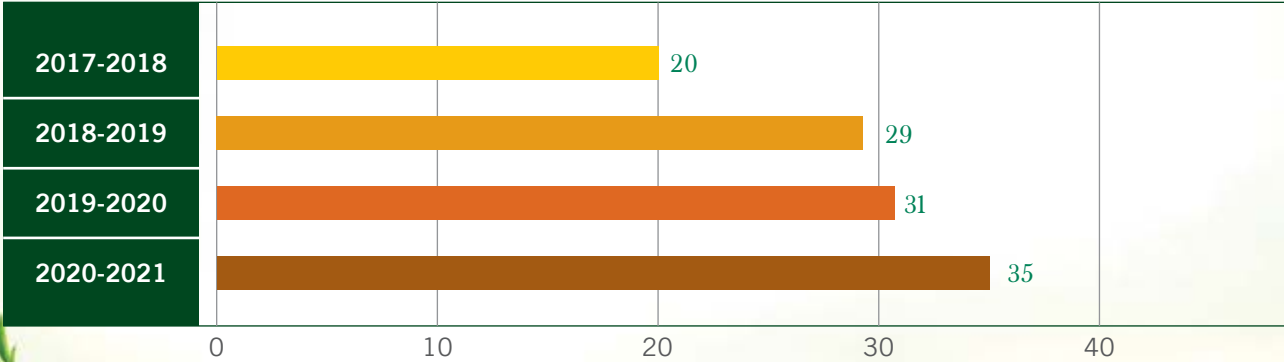
(# of articles)

Thought leadership on nature-based solutions for the Eastern Himalayas, through Rural Futures & Naturenomics™



Human Resources (# of Forums)

Successful talent acquisition, higher levels of retention, training and development of consultants, organized administration



2019-20 IN NUMBERS



HABITAT MANAGEMENT

Udalguri Landscape Mission
468,628 Natural Assets created
300 Hectares habitat restored
Balipara Reserve Forest Management
163,0630 Natural Assets Created
153 Hectares habitat restored
Eastern Himalayan Botanic Ark
2196 Natural Assets created
New species planted - 20 nos.
No. of saplings donated-18,453 nos.
Communitree
280,000 Natural Assets created
Our contribution to Nature Conservancy till date:
Saplings Planted- 1.2 million



LIVELIHOODS

Udalguri Landscape Mission
INR 7.7 million in community income
7105 people impacted
Balipara Reserve Forest Management
INR 2.6 million in community income
2049 people positively impacted
Elephant Country
INR 10.5 Lakh generated from Elephant Country products for the forest-fringe communities
New range of organic and hand-woven products by our communities launched
CommuniTree Impacted:
9500 households
47,500 people
78 villages



RESEARCH

Bioresources and Sustainable Livelihoods in Northeast India:
16 weekly markets and 500 households from 50 villages had been covered and approximately 100 bioresources have been spotted
Fungal Biodiversity
(2018) 232 species identified – 64 medicinal, 34 recorded could be new to science
(2019) 250 species – 1 confirmed new species, 1 first documented in SE Asia, 10 new species under review
Documentary – Planet Fungi
Ethnobotany
370 species
199 medicinal plants
7 ethnic communities



MINDFUL TOURISM

Eastern Himalayan Botanic Ark in residence at Wild Mahseer

Skill development & generating direct employment of **100+** local individuals

INR **92,508** contributed towards the livelihoods of the communities through our Community Homestays in Nyishi, Garo and Mishing Villages in the Sonitpur District in Assam

Elephant Country

INR **87,000** generated as direct income towards the livelihoods of the communities through Elephant Country Camp in Bhairabkund Reserve Forest



KNOWLEDGE

Eastern Himalayan Naturenomics™ School

20 workshops, No. of participants: **572**; Since inception, **47** workshops, **3680** participants

100+ students engaged in volunteering programs on Livelihood, Sustainability and Conservation from **7** countries

Eastern Himalayan Naturenomics™ Forum

First Regional Eastern Himalayan Naturenomics™ Forum 2019 held in Sikkim on the theme of Communities, Conservation & Livelihoods: The Lepcha Community

Total: **50+** Participants, **10+** Speakers

Annual Eastern Himalayan Naturenomics™ Forum 2019 – Rural Futures: Towards Universal Basic Assets

15+ Countries, **60+** Speakers, **1000+**

Participants, **15+** Communities, **17** Balipara Foundation Social Recognition Awards Recipients

Knowledge Platforms

Environmental contest on identifying endangered species at the Rongali festival, 2019, Assam

Balipara Foundation team participated at the

- India Satoyama Workshop, Delhi, India
- Molecular Taxonomy Workshop at Institute of Life Sciences, Bhubaneswar
- The European Conference on Sustainability, Energy & Environment, UK
- IUCN Circular Economy, India
- 2020 Annual Conference of The Club of Rome, India



PRINT STORYTELLING

Rural Futures: 21st Century Transformation for The Naturenomics™ Future launched

Stewards of Naturenomics™ in the Eastern Himalayas: Balipara Foundation Social Recognition Awards 2019 launched

Naturenomics™ 8.0: Handbook on Ethnobotany

Eco Chronicle Journal – Inventory on the Biodiversity of a Tribal Village in Assam, India, with special reference to their use pattern

'Rural Futures for Ecological Civilization in the Eastern Himalayas' featured in Royal Over-Seas League Magazine, UK

Indian Journal of Hill Farming – Biodiversity of one Garo Village of Assam with an emphasis on the traditional knowledge and use of the wild plants

Plants and Environment Journal – Biodiversity of a Tribal Village in Assam with special emphasis on the traditional knowledge of plants

Our Social Restoration Project site – Wild Mahseer featured in the

- Air Asia In-flight Magazine
- Discover India Magazine
- Anandabazar Patrika
- Sevenses Media
- Luxury Travel Blog
- Travel Bleisure – Vistara
- Delhi Planet



HUMAN RESOURCES

Net Increase in strength of team by **6** individuals

Total No. of Employees – **75** nos.



COMMUNICATIONS

Website: Cumulative across all platforms:

Page Views –

30,47,445 vs **281,202** in 2018

Users –

3,97,968 vs **77,251** in 2018

Sessions –

411,303 vs **98,453** in 2018

Social Media: Cumulative across all platforms

Followers: **30,088**

Reach: **1,261,987**

Twitter - Impressions: **98,366**

Followers: **2,054**

Newsletter/Mail Chimp

24 Newsletters

1100 Subscribers



RECOGNITIONS

The Habitats trust – strategic partnership grant – finalist

Recognition for planting **1.2** million trees and the efforts towards increased forest cover from Earth Day Network, Washington and India

‘Burra Bungalow’ of our social restoration site has been declared as the Heritage building by The Directorate of Archaeology, Assam

Eastern Himalayan Botanic Ark in residence at Wild Mahseer achieved the ‘TripAdvisor Certificate of Excellence 2019’ award



PARTNERSHIPS

New Partnerships – 5 nos.

HT Parekh Foundation (Extension): Habitat Restoration

Navdanya: Agro-ecology in Rural Futures

Northeastern Council: Eastern Himalayan Naturenomics™ Forum

GEF- Satoyama Project – International Partnership for Satoyama Initiative

Tata Steel: Eastern Himalayan Naturenomics™ Forums



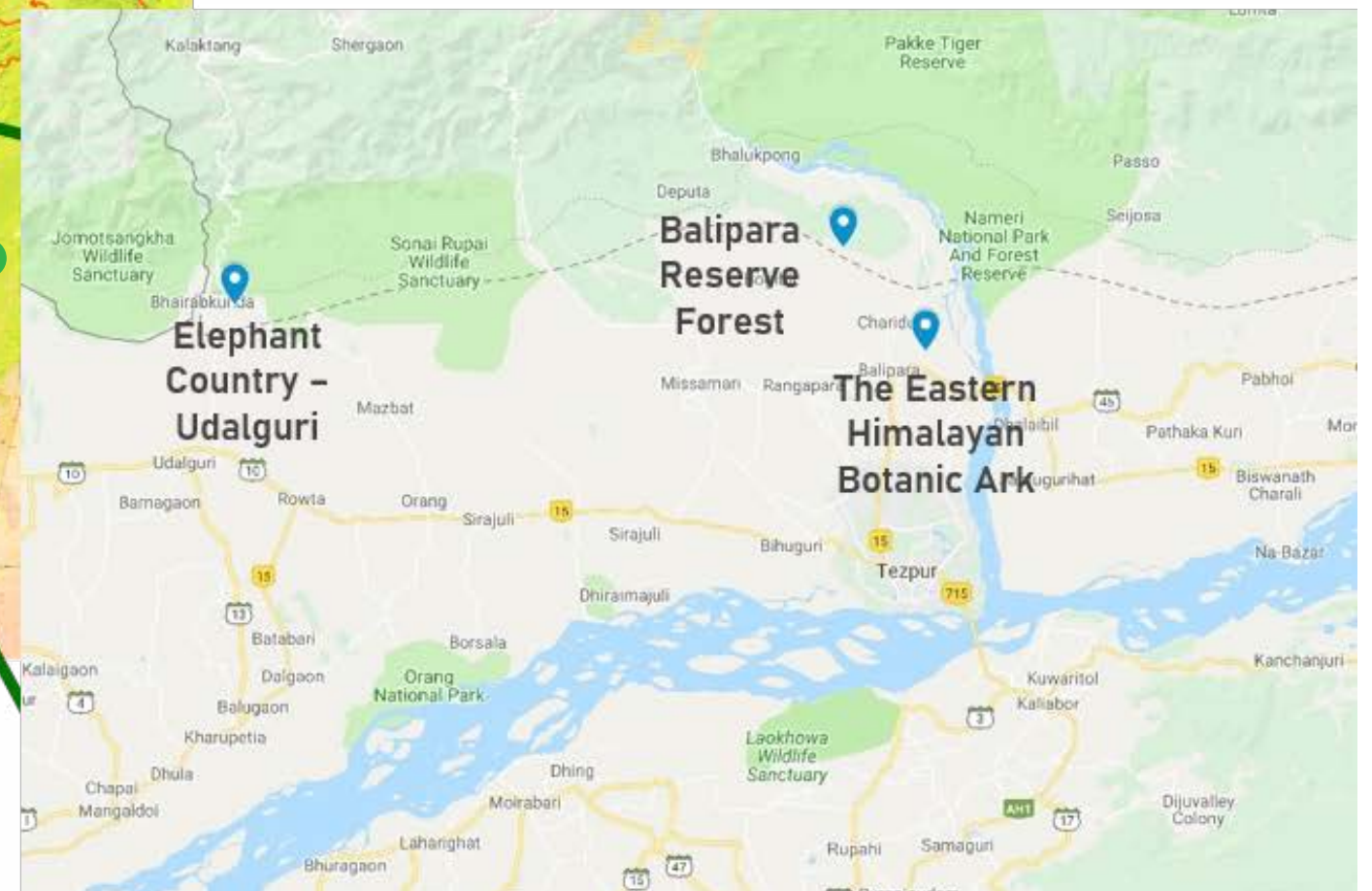
GEOGRAPHICAL FOOTPRINT

- OUR REACH



FROM THE SNOWLINE TO THE SEALINE

THE EASTERN HIMALAYAS: FROM SNOWLINE TO SEALINE



Geographical Footprint:

- Eastern Nepal
- North Bengal
- Bhutan
- North East Indian states
- Bangladesh
- Northern Myanmar
- Western China Mountains

Field Offices:

Eastern Himalayan Botanic Ark (Balipara, Assam),
Elephant Country (Udalguri, Assam)

Knowledge Centres:

Guwahati & Mumbai

PLANS: 2020 & BEYOND

Natural Assets & Habitats

- Increase habitat restoration footprint from 0.35 million natural assets/year to 1 million/year in 2020-2021 & from 350 Ha/year to over 1000 Ha/year
- Increase manpower directly involved in habitat projects from 4 (current) to 8 (2020-2021)
- Increase habitat-centric peer-reviewed scientific publications from 0 (current) to 2 (2020-2021)
- Increase impact monitoring systems, value chain assessment processes, documentation & mapping for habitat work. Begin research for Kaziranga 6th edition

Research & Scientific Publications

- Biodiversity mapping of Balipara Reserve Forest, Sonai Rupai Wildlife Sanctuary and Bhairabkunda Habitat Restoration sites (Scientific publication & resource booklet)
- Phase II study on ethnobotany patterns across indigenous communities (Scientific publication & resource booklet) (Assam & NE India)
- Advisory Board for research works & Publication

Indigenous knowledge documentation & livelihoods

- Intra-community knowledge exchange programmes using a central village platform as a benchmark
- Community-led training programmes for citizen sciences (eg: biodiversity & wildlife migration corridor mapping, seeding & fruiting phenology, photography & film-making towards capturing their own (albeit, diminishing) indigenous knowledge, et al)
- Community training by indigenous-science, storytelling experts & other indigenous leaders for achieving all of the above



Mindful Tourism & Universal Basic Assets Delivery -

- Socio- economic Infrastructure – Health centre, Schools, Digital hub, Yoga and fitness hub, Solar hub, Mushroom Cultivation units, Food forest in each of the household
- Naturenomics™ skill development workshops

Forest-fringe alternate livelihoods through indigenous Fungi cultivation

- Setting up 15 cultivation units each in 3 villages around Balipara HQ (Sonitpur District). 5 units in 2020-2021
Total revenue of INR 19,20,000/year from 5 units benefiting over 50 individuals directly
- Setting up a spawn cultivation & research unit at Balipara HQ. Enhanced technology for all-year growth of spawns & mushrooms (2020-2022)

Elephant Country

- Connect and source traditionally designed products from artisans in the Eastern Himalayas

- Design market focused signature product line using traditional knowledge of the artisans and new age designer
- Introduce special collection for Spring/Summer and Fall/Winter collections in December and June respectively every year in collaboration with specific designers
- Build a strong online and offline presence for targeted customer profile
- New Products to be introduced:
 - > Bamboo jewellery (primarily ear rings)
 - > Coconut shell jewellery (primarily ear rings)
 - > Bell metal products (small size decorative xorai, jaapi, ban bati, bota etc)
 - > News Paper bags for bulk supply
 - > Handloom pocket square in Muga, Eri, Cotton
 - > Handloom Handkerchief set in cotton with traditional motifs
 - > Handloom Home Decor items - Curtain, Bed Sheet, Pillow Cover, Table runner, mat, napkin set etc.



Flagship & Regional Eastern Himalayan Naturenomics™ Forums

- Flagship Eastern Himalayan Naturenomics™ Forum- November 2020
- Regional Forums in the Eastern Himalayan area (NE states & countries)
- Identification of key community leaders (esp. youth) & their stories/challenges/solutions
- Government & key partners network for further dialogue & implementation of the Rural Futures framework
- Eastern Himalayan Naturenomics™ Forum to become the sustainability capital of the Eastern Himalayas

Workshops in association with Earth Day Network & Naturenomics™ School)

- Long term and short term partnerships with local organizations
- Engage with ecological movements like Fridays for Future Guwahati edition
- Tie up with cultural spaces like the Maati Centre for workshops which has a varied footfall
- Tie up with schools like AVS, Rangapara LP School, Neville LP School in Chariduar
- Tie up with schools in Guwahati and Shillong for monthly workshops or field visits to Balipara and Udalguri
- Create a module for “Eco Clubs” in various schools

Volunteering Programmes

- Long term and short term partnerships with local organizations like Green Hub who have a trainee database
- Engage with ecological movements like Fridays for Future Guwahati edition - to engage with youngsters looking out for internships
- Collaboration with University of Science and Technology Meghalaya, Tata Institute of Social Sciences, Royal Global University, Jamia Millia Islamia etc for internship programs
- Volunteering collaboration with Global Shapers (World Economic Forum) for a broader network base

Print Storytelling

- Triple no. of published articles from 6 to 20 between June and December FY20
- Grow media partnerships with specialist publications (ENVT, DVPT, EH) & national platforms
- Expand & re-release the RuFu book as a coffee table publication, with Eastern Himalayas area commentary by experts (from Regional Eastern Himalayan Naturenomics™ Forums), ISBN no. and reviews from relevant experts
- Re-release the Ethnobotany book with greater sociocultural details
- Peer reviewed scientific publications from 4 to 10 publications
- Launch 1st research report on the effectiveness of RuFu habitat restoration projects for biodiversity & communities

Eastern Himalayan Naturenomics™ Forums- Naturenomics™ Workshops

- Engage with more than 8 schools for the workshop
- Engage with more than 8 universities for the workshop
- Organize workshops where a community leader or a community school teacher will conduct the workshop for school teacher
- Engage in theatre, art and music workshops for common citizens to take the ecological movement forward (creating a space at the forum for cultural and artistic dialogue)
- Arrange workshops conducted by forest guards and rangers



Partnerships

- Engage new relationships with potential sponsors and supporters
- Engage national universities & independent research institutions for research program partnerships & independent biodiversity & social indicator audits on RuFu programs
- Govt. partnerships & funding for research & habitat restoration programmes (esp. nursery support)
- Launch a partnered research project with three Eastern Himalayan focused organizations
- Grow media partnerships with specialist publications (environment, development, Eastern Himalayas) & national platforms

Communications

- Stronger video content – shortform from teams & communities
- Broader content – covering the Eastern Himalayas and its biodiversity as a whole
- Accessible narratives – publicizing RuFu, human-interest stories
- Platform expansion– expand into LinkedIn, reach on Facebook, Twitter and Instagram
- Field & community driven content – teams provide content for storytelling from the field
- Themed posts – to highlight projects, programmes, workshops, meetings
- Revamped Website - Restructuring content, Impact reporting
- Blogs & secondary content – field stories, engaging conservation facts/stories/narratives, longform community stories, Clean & intuitive design



RURAL FUTURES:

HABITAT RESTORATION

Natural Assets Towards Natural Capital



HABITAT
RESTORATION

CommuniTree

Balipara Reserve Forest
Management

Udalguri Landscape
Mission



The Rural Futures model provides the framework for the actualisation of the Balipara Foundation's vision of building the Naturenomics™ Civilisation in the Eastern Himalayas. Rural Futures is based on the analytical principles of Naturenomics™ which assist in aligning the interdependency between nature & economics, restoring ecologies & enhance outcomes from sustainable businesses. Through Rural Futures, the Balipara Foundation aims to both strengthen communities and local habitats by creating sustainable livelihoods through habitat restoration projects. With better livelihoods, pegged to the well-being of the natural world, we believe that communities will be better equipped to meet both socio-economic challenges, as well as the future impending challenges posed by climate change.

Through this programme, we aim to make indigenous communities the stewards of their natural inheritance through pilot programmes towards restoration of degraded forest habitats & enhancing natural assets, creating a system for sustainable natural capital optimization – liquidation for delivery of universal basic assets to forest-fringe communities.

This programme began in 2016 with the first project in the Udalguri district of Assam in the India-Bhutan border areas. We now work in and around the Bhairabkunda Reserve Forest with the Gethsamane & Dhunseri Joint Forest Management Committees (JFMCs). In the year 2018, this programme expanded into the adjoining Sonitpur district with work beginning in the Balipara reserve forest with the Bogijulee JFMC. In 2020, we will be expanding our work in the Udalguri-Sonitpur belt with new JFMC partners and also launch a new site in between this belt adjoining the Sonai-Rupai Wildlife Sanctuary.



IMPACTS SO FAR



1.12 Million

Natural Assets created across
1200 Hectares



INR 11.4 Million

In community
incomes through habitats



INR 360 Million

In sustainable livelihoods
on forest maturation



Enhancing Community
Institutions

JFMCs, patrolling & monitoring groups,
building alternate livelihood sources
(e.g. ecotourism, weaves)



Natural Resources
Management Skills

Towards autonomy and self-sufficiency
for communities

UDALGURI LANDSCAPE MISSION

Towards Habitat Restoration through Participatory Community Involvement

GEOGRAPHY: Udalgori District –
Bhairabkunda

YEAR: 2017 Onwards



464,00
Natural
Assets
Created



7.7 Million
Community
Income



300 Ha.
Habitat
Restored



7105
People
Impacted

In 2017, the Balipara Foundation launched its first habitat restoration project in Udalgori district as the culmination of a decade of learnings in the conservation sphere. Through our early work, we had begun to realize that while single species conservation tackled a symptomatic problem – shrinking Asian Elephant populations in our case – it failed to deal with the root cause of endangerment: disappearing habitats. Restoring habitats, however, is a high effort task and calls for a broad coalition of support to make it successful.

Many of the regions bordering Asian Elephant habitat corridors are occupied by communities dependent on the forests for their livelihoods and survival. Faced with serious economic pressures and poor incomes, forest-fringe communities resort to unsustainable forest use, leading to rapidly depletion of habitats in the region. In the absence of an economic incentive to cease this deforestation, the communities have no tangible support base to fall back on as a means for generating strong livelihoods.

The Rural Futures model was first developed in the context of this conflict between human aspirations and biodiversity needs, seeking to reconcile the tensions between the two by providing communities with an economic incentive for habitat restoration.

Udalgori district was chosen as a pilot for this project because of its centrality to an Asian Elephant habitat corridor stretching from Assam to Arunachal Pradesh and crossing over into Bhutan. Rampant habitat loss in the region

had exacerbated human-elephant conflict, with serious consequences for both communities and for elephants in the region.

With the help of Bhairabkunda JFMC, and with the investment support of the SBI Foundation and Axis Bank Foundation, the Balipara Foundation launched a programme to create 300,000 natural assets and create INR 2.5 million in income for the communities.



COMMUNITY ENGAGEMENT

Strong community action support from the Bhairabkunda JFMC has always been instrumental in the success of this project. Through their leadership and organization, we were able to distil a few key learnings about community capacities and capabilities that are critical to project success.

A few of these noteworthy self-organisation milestones critical to project success were:

- Ability of the community to organize and show collective action as a response to Government endorsed policies & structures
- Ability of the community to develop alternates and/or add-ons to Government plans for development and seek external assistance when required
- Ability of the community to develop structures of governance and provide leadership for a large community movement
- Ability to organize, plan for the long-term & strategise in times of financial distress
- Ability to evolve and prove durability beyond the initial phases of self-organisation & endure the lows after heightened motivation from short-term gains



UDALGURI LANDSCAPE MISSION – NURSERY

Located within the southern boundary of the project area, the Nursery was launched in January 2019. The first lot of seeds was sown on the 16th of February 2019.

To-date **1.07** lakh seedlings of **20** species have been raised in the Nursery against an estimate of **1** Lakh.



BALIPARA RESERVE FOREST

Towards Habitat Restoration through Participatory Community Involvement

GEOGRAPHY: Sonitpur District – Balipara Reserve Forest

YEAR: 2018 Onwards

IMPLEMENTING PARTNERS: MASK

 <p>163,063 Natural Assets Created</p>	 <p>2.6 Million Community Income</p>
 <p>153 Ha. Habitat Restored</p>	 <p>2049 People Positively Impacted</p>



The Balipara Reserve Forest Project marks the next launch of the successful pilot habitat restoration project the Balipara Foundation initiated in Udalgori in 2017. The project's mission was to identify drivers of conservation and development, with a focus on human-centricity to maintain the region's ecological balance in a sustainable fashion. The early successes of the project in Udalgori lent the impetus for scaling this project up in Balipara, in close proximity to our field headquarters at the Eastern Himalayan Botanic Ark.

Subsequently, the Balipara Reserve Forest Project had a plan to replicate the Udalgori Landscape Mission pilot but with added elements aimed at building alternate sources of livelihoods, agro-forestry and the development of universal basic assets among communities. In late 2018, the Balipara Reserve Forest Project was launched in partnership with the help of the HT Parekh Foundation, with the vision of restoring 9km² of degraded land, creating natural assets that would provide direct socio-economic mobility in the communities in the forest fringe areas.

COMMUNITY ENGAGEMENT

The Balipara Foundation initially engaged with 3 Joint Forest Management Committees (JFMC) in the Balipara Reserve Forest area, to gauge community interest in a habitat restoration project along the lines of the project being piloted in Udalgori. Of these three JFMCs, two were especially keen to participate in this experiment of restoration and economy, particularly to see how habitats could be restored while offering economics benefits and income stability to members of the community. Over time and because of external constraints, the Bogijulee JFMC has been selected as the committee most ready to take on the responsibilities and commitments entailed by the habitat restoration project.

The Balipara Foundation's engagement with the JFMCs was met with enthusiasm, but with a healthy criticality that birthed energetic participatory dialogues between the Foundation and the JFMCs for habitat restoration commitments. This critical engagement in many ways enhanced the project, helping the Foundation to build a robust approach for action coalition building that enabled us to meet and surpass our habitat restoration goals in the long run.



TOTAL IMPACTS ACHIEVED

SOCIO-ECONOMIC AND LIVELIHOOD IMPACTS

The socio-economic upliftment of the community has been multifaceted in nature. The mobilization process of the project has depicted a very crucial aspect of the community – which is a strong hold of community practices. In less than 6 months, the high mobilization of the field workers has also reciprocated in the large accumulation of revenue generated within the area – > INR 26 lakhs.

THE WOMEN OF THE COMMUNITY

The very first initiative of the Balipara Reserve Forest project has been to empower women. While conducting field surveys of the project our team had a grasp over the patriarchic nature of the communities even in the North Eastern region of India. The Balipara Foundation has worked closely with the community to ensure representation of women and their interests on the JFMC, as well as in all decision-making forums. Additionally, we have also ensured equal pay for women involved in habitat restoration work.

OTHER COMMUNITY BENEFITS

- Employment been through the plantation project emphasizing on the need to highlight the emergency of restoring degraded forest land
- Technical tools for empowerment: Geographic Information System & other mapping tools empower the communities to effectively survey forest land, equipping them to further evaluate and manage these forests down the line. It has been of great importance to keep a track of the already planted saplings and their coordinates to make a comparison of the area covered along with the forests' development
- Financial education: The community has adapted to the system that has been created in terms of payments and revenue generation. The larger picture is to help the people of the community to understand the necessity of having their own bank accounts, the various means and ways of monetary transaction, the need for women to have equal pay in terms of the efforts being invested in the Balipara Reserve Forest project implementation

- Joint Forest Management Committee leading the way towards livelihood generation: The JFMC acts as a leading task force in empowering the people of the community by giving them the power to make decisions and manage the profits being shared by the community unanimously

Through the establishment of JMFCs, forest-fringe communities have understood the vital importance of their role in the following areas:



Food



Employment from plantation



Employment through nursery operations



Gender representation



Environmental stability

- Protection of Wildlife in the Balipara Reserve Forest project site: The people at the project site have not only shared experiences of a resident elephant at the project site but encountered, the team in its entirety inclusive of the community members have been able to rescue an estranged calf of a deer on location. With the cooperation and help extended by the Forest Department, the calf has been rescued and in its rightful habitat

1	LIVELIHOODS
2	COMMUNITY REPRESENTATION
3	ACCESSIBILITY
4	EDUCATION FACILITIES FOR CHILDREN



COMMUNITREE

Forests created and nurtured by the indigenous communities

2.85 Lakh trees planted in 30 minutes

The Balipara Foundation in association with Mahila Shakti Kendra, 134 Ecological Task Force, Assam Investment Advisory Society, Forest Department, Assam and Assam State Rural Livelihood Mission planted over 2,84,722 trees in 78 villages in Balipara County on 4th July, 2019 to celebrate Van Mahotsav and in occasion of the 12th Foundation day of the Balipara Foundation. The initiative saw participation from 9500+ households with 47,500+ individuals and impacted more than 1 lakh people in Sonitpur district. This project has enriched green cover and built confidence, tolerance and collaborations between organizations working with forest-fringe communities towards restoring forests and building social mobility in the area.

Following the plantation drive, the organizing team members have been conducting awareness campaigns among the communities on the care and maintenance of the planted saplings, benefiting villagers in the long run.



CommuniTree is a landmark symbol of a great coming together of diverse stakeholders to nurture and secure our fragile natural assets, building deeply needed resiliency and adaptive capacities among both communities and biodiversity in the area. We need many more such large-scale cooperative efforts to emerge if we are to build a sustainable future for the Eastern Himalayas.

Ranjit Barthakur
Founder and President
- Balipara Foundation

Through this initiative, the Balipara Foundation along with Mahila Shakti Kendra, 134 Ecological Task Force, Assam Investment Advisory Society, Forest Department, Assam and Assam State Rural Livelihood Mission aims to educate people on the benefits of planting trees to reduce air pollution and create awareness on global efforts to address Climate Change. In the future, this project will be expanded to engage communities in smart agroforestry and other alternate source of livelihoods like mushroom cultivation etc.



The various species that have been distributed for the plantation are as follows:

Sirish (Siris)	Albizia lebbeck
Arjuna (Arjun)	Terminalia arjuna
Indian blackberry (Kola jamu)	Syzygium cumini
Chebulic myrobalan (Xhilikha)	Terminalia chebula
Guava (Modhuri aam)	Psidium guajava
Pride of India (Ajar)	Lagerstroemia speciosa
Indian mahogany (Bogipoma)	Chukrasia tabularis
Agarwood (Agor)	Aqilaria malacensis
Asoka (Ashok)	Saraca indica
Champak (Titasopa)	Magnolia champaca
Bead tree (Ghora neem)	Melia azedarach
Indian lilac (Moha neem)	Azadirachta indica
Royal poinciana (Krishnasura)	Delonix regia
False asoka (Debadaru)	Polyalthia longifolia
Spanish cherry (Bakul)	Mimusops elengi
Indian box tree (Kamini kanchan)	Murraya paniculata
Indian gooseberry (Amlakhi)	Phyllanthus emblica
India trumpet flower (Bhatghila)	Oroxylum indicum
Belleric myrobalan (Bhomora)	Terminalia bellirica
Bitter bean (Manipurisim)	Parkia speciosa
Bonsum	Phoebe goalparensis

COMMUNITREE PARTNERS



MAHILA SHAKTI KENDRA



134 ECOLOGICAL TASK FORCE



Forest Department, Assam



ASSAM INVESTMENT ADVISORY SOCIETY
Since 2002
Empowering Communities



कर्म योग
योग
योग
योग



INDIGENOUS KNOWLEDGE & DIVERSITY

FUNGAL BIODIVERSITY ASSESSMENT IN NORTH EAST INDIA

The Kingdom of Fungi is one of the largest kingdoms of life on the planet, with an estimated four to five million species. However, to date scientists have only described about 200,000 of them. Yet fungi are a vital part of the ecosystem and most people don't realize that without fungi there would be no forests.

Balipara Foundation is on a mission to document and conserve the wild fungi in one of the richest and most biodiverse places on the planet – the Eastern Himalayas, continually threatened with habitat destruction and now climate change.

At the Eastern Himalayan Naturenomics™ Forum, 2017, we launched a book on the Medicinal Plants and Mushrooms of India and now, through this study we intend to understand the Wild Mushroom Landscape in this part of the world.

Globally there has been a marked increase in the consumption of mushrooms, resulting in a growing demand for both wild and cultivated mushroom species. The past three decades of research have shown the importance of mushrooms as a food group, providing excellent nutrition and contributing towards improved immune systems. As such, the cultivation of mushrooms is becoming popular as a means of rural development, providing alternative, sustainable sources of income and household nutrition for rural and impoverished communities.

Balipara Foundation and the Kunming Institute of Botany jointly launched a study on the Mushroom diversity of the North-Eastern part of India. The North-Eastern part of India is endowed with an incredibly diverse Bio-Cultural heritage. Mushrooms form an important part of this heritage, but it is rather unexplored.



PROJECT GOAL

Through biodiversity assessment, we aim to generate a list of potential fungi that communities can sustainably use for both nutrition and livelihoods. The livelihood generation potential of this project will attract a downstream value chain enhancing social infrastructure services such as healthcare & education, serving as a model for other non-invasive revenue generating activities leading to social & economic mobility of the forest-fringe communities.

KEY IMPACTS

Biodiversity Assessment

The first phase of this project includes in-depth assessment of fungal biodiversity in North East India

Community Training for Food Security

This accumulated scientific knowledge will be shared with forest-fringe communities to facilitate sustainable livelihoods and reduce malnutrition

Scientific Cultivation Research

The next phase of this project includes scientific research on cultivation methods and identification of best practices for mushroom-growing at scale

Scientific Publications

This knowledge will be disseminated through a scientific journal and seminal book documenting & categorizing



IMPACTS SO FAR



34 species

Potentially new to science



550 species

Documented across North East India



2 scientific publications

Submitted to journals for publication



In 2018 Balipara Foundation embarked on this journey to map fungi species with the help of internationally acclaimed fungi photographer Stephen Axford. Part travelogue, part exploration of a new frontier of scientific discovery, part immersion in the tribal cultures of the Eastern Himalayas all combined with Stephen Axford's exquisite photography and fungi time-lapses shaped the wonderful fungi documentary "Planet Fungi - North East India". The documentary was written and directed by Catherine Marciniak who is senior features reporter with ABC North Coast, Australia.

Premiered at Byron Bay Film Festival, Australia, "Planet Fungi - North East India" has been cited for official selection for 8th Mumbai Shorts International Film Festival. The documentary was also selected for the Druk International Film Festival in Bhutan and is in competition for the Golden Dragon Awards 2020.

21 Days Fungi Expedition in

- Meghalaya (Narpuh Reserve Forest, Lalong, Krang Shuri, Mawkyrwat, Jakrem, Mawlynnong, Mawphlang)
- Assam - Balipara, Gibbon Wildlife Sanctuary
- Nagaland (Bhandari)

Gautam Baruah, Balipara Foundation

In collaboration with -

Stephen Axford, Photographer Australia;

Catherine Marciniak, Film-maker, Australia; &

Samantha Chandranath Karunarathna, Scientist, Kunming Institute of Botany, China



Cordyceps



A new species of Luminous fungi discovered during Balipara Foundation's fungi assessment
Picture Credit : Stephen Axford



GHOR BARI: A STEP TOWARDS A MODEL AGROFORESTRY IN BALIPARA COUNTY

The state of Assam experiences plenty of rainfall and possess a fertile land which is extremely advantageous for cropping. This has led to flourishing growth in food crops and staples in Assam agriculture. Agriculture is the dominant land-use category in Assam. It accounts for about 54.11 per cent of the total geographical area of the state, more than 80 per cent of the total population of Assam is dependent on agriculture. Thereby, there is a need to take up various development measures to ensure growth in crop production. But there is an increasing scope for the cultivation of vegetables in huge numbers in the fertile land of soil. Creating food forests for the cultivation of vegetables will help in the maximum production even from small plot of land.

Self-sufficiency through agroforestry & food forests

We intend to set up a rural future which will be self-sufficient in its crop production. With the increase of population and the development of agro-technology, lots of changes take place in the agricultural scenario of the state. The net area sown as well as the gross cropped area increased significantly in the last few decades. This decreases the area under other uses especially area under forest. Although, the development in agriculture has tremendous important in the economy of the state but the ecological impacts of the changing land use pattern need to be considered. Therefore, agroforestry practices will be able to maintain the ecological balance and sustainability.

Preserving & developing ethnic knowledge for effective agroforestry

Additionally, the ethnic communities hold within their cultures a vast repertoire of plant-based

knowledge. For generations, these communities have developed an intricate knowledge of resources that plants provide including medicinal requirements. However, much of this traditional plant knowledge is being lost across the generations of the communities. The modernization and homogenization of cultures, fast-tracked by the rapid access of affordable technology (satellite TV, mobile internet) and the replacement of traditional plant products with industrial products have ensured that the flow of knowledge from generation to generation is becoming more and more non-existent. It is not an unlikely scenario that within a few generations this knowledge will vanish completely. This proposed community participatory project will help in restoring this lost knowledge and increasing the self-sustainability of the community by providing health benefits.

Food Forest:

A unique model of agroforestry for conservation. It is based on the concept of a natural forest that optimally leverages soil, water and sunlight, flourishing without any human interference and producing ample food, healthy growth and contributing to a balanced ecosystem. In a food forest, planting is initiated by humans and combinations of plant tiers are chosen according to season and economic viability. Ideally, each layer interacts synergistically with the other layers. Vegetables, herbs and fruiting trees are planted keeping in mind vertical height and horizontal spacing, mimicking a 7-layered natural forest.

Benefits:

- High productivity
- Resilience through biodiversity
- Better economic viability
- Creates a healthier microclimate
- Naturally grown, healthy produce
- Perennial source of living with food security

PROJECT AREA

Village	Households	Population
Baligaon Miri Green village	350	1750



IMPACTS

Social Impacts

- 1000 Families impacted directly (20 women per community cultivation units; for 5 community cultivation Unit one women per household. In 10 Villages, 50 community Cultivation units)
- 10000 people impacted indirectly (total population of the 10 villages), inspiring approximate 1 lakh population of Balipara county and many more in rest of the region
- Increase resilience of the community in a sustainable manner
- Securing food security
- Change the dynamics of community participation
- Empower the vulnerable communities specially women through optimization of natural resource



Economic Impact

- INR 2,89,000 per household per year from Food forest model; INR 101,150,000 per year per village
- INR 20000 per Mushroom Unit production per month; INR 10,00,000 for 50 units; INR 1000 per month per person for 1000 women
- To be able to dilute factors which promote economic disparities such as poverty, minority status etc.
- Economic stability through alternate source of livelihood
- Reinvestment of income in other agricultural practices
- The market linkages will give communities access to long-term market for sustainable livelihoods

Ecological Impacts

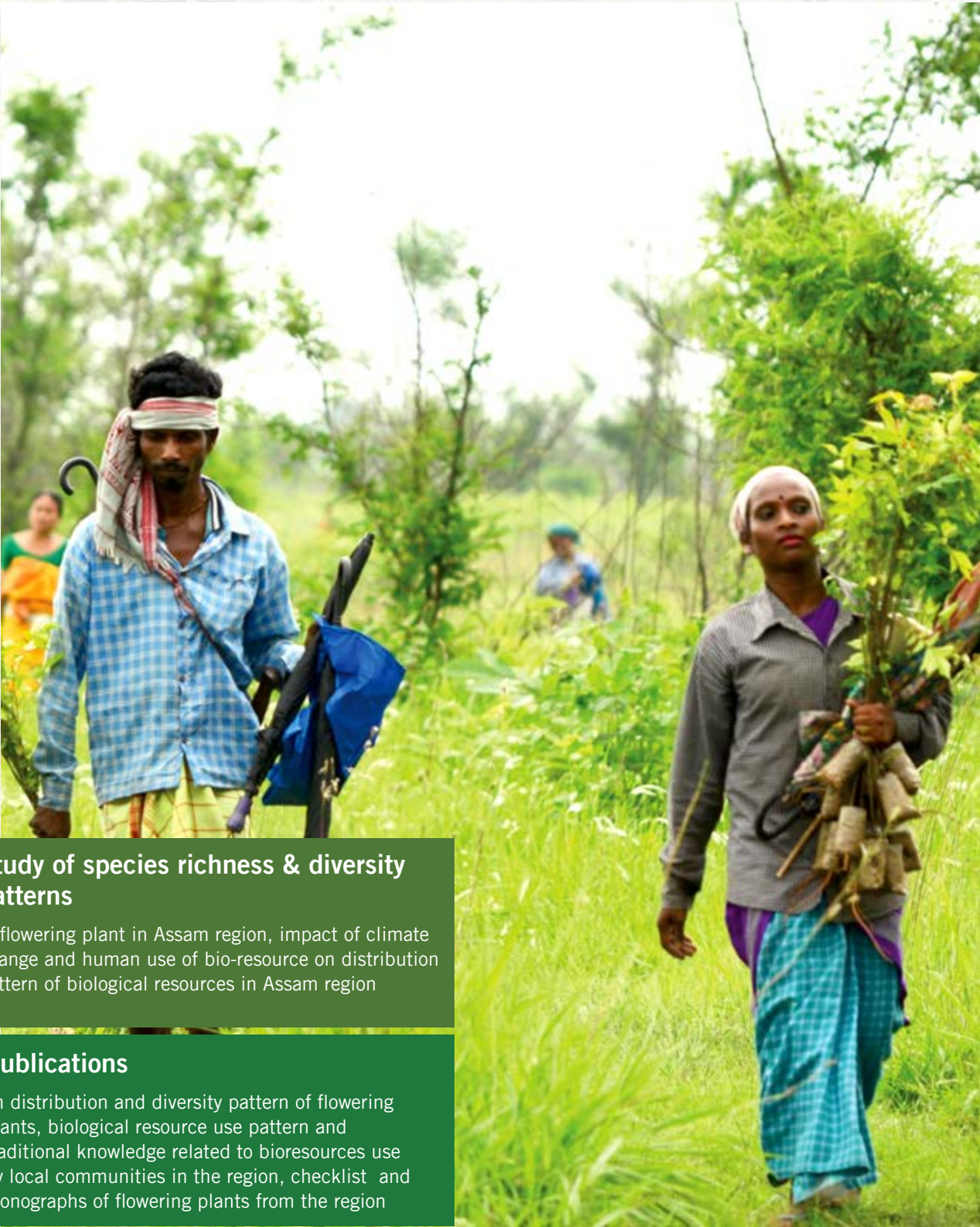
- Reduce pressure on the forest produce
- Healthy surroundings promote healthy environment
- Sustainable crop
- Conserve local biodiversity
- Assist in national efforts to address the effects of climate change

BIODIVERSITY ASSESSMENT – BIORESOURCE AND SUSTAINABLE LIVELIHOODS IN NORTH-EAST INDIA

Covering most of Northeast India, the Eastern Himalayas are one of the most important and threatened global biodiversity hotspots. Today the region harbours thousands of species found nowhere else on earth. It is also home to diverse indigenous ethnic communities who depend on bioresources and ecosystem services to sustain their livelihoods. Such resources and their enhancement are important in this era of global climate change. Thus, the project aims to examine bioresource-based livelihoods and develop adequate institutional and policy response to mitigate the negative impacts of global environmental change, thus ushering the region into new bioeconomy.

One of the key objectives of the project is to conduct a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Upper and Lower Assam through grid-based sampling. The study also attempts to identify biological resources used by local communities, including wild relatives crop plants in Upper and Lower Assam region. The study is principally being undertaken in the Brahmaputra valley of Assam, with a target to encompass major ethnic communities (Bodo, Karbi, Dimasa, Rabha, Ahom, Mishing, to name a few).

Through this project we seek to undertake a systematic, quantitative inventory of the distribution and diversity of flowering plants and biological resources in Upper and Lower Assam region of the Northeast using grid-based sampling approach, in partnership with the Ashoka Trust for Research in Ecology & Environment (ATREE), and the department of Biotechnology. Over the course of this project, we aim to also identify biological resources used by local communities, including wild relatives crop plants in Upper and Lower Assam region.



Inventory and quantitative assessment

of flowering plants diversity and biological resources in the identified grids of Assam region

Curation of collected flowering plants

Data analysis

to understand the species richness and diversity patterns of flowering plants, impact of climate change and human use on bioresources

Study of species richness & diversity patterns

of flowering plant in Assam region, impact of climate change and human use of bio-resource on distribution pattern of biological resources in Assam region

Publications

on distribution and diversity pattern of flowering plants, biological resource use pattern and traditional knowledge related to bioresources use by local communities in the region, checklist and monographs of flowering plants from the region

IMPACTS SO FAR:

So far, market and household surveys have clearly shown the dependency of different tribal communities on the wild bio resources for their earning and livelihood. The study has also yielded significant ethnobotanic information about the communities' traditional knowledge of the medicinal values of several wild products in regular use by community members.

Creating an inventory of the flowering plants of the forest of Upper and Lower Assam will be a great asset to understand the diversity, richness and the distribution of flowering plants and other bioresources along the great plains of the Brahmaputra River, furthering conservation knowledge & goal-setting within the region.

48 Villages	1582 Angiosperms
550 Households	137 Tree Species
187 Wild Species	54 Shrubs Species
368 Herbariums	

EASTERN HIMALAYAN BOTANIC ARK



Guided by nature, history and community, the first of its kind in the Eastern Himalayas - the Eastern Himalayan Botanic Ark is creating a Botany and Natural History of the Eastern Himalayas by preserving and conserving our natural resources and building botanic knowledge banks through community-based conservation for the generations to come.



MISSION

Conservation, preservation and propagation of endemic floral species of the Eastern Himalayan region by ex-situ conservation and spreading the knowledge about the floral biodiversity of this region



100,000+
PLANTS
300+
SPECIES



52+
BUTTERFLY
SPECIES



13+
SNAKE
SPECIES



40+
BIRD
SPECIES

Agroforestry Landscapes at the Eastern Himalayan Botanic Ark



BAMBUSETUM

A 'bambusetum' is a garden of bamboo plants. In 2013, a total of 50 bamboo saplings from 2 species (Jati baanh and Bholuka baanh) were propagated through tissue culture techniques and planted in an experimental site covering an area of 500 m². Over the course of the years, several other species have been collected and planted. At present, the bambusetum of the Eastern Himalayan Botanic Ark houses 29 species of bamboos. Some of them are Bambusa tulda (Local name: Jati baanh), B. balcooa (Bholuka baanh), B. vulgaris var. forma waminii (Kolocho baanh).



ETHNOBOTANICAL GARDEN

As an extension of the ex-situ conservation project, the medicinal plot was initiated as a model plot housing plants of ethno-botanical importance, which could be used by the local communities as well. From a modest beginning of around 10 species, the plot currently has more than 150 medicinal plant species, from herbs to tree species.

SEEDS & ROOTS NURSERY

This area has been transformed from paddy fields back in the day, into the present-day nursery which is of around 1 hectare in size. Seeds of endemic and indigenous species of forest trees, medicinal, ornamental and economically important plants are collected from forests, wholesale nurseries and commercial gardeners, following which these are germinated and propagated ex-situ. Saplings are then donated to schools and colleges, as well as for special programmes, plantation programmes on World Environment Day, etc. Till date, the Eastern Himalayan Seed Nursery has donated more than 4.9 lakh saplings. During July of 2019, around 60,800 saplings were planted in celebration of the 12th anniversary of the establishment of Balipara Foundation.



AQUATIC PLANT CONSERVATION SITE

The aquatic plant conservation site at the Eastern Himalayan Botanic Ark contains species such as black galangal (*Alpinia nigra*), water velvet (*Azolla pinnata*), chinese spinach (*Ipomoea aquatica*), calamus (*Acorus calamus*), water lettuce (*Pistia stratiotes*), white water lily (*Nymphaea alba*), red water lily (*Nelumbo nouchalis*) and swamp rice grass (*Leersia hexandra*), in addition to some fish, amphibians and reptile species.

A good population of elephant-grass (*Pennisetum purpureum*), lemon-grass (*Cymbopogon citratus*), citronella grass (*Cymbopogon nardus*), wild sugarcane (*Saccharum spontaneum*) and common reed (*Phragmites karka*) are also present in the adjacent grasslands.



ORGANIC MANURE

The Eastern Himalayan Botanic Ark has a pit-compost unit, a pile-compost unit and 2 vermicompost units.

At the pit-compost unit, a ten-feet deep pit is filled with leaf litter in alternate layers with biodegradable wet wastes (fruit/vegetable peels) and sealed with dung slurry. After a year of decomposition, the seal is broken and the compost is taken out for use in the seeds nursery and flower, fruits and vegetable gardens. On the other hand, the pile-compost is a heap of leaves and grasses on the ground's surface, which is then layered with dung slurry and allowed to decompose.

The two vermicompost units are of size 6.20 x 1.50 x 0.7 m³. Raw materials for the compost are hay, cow-dung, banana trunk, vegetable and fruit peels, water velvet (*Azolla pinnata*) and around 200 g of earthworms. The decomposing *Azolla* releases ammonium-nitrogen in the vermicast, which is easily absorbed by plant roots upon manuring the soil.



ORCHIDARIUM AND FERN HOUSE

The Orchidarium & Fern house contains 54 species of local orchids and around 10 species of ferns. There are also several succulents and houseplants, including Cardboard Cycad (*Zamia furfuracea*) which is an endangered species (IUCN Red List of Threatened Species).



NATURENOMICS™ RICE MUSEUM

The Naturenomics™ Rice Museum is dedicated towards preserving the culture of the local communities, their craftsmanship and entrepreneurial spirit. It houses seeds of 102 varieties of local rice as well as other indigenous seeds. Apart from being a seed bank, several traditional tools and implements have also been put on display at the museum, for visitors to get an insight into the historical heritage and sustainable lifestyle of the local communities.

BIHU-XHAAK CONSERVATORY

The Eastern Himalayan Bihu Xhaak Conservatory houses 101 species of leafy greens, as an endeavor to conserve the traditional knowledge which is otherwise eroding due to modernization and lack of transfer of knowledge to newer generations.



AGROFORESTRY GARDENS

The Agroforestry Gardens, which are model plot for agro-forestry, are mosaic of flowers, fruits, vegetables, shade-bearing and timber-yielding plants. Currently there are 10+ species of flower plants, an assortment of house plants, 15+ species of fruit-bearing plants, 20+ species of vegetables and 10+ species of shade-bearing and timber-yielding plants. The fruits and vegetables produced at these gardens are exemplary of organic farming, which are also used for consumption at our social enterprise Wild Mahseer.



FOOD FORESTRY

Food Forestry is based on the principles of a natural forest, with optimal use of sunlight and regulation of soil and water resources, thus contributing to a balanced ecosystem. In a food forest, there is a 5-tier combination of plant species that are chosen according to season and economic viability. Ideally, each layer interacts synergistically with the other layers. The benefits of a food forest are low maintenance, sustainability and economic viability with year-round yield.



MUSHROOMS FOR LIVELIHOODS

Mushrooms for livelihoods aims to create a database of wild edible mushroom of the region, edify women on benefits of mushroom as a staple diet to ensure food security and skill development campaigns on mushroom cultivation to create community cultivation units that provide direct economic, social & ecological benefits to the forest-fringe communities of Assam.

MINDFUL TOURISM

EASTERN HIMALAYAN BOTANIC ARK IN RESIDENCE AT WILD MAHSEER

Wild Mahseer is the hub of Mindful Tourism in Balipara County impacting community development and growth through rural livelihoods, social mobility and preservation of our Nature Capital.



Nestled in the Addabarie Tea Estate, the 145 year old Eastern Himalayan Botanic Ark in Residence at Wild Mahseer will gently sweep you back in time.

Serenely tucked away in the Brahmaputra valley and nurtured by the local communities of the Eastern Himalayas, the Eastern Himalayan Botanic Ark in residence at Wild Mahseer is an elusive natural and cultural paradise. Located 25kms away from India's cleanest city, Tezpur, Wild Mahseer is a bio-diverse Ark of 1,00,000+ plants, 75+ species of birds and 72+ species of butterflies and is also the gateway to the forests of Pakke, Kaziranga, Nameri and Orang.

Imbued in history on 22-acres of land, it comprises of the Burra (visiting agent's) Bungalow (3 rooms), a mute spectator of the tea heritage that allows visitors to immerse in the nostalgia of the colonial lifestyle. Along with an additional four cosy tea bungalows (17 rooms), the First Flush dining pavilion and Two & A Bud conference facility all located on a certified organic property.

So far, 12.5K guests from over 40 countries have experienced the bio-cultural diversity of the Eastern Himalayan Botanic Ark in residence at Wild Mahseer.



THE MINDFULNESS HAVEN



Jungle Bathing - Taking in forest atmosphere



Conversations with Nature - Exploring the abundant biodiversity



Slow Cycling – Savor the tonic of wilderness



Nurtured with care by Team Wild Mahseer

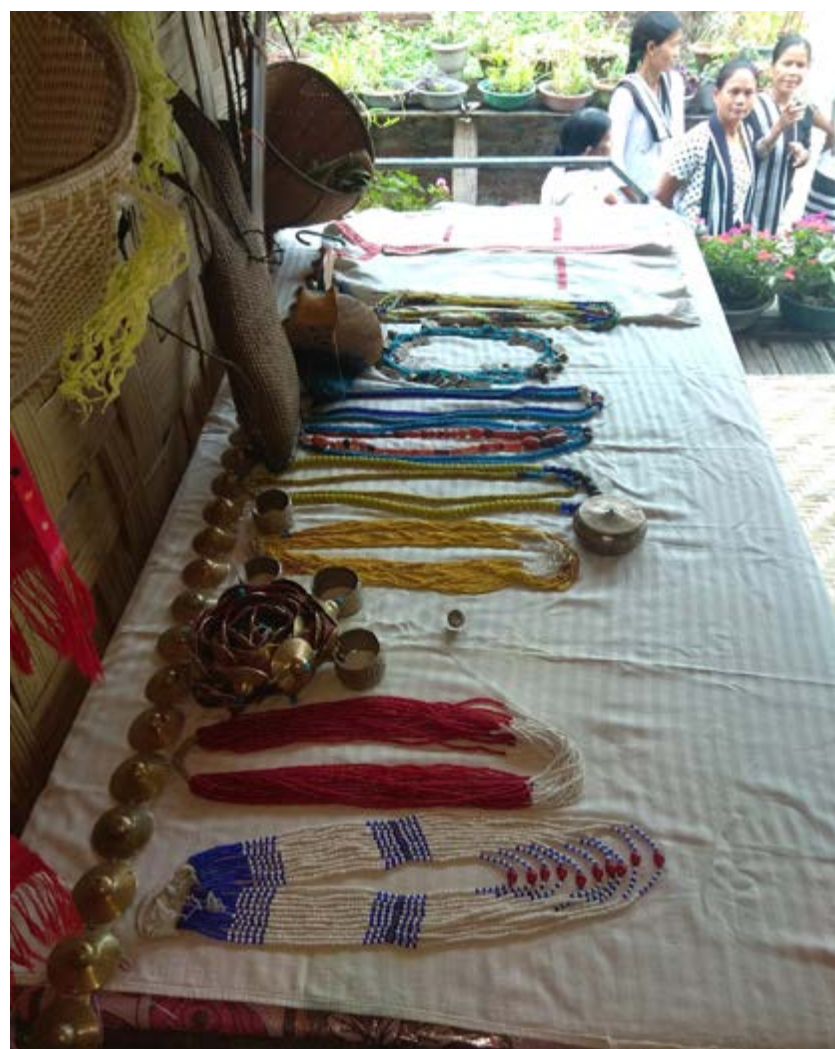
SOCIAL RESTORATION THROUGH COMMUNITY TOURISM

Quaint community villages around the Eastern Himalayan Botanic Ark in residence at Wild Mahseer - Garo, Nyishi, Mishing, Bodo, Assamese and Nepali have opened up homestays to enhance learning about local history, traditions and art and indulge in ethnic-environment friendly meals.

The locals open up their homes to allow travellers to explore the abundant biodiversity and cultural heritage through home-stay experience in these villages.

With the objective to inculcate the values of conservation of our natural resources and integrate rural livelihood, the programme enhances socio-economic development of these communities and protection of the environment.

The objective is to foster rural-based Mindful Tourism for gainful employment and sustaining nature.



ELEPHANT COUNTRY:

Spinning Yarns and Weaving Livelihoods

Crafted by artisans from the Assam Valley of the Eastern Himalayas

Designed to synergise Asian Elephant conservation and Community development, Elephant Country products are symbolic of the interdependent relationship between man and elephants. Crafted by local artisans from Elephant Country, these products tell the story of coexistence and a unique bond of nurturing and being nurtured. The idea behind these products is to provide alternative sources of revenue generation and therefore, livelihood to many forest-fringe communities.



Currently our associates and weavers are located in different parts of Assam comprising members from different ethnic communities. Our product line includes

- Handloom products such as Stole, Saree, Mekhela Chador, Sling Bags, Cushion Covers, Pen Stand, File Cover etc. in Cotton, Eri and Muga
- Nature inspired products such as Notebook, Postcard, Fridge Magnet, Bookmark, Calendar, Coaster etc.
- Organic Tea such as Orthodox tea with Tulsi, Peppermint and Lemongrass flavours, Organic Green Tea etc.



NATURE-STUDY

EASTERN HIMALAYAN NATURENOMICS™ SCHOOL

“Nature echoes beyond the classroom walls”

- The Eastern Himalayan Naturenomics™ School was launched on 10th October, 2016
- Located on premise at the Eastern Himalayan Botanic Ark
- Designed sustainable working models based on the principles of Naturenomics™
- Offers a unique opportunity of indoors and outdoors learning
- Combining traditional knowledge, nature and new learning techniques

OBJECTIVE

To create a unique learning experience combining nature, traditional knowledge and new learning techniques to inspire a new generation of eco crusaders

Our Philosophy

- Exploring nature through engaging activities
- Nurturing Nature to nurture our own futures
- Reach out and connect to the earth and all that springs from it and learn the value of interdependence
- Effective nature related education programmes are designed to blend into our everyday lives

Teaching Methodology

- Instill a passion for nature
- Inspire and encourage the students' curiosity
- Outdoors focused, immersive learning
- Focusing on information and application
- Encouraging innovative thinking
- Engaging all your senses

Regaling us with her wisdom on Agroforestry for the Future

**In conversation with
Food Sovereignty Leader,
Dr. Vandana Shiva**



“Seed is not just the source of life. It is the very foundation of our being”



Harnessing the potential of agroforestry for a resilient future offers a realistic scenario towards the future of farming, organic agriculture, improving production sustainability and fostering great environmental sustainability. Dr. Vandana Shiva, a food sovereignty advocate has been sowing seeds of sustainable food movement in the country and regaled us with her wisdom at the Eastern Himalayan Botanic Ark.

In a one day interactive discussion and Naturenomics™ programme “the future of agroforestry” with 25 participants from 10 local NGOs from Assam, members from the Department of Agriculture (Balipara Circle), 4 interns from Tata Institute of Social Sciences (Guwahati) and the village headman of Baligaon Mising Village, Dr. Vandana Shiva guided us on the importance of conserving local seeds and the practice of sustainable organic agriculture in a world where processed foods, chemical fertilizers and/or pesticides, fossil fuels and plastics are not only reducing the human lifespan but also affecting the earth's resilience in the face of climate change.

The discussions around the practice of agroforestry are helping conservationists and farmers to understand the dynamic economic and ecological structure of this sustainable approach which is allowing the farmers to adapt to or mitigate the effects of climate change. Dr. Shiva also spoke about the role of women in protection of biological and cultural diversity, and emphasized on the revival of indigenous knowledge and culture.



The session was followed by an opportunity to ask Dr Shiva questions and benefit from her wisdom. Dr. Shiva encouraged all participants to collaborate and work together for building a better tomorrow. Dr. Shiva is an epitome of fostering a sustainable model towards India's agriculture and has been working to build an organic agricultural movement across India for the past 22 years. Her engagement with us has been fulfilling and contributes towards building Rural Futures in the Eastern Himalayas.

The day ended with exploring the nature trail at the Eastern Himalayan Botanic Ark embracing the goodness of Earth and the bounty of nature.

FUNGI IN FOCUS: PHOTOGRAPHY WORKSHOP

with Internationally acclaimed fungi photographer Steven Axford and Cinematographer Catherine Marciniak



Mr. Stephen Axford and Ms. Catherine Marciniak are volunteer trainers for the international scientific research and community education, raising awareness about the role that fungi play in life on the planet through their mentoring skills in photography and videography. Mr. Axford has an international reputation as a specialist in nature photography with a particular passion in macro fungi photography. He also has a unique expertise in time-lapse photography of fungi. His photographs have appeared on international websites and in international books and magazines, including: Nat Geo Magazine, the 2014 IUCN 'Red List of Threatened Species', the Daily Mail UK, etc., while his fungi time-lapses were featured in the BBC Planet Earth 2 blue chip natural science documentary, etc. Ms. Marciniak is a renowned ABC (Australia) Features Reporter, with a 30-year-old background as a master cinematographer and director.



The Eastern Himalayan Naturenomics™ School had organised a unique 2-day workshop on Fungi Photography, mentored by Mr. Axford and Ms. Marciniak. A total of 20 people had participated in the workshop. On the first day, the participants were taken through a brief profile on the mentors before being inducted into the programme. Mr. Axford and Ms. Marciniak had begun the session with a presentation on the basic concepts of fungi, their various parts, toxicity, etc. This was followed by a number of videos which had documented their various field trips across the world and the north-eastern states of India in particular, covering their interviews with scientists and local people about particular species, information on toxicity, etc. Among the techniques of photography, they emphasized mainly on focussed stacking, single shots, time lapse, use of ISO, aperture, etc. The participants were then asked to exercise their photography on studio set-ups and props representing micro ecosystems inside the classroom. On the second day, the participants were taught about macro photography of fungi, insect, reptiles, amphibians, etc. After the theoretical session, participants were asked to step out and put their lessons to test. Each participant was then asked to submit 3 un-filtered photographs, which were evaluated in an interactive session on post-production techniques. The programme had ended with distribution of certificates to all participants.

Impacts of the event:

- The workshop was conducted as a beginner's guide to fungi photography where the basic concepts of fungi and techniques of macro photography were taught
- The programme has built awareness and have encouraged participants towards fungi photography



Discovering Birds of the Eastern Himalayas

Birding (or birdwatching) is the observation of birds in their natural habitat, as a leisure activity and scientific sport. Not only does it help scientists in collecting information on various bird aspects and populations, but it also has health benefits to the observer. The Eastern Himalayan Naturenomics™ School had organised a birding expedition with students from Tezpur College and Tezpur University. On the first day, 20 students participated, whereas on the second day, there were a total of 54 participants including teaching faculty. The workshop was facilitated by Dr. Jaydev Mandal and Mr. Pranjal Mahananda. 12 species of birds were encountered on the first day, which included 4 rare species. On the second day, the participants could spot 32 species of birds, out of which one was

an undocumented species at the Eastern Himalayan Botanic Ark. Dr. Jaydev Mandal presented about "Basics of birds and bird-watching" and highlighted about the techniques of identifying birds, the threats that avian species are facing world-wide, conservation case-studies and success stories. Mr. Pranjal Mahananda further spoke about the e-Bird website, which is also available in the form of a mobile app. It is a citizen science project which documents bird distribution, abundance, habitat usage, and trends through checklist data contributed by bird enthusiasts from all around the world. The programme encouraged participants on using the e-Bird website/app and use the best of the online platform and its resources which helps us in understanding and exploring birds.



Impacts of the event:

- Participants learned about the basic concepts of birds, techniques of bird identification, the significant role that birds play and the need for their conservation
- Encouraged participants to take up birding because of its health benefits in addition to other benefits
- Promotion of the 'e-Bird' app, which would serve as a small step towards contributing to the birding scientific community



Thirteen students (between the ages 5-10) accompanied by a teacher from Blessing Shine School, Lokhra, Sonitpur district, Assam participated in the one day Naturenomics™ programme. The programme was engaging, insightful and fueled the imagination of children to connect them with nature and its role in our lives. Structured with storytelling, drama and acting, we participated in several outdoor activities that were fun-filled and creative. Students enjoyed playing games, drawing out images showcasing the relationship they share with nature.

The programme also screened nature-based films and cartoons that tells stories of nature and the importance of conserving its natural resources. The programme concluded with a workshop on birding by Protuyakti Gogoi from Jungle Travels, and a Snake bite Management workshop by Gautam Baruah, Balipara Foundation.



Celebrating World Environment Day 2019

Nurturing Young Minds through Storytelling in Conservation

“Stories are the engine of our imagination and helps create a better world”



The environment is vital to our well-being and every element should be protected; be it forests, water resources, soil or air. Environmental conservation encompasses being compassionate and working on protecting the planet and conserving its resources for an improved quality of life, which also includes a deep respect and understanding of what nature provides. Children are the seeds of a better tomorrow, and it is necessary to help them realize the significance of the environment and the planet that they live on.



In 1974, the United Nations had flagged off the first World Environment Day on 5th June as a 'people's day' for encouraging environmental awareness and action for protection. Every year, this day is celebrated around a theme to address urgent environmental issues. The theme for 2019 was "Air pollution".

The Eastern Himalayan Naturenomics™ School had conducted a 'Nature Capital Awareness Programme and Plantation Drive', in collaboration with the Eastern Planters, 134 Eco Task Force (Sonitpur) and Mahila Shakti Kendra (MASK, Balipara) at Bogijuli High School

(Chariduar) on the 5th of June, 2019. The programme had an impressive gathering of more than 350 people which included dignitaries, school children and village folk. Among the invited guests were Col. A. Prasad (Commanding Officer, 134 Eco Task Force), Major R. Gadkary (Project Officer, 134 Eco Task Force), Subedar Major M. Teron, Naib Subedar N.S. Singha, Mr. B. Borah (Deputy Forest Ranger, Chariduar Range) and Mr. D. Kalita (Forester, Chariduar Range). The guests were joined by the Village Headman, Principals of Bogijuli Middle School and High School, respectively, and members of Balipara Foundation and MASK.

The custodian of the Eastern Himalayan Naturenomics™ School had inaugurated the day's programme with a brief explanation on the history and significance of the day, the theme for the year 2019 and how planting trees is the ultimate solution to improving air quality and stopping environmental degradation. The Commanding Officer of Eastern Planters, 134 Eco Task Force, had further elaborated on the benefits of planting trees, which not only purifies the air by absorbing and storing carbon-dioxide from the atmosphere, but also provide food, medicine, timber and shade. He urged each student to take home 5 seed balls and take care of the germinated saplings as part of the family. Naib Subedar Singha had later explained about seed balls to the children. This was followed by speeches from the personnel of the Forest Department, the Headman, the Principals and teachers.

The programme ended with planting saplings within the school premises, as well as distribution of 500 saplings and 1500 seed balls among the children and village folk by the staff of 134 Eco Task Force.

The members of Balipara Foundation and MASK had also carried out another awareness programme and distribution of 1000 saplings among the womenfolk of Shantipur and Nijumpur Bodo villages at Bhalokpong.

Impacts:

- Apart from learning how plants help in battling air pollution, the children were introduced to the relatively new concept of 'seed balls'
- A total of 3000 saplings and seed balls were distributed



Go Green and Keep it Clean

An Outreach Programme on Raising Awareness on Plastic Hazards



One of the biggest environmental concerns in the contemporary era is plastic pollution. Plastic contains toxic compounds that do not biodegrade; hence damages to the environment are long-lasting. This affects not only the present generations, but also jeopardize the future of our children. Children are the best change-makers and it is of utmost importance to empower them with the requisite knowledge and skills to be responsible citizens.

The Eastern Himalayan Naturenomics™ School coordinated with student social workers from Tata Institute of Social Sciences (Guwahati, Assam) who have been interning with Balipara Foundation, to conduct an awareness programme for the children of Balipara L.P. School. The theme of the programme was set along the initiatives of the Earth Day Network, emphasizing on reducing the usage of plastics. The student social workers had prepared a hand-made flyer using plant leaves.

The programme began with the student social workers explaining to the children what happens to the plastic food packing that are thrown away after they had consumed what was in it, further elaborating how plastic is a substance that does not eventually mix in the soil unlike kitchen-wastes, clothes or wood etc. Through practical experimentation, the children were taught on the procedure to differentiate between biodegradable and non-biodegradable products using separate waste-bins. They were advised to separate biodegradable and non-biodegradable wastes at home and school, to reduce plastic usage and use alternatives such as cloth bags. The last activity was a game which the children enjoyed. The waste bins were left on the school campus so that the children could practice what was taught to them.



Impacts:

Through the one hour fifteen minutes programme, the children were inculcated to adopt environmentally conscious habits that would lead to plastic-independent lifestyles

Earth Day... Spreading Environmental Awareness & Protection

Earth Day began on 22nd April 1970, as a people's movement in protest of environmental degradation in the United States of America. Ever since, the Earth Day Network (EDN) has coordinated events in support of environmental protection on Earth Day every year, with participation from more than 192 countries. The day is used to highlight a vast range of global issues, such as pollution, deforestation, improper waste disposal, climate change, conservation of ecosystems, energy and resources, population explosion, etc., with a different theme every year. The theme for this year was 'Protect Our Species'.

The Eastern Himalayan Naturenomics™ School, under the aegis of the Earth Day Network, had conducted an awareness programme and plantation drive at Rangapara College and Tezpur College on the 22nd and 23rd April, 2019, respectively. On both the days, the programme had started with a welcome speech by the Principal of the college, after which representatives from Balipara Foundation had shared with the participants



the various initiatives, verticals and projects of the organization. A detailed presentation was shown on the history and significance of Earth Day, and what could be done at the individual-level to help assuage global environmental problems. The programme at Tezpur College was strengthened by the presence of the coordinator of IQAC-NAAC (Internal Quality Assurance Cell for National Assessment and Accreditation Council). The event ended by donation of 3000 saplings of fruit-bearing trees by Balipara Foundation to each college. Later, the saplings were distributed among students, teaching and non-teaching staffs. At Rangapara College, several saplings were also implanted around the college playground by some members of faculty.

Impacts:

- The audience was encouraged to observe Earth Day every year through the medium of various activities and awareness programs
- The event disseminated knowledge about the importance of the history of the Earth Day and its journey

Plants Around Us

This one-day programme was conducted by the Naturenomics™ School at the Eastern Himalayan Botanic Ark on 12th March, 2020. 25 B.Sc students accompanied by 2 teachers and 2 bearers (Total 29 participants) from Department of Botany, Tyagbir Hem Barua College participated in the programme.

In conversation with nature, the participants were introduced to the various herbs, orchidarium, medicinal plot and the nursery. Balipara Foundation team members presented the Foundations goals and objectives, scope of research and resources available at the Eastern Himalayan Botanic Ark, the various methods like Quadrat sampling etc to study the number of plant species and to identify them and some methods on how to identify plant species.



Impacts:

- Participants learned the concepts like ecological balance, eco system maintenance, conservation and preservation of various plant species, edible and non-edible fungi, habitat restoration etc.
- They were introduced to the framework of Rural Futures and how one can preserve and restore habitats with its principles

TURNING A NEW LEAF: NEW BALIGAON SCHOOL

BODO VILLAGE

The framework of Rural Futures reinforces the principles of habitat restoration, livelihood generation, empowerment, the movement towards a clean environment along with value and respect for the ecosystems. We ought to build on our nature assets or forest assets so as to provide a stable source of income and basic amenities for the fringe communities and localities. Through Rural Futures the amount of stress would be reduced on the communities for only trying to sustain themselves through the easiest way possible – which is the forest and natural amenities that they may have access to.

Through this program we aim to inculcate an ethos of nature-based education and skills development, through practical programs for both children and adults. These programs include setting up agroforestry plots for building community food forests; developing a nursery to sustain agroforestry and afforestation; training and awareness workshops, as well as developing holistic end-to-end waste management schemes. These initiatives will serve to create a regular revenue stream for the school which can be directed into infrastructural development, while enhancing food security, livelihoods and health outcomes among the community.

The project will be implemented at New Baligaon Bodo village, Sonitpur, Assam, in a predominantly Bodo community village. The development of the school is part of a collaborative program between multiple organizations, with the Balipara Foundation developing the sustainability and livelihoods component for both the students and the community.

The village has around 48 households dependent primarily upon agriculture and its allied activities. Around 50% of the high land areas in the village are underutilized. Using the concept of food forest for the cultivation of vegetables will help maximizing production even from small plot of land through efficient land utilization. Alternate sources of livelihood can be secured with cultivation of Mushroom through community mushroom cultivation unit, growing medicinal and high nutritional plants, raising nursery and selling the surplus production. Moreover, skill development activities through Naturenomics™ School will enhance socio-economic mobility and minimize unsustainable harvesting of forest assets for livelihood.



The Programme

The project will be implemented over three years in the school at Baligaon New village, with expansion plans executed upon success and analysis of progress in phase 1



Agroforestry & mushroom cultivation

- Food forest
- Landscaping of school premises and gardens
- Community Nursery
- Community cultivation units for mushroom
- Common Processing Unit & traditional cold storage



Nature Education Workshops

- Plant species identification and importance
- Herbarium preparation
- Organic dyeing, handlooms, handicrafts, planters
- Bird, butterfly and snake awareness



Skill Development

- Planting, soil & nursery management techniques
- Organic farming
- Skills upgradation



Ethnobotany & conservation

- Ethnobotany conservation
- Preserving & developing ethnic knowledge for effective agroforestry



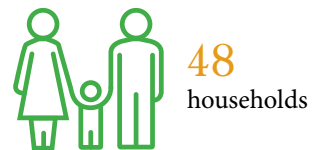
Waste Management

- Type of waste and different strategies to reduce, reuse and recycle

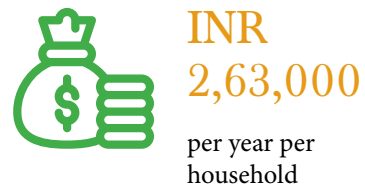
PROJECTED IMPACTS



300
Students



48
households



INR
2,63,000
per year per
household



1 million
saplings for
afforestation

Livelihoods for 10 women from a single mushroom community cultivation unit
Sustainable community resilience & food security
Empower women & vulnerable communities through natural resource optimization



**Social
Impact**

Dilute economic disparity enhancing factors such as poverty, minority status etc.



**Economic
Impact**

Economic stability through alternate source of livelihood through skill upgradation workshops – coconut crafts, bamboo crafts, organic farming etc.
Reinvestment of income in other agricultural practices
Access to long-term market for sustainable livelihoods



**Ecological
Impact**

Reduce pressure on the forest produce
Sustainable crops, soil restoration & promotion of restoration agriculture
Conserve local biodiversity



NATURENOMICS™ WORKSHOPS

In Collaboration with Earth Day Network India

Objective:

Create awareness on the thematic framework of the Sikkim Regional Eastern Himalayan Naturenomics™ Forum along with the umbrella concept of Rural Futures integrated with the everyday phenomena of our ecological movement

Key Results:

Engagement with children in enhancing their ecological knowledge, engage in an alternate means of education which would include a developmental perspective



**SUSTAINABLE FASHION WORKSHOPS
CONTRIBUTING TOWARDS THE ECOLOGICAL
MOVEMENT**



**SUSTAINABLE EVENT PLANNING WORKSHOPS
CONTRIBUTING TOWARDS THE ECOLOGICAL
MOVEMENT**



**EARTH DAY NETWORK AND BALIPARA
FOUNDATION VOLUNTEERING AND
SUSTAINABLE WORKSHOP SHOWCASE AT THE
RONGALI FESTIVAL**



**WORKSHOPS IN COMMUNITIES THROUGH
VERNACULAR LANGUAGES**



REPRESENTATION OF THE EARTH DAY NETWORK INDIA MOVEMENT IN COLLABORATION AT THE SIKKIM REGIONAL EASTERN HIMALAYAN NATURENOMICS™ FORUM 2019 – PROPAGATING THE NEED FOR WORKSHOPS AND AWARENESS CREATION



COMMEMORATING WORLD ENVIRONMENT DAY WITH YOUNG MINDS AT KINDERGARTEN SCHOOLS OF GUWAHATI TO UNDERSTAND THE BASIC DYNAMICS OF THE ECOLOGICAL MOVEMENT



AWARENESS WORKSHOP AT THE PAKKE PAGA FESTIVAL IN ARUNACHAL PRADESH WITH COMMUNITY MEMBERS ON HABITAT RESTORATION AND BIODIVERSITY

ACTIVITIES

Procurement of 1 lakh saplings

To showcase movies on Nature conservation (2 movies)

Achieved 21 botanic/nature trails

Snake awareness program with the youth of Balipara

One day eco-tourism and guide training program

Two-day birding expedition at the Eastern Himalayan Botanic Ark

Waste management workshop at Hotel Palacio

Cleanliness Drive (in collaboration with Simi Mind Miracles and Hridaya Yoga)

Awareness Campaign to reduce plastic use or recycling of plastic in Balipara, Sonitpur district

Biodiversity day program at the Eastern Himalayan Botanic Ark, Balipara

Poe-Tree Slam at the Maati Centre, Guwahati

Two-day stall at the Rongali Festival to be held at Sonaram field, Guwahati

Workshop with Assam Valley School on Waste Management at the Eastern Himalayan Botanic Ark, Balipara

Plantation at the Balipara Reserve Forest

Plantation drive across Balipara county and Guwahati to commemorate Earth Month/Earth Day

World Environment Day Program at Chrysalis Kindergarten School, Guwahati

Workshop at Royal Global University on the role of Sustainable Fashion and its impact on climate change

Eastern Himalayan Naturenomics™ Forum - Sikkim Edition

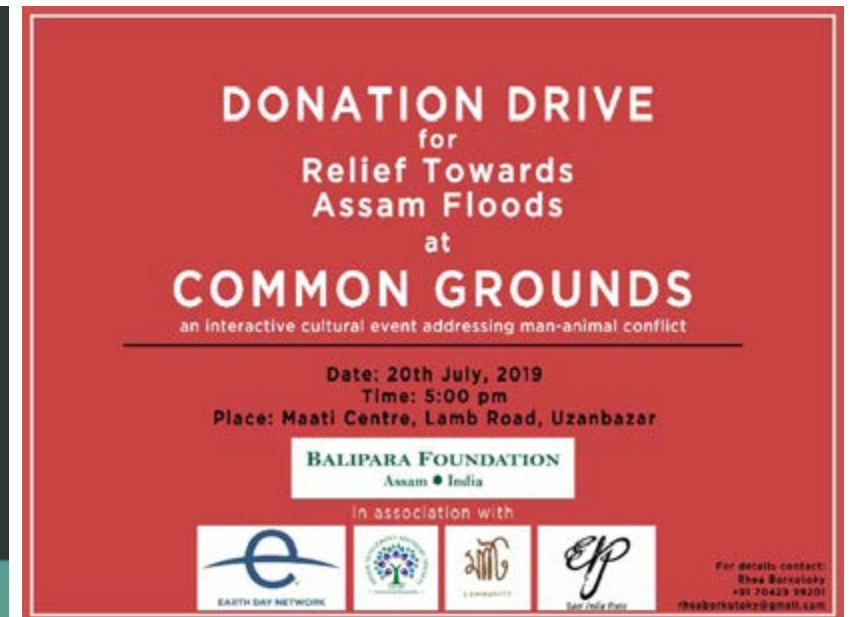
Common Grounds was an event carried out by Balipara Foundation's first Youth Leader. It was an amalgamation of both cultural programs and awareness programs inclusive of our collaborative venture with East India Poets, Kathakali dance performances on man-animal conflict, songs on the need to protect our endangered species and so on

Naturenomics™ Essay writing competition for the Eastern Himalayan Naturenomics™ Forum 2019

Eco friendly Diwali awareness campaign

Art competition at Maria's Public School for EHN 2019

Workshop in collaboration with Assam Investment Advisory Society and Current Conservation for the Eastern Himalayan Naturenomics™ Forum 2019



PLANTATION ACTIVITY AND ENGAGEMENT AT LOCAL UNIVERSITIES AND COLLEGES LIKE THE DARRANG COLLEGE AND TEZPUR UNIVERSITY



ENGAGING THE GENERAL PUBLIC IN CONVERSATION ON THE WAYS THROUGH WHICH THEY HAVE BEEN TRYING TO INVOLVE THEMSELVES IN THE CONSERVATION REVOLUTION

EASTERN HIMALAYAN NATURENOMICS™ FORUMS

CONSERVATION DIALOGUES 2013 ONWARDS

Understanding the need for exploring the ingredients of success in conservation and sustainable livelihoods, the Balipara Foundation launched the Eastern Himalayan Naturenomics™ Forum in 2013 to find solutions leading to important lessons for the communities and others, at all levels, from local to global.

Starting the dialogue with Asian Elephant conservation to exploring the crucial role of rural communities in the Eastern Himalayas and supporting rural economies and livelihoods, seven years (2013-2019) of the Eastern Himalayan Naturenomics™ Forum has led to participation from over 20+ countries, 2000+

distinguished speakers and participants from multi-disciplinary fields and recognized 103 Balipara Foundation Social Recognition Awardees.

The Forum seeks to generate grassroots, actionable solutions to create Rural Futures across the Eastern Himalayas and empower local communities to be the stewards of their natural assets. Over the years, it has emerged as an interdisciplinary platform bringing together communities, academicians, conservationists to foster knowledge sharing, for future collaborative efforts on community-led conservation.



**Amplifying
Community Voices**



**Community
Conservation
Models**



**Solutions for
Conservation &
Livelihoods**



**Partnerships for
Action**



THE JOURNEY SO FAR



**200
Community
Representatives**



**22
Countries**



**4000
Participants**



**400
Discussion Topics**



**103
Earth Heroes**

**200
Projects through
Earth Heroes**



**INR 4 million
In small grants to
Earth Heroes**



**Educational Apps
Orchids of the Eastern
Himalayas**



**Incentivizing
Conservation**
**Elephant Insurance Scheme
Wildlife Friendly Network**



**2 Regional
Conferences
In Sikkim & Bhutan**

EASTERN HIMALAYAN NATURENOMICS™ FORUMS

**Annual Eastern
Himalayan
Naturenomics™
Forum**

**Balipara
Foundation Social
Recognition
Awards**

**Regional Eastern
Himalayan
Naturenomics™
Forums**

**Naturenomics™
Workshops**

Rural Futures: Nature Capital Towards Universal Basic Assets

RESOLUTIONS – OUTCOMES: Towards a Naturenomics™ Civilization



National & Global Strategies for the Sustainable Development Goals

Ambassador Chandrashekhar Dasgupta, Prime Minister's Council for Climate Change, India



The talk highlighted the need to integrate sustainable development goals into national policies, plans and strategies, and regularize varied dimensions of sustainable development in the country

Talk Highlights:

- Sustainable Development rests on 3 pillars – protection of the environment, economic development and social development
- The task of ensuring progress in achieving sustainable development is too important to be left to the Government alone. Research institutions & NGOs play a crucial important role by educating public opinion and undertaking independent initiatives for promoting sustainable development

Inter Disciplinary Thought Leadership for the Naturenomics™ Civilization

Ranjit Barthakur, Balipara Foundation, India



In conversation with

- A.M. Singh, PCCF & HoFF, Ministry of Environment & Forest, Govt. of Assam, India – Govt. Representative
- Jianchu Xu, Kunming Institute of Botany, China – Botanist
- Sunayana Sarkar, NMIMS, India – Geologist
- Dibakar Goswami, Washington State Dept of Ecology, USA
- K.M. Bujarbaruah, (Rtd.) Assam Agricultural University, India - Botanist
- Namita Vikas, Yes Bank, India – Social Finance
- Mayank Vahia, NMIMS, India – Astrophysicist
- Rita Banerji, Green Hub & NEN, India – Documentary Filmmaker– Journalist
- Reza Masoom, Balipara Foundation, India – Engineer & Forester
- Dipti Gorh, Balipara Foundation, India– Botanist

Panel Highlights-

- The goal for 2020 is Biodiversity Conservation and he will focus on its conversation especially in Assam
- Involvement of the youth to take the baton at the earliest stages to be able to find solutions suitable not just for mankind but for the environment as well – incorporating the notion of innovation
- The panel collectively urged the younger generation to take up the cause of conservation, so that innovative, sustainable solutions to various environmental issues can be facilitated
- The much-needed aspect of employment and livelihood generation for the Asian highland people by imbibing regional culture and tradition
- Engaging with Self-Help Groups and how engaging women in a similar discourse could help them feel empowered

The Journey of Balipara Foundation & Eastern Himalayan Naturenomics™ Forum

Karishma Ahmed and Prabir Banerjea, Balipara Foundation, India

The session highlighted the Balipara Foundation's voyage since its establishment. The dialogue recalled the journey of Balipara Foundation and how much has happened over the year 2018-19.

Talk Highlights:

- Plantation of 1.2 million natural assets by August 2019–ahead of Balipara Foundations's original target of 1 million by 2020
- In Balipara Foundation's 12th birthday through CommuniTree, with over 47,500 people and many field partners, 134 Eco Task Force, MASK, Assam Investment Advisory Society, the Forest Department and the Assam State Rural Livelihood Mission, created over 280,000 natural assets in less than half an hour
- Launched 5 homestays in and around Balipara, across 5 distinct ethnic communities – Mising, Garo, Nyishi, Nepali and Assamese



- Identified over 250 species of mushrooms, out of which 1 has officially been identified as a new species & genus and 10 more in association with Kunming Institute of Botany and our dear friends, photographer Stephen Axford and documentary director Catherine Marciniak

The Naturenomics™ Civilization through Rural Futures (RuFu™)

Joanna Dawson and Saurav Malhotra, Balipara Foundation, India



This talk introduced the vision blueprint of the Balipara Foundation for transforming the Eastern Himalayas over the next few decades.

Talk Highlights:

- The tension between biodiversity needs and human needs is artificially created and sustained – over centuries human cultures have lived in interdependence with nature, with human growth and natural growth in a symbiotic relationship
- Optimizing the natural capital value of our forests & land is the key to this interdependent economy – the value of a hectare of forest in Assam between 1997-2003 was approximately INR 713,272
- Sustainably liquidating this natural capital could deliver universal basic assets on a needs basis to vulnerable forest-fringe communities, reducing social inequality and redistributing wealth, while incentivizing them to engage in activities that regenerate natural capital
- Self-reliant communities must be the heart of this, and they must be equipped by commons management skills, protections for community rights, open access technology and investments in natural capital



Impact Bonds towards Universal Basic Assets

Saleem Khan, British Asian Trust, India



The talk highlighted the concept and functioning framework of Impact Bonds towards an innovative financial mechanism.

Talk Highlights:

- Impact Bonds are result based financing mechanism
- It's a new and innovative way of funding outcomes and is the only solution that would foresee the SDG gap
- A measurable quantifiable outcome is crucial in assessing the Impact Bonds

Nature Capital Optimisation for Delivering Universal Basic Assets

Anish Andheria, Wildlife Conservation Trust, India



In conversation with

- Sarath Davala, Basic Income Network, India
- Sarmistha Das, Tezpur University, India
- Rituraj Phukan, Green Guard National Organisation, India
- Suresh Pait, Pakke Jungle Camp, India

Panel Highlights:

- While financial capital drives the world today, natural capital must be connected to the growth of financial & social capital or else we will be facing some of the greatest tragedies known to man
- We are facing an employment crisis that leaves people vulnerable and a moral crisis centred around our consumption-centred economy, that has also led to the ecological destruction of today
- Connecting natural capital back to the growth of financial & social capital must be done using the knowledge communities have about ecosystems – natural assets are in their hands and their knowledge must be used to manage natural capital – and the social capital of our youth to drive this
- It is vital to work with the next generation to change their perspective and involve them in protecting natural capital, especially as a generation gap is emerging where younger generations chase immediate, short-term incomes & investment returns and look to outside intervention for “empowerment”, rather than organizing internally
- Ecology can be put back in economy, for example, by fundamentally rethinking agriculture, for example, by creating whole ecosystems which support growth by maintaining a natural balance

The panel dwelt on the importance of natural capital for equality, with a strong focus on the role of local communities – as those on the frontline facing a natural capital crisis, as agents of change and as those in greatest need of income and social security for their future.

Anthropogenic Causes & Geogenic Outcomes: An arterial link to Universal Basic Assets

Sunayana Sarkar, Narsee Monjee Institute of Management Studies, India

This talk focused on the link between geological processes and one of the most fraught arenas of natural capital: our mineral wealth.

Talk Highlights:

- Mineral natural resources are finite & have a very slow regeneration rate; therefore, we need careful government policies to govern their use and extraction
- India has a strong overlap between areas that are mineral rich, forest rich and which are lands of forest-fringe communities, requiring us to think carefully about how we manage these resources effectively for our future
- This mineral wealth could be used to deliver universal basic assets, but to do so they must be used sustainably, and their use must be governed by special laws



How to Make Environment Mainstream News?

Kaushik Deka, India Today, India



The talk highlighted the dynamics of environmental reporting, exploring how environmentalists can better improve their outreach through mainstream media outlets to bring environmental concerns to a broader lay audience across India.

Talk Highlights:

- Environmentalists need to remember that environmental education in the country is either lacking or poorly imparted, which means the vast majority of the country lack environmental consciousness
- Environmental activists must think about what the role of a good communicator is and what will sell to media outlets when reaching out, to connect with a lay audience
- Environmental activism is plagued by a lack of engaging visuals to sell stories to people – but these visuals are what are needed to create immediate, emotive impact in the minds of people
- The connection between environment, activism and media must be multidisciplinary – for a holistic perspective – and frivolous – to be accessible to a lay audience
- There is a need for healthy communication between media and environmental activists, to simplify concepts and highlight key issues in communication, to enable media outlets to efficiently communicate these stories to a lay audience

Ground Water Contamination and Natural Biosorbents

Harshita Singh, Narsee Monjee Institute of Management Studies, India

The talk explored the ongoing, pervasive issue of groundwater contamination in the Eastern Himalayas and potential natural solutions to reduce this contamination.

Talk Highlights:

- Groundwater contamination not just destroys natural assets, but its pervasive nature exerts a significant toll on future generations – radioactive metals like uranium, for example, cause DNA mutations that can have serious negative health effects down the line
- Natural biosorbents are a key solution to this contamination issue, by serving as coagulating agents for these hard metals – purifying the water & making it easier to remove contaminating materials
- Research on plants in Assam could potentially yield natural solutions for reducing groundwater contamination



How to Make Environment Mainstream News?

Vibha Dhawan, TERI, India



Panel Highlights:

- Inculcating sustainability at the grassroots by changing culture through education
- Shaping better rural schools with nature's wealth for a better rural future
- The single linking thread to the whole ecosystem in education
- The roots are very well connected in a rural setup. The bigger vision lies in creating and implementing business models inspired by rural schools
- The right pathway towards building a rural future is bringing urban children to rural schools and inspiring them and making them aware about the nature-based model of education

In Conversation with

- Ravneet Pawha, Deakin University, India
- Rishi Raj Sarmah, Living Art, India
- Tamara Law Goswami, India
- Vasavi Acharya, IIFPL, India

Nature Capital for Food Security

K. M. Bujarbaruah, the former Vice Chancellor of Assam Agricultural University



In conversation with

- Jatindra Sarma, Forest Department of Assam, India
- Professor Zabed Hossain from Dhaka University, Bangladesh
- Komision Mili, Mising village in Baligaon, India

The panel dwelt on the potential for the rich natural biodiversity of the Eastern Himalayas in protecting and building resilience across food systems in the region

Panel Highlights:

- Biodiversity studies are essential in understanding food systems and how to build resilience in them
- It is essential for institutions to study plant and microbial interaction to truly understand the land farmers cultivate, to effectively bolster cultivation and maximize yields
- Organic farming must be introduced across the region, to maintain soil fertility
- It is important, as well, to understand the adaptation processes of plants or trees in differing conditions, to derive solutions for food security
- Microbes are the most important part of our food systems, playing a significant role in protecting land productivity

Enhancing Nature Capital Through Organic Agroforestry

Siddharth Singh, The Jute Foundation, India

The talk highlighted how jute as a product can sustain, conserve, preserve climate and the physical environment.

Panel Highlights:

- The practice of jute cultivation empowers rural economy, women, the farmers
- Jute is crucial in protecting ecologically fragile zones
- Jute bags are the green alternative to plastic usage



Mindful Tourism to Enhance Local Economies & Alter Livelihoods

Raj Basu, Help Tourism, India



In conversation with

- Prabir Banerjee, Balipara Foundation, India
- Roopa Baruah, Kahini Media, India
- Niranjana Das, Harupeswar Foundation, India
- Jashoda Chhetri, Association for Conservation & Tourism, India

Panel Highlights:

- Tourism is the way to progress, empower and treasure indigenous culture & traditions
- An important aspect of tourism is "How you communicate what you have"
- Rural Tourism movement is the tourism empowering the rural population and can be defined as responsible and sustainable tourism
- Polo sport is also a way to save the endangered ponies of Manipur

Mushrooms & Rural Livelihoods

Peter Mortimer, Kunming Institute of Botany

In conversation with

- Akeina Gonmei, Rongmei Baptist Association, India
- Gabriel Gonmei, Rongmei Baptist Association, India
- Pranjal Baruah, Mushroom Development Foundation
- Prasanna Daimary, India
- Gautam Baruah, Balipara Foundation



Panel Highlights:

- The mushroom market is projected to grow at a rapid rate, from 12.7 million tonnes and \$38 billion in 2018 to 20 million tonnes and \$60 billion dollars per annum in the next couple of years
- The scope for augmenting farmer incomes in the Eastern Himalayas through mushroom cultivation is wide, especially as the region imports approximately INR 40,000 crores of animal-based protein annually – a 10% share of this protein value through mushroom cultivation could create an INR 4000 crore market within the region
- The market in India and the Eastern Himalayas can be developed through identifying and developing new species for sale, creating local spawn enterprises to localize supply chains, centralizing and refining production lines so that farmers can focus on growing, aware and educating on the benefits of mushrooms

Asian Elephants in the Wild

K. K. Sarma, Assam Agricultural University, India



Talk Highlights:

- With numbers plummeting rapidly, India, out of the 13 countries, is the only one to have the largest population of Asian elephants, which would be about 25000 to 27500
- Losing our forest lands to urbanization is the primary cause of elephant habitat loss
- An elephant requires anything between 100 to 500 km square area and about 200-300 gm of food in order to survive
- The population of elephants in Assam had been declining at 0.96% per year between 1993-1997 and 0.25% per year, between 1997-2002. Poaching further contributes to this loss
- As a solution, build canals as opposed to electrical fences to mitigate the conflict, as well as implementing largescale elephant corridor restoration drive

Ethnoastronomy

Mayank Vahia, Narsee Monjee Institute of Management Studies, India

Talk Highlights:

- Traditional astronomy has strong links with tracking days and seasons, with a strong link to agricultural practices
- Folk art is rich with depictions of the skies that reveal deep mythological, cosmological and cultural understandings of life and death in cycle with each other. Each culture sees the skies differently, revealing their cultural preoccupations and understanding of the world
- The precision of traditional knowledge is highly accurate. Charts from the West coast for travelling to particular locations in west Asia with directions via constellations are precisely on point and can still be used to guide travel
- The oldest supernova record dates back to 3000 B.C. in Kashmir and is backed by scientific records. Tribal groups pass down astronomical knowledge of events that occurred back in 1000 B.C.
- This knowledge goes unrecognized because it fails to match our contemporary imaginary of what literacy, knowledge and education looks like



Bridging the Gap: India & China Towards Sustainable Development

Mayank Vahia, Narsee Monjee Institute of Management Studies, India



In conversation with

- Krishan Varma, Special Secretary (Rtd.), Govt. of India
- S. Ramadorai, Tata Institute of Social Sciences, India
- Ambassador Chandrashekhar Dasgupta, Prime Minister's Council for Climate Change, India
- Jianchu Xu, Kunming Institute of Botany, India

The uniqueness of the session allowed the participants and the panelists to expand their horizon in terms of partnerships, collaborations and the exploration of the vast opportunities together.

Panel Highlights:

- Both countries have a lot to learn from the practices of indigenous people along with their cultures. These exchanges could also take place through Mindful Tourism inclusive of the need to enjoy the intricate nature of lifestyle
- Technology in the current times and in the future have played and will play a very important role in bridging gaps. These gaps will not only be between countries but in the fields of health, education, empowerment and accessibility
- Therefore, coming together of India and China through development could possibly be one of the best solutions to large scale population growth while keeping traditional practices and culture accountable for people to fall back on a blueprint of a better living
- Mountain Futures Program is one way however, in which there can be a structural dimension for the future. Thus, ecological civilization comes into the forefront here – there is better technology, ecology, super-technology, agriculture etc. tea itself, for instance, is a result of the Indo-Chinese relationship
- The Indo-Chinese relationship is a complex one. There are certain things that can transcend the differences though. The panel has put forwards various areas where the two countries can cooperate
- The Chinese technology in managing the ecology can be taken from the Chinese – replicating them into suiting the Indian needs can be a viable method. The second thing is the finance sector. Economics can drive politics for the preservation of culture and tradition. Conservation and preservation are key here

Sustainable Tourism in the Eastern Himalayan Region: Opportunities & Challenges

Krishan Varma, Special Secretary (Rtd.), Govt. of India



Talk Highlights:

- Mass tourism has contributed to problems like degradation of forest land and resources, decrease in water level, and animal and human conflict
- While the government has been promoting tourism through global media campaigns, heritage trade, it's important that some parameters are laid down for controlling associated problems – disaster management, crisis management, tourism management, and tourism enterprise
- Some of the solutions that can be listed under sustainable tourism are – creating special divisions to look after different aspects of tourism, community participation, capacity building, tourism information centers, identifying gap areas, and promoting opportunities

The session focused upon development of sustainable tourism and the impact of growing mass tourism on the environment.

Wilderness... The Nature-Based Solution for Life, Livelihoods & Love

Devanshi Vaid, India Development Review, India

Panel Highlights:

- Bringing green infrastructure, i.e. ecosystem back to life is the only way to survive a climate change — this also essentially means that deserts must be left as deserts, since food security of people lies there
- The ongoing water crisis in India, although there are about 3000 dams in the country, all drying out rapidly. It's an imperative to bring the catchments to life with the help from the country's valuable asset i.e. its people
- Indigenous knowledge and the self-sustainable symbiotic relation between the forest-fringe communities and the Eastern Himalayan biodiversity
- Adopting the concept of urban wild nature would be a good start to accommodating the different aspirations of people for living a good life. However, efforts should be made to protect areas where the biological diversity is in threat due to rapid development. Adopting green measures in cities would be the best way to tackle climate change



In conversation with

- Bittu Sahgal, Sanctuary Nature Foundation, India
- Vance G. Martin, WILD Foundation, USA

Heroes of the Wild Frontiers

Anish Andheria, Wildlife Conservation Trust, India

In Conversation with

- Krishnendu Bose, EarthCare Films, India
- Rohini Ballave Saikia, Govt. of Assam, India
- Kime Rambia, Govt. of Arunachal Pradesh, India
- Santi Ram Chetri, Govt. of Assam, India
- Tangru Meiji, Govt. of Arunachal Pradesh, India

The session showed Filmmaker Krishnendu Bose's two latest docuseries, Heroes of the Wild Frontiers highlighting the journey of forest rangers — the unsung heroes of the wild of Kaziranga National Park (Assam), and Pakke Tiger Reserve (Arunachal Pradesh).



Panel Highlights:

- Forest officials in Pakke Tiger Reserve walk 8km every day through tough terrain to hunt down poachers
- There are 39 anti-poaching camps around the borders of the Pakke Reserve Camp, but it is still not enough
- While the local communities help with the conservation efforts initiated by the Government, they often do not receive the minimum wage that they are given on a regular basis, so they often go on for months without any payment. This, and a lack of job security, have contributed to a deficit in permanent workers
- In Kaziranga National Park, as of today the poaching numbers are in control but there are other bigger issues like habitat management, water holes sedimented because of annual floods leading to the changes in the ecosystem, grasslands being taken over by the woodlands
- Kaziranga National Park is lacking in the adequate research the park needs
- Maintaining a balance between the narratives of the wild and of the humans are vital
- One might have the greatest of shots, but it wouldn't be consumed without a great story. The series are liked, because of the characters, the stories that are gathered from each park. That's when the heroes really come out strong and add to the narrative

Community Autonomy & Governance of Nature Capital

Lt. Gen. Arun Kumar Sahni



In conversation with

- Kartik Shukul, India
- Biswajit Chakrabarty, FICCI, India
- Tambor Lyngdoh, Khasi Hills REDD+, India
- Kaushik Deka, India Today, India
- Sarath Davala, Basic Income Network, India
- Mehdi Arif Hussain, Govt. of Assam, India

Panel Highlights:

- Providing autonomy in a manner where indigenous communities thrive alone on whatever the harvest
- The Forest Rights Act and its impact on forest produce and significance to sustainable development
- The conflicting nature of the ownership of land— how land ownership laws have been subject to various kinds of manipulation
- To create an infrastructure to provide autonomy to local communities and to inter-weave it to the existing local infrastructure

Sustainable Livelihood Initiatives through Empower

Hasina Kharbhih, Impulse Network, India

Talk Highlights:

- Economic opportunities through sustainable and consistent market access are the strongest point of intervention for reducing human trafficking and migration
- Working across the value chain by bringing together multiple specialized skills and stakeholders through collective leadership, to create clusters for sourcing, production and distribution enables the volume and scale that is the key for livelihoods programmes
- Women cannot be seen as workers, but must be empowered as artists and artisans, where weaving becomes a supplementary livelihood programme integrated into their local culture and agriculture-based economies
- Essential to weave stories that are not focused around women as victims, but around sustainable fashion and cultural art, using cultural documentation to weave stories around patterns and the cultural stories of products, encouraging cultural exchange and positioning the women as entrepreneurs in their own right



Nature Capital: A New Financial Economy for the Eastern Himalayas

Sarath Davala, Basic Income Network, India

In Conversation with

- Saleem Khan, British Asian Trust, India
- Rakesh Shejwal, Yes Bank, India
- Anirudh S Singh, Government of Arunachal Pradesh, India
- Vijay Yagnamurthy, Tata Trusts, India



The panel focused on the need for changing economic paradigms to meet current environmental challenges of climate change and ongoing biodiversity loss. Natural capital based financial instruments and alternate innovative funding models to foster better outcomes in the development and conservation sector formed the backbone of conversation, as the panelists debated the future of both development and environmental outcomes in the Eastern Himalayas.

Key Highlights:

- A large proportion of the economy is considered 'unbankable' and are excluded from regulated financial infrastructure, forcing reliance on moneylenders and other exploitative microfinance-based systems
- There is a strong correlation between our current/legacy growth model and the depletion of natural resources including forests – in Arunachal, SOR collection went from INR 700 crore in 2017 to INR 2000 crores in 2019, coupled with the loss of 200 sqkm of forests in the state
- Natural Capital could finance the economy through instruments such as innovative debt instruments, first loss default guarantee financing, debt for nature swaps, biodiversity offsets, conservation banking and climate/green bonds
- Natural capital accounting is important to measure the value of natural capital in the economy & reflect the real cost of goods we consume – the natural capital protocol used by brands such as Puma fundamentally reconceptualize consumer-product relations by creating consumer awareness of the complete ecological footprint and natural capital use value of a good before purchasing
- Globally, however, natural capital financing is facing a shortfall. The UN expects to raise \$100 billion per annum to finance developing nations' transition to a green economy, but biodiversity loss already represents \$300-400 billion per annum
- The corporate sector needs to move towards investments that have green solutions, which mitigate and address climate change
- Development impact bonds have the potential to close the SDG funding gap through providing the scale and funding to achieve outcomes, while giving the development sector greater freedom to take risks and build new models to create effective impact
- Each of these financial instruments come with risks in-built: there must be a balance between greed and hope, otherwise these financing models may worsen scenarios and entrench inequalities even further when the profit motive takes first priority

Conservation Beyond Borders

Sonali Ghosh from the Ministry of Environment & Forests, India, Niraj Kakati and Persis Farooqy, Govt. of Arunachal Pradesh

In conversation with

- Rita Banerji, GreenHub, India
- Bibuhti Lakhar, Aaranyak, India
- A.M. Singh, Head of Forest Force in Assam
- PR Marak, Chief Conservator of Forests, Meghalaya
- Abhinandan Saikia, TISS, India
- Swapnil Baruah, IAS (Retd.), Govt. of Assam
- Anjali Tirkey, PAJHRA Society
- Sheila Bora, INTACH, India

The panel raised key issues in preserving natural heritage by involving stakeholders across communities, NGOs, governments and international bodies, the intimate links between natural heritage and cultural heritage and the vital role of research in documenting and curating heritage for the future.

Key Highlights:

- Research is important to understand, document and monitor the nature and health of natural heritage at sites such as Kaziranga & Manas – this cannot be left to the forest department alone and must be supported by research institutions
- University-Government partnerships are key to documenting natural heritage and creating scientific management solutions and plans to enrich their most unique features
- It is important to understand that communities who own land often have a different perception and understanding of it than conservationists – for many of them, heritage status is seen as a negative as it closes off access to land – and significant, patient dialogue is required to bridge this gap
- The overlap of mineral rich areas and natural heritage sites is a pressing issue in states such as Meghalaya, where the potential earning value of minerals often overrides concerns for maintaining ecosensitive zones etc.
- Getting heritage protection is a political process as much as a technical one, with decision-making power significantly concentrated in certain cluster of countries. The heritage status application process, therefore, must be supported by concentrated lobbying efforts from the diplomatic corps
- The overlap between tea and forests in the region can be used to build a transboundary connection with China through our shared heritage in tea culture
- Culture is intimately intertwined with natural heritage and it is incumbent on us to protect our cultural and natural heritage first, if we seek to gain recognition, as illustrated by the case of Majuli



BALIPARA FOUNDATION SOCIAL RECOGNITION AWARDS 2019

19 winners across 7 states
and 4 countries



Annual Balipara Foundation Award
Bengia Manna Sonam, Arunachal Pradesh, India
Presented by His Excellency
Chandrashekhar Dasgupta, India

Bengia Manna Sonam, leveraged rural tourism & homestay movement, facilitated economic independence for women, driving them to conserve local traditions and natural resources



Special Recognition – Habitat Restoration
Tanzema Elephant Friendly Village, Bhutan
Presented by Riniki Bhuyan Sarma
Pride East Entertainments, India

Tanzema Elephant Friendly Village has been actively involved in resolving man-animal conflict and successfully restoring elephant habitat



Young Naturalist Award
Ganga Limbu, Nepal
Presented by
Victor Banerjee, Actor, India

Ganga Limbu from Nepal, a visual storyteller and educator, associated with the Vertical University project by KTK-Belt. She has been actively involved in training the youth to document the knowledge and plant diversity in their communities



Forest Ranger Award
Sherab Dorji, Bhutan
Presented by Sangeeta Barthakur
Child Special Educator, USA

Sherab Dorji has created a bamboo and cane community forest management group which mobilize communities to manage seedlings of cane and bamboo



Lifetime Achievement Award
Sagar Mehta, Assam, India
Presented by Devika Dasgupta, India

Sagar Mehta for over 65 years has been actively engaged towards revolutionizing community conservation and mobilizing masses to implement afforestation drive and restore water bodies



Special Recognition – Mushrooms for Food Security
Bilinso Syiemlieh Kong, Meghalaya, India
Presented by Ram Muivah, Northeastern Council, India

Bilinso Syiemlieh Kong is an expert on wild mushrooms, fruits and ornamental plants. She has a vast knowledge on indigenous flora & fauna & has been living interdependently with nature for the past 60 years



Special Recognition – Social Entrepreneur
Hasina Kharbhih, Meghalaya, India
Presented by A.M. Singh, PCCF
– Environment & Forest, Govt. of Assam, India

Hasina Kharbhih's endeavor led her to start Impulse network in an effort to help the women of several villages apply their skills to develop a sustainable livelihood



Naturenomics™ Award
Kurutsechu Self Help Group, Arunachal Pradesh, India
Presented by Dr. Dibakar Goswami,
Washington State Dept. of Ecology, USA

Kurutsechu Self Help Group has taken the initiative to restore and revive a heritage practice-cotton cultivation, and in the process, propel communities towards a sustainable rural future

BALIPARA FOUNDATION SOCIAL RECOGNITION AWARDS 2019

19 winners across 7 states
and 4 countries



Eastern Himalayan Conservation Award
Rohini Ballave Saikia, IFS, Assam, India
Presented by Vibha Dhawan
TERI, India

Rohini Ballave Saikia spearheaded some of the crucial conservation and anti-poaching initiatives in the Kaziranga National Park



Green Guru Award
Dr. Zabed Hossain, Bangladesh
Presented by Karuna Singh
Earth Day Network, India

Dr. Zabed Hossain has done extensive research entailing plant-microbe interactions, abiotic stresses on plants and its adaptation mechanism



Nature Conservancy Award
Moirangthem Loiya Ngamba, Manipur, India
Presented by Ravneet Pawha
Deakin University, India

Moirangthem Loiya Ngamba transformed acres of barren land into a verdant forest and is responsible for the increased green cover in Manipur



Green Guru Award
Dr. Sherub, Bhutan
Presented by Rima Das
Filmmaker, India

Dr. Sherub has been instrumental in the assessment of bird diversity in the protected areas of Bhutan and is Bhutan's first ornithologist



Special Recognition – Interdisciplinary Environmentalism
Biswendu Bhattacharjee, Tripura, India
Presented by Rekha Poddar, Cane Craft, India

Biswendu Bhattacharjee has spearheaded as a leader and has worked towards building the dynamics between journalism, education & environmental activism



Food for the Future Award
Mahan Chandra Borah, Assam, India
Presented by RJ Alia, Big FM, India

Mahan Chandra Borah preserved unique indigenous rice seeds to help farmers reach greater output in the foothills of the Eastern Himalayas



Naturenomics™ Art Awards
Abhigyan & Samaira, Assam, India
Presented by Ashwani Anand
Vivanta, India

As part of the 7th Eastern Himalayan Naturenomics™ Forums and Balipara Foundation Social Recognition Awards, Balipara Foundation organised the Naturenomics™ Art and Essay Competition for little minds in the Northeast. Through creative art works and essays, students from 10 different schools and colleges participated in the competition



Naturenomics™ Essay Award
Janifar, Pritisha, Raktim, Assam, India
Presented by Purnima Devi Barman
Aaranyak, India

7th RABINDRANATH BARTHAKUR MEMORIAL LECTURE

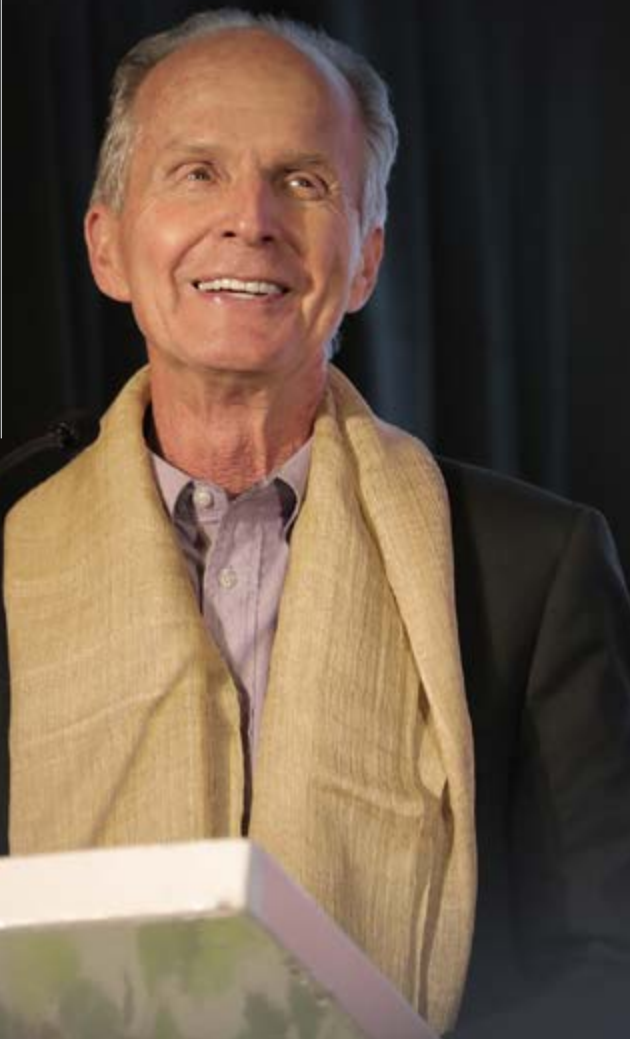
Survival Revolution through Wilderness Restoration

Vance G. Martin, President of WILD Foundation and an expert in nature conservation and wilderness protection, opened his speech recalling the dark era of the apartheid in Africa. It took a revolution to end the atrocities that crippled the continent. Martin thinks, humanity has once again reached a moment that calls for a revolution. That this time around, it is a matter of survival. What it also means is that we have been given the responsibility to rewrite human history, that we now have the opportunity to create a new world, like Rabindranath Barthakur did, all those years ago.

Vance took us to the start of the western civilization, with a daunting image of The Lupa Capitolina projected on the screen to urge his audience to rediscover the myth of Romulus and Remus. Now more than ever, it is almost an emblem of progress. Progress, whereby we get our nourishment from the very teeth of mother nature. Also, progress, as depicted by John Gast, in 1872, with changes catching up on the lives and socio-cultural practices of people from the bygone era.

Vance made an appeal to his audience to not just understand and invest in transforming the hard infrastructure around us but towards improving the green infrastructure. He invited everyone present to join the movement, to change our relationship with nature and restore humanity to the origins of nature nurturing us.

The Rabindranath Barthakur Memorial lecture, that carries forward the legacy of a great environmentalist, his practices of conservation and his vision of sustainability, on the evening of the 6th of November 2019, witnessed Vance G. Martin's thoughts and words resonate with every individual present, as he called out, yet again, for a survival revolution.

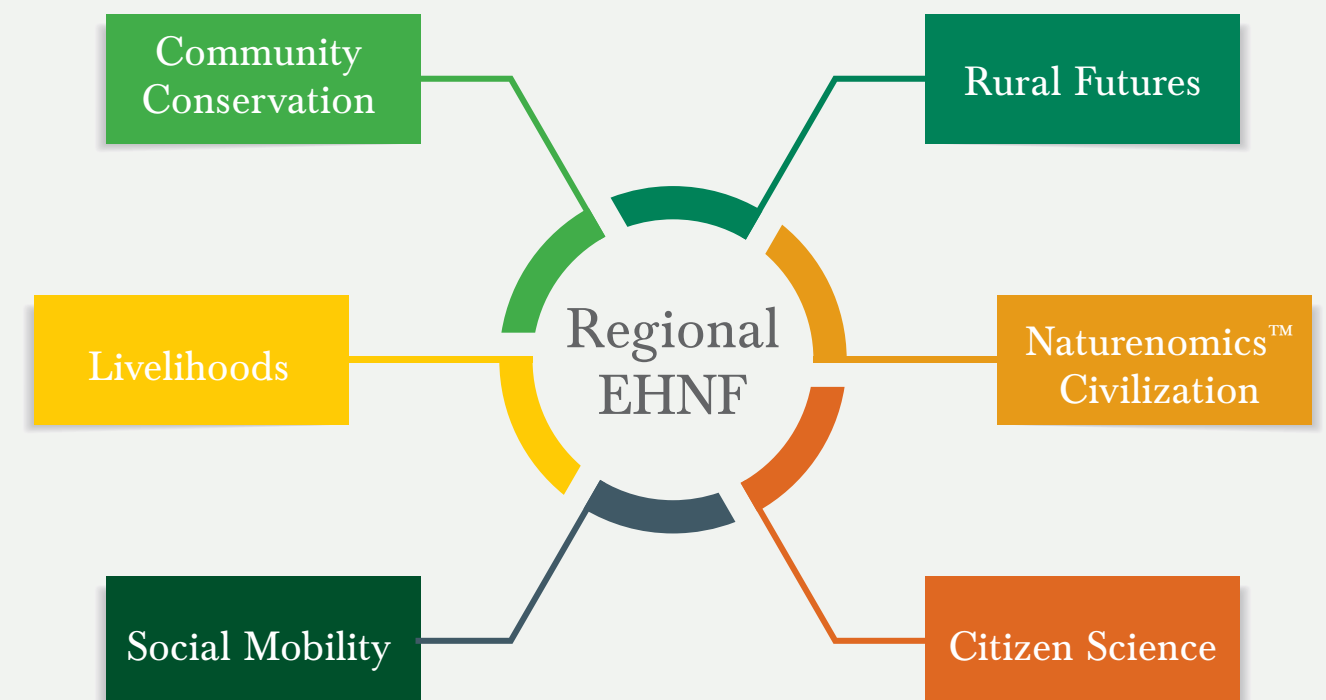


REGIONAL EASTERN HIMALAYAN NATURENOMICS™ FORUM

Successful deliberations with community members, leaders and experts from various disciplines around the world has underscored the need to broaden the scope and directing us that the storyline starts from the grassroots, there is a rich story within each community and that their direct impact will lead towards a sustainable Rural Futures. Taking this forward, we are pleased to present the Regional Eastern Himalayan Naturenomics™ Forum to understand conservation stories, bring forward habitat restoration case studies, give exposure to the community heroes and identify the

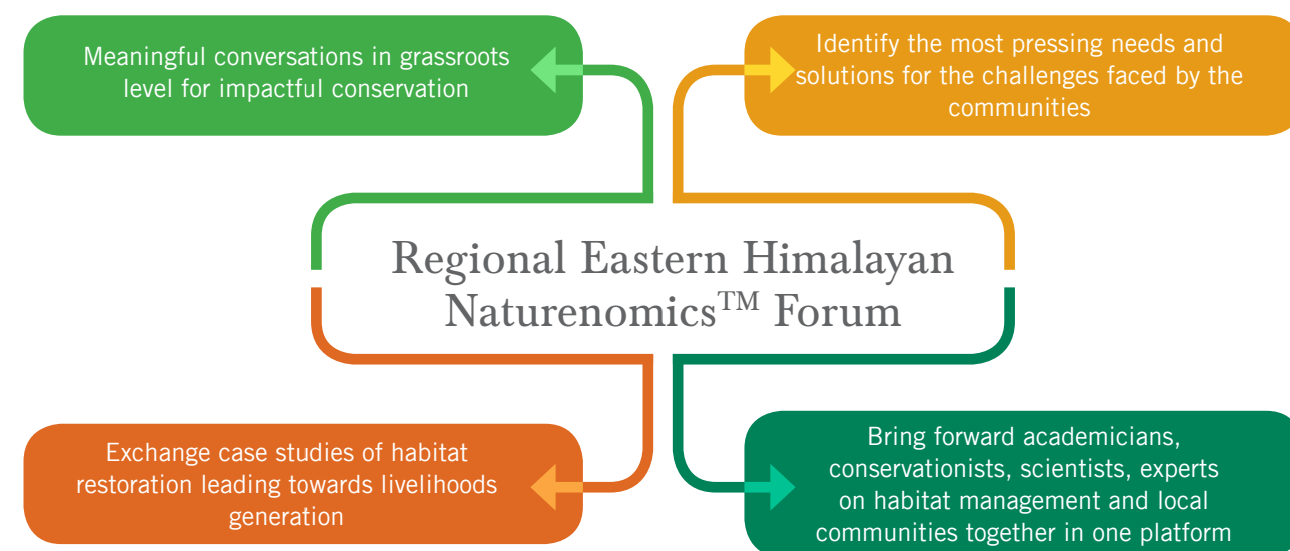
most pressing needs and solutions for the challenges faced by the communities and use those outcomes as a launch pad to start discussing possible solutions.

In the process, effect lasting change through the empowerment of rural communities in the Eastern Himalayas, as a model for global development finding solutions to social, economic and conservation challenges faced by communities, the impacts will be immeasurable thereby, leading to development of Rural Futures and building implementation plans.



WAY FORWARD:

Create regional awareness on Habitat-management & Identify community voices/stalwarts for its' implementation



Key Results:

Enhancing community-led habitat restoration in the Eastern Himalayan region and identifying community-voices for customised solutions

SIKKIM EASTERN HIMALAYAN NATURENOMICS™ FORUM

Gangtok | 27th April 2019



The first ever regional series of the Eastern Himalayan Naturenomics™ Forum 2019 was successfully hosted at the Sikkim University campus in Gangtok. The primary theme of the forum was 'Community, Conservation & Livelihoods: The Lepcha Community'.

Many eminent speakers from diverse fields were present at the forum and shared their thoughts on the topic.

Moderated by Dr. Sandhya Thapa, HOD, Sociology Department, Sikkim University the session highlighted the lives of Lepcha Community: history, tradition, folk lore, connection with nature, challenges and threats. Ms. Dawa Lepcha -a trainer in the hospitality industry spoke about the roots of the Lepcha community, their indigenous knowledge and practices and their means of livelihoods.

The session was open for discussions and Mr. Gacho Lepcha, Head of the Department- Lepcha Community gave us an insight about the closeness of mountain communities with nature. "With the Lepcha Community, they are protecting and preserving their nature and culture since ages" – he said.

The second session of the forum was to engage in a cross vertical dialogue and explore how experts from different fields can contribute to the cause of the Lepcha Community and create awareness. Speakers of the session included – Dr. Sunayana Sarkar, Assistant

Professor - Structural Geology and Geotectonic, NMIMS University, Mumbai, Ms. Minket Lepcha, Film maker, Mr. Anindya Mukherjee, Mountaineer and Adventurer and Mr. Tom Tshering Lepcha, Officer of Department of Social Justice & Welfare. The session was moderated by Dr. Satyadeep S. Chhetri, Head of the Department, Department of Chemistry, NBBDC, Tadong. The session flagged important issues and the gaps that needs to be addressed in the Dzongu Valley and with the Lepcha communities. The idea is to work together to find solutions to the challenges and implement a sustainable future for the mountain community. The session ended with Minket Lepcha stating "If roots had boundaries, would trees ever bear fruit".



Throwing light upon the importance of keeping our mountains free from plastic pollution, Ms. Neela Mazumdar from Earth Day Network-India launched the Great Global Cleanup in the mountains campaign to spread awareness on removing billions of pieces of trash from our neighbourhoods. The launch of the campaign was followed by screening of the acclaimed documentary film 'Voices of Teesta', directed by Ms. Minket Lepcha.

The Sikkim Chapter was organized in association with the Sociology Department of Sikkim University.

BHUTAN EASTERN HIMALAYAN NATURENOMICS™ FORUM

Punakha | 28th January 2020

In association with Bhutan Institute of Himalayan Studies, Royal University of Bhutan and our Naturenomics™ Partner – Tata Steel

Identifying pressing issues in community conservation & livelihoods among communities in Bhutan at the 2nd edition of the Regional Eastern Himalayan Naturenomics™ Forum

The second regional edition of the Eastern Himalayan Naturenomics™ Forum, the flagship conference series of the Balipara Foundation, was hosted at the College of Natural Resources in Punakha, Bhutan. Bringing together leading academics, communities, senior government officials and civil servants, the conference

explored key issues in community-driven conservation and livelihoods emerging in Bhutan through a series of lively talks, panels and case study presentations.

The forum hosted 50 representatives from leading institutions in Bhutan such as the College of Natural Resources, the Royal University of Bhutan, the Bhutan

Institute of Himalayan Studies, the Nature Study Centre and Bhutan's Department of Forests & Park Services, including forest guards from Royal Manas National Park. Through deliberations, they explored themes in community-based conservation in montane ecosystems and the challenges of conservation in the difficult mountainous terrain of Bhutan.



Dr. Phub Dorji, President, College of Natural Resources – Royal University of Bhutan

Dr. Phub Dorji, President of the College of Natural Resources, set the tone for the event, delivering an inspiring opening talk on the importance of knowledge-sharing platforms such as this, as conservation begins first by learning from one another.

His talk highlighted on bringing forward the indigenous communities and letting their voices and endeavors heard.

**Karishma Ahmed, Rural Futures-Communications & Publications – Balipara Foundation**

Karishma Ahmed highlighted the journey of Eastern Himalayan Naturenomics™ Forum and how the Balipara Foundation has expanded this platform to reach to the indigenous communities.

The idea of creating regional platforms is to bring community voices to the table and derive at common goals and complementary action for conservation across the regions.

Saurav Malhotra, Rural Futures-Designer & Co-Founder – Balipara Foundation

Saurav Malhotra spoke about Balipara Foundation's vision and mission, Rural Futures, for creating socioeconomic mobility and access to universal basic assets such as education and water, among forest-fringe communities through natural asset generation.

A short film, Planet Fungi, on fungal biodiversity and their potential for community livelihoods, was screened to the representatives.

**Dr. Sonam Wangyel, Founder - Bhutan Institute of Himalayan Studies, Bhutan**

Dr. Sonam Wangyel of the Bhutan Institute of Himalayan Studies highlighted the importance of community-based conservation in the mountain landscapes.

His talk underlined the importance of Gross National Happiness index in shaping development strategies and community-based conservation in mountain ecosystems.

His Excellency Dasho Benji Paljor Dorji, Environmentalist

Dasho Benji Paljor Dorji, a senior special advisor to the Bhutan government on environmental issues, then spoke about the vital importance of cooperation across borders in conservation, while centering local communities and needs in debating solutions.

**Dr. Om Katel, Lecturer, College of Natural Resources-Royal University of Bhutan**

Raising the question of education in the next session, Dr. Om Katel of the College of Natural Resources explored how education and resources are intimately related and their role in community-led conservation.

His talk also highlighted on climate change effects of Bhutan and trends on human-wildlife conflict and land use.

Community Conservation & Livelihoods: Impacts & Challenges

Grassroots community representatives from Punakha then presented a thought-provoking case study on water source protection and the importance of balancing community and environmental needs.



"There must be an equal balance between the communities and the environment. Their key focus should be on both"
-Community Leader, Punakha

**Rinchen Dawa – Freelancer, Researcher**

Addressing the question of corporate social responsibility, Rinchen Dawa, a researcher who works on collaborative projects between Korea and Bhutan, highlighted how conservation goals can be achieved through collaborations with the private sector and CSR support.

Dorji Wangchuk, Tanzema Elephant Friendly Village

Recipients of the 2019 Balipara Foundation Social Recognition Awards for Habitat Restoration, Tanzema Elephant Friendly Village, then presented a case study to the forum on their initiative to restore elephant habitats and resolving human-elephant conflict within their village.



The Earth Heroes of the Wild – In Conversation with Forest Soldiers of Bhutan



"We are the protectors of green forests. There are lot of challenges and efforts that comes with it"

-Jigme Dorji, Zhemgang Forest Division

- Jigme Dorji, Zhemgang Forest Division, Bhutan
- Dorji Wangchuk, Royal Manas National Park
- Sonam Penjor, Sandingkha Forest
- Sonam Tossy

This was followed by a lively panel discussion on conservation in Bhutan's protected areas, including the iconic Royal Manas National Park. The session discussed about the challenges and efforts by the forest soldiers in day-to-daily lives.

The forum was closed by the event's Naturenomics™ partner, Tata Steel, introducing their annual community-driven conference, Samvaad, followed by the screening of a short film on this. In addition to their support, the forum was made possible by the Balipara Foundation's knowledge partners, the College of Natural Resource and the Royal University of Bhutan.

Launched in 2019, the regional editions of the Eastern Himalayan Naturenomics™ Forum seek to bring together local stakeholders in communities, conservation and livelihoods to debate pressing issues and opportunities for action. Through this, the Forum seeks to generate grassroots, actionable solutions to create Rural Futures across the Eastern Himalayas and empower local communities to be the stewards of their natural assets.



OUTCOMES AND NEXT STEPS

The importance of having a "middle ground" framework between conservation and development

Learning from the successes of Tanzema Elephant Friendly Village and postulating a model for the Eastern Himalayas

Enhancing research of biodiversity through audits and creating a customizable and scalable re-wilding framework

The need for holistic solution for managing human-wildlife interactions

The need for transboundary conservation and re-wilding efforts across the Eastern Himalayas

EASTERN HIMALAYAN RUFU®: FROM THE SNOWLINE TO THE SEALINE



2020 is a crucial year for ecosystems globally, as leaders and communities around the world put together an action plan to fight unprecedented increase in land degradation, deforestation, melting glaciers and the extinction of fragile keystone species.

The 8th Eastern Himalayan Naturenomics™ Forum will stand as a connector for the Eastern Himalayas, its actions will spread across boundaries of the ecological civilization through participation of nations, ethnicities, languages, grassroots traditions and culture and will encompass & bring together the biocultural diversity in the region. The platform looks forward to explore multiple scalable community conservation models for habitat restoration and nature-based solutions across the Eastern Himalayas.

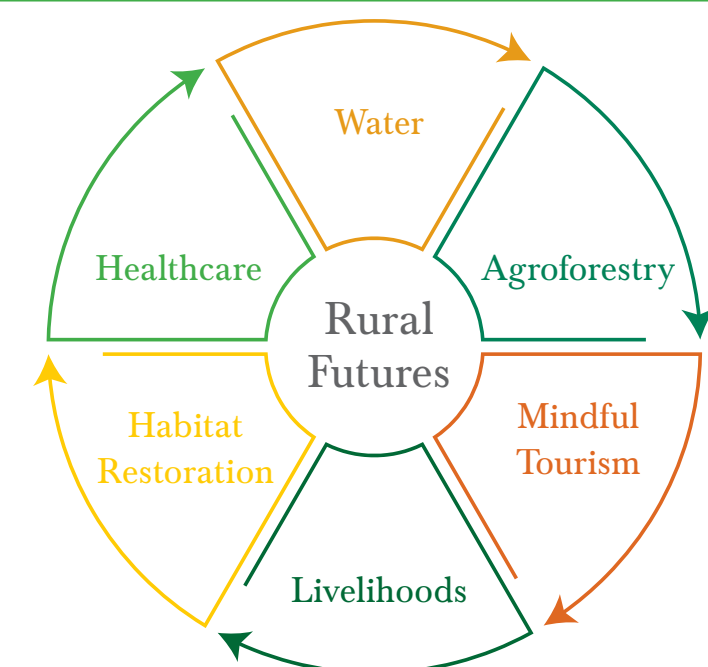
Through case studies and a panel discussion, this session will explore the multiple models for habitat restoration for conservation currently being pioneered across the Eastern Himalayas, as well as the future actions needed to restore habitats at scale.

Objectives:

- Bring community case studies from the Eastern Himalayas - from snowline to sealine
- Explore the role of communities in habitat restoration
- Ascertain the most effective change pathways for habitat restoration in the region
- Identify key challenges that have emerged in the region – and the solutions being pioneered to meet those challenges head on
- Unearth the overlapping drivers of success across these different models
- Create a consensus on what comes next – how do we restore habitats at scale, in a way that ensures just outcomes for forest-fringe communities dependent on habitats & forests for livelihoods?

With notable speakers from multi-disciplinary fields, the dialogue would in the Eastern Himalayas engage in the discourse to highlight case studies and community voices from the grassroots shaping the framework of Rural Future.

Case Studies from
Snowline to the Sealine:
Eastern Himalayan
Rural Futures



NATURENOMICS™ WORKSHOPS

An interactive session with the students from Faculty Higher Secondary School, Sanskriti – The Gurukul and Maria's Public School

The workshop entailed the following activities:

- Story telling session
- Activity: Collecting and segregating waste into biodegradable and non-biodegradable waste - put them in the respective boxes
- Discussion round - conversations on segregation of wastes and how to manage waste
- Trash monster activity



52
Students



3
Schools



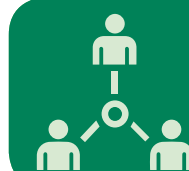
An interactive session with the Social Work students of Royal Global University followed by a Naturenomics™ Essay Competition

Interaction Points-

- Students Role Towards Nature Conservation
- Empowering Grassroots Conservationists
- Universal Basic Assets: Towards Sustainable Livelihoods through Nature Capital



40
Students



3
Departments



STORYTELLING IN DIGITAL

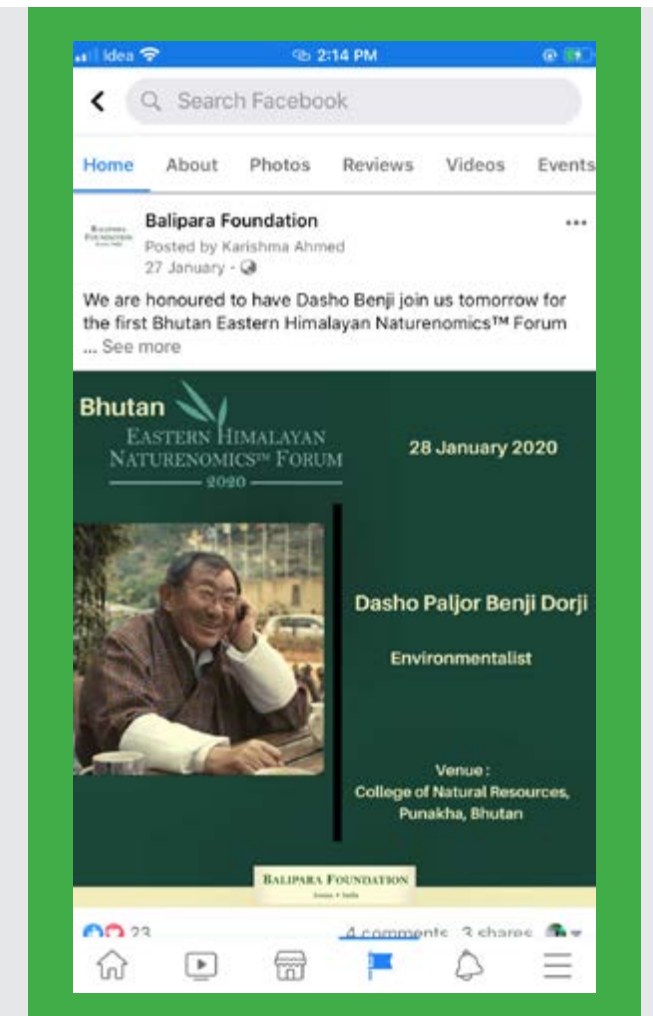
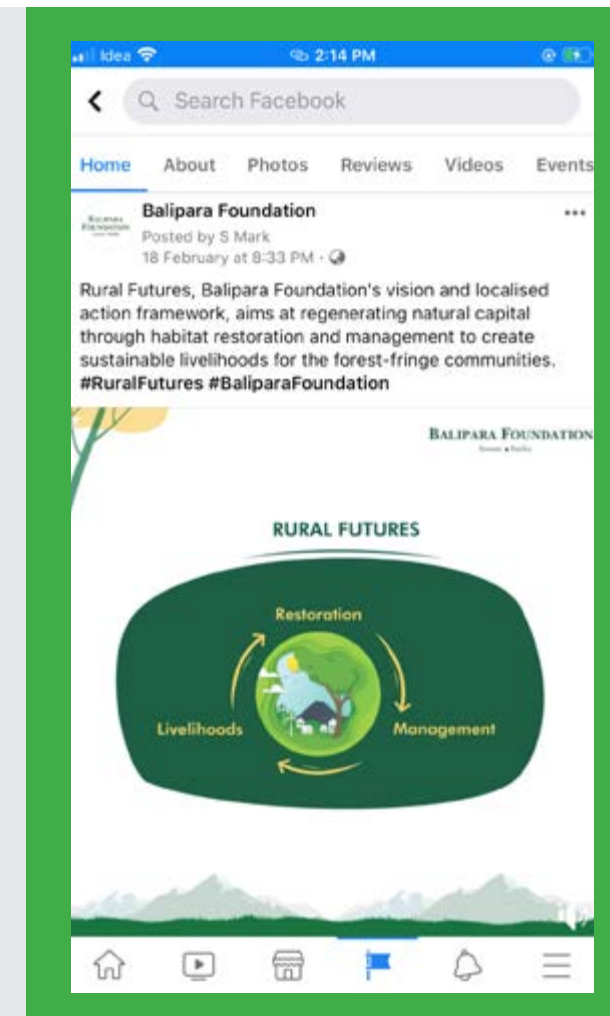
Storytelling plays many important roles. They bring people together but are more than tools of connectivity: they convey information, educate and influence, entertain, preserve traditions and values. Stories bridge gaps in culture, language, age and education - and because stories give context to information while stirring emotions, they allow tellers and listeners the chance to mull over the world and their place in it.

At the Balipara Foundation, we believe that this powerful tool of storytelling educates and creates awareness on conservation initiatives, challenges and brings forward the efforts and dedication of our community members in restoring habitats and preserving the biodiversity.

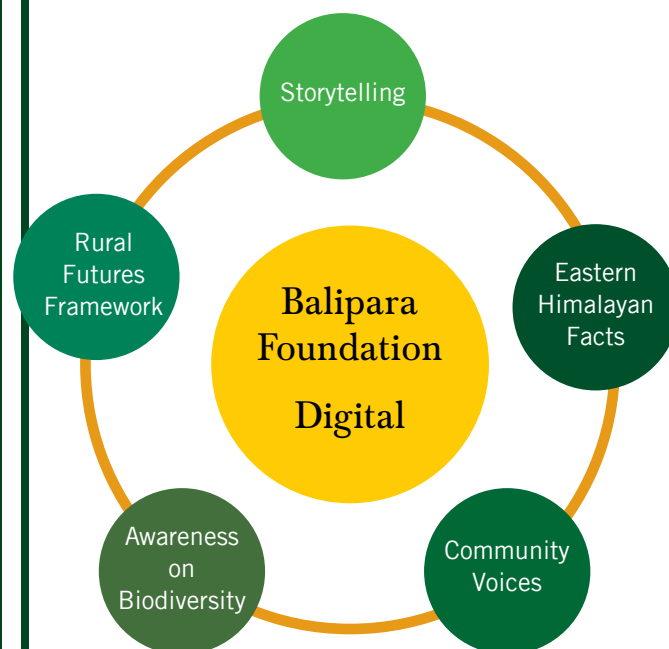
Through our platforms, we aim towards educating our audience about the Rural Futures framework, its importance towards providing socio-economic mobility and self-sufficiency to the indigenous communities and sharing community voices and their experiences from the field.

Storytelling Platforms

SOCIAL MEDIA



BIO-CULTURAL EXPERIENCES



PROJECT COMMUNITREE

Natural Asset creation in Assam, India
on
Balipara Foundation's 12th Birthday

2,84,722

trees planted

in
78 villages

47500+ individuals from 9500+ households

in
30 Minutes

[View Gallery](#)

COMMUNITREE PARTNERS

Balipara Foundation remains indebted to all its supporters, community partners and the team members on its 12th birthday. Without their unwavering guidance, assistance, and blessings, this milestone would not have been achieved.

7th BALIPARA FOUNDATION SOCIAL RECOGNITION AWARDS — 2019 —

[Read Highlights of Balipara Foundation Social Recognition Awards 2019](#)

<p>Anupachal Pradhan Assam Sahitya Akademi, Assam, India Presented by Dr. Dinesh Kumar</p>	<p>Special Recognition Awardee Assam Sahitya Akademi, Assam, India Presented by Dr. Dinesh Kumar</p>
<p>Anupachal Pradhan Assam Sahitya Akademi, Assam, India Presented by Dr. Dinesh Kumar</p>	<p>Special Recognition Awardee Assam Sahitya Akademi, Assam, India Presented by Dr. Dinesh Kumar</p>
<p>Anupachal Pradhan Assam Sahitya Akademi, Assam, India Presented by Dr. Dinesh Kumar</p>	<p>Special Recognition Awardee Assam Sahitya Akademi, Assam, India Presented by Dr. Dinesh Kumar</p>
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Website:
Cumulative across
all platforms:

Page Views –
30,47,445 vs
281,202 in 2018

Users –
3,97,968 vs
77,251 in 2018

Sessions –
411,303 vs
98,453 in 2018

Social Media:
Cumulative across
all platforms

Followers: 30,088

Reach: 1,261,987

Twitter - Impressions:
98,366

Followers on Twitter:
2,054

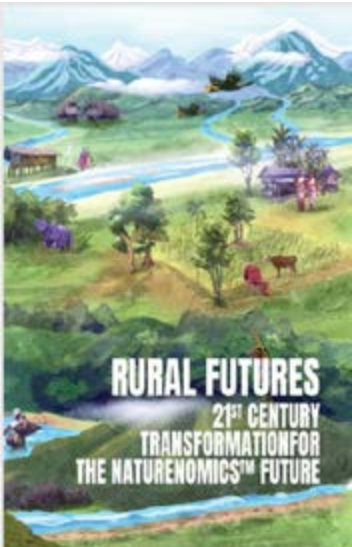
Newsletter/Mail Chimp

24 Newsletters

1100 Subscribers



PRINT STORYTELLING



Rural Futures: 21st Century Transformation For The Naturenomics™ Future* Launched



'Rural Futures for Ecological Civilization in the Eastern Himalayas' in the Royal Over-Seas League Magazine, UK



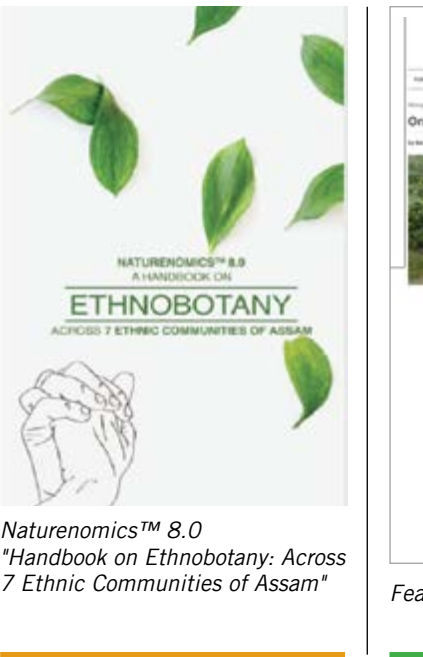
Featured in Eclectic Northeast Magazine "Saving the Environment by Rethinking Development"



Balipara Foundation's research work on inventory on the biodiversity of a tribal village in Assam has been published in the scientific journal - Eco Chronicle



Featured in Asam Bani Newspaper. Gautam Baruah, Balipara Foundation featured in Asam Bani. The article highlighted Balipara Foundation's role and vision towards Habitat Restoration and elephant insurance scheme and how we aim to mitigate the conflict by building tolerance between the two.



Naturenomics™ 8.0 "Handbook on Ethnobotany: Across 7 Ethnic Communities of Assam"



Featured in Mongabay



Featured in Sikkim Express



Featured in Asomiya Pratidin



Featured in Eclectic Northeast Magazine "From Greenwashing to Mindful Natural Tourism"

Putting ecology back in economy: the naturenomics™ civilization

Every second, we lose one hectare of tropical forest to deforestation or degradation, globally. Since the 1960s, we have destroyed over half of the world's tropical forests and the consequences for the future survival of our planet are devastating.

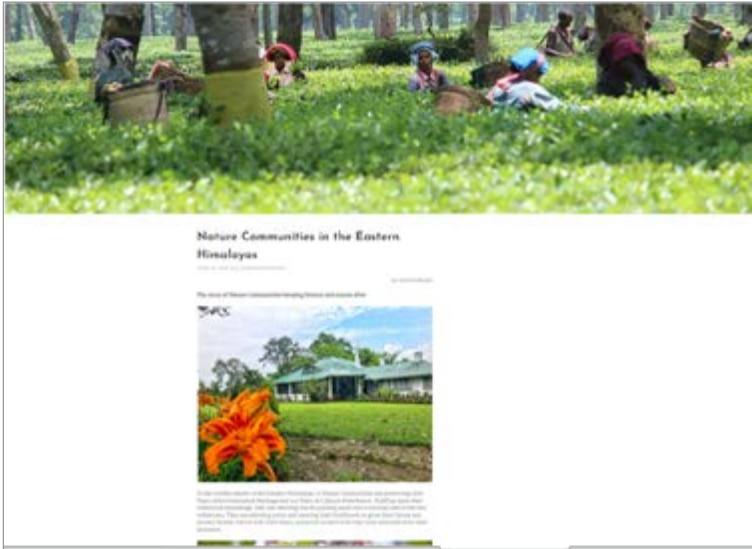
Paris Peace Forum | Follow
Dec 2, 2019 | 4 min read

Tropical forests are home to nearly 80% of the world's biodiversity and the ecosystem services provided by these forests are estimated to contribute billions to the global economy, if not more, through crucial services in maintaining water, oxygen and carbon cycles, as well as providing natural habitats for key pollinator species.

As forests and habitats disappear globally, we see dramatic shifts in our global biodiversity with serious consequences. Insect populations are falling rapidly and pollinator species are increasingly at risk, over disappearing forestland. Smallholder farmers, who supply 80% of the world's food, depend strongly on these forests for support: 52% of all land used for food production relies on forests for soil regeneration and for the prevention of soil erosion. Over 1.6 billion people globally depend on forests for their livelihoods, through forest based produce. Of these, 350 million people,

Featured in Paris Peace Forum Medium

Our Social Restoration Project – Eastern Himalayan Botanic Ark



The Story of our Nature Communities keeping Nature and History alive unfolds on Sevenseas Media



চা হাণ্ডী। আর যা হাণ্ডীর তার ইতিহাস এবং অনুভব, সুস্টিংই গল্প জড়ানো।

চা এসেছিল অনেক আগে! ১৮৪৭ সালের কোনও এক সময়ে চিনের চা পাতার প্রথম প্রবেশ ভারতের মাটিতে। ইস্ট ইন্ডিয়া কোম্পানির নজরে চা এবং আফিম, দুইই ছিল শ্রোতাজনীয় দ্রব্য, আমদানি-রফতানির অন্যতম সামগ্রী। কিন্তু যা সাহেবদের কাছেও ছিল কল্লনার বাইরে তা হল চায়ের জনপ্রিয়তা, আগামী দিনে চা যে কিংবদন্তিতে পরিণত হবে তা এমনকি, রবীন্দ্র চন্দ্রসেন, ছাতিশ হটিকালচারিস্ট যিনি চা এনেছিলেন ভারতে, তাঁরও জানা ছিল না।

তখন অতম রাজাদের সময়। সাহেবরা তাঁদের কাছ থেকে চা বাগানের জমি-জায়গা কিনে নেয়। আর তারপর থেকেই অসম ধীরে ধীরে চায়ের সঙ্গে সমার্থক হয়ে উঠল।

Where History is Your Host!

Featured in Anandabazar Patrika

“A Splendid Trip to Assam's Tea Gardens”



Featured in Discover India Magazine

"Tea Culture in the Northeast"



Featured in the Air Asia In-flight Magazine



Featured in the Vistara Airline Magazine 'Travel Bleisure'

THINKING KNOWLEDGE

Presenting our plans towards the restoration of land for enhancing Nature Capital and building community resilience in different knowledge platforms

IUCN Circular Economy Workshop & UNCCD COP14, India



Molecular Taxonomy Workshop
Institute of Life Sciences, Bhubaneswar, India



The 7th European Conference on Sustainability, Energy & the Environment
Brighton, UK



19th Basic Income Network
Congress 2019, Hyderabad, India

Rhea Hussain
NATURE CAPITAL AS BASIC INCOME: ENHANCEMENT OF RURAL LIVELIHOODS AND ELLIVATION OF POVERTY

Abstract: The concept of community conservation began in the 1980s. It was a way to protest the biodiversity against escalating destruction of the forests around the local communities. Over the last couple of years, there have been deliberations, inclusive of the Paris Agreement on Climate Change, to profusely work towards containing the crisis by restoring at least 50% of the Earth's land as natural ecosystems. From 1950, there has been a growth in the economy with an increase in the purchasing power parity. We are at a tipping point where a realization has set in with regard to safeguarding our shrinking forests, vanishing species, drying rivers and lakes along with water scarcity – over any form of development.

Keeping in mind that natural ecosystems are basic to human prosperity, there looms a huge warning when it comes to global warming and poverty. While we sit our comfortably air-conditioned coups, there is an entire world out there – from life in the oceans, seas, lakes, deforested areas along with humans who are unable to access the comfort that they are entitled to in its natural state. But what if we already have a solution and all we need to do is implement it in the most efficient way possible? What if we combine the concept of habitat restoration to generating universal basic income? Basic income does not always have to be cash at hand. The asset that we are trying to put forth here is the nature around us that we have been exploiting for years on end.

Universal basic income through habitat restoration could address multitudes of issues converging to a point where we balance development and the freedom to live a healthy life. As the theme of the forum suggests that the concepts of freedom and development are independent of each other. On the contrary, Natureonomics™ suggests that quality of human life will eventually if not now, will degenerate in the process of losing our natural assets inclusive of urban and rural livelihoods. Through the concept of Rural Futures embedded by Balipara Foundation, nature capital will not only establish the need to fight climate change but also address the basic needs of people in rural

'India Satoyama Workshop'
India Habitat Centre, New Delhi



Samvaad – 'A Tribal Conclave'
Jamshedpur, India



6th Asian Rural Tourism Festival



Annual Club of Rome Conference 2020



An Assam Valley School - Round Square engagement with Balipara Foundation

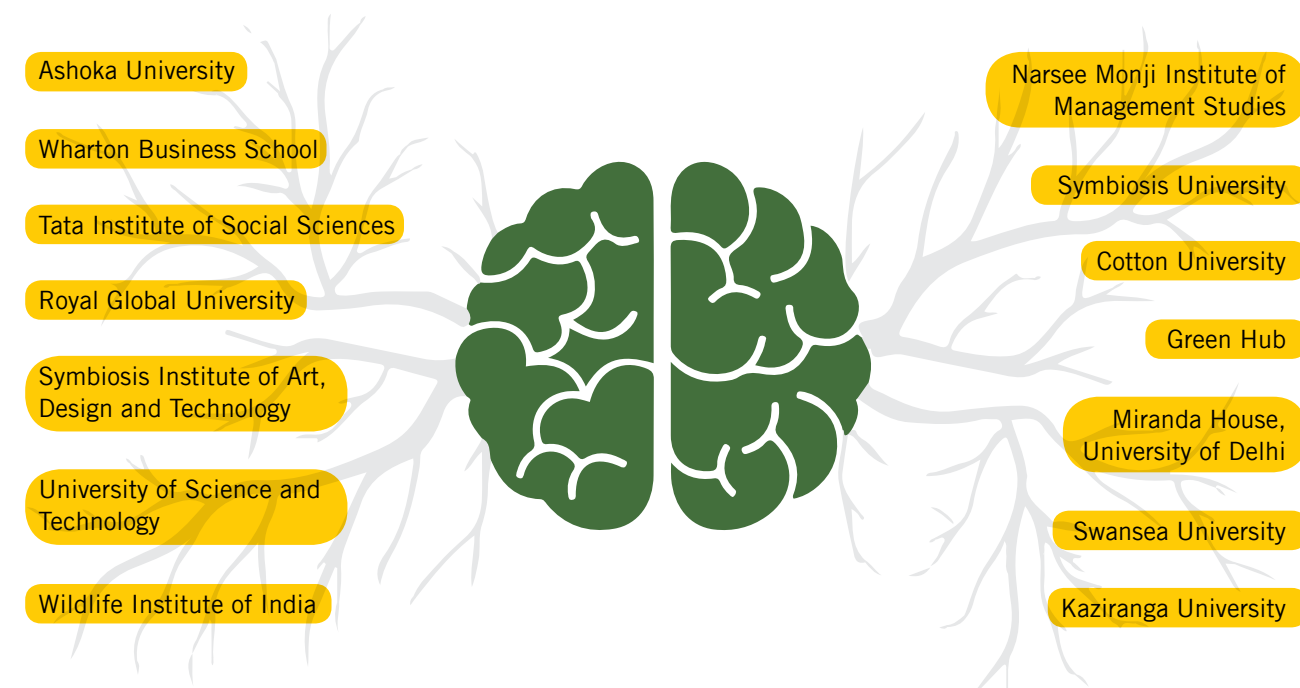


LEARNING THROUGH RURAL FUTURES

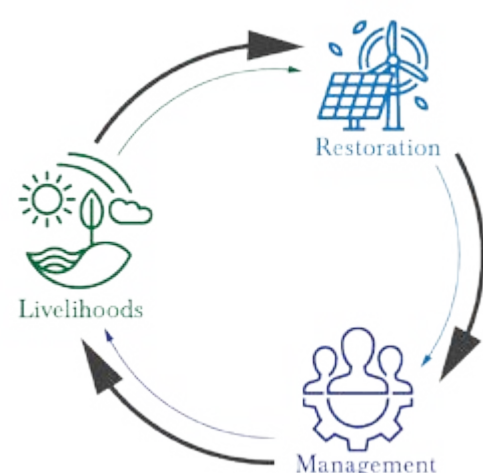
VOLUNTEERING PROGRAMS

The Rural Futures Internship Program is a dynamic engagement of volunteers, interns and overall, the youth of the world to bring about a difference through the various verticals and principles of the Balipara Foundation. The open spaces in the Eastern Himalayas will serve as a classroom during the internship program. Apart from access to the Balipara Foundation team and

projects we try to create opportunities to work with our partners such as Mahila Shakti Kendra. Through these interactions we hope that our interns and volunteers gain an insight into the unique challenges the Eastern Himalayan region faces in the face of changing social and environmental dynamics.



RURAL FUTURES



Vision:

conserving & preserving the natural heritage of the Eastern Himalayas

Mission:

to develop symbiotic models for community conservation through technology

Objective:

to facilitate community-based conservation through Naturenomics™

RURAL FUTURES INTERNSHIP PROGRAM ON THE WORLD MAP

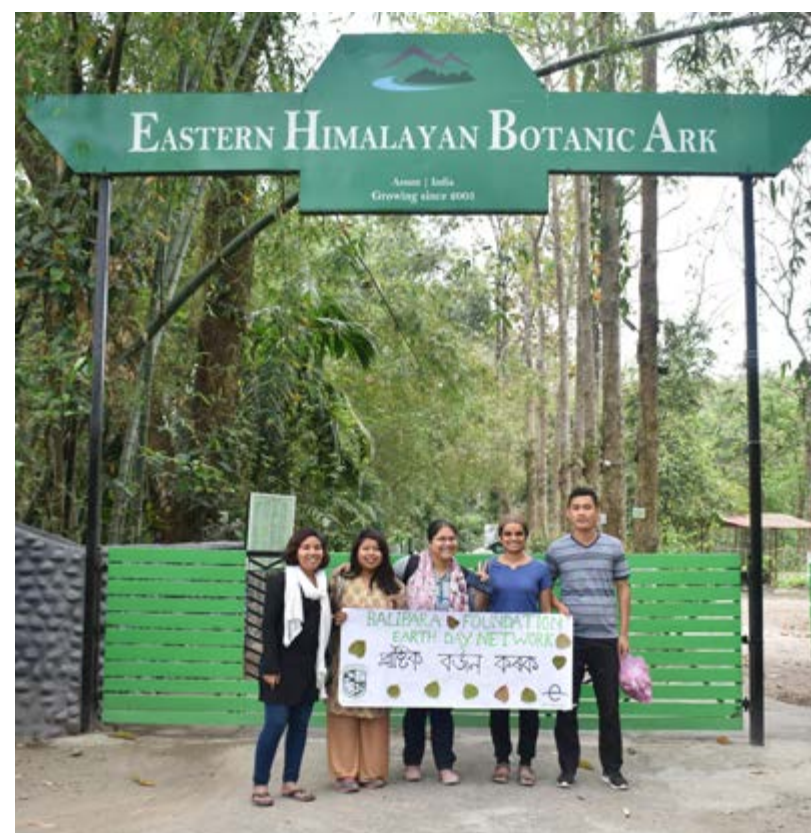


110+ INTERNS

AND VOLUNTEERS

FROM 2018 TO 2020 FLYING THE NATURENOMICS™ AND RURAL FUTURES FLAG HIGH!

SOME OF OUR INTERNS



SALUTATIONS



The Habitats Trust Grants 2018
Strategic Partnership Grant
Finalist



Recognition for
planting 1.2 million
trees and the efforts
towards increased forest
cover from Earth Day
Network, Washington
and India



Our Social Enterprise, Eastern Himalayan
Botanic Ark in residence at Wild Mahseer earns
The TripAdvisor “Certificate of Excellence” 2019



FINANCIALS

Consolidated Cash Flow Statement for the period from 01-Apr-02 to 31-Mar-20

PARTICULARS	AMOUNT IN INR	RJBI	BTFF
INFLOW			
Own Fund:			
Share Capital with Premium	63,042,741	60,841,141	2,201,600
Trustee's Contribution	8,229,300	-	8,229,300
Donation received from Associate Company	50,397,518	19,212,840	31,184,678
Loan received from Director	35,218,317	35,218,317	-
	156,887,876	115,272,298	41,615,578
Inflow from Operations:			
Donation received (others)	90,433,181	-	90,433,181
Income from operating activities	77,797,984	76,974,611	823,373
Income from non-operating activities	10,781,261	7,901,908	2,879,353
	179,012,426	84,876,519	94,135,907
Other Inflow:			
Loan received from others	4,263,202	947,790	3,315,412
Working Capital	(519,903.00)	63,314	(583,217.00)
	3,743,299	1,011,104	2,732,195
Total Inflow:	339,643,601	201,159,921	138,483,680
OUTFLOW			
Revenue Expenditure	261,102,066	147,032,032	114,070,034
Capital Expenditure	58,513,992	53,618,733	4,895,259
Investment in Fixed Deposit	2,688,557	-	2,688,557
	322,304,615	200,650,765	121,653,850
Total Outflow:	322,304,615	200,650,765	121,653,850
Net increase in cash inflow	17,338,986	509,156	16,829,830
Cash and cash equivalents available at the end	17,338,986		

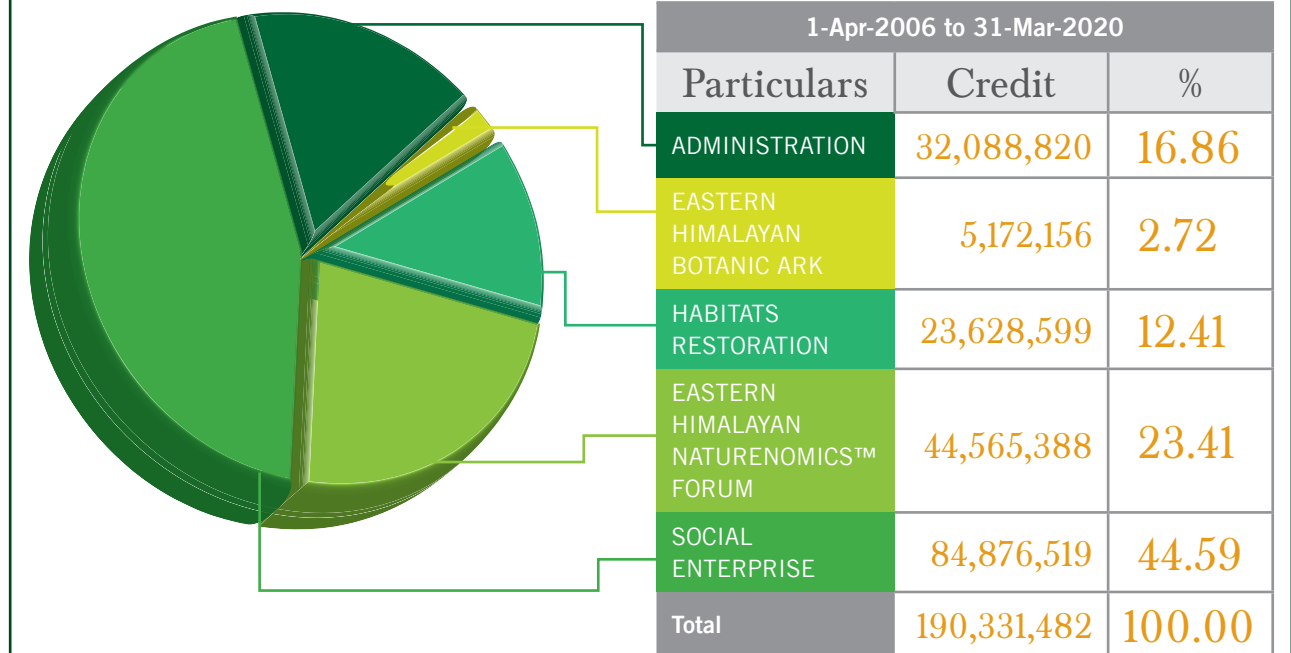
FCRA Consultants
- AR Parikh & Co.

Date: 13/04/2020
Place: Guwahati

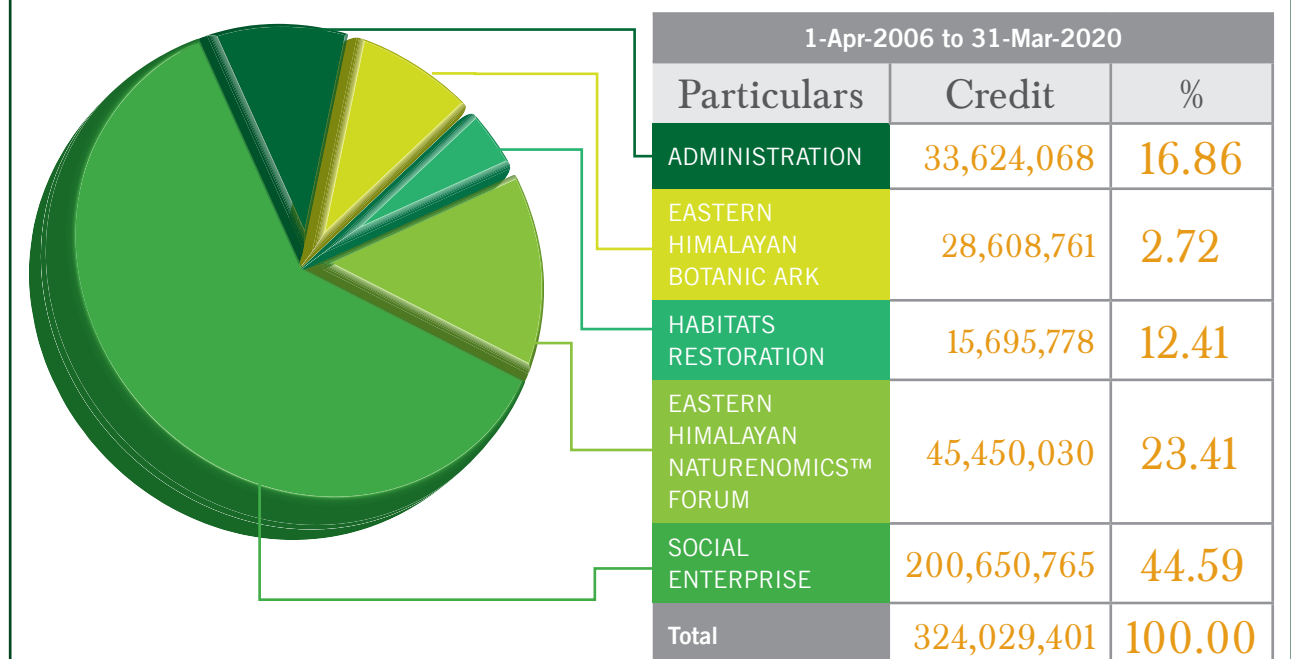
Certified by
For A.JOSHI & ASSOCIATES
Chartered Accountants
Guwahati, Assam

Prashant Joshi
(Partner)
M.No. 313576
Firm Reg. No: 326304E

PROJECTWISE INFLOW



PROJECTWISE OUTFLOW



OUR PARTNERS

NATURENOMICS™ PARTNERS



GRASSROOTS PARTNERS



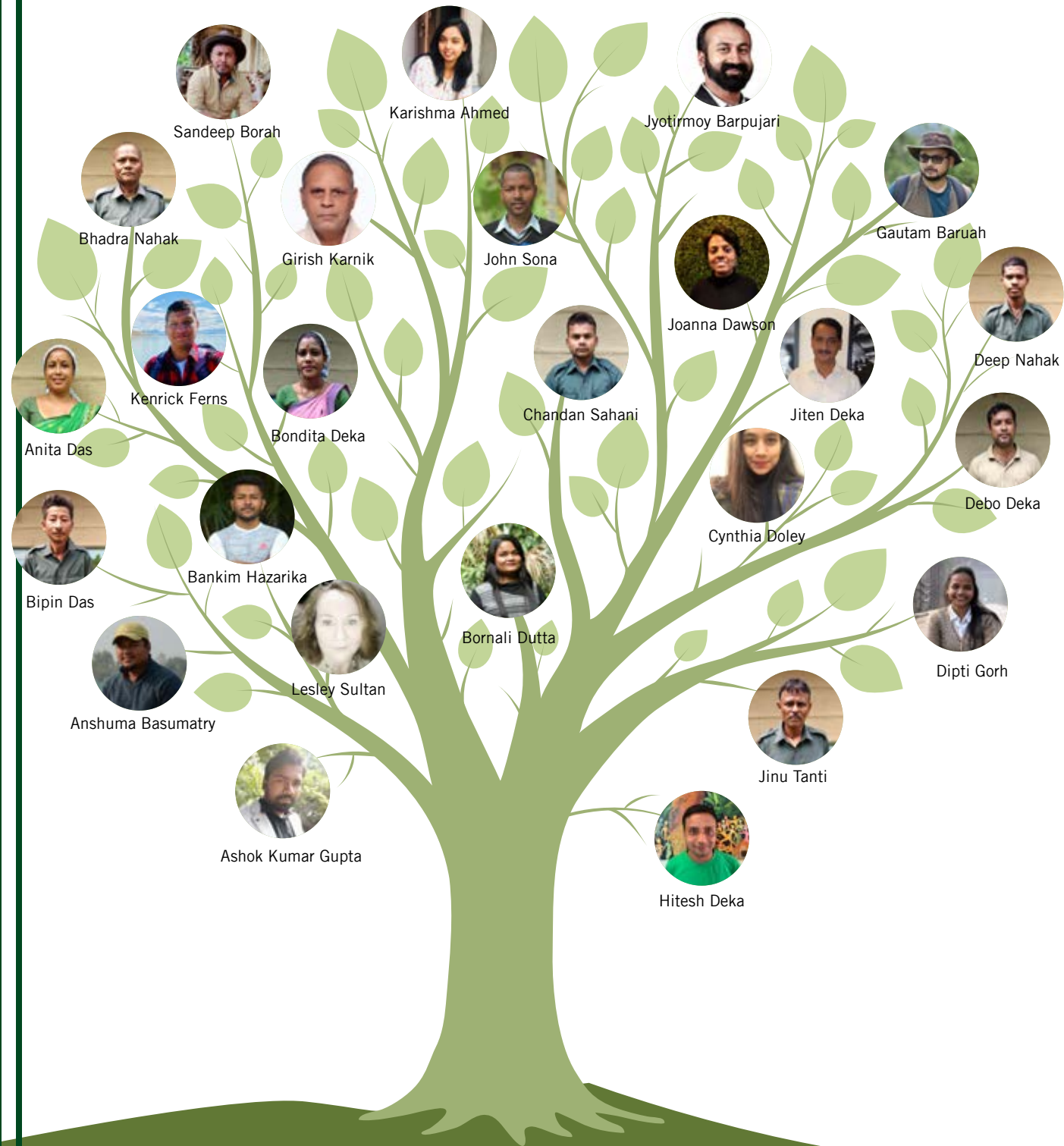
KNOWLEDGE PARTNERS



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