Balipara Foundation

Assam • India

10TH Eastern Himalayan Naturenomics™ Forum

11 - 13 December, 2022
Dhaka, Bangladesh

ECOLOGY IS ECONOMY

ABOUT THE BALIPARA FOUNDATION

Launched in 2007, the Balipara Foundation takes a community-based approach to conservation through a proprietary concept **Naturenomics™ (Nature + Economics)**. Building on the principle of **ecology is economy**, we equip **indigenous & forest-fringe communities in the Eastern Himalayas to manage their natural assets, creating resilience against the climate crisis for both biodiversity and people**.

The Foundation's multidisciplinary team of over 50 people passionately collaborates with indigenous & forest-fringe communities to achieve this through **Rural Futures: rewilding to create sustainable livelihoods & socioeconomic mobility while restoring natural capital.** Through the enriched natural capital, communities in the Eastern Himalayas **access & deliver universal basic assets** such as education, healthcare, renewable energy, etc.

THE RURAL FUTURES VISION

Where?

From Snowline to Sealine – the Eastern Himalayas

Spanning from Eastern Nepal to China's Southwest mountains, the Eastern Himalayas are both biodiversity and culturally rich, with over **400 indigenous communities and 12,000 unique species**. Today both communities and rare species are **threatened by rampant deforestation and ecological degradation, shrinking livelihoods and climate change**. But the region's rich forests offer the perfect opportunity for an experiment in alternatives to extractive growth by **reconciling people and biodiversity through restorative natural capital economies: the Naturenomics™ Civilization.**

How?

Rural Futures – Natural Capital & Universal Basic Assets

Initial payment for restoration **rewilding programmes create sustainable incomes and businesses for forest-fringe communities**, incentivizing them towards **natural capital regeneration**. Sustainable businesses through **agroforestry, bamboo, mushrooms and mindful tourism** enhance natural capital values, enabling communities to become **self-sufficient, accessing and delivering universal basic assets & services** such as healthcare, education, renewable energy and access to water.

Why?

The Naturenomics™ Civilization – Ecology is Economy

Nature underpins the economy and extractive, ecology-destroying growth has spurred the climate crisis, calling for a fundamental rethink of how we use natural capital. Through Rural Futures, we **strengthen local natural capital economies supported by sustainable businesses.** The outcome is **an alternative to exploitative and destructive growth: sustainable development that balances lives, livelihoods and land to build resilience among communities and biodiversity on the frontlines of climate change**.

BACKGROUND

The Eastern Himalayas lie at the center of South Asia and East Asia, connecting two of the world's largest economies: India and China. Stretching from the eastern provinces of Nepal in the west to China's Southwestern mountains in the east, it extends across India's North East and West Bengal, Bhutan, Bangladesh and Myanmar. It bridges over 246 million people from over 400 different ethnic groups, across 2 key biodiversity hotspots and over 30 ecoregions. The strategic value of this region cannot be overstated, from its centrality as a water source for India, China and Southeast Asia, to its importance as a global biodiversity hotspot.

The region is endowed with rich natural capital which remains largely untapped and underleveraged, viewed either as an impediment to economic growth through a developmentalist lens, or else viewed as a battleground for increasingly embattled, endangered endemic species. Both views obscure the aspirations and rich cultures of the region's indigenous and local communities, most of whom still depend heavily on the region's natural capital for their livelihoods, albeit at a largely subsistence level.

THE PROBLEM

Since 2000, the Eastern Himalayan region has lost over 9.5% of its green cover – an area larger than that of Bhutan and the state of Sikkim put together. However, these figures, sourced from Global Forest Watch, do not capture the full complexity of the picture: the loss of primary, dense natural forests, the conversion of forests into plantation forests and the incursion of invasive species in natural forest areas. Together, these three factors have created a cascading series of effects: declining ecosystem health, declining soil health, rising desertification and the rapid depletion of water tables across the region.

80% or 197 million people in the region are employed in highly nature dependent industries (e.g. agriculture, forestry, energy production, food & beverages, tourism). Of these 80% are smallholder farmers. 40-50% of the region faces poverty intensity over a 40% threshold. Poor rural incomes force communities to turn to forest exploitation to augment their incomes, to access universal basic assets like healthcare & education. Most of these people live in the region's valleys, at high risk because of deforestation and climate risks. Forests play a key role in regulating the hydrogeology of the region – river flows, groundwater & aquifer regeneration, flooding & soil erosion prevention – without which life in the valleys would be impossible.

Forest degradation is linked to rising desertification, water loss and flood instability in the region. Annually, each state in the North East loses 5000 m3 of groundwater on average and approximately 20% of the region's land is facing desertification. Shrinking forests lead to greater water run-off and topsoil erosion, in turn further compounding flood effects. On average, the state of Assam spends about 200 crore in flood damages and over 50,000 people are displaced due to floods. Between 2000-2015, soil erosion destroyed 800 villages.

Food security is a critical issue in the region, as a result, particularly for children and youth across the states. According to the 5th National Family Health Survey (2019-2020) only 8% of the youth in Assam (6- 23 yrs) have healthy, balanced diets. Stunting in children below five rose in Meghalaya, Mizoram, Tripura and Nagaland, in 2019-2020 and there is evidence linking this stunting with malnutrition caused by food insecurity and poverty. This is the first time the region has seen this trend in 15 years. Coupled with the recent Climate Vulnerability Assessment released by the Department of Science and Technology, disappearing forests are directly linked to communities' food insecurity and overall lack of resilience.

Long-term ecological degradation has contributed to declining incomes & yields in a primarily agricultural region, forcing people to exploit forests to augment incomes & access basic assets – spurring further ecological degradation. Today, livelihoods in the region are at threatened by the vicious cycle of degradation > shrinking incomes > deforestation > degradation: declining incomes, declining yields and rising human-animal conflict in states like Assam are symptomatic of this vicious cycle. Combatting these twin problems of forest loss and poverty requires a united approach, to break this vicious cycle and link healthy ecosystems with better livelihood and earning opportunities for rural & forest-fringe communities.

ECOLOGY IS ECONOMY – DHAKA 2022

Securing the economic future of the Eastern Himalayas through climate and biodiversity action at the 10th Eastern Himalayan Naturenomics™ Forum

The world faces an **unprecedented crisis of rising temperatures, super cyclones, raging wildfires, virulent viruses, vicious floods and dying wildlife**: global collapse that risks the lives and livelihoods of billions driven by the **overconsumption and extraction of natural capital to surge economic growth**.

The latest IPCC assessment is clear: adapt or die. The climate crisis already costs the world $200 billion annually because of ever-worsening natural disasters. **By 2050, climate inaction will cost the global economy $23 trillion.**

Our planet's biodiversity is facing the sixth extinction event according to scientists, due to climate change, habitat loss and overexploitation. Since the 1970s, nearly 70% of our wildlife populations have been lost. **Within the next 20 years, 500 species are expected to go extinct**: the same number of species lost over the entirety of the 19th century.

Eastern Himalayan countries are on the frontlines of both climate and biodiversity crises today. South Asian countries are expected to face the worst consequences of climate change, from rising temperatures to floods and droughts. These changes are already having devastating consequences for the lives and livelihoods In 2020 alone, 4.4 million people were displaced in Bangladesh because of climate change.

The next ten years are imperative to place ecology front and center on global and national agendas, to combat growing threats to the world's food, water and survival systems and its rural communities. Building on the campaign to recognize **Ecology is Economy** initiated in 2020, the 10th Eastern Himalayan Naturenomics™ Forum seeks to drive this agenda for transformation in the region. Investing in a transition to ecology is economy is no longer optional: it is a necessity.

WHY BANGLADESH?

On the frontlines of the climate & biodiversity crisis

The risks posed by climate change are compounded by the loss of dense forests in the Chittagong Hill tracts and along the coastline in the Sundarbans, diminishing overall watershed resilience.

$3.2 Billion

In economic losses between 2000-2019, because of climate change

60%

Of all Bangladesh's people live in high climate exposure areas: a figure likely to increase over the next 2 decades

215 sqkm

Total green cover lost in 2020, according to Global Forest Watch. Deforestation rates in 2006-2014 reached levels last seen in 1930-1975, when most forest was lost.

26%

Increase in overall soil salinity. Damaging crop yields and forcing migration for fresh water.

A climate leader

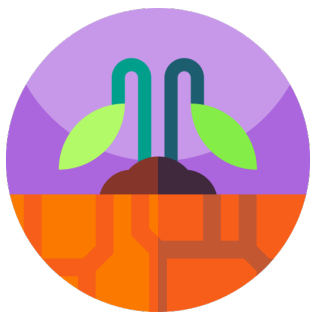
Bangladesh has been one of the leading voices behind the drive to include financing for loss and damage in global financing agreements. It has also played a key role in drawing global attention to the urgent need for more adaptation funding. These negotiations secured a commitment to increase adaptation funding to half of all climate funding by 2025, and an agreement to keep negotiations on compensations for loss and damage open for the future. As the current chair of the Climate Vulnerable Forum, **Bangladesh has been instrumental in creating a roadmap for climate prosperity – to mobilize international cooperation on financing for climate-resilience in developing countries.**

Bangladesh's forward-looking approach to climate adaptation and its commitment to international coalition-building has built its influence and credibility on the international stage – and its leadership potential, to transform the Eastern Himalayan region, particularly towards the management of the Ganges-Brahmaputra-Meghna Delta & watersheds.

Bangladesh Delta Plan 2100

Looking to the future, the Delta Plan is the most comprehensive plan on climate adaptation needs in the region, covering both human and ecological wellbeing in critical hotspots like the Sundarbans. **The Delta Plan's holistic approach must anchor climate adaptation in the Eastern Himalayas**, tackling both human and ecological wellbeing and restoring vital ecosystems like the Sundarbans and forests that regulate the region's watersheds.

10TH EASTERN HIMALAYAN NATURENOMICS FORUM IN BANGLADESH



Shared Challenges

Eastern Himalayan nations face common climate change induced pressures like water scarcity, food security, desertification, and habitat and biodiversity loss, as well as highly agricultural dependent rural populations facing poverty and other socioeconomic challenges.

Shared Opportunities

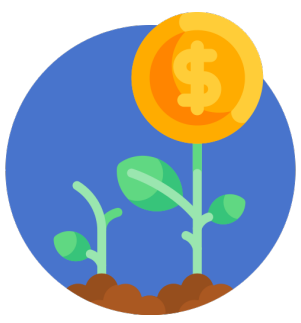
Common geography, food systems, climatic conditions and climate adaptation and mitigation, as well as educated, ambitious young populations seeking job opportunities in sectors that can withstand or adapt to climate-related challenges

The Eastern Himalayan region unites some of the fastest growing global and developing economies today, with young and ambitious populations increasingly concerned about their ecological future: India, Bangladesh, Bhutan, Nepal, China & Myanmar. Its shared challenges and opportunities and its shared ecosystems, stretched across rivers, mountains and forests, highlight the need for the region to pool its interests, share resources and cooperate on the international stage to drive attention and support for adaptation & mitigation both upstream and downstream in the region.

The Forum 2022 in Dhaka will focus on how Bangladesh and the Eastern Himalayas can make most of this opportunity through

- Integration of interdependence of Ecology and Economy
- Social, Economic, Environment and Enhanced Climate Resilience through the Delta Plan for development
- Valuation of Natural Assets
- Transboundary Ecological Diplomacy

STRATEGIC FOCUS AREAS



Valuing Natural Assets

Creating Ecological Budgets - Nature Capital Debt for Social Mobility

Consensus building for ecological budgeting and pathways to using natural asset values to raise debt for social development

Rewilding the Eastern Himalayas

Building Resilient Landscapes from Snowline to Sealine

A regional plan for rural employment & economic opportunities through rewilding forest & agricultural lands from snowline to sealine

Transboundary Ecological Diplomacy

Action for Conservation

Preserving and enhancing shared ecological assets through collaboration, effective monitoring and sustainable use agreements

Transparency

Technology for Participatory Natural Asset Management

Digitalizing monitoring of shared ecological assets & technology for participatory natural asset management

Wellbeing

Building Bridges between Development and Conservation for Human Resilience

An ecological & climate agenda for development recognizing the interdependence of human & ecological wellbeing

Democratize Forest Management

Enhancing Ownership of Indigenous Communities & Gender Inclusion

Charting the role of indigenous communities & women and their expertise in rewilding the Eastern Himalayas

LAUNCHING A REWILDING JOURNEY IN BANGLADESH

Rural Futures Living Lab

Piloting the Rural Futures model for forest restoration and agroforestry linked incomes that give communities the agency to pursue their wellbeing aspirations & enhance their socioeconomic mobility, aligned to the principles of the Delta Plan

Net Zero, Nature Positive Economy

Rewilding Bangladesh's degraded forest lands could create as much as $2 billion in natural capital values and create employment for more than 85,000 rural households and sequester nearly 1 million tonnes of carbon annually

Indigenous Voices & Leadership

Bringing together indigenous communities to platform their solutions and build networks to document their knowledge & their capacity to research & share their climate stories & traditional knowledge

Linking the Delta Plan Upstream

Momentum for anchoring the Delta Plan upstream through ecological diplomacy for India, Nepal, Bhutan and China to adopt rewilding initiatives that manage the watersheds of the Ganges-Brahmaputra-Meghna Basin

Technology for Monitoring the Depletion of Forest Cover & Natural Assets

With rapid developments in AI, machine learning apps and predictive ecosystem modelling, incorporation of technology in governance & community is crucial to our understanding of climate change, projecting future impacts, designing diplomatic policies to achieve regional targets

A REWILDING JOURNEY THROUGH THE DELTA PLAN 2100

One of the key goals of Bangladesh's Delta Plan 2100 is the conservation and protection of wetlands and ecosystems, recognizing the indivisible need to manage rivers by effectively managing terrestrial ecosystems like forests. **The Delta Plan recognizes a critical truth about the climate fact today: biodiversity preservation is the backbone of climate adaptation & resilience**. Taking a holistic approach to water security and social problems like poverty means tackling the real impact of ecosystem and biodiversity loss on communities – and using the restoration of ecosystems and biodiversity as an opportunity to build resilience for rural and indigenous communities. From Sylhet to the Chittagong Hill Tracts down to St. Martin's Island, rewilding degraded ecosystems can play a critical role in meeting the goals of Bangladesh's Delta Plan: not only to conserve its ecosystems, but to rebuild mangrove storm breakers, reduce erosion & landslide risks, minimize flood damage and create climate adaptive livelihoods for rural & indigenous communities.

Rewilding the Sundarbans: Conserving & Restoring Mangrove Ecosystems

As cyclonic storms in the Bay of Bengal amplify and multiply due to climate change, the Sundarbans form a critical storm breaker: absorbing the first shock of the storm and reducing the velocity and impact of storm surges. With cyclones increasing in intensity and frequency, communities around the Sundarbans have had their livelihoods disrupted – increasing the chances of them seeking to either directly exploit forest resources for their livelihoods, or else to do shrimp farming to meet their needs. These disruptions have weakened the integrity of the ecosystem **and since the 1970s, the Bangladesh Sundarbans have lost between 66 – 127 sqkm of area as per LANDSAT data** (Aziz & Paul, 2015). A full-scale rewilding plan for the Sundarbans to both conserve and restore disappearing mangrove ecosystems can provide conservation-linked livelihood opportunities for adjacent communities, mitigating economic drivers of the ecosystems' destruction, while meeting the Delta Plan 2100 goal of preserving & conserving the ecosystem for Coastal Area climate resilience.

Rewilding Indigenous Forests: Rejuvenating the Chittagong Hill Tracts

The Delta Plan 2100 recognizes erosion and landslides as one of the critical areas of intervention for the Chittagong Hill Tracts. **Data from Global Forest Watch (2020) indicates that between 2001-2020, the area lost over 6890 hectares of primary forest**. Local reports and commentary by conservation organizations show a link between the loss of these forests and increasing water scarcity in the region: a pattern playing out in neighbouring India. Other reports suggest that natural forests are being replaced by orchards, with timber logged being channelled into a booming furniture industry – leaving local communities dislocated from their traditional agricultural livelihoods. **Meeting the Delta Plan 2100 strategy for water security & integrated river management in this area will necessitate a rewilding of its forests.** A full-scale rewilding plan for both forests and agricultural lands will not only preserve but optimize the ecological value of this territory, while creating circular forest economies for indigenous communities struggling to maintain their livelihoods.

IMPACTS

200+ projects
Through Earth Heroes

2000+ hectares
Forest land restored through grant recipients

2800+ people
Supported through sustainable livelihoods linked to rewilding

600+ species
Conserved through Earth Heroes

530+ Publications
Supported

RURAL FUTURES INDIGENOUS HUB – The platform was launched in 2020 following a regional forum in Sikkim, where the community expressed interest in documenting their own knowledge and developing their own research skills. The hub aims to empower indigenous people as researchers, documenters of their knowledge, advocates for their own climate resilience and storytellers of the lived realities on the frontlines of climate & biodiversity crisis.

REWILDING THE INDIAN EASTERN HIMALAYAS GRANT- Launched in 2021, the grant delivers INR 5,00,000, to a grassroots individual or community organization working towards implementing a human-centric conservation model that restores healthy ecosystems.

LOCAL NETWORKS FOR REWILDING – Through the Regional Eastern Himalayan Naturenomics™ Forum platform, communities in Zunheboto, Nagaland initiated a rewilding programme in their community-conserved area in partnership with us, and we identified community partners in Manipur and Arunachal Pradesh to expand rewilding in their locations

WHAT WE DO

Rewilding & Natural Asset Creation

Habitat restoration by turning **natural capital regeneration into a livelihood opportunity** for forest-fringe communities, enabling them as stewards of their natural capital.

Impact: 7 million natural assets managed across 5000 hectares, 25 communities, 40% increase in community incomes, INR 748 million natural capital

Habitat Maintenance Through Sustainable Livelihoods

Community-centric agroforestry programmes, mushroom spawning, homestay-based mindful tourism and local arts & crafts to develop **sustainable livelihoods that enhance and reinforce action for natural capital regeneration**.

Impact: 10,000 people, INR 240 million in community incomes, 9 indigenous peoples

The Eastern Himalayan Naturenomics™ Forum

An international multidisciplinary platform bringing together conservationists, academics, communities and businesses to foster partnerships and knowledge sharing, for **catalyzing the Naturenomics™ agenda for putting ecology in economy**.

Impact: 200+ conservation programmes, 100+ grassroots conservationists, 300+ speakers, 4000+ participants, 20+ geographies

Biodiversity & Ethnobotany Research

In-depth field-based research through biodiversity assessments, scientific studies and ethnographic research to document **traditional ecological knowledge among indigenous communities** and **the existing floral biodiversity to enhance our rewilding programmes**.

Impact: 34 new mushroom species, 450+ flora & fauna species, 17 publications

Universal Basic Assets Delivery Through Natural Capital

Pilot experiments in using natural capital regeneration-based incomes to create **delivery systems for equitable community access to universal basic assets** such as education, healthcare, renewable energy and water.

OUR SOCIAL ENTERPRISES

ELEPHANT COUNTRY
INCUBATED BY BALIPARA FOUNDATION
Assam • India

NATURAL PRODUCTS AT ELEPHANT COUNTRY

A natural brand creating sustainable incomes for artisan communities, while raising awareness & support for the plight of Asian Elephants and conservation efforts for this species

MINDFUL TOURISM AT THE EASTERN HIMALAYAN BOTANIC ARK

A social restoration initiative creating sustainable incomes for communities through homestays and mindful tourism at Wild Mahseer, a restored colonial era heritage bungalow nestled in a tea garden in the Eastern Himalayas

Eastern Himalayan Botanic Ark
In Residence At
WILD MAHSEER
Where History Is Your Host

Our Investors & Partnerships

ATREE	G-STIC	NITI Ayog	Transcom Group
Dhaka University	Hemendra Kothari Foundation	Sanctuary Asia	Wellbeing Economy Alliance
Circular Bioeconomy Alliance	Hindustan Unilever Limited	Tata Steel Foundation	World Resources Institute India
Development Alternatives	IUCN Asia	Tata Consumers Products Limited	Wildlife Conservation Trust
European Forest Institute	MEKA Team	The World Bank	WILDIFY

BALIPARA FOUNDATION IN THE FUTURE

100 million
Natural Assets

400,000 people

$1.4 Billion
Natural Capital

REACH US

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